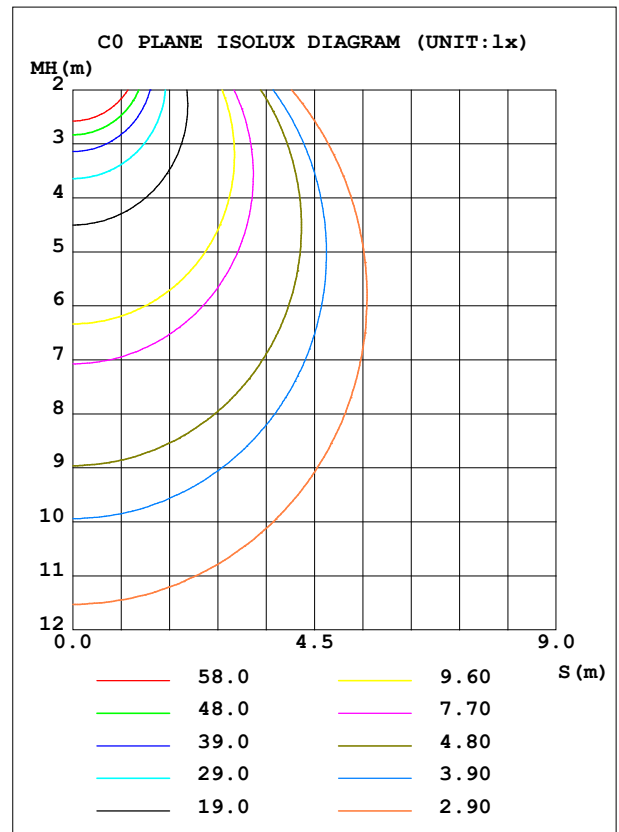
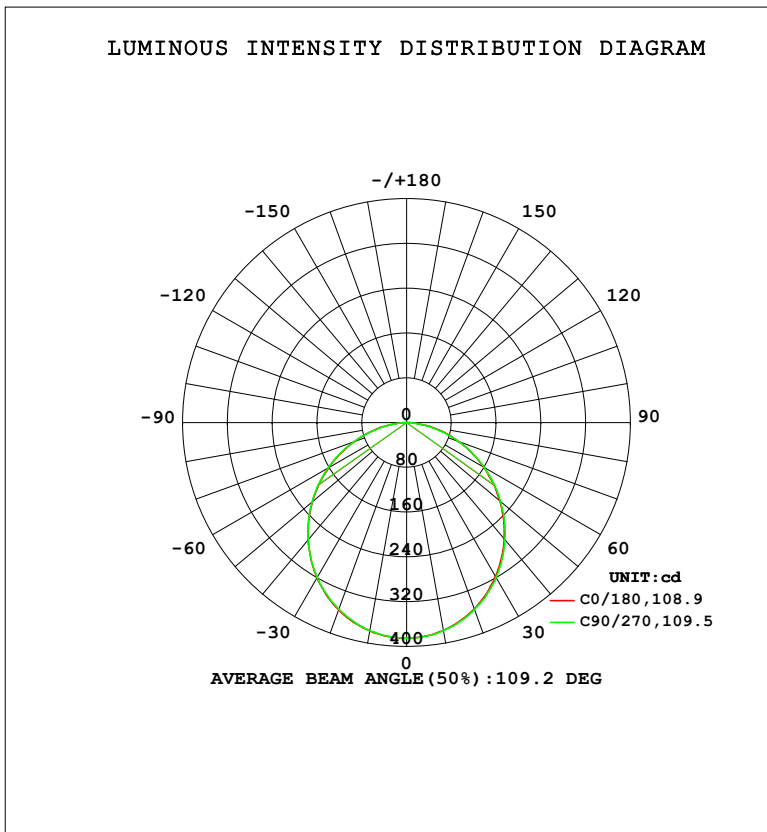


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:119.96V I:0.1321A P:11.449W PF:0.9543 Freq:59.98Hz Lamp Flux:1060.9x1 lm		
NAME: LED-6-S12W-5CCT	TYPE:	WEIGHT:
SPEC.: 4000K 80	DIM.:	SERIAL No.:
MFR.: Light by Lotus	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 92.66 lm/W
MODEL		I _{max} (cd)	385.3	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)	1060.9	η UP, DN (C0-180)	0.0, 49.9	
NOMINAL FLUX (lm)	1060.9	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:

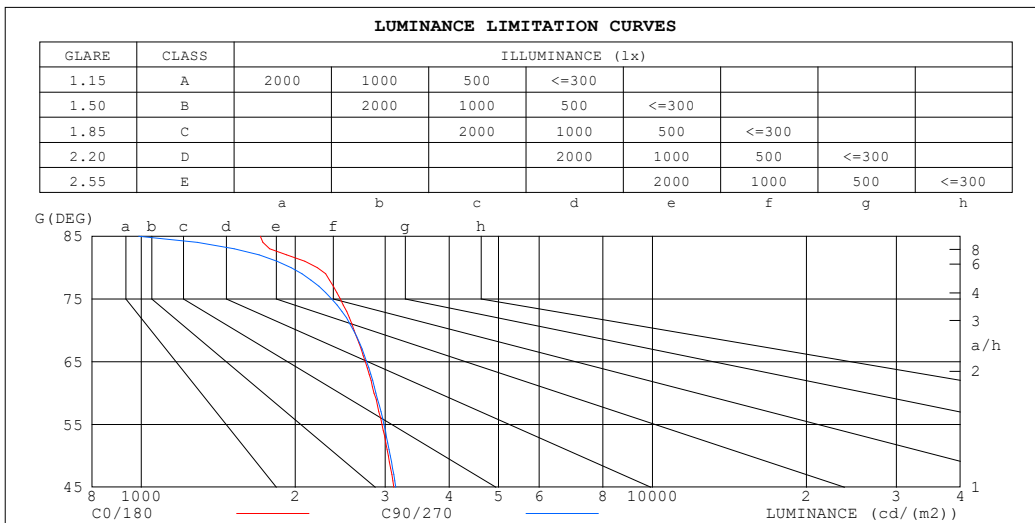
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum,lamp
10	377.2	377.3	377.6	378.1	377.9	377.5	377.2	376.8	0- 10	36.40	36.40	3.43,3.43
20	354.1	354.6	355.3	355.8	355.7	355.4	354.8	354.2	10- 20	103.8	140.2	13.2,13.2
30	317.7	319.0	319.9	320.0	320.1	320.3	319.6	318.2	20- 30	156.0	296.2	27.9,27.9
40	271.7	272.6	273.5	273.3	273.7	274.4	273.7	272.0	30- 40	186.0	482.2	45.4,45.4
50	217.3	218.6	219.3	218.8	219.8	220.9	220.6	218.8	40- 50	190.4	672.5	63.4,63.4
60	158.5	159.6	159.9	159.2	160.4	162.1	162.2	160.2	50- 60	170.0	842.5	79.4,79.4
70	99.05	99.23	98.78	98.27	99.70	101.1	100.5	100.2	60- 70	128.6	971.1	91.5,91.5
80	42.63	40.86	37.88	39.50	41.55	41.02	38.65	41.13	70- 80	73.55	1045	98.5,98.5
90	0.1852	0.1842	0.1729	0.1787	0.3083	0.3020	0.2873	0.3002	80- 90	16.23	1061	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:119.96V I:0.1321A P:11.449W PF:0.9543 Freq:59.98Hz Lamp Flux:1060.9x1 lm		
NAME: LED-6-S12W-5CCT	TYPE:	WEIGHT:
SPEC.: 4000K 80	DIM.:	SERIAL No.:
MFR.: Light by Lotus	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	1709	989
80	2210	1963
75	2452	2358
70	2607	2600
65	2742	2760
60	2854	2878
55	2956	2981
50	3044	3071
45	3120	3146

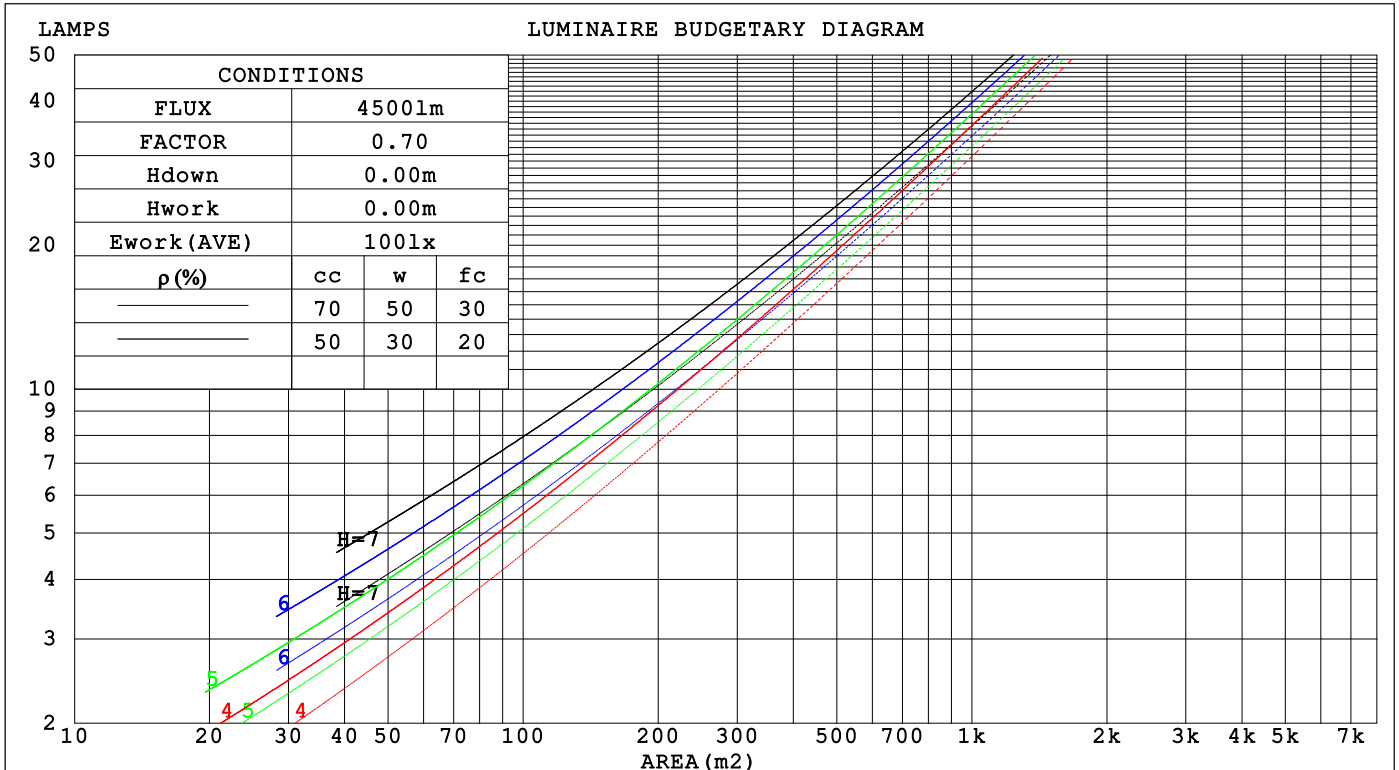
C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3 °C
 Operators:
 Test Date:2022-04-14

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:119.96V I:0.1321A P:11.449W PF:0.9543 Freq:59.98Hz Lamp Flux:1060.9x1 lm		
NAME: LED-6-S12W-5CCT	TYPE:	WEIGHT:
SPEC.: 4000K 80	DIM.:	SERIAL No.:
MFR.: Light by Lotus	SUR.:	Shielding Angle:

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															
	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:119.96V I:0.1321A P:11.449W PF:0.9543 Freq:59.98Hz		
Lamp Flux:1060.9x1 lm		
NAME: LED-6-S12W-5CCT	TYPE:	WEIGHT:
SPEC.: 4000K 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	.078	.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:119.96V I:0.1321A P:11.449W PF:0.9543 Freq:59.98Hz										
Lamp Flux:1060.9x1 lm										
NAME: LED-6-S12W-5CCT				TYPE:			WEIGHT:			
SPEC.: 4000K 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	16.4	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	19.8	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	18.8	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	21.0	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	21.7	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	21.2	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, 1061 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:119.96V I:0.1321A P:11.449W PF:0.9543 Freq:59.98Hz Lamp Flux:1060.9x1 lm		
NAME: LED-6-S12W-5CCT	TYPE:	WEIGHT:
SPEC.: 4000K 80	DIM.:	SERIAL No.:
MFR.: Light by Lotus	SUR.:	Shielding Angle:

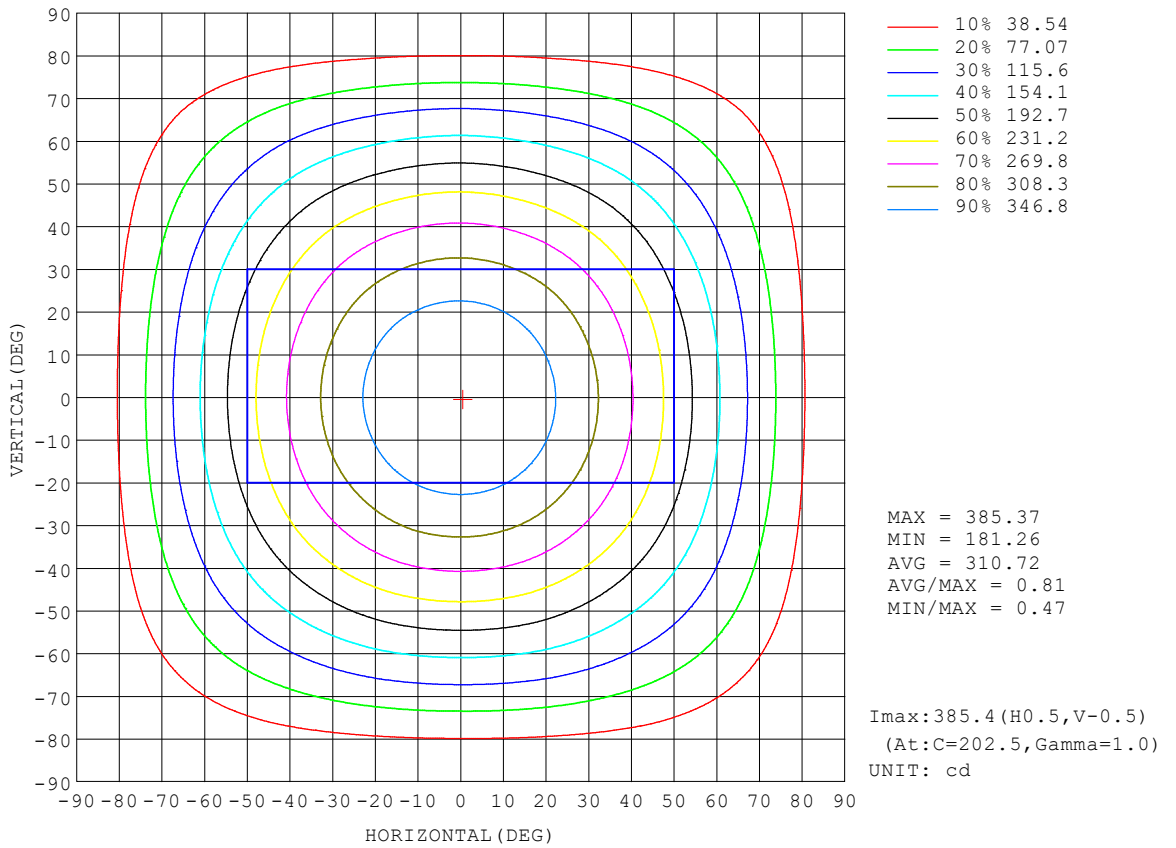
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	58	46	40	57	46	39	56	46	39	33
0.80	68	56	49	67	56	49	65	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:119.96V I:0.1321A P:11.449W PF:0.9543 Freq:59.98Hz Lamp Flux:1060.9x1 lm		
NAME: LED-6-S12W-5CCT	TYPE:	WEIGHT:
SPEC.: 4000K 80	DIM.:	SERIAL No.:
MFR.: Light by Lotus	SUR.:	Shielding Angle:

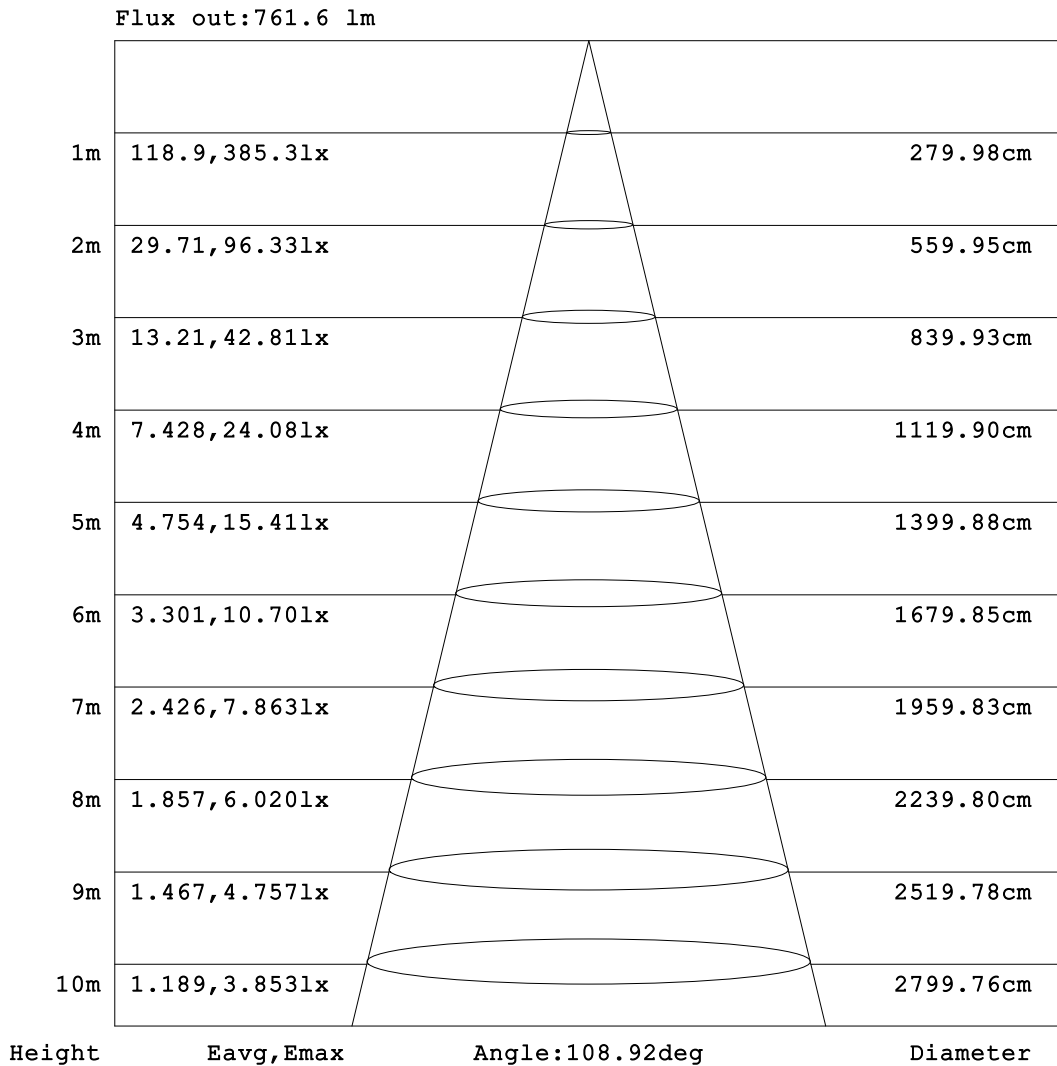


C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3°C
 Operators:
 Test Date:2022-04-14

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:119.96V I:0.1321A P:11.449W PF:0.9543 Freq:59.98Hz Lamp Flux:1060.9x1 lm		
NAME: LED-6-S12W-5CCT	TYPE:	WEIGHT:
SPEC.: 4000K 80	DIM.:	SERIAL No.:
MFR.: Light by Lotus	SUR.:	Shielding Angle:



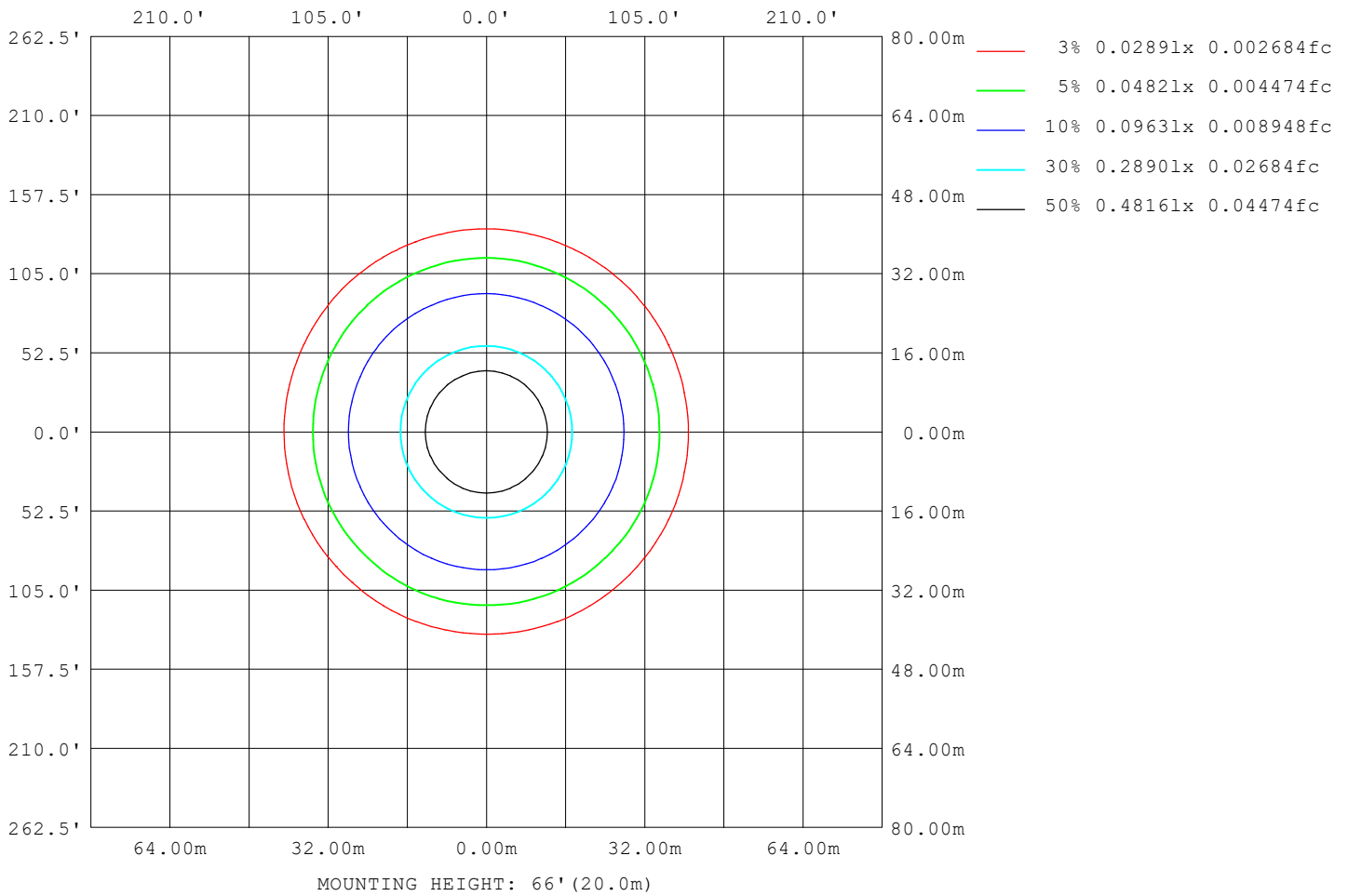
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:119.96V I:0.1321A P:11.449W PF:0.9543 Freq:59.98Hz Lamp Flux:1060.9x1 lm		
NAME: LED-6-S12W-5CCT	TYPE:	WEIGHT:
SPEC.: 4000K 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:119.96V I:0.1321A P:11.449W PF:0.9543 Freq:59.98Hz Lamp Flux:1060.9x1 lm		
NAME: LED-6-S12W-5CCT	TYPE:	WEIGHT:
SPEC.: 4000K 80	DIM.:	SERIAL No.:
MFR.: Light by Lotus	SUR.:	Shielding Angle:

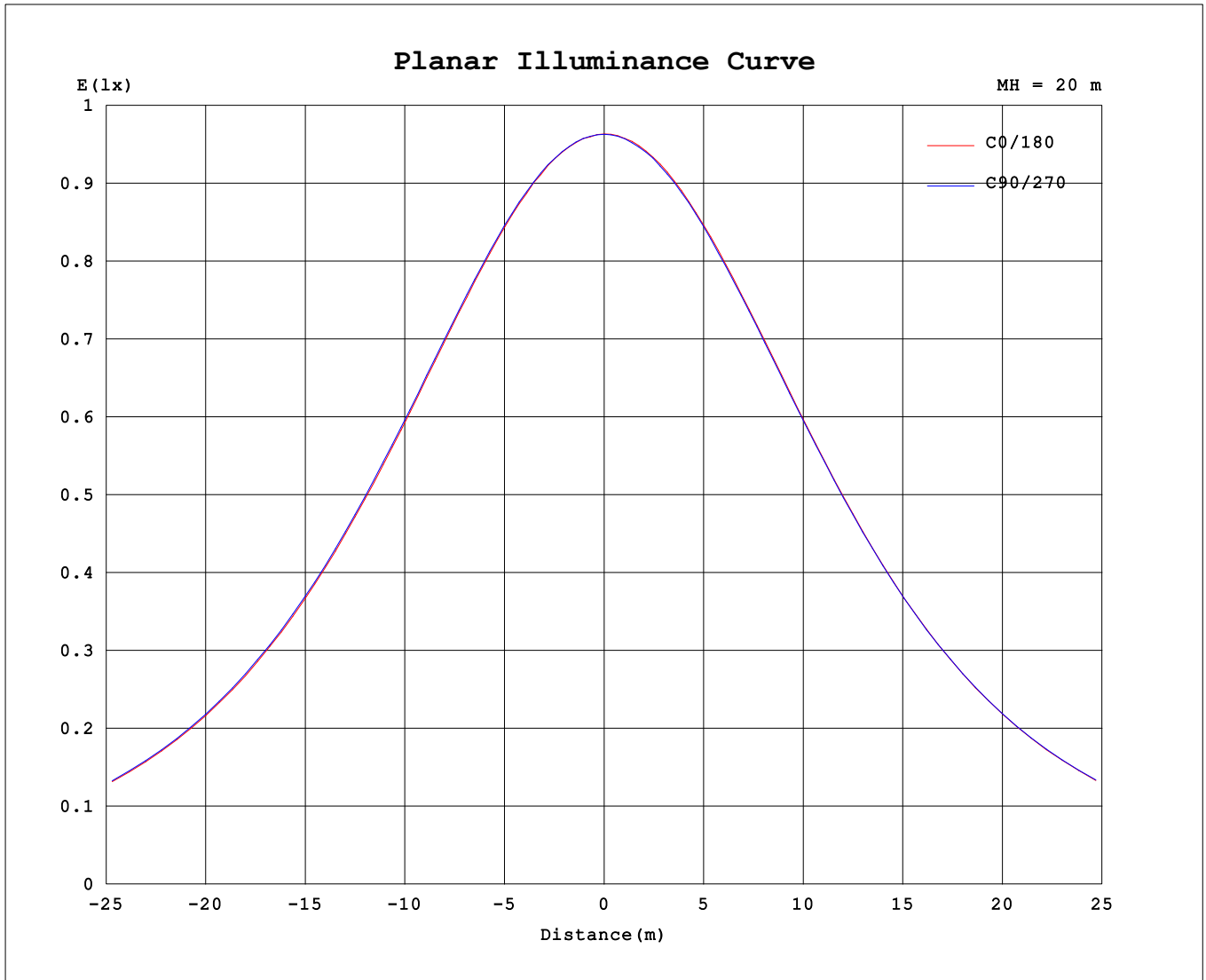
AvgL	cd/m2
L_0~180 (65) av	2754
L_0~180 (75) av	2446
L_0~180 (85) av	1643
L_90~270 (65) av	2783
L_90~270 (75) av	2378
L_90~270 (85) av	1015
L_45 (65) av	2768
L_45 (75) av	2426
L_45 (85) av	1371

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:119.96V I:0.1321A P:11.449W PF:0.9543 Freq:59.98Hz Lamp Flux:1060.9x1 lm		
NAME: LED-6-S12W-5CCT	TYPE:	WEIGHT:
SPEC.: 4000K 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	383	383	383	383	384	384	383	384	383	383	383	383	383	383	383			
10	377	377	377	378	378	378	378	378	378	378	378	377	377	377	377	377			
15	367	367	368	368	368	369	369	368	369	368	368	368	368	367	367	367			
20	354	354	355	355	355	356	356	356	356	355	355	355	355	354	354	353			
25	337	338	338	339	339	340	339	339	340	339	339	339	339	338	338	337			
30	318	319	319	320	320	321	320	320	320	320	320	320	320	318	318	317			
35	296	297	297	298	298	298	298	298	298	298	298	298	298	297	296	296			
40	272	272	273	274	274	274	273	273	274	274	274	274	274	273	272	271			
45	245	246	246	248	247	247	247	247	248	248	248	248	248	247	246	245			
50	217	219	219	220	219	220	219	219	220	219	221	220	221	219	219	217			
55	188	190	189	191	190	191	189	190	191	190	192	191	192	190	190	188			
60	158	160	160	161	160	161	159	160	160	160	162	161	162	160	160	158			
65	129	130	129	130	130	130	129	130	130	130	132	131	132	130	130	129			
70	99.0	99.9	99.2	99.8	98.8	99.2	98.3	99.3	99.7	99.8	101	100	101	99.8	100	98.8			
75	70.5	70.7	69.7	68.9	67.8	68.2	68.6	69.8	70.2	70.7	70.6	69.2	69.0	69.0	70.1	70.4			
80	42.6	40.8	40.9	39.2	37.9	38.4	39.5	39.4	41.6	42.1	41.0	39.0	38.6	39.1	41.1	42.7			
85	16.5	12.6	13.9	11.2	9.57	10.3	12.1	11.6	15.3	15.7	13.4	10.9	10.1	10.9	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	0.30	0.29	0.30	0.30	0.34			

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: