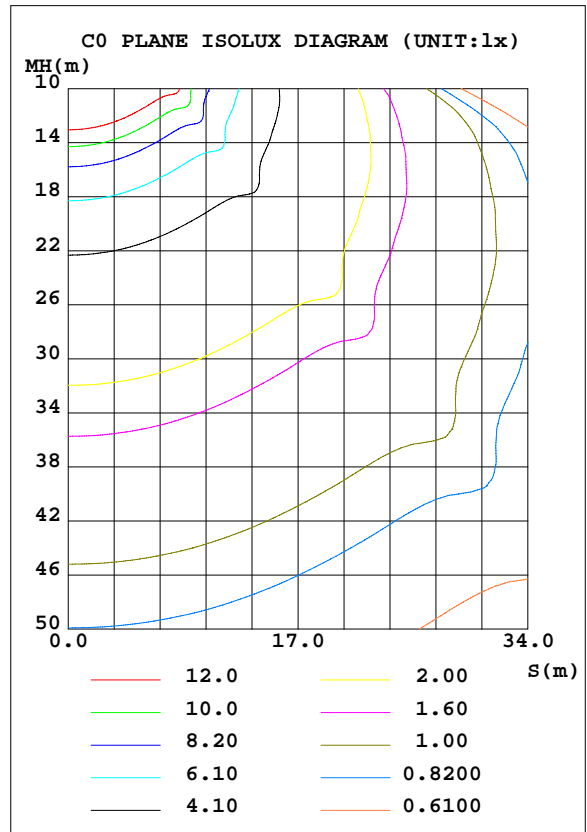
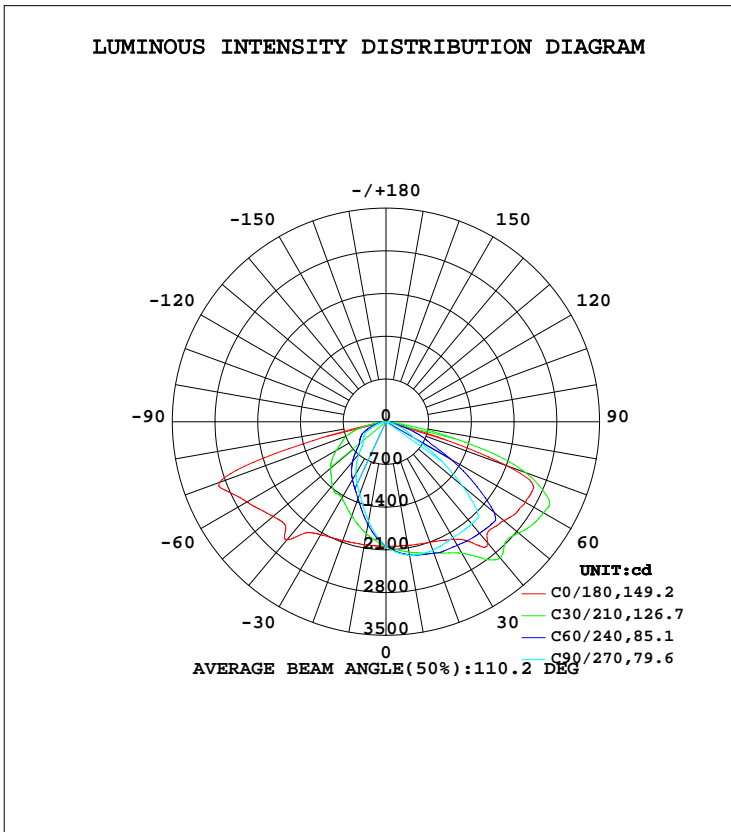


EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:120.5V I:0.5064A P:60.74W PF:0.9954 Lamp Flux:7139.12x1 lm		

DATA OF LAMP		PHOTOMETRIC DATA Eff: 125.10 lm/W			
MODEL		I _{max} (cd)	3493	S/MH(C0/180)	1.80
NOMINAL POWER(W)	60	LOR(%)	106.4	S/MH(C90/270)	0.75
RATED VOLTAGE(V)	120	TOTAL FLUX(lm)	7598.6	η UP, DN(C0-180)	0.0,70.0
NOMINAL FLUX(lm)	7139.12	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.0,36.4
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	1.50
TEST VOLTAGE(V)	120	η down(%)	106.4	CIBSE SHR MAX	1.55



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2016-08-10

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity:65.0%
 Test Distance:7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
5	2047	2127	2152	2123	2042	1919	1864	1922	0- 5	48.54	48.54	0.64,0.68
10	2058	2197	2224	2188	2045	1777	1654	1784	5- 10	143.5	192.1	2.53,2.69
15	2075	2256	2244	2242	2055	1617	1439	1633	10- 15	233.2	425.2	5.6,5.96
20	2102	2300	2243	2279	2072	1463	1257	1485	15- 20	316.5	741.7	9.76,10.4
25	2149	2362	2217	2327	2096	1334	1123	1355	20- 25	395.0	1137	15,15.9
30	2224	2435	2192	2365	2138	1236	989.8	1258	25- 30	469.9	1607	21.1,22.5
35	2401	2534	2188	2412	2217	1155	838.5	1176	30- 35	545.6	2152	28.3,30.1
40	2595	2639	2185	2490	2526	1059	687.3	1071	35- 40	630.3	2783	36.6,39
45	2467	2643	2127	2528	2360	929.1	546.6	934.3	40- 45	683.3	3466	45.6,48.5
50	2523	2671	1632	2536	2415	794.2	491.1	790.3	45- 50	711.0	4177	55,58.5
55	2606	2683	1082	2531	2512	661.2	446.2	644.3	50- 55	721.0	4898	64.5,68.6
60	2637	2294	532.2	2256	2630	590.3	401.3	558.1	55- 60	704.6	5602	73.7,78.5
65	2652	1897	380.9	1981	2785	504.8	301.1	459.7	60- 65	673.6	6276	82.6,87.9
70	2098	1425	229.6	1551	2906	386.6	200.8	337.7	65- 70	632.9	6909	90.9,96.8
75	505.8	742.4	91.10	818.7	1419	244.0	107.3	196.0	70- 75	460.1	7369	97,103
80	62.03	70.14	54.76	109.4	144.4	109.5	67.74	62.68	75- 80	173.5	7542	99.3,106
85	23.68	41.87	31.20	66.88	40.92	59.31	34.89	33.87	80- 85	41.67	7584	99.8,106
90	12.90	13.22	7.638	22.29	6.951	8.811	2.053	9.648	85- 90	14.55	7599	100,106
95									90- 95			
100									95-100			
105									100-105			
110									105-110			
115									110-115			
120									115-120			
125									120-125			
130									125-130			
135									130-135			
140									135-140			
145									140-145			
150									145-150			
155									150-155			
160									155-160			
165									160-165			
170									165-170			
175									170-175			
180									175-180			
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Conical surface Flux(90deg): 3465.8 lm

%lum = 45.6%
%lamp = 48.5%

Conical surface Flux(120deg): 5602.3 lm

%lum = 73.7%
%lamp = 78.5%

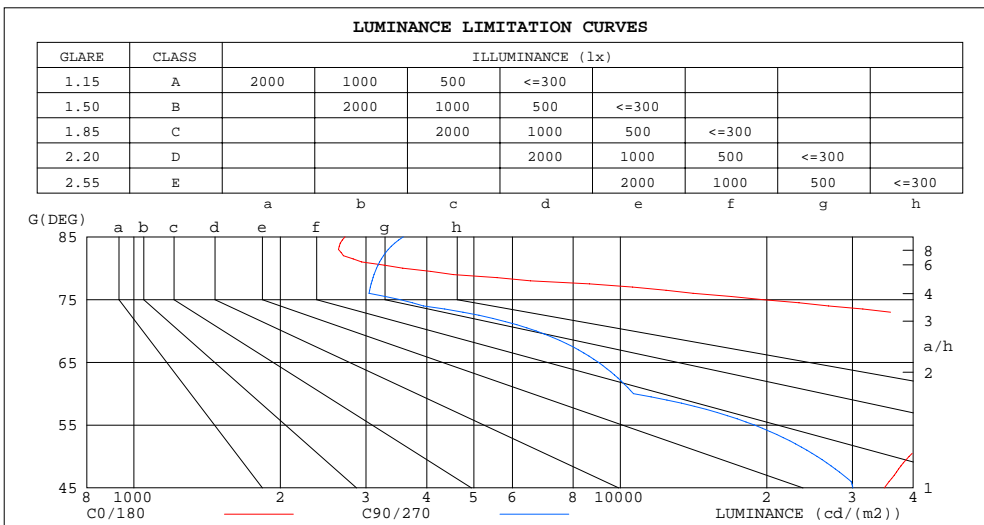
C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2016-08-10

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350
Humidity:65.0%
Test Distance:7.850m [K=1.0000]
Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINANCE LIMITATION CURVES

Test:U:120.5V I:0.5064A P:60.74W PF:0.9954 Lamp Flux:7139.12x1 lm		



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	2717	3580
80	3572	3154
75	19542	3520
70	61353	6714
65	62750	9013
60	52746	10645
55	45441	18865
50	39249	25387
45	34891	30081

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2016-08-10

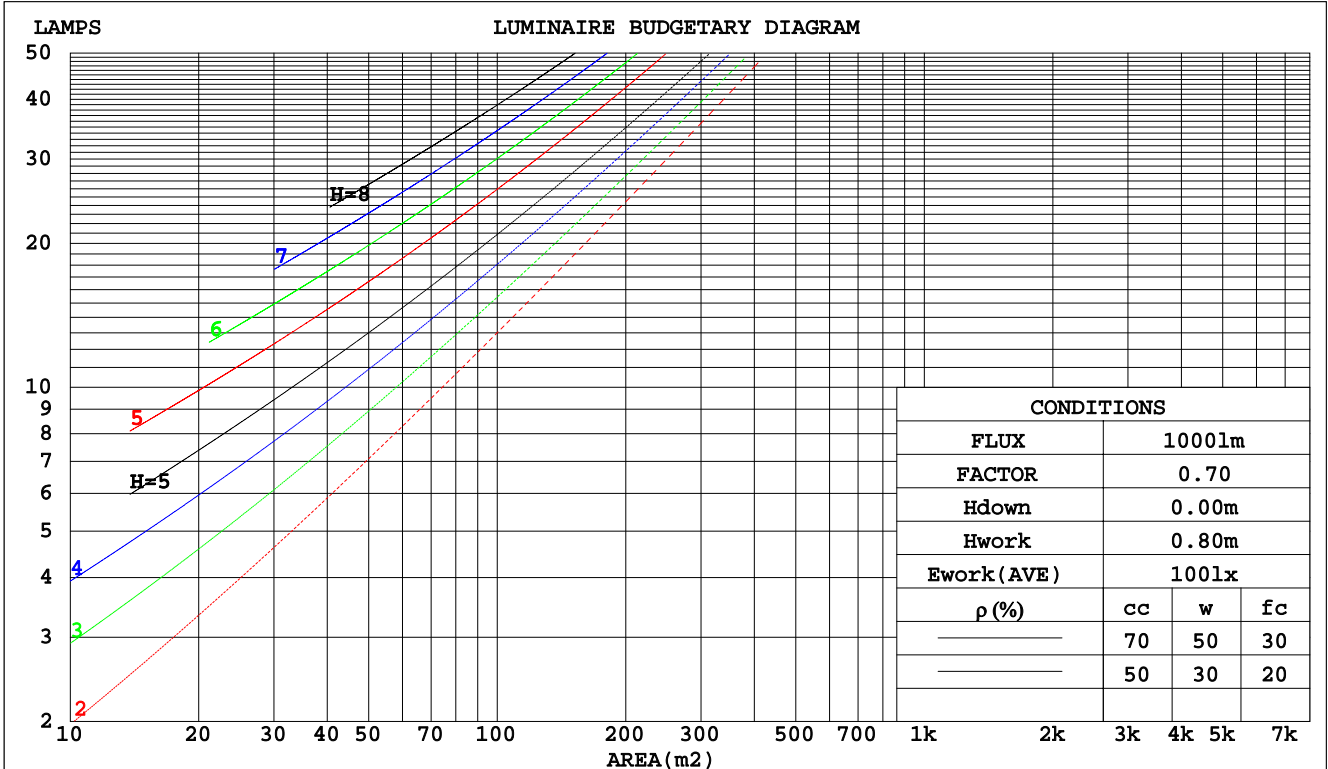
γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity:65.0%
 Test Distance:7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:120.5V I:0.5064A P:60.74W PF:0.9954 Lamp Flux:7139.12x1 lm																

pcc	80%			70%			50%			30%			10%			0
	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pw	0															
pfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio															
	Coefficients of Utilization(CU)															
0.0	1.27	1.27	1.27	1.24	1.24	1.24	1.18	1.18	1.18	1.13	1.13	1.13	1.09	1.09	1.09	1.06
1.0	1.10	1.05	1.01	1.07	1.03	.99	1.03	.99	.96	.99	.96	.93	.95	.92	.90	.88
2.0	.94	.87	.80	.92	.85	.79	.88	.82	.77	.85	.80	.75	.82	.77	.74	.71
3.0	.82	.72	.65	.80	.71	.64	.77	.69	.63	.74	.67	.62	.71	.65	.61	.58
4.0	.71	.61	.54	.70	.60	.53	.67	.59	.52	.65	.57	.52	.62	.56	.51	.49
5.0	.63	.53	.45	.62	.52	.45	.59	.51	.44	.57	.50	.44	.55	.49	.43	.41
6.0	.56	.46	.39	.55	.46	.39	.53	.45	.38	.51	.44	.38	.50	.43	.37	.35
7.0	.51	.41	.34	.50	.40	.34	.48	.39	.33	.46	.39	.33	.45	.38	.33	.31
8.0	.46	.36	.30	.45	.36	.30	.44	.35	.29	.42	.35	.29	.41	.34	.29	.27
9.0	.42	.33	.26	.41	.32	.26	.40	.32	.26	.39	.31	.26	.38	.31	.26	.24
10.0	.38	.30	.24	.38	.29	.24	.37	.29	.24	.36	.28	.23	.35	.28	.23	.21



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25DEG
 Operators:
 Test Date: 2016-08-10

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity: 65.0%
 Test Distance: 7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

WEC AND CCEC

Test:U:120.5V I:0.5064A P:60.74W PF:0.9954 Lamp Flux:7139.12x1 lm															

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.343	.195	.062	.336	.191	.061	.322	.184	.059	.308	.178	.057	.296	.172	.055	
2.0	.329	.181	.055	.323	.178	.055	.310	.172	.054	.298	.167	.052	.288	.163	.051	
3.0	.306	.163	.049	.300	.161	.048	.289	.156	.048	.278	.152	.047	.269	.149	.046	
4.0	.282	.147	.043	.277	.145	.043	.267	.141	.042	.257	.138	.042	.249	.135	.041	
5.0	.260	.132	.038	.255	.131	.038	.246	.128	.038	.238	.126	.037	.230	.123	.037	
6.0	.240	.120	.034	.236	.119	.034	.228	.117	.034	.221	.115	.034	.214	.112	.033	
7.0	.223	.110	.031	.219	.109	.031	.212	.107	.031	.205	.105	.031	.199	.103	.030	
8.0	.207	.101	.028	.204	.100	.028	.197	.099	.028	.191	.097	.028	.186	.095	.028	
9.0	.193	.094	.026	.190	.093	.026	.185	.091	.026	.179	.090	.026	.174	.089	.026	
10.0	.181	.087	.024	.179	.086	.024	.174	.085	.024	.169	.084	.024	.164	.083	.024	

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.203	.203	.203	.173	.173	.173	.118	.118	.118	.068	.068	.068	.022	.022	.022	
1.0	.193	.166	.142	.165	.143	.122	.113	.098	.084	.065	.057	.049	.021	.018	.016	
2.0	.186	.140	.102	.159	.121	.088	.109	.084	.062	.063	.049	.036	.020	.016	.012	
3.0	.179	.122	.076	.153	.105	.066	.105	.073	.046	.061	.043	.027	.020	.014	.009	
4.0	.171	.108	.060	.147	.093	.052	.101	.065	.036	.058	.038	.022	.019	.012	.007	
5.0	.163	.097	.048	.140	.084	.042	.097	.059	.029	.056	.034	.017	.018	.011	.006	
6.0	.156	.088	.040	.134	.076	.035	.092	.053	.025	.054	.031	.015	.017	.010	.005	
7.0	.148	.081	.034	.128	.070	.029	.088	.049	.021	.051	.029	.012	.017	.009	.004	
8.0	.141	.075	.029	.122	.065	.026	.084	.046	.018	.049	.027	.011	.016	.009	.004	
9.0	.134	.070	.026	.116	.060	.023	.080	.042	.016	.047	.025	.010	.015	.008	.003	
10.0	.128	.065	.023	.110	.056	.020	.077	.040	.014	.045	.023	.009	.014	.008	.003	

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2016-08-10

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity:65.0%
 Test Distance:7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

UGR(Unified Glare Rating) Table

Test:U:120.5V I:0.5064A P:60.74W PF:0.9954 Lamp Flux:7139.12x1 lm										
ceiling/cavity	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
walls	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions	Viewed crosswise					Viewed endwise				
x = 2H y = 2H	29.6	31.2	29.9	31.4	31.6	23.9	25.5	24.2	25.8	26.0
3H	32.4	33.9	32.7	34.1	34.4	24.0	25.5	24.3	25.8	26.0
4H	32.5	34.0	32.8	34.2	34.5	24.0	25.4	24.3	25.6	25.9
6H	32.4	33.8	32.8	34.0	34.3	23.9	25.2	24.2	25.5	25.8
8H	32.4	33.7	32.7	34.0	34.3	23.8	25.1	24.2	25.4	25.7
12H	32.3	33.6	32.7	33.9	34.2	23.8	25.0	24.1	25.3	25.6
4H 2H	30.1	31.5	30.4	31.8	32.1	26.2	27.6	26.5	27.9	28.2
3H	33.2	34.5	33.6	34.8	35.1	26.4	27.7	26.8	28.0	28.3
4H	33.5	34.7	33.9	35.0	35.3	26.4	27.5	26.7	27.8	28.2
6H	33.5	34.5	33.9	34.8	35.2	26.3	27.3	26.7	27.7	28.0
8H	33.4	34.4	33.8	34.7	35.1	26.3	27.2	26.7	27.6	28.0
12H	33.4	34.2	33.8	34.6	35.0	26.2	27.1	26.7	27.5	27.9
8H 4H	33.6	34.5	34.0	34.9	35.3	27.6	28.6	28.0	28.9	29.3
6H	33.5	34.3	34.0	34.7	35.2	27.6	28.3	28.0	28.7	29.2
8H	33.5	34.2	34.0	34.6	35.1	27.5	28.2	28.0	28.7	29.1
12H	33.5	34.1	34.0	34.5	35.0	27.5	28.1	28.0	28.6	29.0
12H 4H	33.5	34.4	33.9	34.8	35.2	27.6	28.5	28.1	28.9	29.3
6H	33.5	34.2	34.0	34.6	35.1	27.6	28.3	28.0	28.7	29.1
8H	33.5	34.1	34.0	34.5	35.0	27.6	28.2	28.0	28.6	29.1
Variations with the observer position at spacings:										
S = 1.0H	+ 0.1 / - 0.1					+ 0.3 / - 0.3				
1.5H	+ 0.6 / - 0.9					+ 0.7 / - 1.1				
2.0H	+ 1.0 / - 1.0					+ 0.8 / - 1.7				

CIE Pub.117 Corrected 7139 lm Total Lamp Luminous Flux.(8log(F/F0) = 6.8)

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2016-08-10

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity:65.0%
 Test Distance:7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

UTILIZATION FACTORS TABLE

Test:U:120.5V I:0.5064A P:60.74W PF:0.9954 Lamp Flux:7139.12x1 lm		

REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	56	43	35	56	43	35	54	42	35	28
0.80	67	54	45	66	53	45	64	52	45	37
1.00	77	64	55	75	63	55	73	65	54	46
1.25	85	72	64	83	72	64	80	70	63	54
1.50	90	79	71	89	78	70	85	76	69	60
2.00	99	89	81	97	87	80	93	85	79	70
2.50	103	94	87	101	93	87	97	90	85	75
3.00	107	100	93	105	98	92	101	95	90	80
4.00	112	106	101	110	104	99	105	100	96	87
5.00	115	110	105	113	108	104	108	104	100	90
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

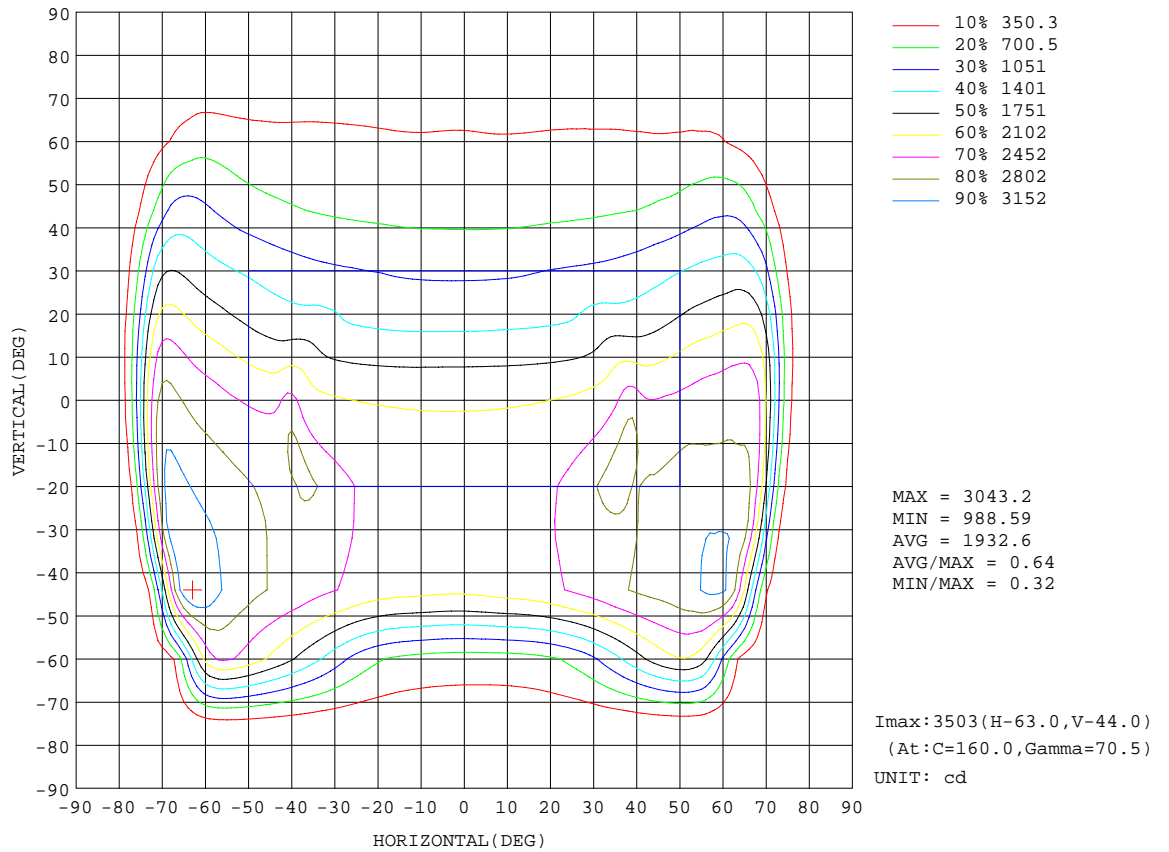
C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2016-08-10

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity:65.0%
 Test Distance:7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ISOCANDELA DIAGRAM

Test:U:120.5V I:0.5064A P:60.74W PF:0.9954 Lamp Flux:7139.12x1 lm		



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25DEG
 Operators:
 Test Date: 2016-08-10

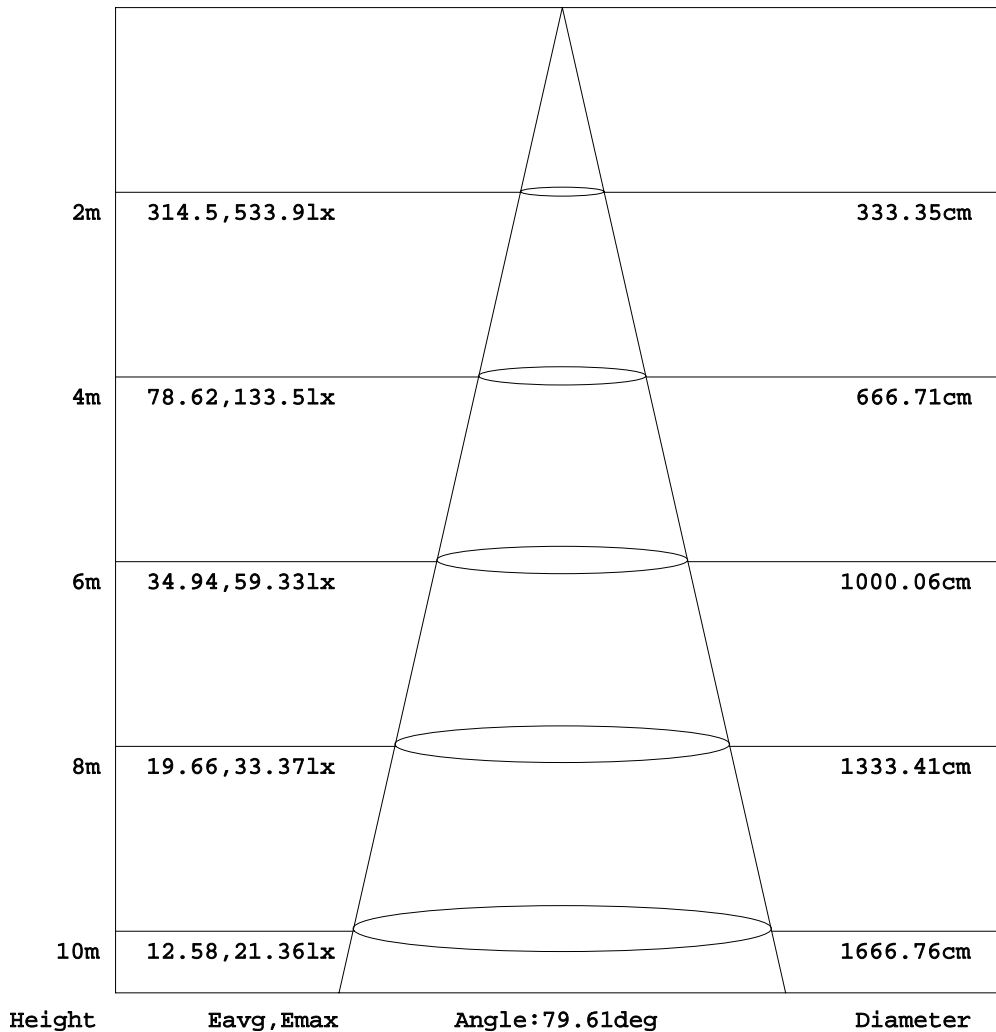
γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity: 65.0%
 Test Distance: 7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

AAI Figure

Test:U:120.5V I:0.5064A P:60.74W PF:0.9954 Lamp Flux:7139.12x1 lm		

Flux out:2783 lm



Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

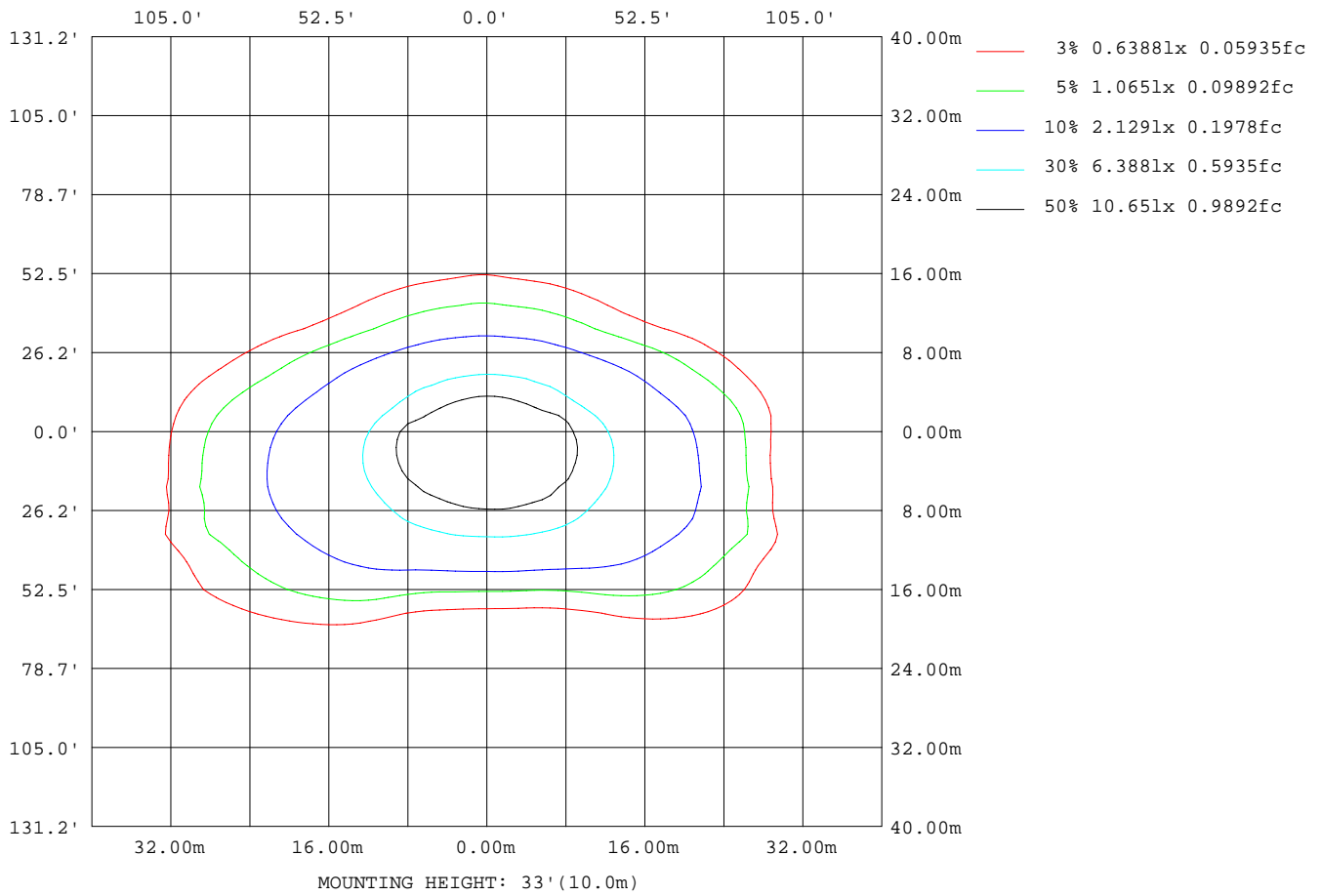
C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25DEG
 Operators:
 Test Date: 2016-08-10

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity: 65.0%
 Test Distance: 7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ISOLUX DIAGRAM

Test:U:120.5V I:0.5064A P:60.74W PF:0.9954 Lamp Flux:7139.12x1 lm		



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2016-08-10

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity:65.0%
 Test Distance:7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LED Avg.L Report

Test:U:120.5V I:0.5064A P:60.74W PF:0.9954 Lamp Flux:7139.12x1 lm		

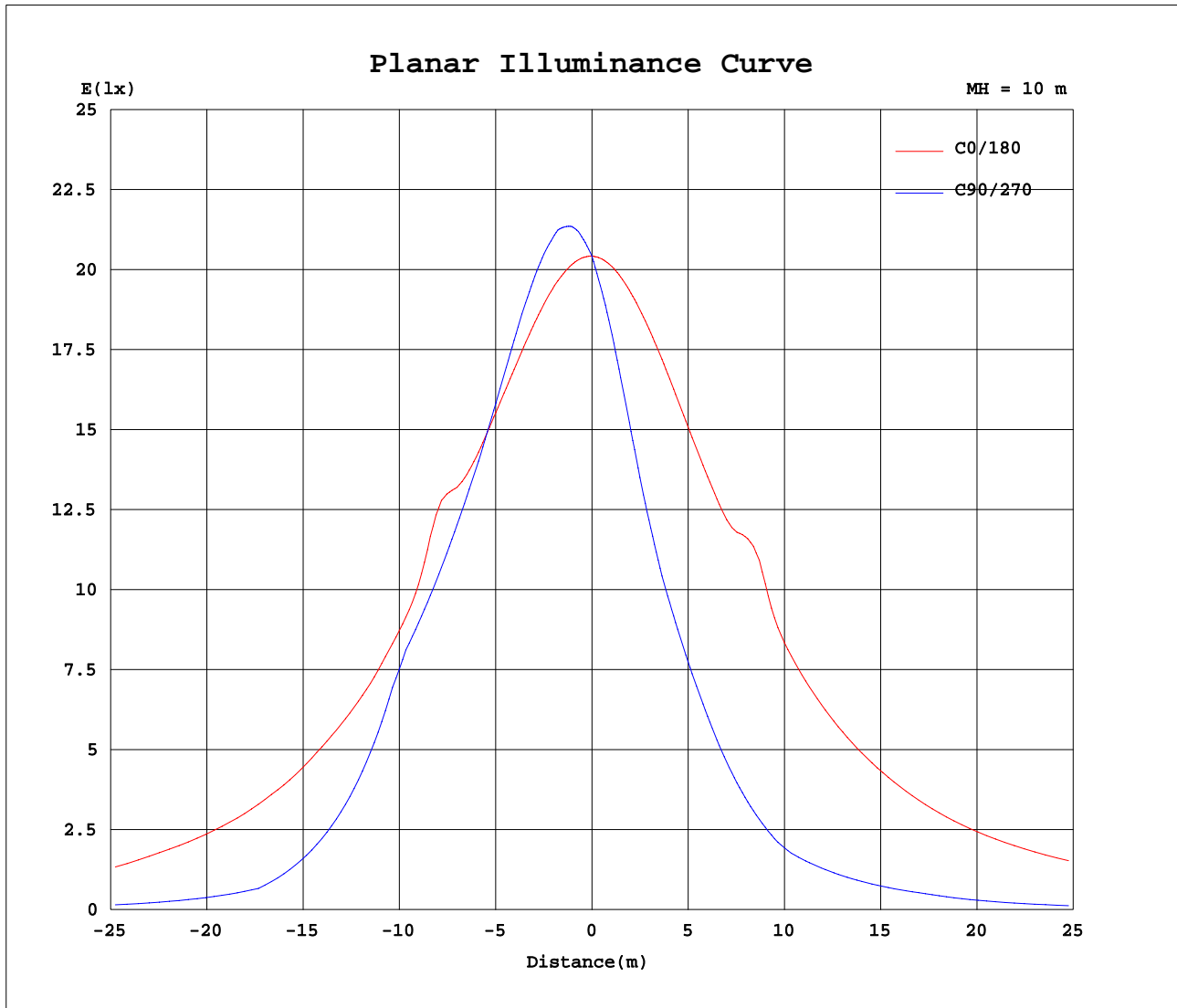
AvgL	cd/m2
L_0~180(65)av	64322
L_0~180(75)av	37178
L_0~180(85)av	3706
L_90~270(65)av	8069
L_90~270(75)av	3833
L_90~270(85)av	3792
L_45(65)av	28644
L_45(75)av	19329
L_45(85)av	5792

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2016-08-10

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity:65.0%
 Test Distance:7.850m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25DEG
 Operators:
 Test Date: 2016-08-10

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity: 65.0%
 Test Distance: 7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT**LUMINOUS DISTRIBUTION INTENSITY DATA**

Test:U:120.5V I:0.5064A P:60.74W PF:0.9954 Lamp Flux:7139.12x1 lm																		

Table--1

UNIT: cd

C(DEG)\ γ (DEG)	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90
0	2042	2042	2042	2042	2042	2042	2042	2042	2042	2042	2042	2042	2042	2042	2042	2042	2042	2042	2042
5	2047	2057	2067	2077	2087	2096	2104	2113	2120	2127	2134	2139	2143	2146	2148	2150	2152	2152	2152
10	2058	2079	2099	2119	2138	2155	2169	2181	2190	2197	2204	2209	2214	2218	2221	2223	2224	2224	2224
15	2075	2108	2140	2171	2194	2214	2228	2241	2252	2256	2256	2256	2255	2254	2252	2250	2248	2246	2244
20	2102	2150	2196	2232	2258	2279	2296	2301	2302	2300	2298	2296	2292	2286	2277	2267	2256	2248	2243
25	2149	2213	2272	2314	2345	2363	2373	2378	2373	2362	2352	2338	2321	2302	2280	2258	2239	2226	2217
30	2224	2307	2376	2421	2455	2475	2489	2492	2474	2435	2398	2367	2337	2307	2277	2247	2222	2203	2192
35	2401	2505	2585	2639	2691	2719	2723	2665	2601	2534	2469	2416	2366	2321	2285	2255	2227	2203	2188
40	2595	2751	2892	2971	3024	2999	2912	2746	2672	2639	2547	2454	2386	2333	2293	2264	2235	2205	2185
45	2467	2601	2693	2766	2805	2796	2775	2690	2656	2643	2591	2494	2407	2342	2296	2268	2209	2157	2127
50	2523	2677	2783	2856	2891	2886	2840	2782	2727	2671	2610	2501	2321	2103	1932	1812	1727	1663	1632
55	2606	2748	2867	2983	3009	3013	2934	2871	2814	2683	2391	2067	1778	1541	1362	1240	1158	1105	1082
60	2637	2781	2912	3046	3137	3066	2982	2889	2638	2294	1921	1549	1224	970	786	663	586	544	532
65	2652	2804	2953	3149	3195	3168	2918	2595	2278	1897	1470	1057	765	590	486	427	397	384	381
70	2098	2122	2313	2559	2981	2705	2430	2234	1910	1425	1025	719	499	373	300	258	237	230	230
75	506	419	452	645	1122	1132	1454	1409	1073	742	485	307	193	134	106	92.8	87.6	88.6	91.1
80	62.0	58.2	66.7	85.5	94.4	223	430	345	165	70.1	63.2	57.2	51.6	50.8	51.9	49.4	49.5	52.2	54.8
85	23.7	30.0	31.4	34.8	38.8	43.7	46.4	51.4	47.6	41.9	38.0	34.1	30.6	29.6	29.9	28.4	28.3	29.7	31.2
90	12.9	12.2	10.9	15.2	19.6	18.7	17.1	15.8	14.6	13.2	11.9	10.6	9.49	8.55	7.86	7.39	7.18	7.22	7.64

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2016-08-10

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350
Humidity:65.0%
Test Distance:7.850m [K=1.0000]
Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:120.5V I:0.5064A P:60.74W PF:0.9954 Lamp Flux:7139.12x1 lm																	

Table--2

UNIT: cd

C (DEG) \ γ (DEG)	95	100	105	110	115	120	125	130	135	140	145	150	155	160	165	170	175	180	185
0	2042	2042	2042	2042	2042	2042	2042	2042	2042	2042	2042	2042	2042	2042	2042	2042	2042	2042	2042
5	2152	2150	2149	2146	2143	2139	2135	2129	2123	2115	2107	2099	2090	2081	2071	2062	2052	2042	2026
10	2223	2221	2219	2216	2212	2208	2202	2196	2188	2180	2170	2157	2143	2126	2107	2086	2066	2045	2014
15	2244	2243	2244	2245	2245	2245	2245	2244	2242	2238	2225	2211	2196	2176	2151	2120	2088	2055	2005
20	2242	2246	2251	2258	2266	2272	2276	2279	2279	2279	2276	2272	2254	2231	2202	2165	2119	2072	2004
25	2216	2221	2231	2245	2263	2283	2304	2321	2327	2334	2337	2332	2318	2296	2262	2218	2159	2096	2006
30	2188	2193	2205	2222	2246	2274	2305	2335	2365	2397	2412	2411	2399	2379	2342	2291	2220	2138	2025
35	2184	2192	2205	2222	2246	2279	2320	2363	2412	2466	2518	2559	2539	2501	2452	2391	2311	2217	2085
40	2181	2194	2213	2231	2255	2293	2342	2405	2490	2559	2614	2731	2874	2882	2863	2805	2684	2526	2313
45	2130	2167	2219	2234	2259	2304	2365	2447	2528	2564	2578	2700	2711	2708	2671	2606	2502	2360	2164
50	1645	1702	1786	1891	2037	2222	2370	2466	2536	2583	2636	2691	2743	2768	2741	2672	2566	2415	2196
55	1099	1156	1243	1362	1534	1759	2024	2294	2531	2650	2720	2788	2864	2892	2875	2792	2676	2512	2271
60	552	608	700	836	1038	1312	1633	1953	2256	2543	2771	2872	2964	3049	3033	2949	2815	2630	2351
65	391	416	462	543	686	928	1266	1633	1981	2304	2598	2880	3098	3218	3240	3148	2999	2785	2449
70	236	251	281	338	439	611	854	1158	1551	2045	2418	2717	3036	3478	3382	3327	3142	2906	2476
75	93.1	94.4	103	122	162	240	370	555	819	1178	1658	2206	2202	2150	1981	1612	1456	1419	1391
80	55.7	54.4	56.4	61.7	64.7	69.1	80.4	92.5	109	221	458	789	762	265	232	118	114	144	247
85	32.2	32.0	34.1	37.9	40.3	43.6	50.2	57.5	66.9	78.4	86.9	85.2	75.1	68.0	62.6	56.7	50.2	40.9	41.0
90	8.73	9.66	11.6	14.0	15.9	17.6	19.3	20.8	22.3	23.5	24.5	25.3	25.9	26.7	27.7	25.0	7.49	6.95	12.3

C Range: 0 - 360DEG	γ Range: 0 - 90DEG
C Interval: 5.0DEG	γ Interval: 0.5DEG
Test Speed: HIGH	Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350
Temperature:25DEG	Humidity:65.0%
Operators:	Test Distance:7.850m [K=1.0000]
Test Date:2016-08-10	Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:120.5V I:0.5064A P:60.74W PF:0.9954 Lamp Flux:7139.12x1 lm																			

Table--3

UNIT: cd

	C(DEG)	190	195	200	205	210	215	220	225	230	235	240	245	250	255	260	265	270	275	280
0	2042	2042	2042	2042	2042	2042	2042	2042	2042	2042	2042	2042	2042	2042	2042	2042	2042	2042	2042	2042
5	2011	1997	1982	1968	1955	1942	1930	1919	1909	1899	1890	1882	1876	1871	1867	1865	1864	1865	1868	
10	1983	1952	1922	1893	1862	1834	1805	1777	1751	1729	1709	1693	1679	1668	1660	1656	1654	1656	1661	
15	1956	1908	1857	1805	1753	1704	1658	1617	1579	1546	1517	1491	1471	1457	1447	1440	1439	1442	1449	
20	1935	1863	1788	1713	1642	1578	1517	1463	1416	1377	1345	1319	1297	1280	1267	1259	1257	1260	1269	
25	1915	1816	1716	1623	1537	1459	1392	1334	1281	1241	1210	1183	1161	1144	1132	1125	1123	1126	1135	
30	1906	1777	1655	1544	1447	1365	1290	1236	1187	1140	1098	1064	1036	1014	999	991	990	993	1003	
35	1945	1791	1658	1524	1433	1312	1222	1155	1098	1048	986	936	899	871	852	842	839	842	854	
40	2080	1853	1654	1488	1374	1254	1145	1059	982	912	852	796	754	724	704	692	687	691	702	
45	1938	1718	1538	1394	1267	1144	1029	929	844	770	706	651	607	575	561	551	547	548	556	
50	1944	1698	1504	1343	1189	1035	905	794	701	625	574	545	523	506	498	494	491	489	491	
55	1979	1693	1479	1281	1080	909	766	661	601	558	524	496	473	456	448	448	446	441	440	
60	2000	1674	1410	1164	942	765	658	590	542	504	472	445	422	405	398	402	401	392	388	
65	2007	1609	1306	1033	801	661	564	505	471	438	399	365	334	308	298	301	301	292	290	
70	1954	1507	1181	895	685	541	445	387	350	315	283	258	230	202	193	198	201	191	188	
75	1275	1035	836	652	495	365	288	244	212	186	164	147	127	99.3	94.2	102	107	96.9	90.7	
80	289	334	318	300	222	138	110	110	102	95.7	90.4	87.0	78.4	59.9	57.2	63.2	67.7	60.2	55.2	
85	53.2	69.5	57.7	58.6	55.5	48.2	51.4	59.3	55.1	51.1	47.8	45.5	41.1	31.4	29.7	32.6	34.9	31.2	28.9	
90	12.6	12.6	12.3	12.1	11.6	10.8	9.82	8.81	7.55	6.25	5.02	3.91	3.07	2.48	2.17	2.04	2.05	2.29	2.74	

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2016-08-10

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity:65.0%
 Test Distance:7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:120.5V I:0.5064A P:60.74W PF:0.9954 Lamp Flux:7139.12x1 lm															

Table--4

UNIT: cd

C(DEG) γ (DEG)	285	290	295	300	305	310	315	320	325	330	335	340	345	350	355				
0	2042	2042	2042	2042	2042	2042	2042	2042	2042	2042	2042	2042	2042	2042	2042				
5	1872	1877	1884	1892	1902	1912	1922	1934	1946	1959	1973	1987	2002	2017	2032				
10	1669	1681	1696	1714	1735	1759	1784	1813	1843	1872	1904	1934	1965	1995	2027				
15	1461	1478	1501	1528	1560	1595	1633	1675	1722	1773	1826	1878	1930	1978	2026				
20	1284	1305	1331	1361	1396	1437	1485	1541	1603	1669	1740	1816	1892	1965	2034				
25	1150	1170	1195	1224	1257	1298	1355	1418	1488	1569	1658	1754	1858	1961	2056				
30	1021	1044	1076	1115	1160	1208	1258	1316	1398	1488	1590	1710	1841	1981	2107				
35	874	905	949	1005	1067	1117	1176	1260	1375	1495	1620	1771	1938	2114	2275				
40	724	757	805	862	924	994	1071	1166	1281	1392	1507	1682	1896	2133	2370				
45	571	606	653	709	773	848	934	1037	1158	1287	1424	1584	1789	2027	2267				
50	501	519	542	570	620	696	790	903	1040	1209	1381	1559	1787	2056	2322				
55	450	467	489	515	546	586	644	747	898	1088	1310	1537	1780	2085	2370				
60	398	414	434	456	480	515	558	622	737	928	1177	1447	1716	2046	2395				
65	302	326	350	376	404	430	460	515	613	769	1006	1283	1589	1972	2401				
70	197	222	242	260	282	308	338	381	465	598	793	1027	1279	1603	1936				
75	95.2	118	131	140	156	175	196	225	290	363	433	563	592	647	633				
80	57.4	72.2	74.2	72.6	72.5	72.5	62.7	62.2	94.4	141	164	151	156	129	97.4				
85	30.5	38.5	39.6	39.4	40.0	40.1	33.9	29.2	29.6	27.1	27.7	23.0	28.2	24.0	22.3				
90	3.40	4.26	5.28	6.38	7.49	8.59	9.65	10.6	11.5	12.3	12.9	13.2	13.3	13.2	12.7				

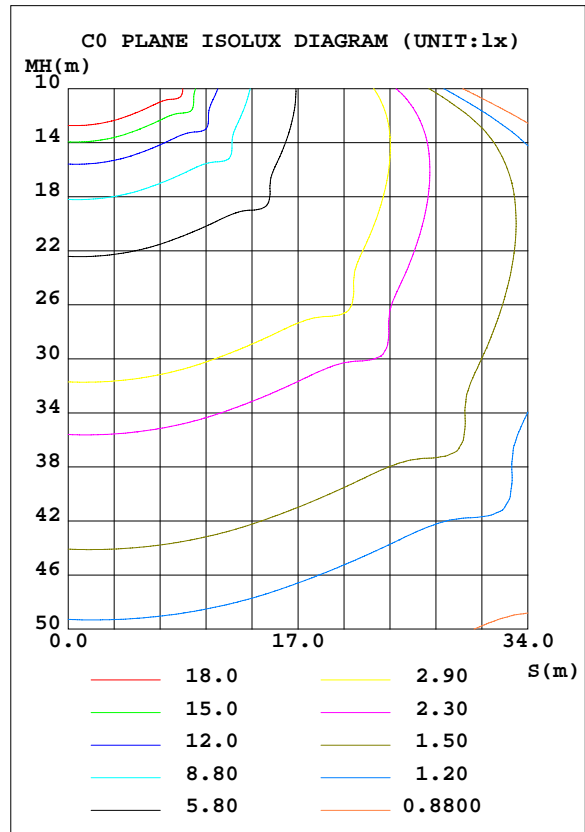
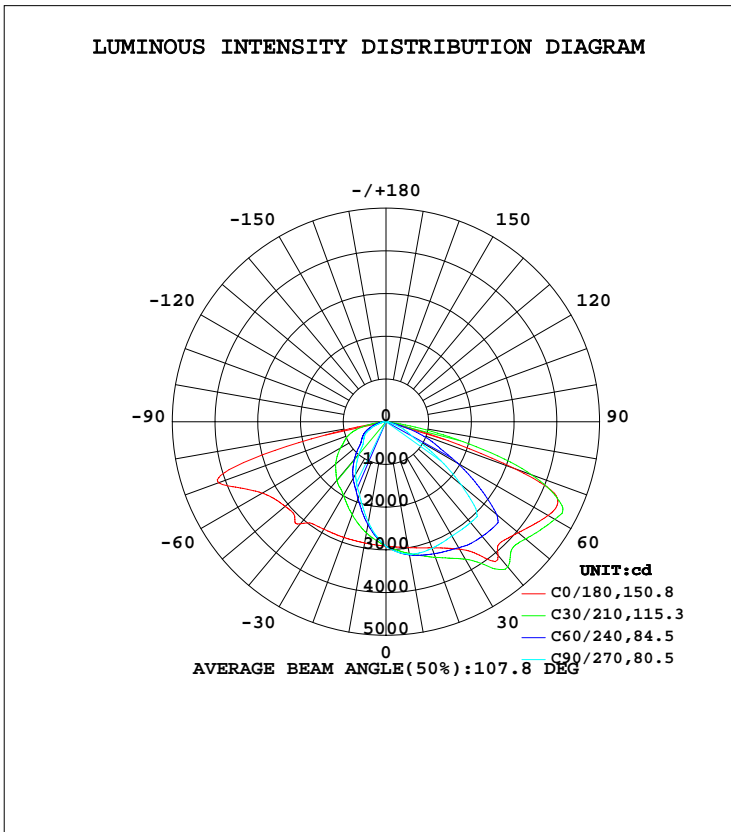
C Range: 0 - 360DEG γ Range: 0 - 90DEG
C Interval: 5.0DEG γ Interval: 0.5DEG
Test Speed: HIGH Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.350
Temperature: 25DEG Humidity: 65.0%
Operators: Test Distance: 7.850m [K=1.0000]
Test Date: 2016-08-10 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:120.7V I:0.7523A P:90.57W PF:0.9975 Lamp Flux:11045.9x1 lm		

DATA OF LAMP		PHOTOMETRIC DATA Eff: 121.97 lm/W			
MODEL		I _{max} (cd)	5238	S/MH(C0/180)	1.59
NOMINAL POWER(W)	90	LOR(%)	100.0	S/MH(C90/270)	0.76
RATED VOLTAGE(V)	120	TOTAL FLUX(lm)	11046	η UP, DN(C0-180)	0.0,65.3
NOMINAL FLUX(lm)	11045.9	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.0,34.7
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	1.50
TEST VOLTAGE(V)	120	η down(%)	100.0	CIBSE SHR MAX	1.55



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2016-08-11

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity:65.0%
 Test Distance:7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
5	2945	3045	3061	3008	2894	2735	2674	2766	0- 5	69.29	69.29	0.63,0.63
10	2992	3158	3151	3076	2882	2531	2385	2591	5- 10	205.0	274.3	2.48,2.48
15	3057	3260	3170	3129	2878	2303	2085	2398	10- 15	333.6	607.9	5.5,5.5
20	3140	3351	3154	3158	2883	2076	1813	2210	15- 20	453.3	1061	9.61,9.61
25	3264	3453	3120	3191	2890	1875	1620	2040	20- 25	565.9	1627	14.7,14.7
30	3444	3587	3087	3202	2906	1710	1426	1914	25- 30	673.7	2301	20.8,20.8
35	3811	3799	3084	3208	2936	1568	1203	1811	30- 35	782.0	3083	27.9,27.9
40	4085	3997	3081	3244	3118	1421	980.3	1649	35- 40	897.8	3981	36,36
45	3919	3962	3001	3315	3052	1239	772.9	1441	40- 45	970.7	4951	44.8,44.8
50	4041	3975	2300	3359	3081	1052	689.4	1229	45- 50	1014	5965	54,54
55	4205	3986	1522	3357	3168	871.7	621.5	1012	50- 55	1027	6993	63.3,63.3
60	4384	3540	743.9	3008	3343	777.2	553.5	897.4	55- 60	1013	8006	72.5,72.5
65	4439	3097	526.9	2713	3695	672.1	412.7	760.9	60- 65	990.3	8996	81.4,81.4
70	3200	2399	310.0	2192	4175	541.9	271.9	573.3	65- 70	945.1	9941	90,90
75	713.5	1222	111.8	1161	2979	392.5	140.9	335.3	70- 75	710.7	10652	96.4,96.4
80	69.77	97.95	63.61	131.0	497.7	240.1	88.26	99.27	75- 80	305.5	10957	99.2,99.2
85	25.32	53.44	34.17	70.00	42.06	126.7	45.37	51.61	80- 85	70.33	11028	99.8,99.8
90	16.64	7.469	4.724	6.939	11.62	10.51	2.478	11.61	85- 90	18.21	11046	100,100
95									90- 95			
100									95-100			
105									100-105			
110									105-110			
115									110-115			
120									115-120			
125									120-125			
130									125-130			
135									130-135			
140									135-140			
145									140-145			
150									145-150			
155									150-155			
160									155-160			
165									160-165			
170									165-170			
175									170-175			
180									175-180			
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Conical surface Flux(90deg): 4951.4 lm

%lum = 44.8%
%lamp = 44.8%

Conical surface Flux(120deg): 8005.8 lm

%lum = 72.5%
%lamp = 72.5%

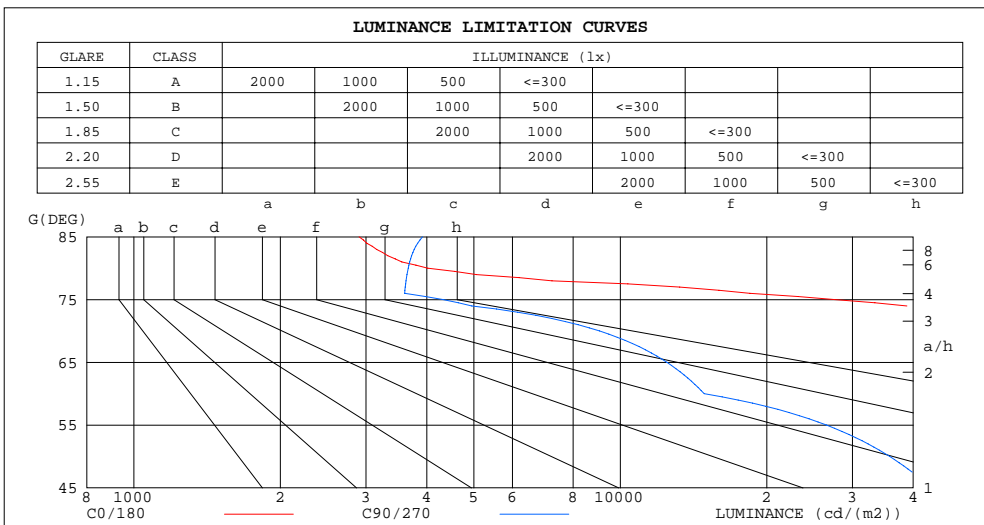
C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2016-08-11

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350
Humidity:65.0%
Test Distance:7.850m [K=1.0000]
Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINANCE LIMITATION CURVES

Test:U:120.7V I:0.7523A P:90.57W PF:0.9975 Lamp Flux:11045.9x1 lm		



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	2905	3920
80	4018	3663
75	27566	4320
70	93563	9064
65	105034	12469
60	87675	14878
55	73316	26538
50	62870	35788
45	55422	42442

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2016-08-11

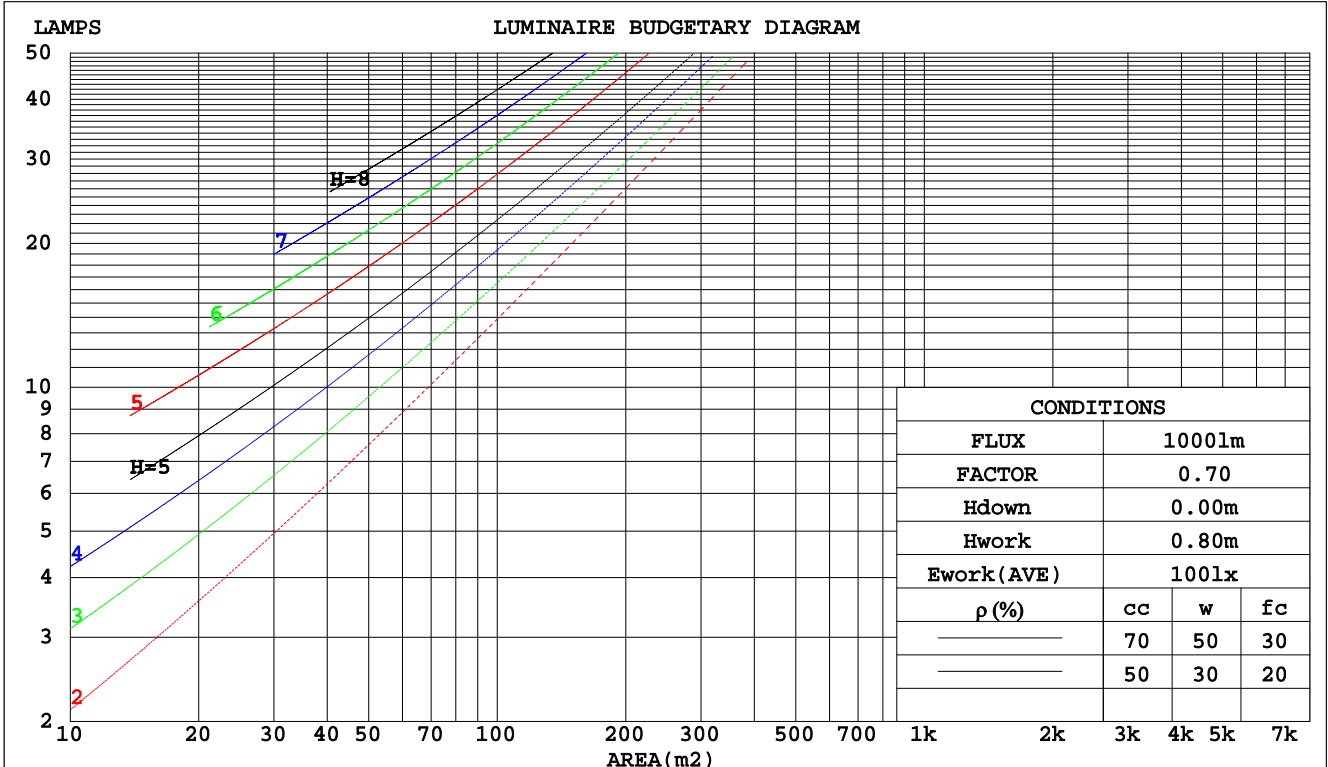
γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity:65.0%
 Test Distance:7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:120.7V I:0.7523A P:90.57W PF:0.9975 Lamp Flux:11045.9x1 lm																

pcc	80%			70%			50%			30%			10%			0
	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pw																
pfc																
RCR	RCR:Room Cavity Ratio															
	Coefficients of Utilization(CU)															
0.0	1.19	1.19	1.19	1.16	1.16	1.16	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	1.00
1.0	1.03	.98	.94	1.01	.96	.93	.96	.93	.90	.92	.90	.87	.89	.87	.84	.82
2.0	.88	.81	.75	.86	.79	.74	.83	.77	.72	.79	.74	.70	.76	.72	.69	.66
3.0	.76	.67	.60	.75	.66	.60	.71	.64	.59	.69	.63	.58	.66	.61	.56	.54
4.0	.67	.57	.50	.65	.56	.49	.63	.55	.49	.60	.53	.48	.58	.52	.47	.45
5.0	.59	.49	.42	.58	.48	.42	.55	.47	.41	.53	.46	.41	.51	.45	.40	.38
6.0	.52	.43	.36	.51	.42	.36	.49	.41	.35	.48	.41	.35	.46	.40	.35	.33
7.0	.47	.38	.31	.46	.37	.31	.45	.37	.31	.43	.36	.31	.42	.35	.30	.28
8.0	.43	.34	.27	.42	.33	.27	.41	.33	.27	.39	.32	.27	.38	.32	.27	.25
9.0	.39	.30	.24	.38	.30	.24	.37	.30	.24	.36	.29	.24	.35	.29	.24	.22
10.0	.36	.27	.22	.35	.27	.22	.34	.27	.22	.33	.26	.22	.32	.26	.22	.20



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2016-08-11

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity:65.0%
 Test Distance:7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

WEC AND CCEC

Test:U:120.7V I:0.7523A P:90.57W PF:0.9975 Lamp Flux:11045.9x1 lm															

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.328	.187	.059	.321	.183	.058	.307	.176	.056	.295	.170	.055	.284	.165	.053	
2.0	.314	.172	.053	.307	.169	.052	.296	.164	.051	.285	.160	.050	.274	.155	.049	
3.0	.291	.155	.046	.285	.153	.046	.274	.149	.045	.265	.145	.044	.255	.141	.044	
4.0	.267	.139	.041	.262	.137	.041	.253	.134	.040	.244	.131	.040	.236	.128	.039	
5.0	.246	.125	.036	.241	.124	.036	.233	.121	.036	.225	.119	.035	.218	.116	.035	
6.0	.227	.114	.033	.223	.113	.032	.215	.110	.032	.208	.108	.032	.202	.106	.032	
7.0	.210	.104	.029	.207	.103	.029	.200	.101	.029	.194	.099	.029	.188	.098	.029	
8.0	.195	.095	.027	.192	.095	.027	.186	.093	.027	.181	.092	.026	.175	.090	.026	
9.0	.182	.088	.025	.180	.088	.025	.174	.086	.024	.169	.085	.024	.164	.084	.024	
10.0	.171	.082	.023	.168	.081	.023	.164	.080	.023	.159	.079	.022	.155	.078	.022	

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.182	.156	.133	.155	.134	.114	.106	.092	.079	.061	.053	.046	.020	.017	.015	
2.0	.175	.132	.095	.150	.113	.082	.103	.078	.057	.059	.046	.034	.019	.015	.011	
3.0	.168	.114	.071	.144	.099	.062	.099	.069	.043	.057	.040	.026	.018	.013	.008	
4.0	.161	.101	.056	.138	.088	.048	.095	.061	.034	.055	.036	.020	.018	.012	.007	
5.0	.154	.091	.045	.132	.079	.039	.091	.055	.028	.053	.032	.016	.017	.011	.005	
6.0	.147	.083	.037	.126	.072	.032	.087	.050	.023	.050	.030	.014	.016	.010	.005	
7.0	.140	.076	.032	.120	.066	.028	.083	.046	.020	.048	.027	.012	.016	.009	.004	
8.0	.133	.070	.027	.114	.061	.024	.079	.043	.017	.046	.025	.010	.015	.008	.003	
9.0	.127	.065	.024	.109	.057	.021	.076	.040	.015	.044	.024	.009	.014	.008	.003	
10.0	.121	.061	.022	.104	.053	.019	.072	.037	.013	.042	.022	.008	.014	.007	.003	

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2016-08-11

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity:65.0%
 Test Distance:7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

UGR(Unified Glare Rating) Table

Test:U:120.7V I:0.7523A P:90.57W PF:0.9975 Lamp Flux:11045.9x1 lm										
ceiling/cavity	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
walls	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions	Viewed crosswise					Viewed endwise				
x = 2H y = 2H	31.4	33.1	31.7	33.3	33.5	25.3	26.9	25.6	27.2	27.4
3H	34.2	35.7	34.5	35.9	36.2	25.4	26.9	25.7	27.1	27.4
4H	34.2	35.7	34.6	35.9	36.2	25.3	26.8	25.6	27.0	27.3
6H	34.1	35.5	34.5	35.8	36.0	25.2	26.6	25.6	26.9	27.1
8H	34.1	35.4	34.4	35.7	36.0	25.2	26.5	25.5	26.8	27.1
12H	34.0	35.3	34.4	35.6	35.9	25.1	26.4	25.5	26.7	27.0
4H 2H	32.0	33.4	32.3	33.7	33.9	27.9	29.3	28.2	29.6	29.9
3H	34.9	36.2	35.3	36.5	36.8	28.1	29.4	28.5	29.7	30.0
4H	35.1	36.3	35.5	36.6	37.0	28.1	29.2	28.5	29.6	29.9
6H	35.1	36.1	35.5	36.4	36.8	28.0	29.0	28.4	29.4	29.7
8H	35.0	36.0	35.4	36.3	36.7	28.0	28.9	28.4	29.3	29.7
12H	35.0	35.9	35.4	36.2	36.6	27.9	28.8	28.3	29.2	29.6
8H 4H	35.2	36.1	35.6	36.5	36.9	29.3	30.3	29.7	30.6	31.0
6H	35.1	35.9	35.6	36.3	36.8	29.2	30.0	29.7	30.4	30.9
8H	35.1	35.8	35.6	36.2	36.7	29.2	29.9	29.7	30.3	30.8
12H	35.1	35.7	35.6	36.1	36.6	29.2	29.8	29.7	30.2	30.7
12H 4H	35.1	36.0	35.6	36.4	36.8	29.3	30.2	29.7	30.6	31.0
6H	35.1	35.8	35.6	36.2	36.7	29.2	29.9	29.7	30.4	30.8
8H	35.1	35.7	35.6	36.1	36.6	29.2	29.8	29.7	30.3	30.7
Variations with the observer position at spacings:										
S = 1.0H	+ 0.1 / - 0.1					+ 0.3 / - 0.3				
1.5H	+ 0.6 / - 0.9					+ 0.7 / - 1.0				
2.0H	+ 1.0 / - 1.0					+ 0.7 / - 1.5				

CIE Pub.117 Corrected 11046 lm Total Lamp Luminous Flux. (8log(F/F0) = 8.3)

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2016-08-11

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity:65.0%
 Test Distance:7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

UTILIZATION FACTORS TABLE

Test:U:120.7V I:0.7523A P:90.57W PF:0.9975 Lamp Flux:11045.9x1 lm		

REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	53	40	33	52	40	33	51	40	33	26
0.80	63	50	42	62	50	42	60	49	42	34
1.00	71	59	51	70	59	51	68	60	50	43
1.25	79	67	60	78	67	59	75	65	58	50
1.50	84	74	66	83	73	65	80	71	64	56
2.00	92	83	76	90	82	75	87	79	73	65
2.50	97	88	82	95	87	81	91	84	79	70
3.00	101	93	87	98	92	86	94	89	84	75
4.00	105	99	94	103	97	93	98	94	90	81
5.00	108	103	99	106	101	97	101	97	94	85
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

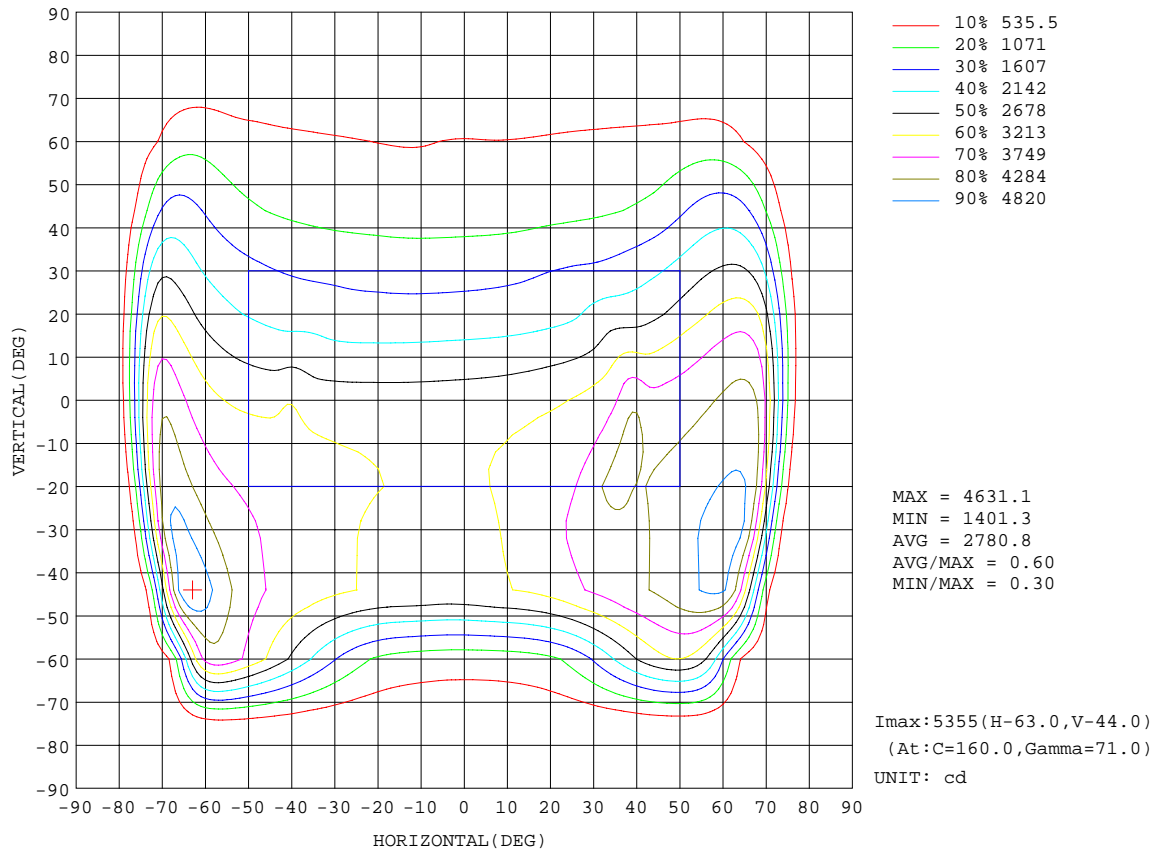
C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2016-08-11

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity:65.0%
 Test Distance:7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ISOCANDELA DIAGRAM

Test:U:120.7V I:0.7523A P:90.57W PF:0.9975 Lamp Flux:11045.9x1 lm		



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25DEG
 Operators:
 Test Date: 2016-08-11

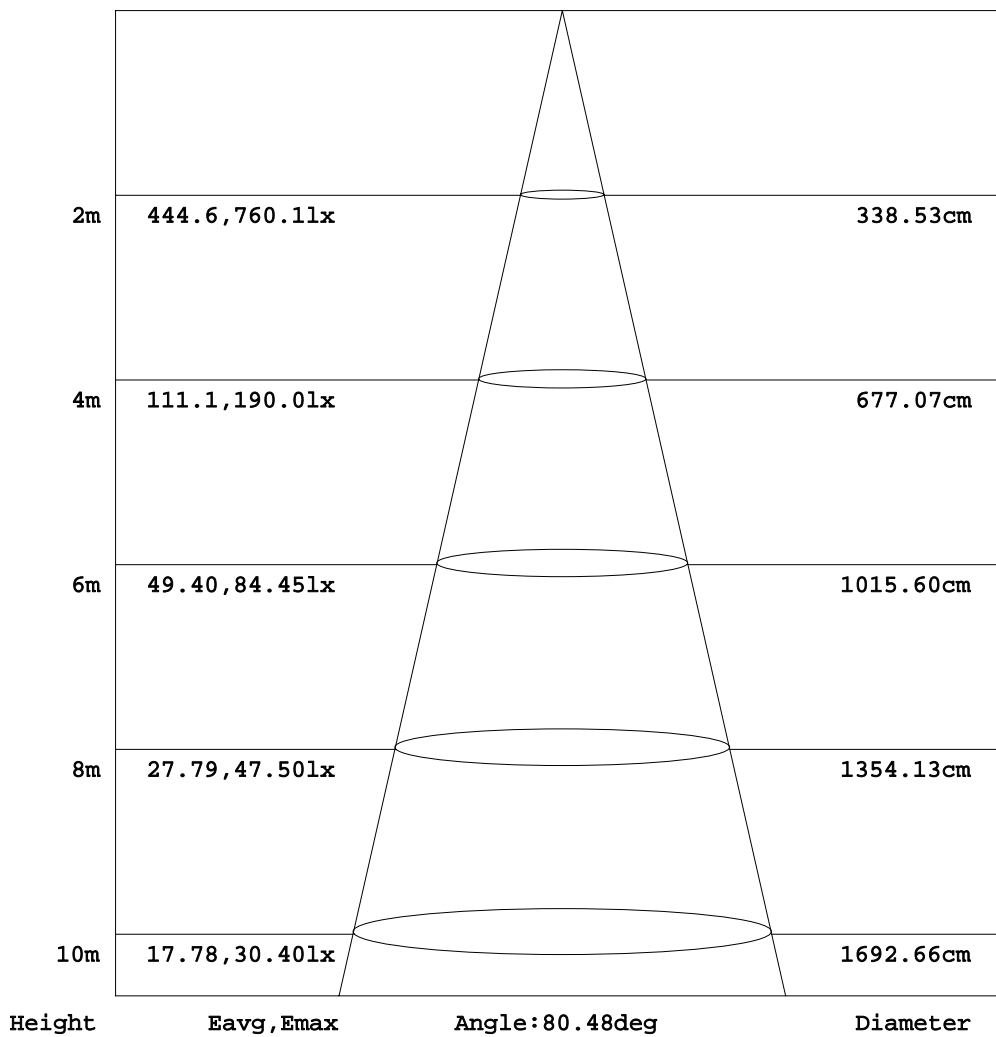
γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity: 65.0%
 Test Distance: 7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

AAI Figure

Test:U:120.7V I:0.7523A P:90.57W PF:0.9975 Lamp Flux:11045.9x1 lm		

Flux out:4075 lm



Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

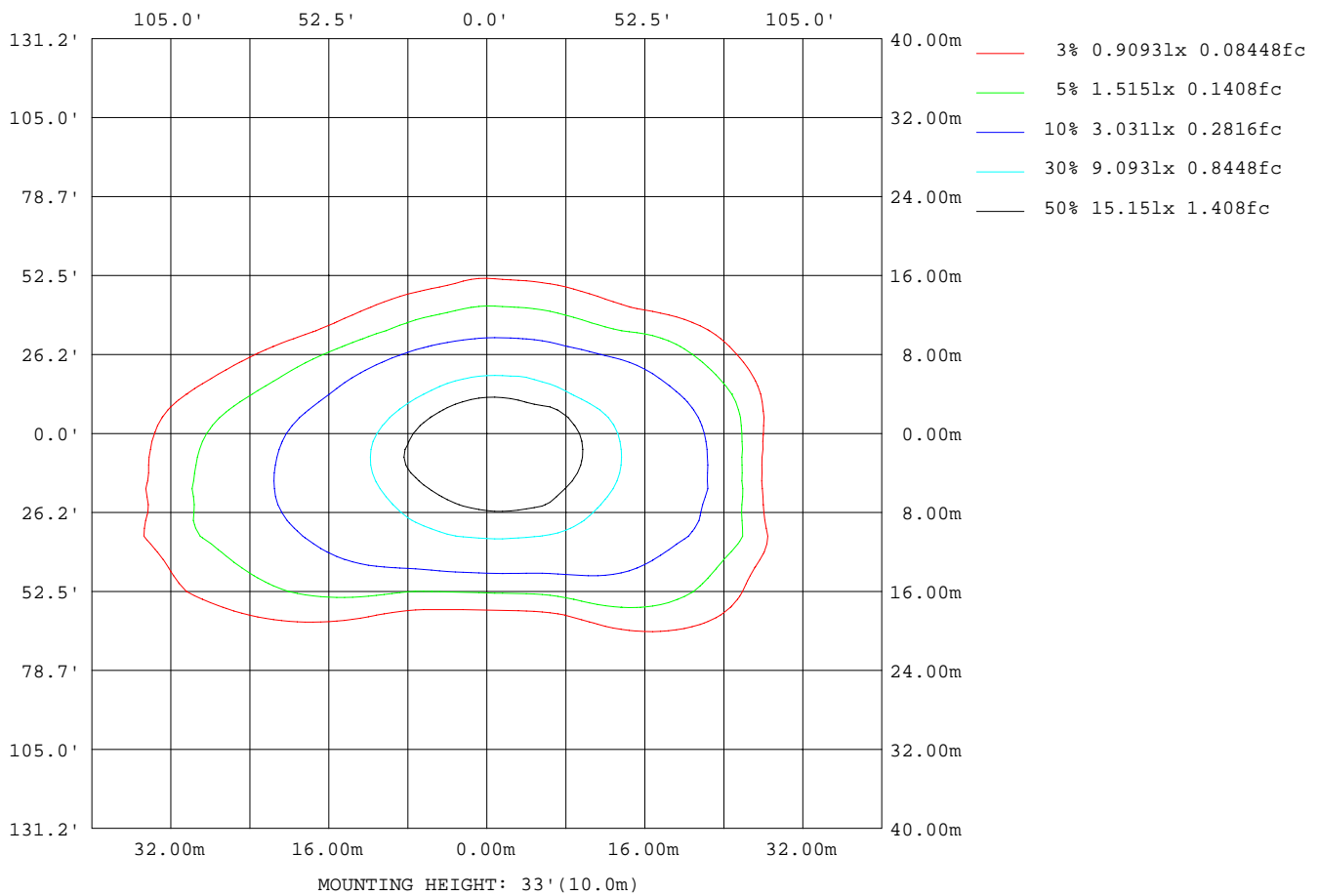
C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25DEG
 Operators:
 Test Date: 2016-08-11

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity: 65.0%
 Test Distance: 7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ISOLUX DIAGRAM

Test:U:120.7V I:0.7523A P:90.57W PF:0.9975 Lamp Flux:11045.9x1 lm		



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25DEG
 Operators:
 Test Date: 2016-08-11

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity: 65.0%
 Test Distance: 7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LED Avg.L Report

Test:U:120.7V I:0.7523A P:90.57W PF:0.9975 Lamp Flux:11045.9x1 lm		

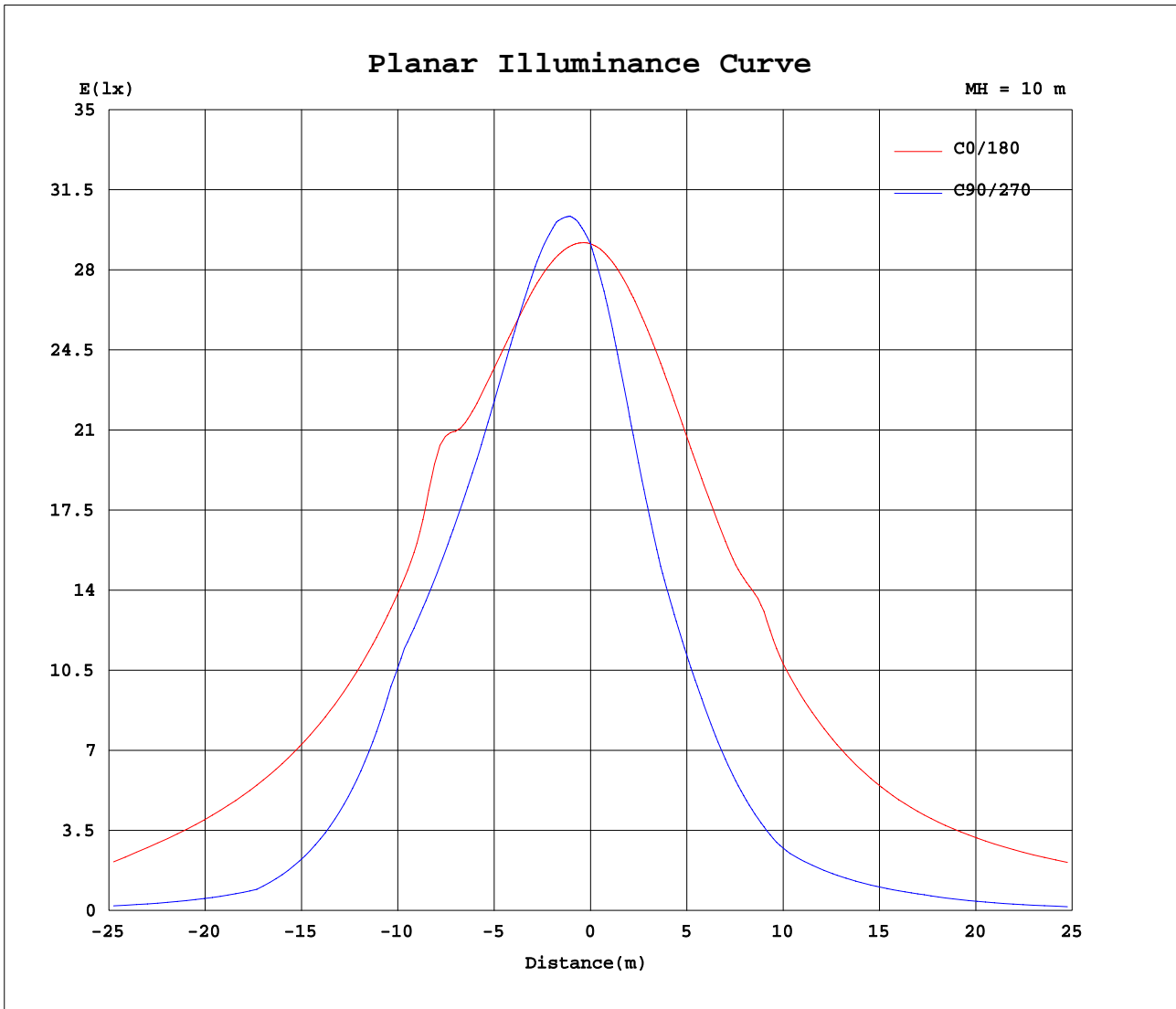
AvgL	cd/m2
L_0~180(65)av	96237
L_0~180(75)av	71327
L_0~180(85)av	3866
L_90~270(65)av	11117
L_90~270(75)av	4883
L_90~270(85)av	4563
L_45(65)av	42844
L_45(75)av	30046
L_45(85)av	8654

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2016-08-11

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity:65.0%
 Test Distance:7.850m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25DEG
 Operators:
 Test Date: 2016-08-11

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity: 65.0%
 Test Distance: 7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINOUS DISTRIBUTION INTENSITY DATA

Table with test parameters: Test:U:120.7V I:0.7523A P:90.57W PF:0.9975 Lamp Flux:11045.9x1 lm

Table--1

UNIT: cd

Main data table with columns for C (DEG) and gamma (DEG) and rows for intensity values from 0 to 90 degrees.

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2016-08-11

gamma Range: 0 - 90DEG
gamma Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350
Humidity:65.0%
Test Distance:7.850m [K=1.0000]
Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:120.7V I:0.7523A P:90.57W PF:0.9975 Lamp Flux:11045.9x1 lm																	

Table--2

UNIT: cd

C(DEG) γ (DEG)	95	100	105	110	115	120	125	130	135	140	145	150	155	160	165	170	175	180	185
0	2914	2914	2914	2914	2914	2914	2914	2914	2914	2914	2914	2914	2914	2914	2914	2914	2914	2914	2914
5	3058	3055	3051	3046	3040	3034	3027	3018	3008	2997	2985	2973	2961	2948	2934	2921	2907	2894	2874
10	3145	3139	3132	3124	3116	3107	3098	3088	3076	3065	3051	3032	3013	2989	2963	2936	2909	2882	2840
15	3162	3156	3151	3148	3144	3140	3136	3133	3129	3121	3104	3085	3065	3037	3005	2964	2921	2878	2813
20	3143	3136	3135	3137	3142	3148	3154	3158	3158	3156	3151	3145	3122	3092	3055	3006	2945	2883	2793
25	3103	3094	3093	3100	3115	3136	3162	3184	3191	3198	3201	3195	3181	3153	3108	3050	2973	2890	2771
30	3062	3049	3045	3055	3073	3100	3131	3165	3202	3242	3258	3259	3245	3220	3173	3108	3014	2906	2755
35	3058	3047	3047	3055	3064	3081	3108	3155	3208	3265	3327	3369	3348	3311	3256	3174	3067	2936	2755
40	3057	3053	3065	3077	3087	3106	3139	3184	3244	3324	3388	3470	3581	3562	3520	3433	3292	3118	2880
45	2987	3019	3086	3099	3103	3130	3176	3239	3315	3364	3391	3512	3541	3536	3482	3392	3250	3052	2789
50	2302	2366	2479	2618	2792	3023	3194	3288	3359	3413	3471	3533	3584	3598	3552	3449	3298	3081	2783
55	1532	1599	1715	1865	2073	2360	2697	3051	3357	3494	3572	3655	3732	3745	3695	3575	3406	3168	2833
60	762	831	949	1117	1366	1716	2136	2580	3008	3383	3662	3806	3927	3989	3938	3800	3612	3343	2961
65	534	562	616	707	880	1177	1622	2173	2713	3192	3603	3976	4284	4423	4388	4230	4005	3695	3218
70	316	332	366	431	554	767	1098	1564	2192	3018	3603	4065	4558	5150	5033	4851	4552	4175	3518
75	115	115	122	143	192	290	470	750	1161	1745	2556	3622	4093	3962	4010	3265	3024	2979	2753
80	65.1	61.9	60.6	64.7	66.3	71.5	88.5	109	131	302	695	1344	1726	896	588	257	331	498	708
85	34.9	33.3	32.8	35.1	35.9	39.0	48.1	59.2	70.0	88.7	110	111	89.5	74.3	57.8	45.5	34.8	42.1	68.0
90	4.65	4.81	5.01	5.25	5.50	5.78	6.06	6.45	6.94	7.41	7.92	8.22	8.33	8.69	9.57	10.8	12.3	11.6	14.5

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25DEG
 Operators:
 Test Date: 2016-08-11

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity: 65.0%
 Test Distance: 7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:120.7V I:0.7523A P:90.57W PF:0.9975 Lamp Flux:11045.9x1 lm																		

Table--3

UNIT: cd

γ (DEG) \ C (DEG)	190	195	200	205	210	215	220	225	230	235	240	245	250	255	260	265	270	275	280
0	2914	2914	2914	2914	2914	2914	2914	2914	2914	2914	2914	2914	2914	2914	2914	2914	2914	2914	2914
5	2854	2834	2816	2797	2780	2764	2749	2735	2722	2710	2699	2690	2683	2678	2675	2674	2674	2677	2682
10	2799	2760	2721	2682	2642	2604	2567	2531	2499	2470	2446	2426	2409	2397	2389	2385	2385	2390	2399
15	2749	2686	2619	2551	2482	2418	2358	2303	2254	2210	2173	2141	2117	2100	2089	2084	2085	2093	2108
20	2703	2608	2508	2408	2315	2229	2148	2076	2014	1962	1918	1882	1854	1832	1818	1811	1813	1824	1843
25	2650	2520	2387	2264	2149	2044	1953	1875	1803	1751	1710	1676	1650	1632	1621	1616	1620	1631	1650
30	2598	2429	2268	2119	1990	1880	1781	1710	1644	1585	1534	1493	1462	1439	1426	1423	1426	1438	1460
35	2562	2358	2177	2016	1881	1754	1655	1568	1494	1423	1354	1297	1255	1226	1208	1201	1203	1216	1242
40	2616	2359	2129	1937	1789	1650	1525	1421	1320	1233	1154	1090	1040	1007	988	979	980	993	1019
45	2496	2225	1996	1815	1659	1508	1365	1239	1130	1033	951	880	826	788	776	771	773	783	802
50	2459	2166	1926	1726	1538	1353	1192	1052	932	834	768	729	700	683	682	686	689	694	705
55	2463	2129	1874	1633	1393	1185	1008	872	791	736	690	652	623	606	607	618	621	621	629
60	2516	2132	1812	1504	1231	1006	869	777	707	653	609	572	544	527	532	549	553	547	552
65	2629	2132	1732	1372	1077	887	759	672	610	560	515	473	437	405	398	410	413	404	409
70	2747	2128	1646	1238	937	741	621	542	484	435	394	357	321	276	261	271	272	259	259
75	2312	1799	1348	996	724	542	456	392	345	306	270	239	206	153	133	141	141	125	118
80	769	795	701	564	393	282	267	240	215	193	172	154	134	96.9	81.7	87.7	88.3	76.1	70.2
85	123	158	138	147	142	125	134	127	113	102	90.4	80.5	70.2	50.8	42.4	45.1	45.4	39.3	36.5
90	14.8	14.8	14.5	14.5	14.3	13.4	12.1	10.5	9.45	8.36	7.19	6.05	4.99	3.71	2.98	2.62	2.48	2.53	2.89

C Range: 0 - 360DEG γ Range: 0 - 90DEG
C Interval: 5.0DEG γ Interval: 0.5DEG
Test Speed: HIGH Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350
Temperature:25DEG Humidity:65.0%
Operators: Test Distance:7.850m [K=1.0000]
Test Date:2016-08-11 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:120.7V I:0.7523A P:90.57W PF:0.9975 Lamp Flux:11045.9x1 lm	

Table--4

UNIT: cd

C(DEG) γ (DEG)	285	290	295	300	305	310	315	320	325	330	335	340	345	350	355				
0	2914	2914	2914	2914	2914	2914	2914	2914	2914	2914	2914	2914	2914	2914	2914				
5	2689	2698	2708	2721	2735	2750	2766	2783	2801	2820	2840	2860	2881	2902	2923				
10	2414	2433	2456	2483	2515	2551	2591	2634	2679	2723	2770	2815	2859	2903	2948				
15	2129	2156	2192	2234	2282	2337	2398	2464	2536	2613	2694	2773	2850	2920	2989				
20	1871	1907	1950	2002	2062	2131	2210	2299	2395	2497	2609	2726	2841	2947	3044				
25	1678	1714	1759	1812	1871	1944	2040	2143	2257	2386	2527	2679	2840	2996	3134				
30	1494	1539	1595	1666	1747	1829	1914	2011	2148	2299	2471	2673	2882	3096	3280				
35	1281	1338	1414	1518	1625	1711	1811	1944	2142	2353	2572	2831	3117	3395	3637				
40	1060	1120	1204	1304	1411	1529	1649	1806	2017	2224	2433	2750	3107	3466	3793				
45	835	895	975	1070	1180	1299	1441	1620	1836	2071	2312	2598	2969	3340	3667				
50	729	763	804	856	942	1068	1229	1432	1677	1968	2269	2594	2994	3415	3773				
55	652	684	724	771	829	903	1012	1209	1484	1824	2211	2604	3021	3516	3913				
60	573	601	638	681	733	802	897	1038	1280	1678	2110	2556	3035	3574	4049				
65	435	475	516	563	620	681	761	896	1140	1501	1924	2355	2844	3453	4026				
70	285	329	361	396	440	496	573	690	882	1172	1523	1888	2239	2681	3021				
75	141	182	201	222	248	286	335	407	543	695	848	1028	1063	1056	934				
80	86.2	111	117	119	118	118	99.3	101	166	260	316	271	265	193	125				
85	45.5	58.3	61.3	63.2	63.2	64.2	51.6	43.0	42.6	40.9	39.4	34.0	43.5	34.2	28.2				
90	3.54	4.52	5.77	7.18	8.70	10.2	11.6	12.9	14.2	15.3	16.1	16.6	16.7	16.6	16.0				

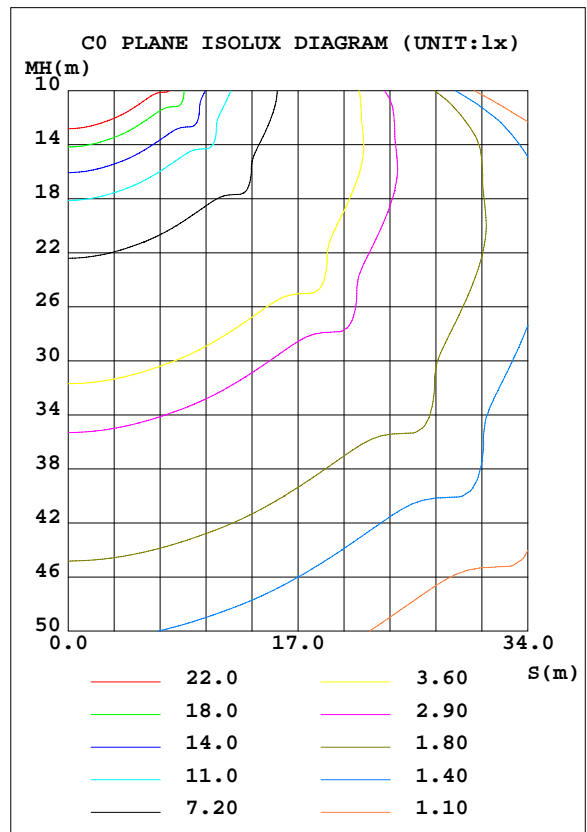
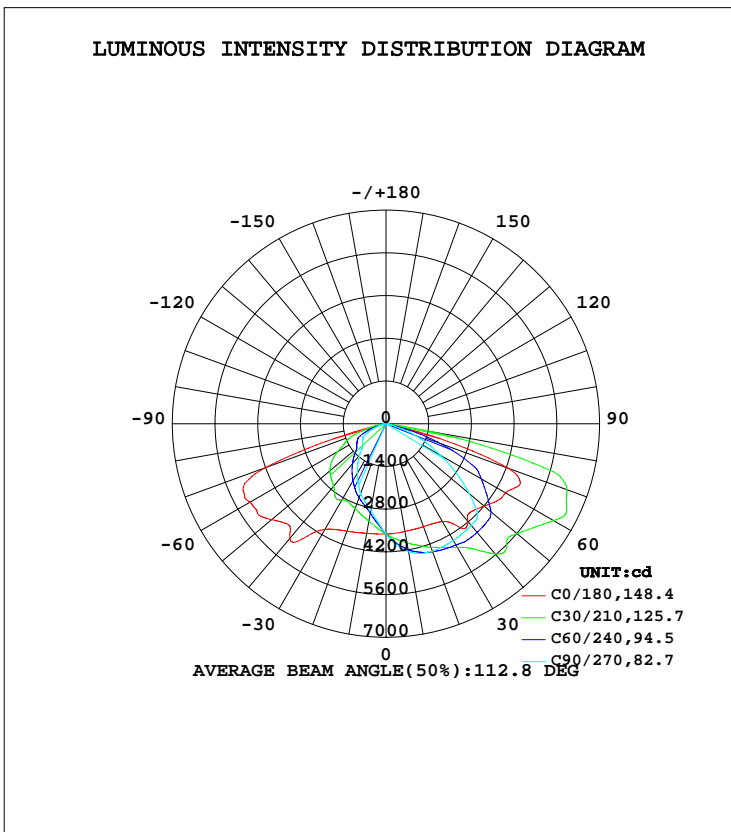
C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2016-08-11
 γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity:65.0%
 Test Distance:7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:100.5V I:1.205A P:120.9W PF:0.9990 Lamp Flux:15270.8x1 lm		

DATA OF LAMP		PHOTOMETRIC DATA Eff: 126.30 lm/W			
MODEL		I _{max} (cd)	7100	S/MH(C0/180)	1.87
NOMINAL POWER(W)	120	LOR(%)	100.0	S/MH(C90/270)	0.83
RATED VOLTAGE(V)	100	TOTAL FLUX(lm)	15271	η UP, DN(C0-180)	0.0,69.0
NOMINAL FLUX(lm)	15270.8	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.0,31.0
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	1.50
TEST VOLTAGE(V)	100	η down(%)	100.0	CIBSE SHR MAX	1.55



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2016-07-22

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity:65.0%
 Test Distance:7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
5	3604	3873	3978	3885	3626	3337	3221	3324	0- 5	86.29	86.29	0.57,0.57
10	3585	4093	4261	4125	3647	3092	2884	3056	5- 10	257.4	343.7	2.25,2.25
15	3581	4287	4404	4342	3689	2886	2649	2826	10- 15	425.5	769.2	5.04,5.04
20	3590	4439	4448	4508	3749	2732	2442	2657	15- 20	589.4	1359	8.9,8.9
25	3616	4588	4435	4654	3830	2601	2159	2505	20- 25	746.1	2105	13.8,13.8
30	3703	4718	4422	4807	3999	2475	1876	2342	25- 30	896.6	3001	19.7,19.7
35	4097	4912	4384	5084	4494	2326	1612	2156	30- 35	1056	4057	26.6,26.6
40	4170	5235	4345	5450	4908	2100	1349	1919	35- 40	1225	5282	34.6,34.6
45	4034	5341	4236	5544	4627	1881	1104	1718	40- 45	1344	6626	43.4,43.4
50	4202	5254	3556	5422	4890	1631	1012	1500	45- 50	1406	8032	52.6,52.6
55	4423	5246	2805	5310	5134	1370	939.4	1276	50- 55	1464	9497	62.2,62.2
60	4533	5160	2054	5288	5140	1222	866.6	1127	55- 60	1500	10996	72,72
65	4806	5076	1437	5200	5170	1046	634.8	943.9	60- 65	1498	12494	81.8,81.8
70	4256	4123	820.5	4176	4218	778.8	402.9	687.9	65- 70	1397	13891	91,91
75	1578	2071	259.2	2112	1235	417.0	188.7	366.6	70- 75	957.0	14848	97.2,97.2
80	170.1	224.5	139.1	238.7	161.8	93.71	115.8	84.00	75- 80	328.8	15177	99.4,99.4
85	47.14	132.1	74.21	139.4	42.90	55.31	60.50	51.38	80- 85	70.17	15247	99.8,99.8
90	20.49	33.61	9.301	23.84	15.48	17.34	5.208	19.13	85- 90	23.53	15271	100,100
95									90- 95			
100									95-100			
105									100-105			
110									105-110			
115									110-115			
120									115-120			
125									120-125			
130									125-130			
135									130-135			
140									135-140			
145									140-145			
150									145-150			
155									150-155			
160									155-160			
165									160-165			
170									165-170			
175									170-175			
180									175-180			
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Conical surface Flux(90deg): 6626.1 lm

%lum = 43.4%
%lamp = 43.4%

Conical surface Flux(120deg): 10996 lm

%lum = 72.0%
%lamp = 72.0%

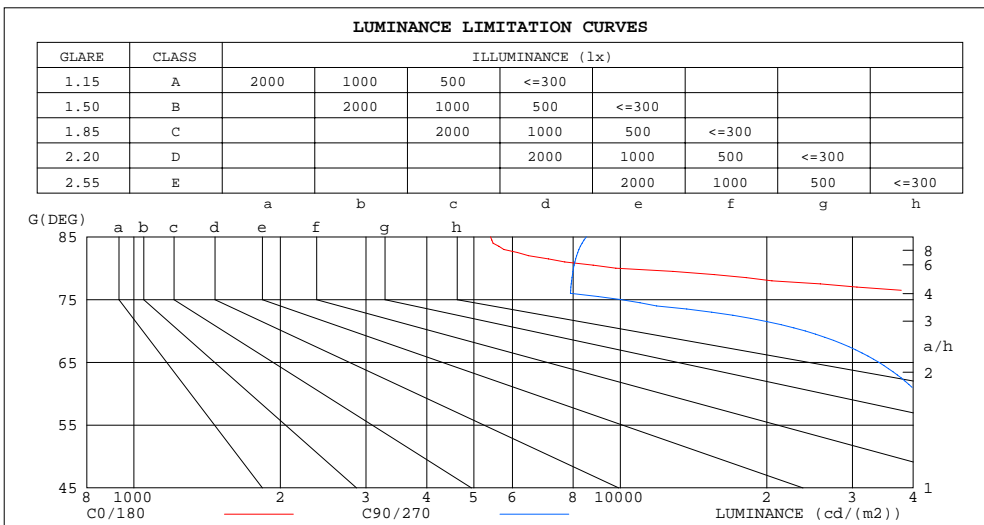
C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2016-07-22

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350
Humidity:65.0%
Test Distance:7.850m [K=1.0000]
Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINANCE LIMITATION CURVES

Test:U:100.5V I:1.205A P:120.9W PF:0.9990 Lamp Flux:15270.8x1 lm		



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	5409	8515
80	9793	8012
75	60974	10015
70	124432	23991
65	113712	34003
60	90663	41070
55	77107	48899
50	65377	55320
45	57055	59904

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2016-07-22

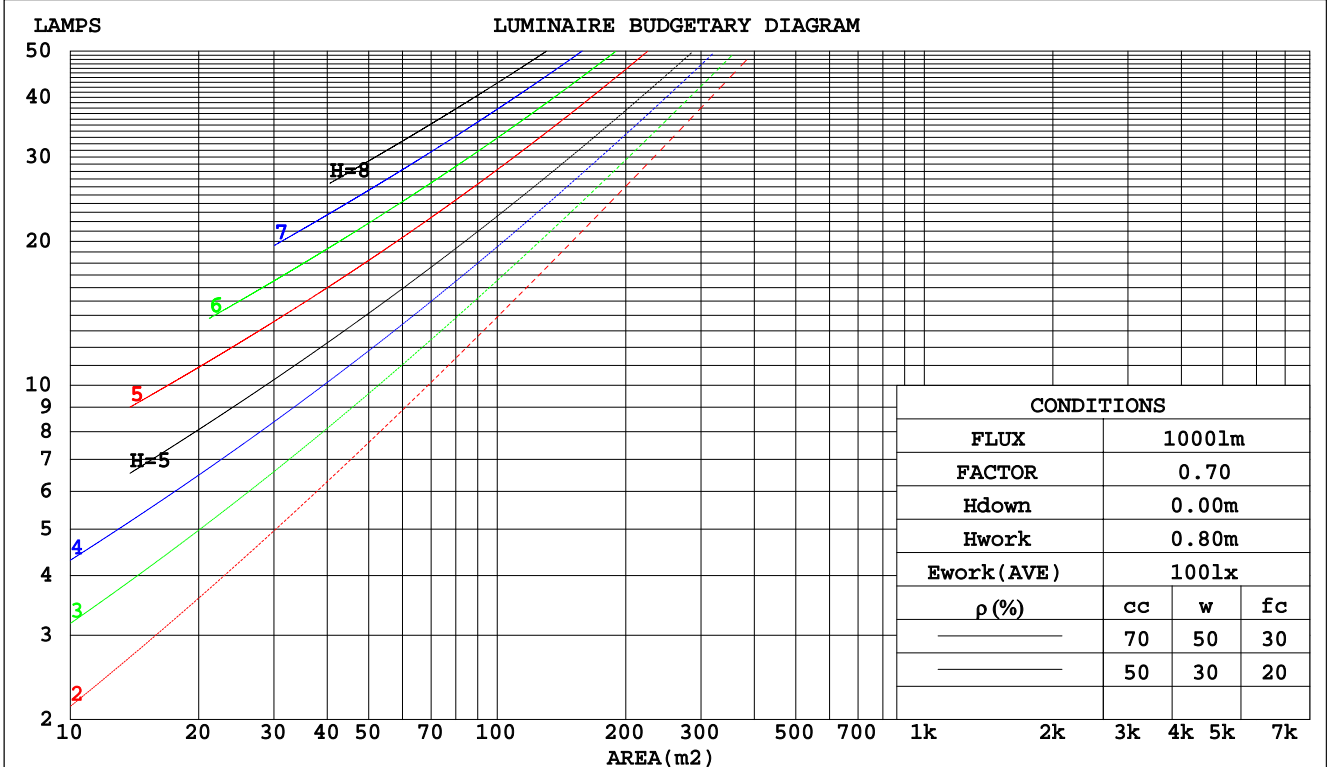
γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity:65.0%
 Test Distance:7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:100.5V I:1.205A P:120.9W PF:0.9990 Lamp Flux:15270.8x1 lm																

pcc	80%			70%			50%			30%			10%			0
	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pw																
pfc																
RCR	RCR:Room Cavity Ratio															
	Coefficients of Utilization(CU)															
0.0	1.19	1.19	1.19	1.16	1.16	1.16	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	1.00
1.0	1.03	.98	.94	1.01	.97	.93	.96	.93	.90	.92	.90	.87	.89	.87	.84	.82
2.0	.88	.81	.74	.86	.79	.73	.82	.77	.72	.79	.74	.70	.76	.72	.68	.66
3.0	.76	.67	.60	.74	.66	.59	.71	.64	.58	.68	.62	.57	.66	.61	.56	.54
4.0	.66	.56	.49	.65	.56	.49	.62	.54	.48	.60	.53	.47	.57	.52	.47	.44
5.0	.58	.48	.41	.57	.48	.41	.55	.47	.40	.53	.46	.40	.51	.45	.40	.37
6.0	.52	.42	.35	.51	.42	.35	.49	.41	.35	.47	.40	.34	.45	.39	.34	.32
7.0	.46	.37	.30	.46	.37	.30	.44	.36	.30	.42	.35	.30	.41	.35	.30	.27
8.0	.42	.33	.27	.41	.33	.27	.40	.32	.26	.39	.31	.26	.37	.31	.26	.24
9.0	.38	.30	.24	.38	.29	.24	.36	.29	.23	.35	.28	.23	.34	.28	.23	.21
10.0	.35	.27	.21	.35	.27	.21	.34	.26	.21	.33	.26	.21	.32	.25	.21	.19



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2016-07-22

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity:65.0%
 Test Distance:7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

WEC AND CCEC

Test:U:100.5V I:1.205A P:120.9W PF:0.9990 Lamp Flux:15270.8x1 lm															

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.327	.186	.059	.320	.183	.058	.307	.176	.056	.295	.170	.055	.283	.164	.053	
2.0	.315	.173	.053	.309	.170	.052	.297	.165	.051	.286	.160	.050	.276	.156	.049	
3.0	.293	.156	.047	.287	.154	.046	.276	.150	.046	.266	.146	.045	.257	.142	.044	
4.0	.269	.140	.041	.264	.138	.041	.255	.135	.040	.246	.132	.040	.238	.129	.039	
5.0	.248	.126	.037	.244	.125	.036	.235	.122	.036	.227	.120	.036	.220	.118	.035	
6.0	.229	.115	.033	.225	.114	.033	.217	.111	.032	.210	.109	.032	.204	.107	.032	
7.0	.212	.105	.030	.208	.104	.030	.202	.102	.029	.195	.100	.029	.190	.098	.029	
8.0	.197	.096	.027	.194	.095	.027	.188	.094	.027	.182	.092	.027	.177	.091	.026	
9.0	.184	.089	.025	.181	.088	.025	.176	.087	.025	.171	.086	.024	.166	.084	.024	
10.0	.172	.083	.023	.170	.082	.023	.165	.081	.023	.160	.080	.023	.156	.078	.023	

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.182	.156	.133	.155	.134	.114	.106	.092	.079	.061	.053	.046	.020	.017	.015	
2.0	.175	.132	.095	.150	.113	.082	.103	.078	.057	.059	.046	.034	.019	.015	.011	
3.0	.169	.114	.071	.145	.099	.062	.099	.069	.043	.057	.040	.025	.018	.013	.008	
4.0	.162	.101	.055	.139	.088	.048	.096	.061	.034	.055	.036	.020	.018	.012	.007	
5.0	.155	.091	.045	.133	.079	.039	.091	.055	.027	.053	.032	.016	.017	.011	.005	
6.0	.147	.083	.037	.127	.072	.032	.087	.050	.023	.051	.030	.014	.016	.010	.004	
7.0	.140	.076	.031	.121	.066	.027	.083	.046	.019	.048	.027	.012	.016	.009	.004	
8.0	.134	.071	.027	.115	.061	.024	.080	.043	.017	.046	.025	.010	.015	.008	.003	
9.0	.127	.066	.024	.110	.057	.021	.076	.040	.015	.044	.024	.009	.014	.008	.003	
10.0	.121	.061	.021	.105	.053	.019	.073	.037	.013	.042	.022	.008	.014	.007	.003	

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2016-07-22

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity:65.0%
 Test Distance:7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

UGR(Unified Glare Rating) Table

Test:U:100.5V I:1.205A P:120.9W PF:0.9990 Lamp Flux:15270.8x1 lm										
ceiling/cavity	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
walls	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions	Viewed crosswise					Viewed endwise				
x = 2H y = 2H	32.0	33.6	32.2	33.8	34.0	27.7	29.3	28.0	29.5	29.8
3H	35.3	36.8	35.6	37.1	37.3	28.2	29.7	28.5	30.0	30.2
4H	35.7	37.1	36.0	37.4	37.6	28.2	29.6	28.5	29.9	30.2
6H	35.6	36.9	35.9	37.2	37.5	28.1	29.5	28.4	29.7	30.0
8H	35.5	36.8	35.9	37.1	37.4	28.0	29.4	28.4	29.7	30.0
12H	35.5	36.7	35.8	37.0	37.3	28.0	29.3	28.4	29.6	29.9
4H 2H	32.8	34.3	33.1	34.5	34.8	30.1	31.5	30.4	31.8	32.1
3H	36.5	37.8	36.9	38.1	38.4	30.7	32.0	31.1	32.3	32.6
4H	37.2	38.3	37.5	38.7	39.0	30.7	31.9	31.1	32.2	32.5
6H	37.1	38.1	37.5	38.5	38.9	30.6	31.7	31.0	32.0	32.4
8H	37.1	38.0	37.5	38.4	38.8	30.6	31.6	31.0	31.9	32.3
12H	37.0	37.9	37.5	38.3	38.7	30.6	31.4	31.0	31.8	32.2
8H 4H	37.3	38.2	37.7	38.6	39.0	32.1	33.0	32.5	33.4	33.8
6H	37.3	38.1	37.8	38.5	39.0	32.0	32.8	32.5	33.2	33.6
8H	37.3	38.0	37.8	38.4	38.9	32.0	32.7	32.5	33.1	33.6
12H	37.3	37.9	37.8	38.3	38.8	32.0	32.6	32.5	33.0	33.5
12H 4H	37.2	38.1	37.7	38.5	38.9	32.1	33.0	32.5	33.4	33.8
6H	37.3	38.0	37.8	38.4	38.9	32.1	32.8	32.5	33.2	33.7
8H	37.3	37.9	37.8	38.3	38.8	32.1	32.7	32.5	33.1	33.6
Variations with the observer position at spacings:										
S = 1.0H	+ 0.1 / - 0.2					+ 0.2 / - 0.3				
1.5H	+ 0.5 / - 1.0					+ 0.3 / - 0.6				
2.0H	+ 1.2 / - 1.1					+ 0.6 / - 0.7				

CIE Pub.117 Corrected 15271 lm Total Lamp Luminous Flux. (8log(F/F0) = 9.5)

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2016-07-22

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity:65.0%
 Test Distance:7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

UTILIZATION FACTORS TABLE

Test:U:100.5V I:1.205A P:120.9W PF:0.9990 Lamp Flux:15270.8x1 lm		

REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	52	39	32	51	39	32	50	39	31	24
0.80	62	49	41	61	49	41	59	48	41	33
1.00	71	58	50	70	58	50	67	60	50	42
1.25	79	67	59	77	66	58	74	65	58	50
1.50	84	73	65	82	72	65	79	70	64	55
2.00	92	82	75	90	81	74	86	79	73	65
2.50	97	88	81	94	87	80	90	84	79	70
3.00	101	93	87	98	91	86	94	88	84	75
4.00	105	99	94	103	97	93	98	94	90	81
5.00	108	103	99	106	101	97	101	97	94	85
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

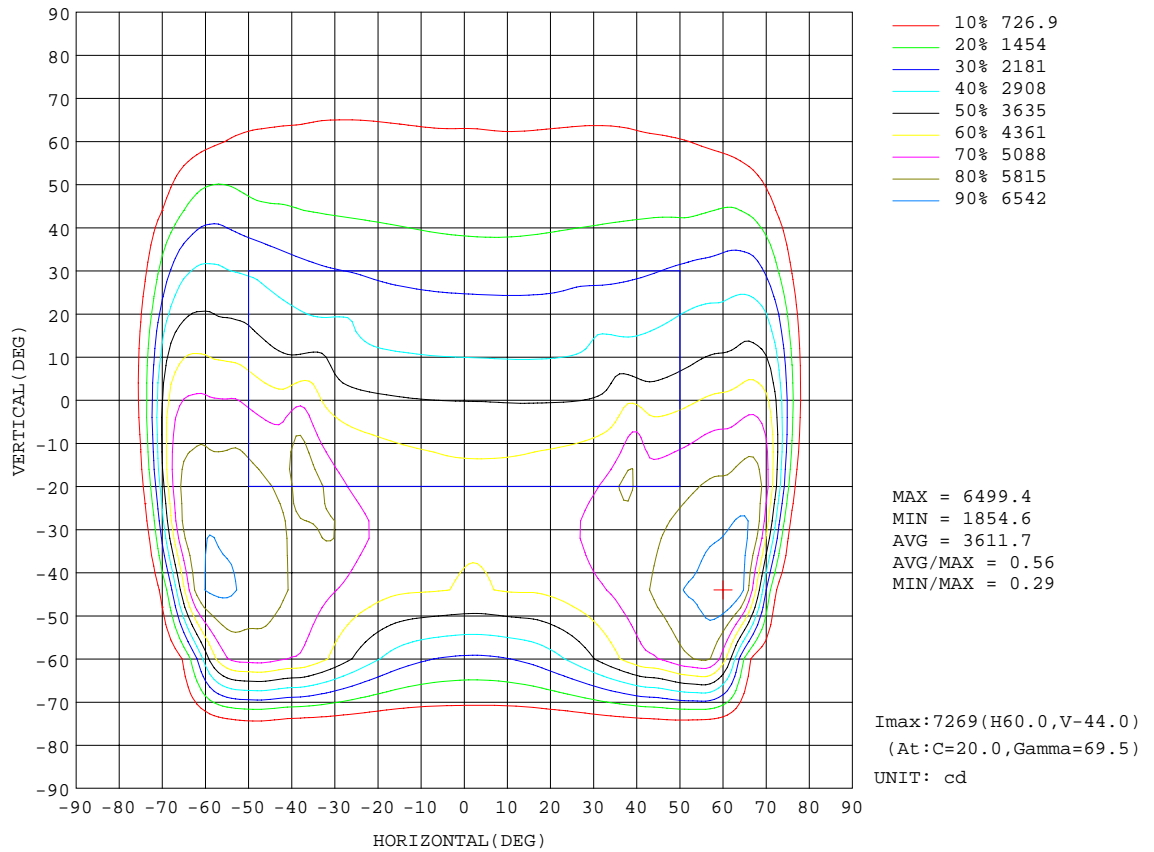
C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2016-07-22

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity:65.0%
 Test Distance:7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ISOCANDELA DIAGRAM

Test:U:100.5V I:1.205A P:120.9W PF:0.9990 Lamp Flux:15270.8x1 lm		



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25DEG
 Operators:
 Test Date: 2016-07-22

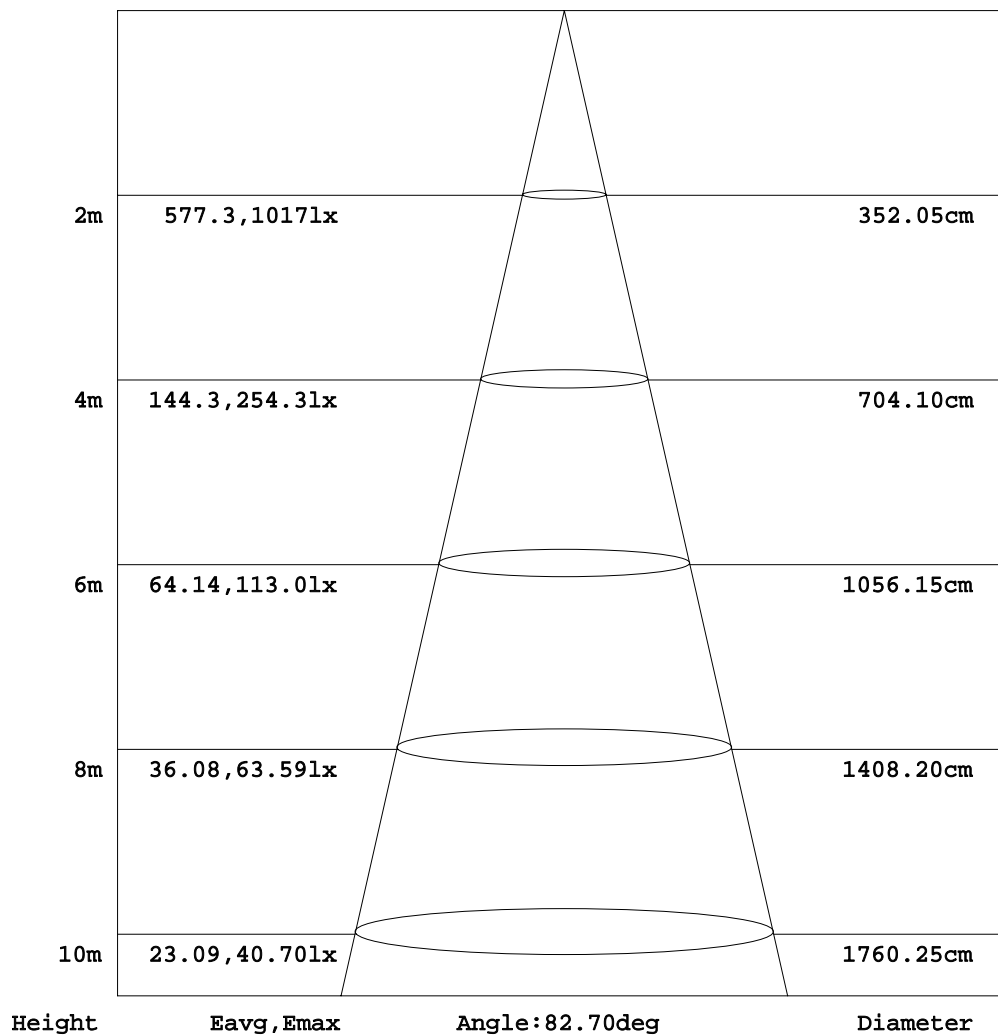
γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity: 65.0%
 Test Distance: 7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

AAI Figure

Test:U:100.5V I:1.205A P:120.9W PF:0.9990 Lamp Flux:15270.8x1 lm		

Flux out:5678 lm



Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

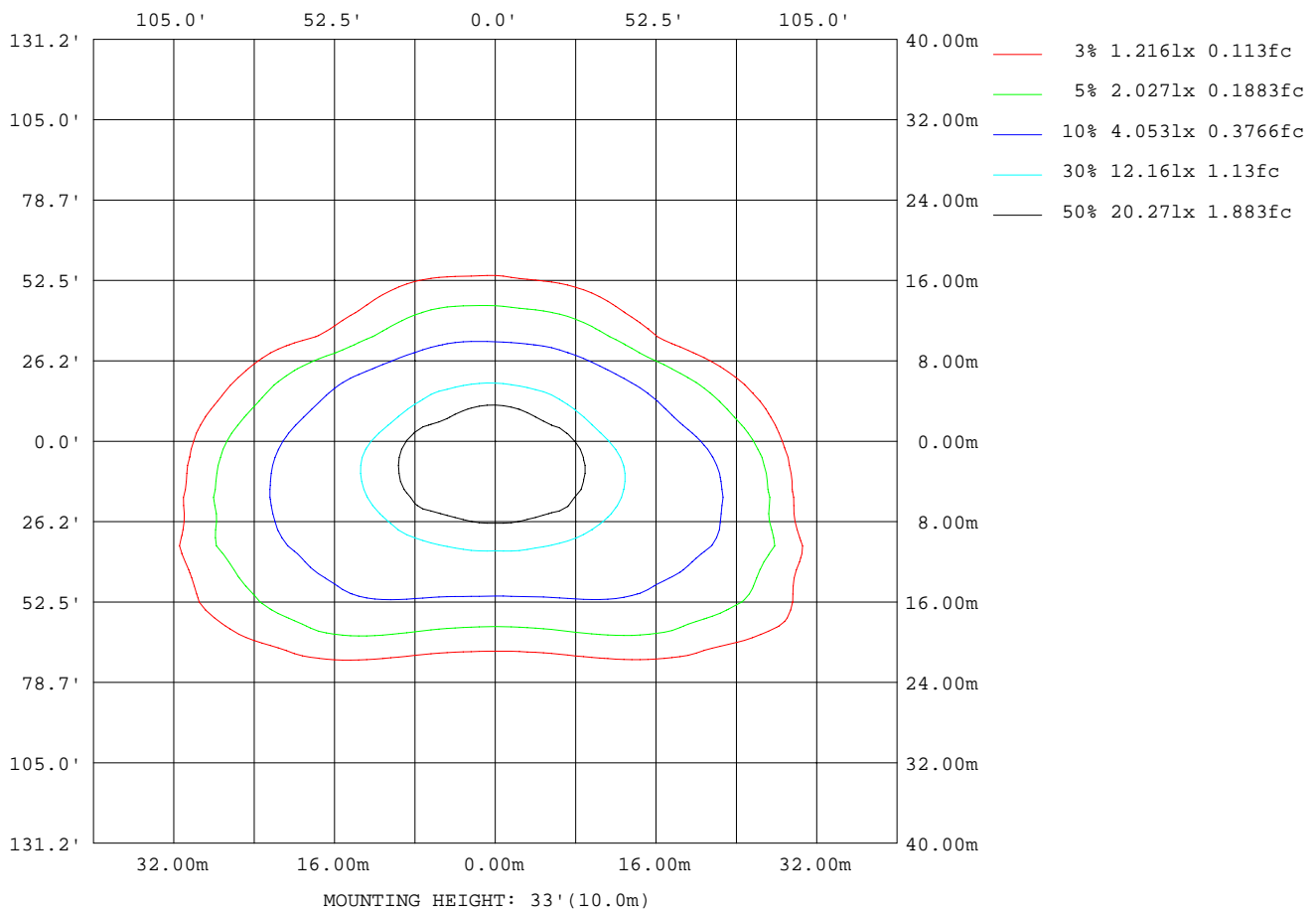
C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25DEG
 Operators:
 Test Date: 2016-07-22

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity: 65.0%
 Test Distance: 7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ISOLUX DIAGRAM

Test:U:100.5V I:1.205A P:120.9W PF:0.9990 Lamp Flux:15270.8x1 lm		



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25DEG
 Operators:
 Test Date: 2016-07-22

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity: 65.0%
 Test Distance: 7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LED Avg.L Report

Test:U:100.5V I:1.205A P:120.9W PF:0.9990 Lamp Flux:15270.8x1 lm		

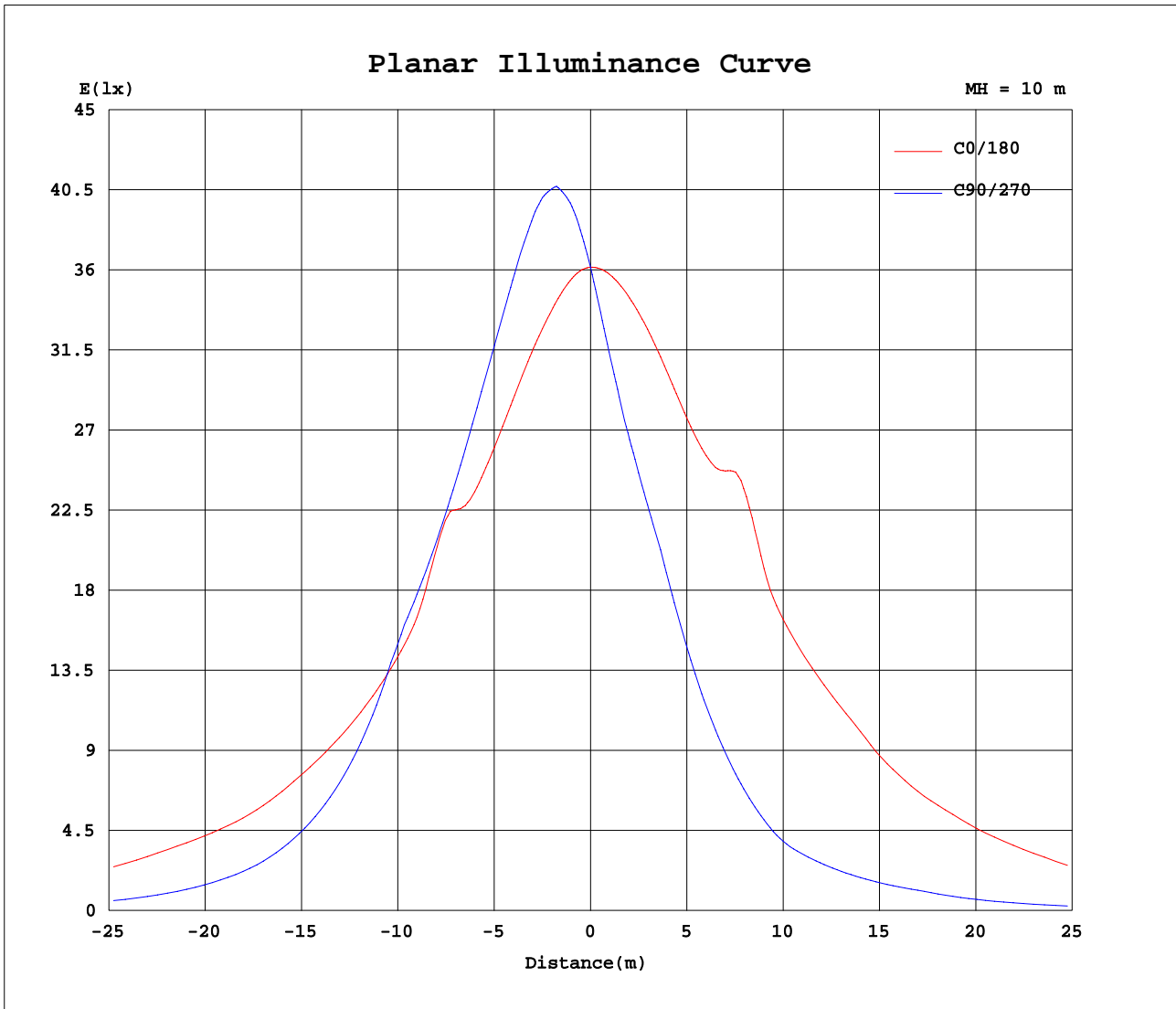
AvgL	cd/m2
L_0~180(65)av	118025
L_0~180(75)av	54348
L_0~180(85)av	5166
L_90~270(65)av	24512
L_90~270(75)av	8653
L_90~270(85)av	7728
L_45(65)av	72556
L_45(75)av	47971
L_45(85)av	10848

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2016-07-22

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity:65.0%
 Test Distance:7.850m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25DEG
 Operators:
 Test Date: 2016-07-22

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity: 65.0%
 Test Distance: 7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:100.5V I:1.205A P:120.9W PF:0.9990 Lamp Flux:15270.8x1 lm																			

Table--1

UNIT: cd

C (DEG) \ γ (DEG)	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90
0	3615	3615	3615	3615	3615	3615	3615	3615	3615	3615	3615	3615	3615	3615	3615	3615	3615	3615	3615
5	3604	3636	3669	3701	3733	3764	3793	3822	3848	3873	3896	3916	3932	3945	3957	3966	3972	3977	3978
10	3585	3652	3720	3786	3850	3911	3963	4013	4056	4093	4127	4157	4183	4206	4225	4240	4251	4258	4261
15	3581	3686	3789	3891	3978	4058	4127	4191	4250	4287	4314	4338	4359	4376	4388	4395	4399	4402	4404
20	3590	3736	3880	4010	4123	4225	4312	4362	4406	4439	4458	4465	4462	4458	4454	4450	4448	4446	4448
25	3616	3808	3992	4150	4291	4399	4479	4535	4567	4588	4597	4569	4532	4501	4477	4458	4445	4436	4435
30	3703	3943	4162	4346	4495	4603	4679	4714	4727	4718	4694	4649	4590	4539	4501	4469	4443	4427	4422
35	4097	4339	4535	4698	4840	4946	5011	5013	4969	4912	4852	4777	4653	4556	4502	4461	4420	4389	4384
40	4170	4679	5192	5596	5850	5929	5568	5447	5439	5235	4965	4790	4647	4531	4478	4446	4398	4353	4345
45	4034	4469	4853	5133	5320	5436	5587	5404	5481	5341	5022	4782	4620	4494	4432	4423	4337	4254	4236
50	4202	4699	5109	5399	5562	5627	5605	5482	5348	5254	5016	4748	4491	4211	3975	3834	3698	3585	3556
55	4423	5014	5469	5765	5936	6001	5924	5763	5540	5246	4854	4437	4026	3652	3333	3117	2953	2835	2805
60	4533	5234	5771	6118	6363	6391	6349	6088	5631	5160	4657	4131	3606	3125	2716	2413	2208	2084	2054
65	4806	5635	6197	6572	6786	6813	6530	6050	5448	5076	4500	3813	3019	2422	1997	1711	1546	1457	1437
70	4256	5117	5771	6220	7099	6659	6304	5871	5120	4123	3253	2498	1906	1477	1186	988	880	831	821
75	1578	1518	1681	2228	3372	4034	4977	3965	2910	2071	1490	1015	678	459	339	282	255	256	259
80	170	126	128	191	196	984	1559	989	483	224	173	155	144	134	135	127	125	134	139
85	47.1	47.2	55.2	57.6	67.2	83.0	94.6	115	141	132	104	92.9	86.2	79.6	78.3	72.8	69.8	73.1	74.2
90	20.5	20.4	18.2	16.3	15.9	17.0	20.4	26.7	31.4	33.6	32.5	30.3	27.8	25.0	21.9	18.7	15.3	12.0	9.30

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2016-07-22

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity:65.0%
 Test Distance:7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:100.5V I:1.205A P:120.9W PF:0.9990 Lamp Flux:15270.8x1 lm																	

Table--2

UNIT: cd

C(DEG) γ (DEG)	95	100	105	110	115	120	125	130	135	140	145	150	155	160	165	170	175	180	185
0	3615	3615	3615	3615	3615	3615	3615	3615	3615	3615	3615	3615	3615	3615	3615	3615	3615	3615	3615
5	3978	3974	3969	3961	3951	3939	3924	3906	3885	3862	3837	3810	3782	3752	3722	3690	3658	3626	3591
10	4260	4255	4247	4235	4220	4202	4180	4155	4125	4093	4056	4010	3961	3905	3843	3779	3714	3647	3577
15	4405	4406	4406	4405	4400	4390	4377	4361	4342	4313	4262	4205	4143	4070	3988	3891	3791	3689	3580
20	4451	4458	4468	4480	4494	4507	4518	4519	4508	4484	4450	4410	4335	4247	4146	4026	3889	3749	3598
25	4442	4460	4486	4517	4553	4591	4626	4649	4654	4651	4632	4595	4537	4450	4328	4185	4013	3830	3634
30	4435	4465	4508	4560	4615	4675	4733	4780	4807	4814	4822	4817	4774	4702	4584	4425	4225	3999	3759
35	4405	4445	4496	4557	4641	4757	4899	5002	5084	5135	5178	5194	5182	5127	5047	4902	4717	4494	4233
40	4375	4419	4464	4515	4599	4730	4918	5157	5450	5681	5750	5851	6204	6185	6131	5871	5435	4908	4349
45	4282	4349	4418	4453	4536	4687	4898	5165	5544	5819	5783	5947	5895	5742	5589	5373	5040	4627	4159
50	3613	3714	3843	4014	4254	4548	4820	5114	5422	5544	5626	5779	5871	5884	5813	5632	5323	4890	4352
55	2863	2982	3155	3399	3739	4139	4559	4957	5310	5589	5830	6043	6190	6231	6162	5961	5609	5134	4509
60	2114	2254	2483	2814	3263	3786	4337	4847	5288	5645	6081	6273	6405	6424	6259	6009	5658	5140	4449
65	1479	1581	1770	2083	2564	3231	4103	4784	5200	5513	5936	6228	6624	6592	6493	6184	5764	5170	4376
70	842	901	1022	1237	1566	2038	2676	3451	4176	5163	5521	5807	6078	6420	5685	5298	4780	4218	3535
75	258	261	288	350	483	712	1070	1551	2112	2904	3680	4329	3732	3084	2052	1522	1256	1235	1279
80	134	127	127	135	136	136	144	156	239	558	971	1410	1092	340	223	130	126	162	219
85	71.9	69.1	70.4	76.0	77.0	78.5	82.9	91.3	139	185	152	103	75.4	66.4	55.0	49.4	43.1	42.9	46.8
90	9.71	11.7	14.1	16.4	18.6	20.4	21.9	23.2	23.8	23.7	22.8	19.1	15.8	14.0	13.2	13.9	15.4	15.5	20.2

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2016-07-22

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350
Humidity:65.0%
Test Distance:7.850m [K=1.0000]
Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:100.5V I:1.205A P:120.9W PF:0.9990 Lamp Flux:15270.8x1 lm																	

Table--4

UNIT: cd

γ (DEG) \ C (DEG)	285	290	295	300	305	310	315	320	325	330	335	340	345	350	355				
0	3615	3615	3615	3615	3615	3615	3615	3615	3615	3615	3615	3615	3615	3615	3615				
5	3231	3240	3251	3265	3281	3301	3324	3349	3376	3405	3435	3467	3500	3534	3569				
10	2900	2915	2934	2959	2987	3019	3056	3096	3141	3193	3248	3310	3376	3445	3514				
15	2662	2677	2697	2722	2752	2786	2826	2874	2940	3010	3086	3170	3262	3367	3474				
20	2457	2474	2497	2526	2563	2606	2657	2716	2781	2852	2948	3054	3169	3300	3444				
25	2186	2216	2258	2312	2375	2443	2505	2575	2653	2743	2843	2960	3098	3252	3431				
30	1904	1941	1994	2060	2138	2230	2342	2486	2606	2705	2835	2960	3105	3275	3480				
35	1645	1688	1746	1817	1902	2012	2156	2327	2476	2633	2835	3042	3302	3558	3847				
40	1393	1445	1513	1595	1689	1797	1919	2074	2240	2418	2614	2819	3052	3330	3687				
45	1143	1204	1281	1370	1472	1588	1718	1868	2040	2250	2486	2744	3007	3274	3622				
50	1027	1065	1113	1169	1250	1364	1500	1659	1847	2075	2354	2674	3001	3319	3714				
55	943	980	1027	1079	1134	1194	1276	1418	1615	1865	2188	2559	2988	3370	3825				
60	857	893	937	984	1030	1076	1127	1202	1324	1551	1903	2335	2804	3263	3804				
65	642	689	752	827	902	930	944	1002	1082	1205	1547	2020	2597	3195	3865				
70	398	431	480	541	599	648	688	763	822	940	1177	1551	2065	2643	3326				
75	161	169	201	247	287	327	367	432	500	558	660	860	1022	1230	1435				
80	89.4	88.2	95.8	104	101	98.1	84.0	110	159	218	252	227	275	252	233				
85	48.6	49.0	54.1	58.6	58.4	57.2	51.4	51.2	50.8	47.4	45.5	45.4	62.0	45.6	46.9				
90	8.00	9.74	11.6	13.7	15.7	17.6	19.1	19.6	20.6	21.4	22.0	22.1	21.8	20.9	19.7				

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature: 25DEG
Operators:
Test Date: 2016-07-22

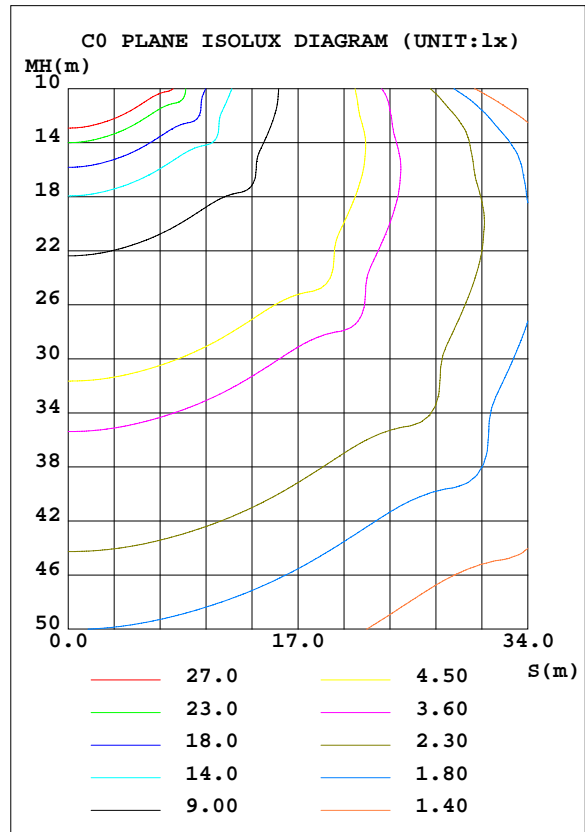
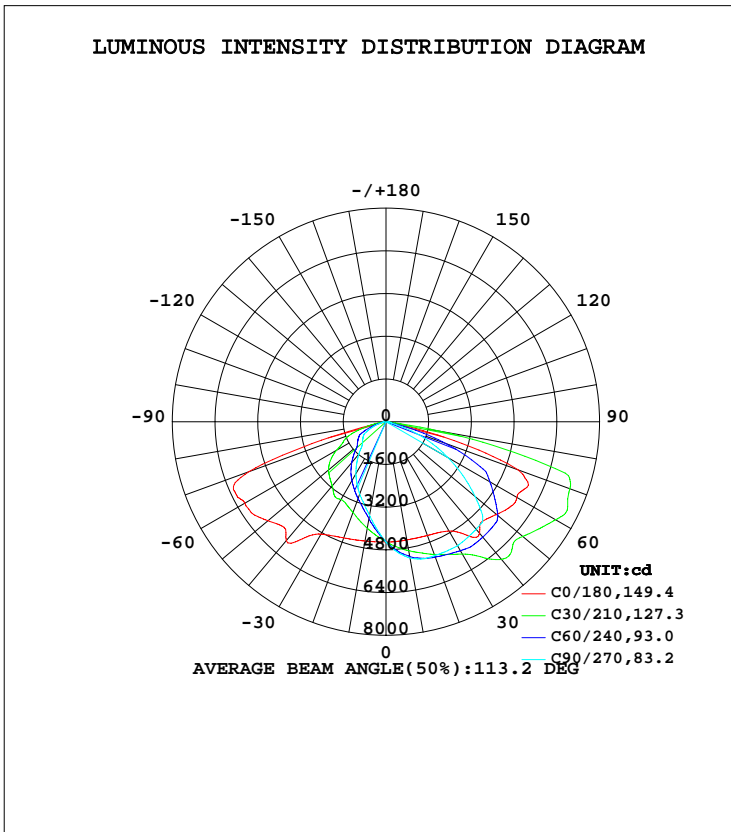
γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.350
Humidity: 65.0%
Test Distance: 7.850m [K=1.0000]
Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:101.3V I:1.497A P:150.9W PF:0.9951 Lamp Flux:18358.6x1 lm		

DATA OF LAMP		PHOTOMETRIC DATA Eff: 121.66 lm/W			
MODEL		I _{max} (cd)	8070	S/MH(C0/180)	1.83
NOMINAL POWER(W)	150	LOR(%)	100.0	S/MH(C90/270)	0.79
RATED VOLTAGE(V)	100	TOTAL FLUX(lm)	18359	η UP, DN(C0-180)	0.0,68.8
NOMINAL FLUX(lm)	18358.6	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.0,31.2
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	1.50
TEST VOLTAGE(V)	100	η down(%)	100.0	CIBSE SHR MAX	1.55



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2016-07-22

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity:65.0%
 Test Distance:7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
5	4503	4793	4897	4795	4513	4173	4027	4162	0- 5	107.4	107.4	0.58,0.58
10	4495	5033	5189	5043	4536	3848	3555	3813	5- 10	319.0	426.4	2.32,2.32
15	4504	5240	5316	5256	4574	3535	3188	3486	10- 15	523.2	949.5	5.17,5.17
20	4534	5398	5336	5409	4631	3280	2887	3226	15- 20	718.4	1668	9.09,9.09
25	4591	5558	5350	5555	4718	3066	2571	3012	20- 25	904.8	2573	14,14
30	4728	5718	5364	5710	4861	2880	2256	2810	25- 30	1085	3658	19.9,19.9
35	5150	5971	5309	5961	5302	2710	1920	2599	30- 35	1272	4930	26.9,26.9
40	5457	6288	5253	6261	5815	2467	1584	2332	35- 40	1470	6400	34.9,34.9
45	5215	6370	5120	6341	5519	2188	1272	2064	40- 45	1604	8004	43.6,43.6
50	5402	6320	4357	6304	5770	1875	1152	1772	45- 50	1680	9684	52.7,52.7
55	5621	6333	3517	6256	6057	1552	1055	1471	50- 55	1748	11432	62.3,62.3
60	5665	6158	2676	6052	6099	1378	959.0	1302	55- 60	1785	13216	72,72
65	5824	5973	1863	5840	6237	1161	704.0	1094	60- 65	1764	14980	81.6,81.6
70	5267	4892	1049	4668	5456	859.7	448.9	803.4	65- 70	1642	16621	90.5,90.5
75	2322	2563	310.0	2374	1717	464.9	213.1	433.6	70- 75	1172	17793	96.9,96.9
80	373.0	458.1	161.4	343.1	162.9	107.6	131.4	100.9	75- 80	437.7	18231	99.3,99.3
85	58.36	265.5	86.72	198.9	51.14	64.15	68.99	61.16	80- 85	97.07	18328	99.8,99.8
90	24.65	42.16	12.03	26.61	19.35	21.42	6.544	22.40	85- 90	30.50	18359	100,100
95									90- 95			
100									95-100			
105									100-105			
110									105-110			
115									110-115			
120									115-120			
125									120-125			
130									125-130			
135									130-135			
140									135-140			
145									140-145			
150									145-150			
155									150-155			
160									155-160			
165									160-165			
170									165-170			
175									170-175			
180									175-180			
DEG	LUMINOUS INTENSITY:cd								UNIT:lm			

Conical surface Flux(90deg): 8004.2 lm

%lum = 43.6%
%lamp = 43.6%

Conical surface Flux(120deg): 13216 lm

%lum = 72.0%
%lamp = 72.0%

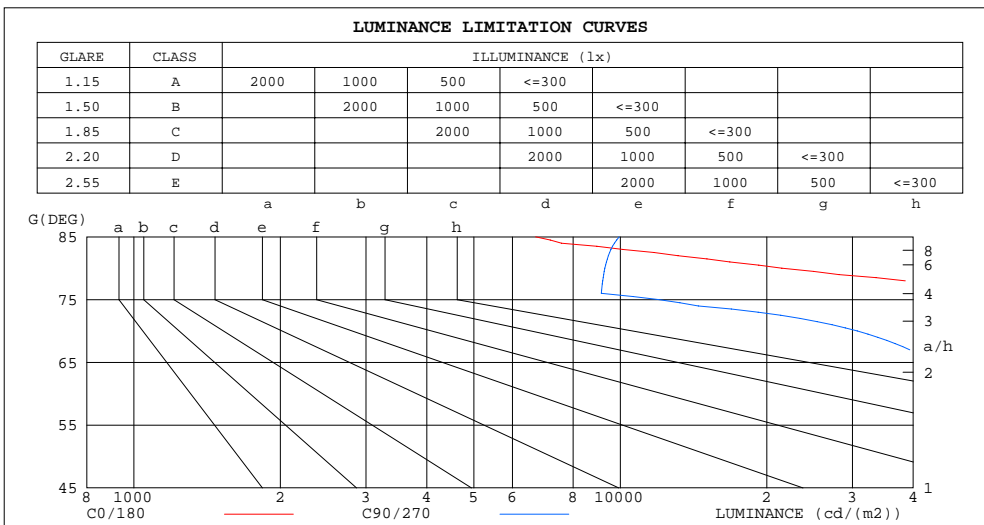
C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2016-07-22

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350
Humidity:65.0%
Test Distance:7.850m [K=1.0000]
Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINANCE LIMITATION CURVES

Test:U:101.3V I:1.497A P:150.9W PF:0.9951 Lamp Flux:18358.6x1 lm		



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	6696	9950
80	21479	9295
75	89720	11976
70	153997	30684
65	137809	44078
60	113294	53524
55	97998	61314
50	84033	67790
45	73750	72401

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25DEG
 Operators:
 Test Date: 2016-07-22

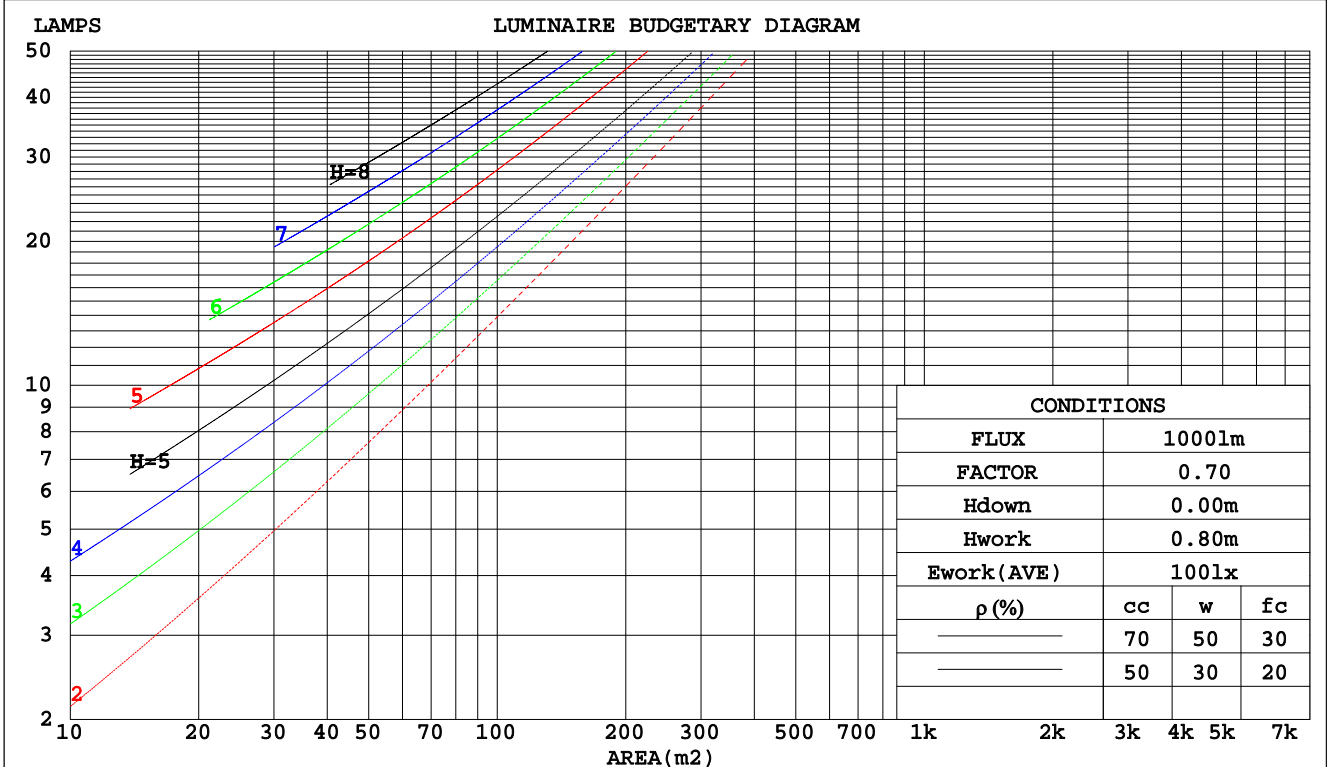
γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity: 65.0%
 Test Distance: 7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:101.3V I:1.497A P:150.9W PF:0.9951 Lamp Flux:18358.6x1 lm																

pcc	80%			70%			50%			30%			10%			0
	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pw																
pfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio															
	Coefficients of Utilization(CU)															
0.0	1.19	1.19	1.19	1.16	1.16	1.16	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	.00
1.0	1.03	.98	.94	1.01	.96	.93	.96	.93	.90	.92	.90	.87	.89	.86	.84	.82
2.0	.88	.81	.74	.86	.79	.73	.82	.77	.72	.79	.74	.70	.76	.72	.68	.66
3.0	.76	.67	.60	.74	.66	.59	.71	.64	.58	.68	.62	.57	.66	.61	.56	.54
4.0	.66	.57	.49	.65	.56	.49	.62	.54	.48	.60	.53	.47	.57	.52	.47	.44
5.0	.58	.49	.41	.57	.48	.41	.55	.47	.41	.53	.46	.40	.51	.45	.40	.37
6.0	.52	.42	.35	.51	.42	.35	.49	.41	.35	.47	.40	.34	.46	.39	.34	.32
7.0	.47	.37	.31	.46	.37	.30	.44	.36	.30	.43	.35	.30	.41	.35	.30	.28
8.0	.42	.33	.27	.41	.33	.27	.40	.32	.27	.39	.32	.26	.37	.31	.26	.24
9.0	.38	.30	.24	.38	.29	.24	.37	.29	.24	.35	.28	.23	.34	.28	.23	.21
10.0	.35	.27	.21	.35	.27	.21	.34	.26	.21	.33	.26	.21	.32	.25	.21	.19



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2016-07-22

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity:65.0%
 Test Distance:7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

WEC AND CCEC

Test:U:101.3V I:1.497A P:150.9W PF:0.9951 Lamp Flux:18358.6x1 lm															

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.328	.187	.059	.321	.183	.058	.308	.177	.056	.296	.171	.055	.284	.165	.053	
2.0	.315	.173	.053	.309	.170	.052	.297	.165	.051	.286	.161	.050	.276	.156	.049	
3.0	.293	.156	.047	.287	.154	.046	.276	.150	.046	.266	.146	.045	.257	.142	.044	
4.0	.269	.140	.041	.264	.138	.041	.255	.135	.040	.246	.132	.040	.238	.129	.039	
5.0	.248	.126	.037	.243	.125	.036	.235	.122	.036	.227	.120	.036	.220	.117	.035	
6.0	.229	.115	.033	.225	.113	.033	.217	.111	.032	.210	.109	.032	.204	.107	.032	
7.0	.212	.105	.030	.208	.104	.030	.201	.102	.029	.195	.100	.029	.189	.098	.029	
8.0	.197	.096	.027	.194	.095	.027	.188	.094	.027	.182	.092	.027	.177	.091	.026	
9.0	.184	.089	.025	.181	.088	.025	.175	.087	.025	.170	.085	.024	.166	.084	.024	
10.0	.172	.082	.023	.169	.082	.023	.165	.081	.023	.160	.079	.023	.156	.078	.022	

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.182	.156	.133	.155	.134	.114	.106	.092	.079	.061	.053	.046	.020	.017	.015	
2.0	.175	.132	.095	.150	.113	.082	.103	.078	.057	.059	.046	.034	.019	.015	.011	
3.0	.169	.114	.071	.145	.099	.062	.099	.069	.043	.057	.040	.025	.018	.013	.008	
4.0	.162	.101	.055	.139	.088	.048	.095	.061	.034	.055	.036	.020	.018	.012	.007	
5.0	.155	.091	.045	.133	.079	.039	.091	.055	.027	.053	.032	.016	.017	.011	.005	
6.0	.147	.083	.037	.127	.072	.032	.087	.050	.023	.051	.030	.014	.016	.010	.004	
7.0	.140	.076	.031	.121	.066	.027	.083	.046	.019	.048	.027	.012	.016	.009	.004	
8.0	.134	.071	.027	.115	.061	.024	.080	.043	.017	.046	.025	.010	.015	.008	.003	
9.0	.127	.066	.024	.110	.057	.021	.076	.040	.015	.044	.024	.009	.014	.008	.003	
10.0	.121	.061	.022	.104	.053	.019	.072	.037	.013	.042	.022	.008	.014	.007	.003	

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2016-07-22

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity:65.0%
 Test Distance:7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

UGR(Unified Glare Rating) Table

Test:U:101.3V I:1.497A P:150.9W PF:0.9951 Lamp Flux:18358.6x1 lm										
ceiling/cavity	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
walls	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions	Viewed crosswise					Viewed endwise				
x = 2H y = 2H	32.5	34.2	32.8	34.4	34.6	28.6	30.2	28.9	30.4	30.7
3H	35.8	37.3	36.1	37.6	37.8	29.2	30.7	29.5	30.9	31.2
4H	36.3	37.8	36.7	38.1	38.3	29.1	30.6	29.5	30.8	31.1
6H	36.3	37.6	36.6	37.9	38.2	29.0	30.4	29.4	30.7	31.0
8H	36.2	37.5	36.6	37.8	38.1	29.0	30.3	29.3	30.6	30.9
12H	36.2	37.4	36.5	37.7	38.1	29.0	30.2	29.3	30.5	30.8
4H 2H	33.4	34.8	33.7	35.1	35.3	30.8	32.3	31.1	32.5	32.8
3H	37.0	38.3	37.4	38.6	38.9	31.5	32.8	31.9	33.1	33.4
4H	37.9	39.1	38.3	39.4	39.7	31.5	32.6	31.9	33.0	33.3
6H	37.9	38.9	38.3	39.3	39.7	31.4	32.4	31.8	32.8	33.2
8H	37.9	38.8	38.3	39.2	39.6	31.4	32.3	31.8	32.7	33.1
12H	37.8	38.7	38.3	39.1	39.5	31.3	32.2	31.8	32.6	33.0
8H 4H	38.0	39.0	38.4	39.4	39.8	32.9	33.8	33.3	34.2	34.6
6H	38.2	39.0	38.6	39.4	39.8	32.8	33.6	33.2	34.0	34.4
8H	38.2	38.9	38.6	39.3	39.7	32.8	33.5	33.2	33.9	34.3
12H	38.1	38.7	38.6	39.2	39.7	32.7	33.3	33.2	33.8	34.3
12H 4H	38.0	38.9	38.4	39.3	39.7	32.9	33.8	33.4	34.2	34.6
6H	38.2	38.9	38.6	39.3	39.7	32.9	33.6	33.4	34.0	34.5
8H	38.1	38.7	38.6	39.2	39.7	32.9	33.5	33.4	33.9	34.4
Variations with the observer position at spacings:										
S = 1.0H	+ 0.1 / - 0.2					+ 0.2 / - 0.2				
1.5H	+ 0.4 / - 0.7					+ 0.3 / - 0.5				
2.0H	+ 0.9 / - 0.9					+ 0.8 / - 1.0				

CIE Pub.117 Corrected 18359 lm Total Lamp Luminous Flux. (8log(F/F0) = 10.1)

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2016-07-22

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity:65.0%
 Test Distance:7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

UTILIZATION FACTORS TABLE

Test:U:101.3V I:1.497A P:150.9W PF:0.9951 Lamp Flux:18358.6x1 lm										

REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	52	39	32	51	39	32	50	39	32	25
0.80	62	49	41	61	49	41	59	48	41	33
1.00	71	59	50	70	58	50	67	60	50	42
1.25	79	67	59	77	66	58	74	65	58	50
1.50	84	73	65	82	72	65	79	70	64	55
2.00	92	82	75	90	81	74	86	79	73	65
2.50	97	88	81	94	87	80	90	84	79	70
3.00	100	93	87	98	91	86	94	88	84	75
4.00	105	99	94	103	97	93	98	94	90	81
5.00	108	103	99	106	101	97	101	97	94	85
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

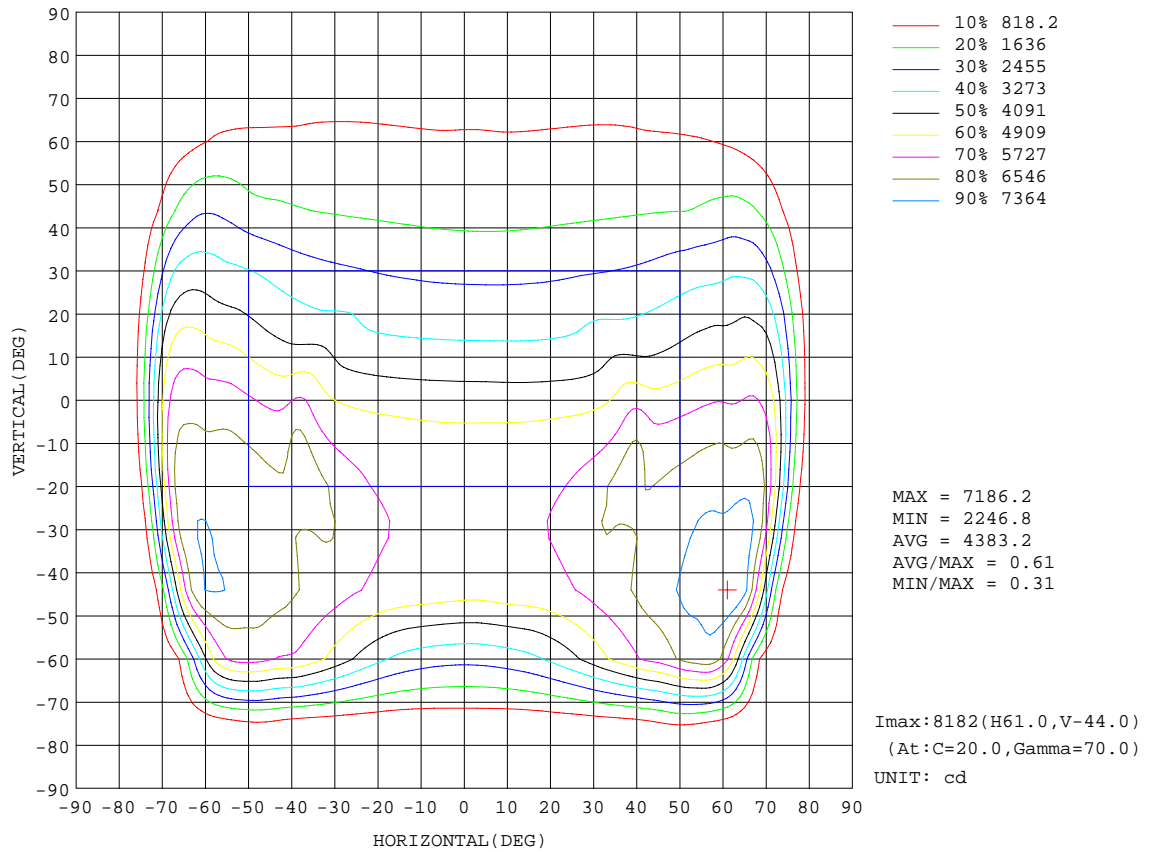
C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2016-07-22

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity:65.0%
 Test Distance:7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ISOCANDELA DIAGRAM

Test:U:101.3V I:1.497A P:150.9W PF:0.9951 Lamp Flux:18358.6x1 lm		



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2016-07-22

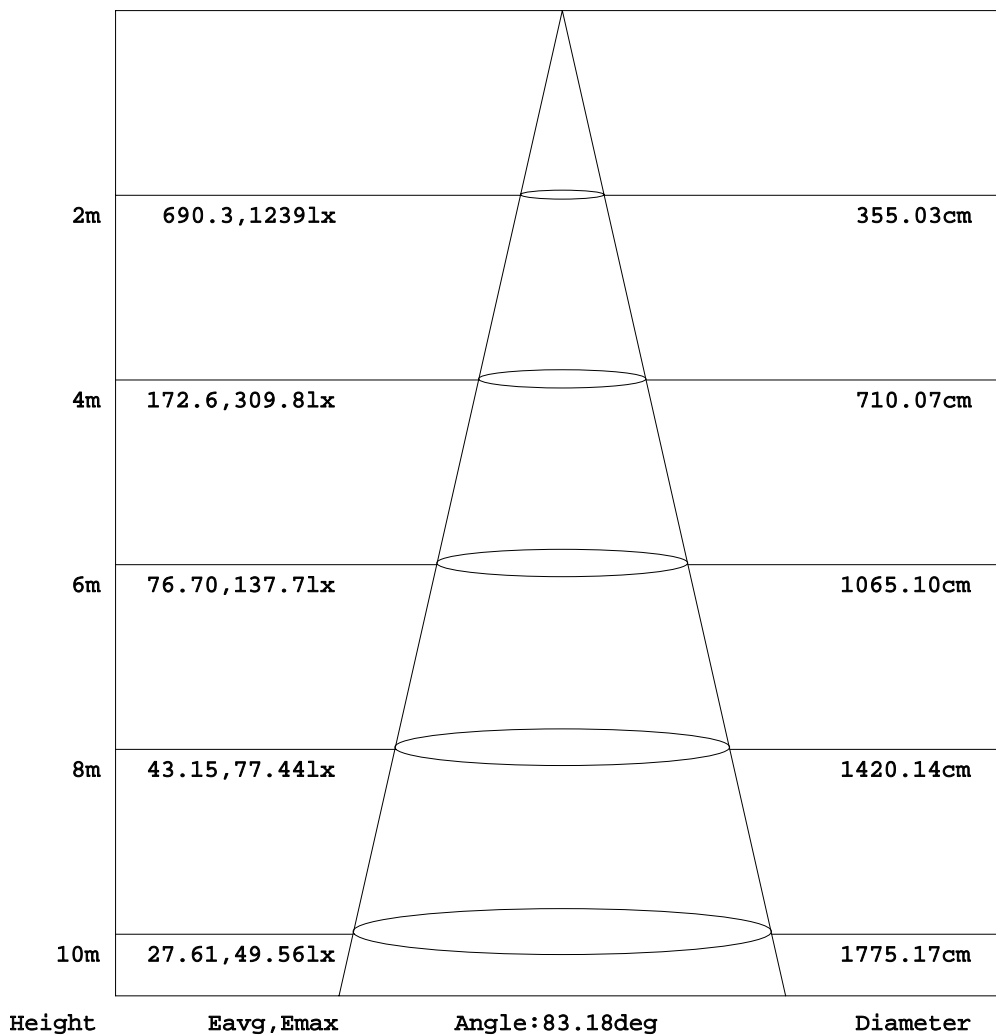
γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity:65.0%
 Test Distance:7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

AAI Figure

Test:U:101.3V I:1.497A P:150.9W PF:0.9951 Lamp Flux:18358.6x1 lm		

Flux out:7033 lm



Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

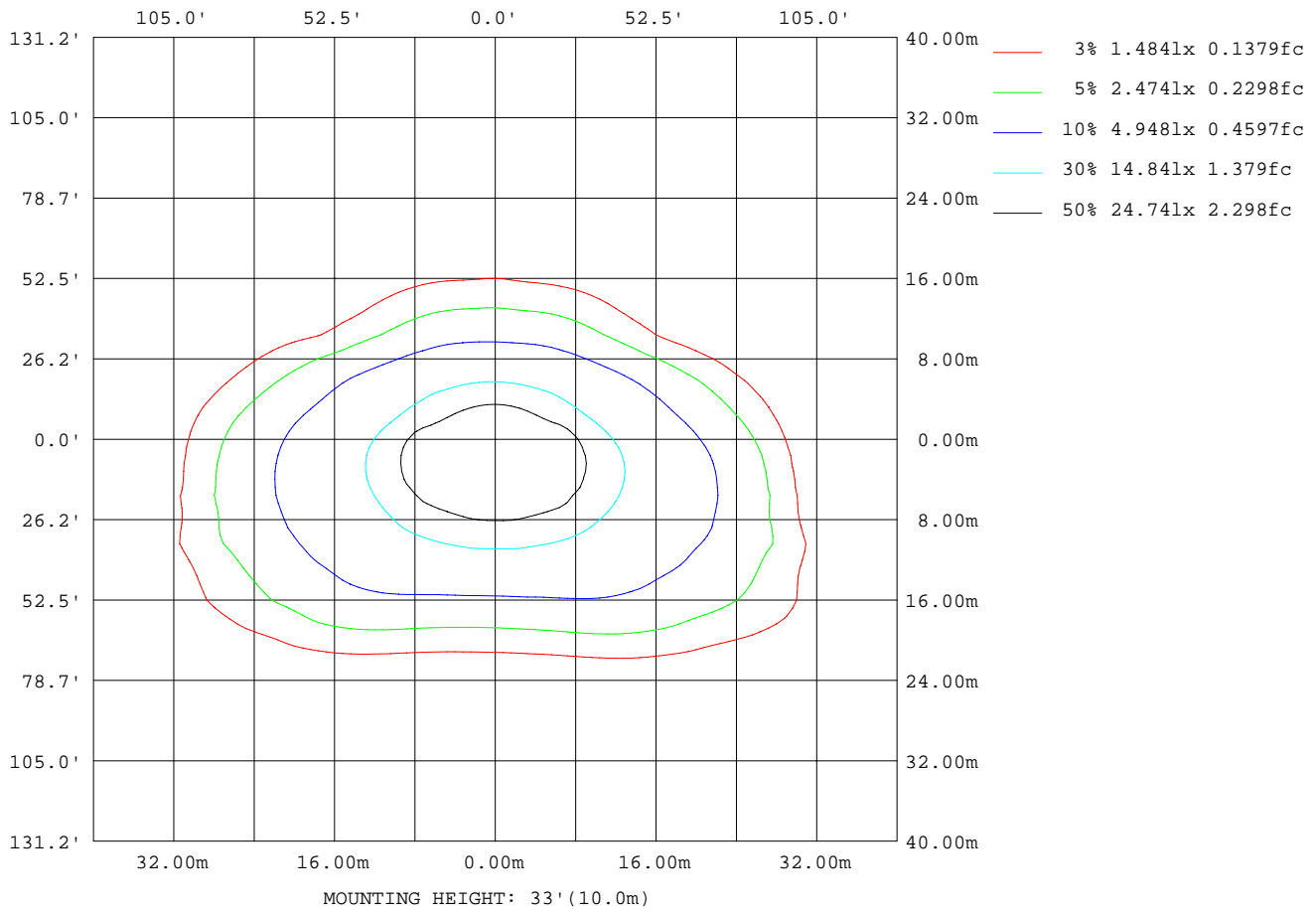
C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25DEG
 Operators:
 Test Date: 2016-07-22

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity: 65.0%
 Test Distance: 7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ISOLUX DIAGRAM

Test:U:101.3V I:1.497A P:150.9W PF:0.9951 Lamp Flux:18358.6x1 lm		



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2016-07-22

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity:65.0%
 Test Distance:7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LED Avg.L Report

Test:U:101.3V I:1.497A P:150.9W PF:0.9951 Lamp Flux:18358.6x1 lm		

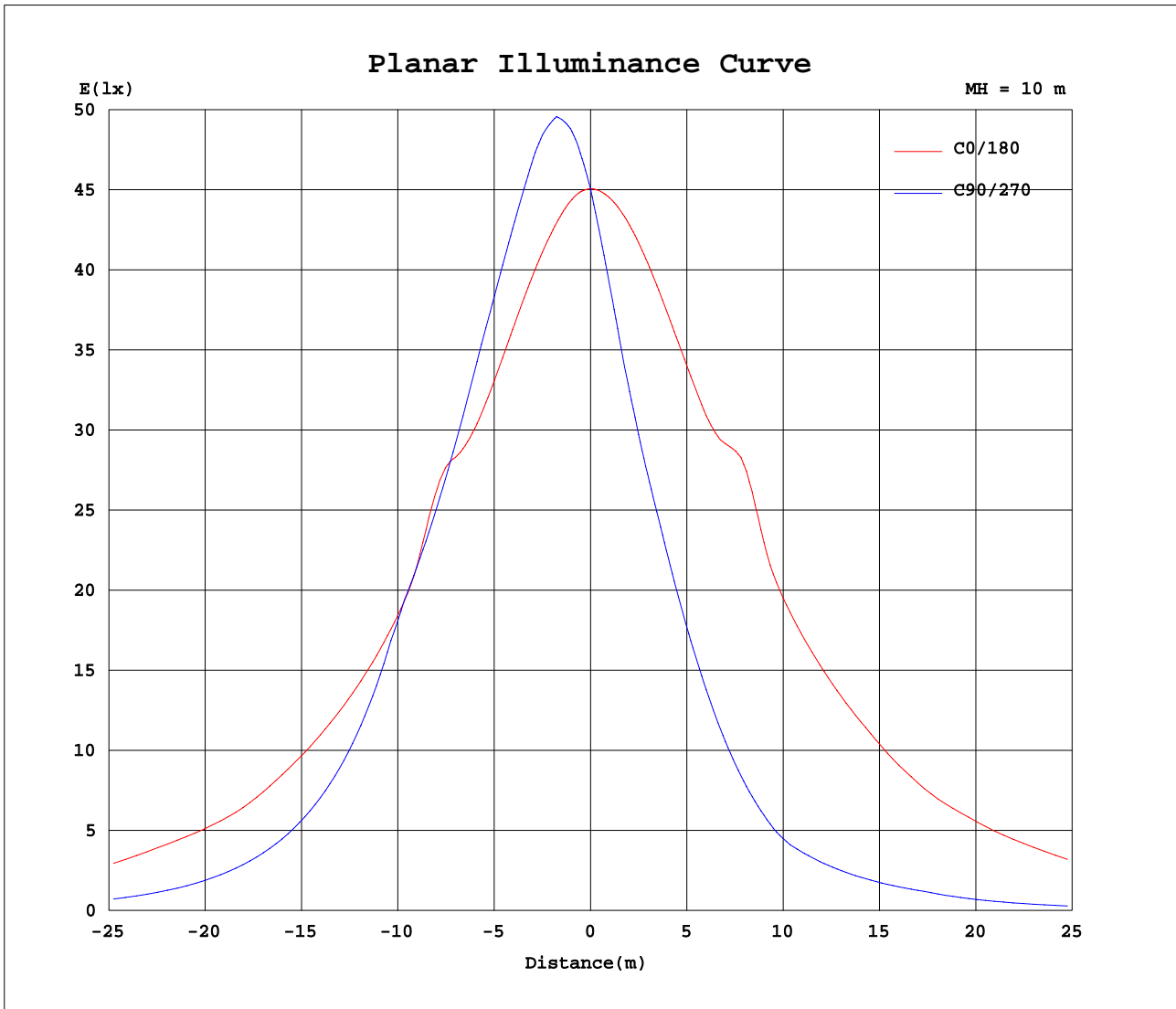
AvgL	cd/m2
L_0~180(65)av	142699
L_0~180(75)av	78024
L_0~180(85)av	6282
L_90~270(65)av	30368
L_90~270(75)av	10106
L_90~270(85)av	8933
L_45(65)av	83223
L_45(75)av	56365
L_45(85)av	16914

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2016-07-22

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity:65.0%
 Test Distance:7.850m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25DEG
 Operators:
 Test Date: 2016-07-22

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity: 65.0%
 Test Distance: 7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:101.3V I:1.497A P:150.9W PF:0.9951 Lamp Flux:18358.6x1 lm																			

Table--1

UNIT: cd

C (DEG) γ (DEG)	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90
0	4506	4506	4506	4506	4506	4506	4506	4506	4506	4506	4506	4506	4506	4506	4506	4506	4506	4506	4506
5	4503	4539	4574	4609	4643	4677	4708	4739	4767	4793	4817	4837	4853	4866	4877	4886	4892	4896	4897
10	4495	4569	4642	4714	4784	4848	4903	4955	4997	5033	5066	5095	5121	5142	5159	5172	5182	5188	5189
15	4504	4620	4733	4843	4935	5017	5086	5150	5208	5240	5262	5280	5295	5307	5315	5317	5317	5316	5316
20	4534	4695	4853	4991	5106	5207	5291	5335	5372	5398	5409	5406	5394	5381	5368	5355	5346	5339	5336
25	4591	4803	5002	5167	5308	5412	5484	5527	5547	5558	5558	5523	5479	5442	5413	5389	5370	5357	5350
30	4728	4996	5233	5420	5567	5662	5724	5744	5738	5718	5686	5638	5576	5516	5468	5429	5398	5376	5364
35	5150	5451	5692	5873	6023	6117	6173	6117	6037	5971	5891	5798	5657	5545	5470	5413	5361	5322	5309
40	5457	6004	6502	6840	7030	7082	6727	6548	6474	6288	6031	5818	5641	5504	5430	5380	5321	5269	5253
45	5215	5687	6078	6337	6500	6599	6692	6446	6509	6370	6069	5816	5612	5452	5365	5338	5239	5147	5120
50	5402	5936	6346	6615	6741	6755	6687	6553	6420	6320	6070	5778	5474	5143	4867	4693	4534	4402	4357
55	5621	6234	6700	6988	7107	7112	6994	6829	6624	6333	5901	5431	4966	4537	4170	3913	3718	3571	3517
60	5665	6415	7002	7314	7521	7453	7342	7095	6660	6158	5627	5067	4495	3963	3500	3148	2904	2739	2676
65	5824	6644	7222	7602	7767	7698	7505	7026	6431	5973	5374	4664	3780	3098	2593	2247	2034	1908	1863
70	5267	6120	6843	7361	8070	7704	7329	6935	6087	4892	3863	3037	2376	1881	1531	1290	1147	1074	1049
75	2322	2386	2652	3617	4658	5680	6189	4848	3606	2563	1793	1241	848	581	429	356	315	309	310
80	373	257	212	376	591	1867	2087	1399	891	458	263	207	184	169	167	156	149	157	161
85	58.4	59.6	68.7	71.2	84.0	99.7	145	264	345	265	158	123	110	100	97.3	89.8	84.6	86.2	86.7
90	24.7	24.9	22.2	20.1	19.9	22.0	27.5	34.6	40.6	42.2	40.5	37.8	34.6	31.1	27.6	23.7	19.7	15.6	12.0

C Range: 0 - 360DEG	γ Range: 0 - 90DEG
C Interval: 5.0DEG	γ Interval: 0.5DEG
Test Speed: HIGH	Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350
Temperature:25DEG	Humidity:65.0%
Operators:	Test Distance:7.850m [K=1.0000]
Test Date:2016-07-22	Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:101.3V I:1.497A P:150.9W PF:0.9951 Lamp Flux:18358.6x1 lm																	

Table--2

UNIT: cd

C(DEG)	95	100	105	110	115	120	125	130	135	140	145	150	155	160	165	170	175	180	185
0	4506	4506	4506	4506	4506	4506	4506	4506	4506	4506	4506	4506	4506	4506	4506	4506	4506	4506	4506
5	4896	4892	4886	4877	4866	4853	4837	4818	4795	4769	4742	4713	4682	4650	4617	4583	4548	4513	4472
10	5187	5180	5171	5158	5142	5122	5099	5073	5043	5010	4972	4924	4873	4813	4746	4678	4607	4536	4452
15	5316	5314	5314	5314	5309	5299	5287	5273	5256	5229	5178	5120	5058	4982	4896	4791	4684	4574	4445
20	5338	5343	5353	5366	5382	5398	5412	5417	5409	5389	5361	5327	5254	5163	5059	4932	4783	4631	4451
25	5353	5366	5387	5414	5447	5483	5521	5547	5555	5555	5542	5510	5459	5374	5249	5100	4915	4718	4483
30	5370	5394	5430	5475	5525	5582	5636	5680	5710	5729	5742	5736	5692	5621	5498	5330	5110	4861	4570
35	5326	5364	5415	5477	5558	5665	5794	5886	5961	6016	6072	6128	6092	6015	5917	5756	5548	5302	4982
40	5282	5328	5381	5436	5519	5642	5816	6023	6261	6435	6552	6716	7006	6999	6940	6723	6330	5815	5226
45	5167	5246	5336	5378	5462	5611	5813	6049	6341	6556	6563	6720	6733	6613	6469	6261	5934	5519	5012
50	4410	4522	4671	4861	5128	5466	5768	6043	6304	6431	6497	6615	6711	6750	6692	6513	6205	5770	5202
55	3563	3683	3864	4118	4473	4910	5382	5844	6256	6518	6706	6864	7011	7066	7038	6853	6530	6057	5424
60	2716	2845	3068	3396	3848	4393	4981	5544	6052	6492	6889	7104	7187	7325	7175	6955	6614	6099	5405
65	1891	1990	2180	2495	2984	3664	4553	5279	5840	6149	6650	6959	7290	7343	7412	7195	6802	6237	5469
70	1064	1123	1249	1470	1812	2301	2961	3779	4668	5619	6194	6468	6794	7310	6801	6508	6012	5456	4745
75	306	310	341	408	559	808	1192	1722	2374	3250	4170	4978	4519	3978	3007	2238	1788	1717	1780
80	155	146	146	155	159	161	174	204	343	715	1133	1675	1488	528	344	157	143	163	231
85	83.6	80.2	81.6	87.8	90.3	92.7	100	119	199	256	190	131	102	83.4	69.9	61.2	51.7	51.1	55.2
90	12.4	14.7	17.4	20.1	22.2	23.7	24.7	25.8	26.6	26.9	26.4	23.3	21.4	19.0	17.6	18.0	19.3	19.4	25.2

C Range: 0 - 360DEG	γ Range: 0 - 90DEG
C Interval: 5.0DEG	γ Interval: 0.5DEG
Test Speed: HIGH	Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350
Temperature:25DEG	Humidity:65.0%
Operators:	Test Distance:7.850m [K=1.0000]
Test Date:2016-07-22	Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:101.3V I:1.497A P:150.9W PF:0.9951 Lamp Flux:18358.6x1 lm

Table--3

UNIT: cd

γ (DEG)	C (DEG)	190	195	200	205	210	215	220	225	230	235	240	245	250	255	260	265	270	275	280
	0	4506	4506	4506	4506	4506	4506	4506	4506	4506	4506	4506	4506	4506	4506	4506	4506	4506	4506	4506
5	4431	4390	4350	4311	4274	4238	4204	4173	4144	4118	4095	4075	4058	4045	4036	4030	4027	4028	4028	4033
10	4368	4286	4205	4126	4051	3979	3911	3848	3789	3737	3690	3650	3617	3591	3572	3560	3555	3557	3567	3567
15	4315	4188	4064	3944	3830	3721	3618	3535	3464	3400	3344	3296	3257	3229	3208	3194	3188	3189	3199	3199
20	4271	4096	3927	3765	3615	3495	3382	3280	3194	3122	3063	3012	2969	2934	2909	2893	2887	2889	2900	2900
25	4248	4021	3803	3615	3452	3305	3177	3066	2968	2883	2807	2741	2684	2637	2603	2581	2571	2574	2587	2587
30	4283	4007	3762	3554	3367	3214	3041	2880	2753	2646	2553	2470	2397	2339	2297	2270	2256	2257	2271	2271
35	4630	4293	3953	3657	3374	3162	2928	2710	2545	2415	2292	2187	2097	2023	1971	1937	1920	1921	1941	1941
40	4653	4162	3747	3406	3138	2913	2684	2467	2288	2132	1997	1881	1785	1703	1643	1603	1584	1586	1609	1609
45	4482	4025	3646	3296	2976	2690	2420	2188	1992	1828	1688	1568	1467	1382	1328	1291	1272	1272	1291	1291
50	4609	4072	3626	3209	2812	2432	2125	1875	1671	1510	1407	1344	1287	1234	1190	1163	1152	1148	1153	1153
55	4737	4103	3590	3084	2548	2119	1783	1552	1438	1363	1299	1239	1182	1128	1082	1060	1055	1049	1046	1046
60	4626	3941	3361	2738	2145	1725	1508	1378	1303	1242	1187	1131	1074	1019	974	955	959	950	938	938
65	4543	3740	3030	2373	1760	1446	1283	1161	1134	1091	1000	911	829	762	714	696	704	697	690	690
70	3860	3042	2457	1890	1426	1136	986	860	787	722	652	586	519	469	439	433	449	440	429	429
75	1721	1464	1322	1034	847	706	568	465	397	344	295	253	205	184	179	189	213	203	184	184
80	284	367	333	381	330	224	145	108	118	119	121	122	109	101	103	114	131	123	108	108
85	64.4	79.1	60.2	65.9	66.4	67.1	65.9	64.2	68.0	68.2	68.5	68.1	60.3	55.5	55.5	60.2	69.0	65.0	57.6	57.6
90	26.4	27.0	27.1	26.6	25.7	24.3	22.8	21.4	19.6	17.7	15.6	13.5	11.4	9.63	8.23	7.21	6.54	6.78	7.87	7.87

C Range: 0 - 360DEG	γ Range: 0 - 90DEG
C Interval: 5.0DEG	γ Interval: 0.5DEG
Test Speed: HIGH	Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350
Temperature:25DEG	Humidity:65.0%
Operators:	Test Distance:7.850m [K=1.0000]
Test Date:2016-07-22	Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:101.3V I:1.497A P:150.9W PF:0.9951 Lamp Flux:18358.6x1 lm																	

Table--4

UNIT: cd

C (DEG) \ γ (DEG)	285	290	295	300	305	310	315	320	325	330	335	340	345	350	355				
0	4506	4506	4506	4506	4506	4506	4506	4506	4506	4506	4506	4506	4506	4506	4506				
5	4042	4054	4069	4088	4110	4135	4162	4193	4226	4261	4298	4337	4377	4419	4461				
10	3583	3606	3635	3671	3713	3760	3813	3872	3935	4005	4078	4157	4238	4323	4408				
15	3216	3240	3274	3316	3365	3422	3486	3560	3657	3760	3869	3985	4109	4239	4371				
20	2920	2948	2985	3029	3082	3147	3226	3318	3421	3531	3674	3831	3996	4170	4352				
25	2613	2651	2701	2764	2838	2922	3012	3112	3228	3362	3512	3689	3899	4119	4354				
30	2301	2347	2410	2486	2576	2682	2810	2967	3126	3274	3451	3646	3877	4147	4435				
35	1978	2036	2112	2204	2313	2440	2599	2805	3009	3218	3482	3760	4097	4449	4826				
40	1653	1721	1808	1912	2035	2174	2332	2528	2744	2959	3207	3504	3871	4316	4854				
45	1329	1406	1502	1616	1745	1893	2064	2264	2494	2757	3053	3382	3746	4168	4689				
50	1180	1226	1283	1349	1448	1593	1772	1983	2240	2556	2916	3309	3741	4234	4807				
55	1072	1118	1175	1236	1301	1372	1471	1662	1935	2288	2737	3193	3715	4274	4931				
60	962	1006	1060	1119	1176	1237	1302	1394	1555	1892	2363	2927	3512	4138	4867				
65	719	774	847	936	1027	1070	1094	1171	1292	1468	1921	2520	3252	3981	4865				
70	446	483	541	617	688	753	803	906	999	1173	1485	1975	2597	3336	4213				
75	180	189	230	287	338	388	434	518	620	730	889	1151	1400	1752	2079				
80	99.9	98.8	111	124	125	124	101	133	198	286	355	350	439	434	436				
85	54.6	55.1	62.9	70.1	71.8	71.9	61.2	61.2	61.0	58.3	56.5	56.8	92.1	60.8	58.1				
90	9.49	11.5	13.7	16.0	18.4	20.7	22.4	22.7	23.9	24.9	25.7	25.9	25.7	24.9	23.6				

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2016-07-22

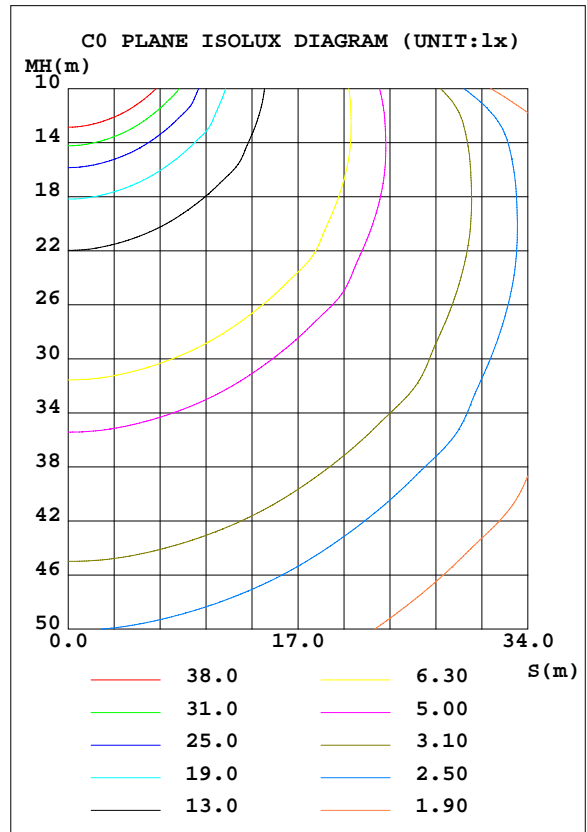
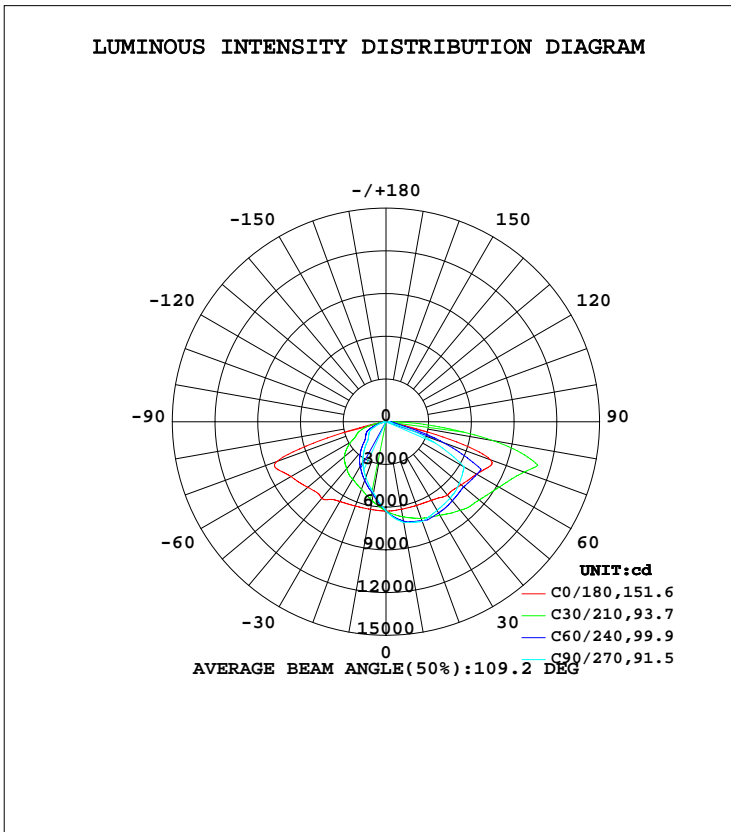
γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity:65.0%
 Test Distance:7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:120.5V I:1.563A P:187.2W PF:0.9939 Lamp Flux:26945.4x1 lm		

DATA OF LAMP		PHOTOMETRIC DATA Eff: 143.95 lm/W			
MODEL		I _{max} (cd)	11982	S/MH(C0/180)	1.69
NOMINAL POWER(W)	185	LOR(%)	100.0	S/MH(C90/270)	0.82
RATED VOLTAGE(V)	120	TOTAL FLUX(lm)	26945	η UP, DN(C0-180)	0.0,70.3
NOMINAL FLUX(lm)	26945.4	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.0,29.7
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	1.50
TEST VOLTAGE(V)	120	η down(%)	100.0	CIBSE SHR MAX	1.55



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2016-09-05

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity:65.0%
 Test Distance:7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
5	626.5	664.6	678.7	664.2	625.9	582.5	565.8	583.7	0- 5	149.5	149.5	0.55,0.55
10	624.2	695.2	717.6	695.7	624.9	538.9	506.8	539.3	5- 10	444.0	593.5	2.2,2.2
15	624.0	719.8	731.2	722.2	626.1	498.7	461.0	497.4	10- 15	727.8	1321	4.9,4.9
20	625.9	733.6	744.8	738.4	630.2	466.9	415.1	464.5	15- 20	998.5	2320	8.61,8.61
25	629.4	751.5	731.3	758.9	637.0	435.3	370.9	432.1	20- 25	1254	3573	13.3,13.3
30	637.8	760.7	717.8	772.9	647.3	405.4	326.7	400.5	25- 30	1487	5061	18.8,18.8
35	652.2	766.3	708.9	784.8	665.6	376.9	276.2	370.4	30- 35	1705	6766	25.1,25.1
40	671.7	776.6	700.0	802.7	701.3	345.8	225.7	338.0	35- 40	1910	8676	32.2,32.2
45	673.3	784.1	690.1	816.3	697.0	303.3	178.9	296.2	40- 45	2086	10761	39.9,39.9
50	689.2	793.8	672.1	827.8	716.7	257.0	160.9	250.9	45- 50	2224	12986	48.2,48.2
55	710.2	804.7	653.0	835.3	743.4	210.3	146.6	205.8	50- 55	2369	15355	57.57
60	735.1	832.0	633.9	868.4	770.6	189.3	132.2	183.1	55- 60	2515	17870	66.3,66.3
65	776.2	856.6	438.4	899.4	817.7	166.5	97.15	157.5	60- 65	2599	20469	76,76
70	781.3	789.3	242.9	856.8	816.2	127.8	62.05	119.5	65- 70	2503	22972	85.3,85.3
75	413.3	623.6	65.83	743.2	374.8	70.72	29.59	67.43	70- 75	2069	25041	92.9,92.9
80	45.48	463.6	36.63	616.6	52.76	17.73	18.21	18.24	75- 80	1189	26230	97.3,97.3
85	7.647	251.7	25.90	328.1	7.921	9.766	9.471	10.13	80- 85	534.1	26764	99.3,99.3
90	3.311	16.29	15.17	16.38	2.615	2.491	0.7290	2.842	85- 90	180.9	26945	100,100
95									90- 95			
100									95-100			
105									100-105			
110									105-110			
115									110-115			
120									115-120			
125									120-125			
130									125-130			
135									130-135			
140									135-140			
145									140-145			
150									145-150			
155									150-155			
160									155-160			
165									160-165			
170									165-170			
175									170-175			
180									175-180			
DEG	LUMINOUS INTENSITY:×10cd									UNIT:lm		

Conical surface Flux(90deg): 10761 lm

%lum = 39.9%
%lamp = 39.9%

Conical surface Flux(120deg): 17870 lm

%lum = 66.3%
%lamp = 66.3%

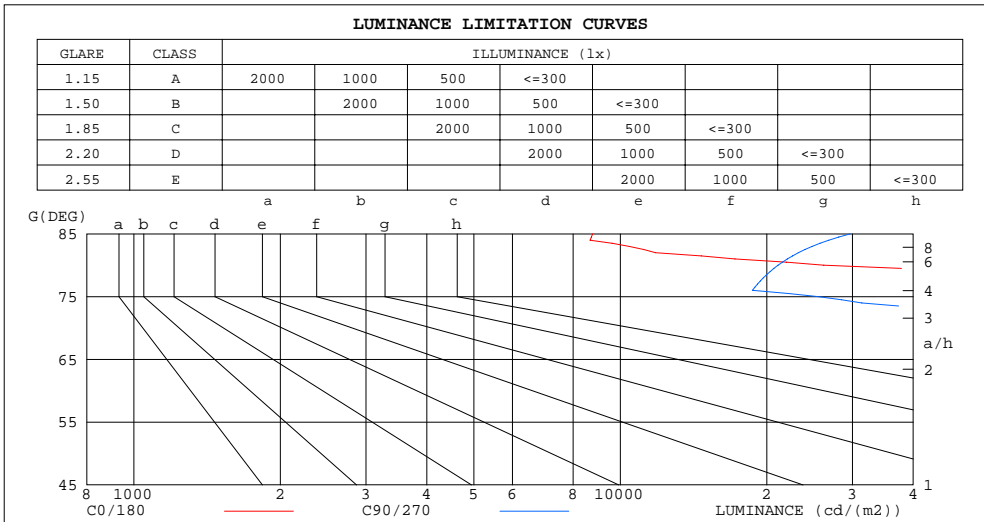
C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2016-09-05

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350
Humidity:65.0%
Test Distance:7.850m [K=1.0000]
Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINANCE LIMITATION CURVES

Test:U:120.5V I:1.563A P:187.2W PF:0.9939 Lamp Flux:26945.4x1 lm		



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	8775	29713
80	26191	21092
75	159697	25435
70	228423	71008
65	183661	103726
60	147011	126775
55	123816	113841
50	107213	104553
45	95217	97598

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25DEG
 Operators:
 Test Date: 2016-09-05

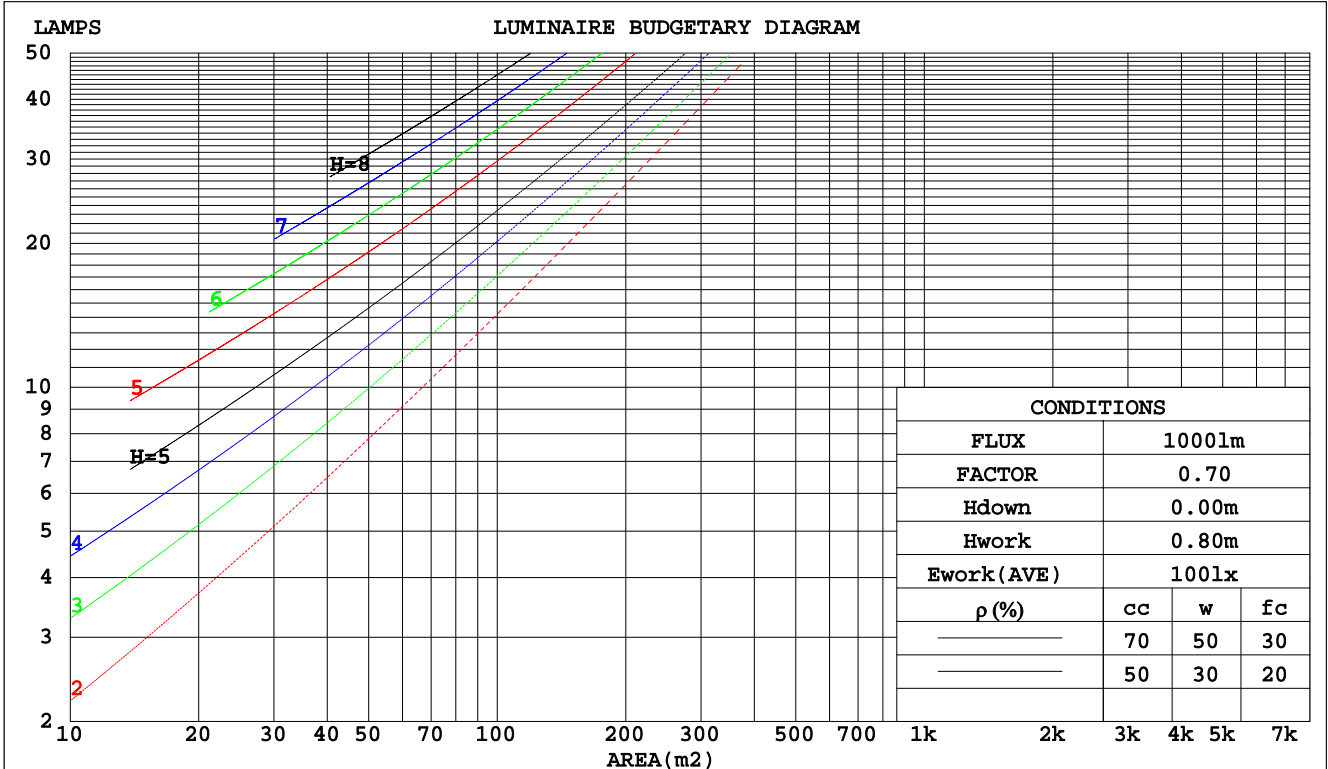
γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity: 65.0%
 Test Distance: 7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:120.5V I:1.563A P:187.2W PF:0.9939 Lamp Flux:26945.4x1 lm		

pcc	80%			70%			50%			30%			10%			0
	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pw																
pfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio															
	Coefficients of Utilization(CU)															
0.0	1.19	1.19	1.19	1.16	1.16	1.16	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	1.00
1.0	1.01	.96	.91	.99	.94	.90	.94	.90	.87	.90	.87	.84	.87	.84	.82	.79
2.0	.86	.78	.71	.84	.76	.70	.80	.74	.68	.76	.71	.67	.73	.69	.65	.63
3.0	.73	.64	.56	.72	.63	.56	.69	.61	.55	.66	.59	.54	.63	.58	.53	.50
4.0	.64	.54	.46	.62	.53	.46	.60	.52	.45	.57	.50	.44	.55	.49	.44	.41
5.0	.56	.46	.39	.55	.45	.38	.53	.44	.38	.51	.43	.37	.49	.42	.37	.35
6.0	.50	.40	.33	.49	.40	.33	.47	.39	.32	.45	.38	.32	.44	.37	.32	.30
7.0	.45	.35	.29	.44	.35	.28	.42	.34	.28	.41	.33	.28	.39	.33	.28	.26
8.0	.41	.31	.25	.40	.31	.25	.39	.30	.25	.37	.30	.25	.36	.29	.24	.22
9.0	.37	.28	.22	.36	.28	.22	.35	.27	.22	.34	.27	.22	.33	.27	.22	.20
10.0	.34	.26	.20	.34	.25	.20	.32	.25	.20	.31	.25	.20	.31	.24	.20	.18



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2016-09-05

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity:65.0%
 Test Distance:7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

WEC AND CCEC

Test:U:120.5V I:1.563A P:187.2W PF:0.9939 Lamp Flux:26945.4x1 lm															

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.365	.208	.066	.358	.204	.065	.344	.198	.063	.332	.191	.061	.320	.186	.060	
2.0	.339	.186	.057	.332	.183	.056	.320	.178	.055	.309	.173	.054	.299	.169	.053	
3.0	.309	.164	.049	.303	.162	.049	.292	.158	.048	.282	.155	.047	.273	.151	.047	
4.0	.280	.146	.043	.275	.144	.043	.266	.141	.042	.257	.138	.042	.248	.135	.041	
5.0	.256	.130	.038	.251	.129	.038	.243	.126	.037	.235	.124	.037	.227	.122	.037	
6.0	.235	.118	.034	.231	.116	.034	.223	.114	.033	.216	.112	.033	.209	.110	.033	
7.0	.216	.107	.030	.213	.106	.030	.206	.104	.030	.200	.102	.030	.194	.101	.030	
8.0	.200	.098	.028	.197	.097	.027	.191	.095	.027	.185	.094	.027	.180	.092	.027	
9.0	.186	.090	.025	.184	.089	.025	.178	.088	.025	.173	.087	.025	.168	.085	.025	
10.0	.174	.084	.023	.172	.083	.023	.167	.082	.023	.162	.081	.023	.158	.079	.023	

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.184	.156	.130	.158	.134	.112	.108	.092	.077	.062	.053	.045	.020	.017	.015	
2.0	.179	.132	.092	.153	.113	.080	.105	.078	.056	.060	.046	.033	.019	.015	.011	
3.0	.172	.115	.069	.147	.099	.060	.101	.069	.042	.058	.040	.025	.019	.013	.008	
4.0	.165	.102	.054	.141	.088	.047	.097	.061	.033	.056	.036	.019	.018	.012	.006	
5.0	.157	.092	.043	.135	.079	.038	.093	.055	.027	.054	.033	.016	.017	.011	.005	
6.0	.149	.083	.036	.128	.072	.031	.089	.051	.022	.051	.030	.013	.017	.010	.004	
7.0	.142	.077	.031	.122	.066	.027	.084	.047	.019	.049	.027	.011	.016	.009	.004	
8.0	.135	.071	.027	.116	.061	.023	.080	.043	.017	.047	.025	.010	.015	.008	.003	
9.0	.128	.066	.024	.111	.057	.021	.077	.040	.015	.045	.024	.009	.014	.008	.003	
10.0	.122	.062	.021	.105	.053	.019	.073	.038	.013	.043	.022	.008	.014	.007	.003	

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2016-09-05

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity:65.0%
 Test Distance:7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

UGR(Unified Glare Rating) Table

Test:U:120.5V I:1.563A P:187.2W PF:0.9939 Lamp Flux:26945.4x1 lm										
ceiling/cavity	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
walls	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions	Viewed crosswise					Viewed endwise				
x = 2H y = 2H	32.8	34.5	33.1	34.7	34.9	30.9	32.6	31.2	32.8	33.0
3H	36.5	38.1	36.8	38.3	38.6	31.9	33.5	32.2	33.7	34.0
4H	37.6	39.1	37.9	39.4	39.7	31.9	33.4	32.2	33.7	34.0
6H	37.6	39.1	38.0	39.3	39.6	31.8	33.3	32.2	33.5	33.8
8H	37.6	38.9	37.9	39.2	39.5	31.8	33.2	32.2	33.5	33.8
12H	37.5	38.8	37.9	39.1	39.5	31.8	33.1	32.1	33.4	33.7
4H 2H	33.9	35.4	34.2	35.6	35.9	32.6	34.1	32.9	34.3	34.6
3H	37.9	39.3	38.3	39.6	39.9	33.7	35.1	34.1	35.4	35.7
4H	39.6	40.9	40.0	41.2	41.5	33.8	35.0	34.1	35.3	35.6
6H	39.9	41.0	40.3	41.4	41.8	33.7	34.8	34.1	35.1	35.5
8H	39.9	40.9	40.3	41.3	41.7	33.7	34.7	34.1	35.1	35.4
12H	39.9	40.8	40.3	41.2	41.6	33.6	34.6	34.1	35.0	35.4
8H 4H	40.1	41.1	40.5	41.5	41.8	35.6	36.7	36.1	37.0	37.4
6H	41.0	41.9	41.5	42.3	42.7	35.7	36.5	36.1	36.9	37.4
8H	41.1	41.9	41.6	42.3	42.8	35.7	36.4	36.1	36.9	37.3
12H	41.1	41.8	41.6	42.2	42.7	35.7	36.3	36.1	36.8	37.2
12H 4H	40.0	41.0	40.5	41.4	41.8	36.2	37.2	36.7	37.6	38.0
6H	41.1	41.9	41.6	42.3	42.8	36.6	37.4	37.1	37.8	38.2
8H	41.4	42.1	41.9	42.5	43.0	36.7	37.3	37.1	37.8	38.2
Variations with the observer position at spacings:										
S = 1.0H	+ 0.1 / - 0.1					+ 0.1 / - 0.2				
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.2				
2.0H	+ 0.4 / - 0.6					+ 0.8 / - 1.0				

CIE Pub.117 Corrected 26945 lm Total Lamp Luminous Flux. (8log(F/F0) = 11.4)

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2016-09-05

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity:65.0%
 Test Distance:7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

UTILIZATION FACTORS TABLE

Test:U:120.5V I:1.563A P:187.2W PF:0.9939 Lamp Flux:26945.4x1 lm		

REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	51	38	30	50	38	30	49	37	30	23
0.80	61	47	39	59	47	39	58	46	39	31
1.00	69	56	48	68	55	47	65	57	47	39
1.25	76	64	56	75	63	55	72	62	54	46
1.50	82	70	62	80	69	61	77	67	60	52
2.00	90	80	72	88	78	71	84	76	70	61
2.50	95	85	78	92	84	77	88	81	75	66
3.00	99	90	84	96	89	83	92	86	81	71
4.00	104	97	91	101	95	90	97	92	87	78
5.00	107	101	96	104	99	95	99	95	92	82
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

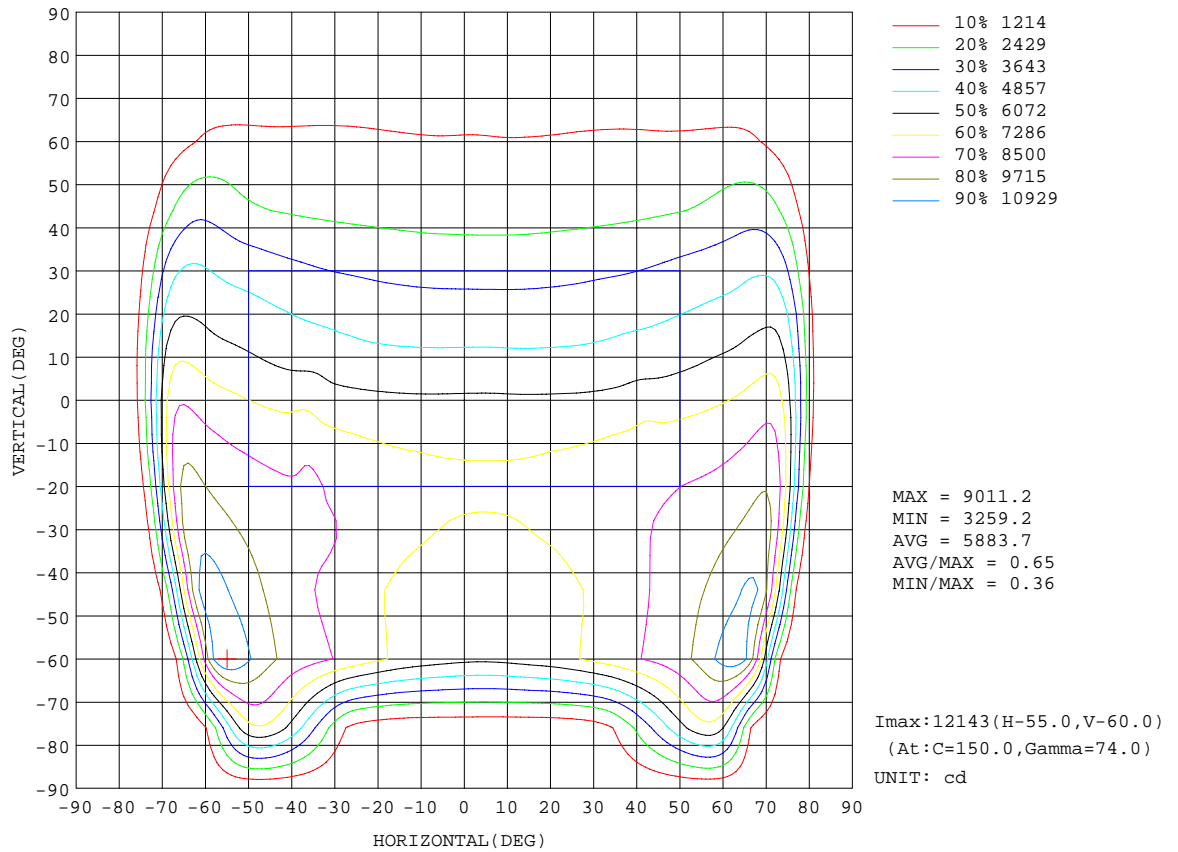
C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2016-09-05

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity:65.0%
 Test Distance:7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ISOCANDELA DIAGRAM

Test:U:120.5V I:1.563A P:187.2W PF:0.9939 Lamp Flux:26945.4x1 lm		



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2016-09-05

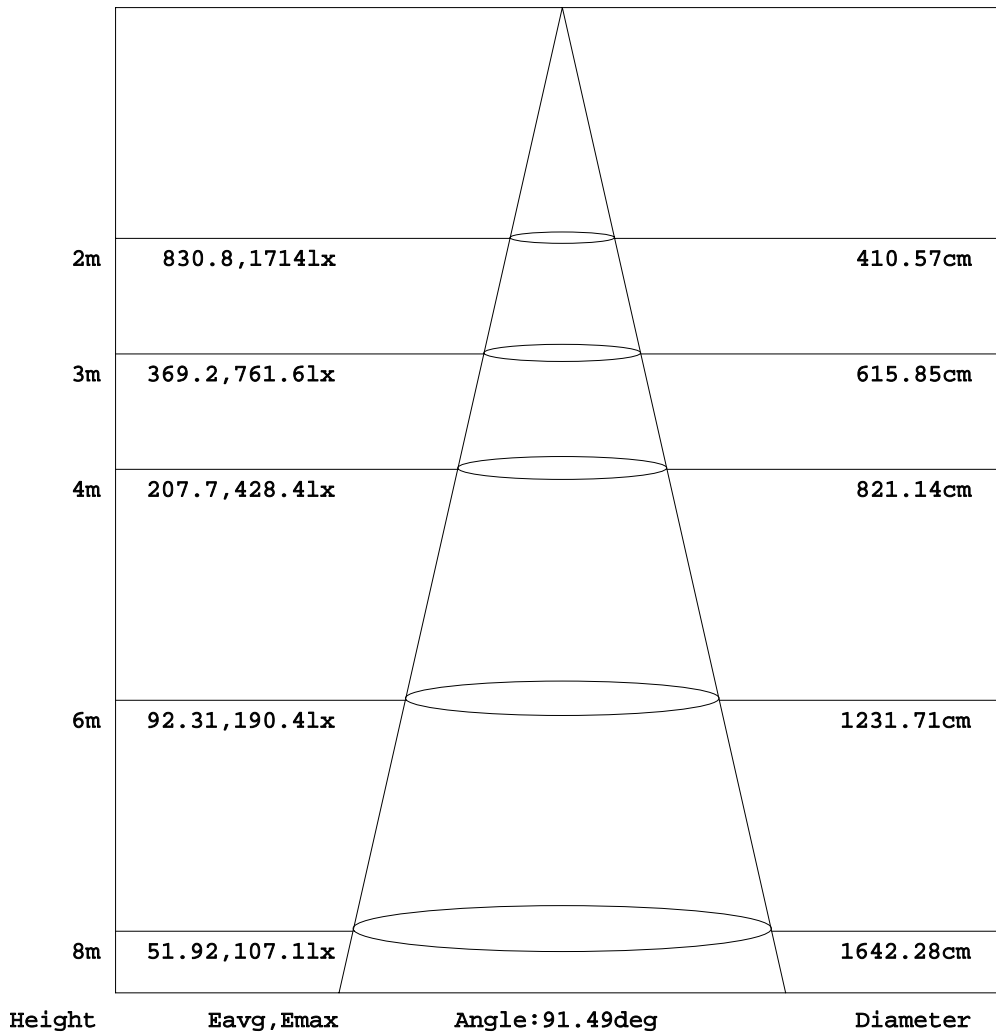
γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity:65.0%
 Test Distance:7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

AAI Figure

Test:U:120.5V I:1.563A P:187.2W PF:0.9939 Lamp Flux:26945.4x1 lm		

Flux out:11195 lm



Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

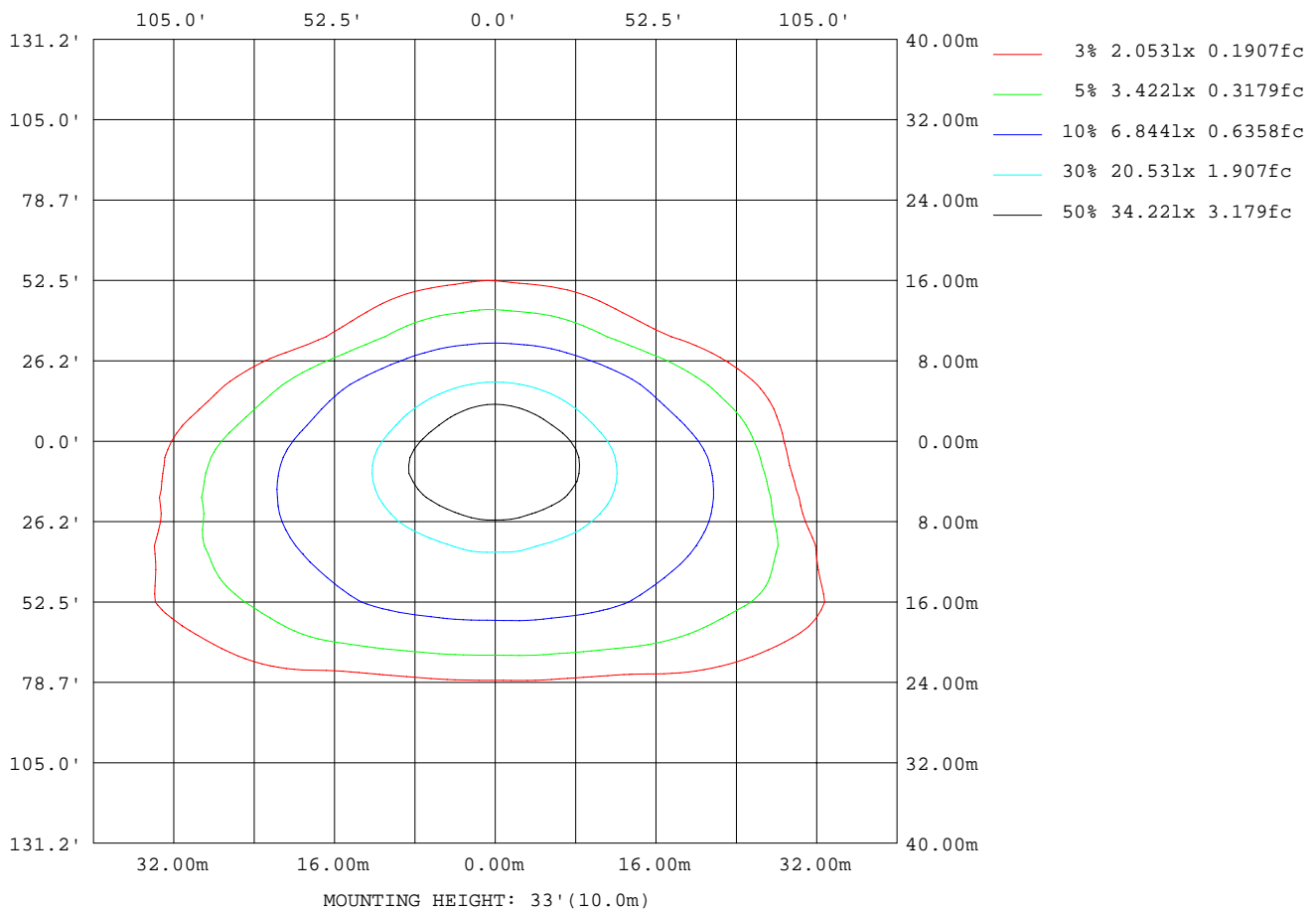
C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25DEG
 Operators:
 Test Date: 2016-09-05

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity: 65.0%
 Test Distance: 7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ISOLUX DIAGRAM

Test:U:120.5V I:1.563A P:187.2W PF:0.9939 Lamp Flux:26945.4x1 lm		



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25DEG
 Operators:
 Test Date: 2016-09-05

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity: 65.0%
 Test Distance: 7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LED Avg.L Report

Test:U:120.5V I:1.563A P:187.2W PF:0.9939 Lamp Flux:26945.4x1 lm		

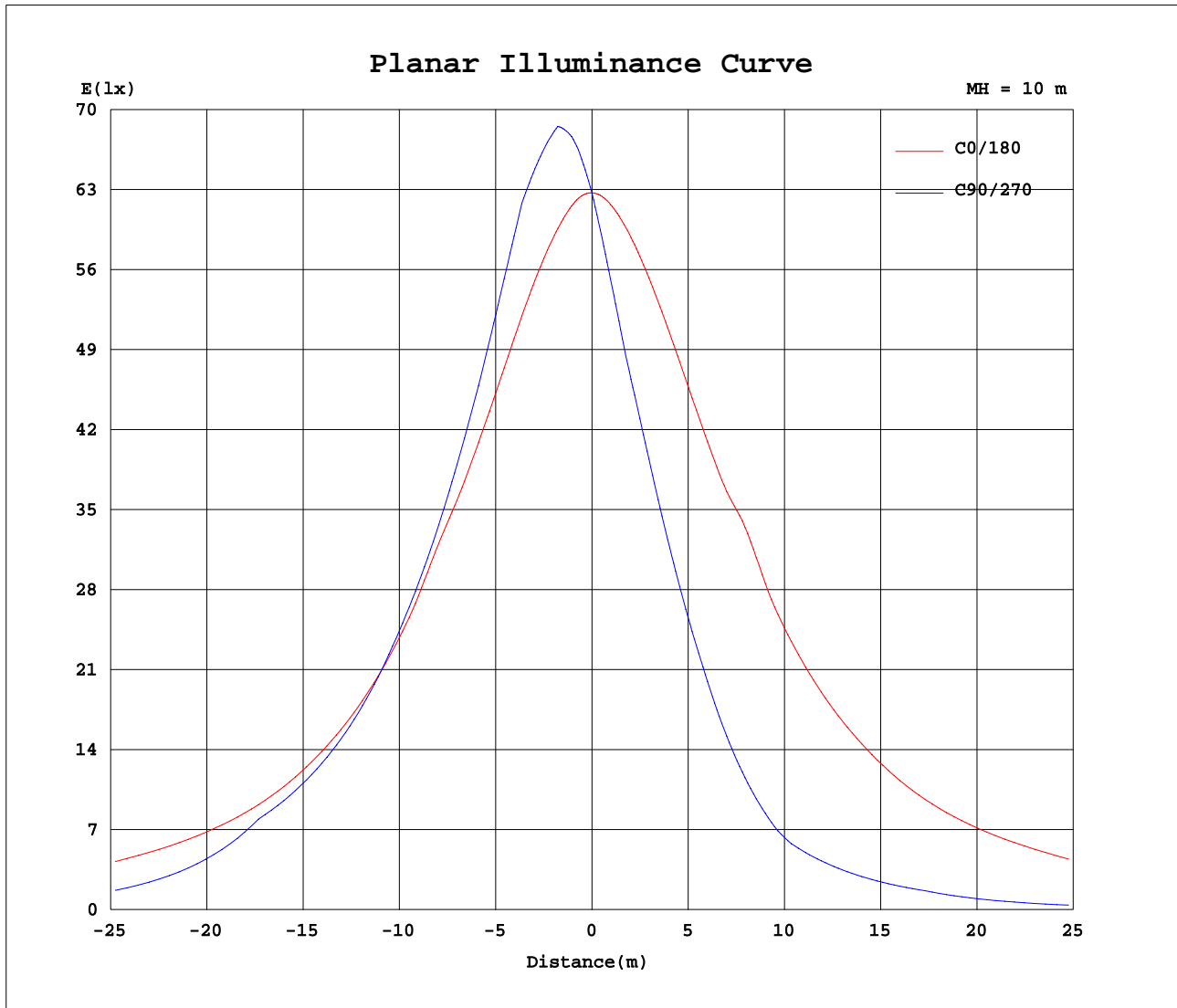
AvgL	cd/m2
L_0~180(65)av	188573
L_0~180(75)av	152260
L_0~180(85)av	8932
L_90~270(65)av	63357
L_90~270(75)av	18434
L_90~270(85)av	20290
L_45(65)av	123048
L_45(75)av	145364
L_45(85)av	172028

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2016-09-05

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity:65.0%
 Test Distance:7.850m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25DEG
 Operators:
 Test Date: 2016-09-05

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity: 65.0%
 Test Distance: 7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:120.5V I:1.563A P:187.2W PF:0.9939 Lamp Flux:26945.4x1 lm		

Table--1

UNIT: x10cd

C(DEG) γ (DEG)	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90
0	627	627	627	627	627	627	627	627	627	627	627	627	627	627	627	627	627	627	627
5	627	631	636	640	645	649	653	657	661	665	668	670	673	674	676	677	678	678	679
10	624	634	643	653	662	670	677	684	690	695	700	704	708	711	713	715	717	717	718
15	624	639	653	667	679	690	699	708	716	720	722	724	726	728	729	730	731	731	731
20	626	646	666	684	699	712	723	727	730	734	736	738	740	741	742	743	744	744	745
25	629	656	681	702	720	732	738	744	748	751	754	750	745	741	737	734	732	731	731
30	638	671	701	725	742	751	759	764	767	761	754	746	739	733	727	722	719	718	718
35	652	691	725	752	766	777	785	783	775	766	756	745	734	726	720	715	710	708	709
40	672	723	765	791	808	817	812	806	793	777	758	740	725	716	712	708	702	697	700
45	673	728	773	802	827	840	838	832	814	784	758	736	717	703	702	700	693	687	690
50	689	750	797	831	852	859	855	839	821	794	762	734	713	696	691	688	679	670	672
55	710	777	827	866	885	892	882	863	836	805	776	750	724	700	684	677	664	653	653
60	735	814	869	907	929	930	918	894	863	832	802	770	738	707	682	667	649	635	634
65	776	870	930	970	990	986	965	928	889	857	825	775	744	699	659	619	578	537	496
70	781	900	997	1058	1091	1076	1034	970	904	829	744	649	554	459	364	269	174	79	7
75	413	469	596	847	1010	1159	1072	917	776	624	462	300	182	122	88.6	75.9	69.8	66.4	65.8
80	45.5	32.1	45.4	130	412	638	760	784	648	464	292	154	72.0	46.3	38.2	35.4	35.7	36.2	36.6
85	7.65	8.60	9.72	12.6	21.2	33.9	43.6	55.5	70.2	88.9	112.1	141.1	177.0	221.4	275.0	338.4	412.2	507.2	624.1
90	3.31	3.40	3.88	5.04	6.91	11.3	16.0	19.0	18.8	16.3	14.2	13.2	14.2	14.4	14.3	14.3	14.2	15.1	15.2

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25DEG
 Operators:
 Test Date: 2016-09-05

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity: 65.0%
 Test Distance: 7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:120.5V I:1.563A P:187.2W PF:0.9939 Lamp Flux:26945.4x1 lm		

Table--2

UNIT: x10cd

C(DEG) γ (DEG)	95	100	105	110	115	120	125	130	135	140	145	150	155	160	165	170	175	180	185
0	627	627	627	627	627	627	627	627	627	627	627	627	627	627	627	627	627	627	627
5	678	678	677	676	674	672	670	667	664	661	657	653	649	644	640	635	631	626	621
10	717	716	715	713	711	708	704	700	696	691	685	678	671	662	653	644	634	625	614
15	731	731	731	730	729	728	726	724	722	718	711	702	693	682	670	655	641	626	609
20	745	745	745	745	745	744	743	741	738	735	732	727	716	703	688	671	651	630	607
25	732	735	738	742	747	752	757	761	759	756	752	747	740	729	710	689	664	637	607
30	720	723	728	734	741	749	757	765	773	780	777	772	764	755	737	712	681	647	610
35	712	717	721	727	735	747	761	773	785	795	802	804	795	784	768	740	706	666	624
40	705	710	713	717	726	741	759	780	803	823	838	842	852	847	829	803	757	701	641
45	697	702	703	707	718	736	759	785	816	855	872	875	872	857	830	800	753	697	636
50	680	688	693	701	716	736	760	791	828	854	868	884	887	882	860	827	780	717	647
55	662	674	685	701	725	754	782	808	835	866	895	915	925	919	902	863	813	743	662
60	644	661	680	704	738	775	809	839	868	899	932	956	972	970	950	912	856	771	668
65	449	470	502	551	623	714	820	870	899	935	978	1019	1046	1052	1024	984	919	818	690
70	249	263	286	325	382	463	589	735	857	965	1042	1117	1148	1162	1057	995	908	816	670
75	67.0	70.4	78.0	94.6	135	210	373	571	743	877	983	1129	1081	791	522	398	353	375	369
80	36.3	35.8	36.5	41.5	54.2	93.5	227	416	617	760	757	626	462	195	64.0	25.0	34.8	52.8	72.1
85	25.4	25.0	25.4	27.8	34.8	56.4	128	225	328	406	383	201	37.4	18.4	10.5	8.34	7.05	7.92	12.1
90	14.6	14.2	14.3	13.8	14.2	13.7	12.3	13.9	16.4	18.7	18.0	15.0	9.37	5.05	3.71	2.64	2.48	2.61	3.26

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2016-09-05

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350
Humidity:65.0%
Test Distance:7.850m [K=1.0000]
Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:120.5V I:1.563A P:187.2W PF:0.9939 Lamp Flux:26945.4x1 lm																	

Table--3

UNIT: x10cd

C(DEG) γ (DEG)	190	195	200	205	210	215	220	225	230	235	240	245	250	255	260	265	270	275	280
0	627	627	627	627	627	627	627	627	627	627	627	627	627	627	627	627	627	627	627
5	615	610	605	600	595	591	586	583	579	576	573	571	569	568	567	566	566	566	567
10	603	593	582	572	563	554	546	539	532	526	521	517	513	510	508	507	507	507	509
15	593	577	561	547	533	520	508	499	491	484	478	473	468	465	463	461	461	461	463
20	585	563	542	523	505	491	479	467	456	447	439	431	426	421	418	416	415	416	417
25	578	551	525	503	485	467	450	435	422	410	400	391	384	378	374	372	371	371	373
30	575	542	514	490	466	444	423	405	390	375	363	352	343	335	331	328	327	327	329
35	584	546	510	479	453	427	399	377	358	341	324	309	297	288	282	278	276	277	280
40	587	543	503	463	430	400	372	346	320	298	279	263	249	239	232	228	226	227	230
45	578	534	491	448	408	373	335	303	276	252	232	215	201	190	184	181	179	180	182
50	584	533	482	431	383	333	292	257	228	205	190	181	174	168	164	162	161	161	161
55	590	528	468	406	340	285	241	210	195	185	175	166	159	152	148	147	147	145	145
60	583	510	441	358	285	231	205	189	178	169	160	151	143	136	132	132	132	130	129
65	582	495	398	304	233	201	180	167	158	149	135	122	110	102	96.9	96.4	97.1	94.8	94.6
70	546	441	346	260	201	168	148	128	114	101	90.0	79.5	69.3	63.1	59.9	60.5	62.1	59.2	58.8
75	339	274	227	175	141	110	85.9	70.7	60.8	51.4	43.4	36.3	27.9	25.3	25.0	27.1	29.6	26.3	25.0
80	80.6	87.4	76.6	74.3	54.6	34.4	21.9	17.7	21.0	20.4	19.5	18.4	14.9	13.9	14.4	16.3	18.2	15.8	14.6
85	15.6	15.8	9.89	9.84	9.03	9.28	9.50	9.77	11.6	11.1	10.6	9.95	8.04	7.41	7.61	8.53	9.47	8.33	7.78
90	3.39	3.45	3.43	3.33	3.18	2.98	2.75	2.49	2.21	1.90	1.60	1.32	1.09	0.91	0.81	0.78	0.73	0.87	1.01

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2016-09-05

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity:65.0%
 Test Distance:7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:120.5V I:1.563A P:187.2W PF:0.9939 Lamp Flux:26945.4x1 lm		

Table--4

UNIT: x10cd

C(DEG) γ (DEG)	285	290	295	300	305	310	315	320	325	330	335	340	345	350	355				
0	627	627	627	627	627	627	627	627	627	627	627	627	627	627	627				
5	568	570	572	574	577	580	584	588	592	596	601	606	611	616	621				
10	511	514	517	522	527	533	539	546	554	563	572	582	592	603	613				
15	465	468	472	477	483	490	497	506	518	531	545	560	575	591	607				
20	420	425	430	437	445	454	465	476	489	503	520	539	559	581	603				
25	377	382	389	397	407	419	432	447	463	480	498	519	545	571	600				
30	333	340	348	359	371	385	400	418	437	459	482	505	533	565	601				
35	285	294	305	319	336	352	370	391	416	441	467	497	529	567	609				
40	236	246	258	274	292	314	338	363	390	419	451	487	523	565	617				
45	187	197	211	227	247	270	296	327	361	395	433	473	515	558	614				
50	164	170	177	186	200	223	251	284	323	369	414	460	509	560	622				
55	148	154	161	169	179	190	206	236	278	329	390	445	500	562	633				
60	132	137	144	152	161	171	183	200	227	278	345	420	484	556	640				
65	98.7	106	116	128	140	149	157	172	194	228	292	374	463	548	657				
70	61.4	67.4	77.8	86.8	96.9	108	120	137	158	192	244	319	413	521	643				
75	25.3	29.0	38.3	44.5	51.9	60.5	67.4	80.4	103	134	173	222	279	352	399				
80	14.2	16.3	20.7	21.8	23.1	24.3	18.2	22.0	33.5	54.2	80.6	89.1	102	95.5	78.3				
85	7.72	9.03	11.3	12.0	12.7	13.4	10.1	9.97	9.89	10.0	11.9	11.1	18.0	15.3	10.3				
90	1.22	1.48	1.76	2.05	2.34	2.60	2.84	3.06	3.25	3.40	3.49	3.50	3.44	3.31	3.10				

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2016-09-05

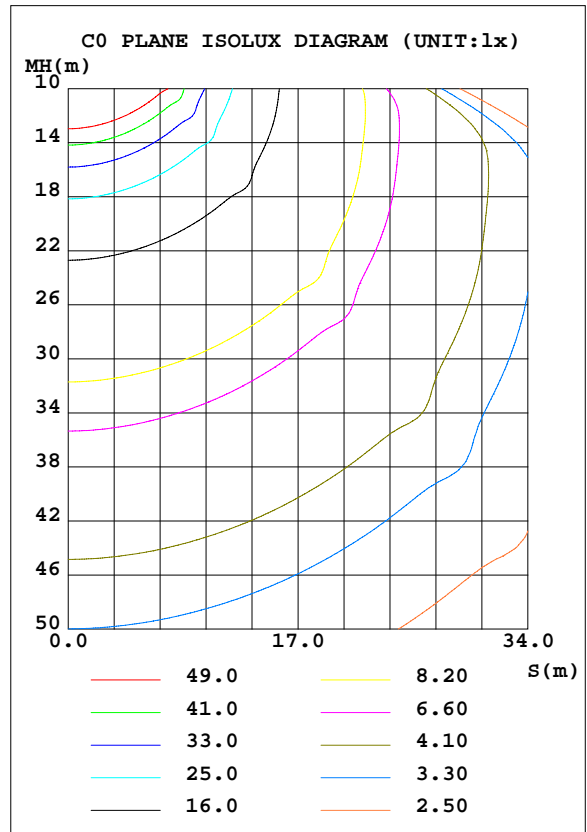
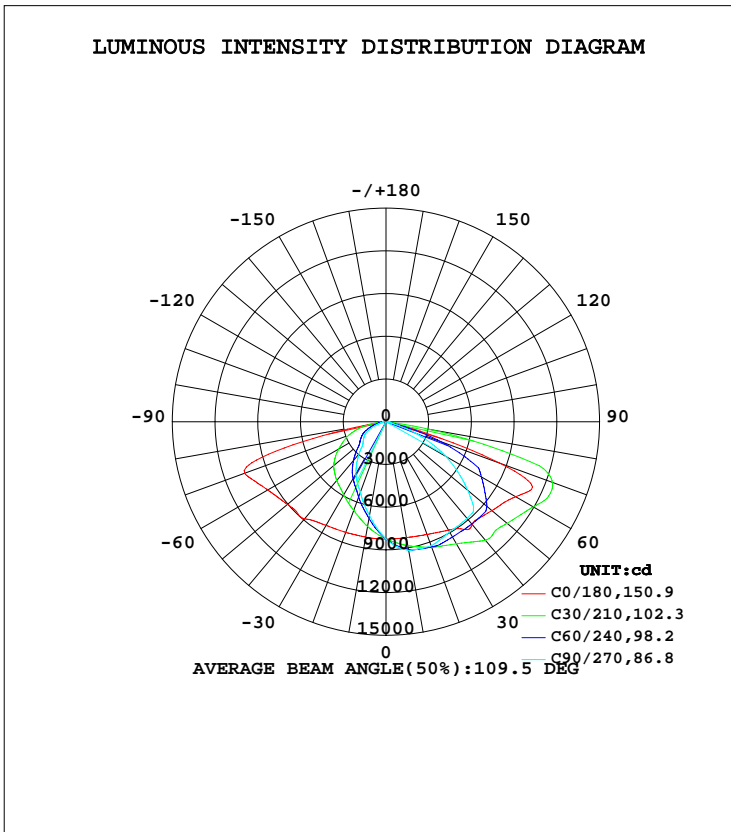
γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350
Humidity:65.0%
Test Distance:7.850m [K=1.0000]
Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:119.9V I:1.995A P:238.2W PF:0.9956 Lamp Flux:32370.3x1 lm		

DATA OF LAMP		PHOTOMETRIC DATA Eff: 135.90 lm/W			
MODEL		I _{max} (cd)	14124	S/MH(C0/180)	1.63
NOMINAL POWER(W)	240	LOR(%)	100.0	S/MH(C90/270)	0.79
RATED VOLTAGE(V)	120	TOTAL FLUX(lm)	32370	η UP, DN(C0-180)	0.0,67.0
NOMINAL FLUX(lm)	32370.3	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.0,33.0
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	1.50
TEST VOLTAGE(V)	120	η down(%)	100.0	CIBSE SHR MAX	1.55



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2016-09-05

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity:65.0%
 Test Distance:7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
5	824.3	865.6	879.9	865.2	824.0	771.5	749.2	771.3	0- 5	196.2	196.2	0.61,0.61
10	826.5	899.5	917.6	897.4	822.7	714.7	668.3	715.3	5- 10	581.5	777.8	2.4,2.4
15	832.1	925.7	922.7	921.4	822.7	656.2	597.7	659.3	10- 15	948.2	1726	5.33,5.33
20	842.4	939.1	927.8	932.4	826.9	605.0	527.2	611.0	15- 20	1291	3017	9.32,9.32
25	857.5	957.6	910.5	948.1	832.0	554.9	475.5	563.3	20- 25	1613	4630	14.3,14.3
30	878.9	972.4	893.2	956.7	840.9	512.4	423.8	523.8	25- 30	1911	6541	20.2,20.2
35	918.0	988.6	889.4	963.1	856.6	475.6	359.1	490.1	30- 35	2192	8734	27,27
40	941.5	1019	885.5	976.6	889.6	435.9	294.3	448.8	35- 40	2464	11198	34.6,34.6
45	945.5	1033	868.8	989.6	890.5	384.2	233.9	394.0	40- 45	2685	13882	42.9,42.9
50	971.0	1037	749.3	1002	903.2	329.9	209.2	334.7	45- 50	2842	16725	51.7,51.7
55	1001	1045	617.0	1008	926.4	276.6	189.0	274.4	50- 55	2947	19672	60.8,60.8
60	1053	1022	484.7	1002	958.7	246.3	168.7	241.1	55- 60	3017	22688	70.1,70.1
65	1127	1003	335.8	999.5	1005	211.3	127.4	203.4	60- 65	3054	25743	79.5,79.5
70	849.7	830.8	187.0	846.0	1057	167.3	86.10	152.5	65- 70	2924	28667	88.6,88.6
75	203.9	429.7	51.98	491.2	804.5	118.4	47.69	86.20	70- 75	2240	30906	95.5,95.5
80	25.33	56.46	28.38	172.9	164.0	70.83	32.49	24.54	75- 80	1057	31963	98.7,98.7
85	10.82	32.98	18.70	101.9	18.60	40.68	20.18	15.71	80- 85	302.4	32266	99.7,99.7
90	8.603	5.865	9.020	13.35	7.602	9.813	7.874	7.369	85- 90	104.5	32370	100,100
95									90- 95			
100									95-100			
105									100-105			
110									105-110			
115									110-115			
120									115-120			
125									120-125			
130									125-130			
135									130-135			
140									135-140			
145									140-145			
150									145-150			
155									150-155			
160									155-160			
165									160-165			
170									165-170			
175									170-175			
180									175-180			
DEG	LUMINOUS INTENSITY:×10cd								UNIT:lm			

Conical surface Flux(90deg): 13882 lm

%lum = 42.9%
%lamp = 42.9%

Conical surface Flux(120deg): 22688 lm

%lum = 70.1%
%lamp = 70.1%

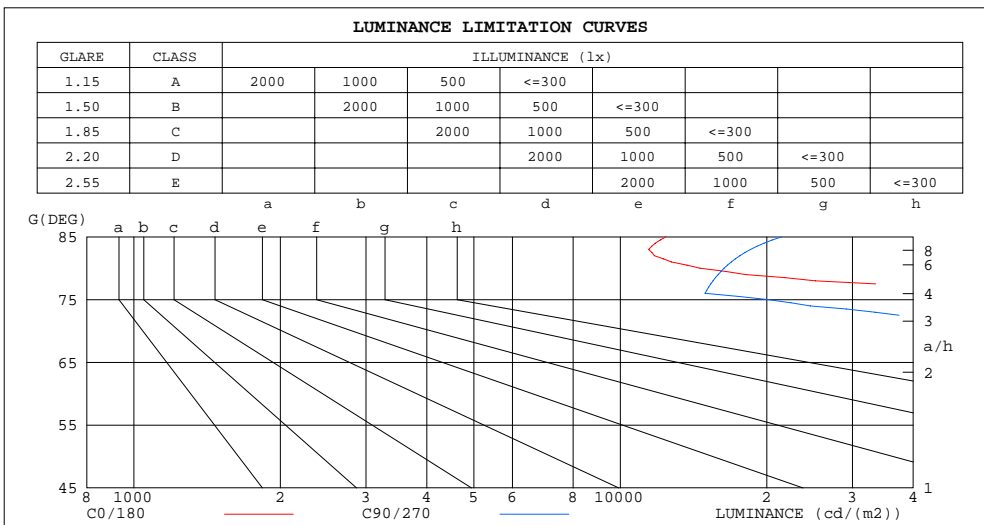
C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2016-09-05

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350
Humidity:65.0%
Test Distance:7.850m [K=1.0000]
Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINANCE LIMITATION CURVES

Test:U:119.9V I:1.995A P:238.2W PF:0.9956 Lamp Flux:32370.3x1 lm		



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	12409	21453
80	14588	16341
75	78765	20082
70	248427	54661
65	266699	79468
60	210602	96948
55	174503	107578
50	151058	116576
45	133707	122866

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25DEG
 Operators:
 Test Date: 2016-09-05

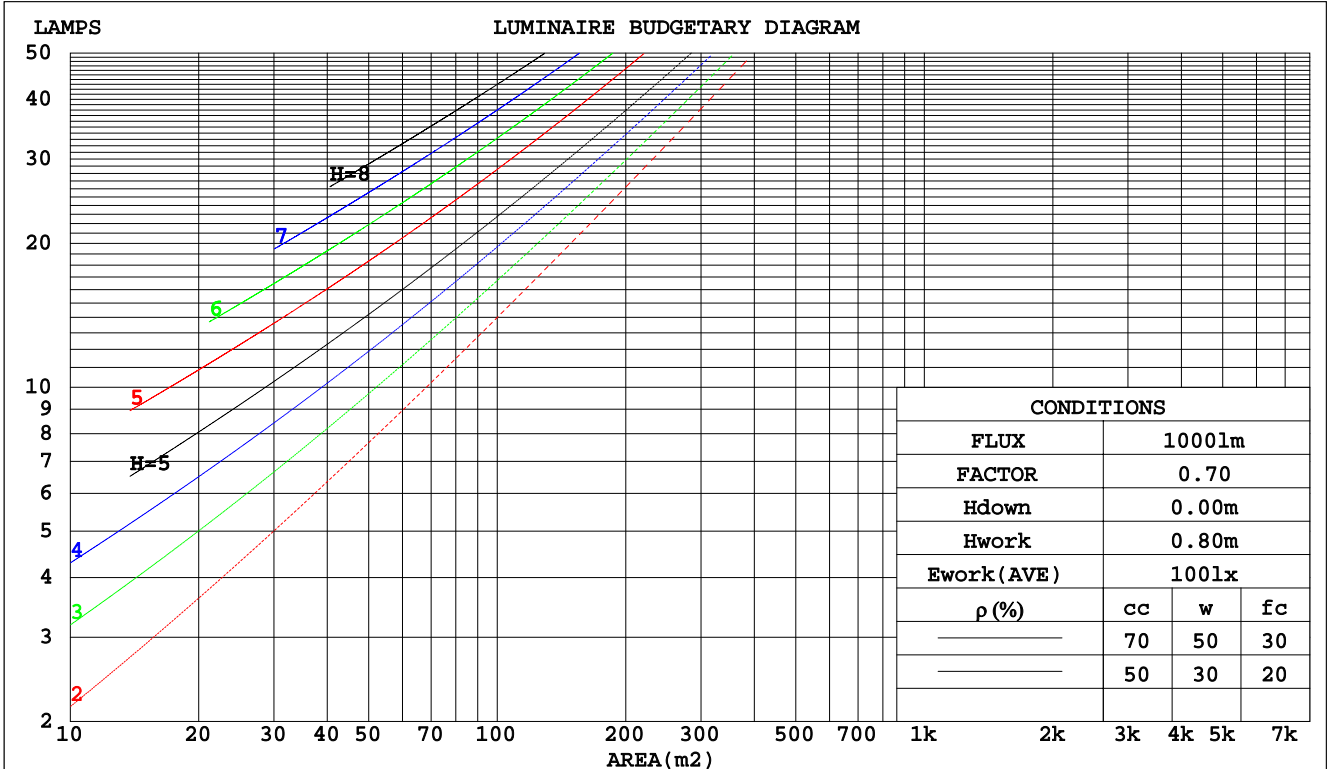
γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity: 65.0%
 Test Distance: 7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:119.9V I:1.995A P:238.2W PF:0.9956 Lamp Flux:32370.3x1 lm																

pcc	80%			70%			50%			30%			10%			0
	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pw																
pfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Coefficients of Utilization(CU)									
0.0	1.19	1.19	1.19	1.16	1.16	1.16	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	1.00
1.0	1.02	.98	.93	1.00	.96	.92	.96	.92	.89	.92	.89	.86	.88	.86	.84	.81
2.0	.87	.80	.73	.85	.78	.72	.82	.76	.71	.78	.73	.69	.75	.71	.67	.65
3.0	.75	.66	.59	.74	.65	.58	.70	.63	.57	.68	.61	.56	.65	.60	.55	.53
4.0	.66	.56	.48	.64	.55	.48	.62	.54	.47	.59	.52	.47	.57	.51	.46	.44
5.0	.58	.48	.41	.57	.47	.40	.54	.46	.40	.52	.45	.40	.50	.44	.39	.37
6.0	.51	.42	.35	.50	.41	.35	.49	.40	.34	.47	.40	.34	.45	.39	.34	.31
7.0	.46	.37	.30	.45	.36	.30	.44	.36	.30	.42	.35	.30	.41	.34	.29	.27
8.0	.42	.33	.27	.41	.33	.27	.40	.32	.26	.39	.31	.26	.37	.31	.26	.24
9.0	.38	.30	.24	.38	.29	.24	.36	.29	.23	.35	.28	.23	.34	.28	.23	.21
10.0	.35	.27	.21	.35	.27	.21	.34	.26	.21	.33	.26	.21	.32	.25	.21	.19



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2016-09-05

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity:65.0%
 Test Distance:7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

WEC AND CCEC

Test:U:119.9V I:1.995A P:238.2W PF:0.9956 Lamp Flux:32370.3x1 lm															

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.340	.193	.061	.333	.190	.060	.319	.183	.058	.307	.177	.057	.296	.171	.055	
2.0	.322	.177	.054	.316	.174	.054	.304	.169	.053	.293	.164	.051	.283	.160	.050	
3.0	.297	.158	.047	.291	.156	.047	.281	.152	.046	.271	.148	.046	.262	.145	.045	
4.0	.272	.141	.042	.267	.140	.041	.257	.137	.041	.249	.134	.040	.240	.131	.040	
5.0	.250	.127	.037	.245	.126	.037	.237	.123	.036	.229	.121	.036	.221	.118	.036	
6.0	.230	.115	.033	.226	.114	.033	.218	.112	.033	.211	.110	.032	.205	.108	.032	
7.0	.212	.105	.030	.209	.104	.030	.202	.102	.029	.196	.100	.029	.190	.099	.029	
8.0	.197	.096	.027	.194	.096	.027	.188	.094	.027	.182	.092	.027	.177	.091	.026	
9.0	.184	.089	.025	.181	.088	.025	.176	.087	.025	.171	.086	.024	.166	.084	.024	
10.0	.172	.083	.023	.170	.082	.023	.165	.081	.023	.160	.080	.023	.156	.078	.022	

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.182	.156	.132	.156	.134	.114	.107	.092	.079	.061	.053	.046	.020	.017	.015	
2.0	.176	.132	.094	.151	.113	.082	.103	.078	.057	.060	.046	.033	.019	.015	.011	
3.0	.170	.114	.070	.145	.099	.061	.100	.069	.043	.058	.040	.025	.019	.013	.008	
4.0	.162	.101	.055	.139	.088	.048	.096	.061	.034	.055	.036	.020	.018	.012	.007	
5.0	.155	.091	.044	.133	.079	.039	.092	.055	.027	.053	.032	.016	.017	.011	.005	
6.0	.148	.083	.037	.127	.072	.032	.088	.050	.023	.051	.030	.013	.016	.010	.004	
7.0	.141	.076	.031	.121	.066	.027	.084	.046	.019	.049	.027	.012	.016	.009	.004	
8.0	.134	.071	.027	.115	.061	.024	.080	.043	.017	.046	.025	.010	.015	.008	.003	
9.0	.127	.066	.024	.110	.057	.021	.076	.040	.015	.044	.024	.009	.014	.008	.003	
10.0	.121	.061	.022	.104	.053	.019	.072	.037	.013	.042	.022	.008	.014	.007	.003	

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2016-09-05

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity:65.0%
 Test Distance:7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

UGR(Unified Glare Rating) Table

Test:U:119.9V I:1.995A P:238.2W PF:0.9956 Lamp Flux:32370.3x1 lm										
ceiling/cavity	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
walls	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions	Viewed crosswise					Viewed endwise				
x = 2H y = 2H	34.2	35.9	34.5	36.1	36.3	30.3	32.0	30.6	32.2	32.4
3H	37.4	39.0	37.7	39.2	39.5	31.0	32.5	31.3	32.7	33.0
4H	37.6	39.1	37.9	39.3	39.6	30.9	32.4	31.2	32.6	32.9
6H	37.5	38.9	37.8	39.2	39.5	30.8	32.2	31.2	32.5	32.8
8H	37.4	38.8	37.8	39.1	39.4	30.8	32.1	31.1	32.4	32.7
12H	37.4	38.7	37.8	39.0	39.3	30.7	32.0	31.1	32.3	32.6
4H 2H	35.1	36.5	35.4	36.8	37.1	32.5	34.0	32.8	34.2	34.5
3H	38.7	39.9	39.0	40.2	40.6	33.2	34.5	33.6	34.8	35.1
4H	39.1	40.3	39.5	40.6	41.0	33.2	34.4	33.6	34.7	35.0
6H	39.1	40.1	39.5	40.5	40.8	33.1	34.2	33.5	34.5	34.9
8H	39.0	40.0	39.4	40.4	40.8	33.1	34.1	33.5	34.4	34.8
12H	39.0	39.9	39.4	40.3	40.7	33.1	34.0	33.5	34.3	34.8
8H 4H	39.3	40.2	39.7	40.6	41.0	34.5	35.5	34.9	35.8	36.2
6H	39.3	40.1	39.8	40.5	41.0	34.4	35.2	34.9	35.6	36.1
8H	39.3	40.0	39.7	40.4	40.9	34.4	35.1	34.9	35.5	36.0
12H	39.3	39.9	39.7	40.3	40.8	34.4	35.0	34.9	35.4	35.9
12H 4H	39.2	40.1	39.7	40.5	40.9	34.5	35.4	34.9	35.8	36.2
6H	39.3	40.0	39.7	40.4	40.9	34.5	35.2	34.9	35.6	36.1
8H	39.3	39.9	39.7	40.3	40.8	34.4	35.1	34.9	35.5	36.0
Variations with the observer position at spacings:										
S = 1.0H	+ 0.1 / - 0.1					+ 0.2 / - 0.3				
1.5H	+ 0.5 / - 0.7					+ 0.4 / - 0.5				
2.0H	+ 1.0 / - 0.5					+ 0.8 / - 0.8				

CIE Pub.117 Corrected 32370 lm Total Lamp Luminous Flux. (8log(F/F0) = 12.1)

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2016-09-05

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity:65.0%
 Test Distance:7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

UTILIZATION FACTORS TABLE

Test:U:119.9V I:1.995A P:238.2W PF:0.9956 Lamp Flux:32370.3x1 lm		

REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	52	40	32	51	39	32	50	39	32	25
0.80	62	49	41	61	49	41	59	48	40	33
1.00	71	58	50	69	57	50	67	59	49	41
1.25	78	66	58	76	65	58	74	64	57	49
1.50	84	72	64	82	71	64	79	70	63	54
2.00	91	82	74	89	80	74	86	78	72	63
2.50	96	87	80	94	86	80	90	83	78	69
3.00	100	92	86	98	91	85	93	88	83	74
4.00	105	98	93	102	97	92	98	93	89	80
5.00	108	102	98	105	100	96	100	97	93	84
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

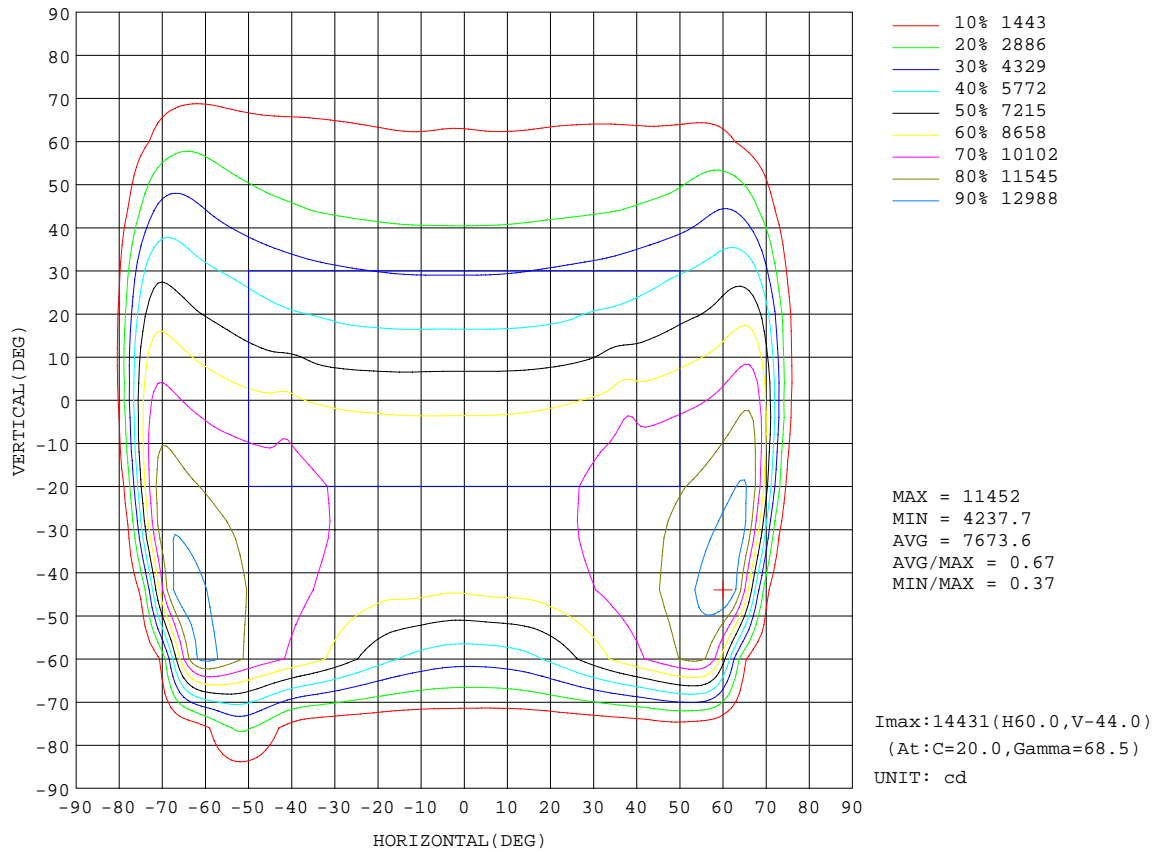
C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2016-09-05

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity:65.0%
 Test Distance:7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ISOCANDELA DIAGRAM

Test:U:119.9V I:1.995A P:238.2W PF:0.9956 Lamp Flux:32370.3x1 lm		



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25DEG
 Operators:
 Test Date: 2016-09-05

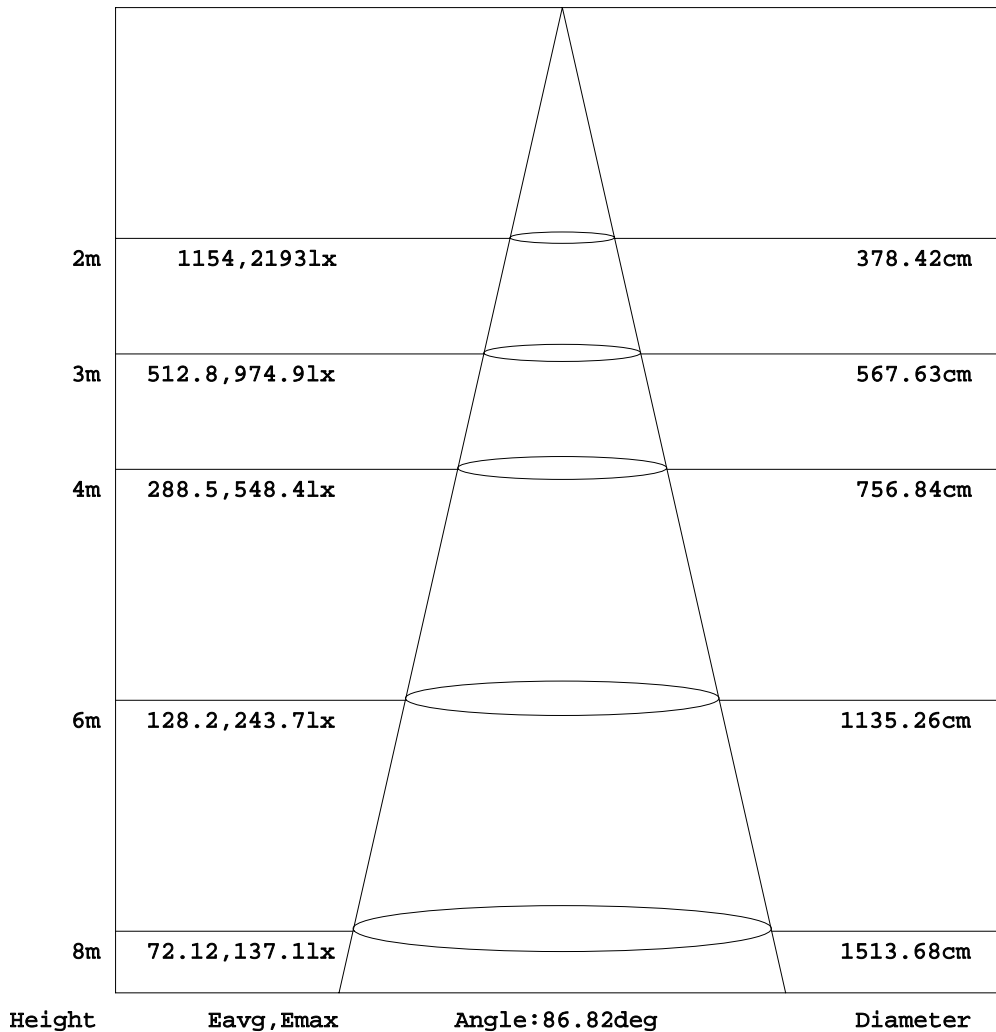
γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity: 65.0%
 Test Distance: 7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

AAI Figure

Test:U:119.9V I:1.995A P:238.2W PF:0.9956 Lamp Flux:32370.3x1 lm		

Flux out:13058 lm



Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

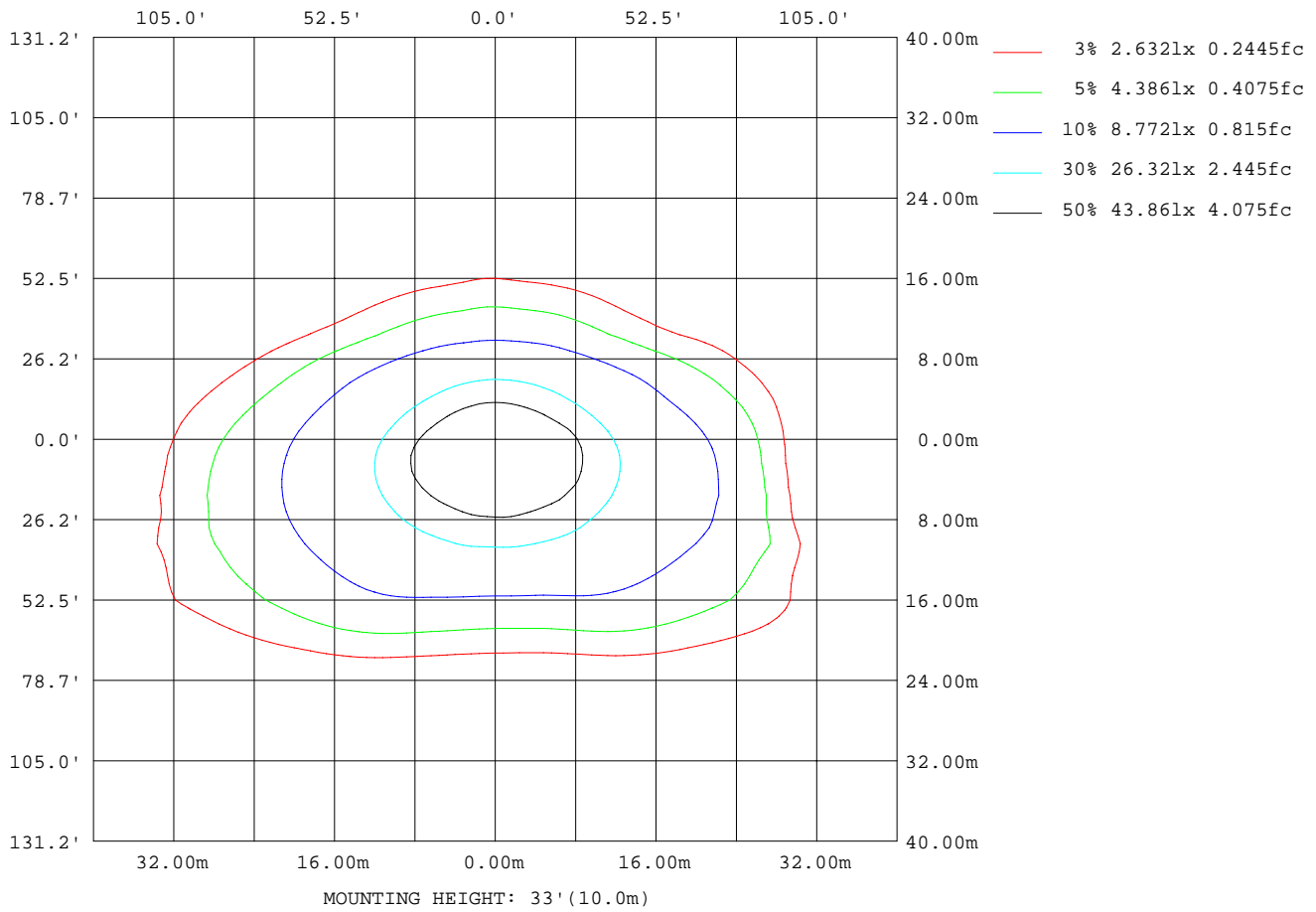
C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2016-09-05

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity:65.0%
 Test Distance:7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ISOLUX DIAGRAM

Test:U:119.9V I:1.995A P:238.2W PF:0.9956 Lamp Flux:32370.3x1 lm		



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2016-09-05

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity:65.0%
 Test Distance:7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LED Avg.L Report

Test:U:119.9V I:1.995A P:238.2W PF:0.9956 Lamp Flux:32370.3x1 lm		

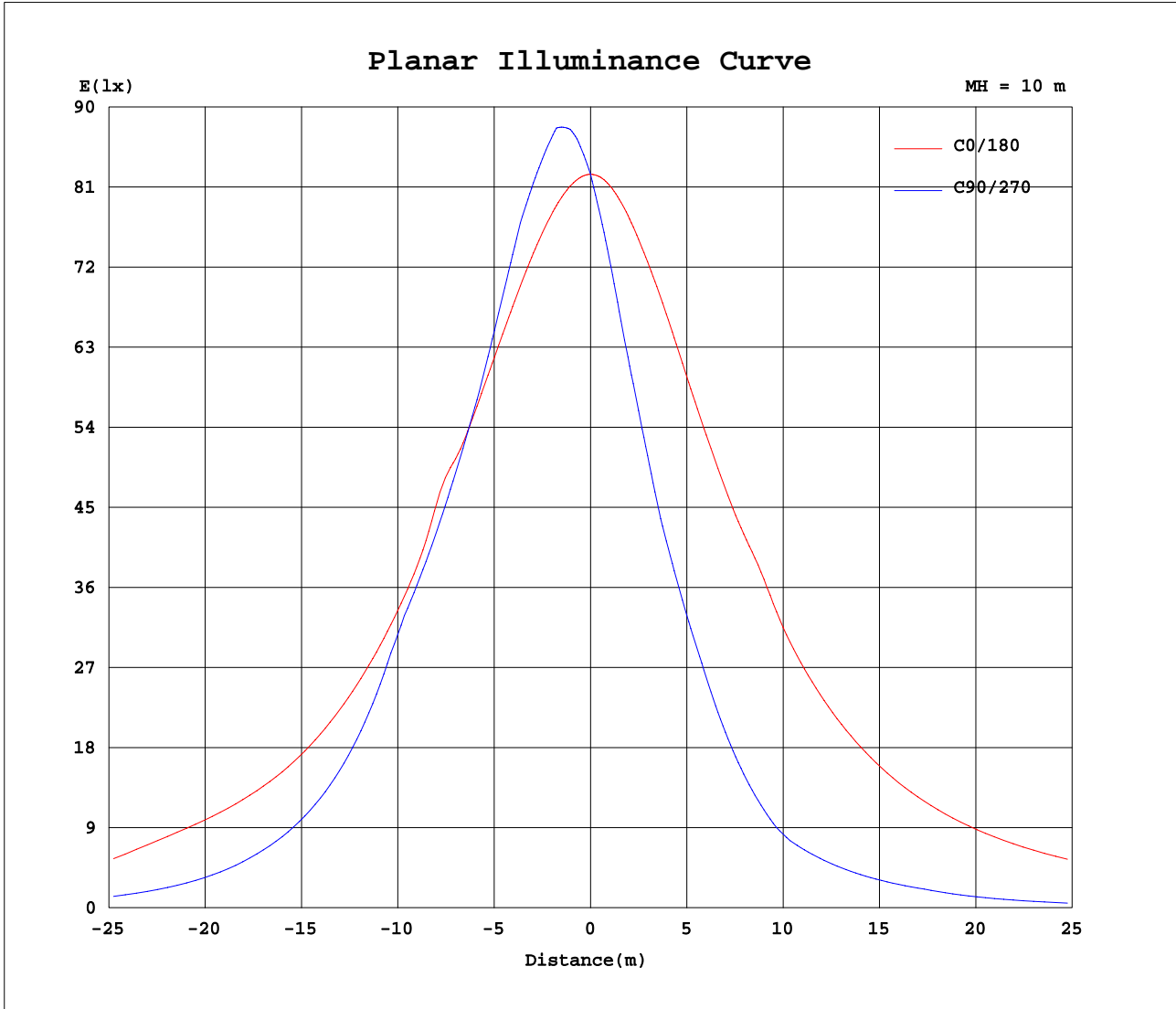
AvgL	cd/m2
L_0~180(65)av	252243
L_0~180(75)av	194796
L_0~180(85)av	16873
L_90~270(65)av	54807
L_90~270(75)av	19255
L_90~270(85)av	22304
L_45(65)av	142984
L_45(75)av	108714
L_45(85)av	54851

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2016-09-05

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity:65.0%
 Test Distance:7.850m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25DEG
 Operators:
 Test Date: 2016-09-05

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity: 65.0%
 Test Distance: 7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:119.9V I:1.995A P:238.2W PF:0.9956 Lamp Flux:32370.3x1 lm		

Table--1

UNIT: x10cd

C(DEG) γ (DEG)	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90
0	824	824	824	824	824	824	824	824	824	824	824	824	824	824	824	824	824	824	824
5	824	829	835	840	844	849	854	858	862	866	869	872	874	876	877	878	879	880	880
10	826	837	847	857	867	876	883	890	895	900	903	907	910	912	914	916	917	918	918
15	832	848	864	879	891	902	910	917	924	926	926	926	926	925	925	924	924	923	923
20	842	865	887	905	919	930	939	940	940	939	938	937	936	934	933	931	930	929	928
25	857	887	914	935	951	959	961	961	960	958	955	948	939	932	925	920	916	912	911
30	879	916	948	971	985	989	990	989	984	972	960	947	934	923	914	906	900	896	893
35	918	958	991	1016	1029	1033	1032	1023	1007	989	970	952	934	920	910	904	899	894	889
40	942	1003	1052	1083	1096	1116	1086	1057	1043	1019	985	959	938	920	909	904	899	892	885
45	945	1006	1052	1074	1090	1090	1084	1064	1051	1033	1000	967	940	919	906	901	891	879	869
50	971	1038	1085	1112	1127	1123	1110	1086	1061	1037	1007	971	926	873	828	797	777	760	749
55	1001	1077	1128	1162	1174	1169	1146	1117	1084	1045	986	919	846	775	714	671	643	625	617
60	1053	1140	1197	1233	1244	1230	1195	1152	1090	1022	948	865	774	682	604	547	511	490	485
65	1127	1233	1304	1348	1357	1330	1254	1165	1085	1003	917	804	657	536	448	390	356	340	336
70	850	921	1043	1181	1379	1302	1243	1175	1055	831	658	520	409	323	262	221	199	189	187
75	204	183	210	350	592	760	980	817	605	430	301	208	141	95.6	69.3	57.2	51.6	50.6	52.0
80	25.3	20.5	21.0	31.4	40.8	191	312	217	121	56.5	37.6	30.5	26.4	25.4	26.2	25.0	25.1	26.6	28.4
85	10.8	11.3	11.5	12.6	15.2	19.5	24.4	34.7	40.8	33.0	22.2	18.6	16.7	16.4	17.4	16.9	16.9	17.7	18.7
90	8.60	8.57	8.05	7.53	7.02	6.63	6.36	6.17	6.02	5.86	5.87	6.13	6.90	7.50	8.45	8.82	8.82	8.75	9.02

C Range: 0 - 360DEG C Interval: 5.0DEG Test Speed: HIGH Temperature:25DEG Operators: Test Date:2016-09-05	γ Range: 0 - 90DEG γ Interval: 0.5DEG Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350 Humidity:65.0% Test Distance:7.850m [K=1.0000] Remarks:
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EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:119.9V I:1.995A P:238.2W PF:0.9956 Lamp Flux:32370.3x1 lm		

Table--2

UNIT: x10cd

C(DEG) γ (DEG)	95	100	105	110	115	120	125	130	135	140	145	150	155	160	165	170	175	180	185
0	824	824	824	824	824	824	824	824	824	824	824	824	824	824	824	824	824	824	824
5	880	879	878	877	875	874	871	869	865	861	857	853	849	844	839	834	829	824	818
10	917	916	915	913	911	908	905	902	897	893	887	880	873	864	854	844	833	823	809
15	923	922	922	922	923	923	922	922	921	919	912	904	895	884	871	855	839	823	802
20	928	928	928	929	930	931	932	932	932	932	930	929	919	906	891	872	850	827	799
25	911	912	916	920	926	933	941	947	948	948	947	944	941	931	912	890	862	832	795
30	893	896	900	907	916	925	935	946	957	967	968	966	961	955	938	913	879	841	795
35	888	892	898	905	911	920	933	948	963	977	989	996	991	982	969	941	903	857	801
40	884	890	899	905	910	919	935	955	977	997	1014	1027	1036	1027	1010	984	943	890	825
45	869	883	900	903	904	918	939	963	990	1020	1043	1054	1072	1061	1038	1007	954	891	816
50	753	775	804	831	861	904	940	970	1002	1031	1050	1069	1079	1077	1058	1024	973	903	821
55	625	651	687	727	779	841	904	961	1008	1043	1072	1096	1114	1113	1098	1058	1003	926	835
60	497	527	573	631	705	788	871	942	1002	1054	1098	1130	1153	1162	1145	1106	1045	959	853
65	345	369	411	473	562	682	830	931	1000	1059	1115	1171	1212	1230	1216	1174	1104	1005	876
70	192	207	234	276	339	426	537	674	846	1043	1140	1221	1292	1342	1318	1266	1177	1057	893
75	52.7	54.2	60.6	73.1	101	148	218	323	491	692	895	1162	1327	1202	1152	954	851	804	722
80	28.1	26.8	27.0	28.3	28.7	31.0	37.2	69.1	173	332	435	513	645	454	216	115	111	164	229
85	18.7	18.4	19.0	19.8	20.1	21.5	24.2	43.8	102	170	176	96.0	35.4	26.6	19.3	14.6	13.7	18.6	29.7
90	9.38	10.1	10.9	11.3	11.4	11.7	10.2	10.9	13.4	16.7	19.3	18.7	14.3	10.1	8.69	8.18	7.98	7.60	10.0

C Range: 0 - 360DEG	γ Range: 0 - 90DEG
C Interval: 5.0DEG	γ Interval: 0.5DEG
Test Speed: HIGH	Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350
Temperature:25DEG	Humidity:65.0%
Operators:	Test Distance:7.850m [K=1.0000]
Test Date:2016-09-05	Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:119.9V I:1.995A P:238.2W PF:0.9956 Lamp Flux:32370.3x1 lm		

Table--3

UNIT: x10cd

C (DEG) γ (DEG)	190	195	200	205	210	215	220	225	230	235	240	245	250	255	260	265	270	275	280
0	824	824	824	824	824	824	824	824	824	824	824	824	824	824	824	824	824	824	824
5	811	805	799	793	787	781	776	771	767	763	760	756	754	752	750	750	749	749	750
10	796	784	771	759	747	736	725	715	705	697	690	683	678	674	671	669	668	669	671
15	782	762	742	723	704	686	670	656	645	634	625	617	610	605	601	599	598	598	601
20	771	743	715	688	663	642	623	605	589	575	563	552	544	537	532	528	527	528	531
25	759	723	687	655	628	602	577	555	535	519	508	498	490	484	479	477	476	476	479
30	749	704	662	627	593	562	533	512	493	476	462	450	440	433	428	425	424	425	428
35	745	690	646	604	563	529	500	476	454	434	413	396	382	372	365	360	359	361	365
40	755	691	633	581	539	501	466	436	405	379	355	335	319	308	301	296	294	296	301
45	739	674	609	556	510	466	423	384	351	321	296	274	257	244	239	235	234	236	239
50	738	661	593	535	479	422	372	330	294	264	243	230	220	213	211	210	209	209	211
55	742	653	579	508	435	372	318	277	252	234	219	207	197	190	189	190	189	187	188
60	743	643	556	466	384	316	274	246	225	209	195	183	173	167	166	169	169	166	165
65	739	620	513	414	331	274	235	211	194	180	165	151	139	129	125	128	127	124	124
70	730	586	464	359	279	222	187	167	152	137	125	113	102	88.9	84.0	85.9	86.1	81.6	81.2
75	617	489	372	281	210	163	136	118	105	93.4	83.0	74.2	63.9	50.3	44.9	46.9	47.7	42.5	40.6
80	243	235	201	162	120	93.3	80.9	70.8	64.2	58.4	53.3	49.3	43.7	34.1	30.2	32.0	32.5	28.6	26.7
85	44.3	55.0	46.5	47.9	49.0	46.5	44.6	40.7	37.1	34.0	31.3	29.4	26.8	21.5	19.3	20.2	20.2	18.1	16.8
90	10.3	10.3	10.3	10.5	10.2	10.0	9.93	9.81	9.48	9.20	9.09	9.28	9.46	8.60	8.28	8.49	7.87	7.72	6.99

C Range: 0 - 360DEG C Interval: 5.0DEG Test Speed: HIGH Temperature:25DEG Operators: Test Date:2016-09-05	γ Range: 0 - 90DEG γ Interval: 0.5DEG Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350 Humidity:65.0% Test Distance:7.850m [K=1.0000] Remarks:
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EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:119.9V I:1.995A P:238.2W PF:0.9956 Lamp Flux:32370.3x1 lm																	

Table--4

UNIT: x10cd

C (DEG) \ γ (DEG)	285	290	295	300	305	310	315	320	325	330	335	340	345	350	355				
0	824	824	824	824	824	824	824	824	824	824	824	824	824	824	824				
5	752	754	756	759	763	767	771	776	781	787	793	799	805	811	818				
10	673	678	683	689	697	706	715	726	737	749	761	774	787	800	813				
15	605	610	617	625	635	647	659	674	691	710	730	750	771	791	812				
20	537	544	554	565	578	594	611	630	651	672	699	727	757	786	814				
25	484	492	501	512	525	541	563	588	614	643	673	706	745	783	820				
30	435	443	455	469	485	503	524	548	580	617	654	691	735	784	832				
35	374	386	402	422	445	465	490	520	556	594	638	689	746	806	865				
40	311	324	342	364	388	417	449	484	522	562	608	670	732	798	872				
45	247	262	280	303	328	359	394	436	485	534	586	646	717	789	870				
50	216	225	235	247	267	297	335	381	437	503	567	633	710	795	885				
55	194	202	212	223	236	252	274	318	378	452	539	619	700	799	903				
60	170	178	187	198	209	223	241	268	309	386	483	589	687	801	932				
65	130	140	152	164	179	190	203	228	264	324	425	543	673	807	972				
70	85.8	96.1	106	115	126	138	152	178	212	268	351	449	552	668	768				
75	43.2	52.0	58.3	63.5	70.6	79.1	86.2	105	136	172	205	250	264	271	253				
80	27.9	33.3	34.8	34.6	34.4	33.7	24.5	29.5	43.7	66.6	77.8	69.3	71.3	56.6	40.6				
85	17.4	20.0	20.5	20.5	20.5	20.0	15.7	15.1	14.2	13.6	13.1	12.8	15.8	13.6	11.6				
90	6.81	6.48	6.30	6.33	6.61	6.99	7.37	7.72	8.04	8.31	8.51	8.63	8.65	8.58	8.42				

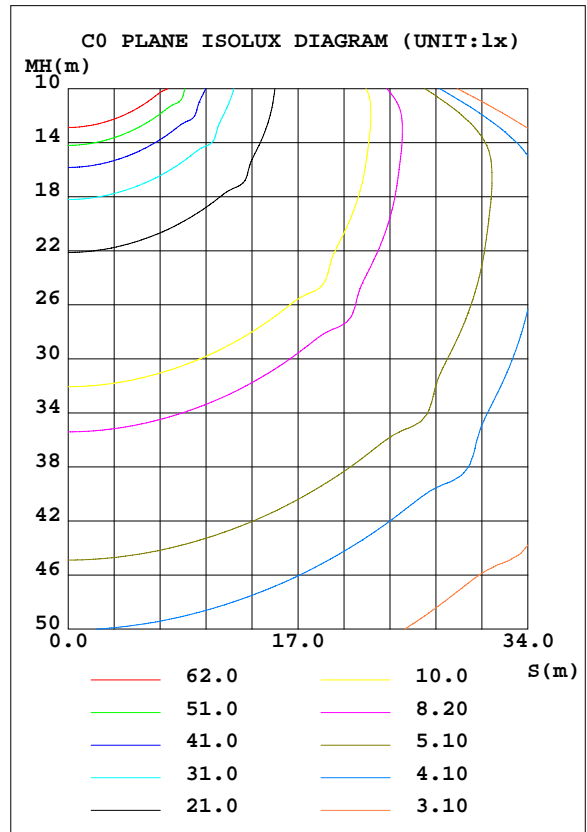
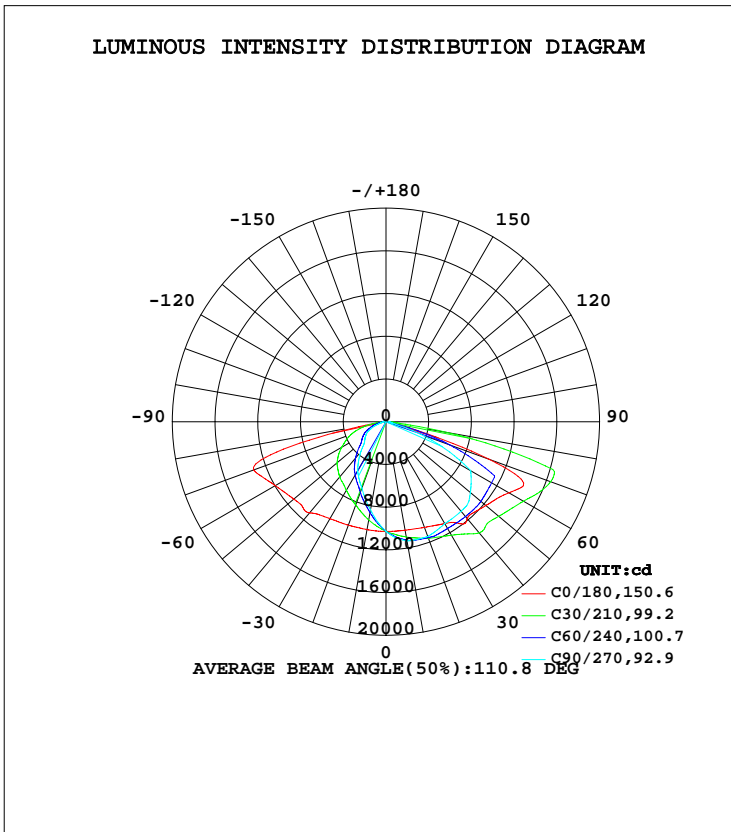
C Range: 0 - 360DEG γ Range: 0 - 90DEG
C Interval: 5.0DEG γ Interval: 0.5DEG
Test Speed: HIGH Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350
Temperature:25DEG Humidity:65.0%
Operators: Test Distance:7.850m [K=1.0000]
Test Date:2016-09-05 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:120.2V I:2.636A P:316.1W PF:0.9975 Lamp Flux:42260.7x1 lm		

DATA OF LAMP		PHOTOMETRIC DATA Eff: 133.71 lm/W			
MODEL		I _{max} (cd)	17622	S/MH(C0/180)	1.63
NOMINAL POWER(W)	300	LOR(%)	100.0	S/MH(C90/270)	0.80
RATED VOLTAGE(V)	120	TOTAL FLUX(lm)	42261	η UP, DN(C0-180)	0.0,68.4
NOMINAL FLUX(lm)	42260.7	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.0,31.6
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	1.50
TEST VOLTAGE(V)	120	η down(%)	100.0	CIBSE SHR MAX	1.55



C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2016-09-05

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350
Humidity:65.0%
Test Distance:7.850m [K=1.0000]
Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
5	1028	1075	1091	1074	1027	963.8	937.1	964.1	0- 5	244.5	244.5	0.58,0.58
10	1031	1114	1134	1111	1025	894.5	838.1	896.2	5- 10	723.9	968.4	2.29,2.29
15	1039	1145	1139	1139	1026	822.3	749.0	827.3	10- 15	1180	2148	5.08,5.08
20	1053	1161	1144	1152	1031	757.4	659.9	766.6	15- 20	1606	3754	8.88,8.88
25	1073	1183	1123	1171	1037	694.2	595.5	706.5	20- 25	2004	5758	13.6,13.6
30	1101	1202	1102	1182	1048	640.8	531.1	657.3	25- 30	2375	8134	19.2,19.2
35	1156	1226	1098	1191	1068	594.8	449.3	615.4	30- 35	2726	10860	25.7,25.7
40	1184	1266	1094	1210	1114	545.0	367.5	564.0	35- 40	3070	13930	33,33
45	1188	1280	1084	1226	1113	480.2	291.3	495.4	40- 45	3342	17272	40.9,40.9
50	1221	1282	1032	1240	1127	412.6	259.7	421.9	45- 50	3557	20829	49.3,49.3
55	1261	1300	973.8	1252	1156	346.2	233.6	347.2	50- 55	3764	24593	58.2,58.2
60	1331	1327	915.9	1281	1197	307.0	207.5	303.8	55- 60	3960	28553	67.6,67.6
65	1419	1356	632.4	1311	1255	261.5	156.5	254.2	60- 65	4080	32633	77.2,77.2
70	1024	1197	348.9	1214	1318	206.5	105.4	189.8	65- 70	3876	36509	86.4,86.4
75	224.3	804.2	92.37	979.7	994.7	147.4	57.88	108.8	70- 75	3033	39543	93.6,93.6
80	24.00	443.4	51.42	747.9	197.4	89.18	38.35	31.03	75- 80	1717	41259	97.6,97.6
85	8.157	244.6	37.43	404.9	18.25	48.88	22.33	16.65	80- 85	746.2	42006	99.4,99.4
90	5.589	18.99	23.43	28.16	4.412	7.669	6.300	3.882	85- 90	255.1	42261	100,100
95									90- 95			
100									95-100			
105									100-105			
110									105-110			
115									110-115			
120									115-120			
125									120-125			
130									125-130			
135									130-135			
140									135-140			
145									140-145			
150									145-150			
155									150-155			
160									155-160			
165									160-165			
170									165-170			
175									170-175			
180									175-180			
DEG	LUMINOUS INTENSITY:×10cd								UNIT:lm			

Conical surface Flux(90deg): 17272 lm

%lum = 40.9%
%lamp = 40.9%

Conical surface Flux(120deg): 28553 lm

%lum = 67.6%
%lamp = 67.6%

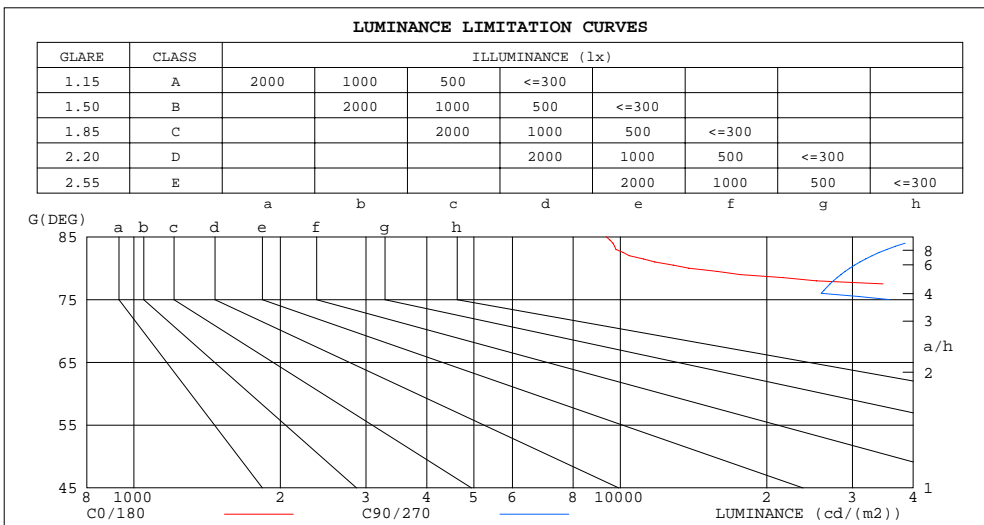
C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2016-09-05

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350
Humidity:65.0%
Test Distance:7.850m [K=1.0000]
Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINANCE LIMITATION CURVES

Test:U:120.2V I:2.636A P:316.1W PF:0.9975 Lamp Flux:42260.7x1 lm		



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	9359	42944
80	13819	29613
75	86675	35688
70	299302	102015
65	335797	149640
60	266264	183180
55	219887	169775
50	189947	160501
45	167960	153328

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25DEG
 Operators:
 Test Date: 2016-09-05

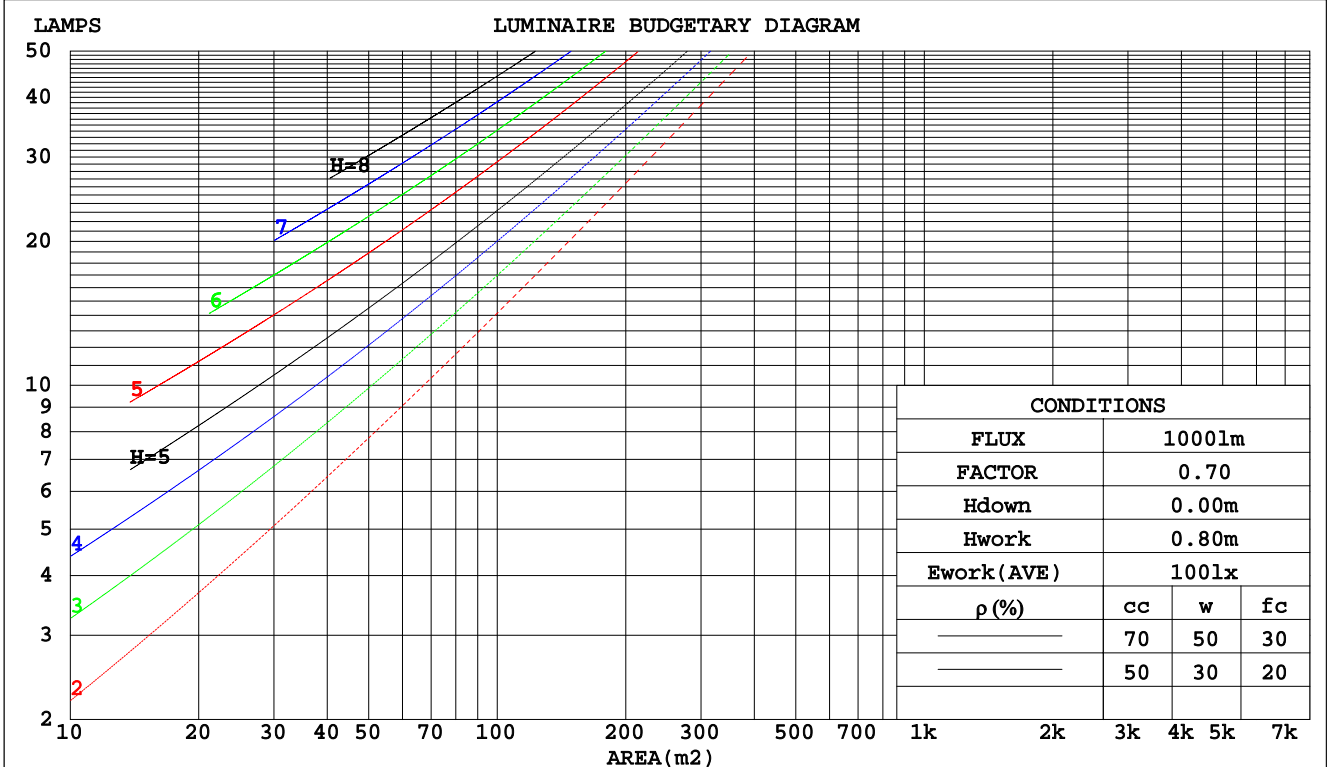
γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity: 65.0%
 Test Distance: 7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:120.2V I:2.636A P:316.1W PF:0.9975 Lamp Flux:42260.7x1 lm																

pcc	80%			70%			50%			30%			10%			0
	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pw																
pfc																
RCR	RCR:Room Cavity Ratio															
	Coefficients of Utilization(CU)															
0.0	1.19	1.19	1.19	1.16	1.16	1.16	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	.00
1.0	1.01	.96	.92	.99	.95	.90	.95	.91	.88	.91	.88	.85	.87	.85	.82	.80
2.0	.86	.78	.72	.84	.77	.71	.80	.74	.69	.77	.72	.67	.74	.70	.66	.63
3.0	.74	.65	.57	.72	.64	.57	.69	.62	.56	.66	.60	.55	.64	.58	.54	.51
4.0	.64	.54	.47	.63	.54	.47	.60	.52	.46	.58	.51	.45	.56	.50	.45	.42
5.0	.57	.47	.39	.55	.46	.39	.53	.45	.39	.51	.44	.38	.49	.43	.38	.35
6.0	.50	.41	.34	.49	.40	.33	.48	.39	.33	.46	.38	.33	.44	.38	.32	.30
7.0	.45	.36	.29	.44	.35	.29	.43	.35	.29	.41	.34	.28	.40	.33	.28	.26
8.0	.41	.32	.26	.40	.32	.25	.39	.31	.25	.38	.30	.25	.36	.30	.25	.23
9.0	.37	.29	.23	.37	.28	.23	.36	.28	.23	.35	.27	.22	.33	.27	.22	.20
10.0	.34	.26	.20	.34	.26	.20	.33	.25	.20	.32	.25	.20	.31	.25	.20	.18



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25DEG
 Operators:
 Test Date: 2016-09-05

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity: 65.0%
 Test Distance: 7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

WEC AND CCEC

Test:U:120.2V I:2.636A P:316.1W PF:0.9975 Lamp Flux:42260.7x1 lm															

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.358	.203	.064	.350	.200	.063	.337	.193	.062	.325	.187	.060	.313	.181	.059	
2.0	.334	.183	.056	.327	.180	.056	.315	.175	.054	.304	.171	.053	.294	.166	.052	
3.0	.305	.162	.049	.299	.160	.048	.288	.156	.047	.278	.153	.047	.269	.149	.046	
4.0	.278	.144	.042	.273	.143	.042	.263	.139	.042	.254	.136	.041	.246	.134	.041	
5.0	.254	.129	.037	.249	.128	.037	.241	.125	.037	.233	.123	.037	.225	.120	.036	
6.0	.233	.117	.033	.229	.116	.033	.221	.113	.033	.214	.111	.033	.208	.109	.032	
7.0	.215	.106	.030	.211	.105	.030	.205	.103	.030	.198	.102	.030	.192	.100	.029	
8.0	.199	.097	.027	.196	.097	.027	.190	.095	.027	.184	.093	.027	.179	.092	.027	
9.0	.186	.090	.025	.183	.089	.025	.177	.088	.025	.172	.086	.025	.167	.085	.025	
10.0	.174	.083	.023	.171	.083	.023	.166	.081	.023	.161	.080	.023	.157	.079	.023	

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.184	.156	.131	.157	.134	.112	.107	.092	.078	.062	.053	.045	.020	.017	.015	
2.0	.178	.132	.093	.152	.113	.080	.104	.078	.056	.060	.046	.033	.019	.015	.011	
3.0	.171	.115	.069	.147	.099	.060	.101	.069	.042	.058	.040	.025	.019	.013	.008	
4.0	.164	.102	.054	.141	.088	.047	.097	.061	.033	.056	.036	.020	.018	.012	.006	
5.0	.156	.092	.044	.134	.079	.038	.092	.055	.027	.054	.032	.016	.017	.011	.005	
6.0	.149	.083	.036	.128	.072	.032	.088	.051	.022	.051	.030	.013	.017	.010	.004	
7.0	.142	.077	.031	.122	.066	.027	.084	.047	.019	.049	.027	.011	.016	.009	.004	
8.0	.135	.071	.027	.116	.061	.024	.080	.043	.017	.047	.025	.010	.015	.008	.003	
9.0	.128	.066	.024	.110	.057	.021	.076	.040	.015	.045	.024	.009	.014	.008	.003	
10.0	.122	.062	.021	.105	.053	.019	.073	.038	.013	.042	.022	.008	.014	.007	.003	

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2016-09-05

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity:65.0%
 Test Distance:7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

UGR(Unified Glare Rating) Table

Test:U:120.2V I:2.636A P:316.1W PF:0.9975 Lamp Flux:42260.7x1 lm										
ceiling/cavity	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
walls	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions	Viewed crosswise					Viewed endwise				
x = 2H y = 2H	34.9	36.5	35.1	36.8	37.0	32.2	33.9	32.5	34.1	34.4
3H	38.0	39.6	38.3	39.8	40.1	33.2	34.8	33.5	35.0	35.2
4H	38.1	39.6	38.5	39.9	40.2	33.2	34.7	33.5	34.9	35.2
6H	38.0	39.4	38.4	39.7	40.0	33.1	34.5	33.4	34.8	35.1
8H	38.0	39.3	38.3	39.6	39.9	33.0	34.4	33.4	34.7	35.0
12H	37.9	39.2	38.3	39.5	39.9	33.0	34.3	33.4	34.6	34.9
4H 2H	35.8	37.3	36.1	37.6	37.8	34.1	35.5	34.4	35.8	36.1
3H	39.4	40.7	39.8	41.0	41.4	35.1	36.4	35.4	36.7	37.0
4H	40.0	41.3	40.4	41.6	41.9	35.1	36.3	35.4	36.6	36.9
6H	40.0	41.1	40.4	41.4	41.8	35.0	36.1	35.4	36.4	36.8
8H	40.0	41.0	40.4	41.3	41.7	35.0	36.0	35.4	36.3	36.7
12H	39.9	40.8	40.3	41.2	41.6	34.9	35.9	35.4	36.3	36.7
8H 4H	40.4	41.4	40.8	41.8	42.2	36.5	37.5	36.9	37.9	38.3
6H	40.6	41.5	41.1	41.9	42.3	36.5	37.3	36.9	37.7	38.1
8H	40.6	41.4	41.1	41.8	42.3	36.4	37.2	36.9	37.6	38.1
12H	40.6	41.2	41.1	41.7	42.2	36.4	37.1	36.9	37.5	38.0
12H 4H	40.4	41.3	40.8	41.7	42.1	36.7	37.6	37.1	38.0	38.4
6H	40.7	41.4	41.1	41.9	42.3	36.8	37.5	37.3	38.0	38.4
8H	40.7	41.4	41.2	41.8	42.3	36.8	37.5	37.3	37.9	38.4
Variations with the observer position at spacings:										
S = 1.0H	+ 0.1 / - 0.1					+ 0.2 / - 0.2				
1.5H	+ 0.3 / - 0.5					+ 0.2 / - 0.3				
2.0H	+ 0.5 / - 0.6					+ 1.1 / - 1.1				

CIE Pub.117 Corrected 42261 lm Total Lamp Luminous Flux. (8log(F/F0) = 13.0)

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2016-09-05

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity:65.0%
 Test Distance:7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

UTILIZATION FACTORS TABLE

Test:U:120.2V I:2.636A P:316.1W PF:0.9975 Lamp Flux:42260.7x1 lm		

REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	51	39	31	51	38	31	49	38	31	24
0.80	61	48	40	60	48	40	58	47	39	31
1.00	69	57	48	68	56	48	66	58	48	40
1.25	77	65	56	75	64	56	72	62	55	47
1.50	82	71	63	81	70	62	77	68	61	53
2.00	90	80	73	88	79	72	85	77	70	62
2.50	95	86	79	93	85	78	89	82	76	67
3.00	99	91	85	97	89	83	92	86	81	72
4.00	104	97	92	101	95	90	97	92	88	78
5.00	107	101	97	104	99	95	100	96	92	82
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

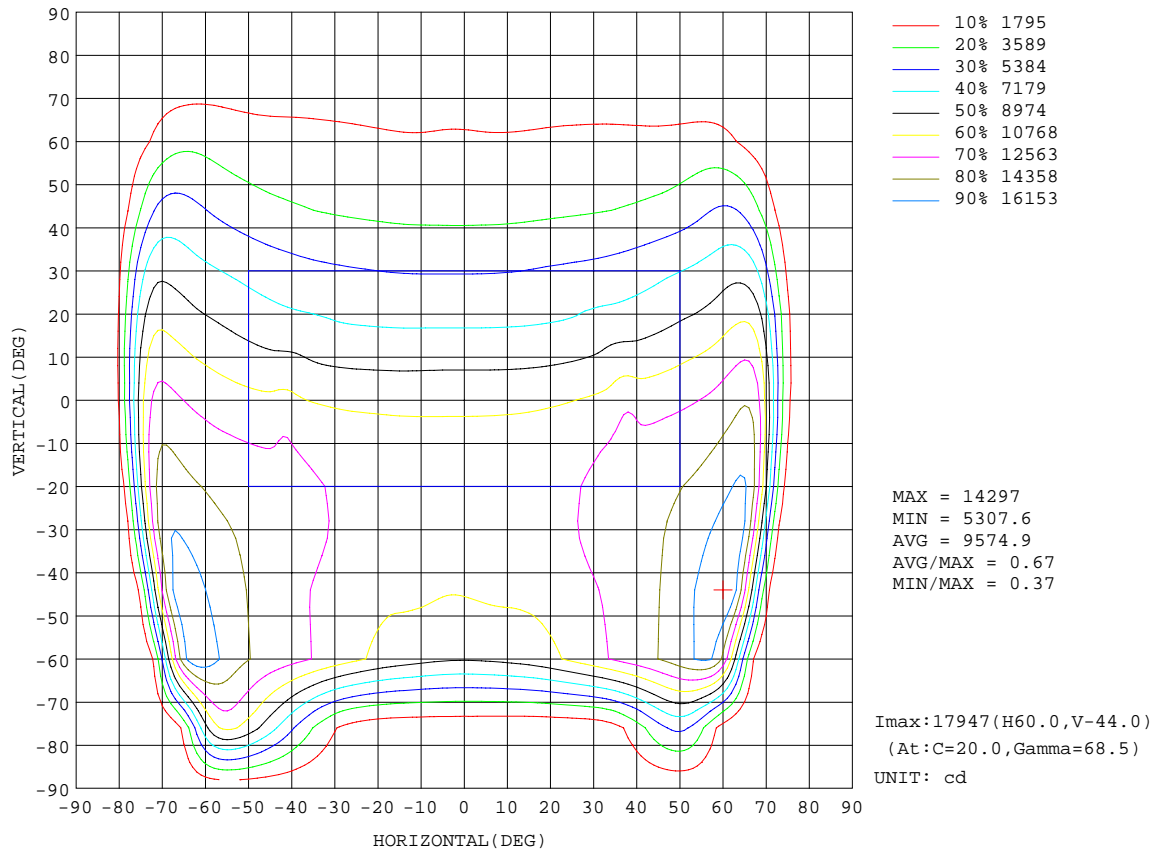
C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2016-09-05

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity:65.0%
 Test Distance:7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ISOCANDELA DIAGRAM

Test:U:120.2V I:2.636A P:316.1W PF:0.9975 Lamp Flux:42260.7x1 lm		



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25DEG
 Operators:
 Test Date: 2016-09-05

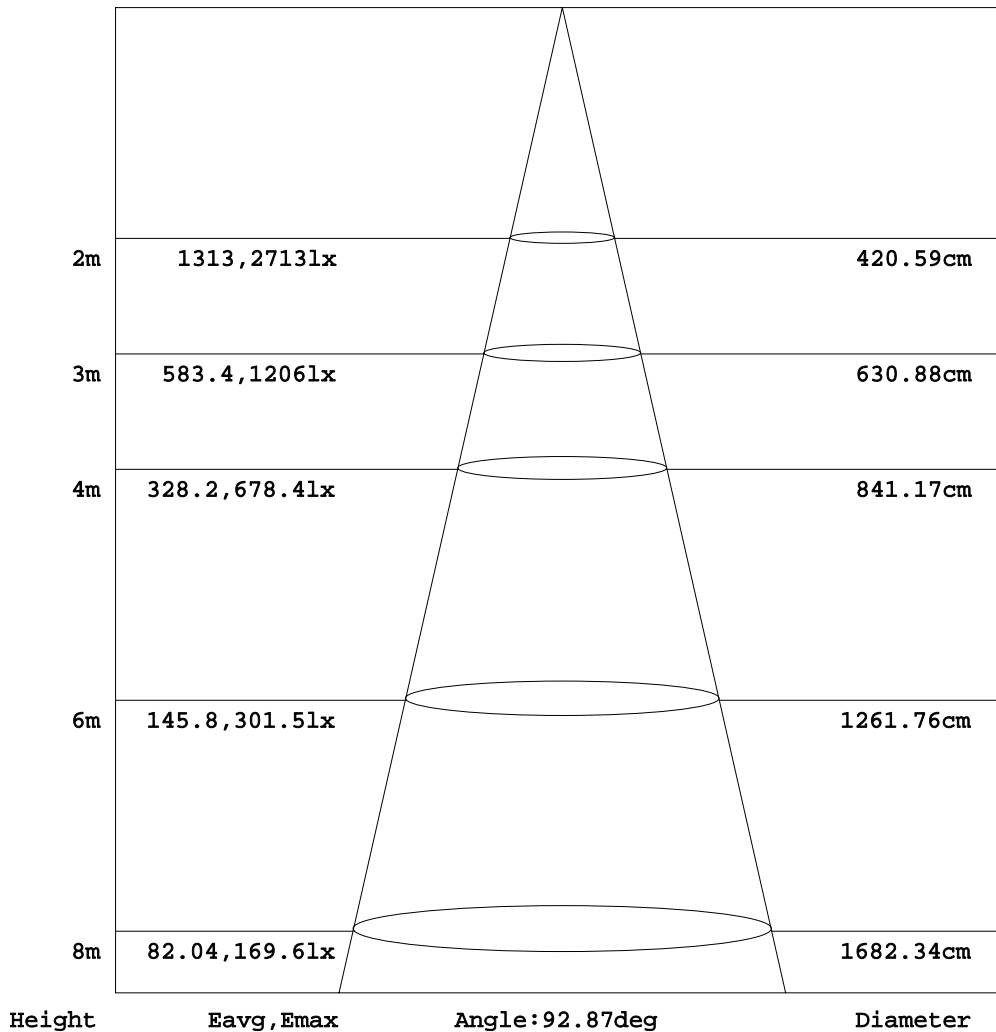
γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity: 65.0%
 Test Distance: 7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

AAI Figure

Test:U:120.2V I:2.636A P:316.1W PF:0.9975 Lamp Flux:42260.7x1 lm		

Flux out:18317 lm



Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

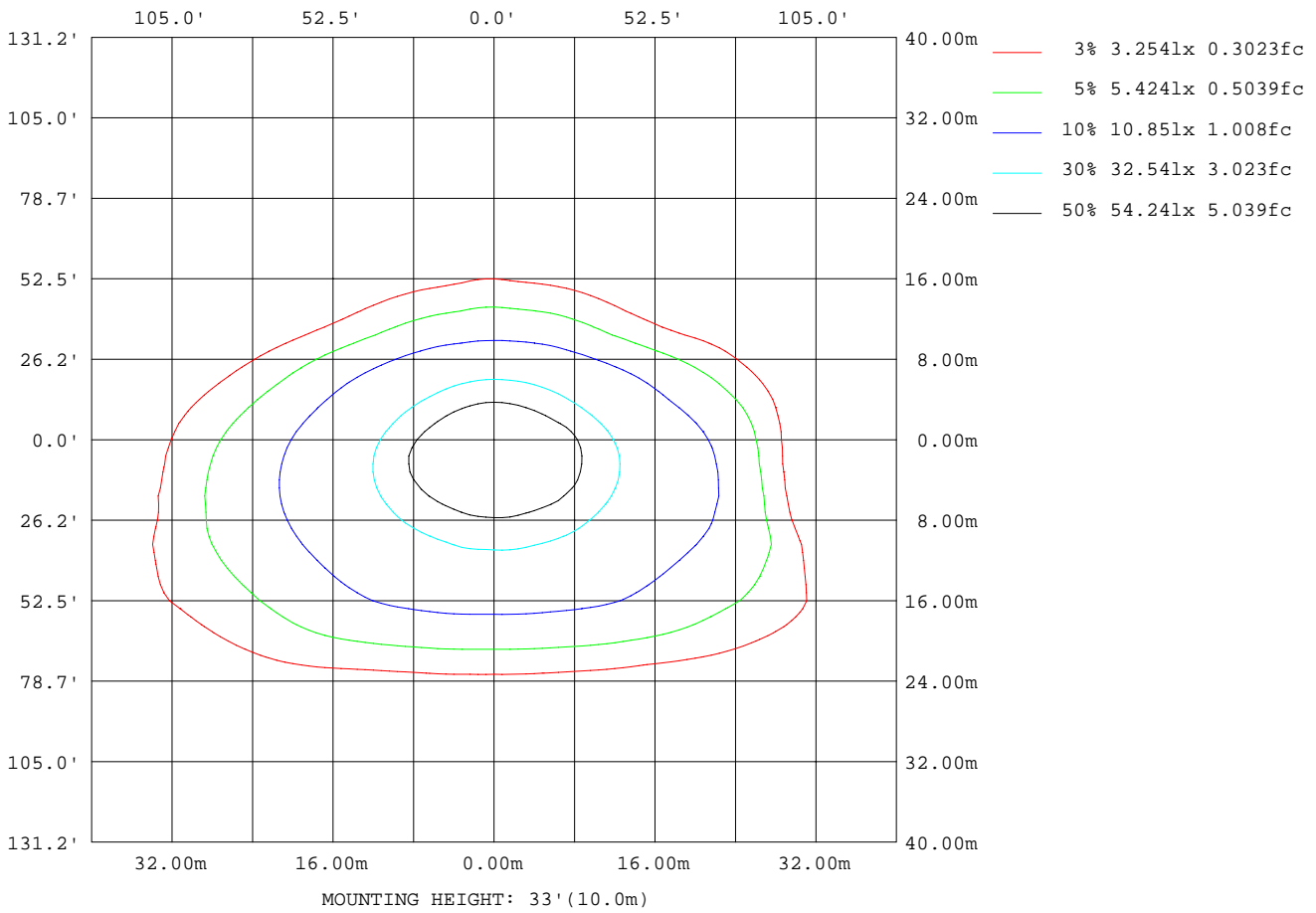
C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25DEG
 Operators:
 Test Date: 2016-09-05

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity: 65.0%
 Test Distance: 7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ISOLUX DIAGRAM

Test:U:120.2V I:2.636A P:316.1W PF:0.9975 Lamp Flux:42260.7x1 lm		



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2016-09-05

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity:65.0%
 Test Distance:7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LED Avg.L Report

Test:U:120.2V I:2.636A P:316.1W PF:0.9975 Lamp Flux:42260.7x1 lm		

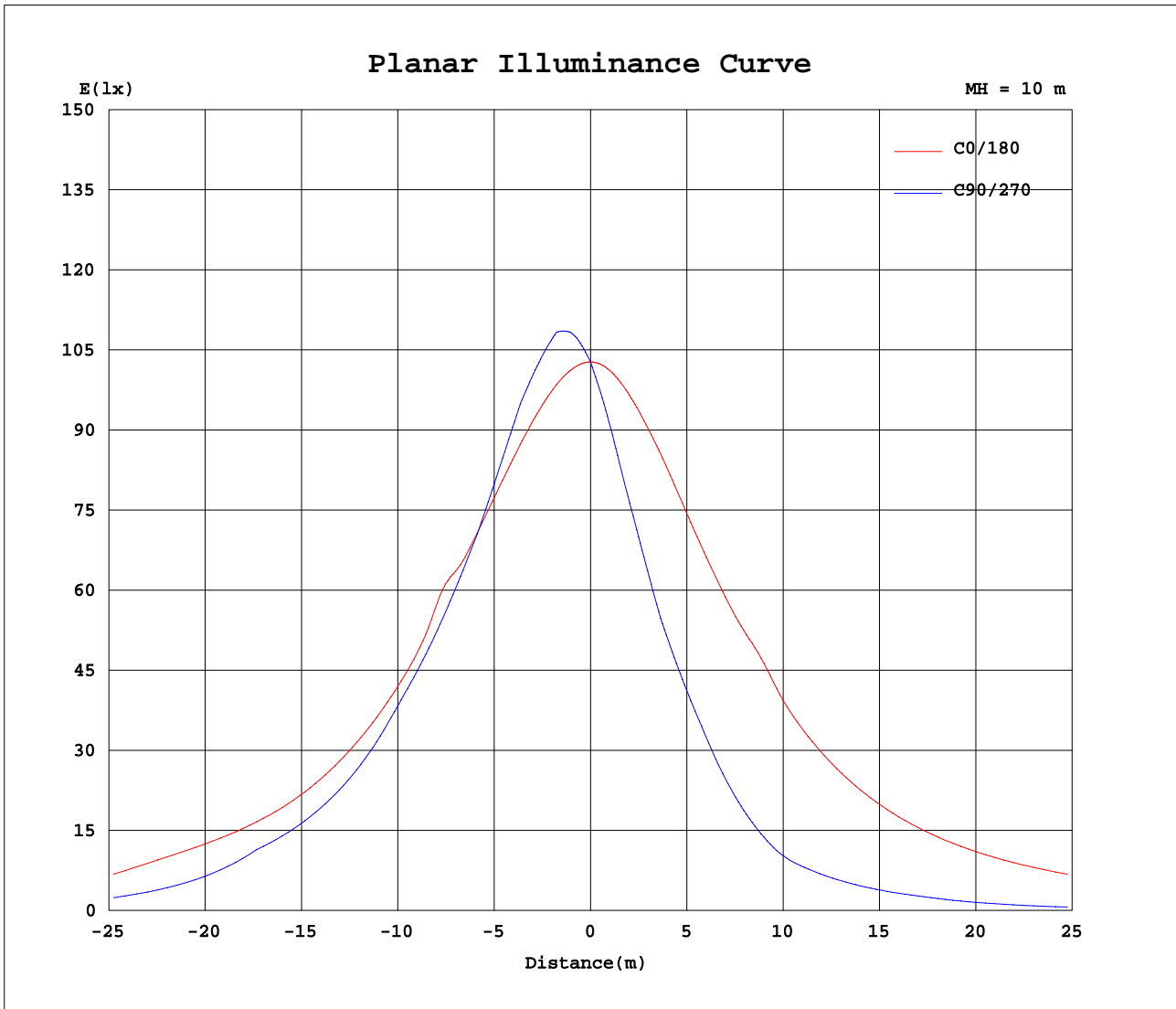
AvgL	cd/m2
L_0~180(65)av	316397
L_0~180(75)av	235494
L_0~180(85)av	15150
L_90~270(65)av	93332
L_90~270(75)av	29025
L_90~270(85)av	34280
L_45(65)av	188268
L_45(75)av	197060
L_45(85)av	205105

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2016-09-05

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity:65.0%
 Test Distance:7.850m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25DEG
 Operators:
 Test Date: 2016-09-05

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity: 65.0%
 Test Distance: 7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:120.2V I:2.636A P:316.1W PF:0.9975 Lamp Flux:42260.7x1 lm																			

Table--1

UNIT: x10cd

C(DEG) γ (DEG)	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90
0	1028	1028	1028	1028	1028	1028	1028	1028	1028	1028	1028	1028	1028	1028	1028	1028	1028	1028	1028
5	1028	1034	1040	1045	1051	1056	1061	1066	1070	1075	1078	1081	1084	1086	1088	1089	1090	1090	1091
10	1031	1043	1055	1066	1077	1087	1095	1103	1109	1114	1118	1122	1125	1128	1131	1132	1133	1134	1134
15	1039	1057	1075	1093	1106	1118	1127	1135	1143	1145	1144	1144	1143	1143	1142	1141	1140	1140	1139
20	1053	1078	1103	1123	1139	1153	1162	1163	1162	1161	1159	1157	1155	1153	1151	1149	1147	1145	1144
25	1073	1106	1137	1161	1180	1189	1189	1189	1186	1183	1179	1170	1159	1150	1142	1135	1129	1125	1123
30	1101	1143	1180	1206	1222	1226	1227	1225	1218	1202	1187	1171	1155	1140	1128	1119	1111	1105	1102
35	1156	1202	1240	1267	1283	1287	1283	1270	1250	1226	1201	1178	1155	1137	1124	1116	1110	1103	1098
40	1184	1255	1312	1352	1366	1393	1357	1314	1295	1266	1222	1186	1159	1136	1122	1114	1110	1102	1094
45	1188	1257	1312	1337	1356	1354	1345	1318	1300	1280	1239	1196	1161	1133	1117	1111	1106	1095	1084
50	1221	1299	1354	1388	1403	1397	1379	1347	1314	1282	1246	1202	1160	1120	1088	1069	1057	1043	1032
55	1261	1351	1412	1453	1465	1457	1425	1386	1343	1300	1253	1203	1149	1096	1050	1021	1001	984	974
60	1331	1435	1506	1549	1560	1534	1488	1434	1379	1327	1271	1210	1143	1076	1017	975	947	925	916
65	1419	1546	1637	1693	1696	1655	1574	1487	1418	1356	1293	1194	1024	887	783	713	669	642	632
70	1024	1097	1246	1459	1722	1714	1641	1546	1428	1197	975	780	637	531	454	402	371	354	349
75	224	195	227	426	857	1311	1472	1252	1047	804	552	349	230	161	118	101	93.9	91.8	92.4
80	24.0	19.1	21.2	38.2	108	437	588	646	636	443	237	104	58.1	49.1	46.2	45.0	46.6	49.2	51.4
85	8.16	9.05	10.8	13.8	21.1	31.2	95.3	260	326	245	136	64.9	40.0	35.1	33.5	33.5	34.1	35.7	37.4
90	5.59	5.49	4.76	4.03	5.06	11.3	20.1	23.0	21.8	19.0	16.9	17.2	20.7	21.0	20.7	21.9	21.6	22.1	23.4

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2016-09-05

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity:65.0%
 Test Distance:7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:120.2V I:2.636A P:316.1W PF:0.9975 Lamp Flux:42260.7x1 lm

Table--2

UNIT: x10cd

γ (DEG)	C (DEG)	95	100	105	110	115	120	125	130	135	140	145	150	155	160	165	170	175	180	185
0		1028	1028	1028	1028	1028	1028	1028	1028	1028	1028	1028	1028	1028	1028	1028	1028	1028	1028	1028
5		1090	1090	1089	1087	1085	1083	1081	1078	1074	1069	1065	1060	1055	1050	1044	1038	1033	1027	1019
10		1134	1133	1131	1129	1126	1123	1120	1115	1111	1105	1099	1091	1082	1072	1061	1049	1037	1025	1009
15		1139	1139	1139	1139	1139	1139	1139	1139	1139	1136	1128	1118	1108	1095	1081	1063	1044	1026	1001
20		1144	1144	1145	1146	1147	1149	1150	1151	1152	1151	1150	1148	1136	1122	1104	1082	1057	1031	996
25		1123	1125	1129	1135	1143	1151	1161	1169	1171	1171	1170	1167	1163	1151	1130	1104	1071	1037	993
30		1102	1105	1111	1119	1130	1142	1155	1168	1182	1195	1197	1194	1189	1181	1161	1131	1092	1048	993
35		1096	1101	1108	1116	1125	1136	1152	1172	1191	1209	1224	1232	1227	1216	1200	1166	1122	1068	1000
40		1091	1099	1109	1116	1122	1135	1156	1181	1210	1237	1258	1275	1289	1277	1256	1224	1177	1114	1034
45		1082	1095	1109	1113	1115	1133	1160	1191	1226	1266	1295	1310	1335	1319	1291	1252	1188	1113	1020
50		1033	1051	1072	1085	1101	1131	1163	1199	1240	1277	1301	1326	1339	1337	1313	1271	1209	1127	1025
55		978	1001	1028	1050	1083	1126	1170	1212	1252	1291	1329	1361	1384	1384	1365	1315	1247	1156	1043
60		924	951	986	1022	1071	1127	1183	1234	1281	1322	1364	1403	1433	1447	1426	1378	1302	1197	1066
65		643	675	725	793	892	1023	1176	1259	1311	1356	1404	1459	1506	1530	1517	1466	1376	1255	1095
70		357	379	415	469	552	675	842	1032	1214	1369	1446	1528	1609	1661	1642	1579	1466	1318	1115
75		95.8	103	115	140	203	320	512	745	980	1190	1373	1559	1725	1635	1460	1183	1044	995	899
80		52.5	53.2	55.4	64.3	87.9	151	290	493	748	1017	1222	1231	1098	895	365	142	132	197	284
85		38.0	38.1	39.3	44.5	57.1	90.8	164	271	405	559	697	632	242	49.8	29.5	15.7	12.4	18.3	31.3
90		23.4	23.0	23.0	24.0	23.9	23.3	22.0	24.1	28.2	31.5	32.6	26.5	20.5	13.1	8.52	6.45	5.27	4.41	7.23

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25DEG
 Operators:
 Test Date: 2016-09-05

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity: 65.0%
 Test Distance: 7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:120.2V I:2.636A P:316.1W PF:0.9975 Lamp Flux:42260.7x1 lm		

Table--3

UNIT: x10cd

C (DEG) \ γ (DEG)	190	195	200	205	210	215	220	225	230	235	240	245	250	255	260	265	270	275	280
0	1028	1028	1028	1028	1028	1028	1028	1028	1028	1028	1028	1028	1028	1028	1028	1028	1028	1028	1028
5	1011	1004	996	989	982	976	969	964	959	954	950	946	943	940	938	937	937	937	938
10	994	978	963	948	934	920	907	895	883	873	864	856	850	845	841	839	838	839	841
15	976	952	928	904	881	859	839	822	808	795	783	773	765	758	753	750	749	750	753
20	962	928	894	861	830	804	780	757	737	720	704	691	681	672	665	661	660	661	665
25	948	903	859	820	786	753	722	694	669	650	635	623	613	606	600	597	596	597	600
30	937	880	829	784	742	702	667	641	617	596	578	563	551	542	536	532	531	532	537
35	931	863	808	756	703	660	625	595	567	542	516	495	477	465	456	451	449	452	458
40	948	867	793	728	674	626	583	545	507	473	444	419	399	385	375	369	368	370	377
45	925	843	761	695	637	582	528	480	438	402	370	342	320	304	297	293	291	294	299
50	922	826	740	667	598	527	465	413	367	329	303	286	273	265	262	260	260	260	262
55	927	816	723	634	544	465	398	346	315	291	272	256	243	235	233	234	234	232	233
60	930	804	693	582	481	396	343	307	280	258	240	225	212	205	204	208	208	203	203
65	925	774	640	517	415	342	293	262	239	221	202	186	172	160	154	157	156	152	153
70	911	731	579	448	347	274	230	207	188	170	155	141	127	112	104	106	105	100.0	100
75	767	608	463	349	260	202	168	147	132	117	105	94.3	82.7	66.7	56.0	57.5	57.9	51.6	50.5
80	298	291	250	200	150	118	102	89.2	81.0	73.7	67.3	62.2	55.6	44.5	36.7	38.2	38.4	33.7	32.2
85	49.6	64.0	53.9	57.0	59.7	57.7	54.2	48.9	44.5	40.7	37.3	35.1	31.8	25.8	21.5	22.6	22.3	19.8	18.6
90	7.69	7.76	7.86	8.24	8.07	7.89	7.85	7.67	7.34	7.17	7.05	7.62	7.65	6.76	6.30	7.14	6.30	5.95	4.88

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2016-09-05

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity:65.0%
 Test Distance:7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINOUS DISTRIBUTION INTENSITY DATA

Table with 3 columns and 3 rows containing test parameters: Test:U:120.2V I:2.636A P:316.1W PF:0.9975 Lamp Flux:42260.7x1 lm

Table--4

UNIT: x10cd

Large data table with columns for C (DEG) and gamma (DEG) and rows of luminous intensity values from 0 to 90 degrees.

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2016-09-05

gamma Range: 0 - 90DEG
gamma Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350
Humidity:65.0%
Test Distance:7.850m [K=1.0000]
Remarks: