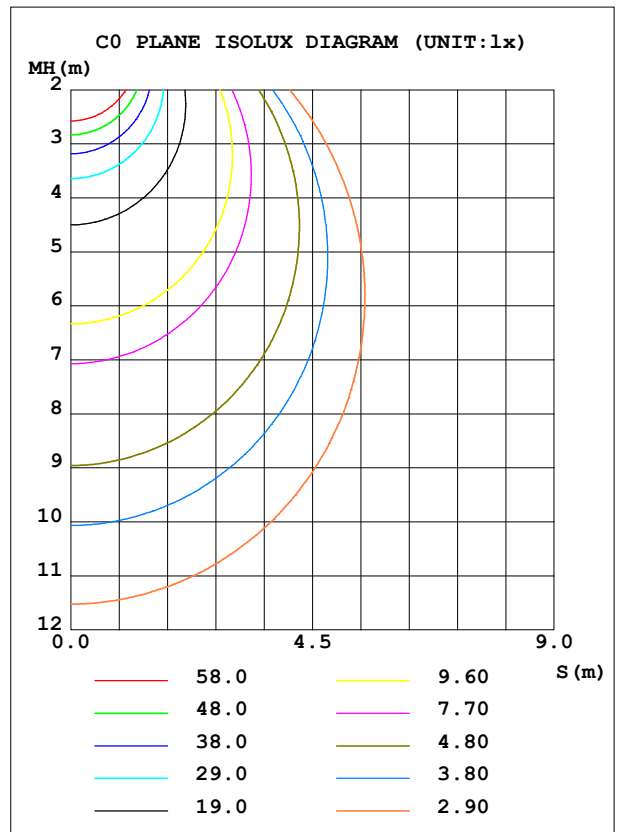
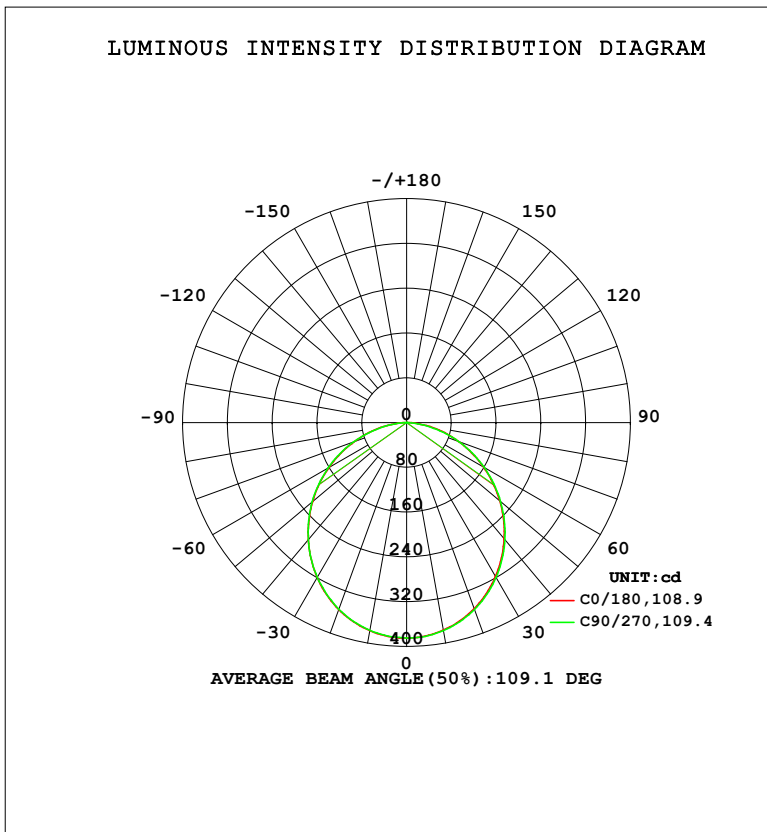


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:119.97V I:0.1293A P:11.199W PF:0.9536 Freq:59.98Hz Lamp Flux:1059.1x1 lm		
NAME: LED-6-S12W-5CCT	TYPE:	WEIGHT:
SPEC.: 3000K 80	DIM.:	SERIAL No.:
MFR.: Light by Lotus	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 94.57 lm/W
MODEL		I _{max} (cd)	384.8	S/MH (C0/180)	1.24	
NOMINAL POWER (W)	12	LOR (%)	100.0	S/MH (C90/270)	1.24	
RATED VOLTAGE (V)	120	TOTAL FLUX (lm)	1059.1	η UP, DN (C0-180)	0.0, 49.9	
NOMINAL FLUX (lm)	1059.1	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 50.1	
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	1.25	
TEST VOLTAGE (V)	120	η down (%)	100.0	CIBSE SHR MAX	1.35	



C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 25.3 °C
 Operators:
 Test Date: 2022-04-14

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-SPEX500_V1 SYSTEM V2.00.421
 Humidity: 65.0%
 Test Distance: 3.080m [K=1.0000]
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

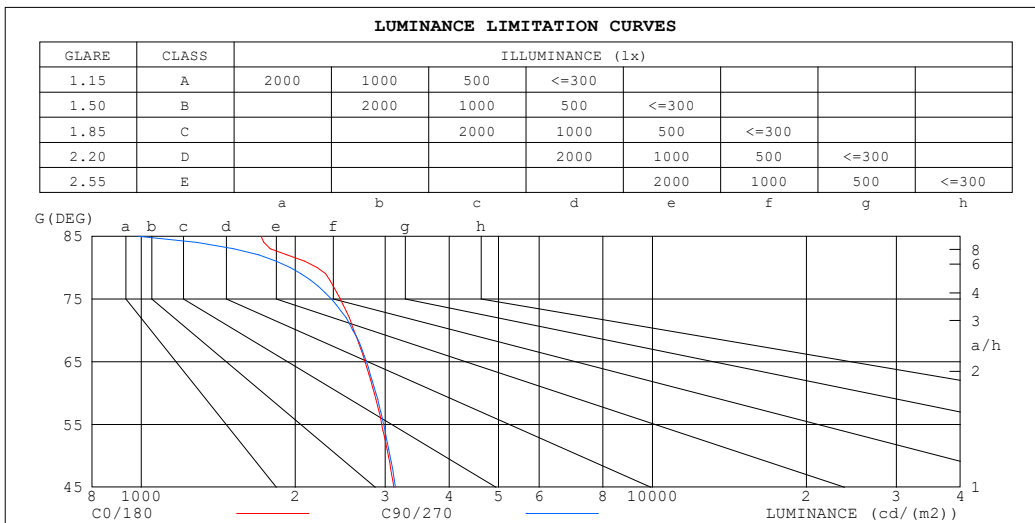
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum,lamp
10	376.5	377.0	377.3	376.8	377.4	377.2	376.9	376.4	0- 10	36.34	36.34	3.43,3.43
20	353.6	354.2	355.1	355.0	355.4	355.1	354.6	353.7	10- 20	103.6	140.0	13.2,13.2
30	317.3	318.6	319.6	319.5	319.9	319.7	319.5	318.1	20- 30	155.8	295.8	27.9,27.9
40	270.9	272.2	273.4	272.7	273.3	273.7	273.6	271.7	30- 40	185.7	481.5	45.5,45.5
50	217.1	218.3	219.0	218.1	219.3	220.5	220.3	218.3	40- 50	190.1	671.5	63.4,63.4
60	158.5	159.5	159.9	158.9	160.0	161.6	161.7	159.9	50- 60	169.7	841.2	79.4,79.4
70	98.98	99.10	98.63	97.65	99.32	100.8	100.4	100.0	60- 70	128.3	969.5	91.5,91.5
80	42.59	40.76	37.79	39.39	41.37	40.91	38.59	41.03	70- 80	73.37	1043	98.5,98.5
90	0.1855	0.1832	0.1736	0.1794	0.3080	0.2993	0.2862	0.2973	80- 90	16.18	1059	100,100
100									90-100			
110									100-110			
120									110-120			
130									120-130			
140									130-140			
150									140-150			
160									150-160			
170									160-170			
180									170-180			
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3 °C
 Operators:
 Test Date:2022-04-14

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.00.421
 Humidity:65.0%
 Test Distance:3.080m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:119.97V I:0.1293A P:11.199W PF:0.9536 Freq:59.98Hz Lamp Flux:1059.1x1 lm		
NAME: LED-6-S12W-5CCT	TYPE:	WEIGHT:
SPEC.: 3000K 80	DIM.:	SERIAL No.:
MFR.: Light by Lotus	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	1715	986
80	2208	1958
75	2450	2353
70	2606	2594
65	2739	2758
60	2854	2878
55	2952	2977
50	3041	3065
45	3118	3142

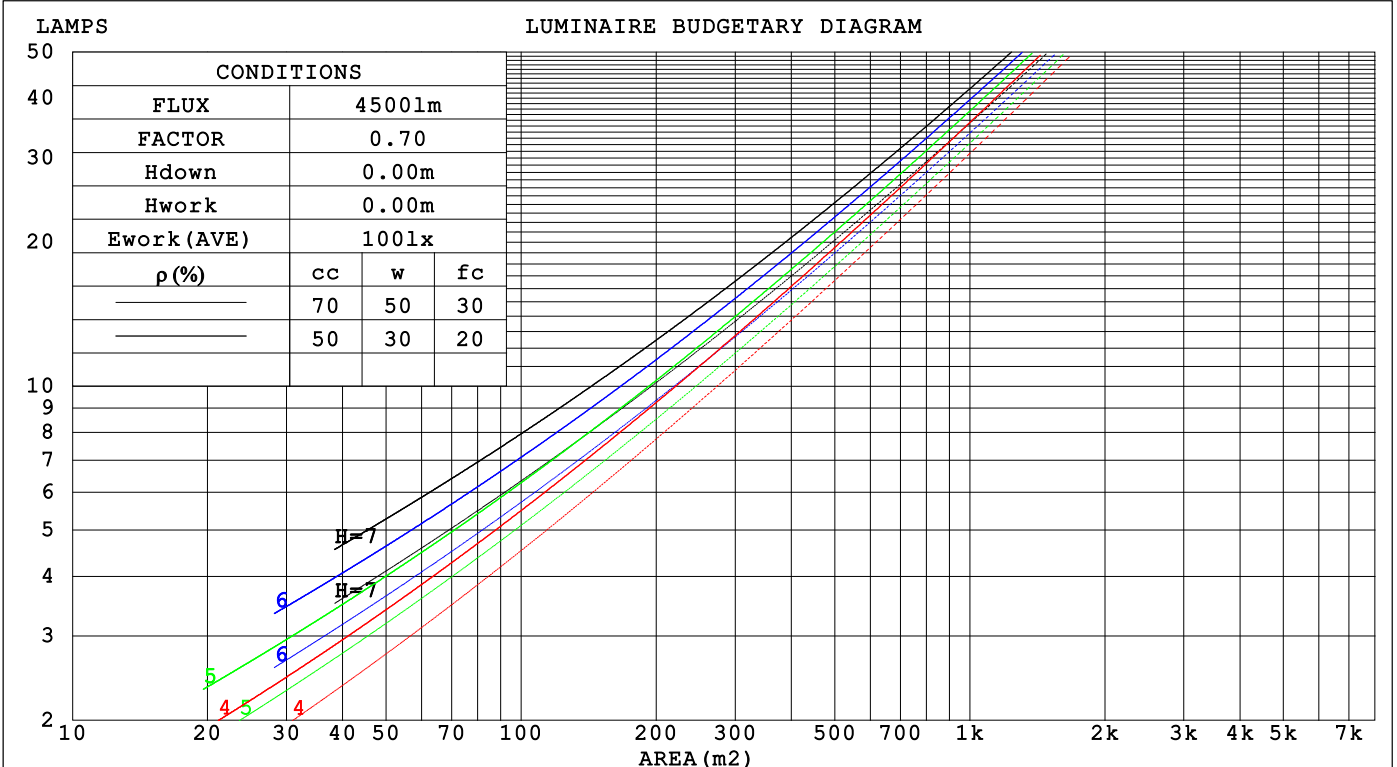
C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 25.3 °C
 Operators:
 Test Date: 2022-04-14

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-SPEX500_V1 SYSTEM V2.00.421
 Humidity: 65.0%
 Test Distance: 3.080m [K=1.0000]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:119.97V I:0.1293A P:11.199W PF:0.9536 Freq:59.98Hz Lamp Flux:1059.1x1 lm		
NAME: LED-6-S12W-5CCT	TYPE:	WEIGHT:
SPEC.: 3000K 80	DIM.:	SERIAL No.:
MFR.: Light by Lotus	SUR.:	Shielding Angle:

ρcc	80%			70%			50%			30%			10%			0
	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρw	0															
ρfc	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	1.04	.90	.96	1.02	.98	.95	.98	.94	.92	.94	.91	.89	.90	.88	.86	.84
2.0	.91	.84	.78	.89	.83	.77	.85	.80	.76	.82	.78	.74	.79	.75	.72	.70
3.0	.80	.72	.65	.78	.71	.65	.75	.69	.63	.72	.67	.62	.70	.65	.61	.59
4.0	.71	.62	.55	.69	.61	.55	.67	.60	.54	.64	.58	.53	.62	.57	.53	.50
5.0	.63	.54	.48	.62	.54	.47	.60	.52	.47	.58	.51	.46	.56	.50	.46	.44
6.0	.57	.48	.42	.56	.47	.41	.54	.47	.41	.52	.46	.41	.51	.45	.40	.38
7.0	.52	.43	.37	.51	.42	.37	.49	.42	.36	.48	.41	.36	.46	.40	.36	.34
8.0	.47	.39	.33	.46	.38	.33	.45	.38	.32	.44	.37	.32	.43	.37	.32	.30
9.0	.43	.35	.29	.43	.35	.29	.41	.34	.29	.40	.34	.29	.39	.33	.29	.27
10.0	.40	.32	.27	.39	.32	.27	.38	.31	.27	.37	.31	.26	.37	.31	.26	.25



C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3 °C
 Operators:
 Test Date:2022-04-14

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.00.421
 Humidity:65.0%
 Test Distance:3.080m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:119.97V I:0.1293A P:11.199W PF:0.9536 Freq:59.98Hz Lamp Flux:1059.1x1 lm		
NAME: LED-6-S12W-5CCT	TYPE:	WEIGHT:
SPEC.: 3000K 80	DIM.:	SERIAL No.:
MFR.: Light by Lotus	SUR.:	Shielding Angle:

ρ _{CC}	80%			70%			50%			30%			10%			0
ρ _w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ _{fc}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.305	.173	.055	.298	.170	.054	.284	.163	.052	.272	.157	.050	.261	.151	.049	
2.0	.288	.158	.048	.282	.155	.048	.270	.150	.047	.260	.146	.046	.250	.141	.045	
3.0	.267	.142	.043	.262	.140	.042	.252	.136	.041	.242	.133	.041	.233	.129	.040	
4.0	.247	.128	.038	.242	.127	.037	.233	.124	.037	.225	.121	.036	.217	.118	.036	
5.0	.229	.117	.034	.224	.115	.034	.216	.113	.033	.209	.110	.033	.202	.108	.032	
6.0	.212	.106	.030	.208	.105	.030	.201	.103	.030	.194	.101	.030	.188	.099	.029	
7.0	.198	.098	.028	.194	.097	.028	.188	.095	.027	.182	.093	.027	.176	.091	.027	
8.0	.185	.090	.025	.182	.089	.025	.176	.088	.025	.170	.086	.025	.165	.085	.025	
9.0	.173	.084	.023	.170	.083	.023	.165	.082	.023	.160	.080	.023	.156	.079	.023	
10.0	.163	.078	.022	.160	.077	.022	.156	.076	.021	.151	.075	.021	.147	.074	.021	

ρ _{CC}	80%			70%			50%			30%			10%			0
ρ _w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ _{fc}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0																
1.0	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
2.0	.180	.156	.135	.154	.134	.116	.105	.092	.080	.061	.053	.047	.019	.017	.015	
3.0	.172	.132	.098	.147	.114	.085	.101	.079	.059	.058	.046	.035	.019	.015	.011	
4.0	.164	.114	.075	.141	.099	.065	.097	.068	.045	.056	.040	.027	.018	.013	.009	
5.0	.156	.101	.059	.134	.087	.051	.092	.061	.036	.053	.036	.021	.017	.012	.007	
6.0	.149	.091	.047	.128	.078	.041	.088	.055	.029	.051	.032	.017	.016	.010	.006	
7.0	.142	.082	.039	.122	.071	.034	.084	.050	.024	.049	.029	.014	.016	.010	.005	
8.0	.135	.075	.033	.116	.065	.029	.080	.046	.021	.047	.027	.012	.015	.009	.004	
9.0	.129	.069	.029	.111	.060	.025	.077	.042	.018	.045	.025	.011	.014	.008	.004	
10.0	.123	.064	.025	.106	.056	.022	.073	.039	.016	.043	.023	.009	.014	.008	.003	
10.0	.117	.060	.023	.101	.052	.020	.070	.037	.014	.041	.022	.008	.013	.007	.003	

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3°C
 Operators:
 Test Date:2022-04-14

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.00.421
 Humidity:65.0%
 Test Distance:3.080m [K=1.0000]
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:119.97V I:0.1293A P:11.199W PF:0.9536 Freq:59.98Hz										
Lamp Flux:1059.1x1 lm										
NAME: LED-6-S12W-5CCT					TYPE:			WEIGHT:		
SPEC.: 3000K 80					DIM.:			SERIAL No.:		
MFR.: Light by Lotus					SUR.:			Shielding Angle:		
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	16.4	17.9	16.7	18.1	18.3	16.5	18.0	16.7	18.2	18.4
3H	17.9	19.3	18.2	19.5	19.8	17.9	19.3	18.2	19.6	19.8
4H	18.5	19.9	18.8	20.1	20.4	18.5	19.8	18.8	20.1	20.3
6H	19.0	20.2	19.3	20.5	20.8	18.9	20.1	19.2	20.4	20.7
8H	19.1	20.3	19.4	20.6	20.9	19.0	20.2	19.3	20.5	20.7
12H	19.1	20.3	19.5	20.6	20.9	19.0	20.1	19.3	20.4	20.7
4H 2H	17.0	18.3	17.3	18.6	18.9	17.0	18.4	17.4	18.6	18.9
3H	18.7	19.9	19.1	20.2	20.5	18.7	19.9	19.1	20.2	20.5
4H	19.4	20.5	19.8	20.8	21.2	19.4	20.5	19.8	20.8	21.1
6H	20.0	21.0	20.4	21.3	21.7	19.9	20.9	20.3	21.2	21.6
8H	20.2	21.0	20.6	21.4	21.8	20.0	20.9	20.5	21.3	21.7
12H	20.2	21.1	20.7	21.4	21.8	20.1	20.9	20.5	21.3	21.7
8H 4H	19.7	20.6	20.1	21.0	21.3	19.7	20.6	20.1	20.9	21.3
6H	20.4	21.1	20.9	21.5	22.0	20.3	21.0	20.8	21.4	21.9
8H	20.6	21.3	21.1	21.7	22.1	20.5	21.2	21.0	21.6	22.0
12H	20.7	21.3	21.2	21.8	22.2	20.6	21.1	21.1	21.6	22.1
12H 4H	19.7	20.5	20.1	20.9	21.3	19.7	20.5	20.1	20.9	21.3
6H	20.5	21.1	20.9	21.5	22.0	20.4	21.0	20.8	21.4	21.9
8H	20.7	21.3	21.2	21.7	22.2	20.6	21.1	21.1	21.6	22.1
Variations with the observer position at spacings(CIE Pub.117):										
S = 1.0H	+ 0.2 / - 0.2					+ 0.2 / - 0.2				
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.3				
2.0H	+ 0.2 / - 0.3					+ 0.2 / - 0.3				

CIE Pub.117, 1059 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 0.2)
 Area: 0.111111 m2

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3°C
 Operators:
 Test Date:2022-04-14

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.00.421
 Humidity:65.0%
 Test Distance:3.080m [K=1.0000]
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:119.97V I:0.1293A P:11.199W PF:0.9536 Freq:59.98Hz Lamp Flux:1059.1x1 lm		
NAME: LED-6-S12W-5CCT	TYPE:	WEIGHT:
SPEC.: 3000K 80	DIM.:	SERIAL No.:
MFR.: Light by Lotus	SUR.:	Shielding Angle:

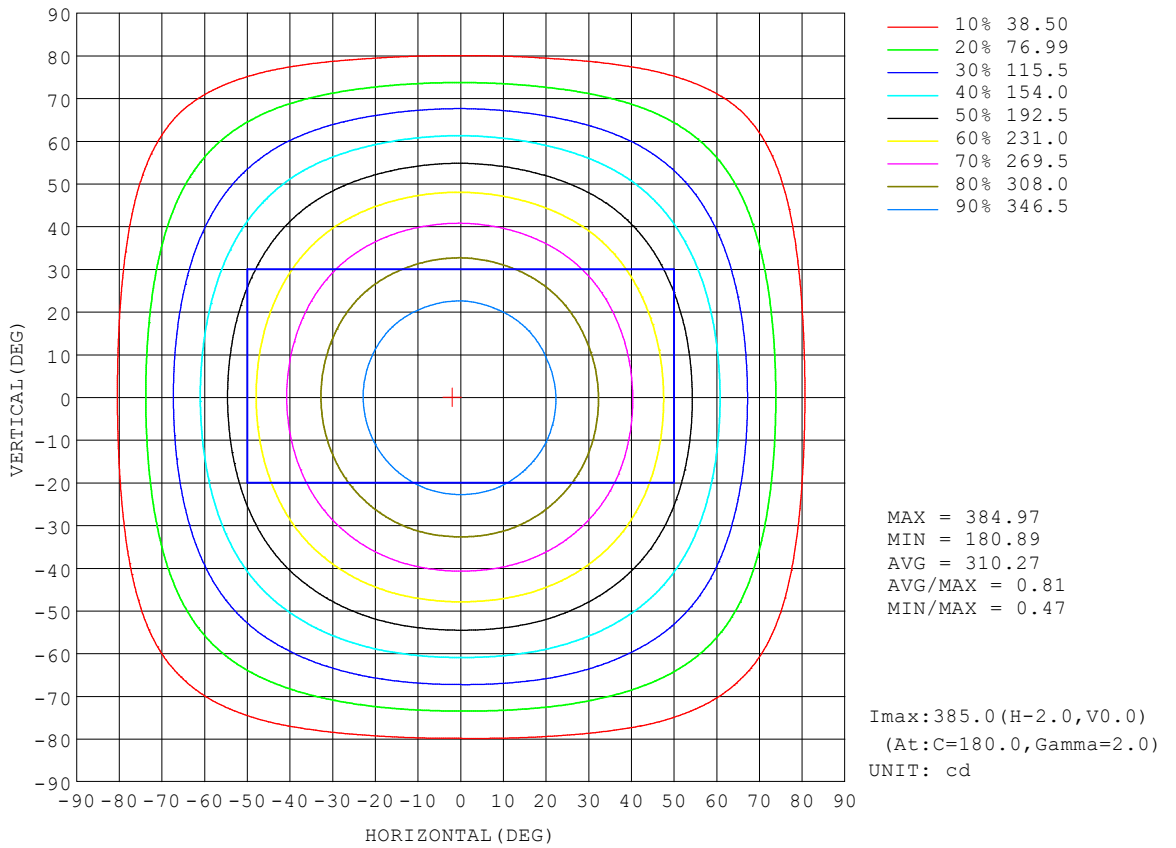
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	58	46	40	57	46	39	56	46	39	33
0.80	68	57	49	67	56	49	65	55	49	42
1.00	76	65	58	75	65	58	73	66	57	50
1.25	84	73	66	82	72	66	79	71	65	58
1.50	88	79	72	87	78	71	84	76	70	63
2.00	95	87	80	93	86	80	90	83	78	70
2.50	99	92	86	97	90	85	93	87	83	75
3.00	103	96	90	100	94	89	96	91	87	79
4.00	106	101	96	104	99	95	100	96	92	83
5.00	109	104	100	106	102	99	102	99	96	86
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3 °C
 Operators:
 Test Date:2022-04-14

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.00.421
 Humidity:65.0%
 Test Distance:3.080m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:119.97V I:0.1293A P:11.199W PF:0.9536 Freq:59.98Hz Lamp Flux:1059.1x1 lm		
NAME: LED-6-S12W-5CCT	TYPE:	WEIGHT:
SPEC.: 3000K 80	DIM.:	SERIAL No.:
MFR.: Light by Lotus	SUR.:	Shielding Angle:

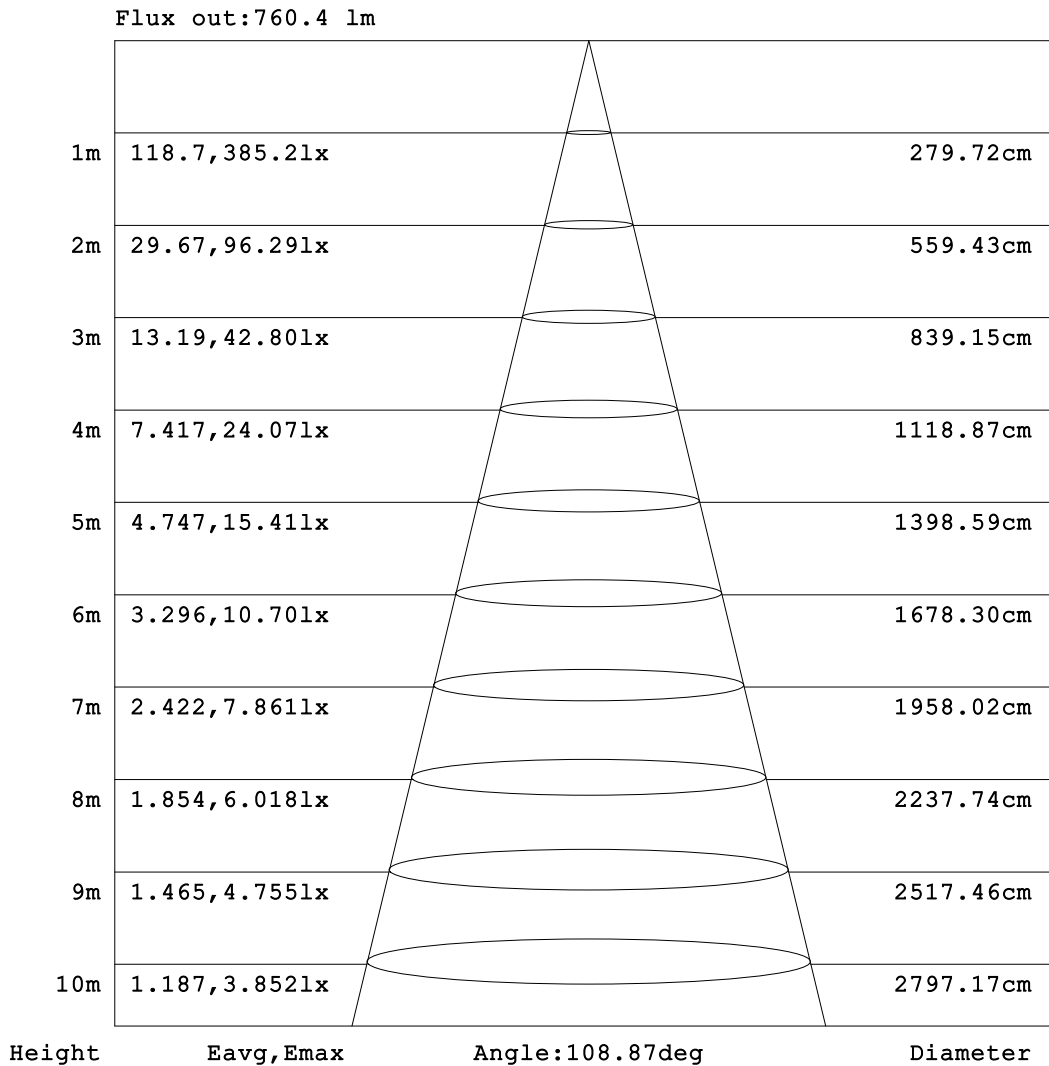


C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 25.3 °C
 Operators:
 Test Date: 2022-04-14

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-SPEX500_V1 SYSTEM V2.00.421
 Humidity: 65.0%
 Test Distance: 3.080m [K=1.0000]
 Remarks:

AAI Figure

Test:U:119.97V I:0.1293A P:11.199W PF:0.9536 Freq:59.98Hz Lamp Flux:1059.1x1 lm		
NAME: LED-6-S12W-5CCT	TYPE:	WEIGHT:
SPEC.: 3000K 80	DIM.:	SERIAL No.:
MFR.: Light by Lotus	SUR.:	Shielding Angle:



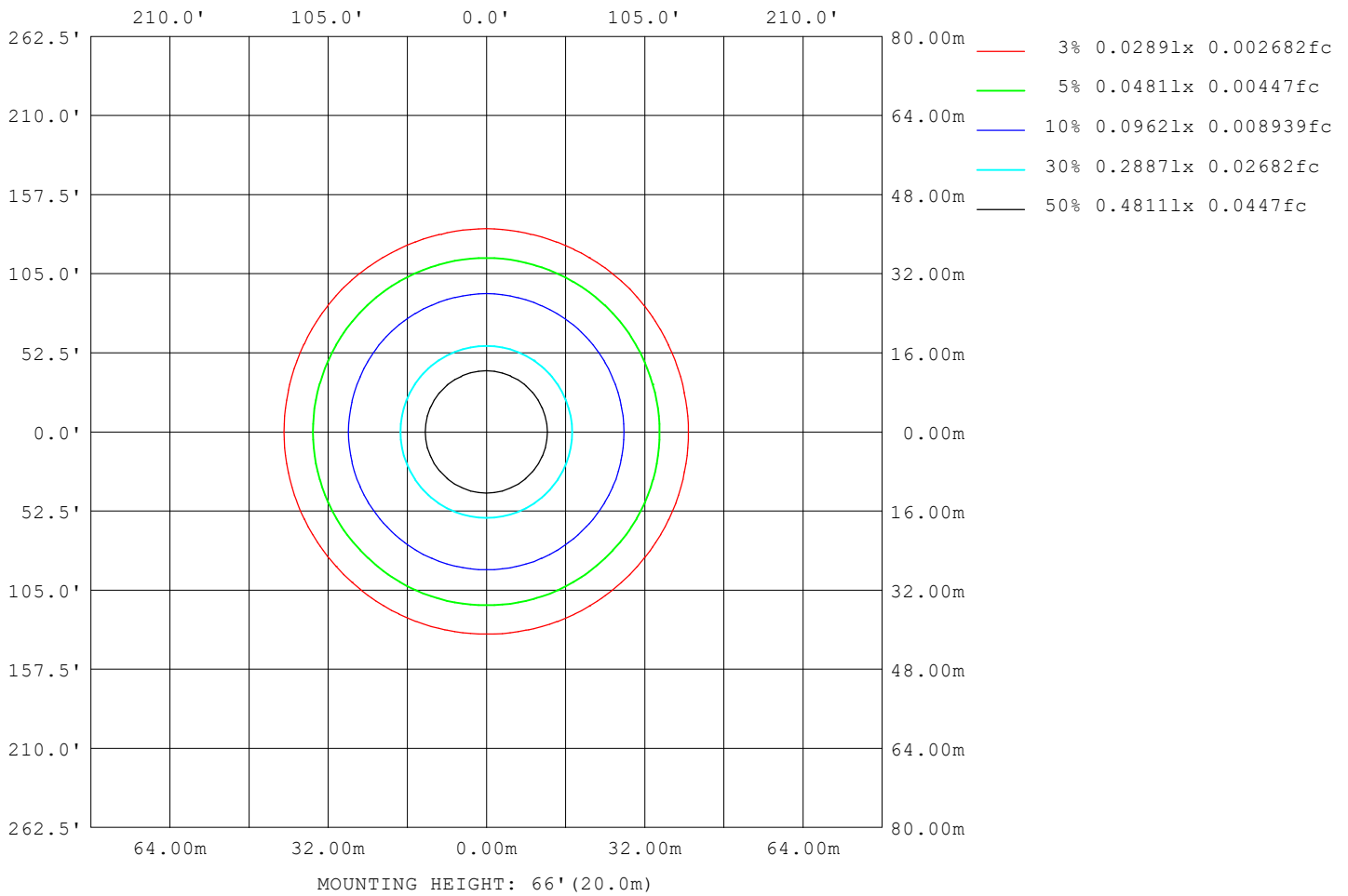
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 25.3 °C
 Operators:
 Test Date: 2022-04-14

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-SPEX500_V1 SYSTEM V2.00.421
 Humidity: 65.0%
 Test Distance: 3.080m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM

Test:U:119.97V I:0.1293A P:11.199W PF:0.9536 Freq:59.98Hz Lamp Flux:1059.1x1 lm		
NAME: LED-6-S12W-5CCT	TYPE:	WEIGHT:
SPEC.: 3000K 80	DIM.:	SERIAL No.:
MFR.: Light by Lotus	SUR.:	Shielding Angle:



C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3 °C
 Operators:
 Test Date:2022-04-14

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.00.421
 Humidity:65.0%
 Test Distance:3.080m [K=1.0000]
 Remarks:

LED Avg.L Report

Test:U:119.97V I:0.1293A P:11.199W PF:0.9536 Freq:59.98Hz Lamp Flux:1059.1x1 lm		
NAME: LED-6-S12W-5CCT	TYPE:	WEIGHT:
SPEC.: 3000K 80	DIM.:	SERIAL No.:
MFR.: Light by Lotus	SUR.:	Shielding Angle:

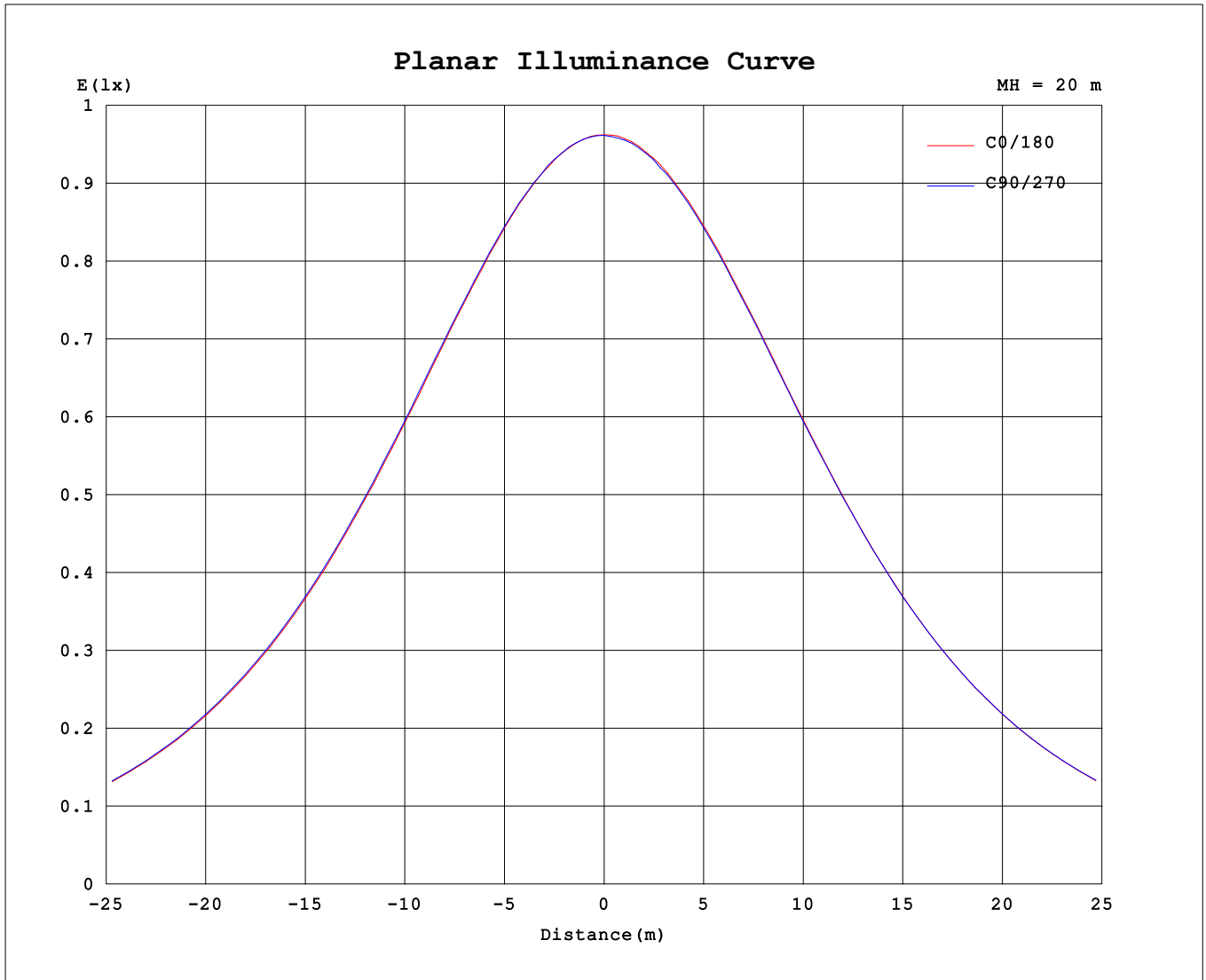
AvgL	cd/m2
L_0~180 (65) av	2749
L_0~180 (75) av	2441
L_0~180 (85) av	1642
L_90~270 (65) av	2779
L_90~270 (75) av	2374
L_90~270 (85) av	1012
L_45 (65) av	2763
L_45 (75) av	2420
L_45 (85) av	1366

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3℃
 Operators:
 Test Date:2022-04-14

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.00.421
 Humidity:65.0%
 Test Distance:3.080m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 25.3 °C
 Operators:
 Test Date: 2022-04-14

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-SPEX500_V1 SYSTEM V2.00.421
 Humidity: 65.0%
 Test Distance: 3.080m [K=1.0000]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:119.97V I:0.1293A P:11.199W PF:0.9536 Freq:59.98Hz Lamp Flux:1059.1x1 lm		
NAME: LED-6-S12W-5CCT	TYPE:	WEIGHT:
SPEC.: 3000K 80	DIM.:	SERIAL No.:
MFR.: Light by Lotus	SUR.:	Shielding Angle:

Table--1

UNIT: cd

C (DEG) \ γ (DEG)	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5			
0	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385			
5	383	382	382	383	383	383	383	383	383	383	383	383	383	382	383	382			
10	377	376	377	377	377	377	377	377	377	377	377	377	377	376	376	376			
15	367	367	368	368	368	368	368	368	368	367	368	367	368	367	367	366			
20	354	354	354	355	355	355	355	355	355	355	355	355	355	353	354	353			
25	337	338	338	339	339	339	339	339	339	339	339	339	339	337	337	337			
30	317	318	319	320	320	320	319	319	320	319	320	319	320	318	318	317			
35	295	296	297	298	298	298	297	297	298	297	298	298	298	296	296	295			
40	271	272	272	273	273	273	273	273	273	273	274	274	274	272	272	271			
45	245	246	246	247	247	247	246	247	247	247	248	248	247	246	246	244			
50	217	218	218	220	219	219	218	219	219	219	221	220	220	218	218	217			
55	188	189	189	191	190	190	189	190	190	190	192	191	191	190	190	188			
60	159	160	159	161	160	160	159	160	160	160	162	161	162	160	160	158			
65	129	130	129	130	130	129	128	129	130	130	131	131	131	130	130	128			
70	99.0	99.7	99.1	99.6	98.6	99.0	97.6	98.9	99.3	99.4	101	100	100	99.3	100	98.7			
75	70.4	70.6	69.6	68.9	67.7	68.0	68.4	69.6	69.9	70.3	70.5	69.1	68.9	68.8	69.9	70.3			
80	42.6	40.7	40.8	39.2	37.8	38.3	39.4	39.3	41.4	42.0	40.9	38.9	38.6	38.8	41.0	42.5			
85	16.6	12.6	13.9	11.1	9.55	10.3	12.0	11.6	15.2	15.6	13.3	10.8	10.0	10.8	13.7	16.9			
90	0.19	0.22	0.18	0.17	0.17	0.18	0.18	0.22	0.31	0.33	0.30	0.31	0.29	0.29	0.30	0.34			

C Range: 0 - 360DEG	γ Range: 0 - 90DEG
C Interval: 22.5DEG	γ Interval: 1.0DEG
Test Speed: HIGH	Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.00.421
Temperature:25.3℃	Humidity:65.0%
Operators:	Test Distance:3.080m [K=1.0000]
Test Date:2022-04-14	Remarks: