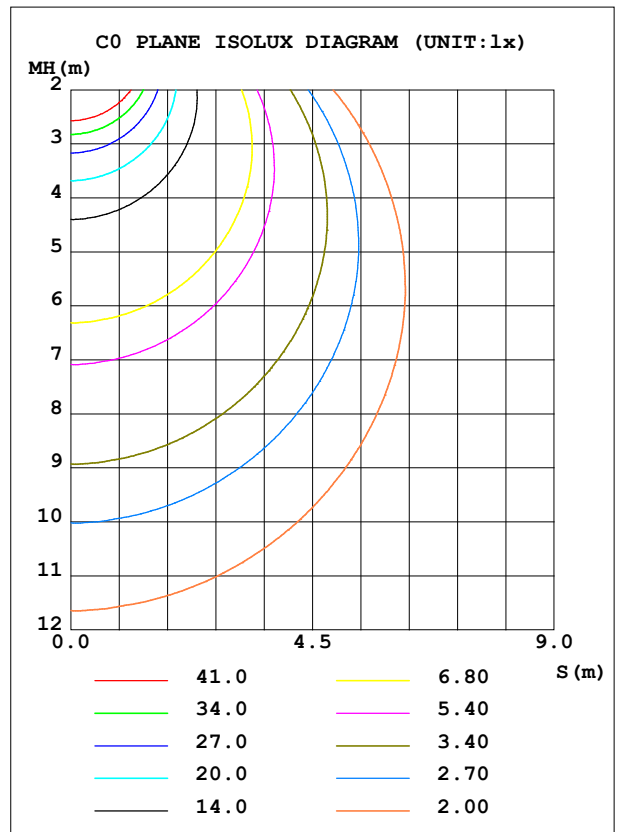
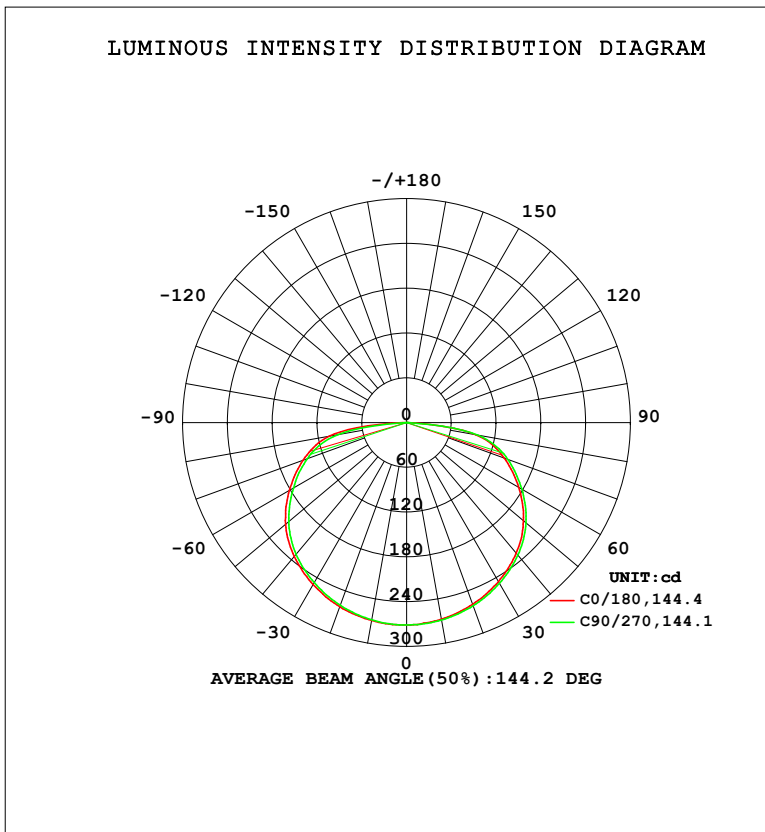


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:119.85V I:0.1122A P:13.239W PF:0.9847 Freq:59.98Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1045.15x1 lm		
NAME: DS-LED-6-S15W-5CCTWH	TYPE:	WEIGHT:
SPEC.: 3500K 90	DIM.:	SERIAL No.:
MFR.: Light by Lotus	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA			
MODEL		Imax (cd)	271.4	S/MH (C0/180)	1.38
NOMINAL POWER (W)	15	LOR (%)	100.0	S/MH (C90/270)	1.37
RATED VOLTAGE (V)	120	TOTAL FLUX (lm)	1045.1	η UP, DN (C0-180)	0.0, 50.0
NOMINAL FLUX (lm)	1045.15	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 50.0
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: 22.5DEG
 Test Speed: HIGH
 Temperature: 25.3 °C
 Operators:
 Test Date: 2022-12-28

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-SPEX500_V1 SYSTEM V2.00.460
 Humidity: 65.0%
 Test Distance: 3.090m [K=1.0000]
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

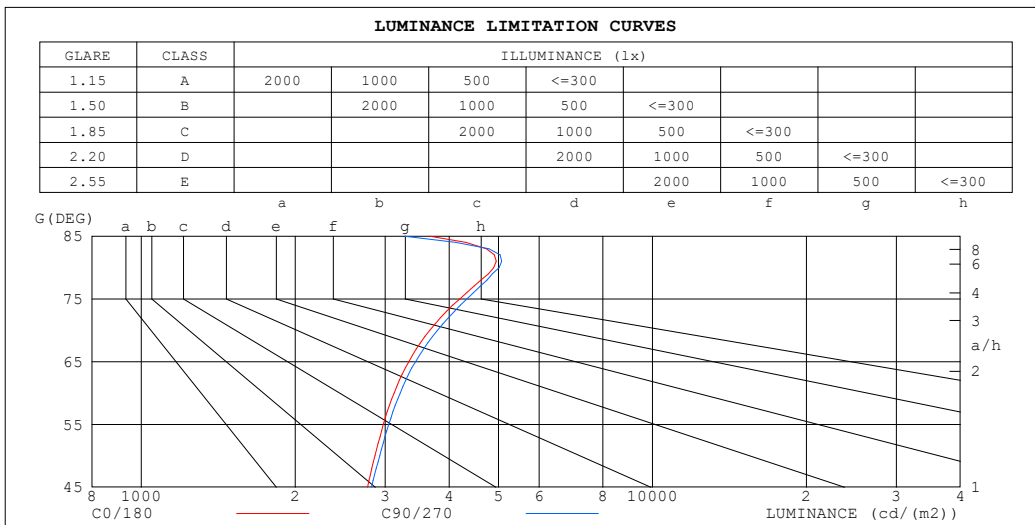
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum,lamp
10	267.6	267.8	268.7	268.7	269.4	268.9	268.3	267.6	0- 10	25.75	25.75	2.46,2.46
20	259.1	260.0	261.1	261.3	262.4	261.2	260.4	259.5	10- 20	74.99	100.7	9.64,9.64
30	246.0	247.2	248.7	249.3	250.6	249.0	247.7	246.6	20- 30	117.8	218.5	20.9,20.9
40	228.4	230.0	231.9	232.7	234.3	232.3	230.5	229.4	30- 40	150.6	369.1	35.3,35.3
50	204.5	206.4	209.0	210.1	211.7	208.6	206.2	205.2	40- 50	170.2	539.3	51.6,51.6
60	173.5	175.8	178.3	179.8	181.4	178.1	175.1	173.8	50- 60	172.6	712.0	68.1,68.1
70	139.3	141.7	144.3	146.1	147.7	144.7	141.8	140.1	60- 70	158.9	870.8	83.3,83.3
80	94.41	92.54	96.68	102.6	105.3	96.66	93.90	96.58	70- 80	129.9	1001	95.7,95.7
90	0.9763	0.8359	0.8586	1.049	0.6070	0.5038	0.5266	0.6307	80- 90	44.45	1045	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:2022-12-28

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.00.460
 Humidity:65.0%
 Test Distance:3.090m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:119.85V I:0.1122A P:13.239W PF:0.9847 Freq:59.98Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1045.15x1 lm		
NAME: DS-LED-6-S15W-5CCTWH	TYPE:	WEIGHT:
SPEC.: 3500K 90	DIM.:	SERIAL No.:
MFR.: Light by Lotus	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	3672	3279
80	4892	5010
75	4195	4335
70	3665	3796
65	3336	3439
60	3123	3208
55	2974	3047
50	2862	2926
45	2769	2818

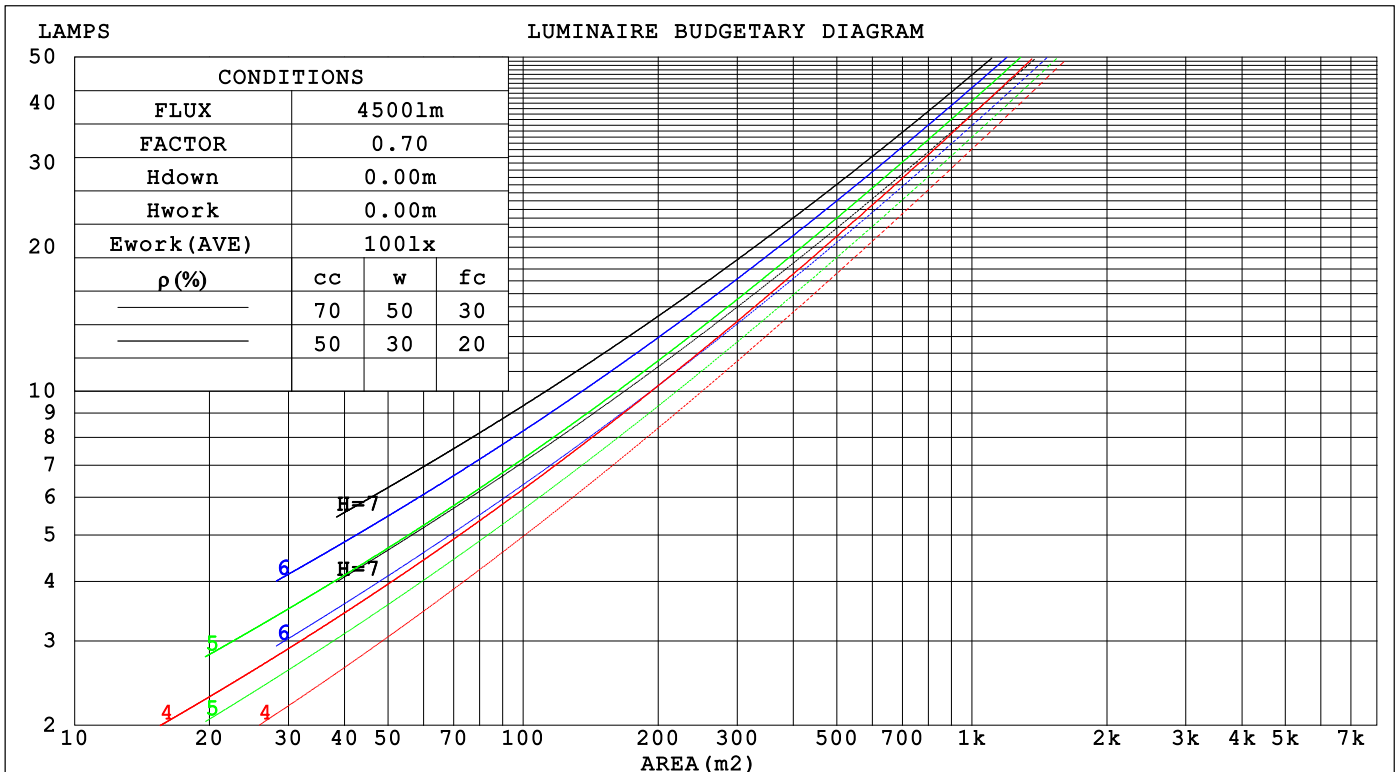
C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 25.3°C
 Operators:
 Test Date: 2022-12-28

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-SPEX500_V1 SYSTEM V2.00.460
 Humidity: 65.0%
 Test Distance: 3.090m [K=1.0000]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:119.85V I:0.1122A P:13.239W PF:0.9847 Freq:59.98Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1045.15x1 lm		
NAME: DS-LED-6-S15W-5CCTWH	TYPE:	WEIGHT:
SPEC.: 3500K 90	DIM.:	SERIAL No.:
MFR.: Light by Lotus	SUR.:	Shielding Angle:

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	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	.95	.91	.98	.94	.89	.94	.90	.86	.90	.87	.84	.86	.84	.81	.79
2.0	.86	.78	.71	.84	.76	.70	.80	.74	.69	.77	.71	.67	.74	.69	.65	.63
3.0	.74	.65	.57	.72	.64	.57	.69	.62	.56	.66	.60	.55	.64	.58	.54	.51
4.0	.65	.55	.48	.63	.54	.47	.61	.53	.46	.58	.51	.46	.56	.50	.45	.43
5.0	.57	.47	.40	.56	.47	.40	.54	.46	.39	.52	.45	.39	.50	.44	.39	.36
6.0	.51	.42	.35	.50	.41	.34	.48	.40	.34	.47	.39	.34	.45	.38	.33	.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	.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	.26	.21	.19



C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3°C
 Operators:
 Test Date:2022-12-28

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.00.460
 Humidity:65.0%
 Test Distance:3.090m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:119.85V I:0.1122A P:13.239W PF:0.9847 Freq:59.98Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1045.15x1 lm		
NAME: DS-LED-6-S15W-5CCTWH	TYPE:	WEIGHT:
SPEC.: 3500K 90	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	.372	.212	.067	.365	.208	.066	.351	.201	.064	.339	.195	.063	.327	.190	.061	
2.0	.337	.185	.057	.331	.182	.056	.319	.177	.055	.307	.172	.054	.297	.168	.053	
3.0	.304	.162	.048	.299	.160	.048	.288	.156	.047	.278	.152	.047	.269	.149	.046	
4.0	.276	.143	.042	.271	.142	.042	.261	.138	.041	.252	.135	.041	.244	.132	.040	
5.0	.251	.128	.037	.247	.127	.037	.238	.124	.037	.230	.122	.036	.223	.119	.036	
6.0	.230	.115	.033	.226	.114	.033	.219	.112	.033	.212	.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	.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	.165	.084	.024	
10.0	.172	.082	.023	.169	.082	.023	.164	.081	.023	.160	.079	.023	.155	.078	.022	

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	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.185	.156	.129	.158	.134	.111	.108	.092	.077	.062	.053	.045	.020	.017	.014	
2.0	.178	.132	.093	.153	.113	.080	.105	.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	.163	.102	.054	.140	.088	.047	.096	.061	.033	.056	.036	.020	.018	.012	.006	
5.0	.156	.091	.044	.134	.079	.038	.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	.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: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3°C
 Operators:
 Test Date:2022-12-28

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.00.460
 Humidity:65.0%
 Test Distance:3.090m [K=1.0000]
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:119.85V I:0.1122A P:13.239W PF:0.9847 Freq:59.98Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1045.15x1 lm		
NAME: DS-LED-6-S15W-5CCTWH	TYPE:	WEIGHT:
SPEC.: 3500K 90	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	16.7	18.3	17.0	18.6	18.8	16.8	18.5	17.1	18.7	18.9
3H	19.0	20.5	19.3	20.8	21.0	19.2	20.7	19.5	20.9	21.2
4H	20.2	21.7	20.5	21.9	22.2	20.4	21.9	20.7	22.1	22.4
6H	21.4	22.8	21.7	23.1	23.3	21.5	22.9	21.9	23.2	23.5
8H	21.8	23.2	22.2	23.5	23.8	22.0	23.4	22.3	23.6	23.9
12H	22.1	23.4	22.4	23.7	24.0	22.2	23.5	22.6	23.8	24.1
4H 2H	17.5	19.0	17.9	19.3	19.5	17.6	19.1	17.9	19.4	19.6
3H	20.1	21.4	20.4	21.7	22.0	20.2	21.5	20.6	21.8	22.1
4H	21.4	22.6	21.8	23.0	23.3	21.6	22.8	22.0	23.1	23.5
6H	22.8	23.8	23.2	24.2	24.6	22.9	24.0	23.3	24.3	24.7
8H	23.3	24.3	23.7	24.7	25.1	23.4	24.4	23.8	24.8	25.2
12H	23.5	24.5	24.0	24.9	25.3	23.7	24.6	24.1	25.0	25.4
8H 4H	22.0	23.0	22.4	23.4	23.8	22.1	23.1	22.5	23.5	23.9
6H	23.5	24.4	24.0	24.8	25.2	23.7	24.5	24.1	24.9	25.3
8H	24.2	24.9	24.6	25.4	25.8	24.3	25.0	24.7	25.5	25.9
12H	24.5	25.2	25.0	25.6	26.1	24.6	25.2	25.0	25.7	26.2
12H 4H	22.1	23.0	22.5	23.4	23.8	22.2	23.1	22.6	23.5	23.9
6H	23.7	24.5	24.2	24.9	25.3	23.8	24.6	24.3	25.0	25.5
8H	24.4	25.0	24.9	25.5	26.0	24.5	25.1	25.0	25.6	26.1

Variations with the observer position at spacings(CIE Pub.117):		
S = 1.0H	+ 0.1 / - 0.1	+ 0.1 / - 0.1
1.5H	+ 0.2 / - 0.2	+ 0.2 / - 0.2
2.0H	+ 0.1 / - 0.3	+ 0.1 / - 0.3

CIE Pub.117, 1045 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:2022-12-28

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.00.460
Humidity:65.0%
Test Distance:3.090m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:119.85V I:0.1122A P:13.239W PF:0.9847 Freq:59.98Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1045.15x1 lm		
NAME: DS-LED-6-S15W-5CCTWH	TYPE:	WEIGHT:
SPEC.: 3500K 90	DIM.:	SERIAL No.:
MFR.: Light by Lotus	SUR.:	Shielding Angle:

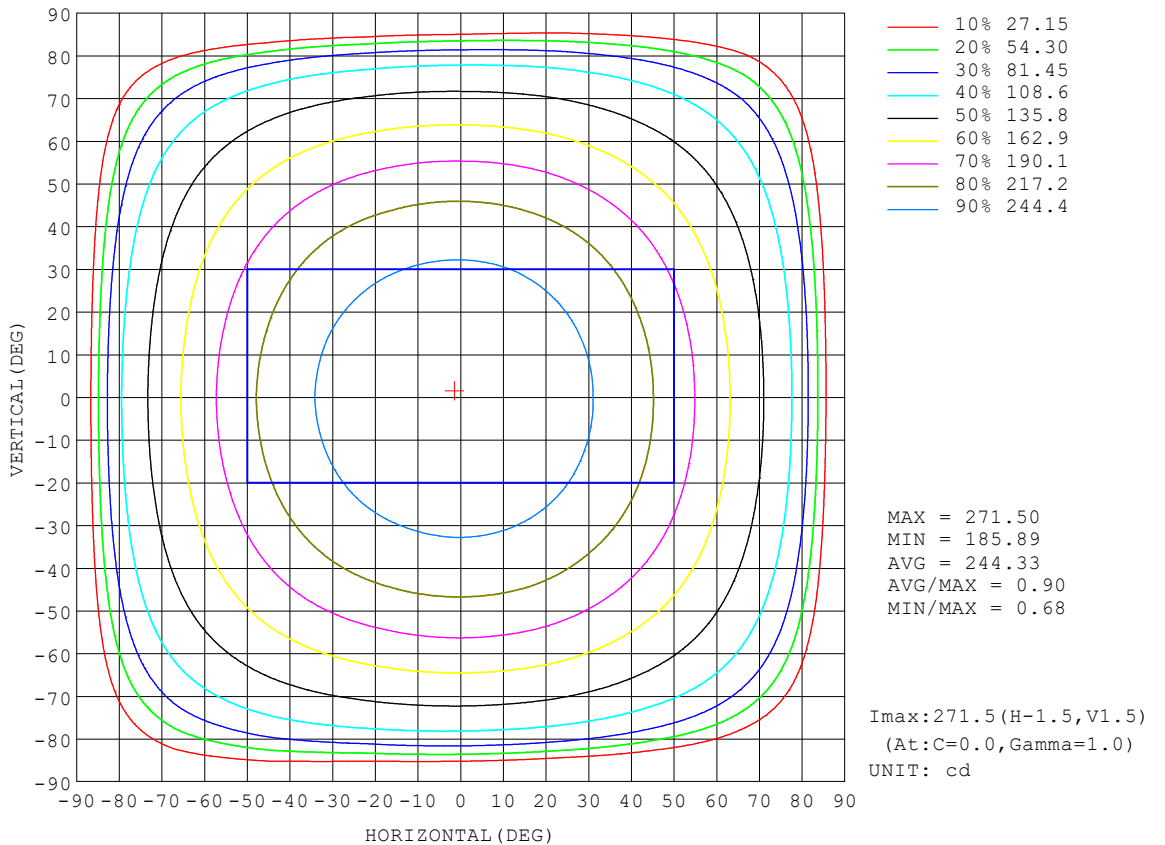
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	53	40	33	52	40	33	51	39	32	25
0.80	62	49	41	61	49	41	59	48	41	33
1.00	70	58	50	69	57	50	67	59	49	41
1.25	78	66	58	76	65	57	73	63	56	48
1.50	83	72	63	81	71	63	78	69	62	53
2.00	90	80	73	88	79	72	85	77	71	62
2.50	95	86	79	93	84	78	89	82	76	67
3.00	99	90	84	96	89	83	92	86	81	71
4.00	103	97	91	101	95	90	96	91	87	77
5.00	106	100	95	104	98	94	99	95	91	81
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:2022-12-28

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.00.460
 Humidity:65.0%
 Test Distance:3.090m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:119.85V I:0.1122A P:13.239W PF:0.9847 Freq:59.98Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1045.15x1 lm		
NAME: DS-LED-6-S15W-5CCTWH	TYPE:	WEIGHT:
SPEC.: 3500K 90	DIM.:	SERIAL No.:
MFR.: Light by Lotus	SUR.:	Shielding Angle:

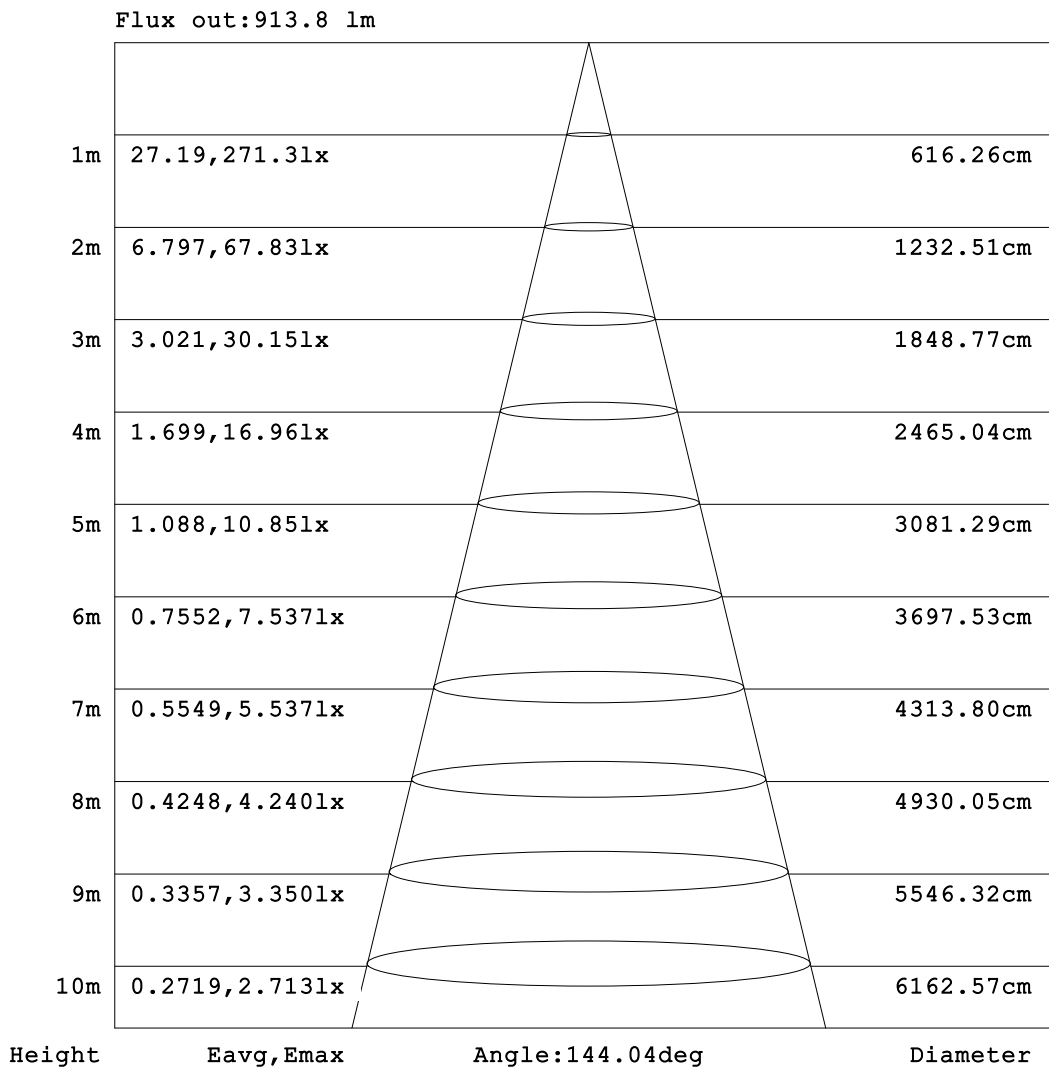


C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3°C
 Operators:
 Test Date:2022-12-28

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.00.460
 Humidity:65.0%
 Test Distance:3.090m [K=1.0000]
 Remarks:

AAI Figure

Test:U:119.85V I:0.1122A P:13.239W PF:0.9847 Freq:59.98Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1045.15x1 lm		
NAME: DS-LED-6-S15W-5CCTWH	TYPE:	WEIGHT:
SPEC.: 3500K 90	DIM.:	SERIAL No.:
MFR.: Light by Lotus	SUR.:	Shielding Angle:



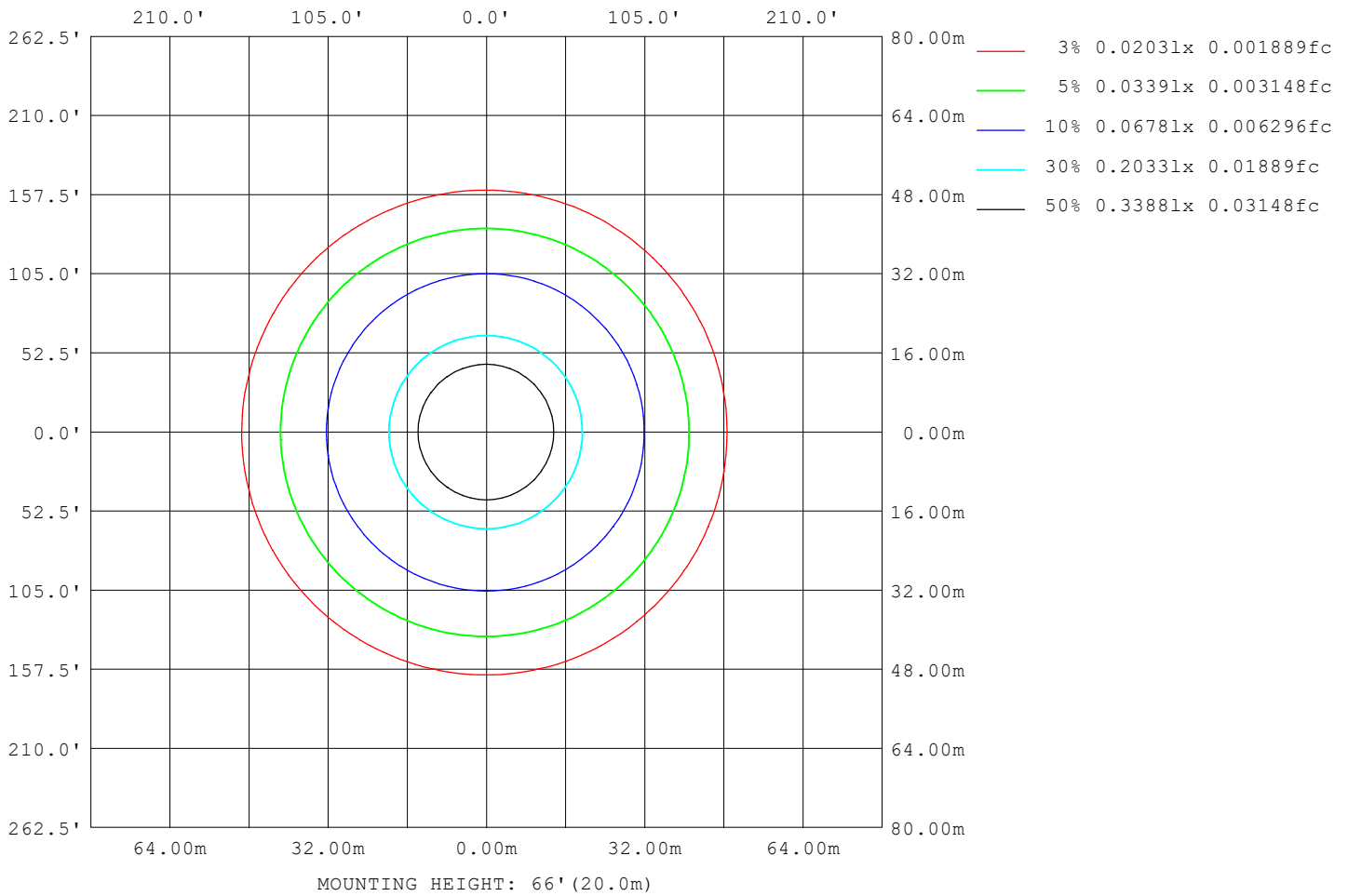
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 25.3°C
 Operators:
 Test Date: 2022-12-28

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-SPEX500_V1 SYSTEM V2.00.460
 Humidity: 65.0%
 Test Distance: 3.090m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM

Test:U:119.85V I:0.1122A P:13.239W PF:0.9847 Freq:59.98Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1045.15x1 lm		
NAME: DS-LED-6-S15W-5CCTWH	TYPE:	WEIGHT:
SPEC.: 3500K 90	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:2022-12-28

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.00.460
 Humidity:65.0%
 Test Distance:3.090m [K=1.0000]
 Remarks:

LED Avg.L Report

Test:U:119.85V I:0.1122A P:13.239W PF:0.9847 Freq:59.98Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1045.15x1 lm		
NAME: DS-LED-6-S15W-5CCTWH	TYPE:	WEIGHT:
SPEC.: 3500K 90	DIM.:	SERIAL No.:
MFR.: Light by Lotus	SUR.:	Shielding Angle:

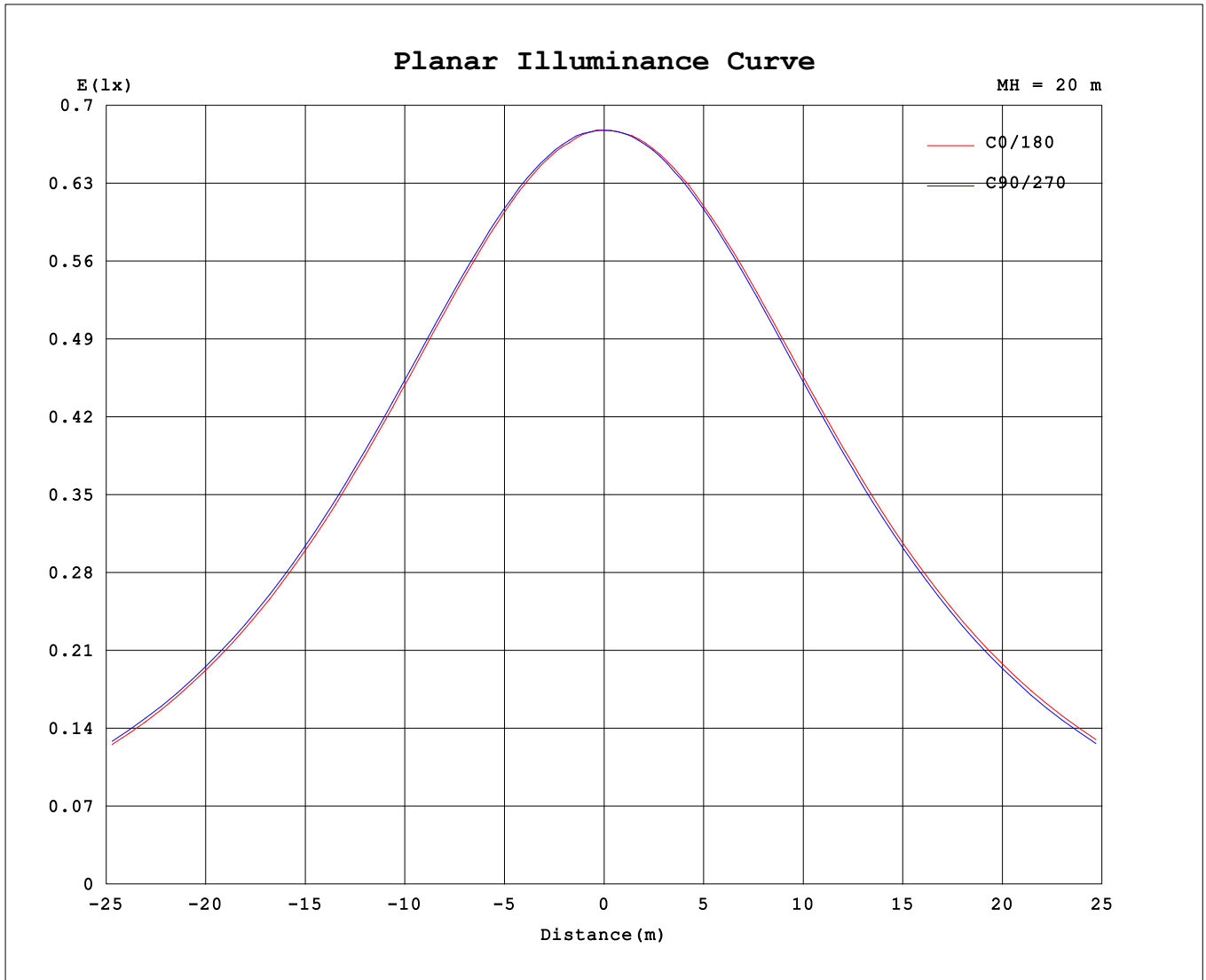
AvgL	cd/m2
L_0~180 (65) av	3423
L_0~180 (75) av	4347
L_0~180 (85) av	4544
L_90~270 (65) av	3412
L_90~270 (75) av	4294
L_90~270 (85) av	3031
L_45 (65) av	3411
L_45 (75) av	4310
L_45 (85) av	3776

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3℃
 Operators:
 Test Date:2022-12-28

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.00.460
 Humidity:65.0%
 Test Distance:3.090m [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: 2022-12-28

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-SPEX500_V1 SYSTEM V2.00.460
 Humidity: 65.0%
 Test Distance: 3.090m [K=1.0000]
 Remarks:

