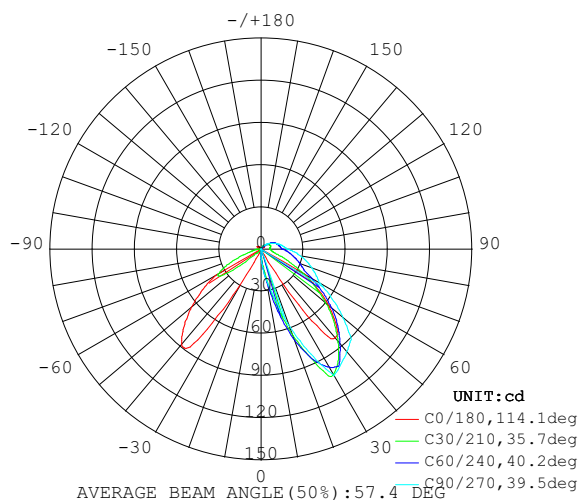




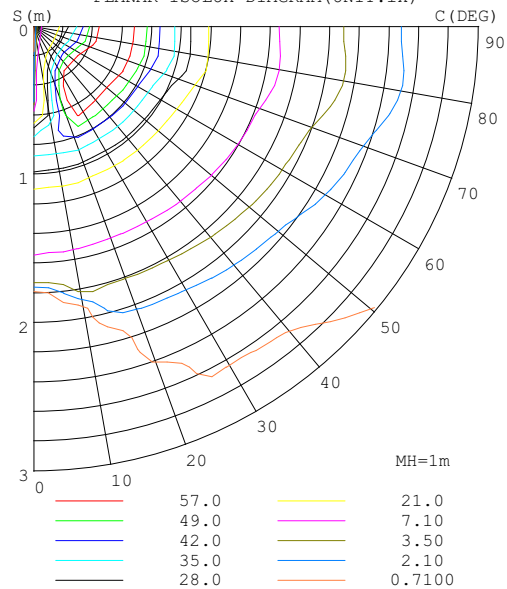
LUMINAIRE PHOTOMETRIC TEST REPORT

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 46.01 lm/W
MODEL	13.85.0010.__	I _{max} (cd)	107.7	S/MH (C0/180)	2.55	
NOMINAL POWER (W)	4	I _{OR} (%)	48.1	S/MH (C90/270)	8.45	
RATED VOLTAGE (V)	220	TOTAL FLUX (lm)	172.99	h UP, DN (C0-180)	4.7, 37.6	
NOMINAL FLUX (lm)	360	CIE CLASS	SEMI-D.	h UP, DN (C180-360)	0.4, 5.4	
LAMPS INSIDE	1	h up (%)	5.1	CIBSE SHR NOM	0.00	
TEST VOLTAGE (V)	220.8	h down (%)	43.0	CIBSE SHR MAX	1.00	

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



PLANAR ISOLUX DIAGRAM (UNIT: lx)



C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature: 30DEG
Operators: HCZ
Test Date: 2017-03-31

g Range: 0 - 180DEG
g Interval: 0.5DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.275
Humidity: 65.0%
Test Distance: 6.172m [K=1.0000]
Remarks:



ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

g	C0	C45	C90	C135	C180	C225	C270	C315	g	F zone	F total	%lum, lamp
5	0.6017	9.321	11.39	10.17	0.5351	0.4732	0.4541	0.5156	0- 5	0.0718	0.0718	0.04,0.02
10	0.7554	23.24	22.27	26.07	0.6094	0.4826	0.4029	0.5235	5- 10	0.5286	0.6005	0.35,0.17
15	0.9237	45.88	33.15	54.20	0.6789	0.4725	0.3517	0.5531	10- 15	1.715	2.316	1.34,0.64
20	1.154	77.25	56.81	93.01	0.8059	0.4871	0.3319	0.5055	15- 20	4.048	6.364	3.68,1.77
25	1.544	93.57	80.46	104.7	1.672	0.5162	0.3121	0.4676	20- 25	7.246	13.61	7.87,3.78
30	6.526	96.77	104.1	104.0	21.33	0.5089	0.2923	0.4472	25- 30	10.53	24.14	14,6.7
35	57.82	94.16	99.65	98.57	78.94	0.4912	0.2691	0.4305	30- 35	14.20	38.34	22.2,10.6
40	82.28	86.08	95.18	89.90	88.37	0.4669	0.2459	0.4245	35- 40	16.97	55.31	32,15.4
45	75.49	74.12	90.71	76.79	77.63	0.4590	0.2227	0.4335	40- 45	18.02	73.33	42.4,20.4
50	62.95	61.80	76.40	63.92	64.89	0.4388	0.2104	0.4449	45- 50	18.09	91.42	52.8,25.4
55	49.35	49.45	62.10	50.93	51.19	0.4838	0.1981	0.4641	50- 55	16.57	108.0	62.4,30
60	35.73	37.85	47.79	39.05	37.30	0.6403	0.1858	0.4777	55- 60	14.16	122.1	70.6,33.9
65	0	26.68	42.98	28.02	0	1.013	0.1713	0.4919	60- 65	9.720	131.9	76.2,36.6
70	0	19.27	38.17	20.69	0	2.203	0.1569	0.5088	65- 70	6.671	138.5	80.1,38.5
75	0	16.47	33.35	17.67	0	3.038	0.1424	0.5058	70- 75	5.233	143.8	83.1,39.9
80	0	14.21	28.54	15.25	0	2.846	0.1280	0.4591	75- 80	4.318	148.1	85.6,41.1
85	0	12.36	23.73	13.22	0	1.722	0.1135	0.3560	80- 85	3.686	151.8	87.7,42.2
90	0	10.78	18.92	11.44	0	0.1164	0.0991	0.1709	85- 90	3.038	154.8	89.5,43
95	0	10.49	17.21	11.15	0	0.1374	0.1201	0.1940	90- 95	2.603	157.4	91,43.7
100	0	10.27	15.50	10.90	0	0.1580	0.1412	0.2160	95-100	2.385	159.8	92.4,44.4
105	0	10.02	13.79	10.65	0	0.1788	0.1622	0.2351	100-105	2.161	162.0	93.6,45
110	0	9.705	12.08	10.38	0	0.1967	0.1833	0.2552	105-110	2.000	164.0	94.8,45.5
115	0	9.073	10.37	9.631	0	0.2253	0.2043	0.2913	110-115	1.807	165.8	95.8,46
120	2.881	8.144	8.657	8.462	3.606	0.2605	0.2254	0.3317	115-120	1.654	167.4	96.8,46.5
125	2.888	7.132	7.354	7.062	3.495	0.2931	0.2593	0.3656	120-125	1.518	168.9	97.7,46.9
130	2.744	6.126	6.051	5.554	3.245	0.4608	0.2932	0.4524	125-130	1.227	170.2	98.4,47.3
135	2.576	4.982	4.748	3.868	2.894	0.5489	0.3270	0.5296	130-135	0.9528	171.1	98.9,47.5
140	2.298	3.601	3.708	1.990	2.345	0.5265	0.3187	0.5842	135-140	0.7136	171.8	99.3,47.7
145	1.942	2.490	2.667	0.7874	1.890	0.3895	0.3104	0.6499	140-145	0.5013	172.3	99.6,47.9
150	1.632	1.461	1.627	0.1756	1.071	0.2616	0.3021	0.6052	145-150	0.3226	172.7	99.8,48
155	1.280	0.5566	1.199	0.0717	0.4046	0.2147	0.2667	0.3931	150-155	0.1826	172.8	99.9,48
160	0.6181	0.0683	0.7717	0.0877	0.1215	0.1921	0.2312	0.2155	155-160	0.0897	172.9	100,48
165	0.1089	0.0861	0.3441	0.1441	0.1016	0.1654	0.1957	0.1728	160-165	0.0370	173.0	100,48
170	0.0867	0.1258	0.2583	0.1769	0.0941	0.1373	0.1569	0.1354	165-170	0.0186	173.0	100,48.1
175	0.0891	0.1309	0.1725	0.1447	0.0818	0.1083	0.1181	0.1045	170-175	0.0097	173.0	100,48.1
180	0.0867	0.0867	0.0867	0.0867	0.0793	0.0793	0.0793	0.0793	175-180	0.0026	173.0	100,48.1
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

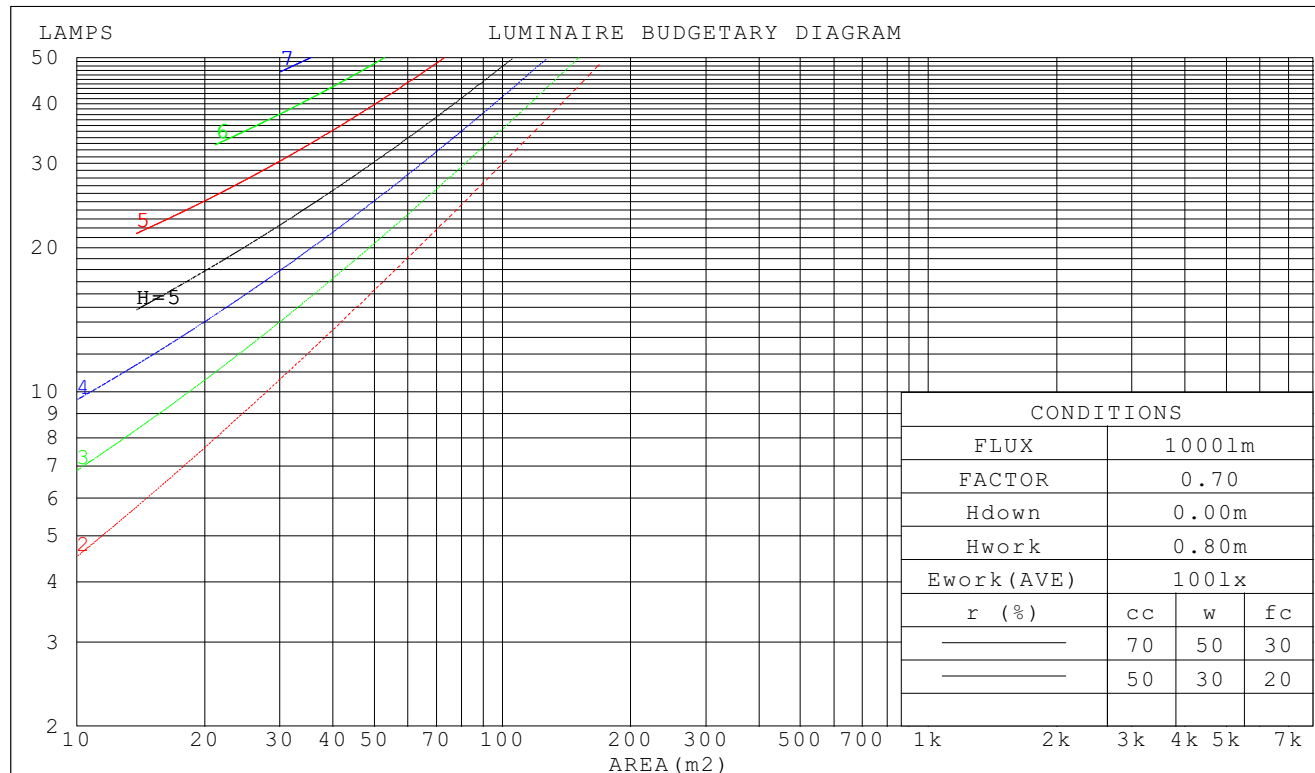
C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:30DEG
 Operators:HCZ
 Test Date:2017-03-31

g Range: 0 - 180DEG
 g Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.275
 Humidity:65.0%
 Test Distance:6.172m [K=1.0000]
 Remarks:



CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

rcc	80%			70%			50%			30%			10%			0
rw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
rfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Coefficients of Utilization(CU)									
0.0	.56	.56	.56	.54	.54	.54	.51	.51	.51	.47	.47	.47	.44	.44	.44	.43
1.0	.48	.46	.44	.47	.45	.43	.44	.42	.40	.41	.39	.38	.38	.37	.36	.35
2.0	.42	.38	.35	.40	.37	.34	.38	.35	.33	.35	.33	.31	.33	.31	.30	.28
3.0	.36	.32	.29	.35	.31	.28	.33	.30	.27	.31	.28	.26	.29	.27	.25	.23
4.0	.31	.27	.24	.30	.26	.23	.29	.25	.22	.27	.24	.22	.25	.23	.21	.19
5.0	.28	.23	.20	.27	.23	.19	.25	.22	.19	.24	.21	.18	.22	.20	.17	.16
6.0	.25	.20	.17	.24	.20	.16	.22	.19	.16	.21	.18	.15	.20	.17	.15	.14
7.0	.22	.17	.14	.21	.17	.14	.20	.16	.14	.19	.16	.13	.18	.15	.13	.12
8.0	.20	.15	.12	.19	.15	.12	.18	.14	.12	.17	.14	.11	.16	.13	.11	.10
9.0	.18	.14	.11	.17	.13	.11	.16	.13	.10	.15	.12	.10	.15	.12	.10	.09
10.0	.16	.12	.09	.16	.12	.09	.15	.11	.09	.14	.11	.09	.13	.10	.08	.08



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 30DEG
 Operators: HCZ
 Test Date: 2017-03-31

g Range: 0 - 180DEG
 g Interval: 0.5DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.275
 Humidity: 65.0%
 Test Distance: 6.172m [K=1.0000]
 Remarks:



WEC AND CCEC

rcc	80%			70%			50%			30%			10%			0	
rw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0	
rfc	20%			20%			20%			20%			20%			0	
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)										
0.0																	
1.0	.160	.091	.029	.155	.089	.028	.146	.084	.027	.137	.079	.025	.130	.075	.024		
2.0	.147	.081	.025	.143	.079	.024	.134	.075	.023	.127	.071	.022	.119	.068	.021		
3.0	.135	.072	.022	.131	.070	.021	.124	.067	.020	.117	.064	.020	.110	.061	.019		
4.0	.125	.065	.019	.121	.063	.019	.114	.061	.018	.108	.058	.018	.102	.056	.017		
5.0	.115	.059	.017	.112	.058	.017	.106	.055	.016	.100	.053	.016	.095	.051	.015		
6.0	.107	.054	.015	.104	.053	.015	.099	.051	.015	.093	.048	.014	.088	.047	.014		
7.0	.100	.049	.014	.097	.048	.014	.092	.046	.013	.087	.045	.013	.083	.043	.013		
8.0	.093	.045	.013	.091	.045	.013	.086	.043	.012	.082	.041	.012	.078	.040	.012		
9.0	.087	.042	.012	.085	.041	.012	.081	.040	.011	.077	.038	.011	.073	.037	.011		
10.0	.082	.039	.011	.080	.039	.011	.076	.037	.010	.072	.036	.010	.069	.035	.010		

rcc	80%			70%			50%			30%			10%			0	
rw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0	
rfc	20%			20%			20%			20%			20%			0	
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients (CCEC)										
0.0	.130	.130	.130	.111	.111	.111	.076	.076	.076	.044	.044	.044	.014	.014	.014		
1.0	.126	.114	.102	.108	.098	.088	.074	.067	.061	.043	.039	.035	.014	.013	.011		
2.0	.123	.102	.085	.105	.088	.074	.072	.061	.051	.042	.035	.030	.013	.011	.010		
3.0	.119	.094	.074	.102	.081	.064	.070	.056	.045	.041	.033	.027	.013	.011	.009		
4.0	.116	.088	.067	.100	.076	.058	.068	.053	.041	.040	.031	.024	.013	.010	.008		
5.0	.113	.083	.062	.097	.072	.054	.067	.050	.038	.039	.030	.022	.012	.010	.007		
6.0	.110	.079	.058	.094	.069	.050	.065	.048	.036	.038	.028	.021	.012	.009	.007		
7.0	.106	.076	.055	.092	.066	.048	.063	.046	.034	.037	.027	.020	.012	.009	.007		
8.0	.103	.074	.053	.089	.064	.046	.062	.045	.033	.036	.026	.020	.012	.009	.006		
9.0	.101	.071	.052	.087	.062	.045	.060	.044	.032	.035	.026	.019	.011	.008	.006		
10.0	.098	.069	.050	.084	.060	.044	.059	.042	.031	.034	.025	.019	.011	.008	.006		

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:30DEG
 Operators:HCZ
 Test Date:2017-03-31

g Range: 0 - 180DEG
 g Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.275
 Humidity:65.0%
 Test Distance:6.172m [K=1.0000]
 Remarks:



Uncorrected UGR Table

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	17.2	18.7	17.7	19.1	19.5	19.2	20.6	19.6	21.0	21.4
3H	17.0	18.4	17.5	18.8	19.3	21.0	22.4	21.5	22.8	23.3
4H	16.9	18.2	17.4	18.6	19.1	22.2	23.4	22.6	23.9	24.4
6H	16.8	18.0	17.3	18.4	18.9	23.4	24.6	23.9	25.1	25.6
8H	16.7	17.9	17.2	18.3	18.9	24.1	25.2	24.6	25.7	26.2
12H	16.7	17.8	17.2	18.2	18.8	24.8	25.9	25.3	26.4	26.9
4H 2H	17.7	18.9	18.1	19.4	19.9	19.3	20.6	19.8	21.0	21.5
3H	17.7	18.8	18.2	19.3	19.9	21.4	22.5	21.9	23.0	23.5
4H	17.6	18.6	18.2	19.1	19.7	22.8	23.8	23.3	24.3	24.8
6H	17.5	18.4	18.1	18.9	19.5	24.3	25.2	24.8	25.7	26.3
8H	17.5	18.3	18.0	18.8	19.4	25.1	26.0	25.7	26.5	27.1
12H	17.4	18.2	18.0	18.7	19.3	26.1	26.8	26.7	27.4	28.0
8H 4H	18.4	19.2	18.9	19.7	20.4	22.8	23.7	23.4	24.2	24.8
6H	18.5	19.2	19.1	19.7	20.4	24.6	25.3	25.2	25.9	26.6
8H	18.5	19.1	19.1	19.7	20.3	25.7	26.3	26.3	26.9	27.6
12H	18.4	18.9	19.0	19.5	20.2	26.9	27.5	27.6	28.1	28.8
12H 4H	18.7	19.5	19.3	20.0	20.7	22.8	23.5	23.4	24.1	24.7
6H	19.1	19.7	19.7	20.3	21.0	24.7	25.3	25.3	25.9	26.5
8H	19.2	19.8	19.9	20.4	21.1	25.8	26.3	26.4	27.0	27.7
Variations with the observer position at spacings:										
S = 1.0H	+ 0.5 / - 0.4					+ 0.2 / - 0.2				
1.5H	+ 0.4 / - 0.9					+ 0.2 / - 0.4				
2.0H	+ 0.8 / - 1.2					+ 0.2 / - 0.3				

CIE Pub.117 Corrected 360.0 lm Total Lamp Luminous Flux. (8log(F/F0) = -3.5)

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 30DEG
 Operators: HCZ
 Test Date: 2017-03-31

g Range: 0 - 180DEG
 g Interval: 0.5DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.275
 Humidity: 65.0%
 Test Distance: 6.172m [K=1.0000]
 Remarks:



UTILIZATION FACTORS TABLE

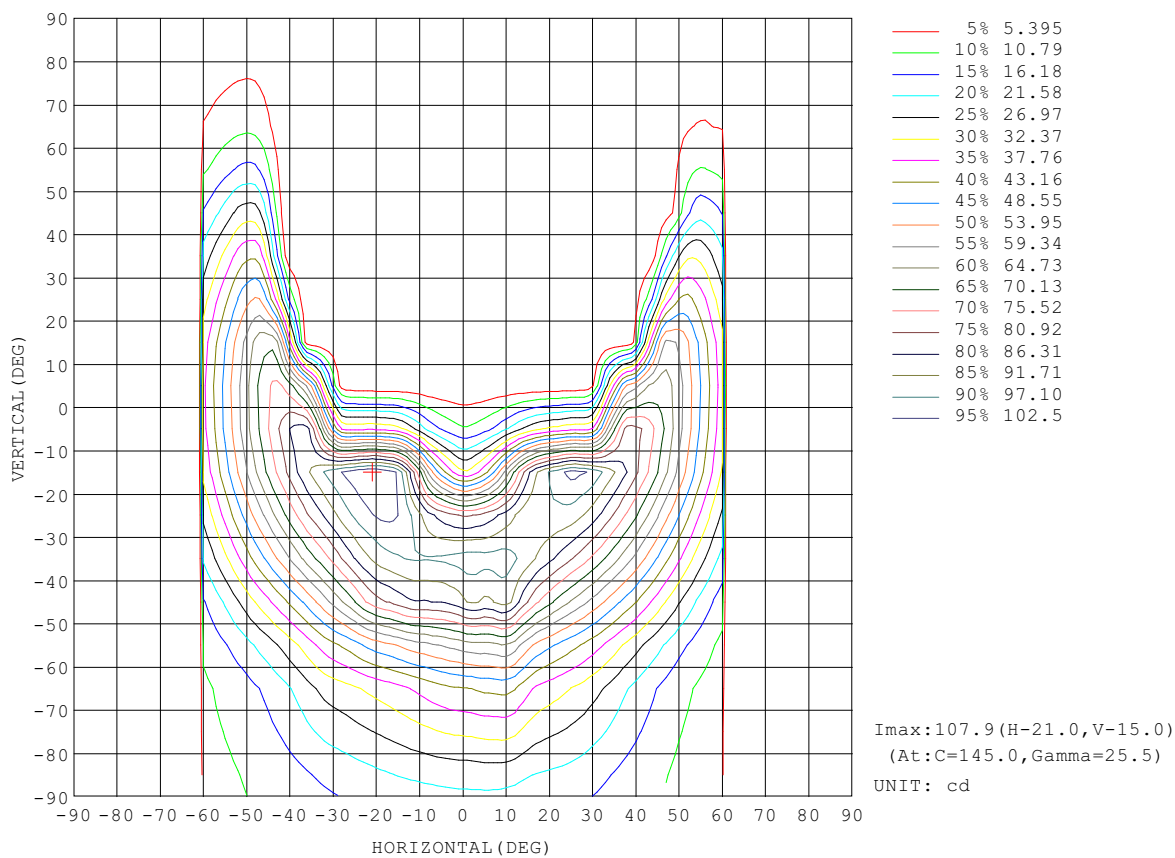
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) k(RI) x RCR = 5									
k = 0.60	23	17	14	23	17	14	22	17	13	10
0.80	29	22	19	28	22	18	27	22	18	14
1.00	33	27	23	32	27	23	31	27	23	19
1.25	37	31	27	36	31	27	34	30	27	22
1.50	39	34	30	38	34	30	36	32	29	25
2.00	43	38	35	42	38	34	40	36	33	28
2.50	45	41	37	44	40	37	41	38	35	30
3.00	47	43	40	45	42	39	43	40	38	32
4.00	49	46	43	47	44	42	44	42	40	34
5.00	50	47	45	48	46	44	45	43	42	35
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: 30DEG
 Operators: HCZ
 Test Date: 2017-03-31

g Range: 0 - 180DEG
 g Interval: 0.5DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.275
 Humidity: 65.0%
 Test Distance: 6.172m [K=1.0000]
 Remarks:



ISOCANDELA DIAGRAM

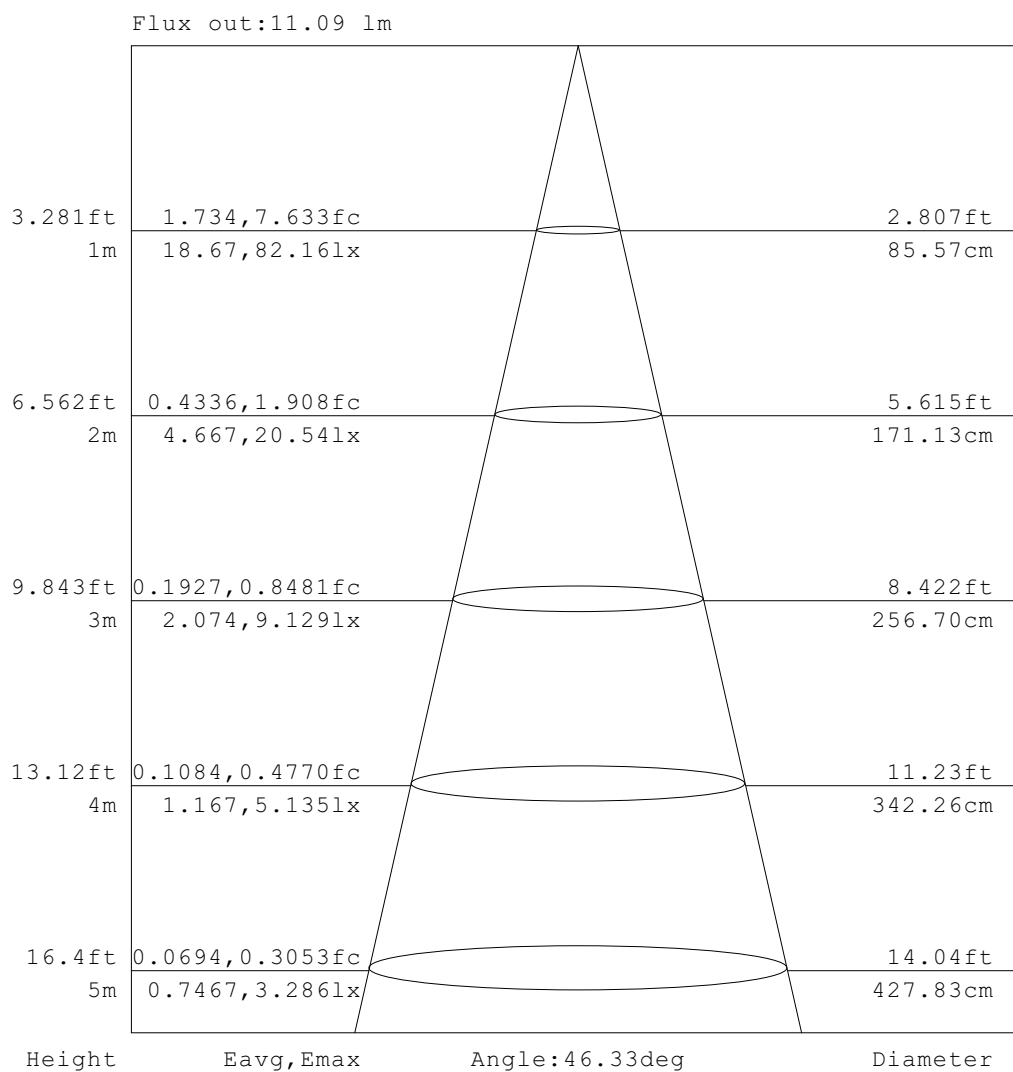


C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:30DEG
Operators:HCZ
Test Date:2017-03-31

g Range: 0 - 180DEG
g Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.275
Humidity:65.0%
Test Distance:6.172m [K=1.0000]
Remarks:



AAI Figure



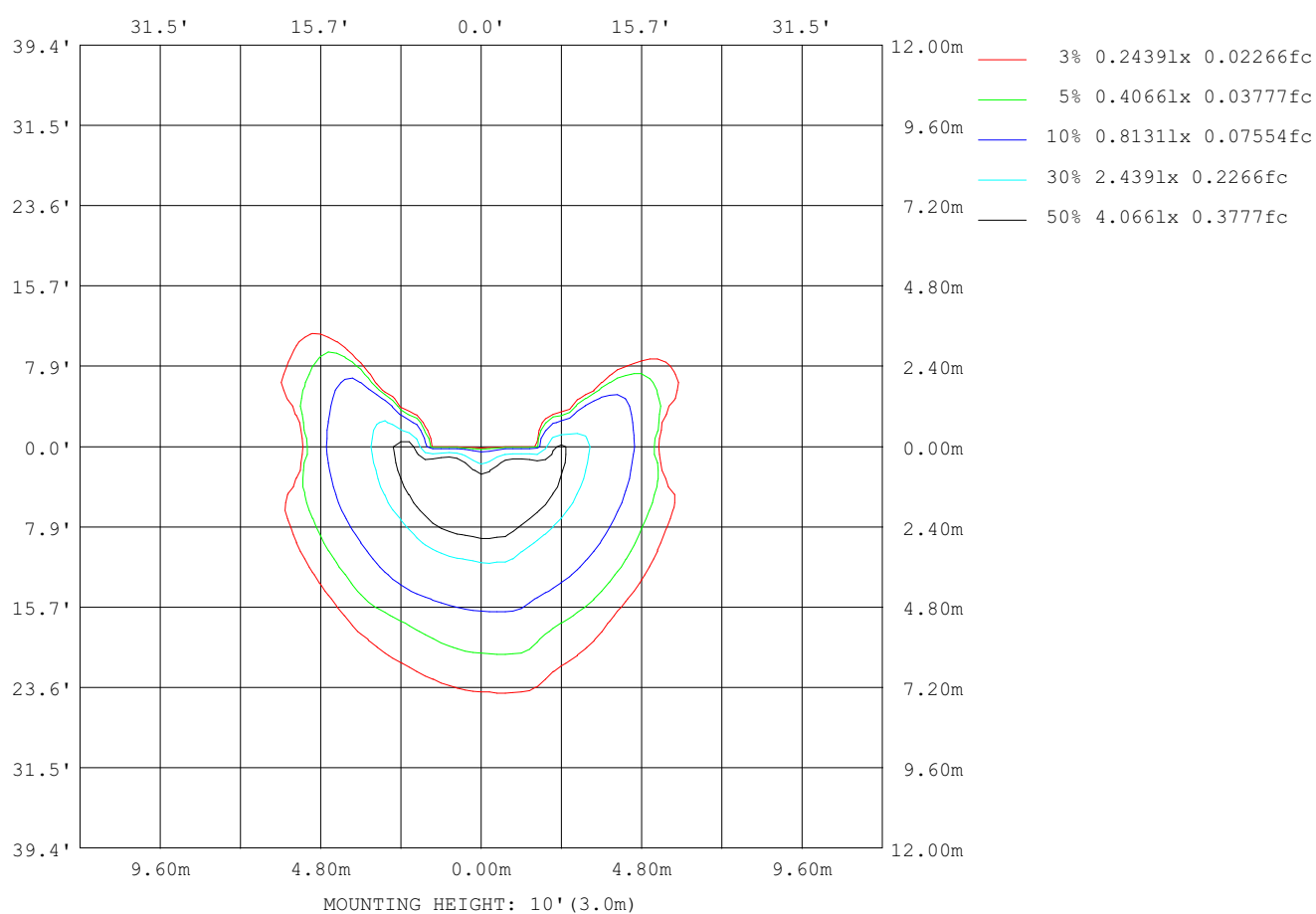
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature: 30DEG
Operators: HCZ
Test Date: 2017-03-31

g Range: 0 - 180DEG
g Interval: 0.5DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.275
Humidity: 65.0%
Test Distance: 6.172m [K=1.0000]
Remarks:



ISOLUX DIAGRAM

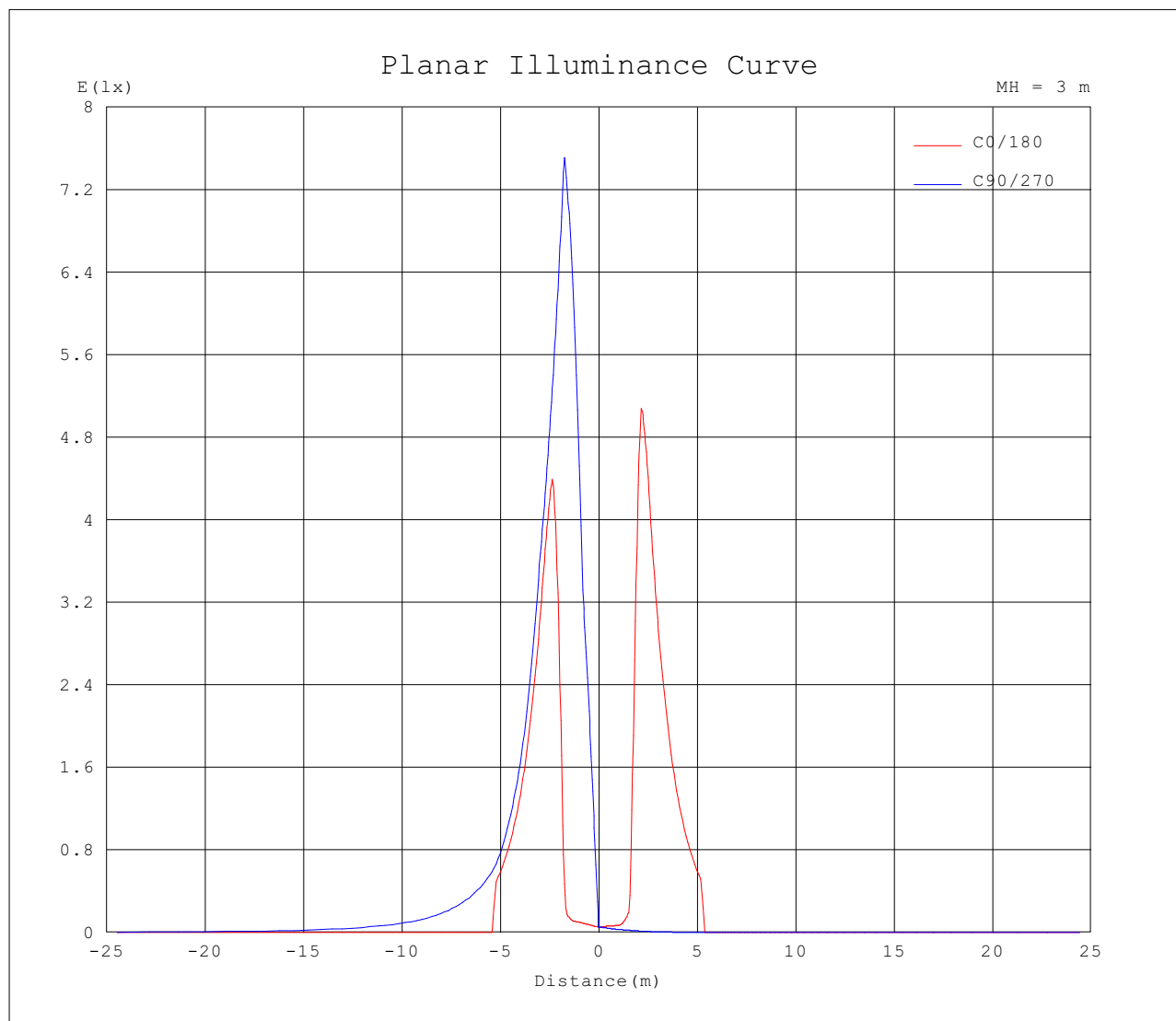


C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature: 30DEG
Operators: HCZ
Test Date: 2017-03-31

g Range: 0 - 180DEG
g Interval: 0.5DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.275
Humidity: 65.0%
Test Distance: 6.172m [K=1.0000]
Remarks:



Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 30DEG
 Operators: HCZ
 Test Date: 2017-03-31

g Range: 0 - 180DEG
 g Interval: 0.5DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.275
 Humidity: 65.0%
 Test Distance: 6.172m [K=1.0000]
 Remarks:



LUMINOUS DISTRIBUTION INTENSITY DATA

Table--1

UNIT: cd

g (DEG) \ C (DEG)	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90
0	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51
5	0.60	1.78	2.95	4.08	5.15	6.16	7.09	7.93	8.68	9.32	9.85	10.3	10.6	10.8	11.0	11.1	11.2	11.3	11.4
10	0.76	4.29	7.73	11.0	14.0	16.7	19.0	20.8	22.3	23.2	23.8	24.1	24.1	24.0	23.6	23.1	22.5	22.1	22.3
15	0.92	8.36	15.6	22.4	28.7	34.2	38.8	42.4	44.7	45.9	45.9	45.1	43.5	41.3	39.1	37.1	35.1	33.3	33.2
20	1.15	12.8	24.2	35.3	45.7	55.2	63.5	70.1	74.9	77.2	75.4	71.3	67.4	64.3	61.6	59.6	58.3	57.0	56.8
25	1.54	17.4	33.0	48.1	62.3	75.4	87.2	97.6	95.7	93.6	91.3	88.8	85.9	83.5	82.1	81.2	80.8	80.4	80.5
30	6.53	24.4	41.8	59.4	77.2	94.7	103	101	98.1	96.8	96.3	96.5	97.0	97.1	98.2	100	102	103	104
35	57.8	64.7	71.0	78.6	89.8	96.9	96.1	95.0	94.6	94.2	94.6	96.5	97.5	98.7	99.6	100	99.7	100	99.6
40	82.3	82.3	83.0	84.6	86.7	85.6	85.1	85.2	85.7	86.1	86.0	86.5	87.6	90.0	93.8	97.2	95.6	96.1	95.2
45	75.5	74.3	74.1	75.0	74.0	73.4	73.4	74.0	73.9	74.1	74.6	75.4	77.2	80.0	85.5	93.5	92.0	91.9	90.7
50	62.9	61.6	61.6	61.5	60.4	60.3	60.8	60.9	61.1	61.8	62.9	64.2	65.9	68.3	72.4	79.7	79.4	77.7	76.4
55	49.4	48.0	48.3	47.3	46.9	47.1	47.2	47.8	48.7	49.4	50.9	52.3	53.6	55.3	57.8	64.1	65.3	63.4	62.1
60	35.7	34.5	34.5	33.7	33.8	33.8	34.3	35.2	36.7	37.9	39.4	40.9	42.0	43.1	44.4	49.1	50.9	49.4	47.8
65	0.00	0.00	0.00	0.00	21.7	22.1	23.0	24.3	25.5	26.7	28.2	30.3	33.1	35.3	37.3	42.0	45.1	44.2	43.0
70	0.00	0.00	0.00	0.00	0.00	13.4	14.6	15.1	16.1	19.3	22.7	26.3	29.1	31.2	33.0	36.6	39.8	39.2	38.2
75	0.00	0.00	0.00	0.00	0.00	0.00	9.16	11.2	13.6	16.5	19.4	22.7	25.4	27.4	28.9	31.5	34.6	34.2	33.4
80	0.00	0.00	0.00	0.00	0.00	0.00	7.82	9.73	11.7	14.2	16.7	19.4	21.8	23.7	24.9	26.8	29.3	29.2	28.5
85	0.00	0.00	0.00	0.00	0.00	0.00	7.00	8.61	10.2	12.4	14.4	16.4	18.4	20.1	21.0	22.2	24.0	24.1	23.7
90	0.00	0.00	0.00	0.00	0.00	0.00	6.54	7.79	9.07	10.8	12.3	13.7	15.2	16.6	17.2	17.7	18.7	19.1	18.9
95	0.00	0.00	0.00	0.00	0.00	0.00	6.34	7.88	9.05	10.5	11.7	12.9	14.3	15.6	15.7	15.5	16.2	17.1	17.2
100	0.00	0.00	0.00	0.00	0.00	0.00	6.60	8.12	9.12	10.3	11.2	12.3	13.5	14.5	14.2	13.2	13.7	15.1	15.5
105	0.00	0.00	0.00	0.00	0.00	0.00	7.28	8.42	9.19	10.0	10.7	11.6	12.7	13.5	12.5	10.9	11.3	13.1	13.8
110	0.00	0.00	0.00	0.00	0.00	6.49	7.50	8.42	9.18	9.70	10.2	10.9	11.9	12.3	10.6	8.46	8.85	11.1	12.1
115	0.00	0.00	0.00	0.00	5.72	6.44	7.15	7.83	8.53	9.07	9.54	10.2	11.2	10.9	8.45	5.99	6.49	9.24	10.4
120	2.88	3.54	4.17	4.76	5.33	5.96	6.57	7.17	7.77	8.14	8.60	9.23	9.74	8.84	6.08	3.73	4.38	7.44	8.66
125	2.89	3.41	3.89	4.40	4.88	5.35	5.88	6.42	6.84	7.13	7.55	7.93	7.58	6.32	4.25	3.12	4.19	6.62	7.35
130	2.74	3.15	3.52	3.90	4.33	4.71	5.05	5.53	5.85	6.13	6.46	6.04	5.02	3.98	2.89	2.71	3.98	5.73	6.05
135	2.58	2.88	3.15	3.37	3.72	4.04	4.35	4.55	4.70	4.98	4.96	4.35	3.39	2.54	2.08	2.44	3.67	4.76	4.75
140	2.30	2.52	2.70	2.84	3.02	3.32	3.52	3.58	3.64	3.60	3.34	2.83	2.20	1.68	1.61	2.12	3.03	3.76	3.71
145	1.94	2.11	2.26	2.37	2.45	2.58	2.74	2.83	2.76	2.49	2.09	1.60	1.19	1.08	1.23	1.73	2.30	2.72	2.67
150	1.63	1.76	1.86	1.94	1.99	2.01	2.02	1.97	1.80	1.46	1.13	0.82	0.68	0.72	0.95	1.22	1.50	1.67	1.63
155	1.28	1.36	1.41	1.43	1.41	1.34	1.15	0.88	0.73	0.56	0.42	0.38	0.43	0.57	0.75	0.94	1.12	1.22	1.20
160	0.62	0.63	0.62	0.58	0.52	0.43	0.34	0.23	0.14	0.07	0.09	0.16	0.26	0.37	0.48	0.60	0.71	0.77	0.77
165	0.11	0.11	0.11	0.10	0.09	0.08	0.07	0.07	0.08	0.09	0.10	0.12	0.15	0.18	0.22	0.26	0.31	0.33	0.34
170	0.09	0.09	0.09	0.09	0.09	0.10	0.10	0.11	0.12	0.13	0.14	0.15	0.17	0.19	0.21	0.23	0.24	0.25	0.26
175	0.09	0.09	0.10	0.10	0.11	0.11	0.11	0.12	0.12	0.13	0.14	0.14	0.15	0.15	0.16	0.16	0.17	0.17	0.17
180	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 30DEG
 Operators: HCZ
 Test Date: 2017-03-31

g Range: 0 - 180DEG
 g Interval: 0.5DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.275
 Humidity: 65.0%
 Test Distance: 6.172m [K=1.0000]
 Remarks:



LUMINOUS DISTRIBUTION INTENSITY DATA

Table--2

UNIT: cd

g (DEG) \ C (DEG)	95	100	105	110	115	120	125	130	135	140	145	150	155	160	165	170	175	180	185
0	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51
5	11.5	11.6	11.6	11.6	11.5	11.4	11.1	10.7	10.2	9.49	8.68	7.76	6.73	5.61	4.41	3.15	1.85	0.54	0.53
10	22.9	23.9	25.0	25.9	26.5	26.7	26.8	26.7	26.1	25.0	23.5	21.5	19.0	16.1	12.6	8.83	4.78	0.61	0.60
15	34.9	37.9	41.0	43.5	46.3	49.1	51.5	53.5	54.2	53.1	50.5	46.5	41.0	34.3	26.6	18.3	9.61	0.68	0.66
20	58.4	60.8	62.9	65.9	70.1	76.3	82.9	89.7	93.0	89.2	81.9	72.4	62.1	50.8	38.9	26.5	13.7	0.81	0.78
25	81.3	82.3	83.2	85.3	89.4	94.1	99.4	103	105	106	108	94.3	79.9	64.8	49.4	33.7	17.7	1.67	1.49
30	104	102	101	100	101	102	104	104	104	104	104	104	95.0	77.6	62.1	48.5	35.5	21.3	16.3
35	98.7	98.3	98.5	99.5	100	101	102	99.8	98.6	97.3	96.4	96.2	96.8	91.9	85.2	82.3	81.0	78.9	59.7
40	93.1	92.6	92.9	93.4	93.2	93.2	92.2	91.0	89.9	87.9	86.5	86.4	86.7	87.5	86.6	86.4	87.0	88.4	74.3
45	87.5	86.9	87.2	86.5	85.2	84.0	81.3	78.6	76.8	76.0	76.4	75.3	74.8	75.1	75.9	75.4	76.0	77.6	75.0
50	74.0	73.5	74.2	73.7	73.9	72.9	69.0	66.0	63.9	62.9	62.6	62.8	62.2	62.0	62.8	63.1	63.3	64.9	64.0
55	60.3	59.3	59.0	58.3	58.5	57.0	55.0	53.3	50.9	49.7	49.2	49.1	49.5	49.1	49.2	49.9	49.7	51.2	50.6
60	46.7	45.0	43.7	43.1	43.4	42.9	42.5	41.2	39.0	37.6	36.7	36.5	36.3	36.3	35.8	36.2	36.2	37.3	37.1
65	41.8	39.8	37.6	35.8	34.4	32.7	31.6	29.9	28.0	27.0	26.3	25.3	24.5	24.1	0.00	0.00	0.00	0.00	0.00
70	37.2	35.5	33.6	31.9	30.5	29.0	27.5	24.2	20.7	17.8	17.2	16.9	15.8	0.00	0.00	0.00	0.00	0.00	0.00
75	32.6	31.2	29.6	28.1	26.7	25.3	23.6	20.5	17.7	15.3	13.2	11.6	0.00	0.00	0.00	0.00	0.00	0.00	0.00
80	28.0	26.9	25.7	24.4	23.1	21.7	20.0	17.5	15.2	13.3	11.6	10.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
85	23.4	22.8	21.9	20.7	19.5	18.2	16.7	14.9	13.2	11.8	10.4	8.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00
90	18.8	18.6	18.2	17.1	16.0	14.8	13.6	12.5	11.4	10.5	9.32	8.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95	16.8	16.0	15.3	14.9	14.6	13.9	13.0	12.1	11.2	10.3	9.30	7.91	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100	14.7	13.4	12.4	12.5	13.1	13.0	12.4	11.6	10.9	10.2	9.38	8.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
105	12.7	10.8	9.52	10.1	11.4	12.0	11.8	11.2	10.6	10.1	9.47	8.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00
110	10.6	8.36	6.64	7.48	9.54	10.9	11.1	10.8	10.4	10.0	9.31	8.52	7.48	0.00	0.00	0.00	0.00	0.00	0.00
115	8.68	5.99	3.83	4.61	7.27	9.48	10.3	10.1	9.63	9.11	8.60	7.97	7.32	6.58	0.00	0.00	0.00	0.00	0.00
120	6.78	3.89	1.52	2.09	4.84	7.31	8.43	8.65	8.46	8.09	7.69	7.23	6.71	6.13	5.54	4.90	4.18	3.61	2.95
125	5.79	3.50	1.46	1.12	2.81	4.83	6.21	6.87	7.06	6.96	6.67	6.29	5.88	5.52	5.08	4.56	4.00	3.50	2.98
130	4.78	3.04	1.42	0.57	1.14	2.40	3.81	4.93	5.55	5.71	5.57	5.26	5.02	4.75	4.42	4.08	3.67	3.25	2.85
135	3.74	2.50	1.35	0.51	0.36	1.06	2.12	3.11	3.87	4.19	4.23	4.32	4.22	3.99	3.70	3.49	3.22	2.89	2.57
140	3.04	2.19	1.36	0.67	0.27	0.35	0.82	1.42	1.99	2.65	3.09	3.31	3.33	3.21	3.08	2.93	2.72	2.34	2.14
145	2.29	1.79	1.26	0.77	0.40	0.18	0.13	0.39	0.79	1.25	1.69	2.03	2.26	2.36	2.39	2.33	2.21	1.89	1.76
150	1.49	1.28	1.04	0.76	0.49	0.28	0.13	0.09	0.18	0.36	0.57	0.76	0.93	1.11	1.23	1.28	1.26	1.07	1.03
155	1.12	0.99	0.84	0.67	0.49	0.32	0.20	0.12	0.07	0.06	0.07	0.14	0.23	0.31	0.38	0.42	0.43	0.40	0.40
160	0.74	0.67	0.59	0.50	0.40	0.29	0.20	0.12	0.09	0.08	0.08	0.08	0.08	0.09	0.10	0.11	0.12	0.12	0.13
165	0.34	0.33	0.31	0.29	0.26	0.23	0.20	0.17	0.14	0.13	0.11	0.10	0.10	0.10	0.10	0.10	0.11	0.10	0.11
170	0.26	0.26	0.25	0.24	0.23	0.22	0.20	0.19	0.18	0.16	0.15	0.14	0.13	0.12	0.11	0.11	0.10	0.09	0.10
175	0.17	0.17	0.17	0.17	0.16	0.16	0.16	0.15	0.14	0.14	0.13	0.13	0.12	0.12	0.11	0.10	0.10	0.08	0.08
180	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.08	0.08

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 30DEG
 Operators: HCZ
 Test Date: 2017-03-31

g Range: 0 - 180DEG
 g Interval: 0.5DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.275
 Humidity: 65.0%
 Test Distance: 6.172m [K=1.0000]
 Remarks:



LUMINOUS DISTRIBUTION INTENSITY DATA

Table--3

UNIT: cd

g \ C (DEG)	190	195	200	205	210	215	220	225	230	235	240	245	250	255	260	265	270	275	280
0	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51
5	0.52	0.52	0.51	0.50	0.50	0.49	0.48	0.47	0.47	0.46	0.46	0.45	0.45	0.45	0.45	0.45	0.45	0.46	0.47
10	0.58	0.57	0.55	0.54	0.53	0.51	0.50	0.48	0.47	0.45	0.44	0.42	0.41	0.41	0.40	0.40	0.40	0.41	0.42
15	0.64	0.62	0.60	0.58	0.55	0.52	0.50	0.47	0.45	0.42	0.41	0.39	0.38	0.36	0.36	0.35	0.35	0.35	0.36
20	0.74	0.70	0.67	0.64	0.60	0.57	0.53	0.49	0.45	0.42	0.39	0.37	0.36	0.35	0.34	0.34	0.33	0.33	0.33
25	1.27	1.06	0.87	0.73	0.63	0.58	0.55	0.52	0.48	0.43	0.40	0.37	0.35	0.33	0.32	0.32	0.31	0.30	0.29
30	10.3	4.89	1.73	0.79	0.61	0.58	0.54	0.51	0.47	0.43	0.39	0.36	0.33	0.32	0.31	0.30	0.29	0.28	0.26
35	39.7	21.1	6.24	0.80	0.64	0.57	0.53	0.49	0.45	0.42	0.38	0.35	0.32	0.30	0.29	0.28	0.27	0.25	0.23
40	57.6	35.0	9.84	1.87	0.88	0.61	0.51	0.47	0.44	0.41	0.38	0.35	0.32	0.29	0.28	0.26	0.25	0.22	0.19
45	72.5	66.6	43.8	18.9	4.49	0.66	0.49	0.46	0.43	0.40	0.37	0.34	0.31	0.28	0.27	0.25	0.22	0.19	0.16
50	64.4	63.8	56.1	36.8	9.64	1.07	0.61	0.44	0.41	0.39	0.36	0.33	0.30	0.26	0.24	0.23	0.21	0.18	0.16
55	51.6	51.5	51.1	47.3	30.9	9.27	0.88	0.48	0.39	0.37	0.34	0.32	0.29	0.26	0.22	0.21	0.20	0.17	0.17
60	38.1	38.2	39.2	38.6	34.8	20.5	3.73	0.64	0.39	0.35	0.33	0.31	0.28	0.25	0.19	0.19	0.19	0.17	0.17
65	0.00	0.00	26.0	26.3	26.3	22.1	9.26	1.01	0.45	0.32	0.30	0.28	0.26	0.23	0.17	0.17	0.17	0.16	0.16
70	0.00	0.00	0.00	15.6	15.8	14.2	8.68	2.20	0.46	0.29	0.26	0.24	0.22	0.20	0.16	0.16	0.16	0.15	0.15
75	0.00	0.00	0.00	0.00	8.02	9.06	8.07	3.04	0.44	0.26	0.22	0.20	0.19	0.17	0.14	0.14	0.14	0.14	0.14
80	0.00	0.00	0.00	0.00	4.91	5.86	5.85	2.85	0.39	0.21	0.17	0.16	0.15	0.14	0.12	0.12	0.13	0.12	0.13
85	0.00	0.00	0.00	0.00	2.43	2.92	3.03	1.72	0.29	0.15	0.13	0.12	0.12	0.11	0.10	0.11	0.11	0.11	0.12
90	0.00	0.00	0.00	0.00	0.22	0.18	0.14	0.12	0.10	0.09	0.08	0.08	0.08	0.08	0.07	0.09	0.10	0.10	0.11
95	0.00	0.00	0.00	0.00	0.21	0.18	0.16	0.14	0.12	0.11	0.11	0.10	0.10	0.10	0.10	0.12	0.12	0.13	0.14
100	0.00	0.00	0.00	0.00	0.21	0.19	0.17	0.16	0.14	0.14	0.13	0.13	0.13	0.13	0.13	0.14	0.14	0.16	0.17
105	0.00	0.00	0.00	0.00	0.20	0.20	0.19	0.18	0.16	0.16	0.15	0.15	0.15	0.15	0.16	0.17	0.16	0.19	0.19
110	0.00	0.00	0.00	0.29	0.25	0.22	0.20	0.20	0.19	0.18	0.18	0.18	0.17	0.18	0.19	0.19	0.18	0.22	0.22
115	0.00	0.00	0.79	0.46	0.29	0.26	0.24	0.23	0.21	0.21	0.20	0.20	0.20	0.19	0.23	0.21	0.20	0.25	0.25
120	2.31	1.64	1.08	0.77	0.51	0.30	0.27	0.26	0.25	0.24	0.23	0.22	0.22	0.22	0.26	0.24	0.23	0.28	0.28
125	2.48	1.92	1.41	1.01	0.76	0.56	0.40	0.29	0.28	0.27	0.25	0.25	0.25	0.26	0.28	0.26	0.26	0.30	0.30
130	2.45	2.03	1.59	1.21	0.94	0.74	0.58	0.46	0.36	0.31	0.27	0.27	0.27	0.29	0.30	0.29	0.29	0.32	0.31
135	2.22	1.88	1.57	1.30	1.07	0.87	0.71	0.55	0.42	0.33	0.29	0.29	0.29	0.31	0.32	0.32	0.33	0.34	0.33
140	1.91	1.72	1.53	1.28	1.07	0.87	0.69	0.53	0.39	0.31	0.29	0.29	0.29	0.30	0.31	0.31	0.32	0.33	0.32
145	1.61	1.45	1.29	1.09	0.86	0.67	0.51	0.39	0.32	0.29	0.28	0.28	0.29	0.30	0.30	0.31	0.31	0.32	0.32
150	0.96	0.86	0.74	0.62	0.50	0.39	0.30	0.26	0.25	0.26	0.26	0.27	0.28	0.29	0.29	0.30	0.30	0.31	0.31
155	0.38	0.34	0.30	0.26	0.22	0.20	0.21	0.21	0.22	0.23	0.24	0.24	0.25	0.25	0.26	0.26	0.27	0.27	0.27
160	0.14	0.14	0.15	0.16	0.17	0.18	0.18	0.19	0.20	0.20	0.21	0.21	0.22	0.22	0.23	0.23	0.23	0.23	0.24
165	0.12	0.13	0.13	0.14	0.15	0.15	0.16	0.17	0.17	0.18	0.18	0.18	0.19	0.19	0.19	0.20	0.20	0.20	0.20
170	0.11	0.11	0.11	0.12	0.12	0.13	0.13	0.14	0.14	0.14	0.15	0.15	0.15	0.16	0.16	0.16	0.16	0.16	0.16
175	0.09	0.09	0.09	0.10	0.10	0.10	0.11	0.11	0.11	0.11	0.11	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12
180	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 30DEG
 Operators: HCZ
 Test Date: 2017-03-31

g Range: 0 - 180DEG
 g Interval: 0.5DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.275
 Humidity: 65.0%
 Test Distance: 6.172m [K=1.0000]
 Remarks:



LUMINOUS DISTRIBUTION INTENSITY DATA

Table--4

UNIT: cd

g (DEG) \ C (DEG)	285	290	295	300	305	310	315	320	325	330	335	340	345	350	355				
0	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51				
5	0.47	0.48	0.48	0.49	0.50	0.51	0.52	0.53	0.54	0.55	0.56	0.57	0.58	0.59	0.59				
10	0.42	0.43	0.44	0.46	0.48	0.50	0.52	0.55	0.59	0.62	0.65	0.67	0.69	0.72	0.74				
15	0.36	0.37	0.38	0.42	0.47	0.52	0.55	0.59	0.63	0.66	0.71	0.75	0.80	0.84	0.88				
20	0.33	0.33	0.37	0.42	0.45	0.48	0.51	0.55	0.61	0.68	0.75	0.83	0.91	1.00	1.08				
25	0.29	0.31	0.34	0.37	0.39	0.43	0.47	0.51	0.55	0.64	0.75	0.88	1.03	1.21	1.38				
30	0.25	0.26	0.27	0.30	0.34	0.39	0.45	0.49	0.54	0.58	0.73	1.07	1.73	3.27	5.06				
35	0.22	0.22	0.23	0.26	0.31	0.37	0.43	0.48	0.53	0.58	0.62	3.89	14.4	28.3	43.4				
40	0.19	0.20	0.22	0.26	0.31	0.37	0.42	0.48	0.53	0.64	0.87	1.28	16.6	39.3	61.4				
45	0.17	0.18	0.21	0.26	0.32	0.38	0.43	0.49	0.55	0.84	4.07	17.0	36.9	55.5	67.0				
50	0.16	0.18	0.21	0.26	0.32	0.38	0.44	0.52	0.69	1.15	13.0	37.6	55.2	60.9	61.7				
55	0.17	0.18	0.21	0.26	0.32	0.39	0.46	0.60	1.08	7.71	25.1	42.2	48.6	50.2	49.0				
60	0.17	0.17	0.21	0.26	0.31	0.38	0.48	0.77	1.88	12.2	28.9	36.5	36.8	36.9	35.7				
65	0.16	0.17	0.20	0.25	0.30	0.36	0.49	0.99	3.96	13.0	22.7	24.7	0.00	0.00	0.00				
70	0.15	0.16	0.19	0.23	0.28	0.34	0.51	1.57	5.65	11.7	14.4	0.00	0.00	0.00	0.00				
75	0.14	0.16	0.18	0.21	0.25	0.31	0.51	2.21	5.02	6.22	0.00	0.00	0.00	0.00	0.00				
80	0.14	0.15	0.16	0.19	0.22	0.27	0.46	2.00	3.81	4.14	0.00	0.00	0.00	0.00	0.00				
85	0.13	0.13	0.14	0.16	0.18	0.22	0.36	1.27	2.10	2.19	0.00	0.00	0.00	0.00	0.00				
90	0.12	0.12	0.12	0.13	0.14	0.15	0.17	0.19	0.24	0.29	0.00	0.00	0.00	0.00	0.00				
95	0.15	0.15	0.15	0.16	0.17	0.18	0.19	0.21	0.25	0.30	0.00	0.00	0.00	0.00	0.00				
100	0.18	0.18	0.18	0.18	0.19	0.20	0.22	0.23	0.26	0.30	0.00	0.00	0.00	0.00	0.00				
105	0.21	0.21	0.21	0.21	0.21	0.22	0.24	0.25	0.28	0.29	0.00	0.00	0.00	0.00	0.00				
110	0.24	0.24	0.24	0.23	0.24	0.24	0.26	0.27	0.30	0.35	0.41	0.00	0.00	0.00	0.00				
115	0.27	0.27	0.27	0.26	0.26	0.27	0.29	0.32	0.36	0.41	0.50	0.62	0.00	0.00	0.00				
120	0.30	0.30	0.30	0.30	0.30	0.31	0.33	0.36	0.41	0.51	0.63	0.75	1.14	1.61	2.21				
125	0.30	0.32	0.33	0.33	0.34	0.35	0.37	0.43	0.52	0.62	0.74	1.03	1.40	1.84	2.34				
130	0.32	0.34	0.36	0.36	0.37	0.41	0.45	0.52	0.61	0.72	0.95	1.26	1.59	1.94	2.33				
135	0.33	0.34	0.38	0.42	0.44	0.48	0.53	0.59	0.67	0.87	1.13	1.40	1.71	1.98	2.26				
140	0.32	0.32	0.37	0.43	0.49	0.53	0.58	0.67	0.80	0.96	1.15	1.39	1.62	1.84	2.05				
145	0.31	0.32	0.33	0.40	0.49	0.57	0.65	0.75	0.88	1.00	1.15	1.30	1.45	1.61	1.76				
150	0.30	0.30	0.30	0.32	0.38	0.48	0.61	0.73	0.85	0.97	1.11	1.22	1.32	1.42	1.52				
155	0.27	0.27	0.26	0.26	0.27	0.31	0.39	0.50	0.63	0.76	0.87	0.98	1.07	1.15	1.22				
160	0.23	0.23	0.23	0.23	0.22	0.22	0.22	0.24	0.29	0.34	0.40	0.46	0.52	0.57	0.59				
165	0.20	0.20	0.19	0.19	0.18	0.18	0.17	0.17	0.16	0.15	0.14	0.13	0.13	0.12	0.11				
170	0.16	0.15	0.15	0.15	0.14	0.14	0.14	0.13	0.13	0.12	0.11	0.11	0.10	0.09	0.09				
175	0.12	0.12	0.11	0.11	0.11	0.11	0.10	0.10	0.10	0.10	0.09	0.09	0.09	0.08	0.08				
180	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08				

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 30DEG
 Operators: HCZ
 Test Date: 2017-03-31

g Range: 0 - 180DEG
 g Interval: 0.5DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.275
 Humidity: 65.0%
 Test Distance: 6.172m [K=1.0000]
 Remarks: