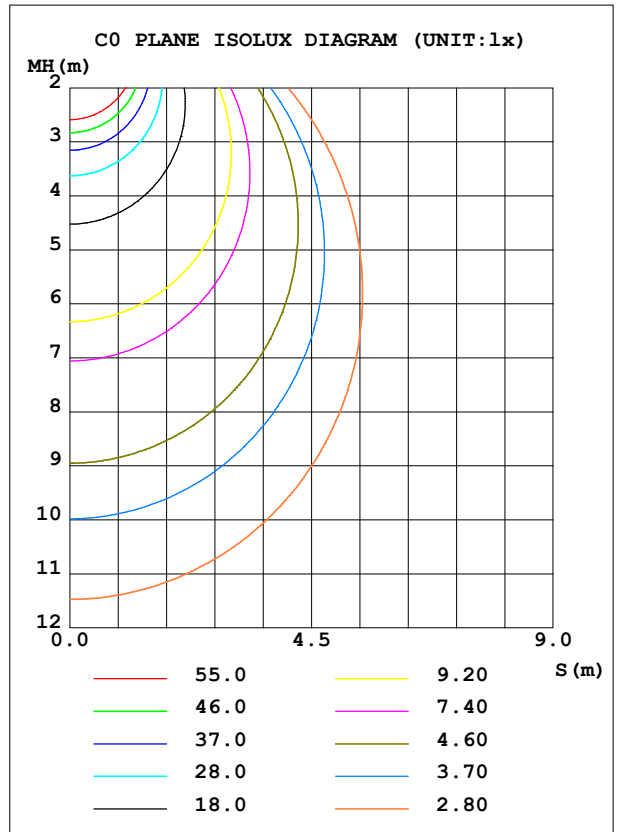
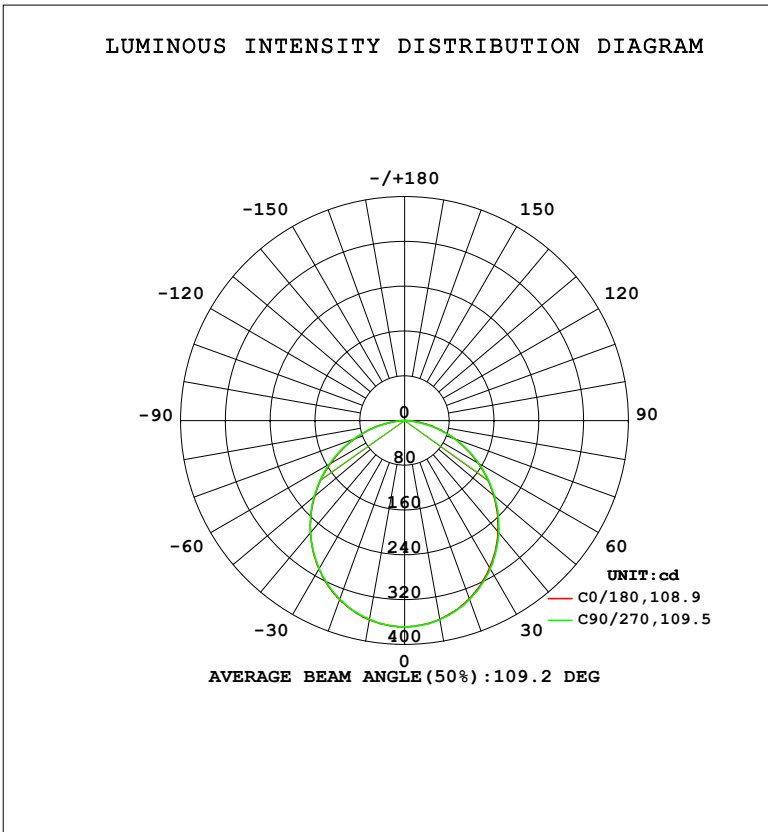


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:119.96V I:0.1328A P:11.537W PF:0.9537 Freq:59.98Hz Lamp Flux:1014.77x1 lm		
NAME: LED-6-S12W-5CCT	TYPE:	WEIGHT:
SPEC.: 5000K 80	DIM.:	SERIAL No.:
MFR.: Light by Lotus	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 87.96 lm/W
MODEL		I <sub>max</sub> (cd)	368.5	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)	1014.8	η UP, DN (C0-180)		0.0,49.9
NOMINAL FLUX (lm)	1014.77	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:

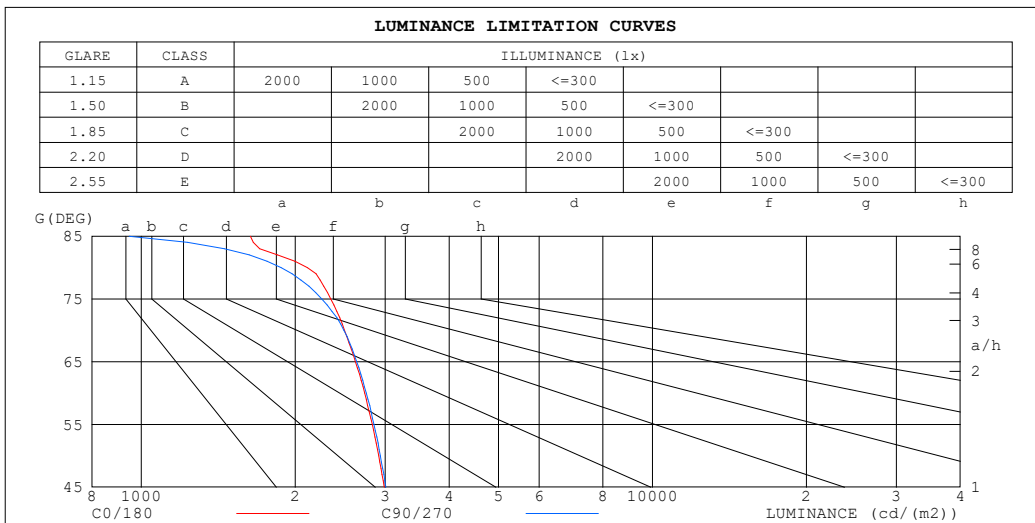
$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	%lum,lamp
10	360.5	360.7	361.0	361.2	361.5	361.0	360.7	360.2	0- 10	34.80	34.80	3.43,3.43
20	338.6	339.4	339.8	339.8	340.1	339.9	339.4	338.6	10- 20	99.25	134.1	13.2,13.2
30	304.0	305.3	305.9	305.8	306.2	306.5	305.5	304.3	20- 30	149.2	283.2	27.9,27.9
40	259.5	260.7	261.9	261.1	261.8	262.6	261.8	260.1	30- 40	177.9	461.1	45.4,45.4
50	207.9	209.2	209.8	209.0	210.2	211.5	211.1	209.2	40- 50	182.1	643.3	63.4,63.4
60	151.9	152.7	153.0	152.2	153.4	155.0	155.0	153.2	50- 60	162.6	805.8	79.4,79.4
70	94.93	95.23	94.69	94.20	95.28	96.73	96.17	95.86	60- 70	123.0	928.9	91.5,91.5
80	40.78	39.10	36.21	37.75	39.72	39.26	36.99	39.35	70- 80	70.38	999.2	98.5,98.5
90	0.1772	0.1752	0.1672	0.1706	0.2966	0.2854	0.2757	0.2854	80- 90	15.52	1015	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

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  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:0.1328A P:11.537W PF:0.9537 Freq:59.98Hz Lamp Flux:1014.77x1 lm		
NAME: LED-6-S12W-5CCT	TYPE:	WEIGHT:
SPEC.: 5000K 80	DIM.:	SERIAL No.:
MFR.: Light by Lotus	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	1636	946
80	2114	1876
75	2346	2254
70	2499	2492
65	2625	2638
60	2735	2754
55	2830	2850
50	2913	2937
45	2984	3010

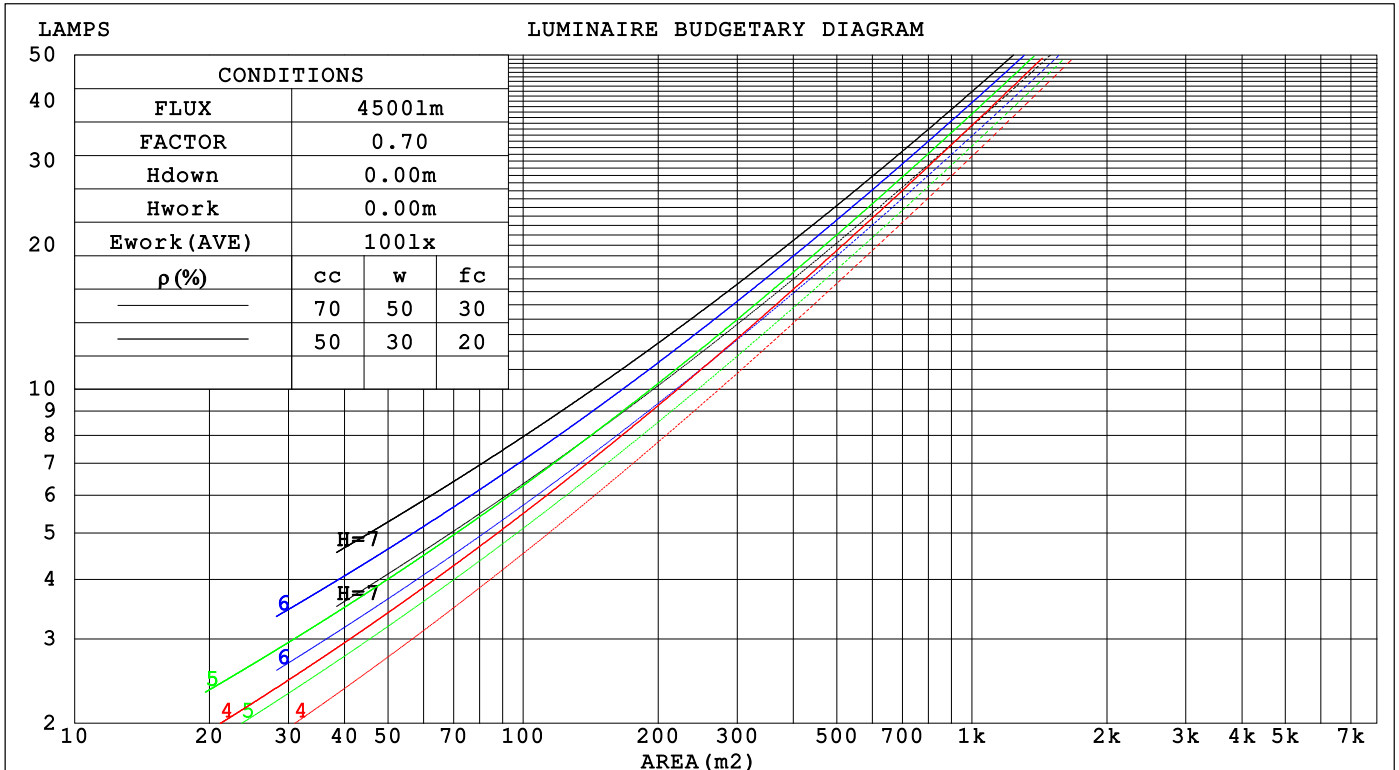
C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.3 °C  
 Operators:  
 Test Date:2022-04-14

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:0.1328A P:11.537W PF:0.9537 Freq:59.98Hz Lamp Flux:1014.77x1 lm		
NAME: LED-6-S12W-5CCT	TYPE:	WEIGHT:
SPEC.: 5000K 80	DIM.:	SERIAL No.:
MFR.: Light by Lotus	SUR.:	Shielding Angle:

$\rho_{cc}$	80%			70%			50%			30%			10%			0
$\rho_w$	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
$\rho_{fc}$	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	.00	.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

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  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:0.1328A P:11.537W PF:0.9537 Freq:59.98Hz		
Lamp Flux:1014.77x1 lm		
NAME: LED-6-S12W-5CCT	TYPE:	WEIGHT:
SPEC.: 5000K 80	DIM.:	SERIAL No.:
MFR.: Light by Lotus	SUR.:	Shielding Angle:

$\rho_{CC}$	80%			70%			50%			30%			10%			0
$\rho_w$	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
$\rho_{fc}$	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	.268	.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	.195	.101	.030	.188	.099	.029	
7.0	.198	.098	.028	.194	.097	.028	.188	.095	.027	.182	.093	.027	.176	.092	.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	

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

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  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:0.1328A P:11.537W PF:0.9537 Freq:59.98Hz										
Lamp Flux:1014.77x1 lm										
NAME: LED-6-S12W-5CCT					TYPE:			WEIGHT:		
SPEC.: 5000K 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	19.9	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	21.7	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, 1015 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 0.1)  
 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:0.1328A P:11.537W PF:0.9537 Freq:59.98Hz Lamp Flux:1014.77x1 lm		
NAME: LED-6-S12W-5CCT	TYPE:	WEIGHT:
SPEC.: 5000K 80	DIM.:	SERIAL No.:
MFR.: Light by Lotus	SUR.:	Shielding Angle:

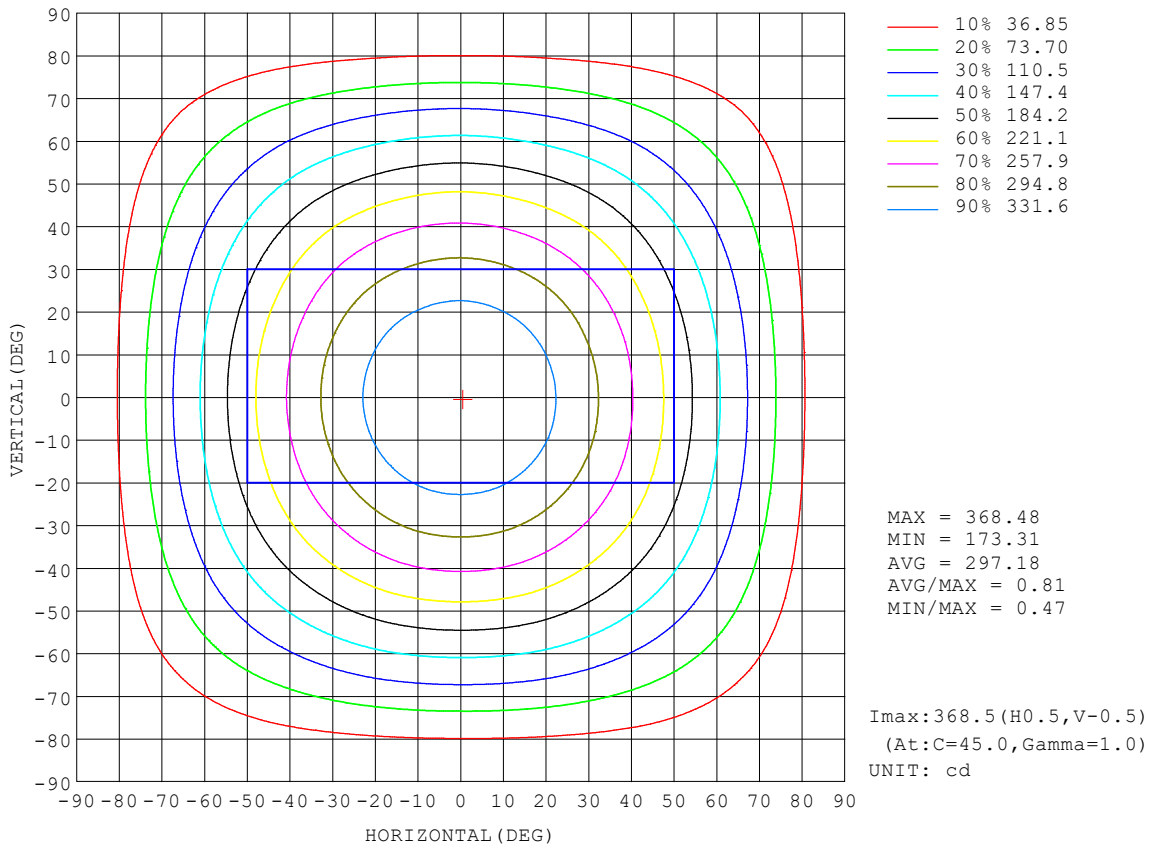
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	58	46	40	57	46	39	56	46	39	33
0.80	68	56	49	67	56	49	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	91	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

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  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:0.1328A P:11.537W PF:0.9537 Freq:59.98Hz Lamp Flux:1014.77x1 lm		
NAME: LED-6-S12W-5CCT	TYPE:	WEIGHT:
SPEC.: 5000K 80	DIM.:	SERIAL No.:
MFR.: Light by Lotus	SUR.:	Shielding Angle:



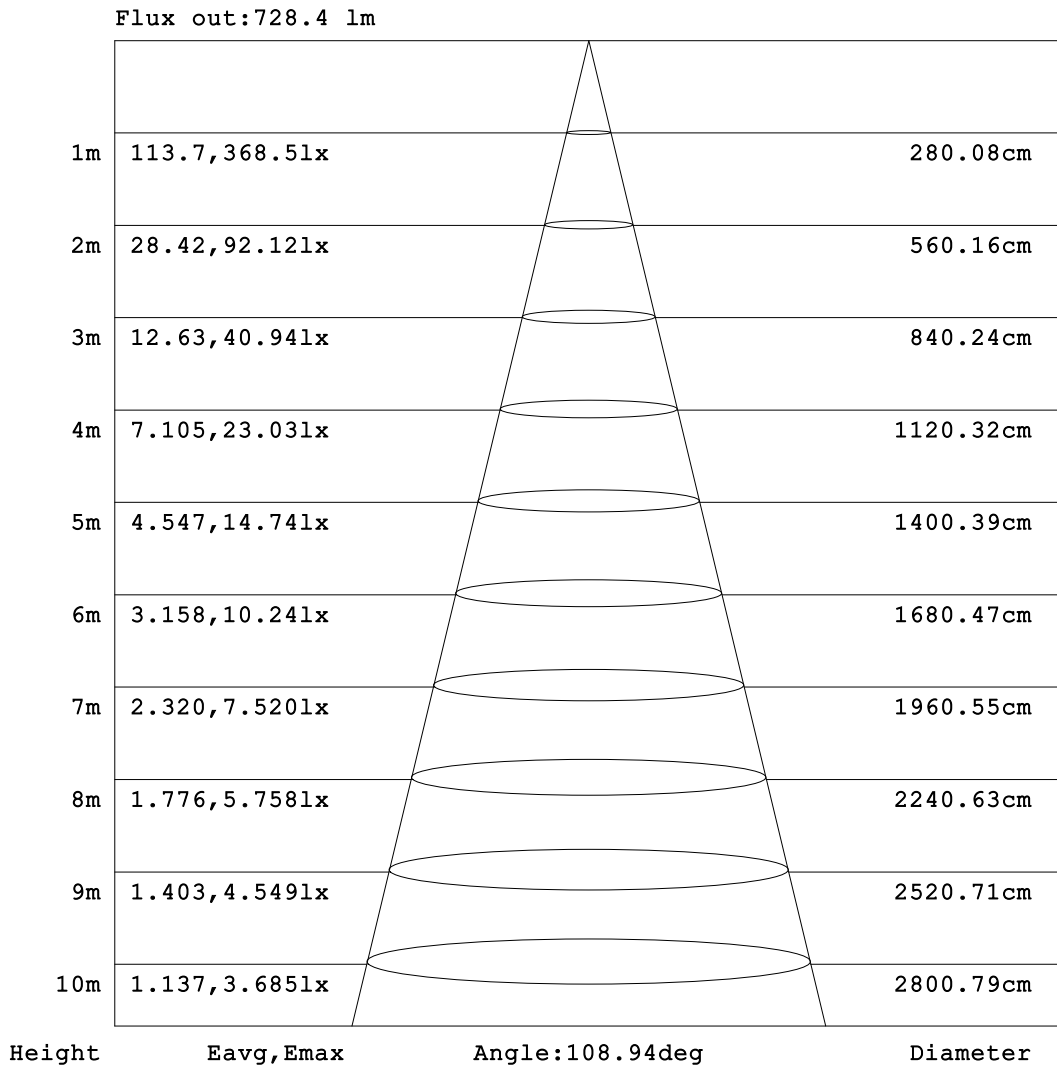
C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.3°C  
 Operators:  
 Test Date:2022-04-14

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:0.1328A P:11.537W PF:0.9537 Freq:59.98Hz Lamp Flux:1014.77x1 lm		
NAME: LED-6-S12W-5CCT	TYPE:	WEIGHT:
SPEC.: 5000K 80	DIM.:	SERIAL No.:
MFR.: Light by Lotus	SUR.:	Shielding Angle:



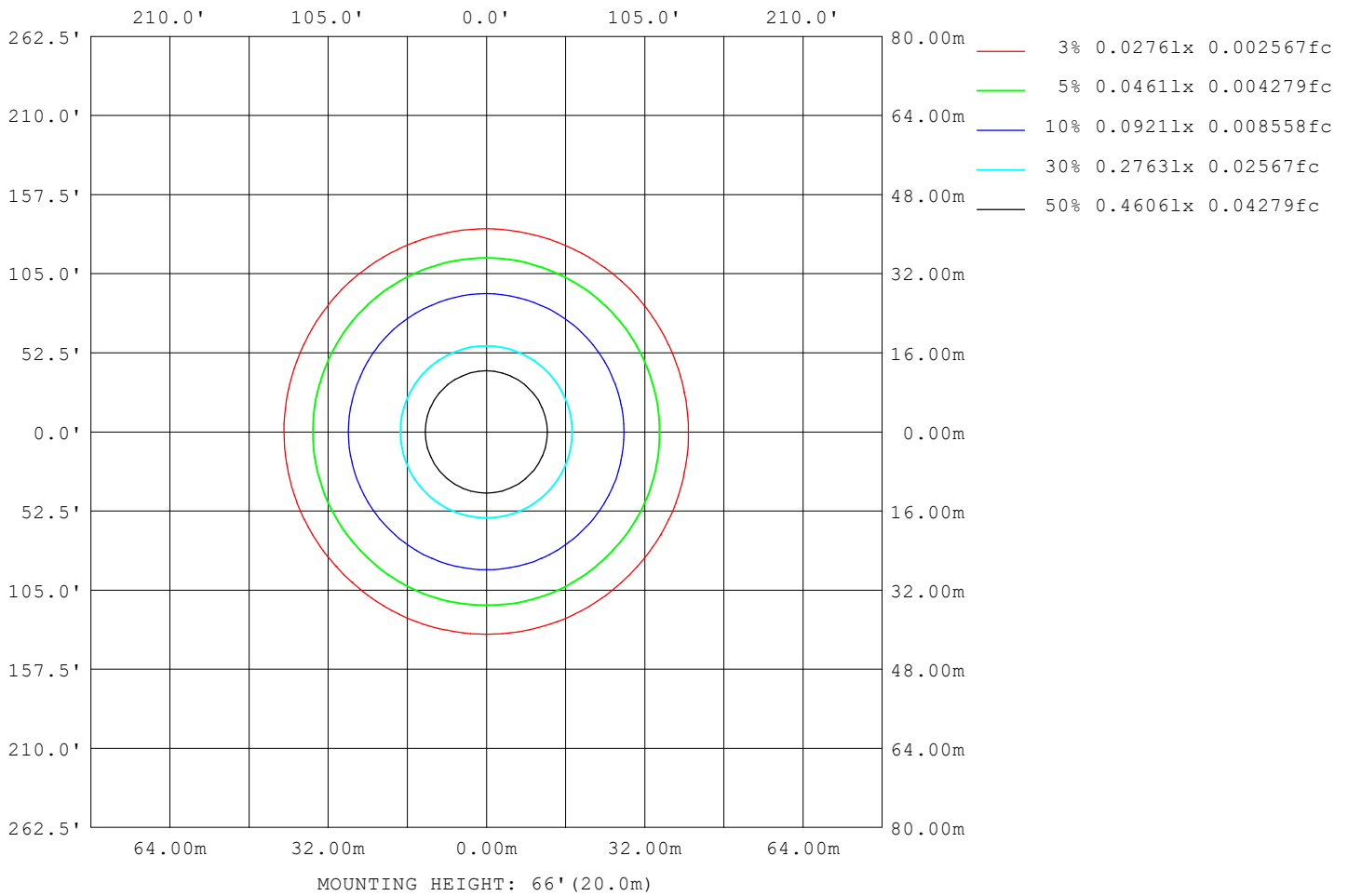
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:0.1328A P:11.537W PF:0.9537 Freq:59.98Hz Lamp Flux:1014.77x1 lm		
NAME: LED-6-S12W-5CCT	TYPE:	WEIGHT:
SPEC.: 5000K 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:0.1328A P:11.537W PF:0.9537 Freq:59.98Hz Lamp Flux:1014.77x1 lm		
NAME: LED-6-S12W-5CCT	TYPE:	WEIGHT:
SPEC.: 5000K 80	DIM.:	SERIAL No.:
MFR.: Light by Lotus	SUR.:	Shielding Angle:

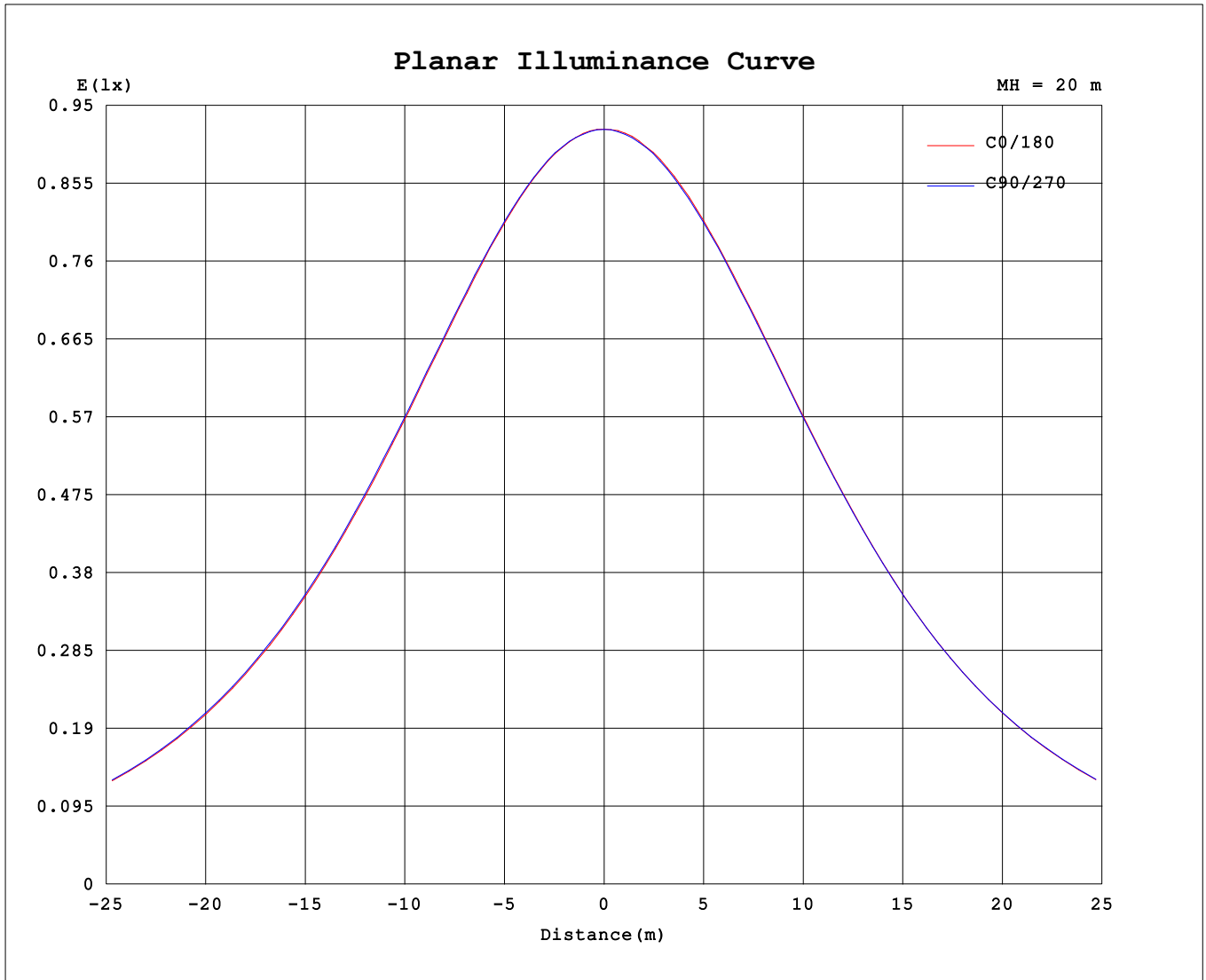
AvgL	cd/m2
L_0~180 (65) av	2634
L_0~180 (75) av	2340
L_0~180 (85) av	1571
L_90~270 (65) av	2662
L_90~270 (75) av	2275
L_90~270 (85) av	971
L_45 (65) av	2648
L_45 (75) av	2320
L_45 (85) av	1312

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:

