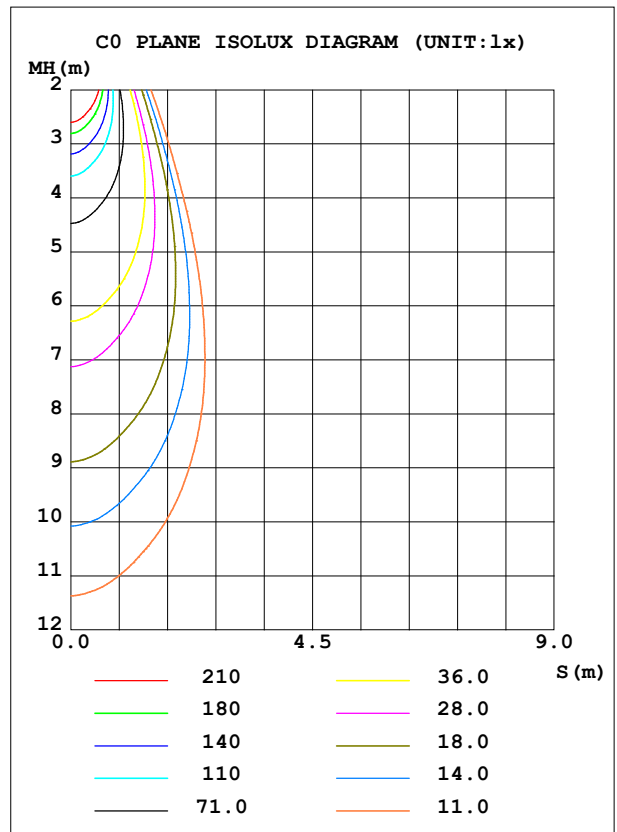
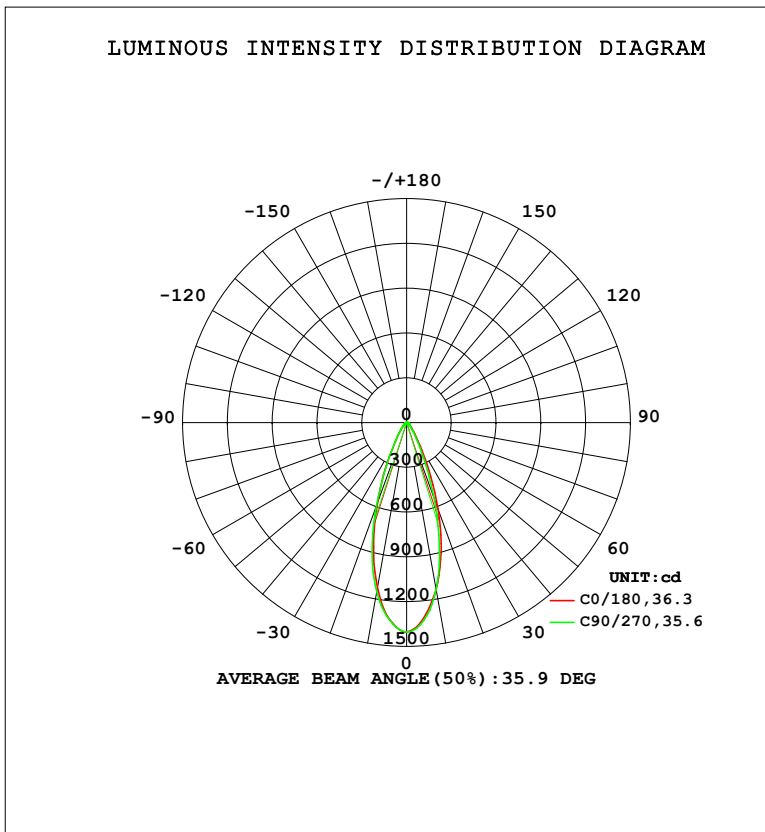


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:119.84V I:0.0771A P:7.0816W PF:0.7662 Freq:59.98Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:640.117x1 lm		
NAME: LED-3-S7W-5CCT-FG	TYPE:	WEIGHT:
SPEC.: 5000K	DIM.:	SERIAL No.:
MFR.: Light by lotus	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA			
MODEL		Imax (cd)	1403	S/MH (C0/180)	0.58
NOMINAL POWER (W)	7	LOR (%)	100.0	S/MH (C90/270)	0.59
RATED VOLTAGE (V)	120	TOTAL FLUX (lm)	640.12	$\eta$ UP, DN (C0-180)	0.0,49.5
NOMINAL FLUX (lm)	640.117	CIE CLASS	DIRECT	$\eta$ UP, DN (C180-360)	0.0,50.5
LAMPS INSIDE	1	$\eta$ up (%)	0.0	CIBSE SHR NOM	0.50
TEST VOLTAGE (V)	120	$\eta$ down (%)	100.0	CIBSE SHR MAX	0.60



C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature: 25.3 °C  
 Operators:  
 Test Date: 2022-09-28

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  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:

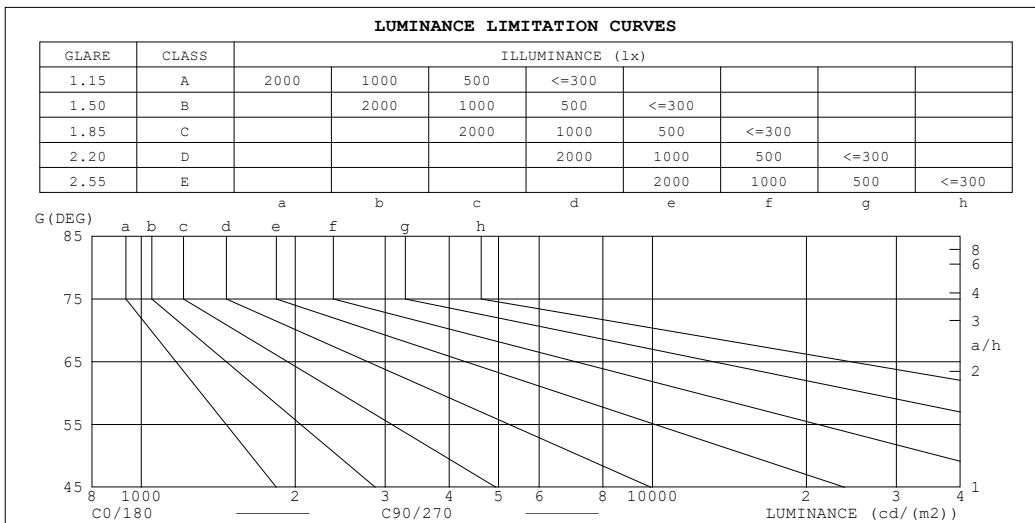
$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	%lum,lamp
10	1136	1147	1138	1137	1123	1125	1152	1145	0- 10	120.4	120.4	18.8,18.8
20	615.6	584.6	539.3	552.4	576.4	569.5	589.3	614.8	10- 20	238.0	358.5	56,56
30	184.4	172.4	148.0	158.4	170.3	166.6	169.9	184.3	20- 30	153.8	512.2	80,80
40	62.27	55.97	51.29	56.17	58.37	56.10	58.65	59.37	30- 40	61.36	573.6	89.6,89.6
50	26.98	25.71	24.54	26.98	27.59	27.07	26.71	26.73	40- 50	29.09	602.7	94.2,94.2
60	15.95	15.64	14.69	15.47	16.06	15.60	15.87	16.25	50- 60	18.25	620.9	97,97
70	9.240	8.746	7.898	8.332	9.047	9.050	9.062	9.203	60- 70	11.97	632.9	98.9,98.9
80	1.660	3.370	2.756	3.587	1.889	3.222	2.795	3.488	70- 80	6.212	639.1	99.8,99.8
90	0.0426	0.0434	0.0373	0.0405	0.0261	0.0267	0.0194	0.0247	80- 90	1.001	640.1	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:2022-09-28

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  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**

<b>Test:U:119.84V I:0.0771A P:7.0816W PF:0.7662 Freq:59.98Hz</b> <b>UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:640.117x1 lm</b>		
<b>NAME: LED-3-S7W-5CCT-FG</b>	<b>TYPE:</b>	<b>WEIGHT:</b>
<b>SPEC.: 5000K</b>	<b>DIM.:</b>	<b>SERIAL No.:</b>
<b>MFR.: Light by lotus</b>	<b>SUR.:</b>	<b>Shielding Angle:</b>



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	109	8
80	87	142
75	171	187
70	246	207
65	266	234
60	291	264
55	326	295
50	383	342
45	473	403

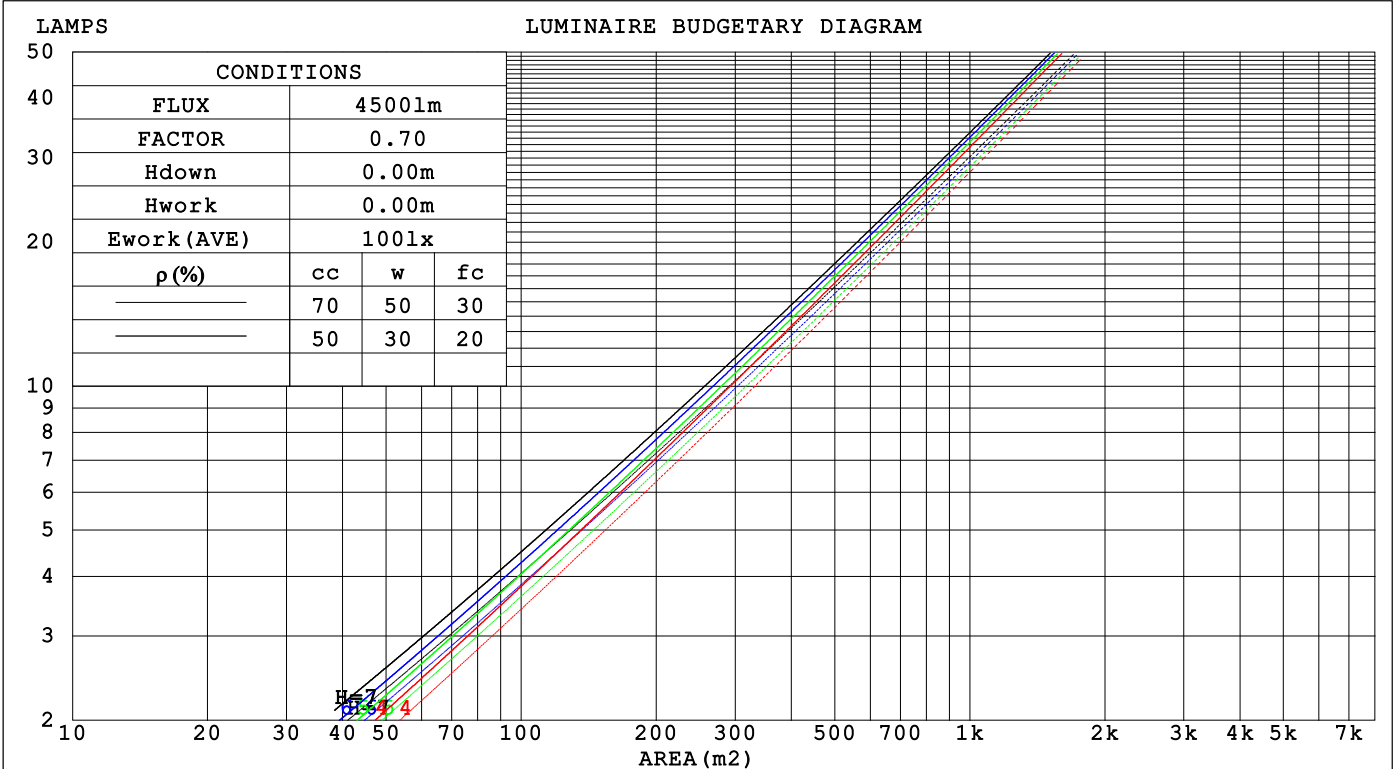
C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.3°C  
 Operators:  
 Test Date:2022-09-28

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:119.84V I:0.0771A P:7.0816W PF:0.7662 Freq:59.98Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:640.117x1 lm		
NAME: LED-3-S7W-5CCT-FG	TYPE:	WEIGHT:
SPEC.: 5000K	DIM.:	SERIAL No.:
MFR.: Light by lotus	SUR.:	Shielding Angle:

pcc	80%			70%			50%			30%			10%			0
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pfc	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	1.11	1.09	1.06	1.09	1.07	1.05	1.05	1.03	1.01	1.01	.00	.98	.98	.97	.96	.94
2.0	1.04	.00	.97	1.02	.98	.95	.99	.96	.93	.96	.93	.91	.93	.91	.89	.88
3.0	.97	.93	.89	.96	.92	.88	.93	.90	.87	.91	.88	.85	.89	.86	.84	.83
4.0	.92	.87	.83	.91	.86	.82	.89	.84	.81	.87	.83	.80	.85	.82	.79	.78
5.0	.87	.81	.77	.86	.81	.77	.84	.80	.76	.83	.79	.76	.81	.78	.75	.74
6.0	.82	.77	.73	.82	.77	.73	.80	.76	.72	.79	.75	.72	.78	.74	.71	.70
7.0	.78	.73	.69	.78	.73	.69	.77	.72	.69	.75	.71	.68	.74	.71	.68	.67
8.0	.75	.69	.66	.74	.69	.66	.73	.69	.65	.72	.68	.65	.71	.68	.65	.64
9.0	.72	.66	.63	.71	.66	.63	.70	.66	.62	.69	.65	.62	.69	.65	.62	.61
10.0	.69	.63	.60	.68	.63	.60	.67	.63	.60	.67	.62	.60	.66	.62	.59	.58



C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.3°C  
 Operators:  
 Test Date:2022-09-28

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:119.84V I:0.0771A P:7.0816W PF:0.7662 Freq:59.98Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:640.117x1 lm		
NAME: LED-3-S7W-5CCT-FG	TYPE:	WEIGHT:
SPEC.: 5000K	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	.174	.099	.031	.168	.096	.030	.155	.089	.028	.143	.083	.027	.133	.077	.025	
2.0	.165	.090	.028	.159	.088	.027	.148	.083	.026	.139	.078	.024	.130	.073	.023	
3.0	.155	.082	.025	.150	.080	.024	.141	.076	.023	.133	.073	.022	.125	.069	.021	
4.0	.146	.076	.022	.142	.074	.022	.134	.071	.021	.127	.068	.021	.120	.065	.020	
5.0	.137	.070	.020	.134	.069	.020	.127	.066	.020	.121	.064	.019	.115	.062	.019	
6.0	.130	.065	.019	.127	.064	.018	.121	.062	.018	.116	.060	.018	.111	.058	.017	
7.0	.123	.061	.017	.121	.060	.017	.116	.058	.017	.111	.057	.017	.106	.055	.016	
8.0	.117	.057	.016	.115	.057	.016	.111	.055	.016	.106	.054	.016	.102	.053	.015	
9.0	.112	.054	.015	.110	.054	.015	.106	.052	.015	.102	.051	.015	.099	.050	.014	
10.0	.107	.051	.014	.105	.051	.014	.102	.050	.014	.098	.049	.014	.095	.048	.014	

$\rho_{CC}$	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	.171	.157	.145	.146	.135	.125	.100	.093	.086	.058	.054	.050	.018	.017	.016	
2.0	.155	.133	.113	.133	.114	.098	.091	.079	.068	.053	.046	.040	.017	.015	.013	
3.0	.142	.114	.091	.122	.098	.079	.084	.068	.055	.048	.040	.032	.016	.013	.011	
4.0	.131	.099	.074	.113	.085	.064	.077	.059	.045	.045	.035	.027	.014	.011	.009	
5.0	.122	.087	.061	.105	.075	.053	.072	.053	.037	.042	.031	.022	.013	.010	.007	
6.0	.114	.077	.051	.098	.067	.045	.068	.047	.032	.039	.028	.019	.013	.009	.006	
7.0	.107	.070	.043	.092	.060	.038	.064	.042	.027	.037	.025	.016	.012	.008	.005	
8.0	.101	.063	.037	.087	.055	.033	.060	.039	.023	.035	.023	.014	.011	.007	.005	
9.0	.095	.058	.033	.082	.050	.028	.057	.035	.020	.033	.021	.012	.011	.007	.004	
10.0	.091	.053	.029	.078	.046	.025	.054	.033	.018	.032	.019	.011	.010	.006	.004	

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.3°C  
 Operators:  
 Test Date:2022-09-28

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  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:119.84V I:0.0771A P:7.0816W PF:0.7662 Freq:59.98Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:640.117x1 lm										
NAME: LED-3-S7W-5CCT-FG					TYPE:			WEIGHT:		
SPEC.: 5000K					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	6.2	7.1	6.4	7.2	7.4	5.5	6.4	5.7	6.5	6.7
3H	6.9	7.7	7.2	7.9	8.1	6.2	7.0	6.5	7.2	7.4
4H	7.2	8.0	7.5	8.2	8.4	6.5	7.3	6.8	7.5	7.7
6H	7.3	8.0	7.6	8.2	8.5	6.7	7.4	7.0	7.7	7.9
8H	7.3	8.0	7.6	8.2	8.5	6.7	7.4	7.0	7.6	7.9
12H	7.2	7.9	7.6	8.2	8.5	6.7	7.3	7.0	7.6	7.9
4H 2H	6.4	7.2	6.7	7.4	7.6	5.8	6.6	6.1	6.8	7.0
3H	7.4	8.0	7.7	8.3	8.6	6.7	7.4	7.1	7.7	8.0
4H	7.7	8.3	8.1	8.6	8.9	7.1	7.8	7.5	8.1	8.4
6H	7.9	8.4	8.3	8.8	9.1	7.4	8.0	7.8	8.3	8.6
8H	7.9	8.4	8.3	8.8	9.1	7.4	7.9	7.8	8.3	8.6
12H	7.9	8.4	8.3	8.8	9.1	7.4	7.8	7.8	8.2	8.6
8H 4H	7.8	8.3	8.2	8.7	9.1	7.3	7.8	7.7	8.2	8.5
6H	8.1	8.5	8.6	8.9	9.3	7.7	8.1	8.1	8.5	8.9
8H	8.2	8.6	8.7	9.0	9.4	7.7	8.1	8.1	8.5	8.9
12H	8.2	8.5	8.7	9.0	9.5	7.6	8.0	8.1	8.4	8.9
12H 4H	7.8	8.3	8.2	8.7	9.0	7.3	7.8	7.7	8.1	8.5
6H	8.1	8.5	8.6	8.9	9.3	7.7	8.0	8.1	8.5	8.9
8H	8.2	8.5	8.7	9.0	9.4	7.7	8.0	8.2	8.5	8.9
Variations with the observer position at spacings(CIE Pub.117):										
S = 1.0H	+ 0.7 / - 0.9					+ 0.6 / - 0.8				
1.5H	+ 1.5 / - 0.6					+ 1.0 / - 0.6				
2.0H	+ 0.8 / - 0.6					+ 0.6 / - 0.6				

CIE Pub.117, 640.1 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -1.5)  
 Area: 0.111111 m2

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.3°C  
 Operators:  
 Test Date:2022-09-28

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:119.84V I:0.0771A P:7.0816W PF:0.7662 Freq:59.98Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:640.117x1 lm		
NAME: LED-3-S7W-5CCT-FG	TYPE:	WEIGHT:
SPEC.: 5000K	DIM.:	SERIAL No.:
MFR.: Light by lotus	SUR.:	Shielding Angle:

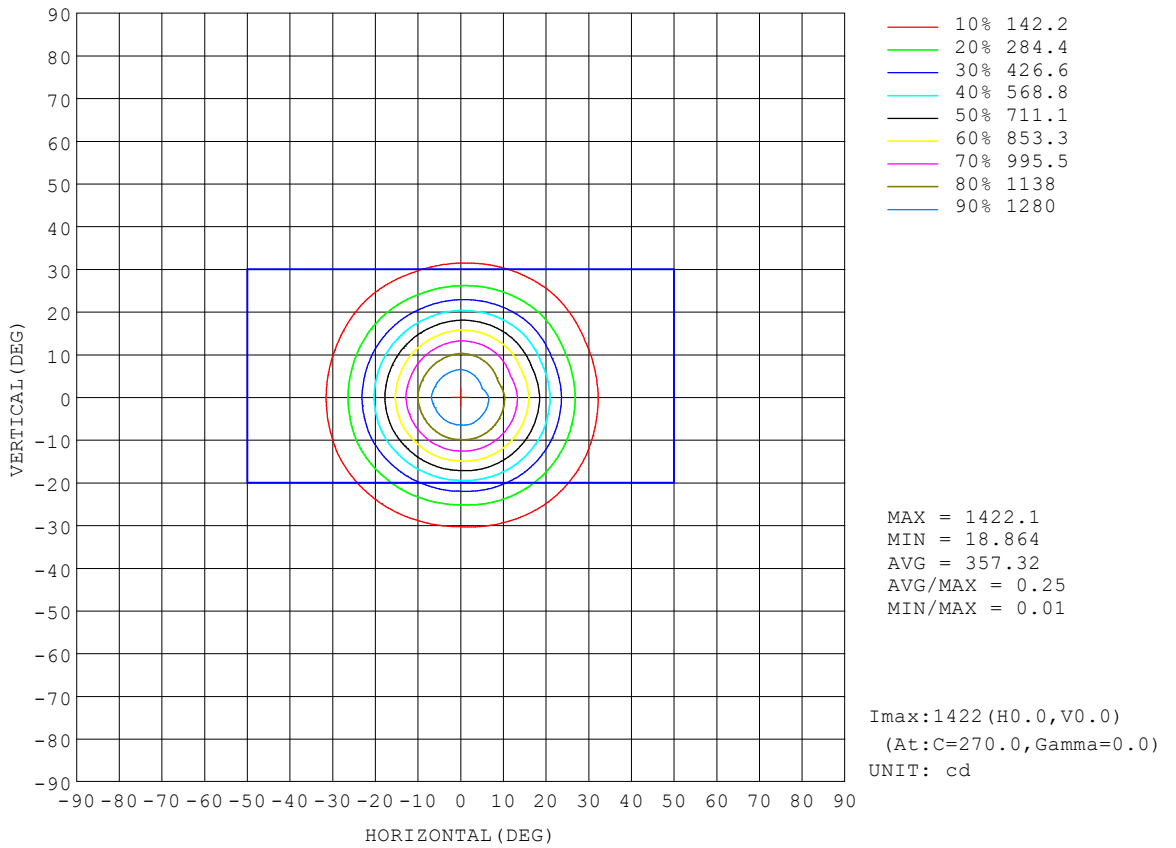
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	85	78	74	85	78	74	84	78	74	70
0.80	93	86	82	92	86	82	91	85	82	78
1.00	97	91	87	97	91	87	95	91	87	82
1.25	102	96	92	100	95	92	98	94	91	87
1.50	104	99	96	103	99	95	101	97	94	89
2.00	107	103	99	106	102	99	103	100	97	92
2.50	109	105	102	108	104	101	105	102	99	93
3.00	111	107	104	109	106	103	106	103	101	95
4.00	113	110	108	111	109	106	107	105	104	97
5.00	115	112	110	112	110	109	108	107	105	98
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:2022-09-28

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  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:119.84V I:0.0771A P:7.0816W PF:0.7662 Freq:59.98Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:640.117x1 lm		
NAME: LED-3-S7W-5CCT-FG	TYPE:	WEIGHT:
SPEC.: 5000K	DIM.:	SERIAL No.:
MFR.: Light by lotus	SUR.:	Shielding Angle:



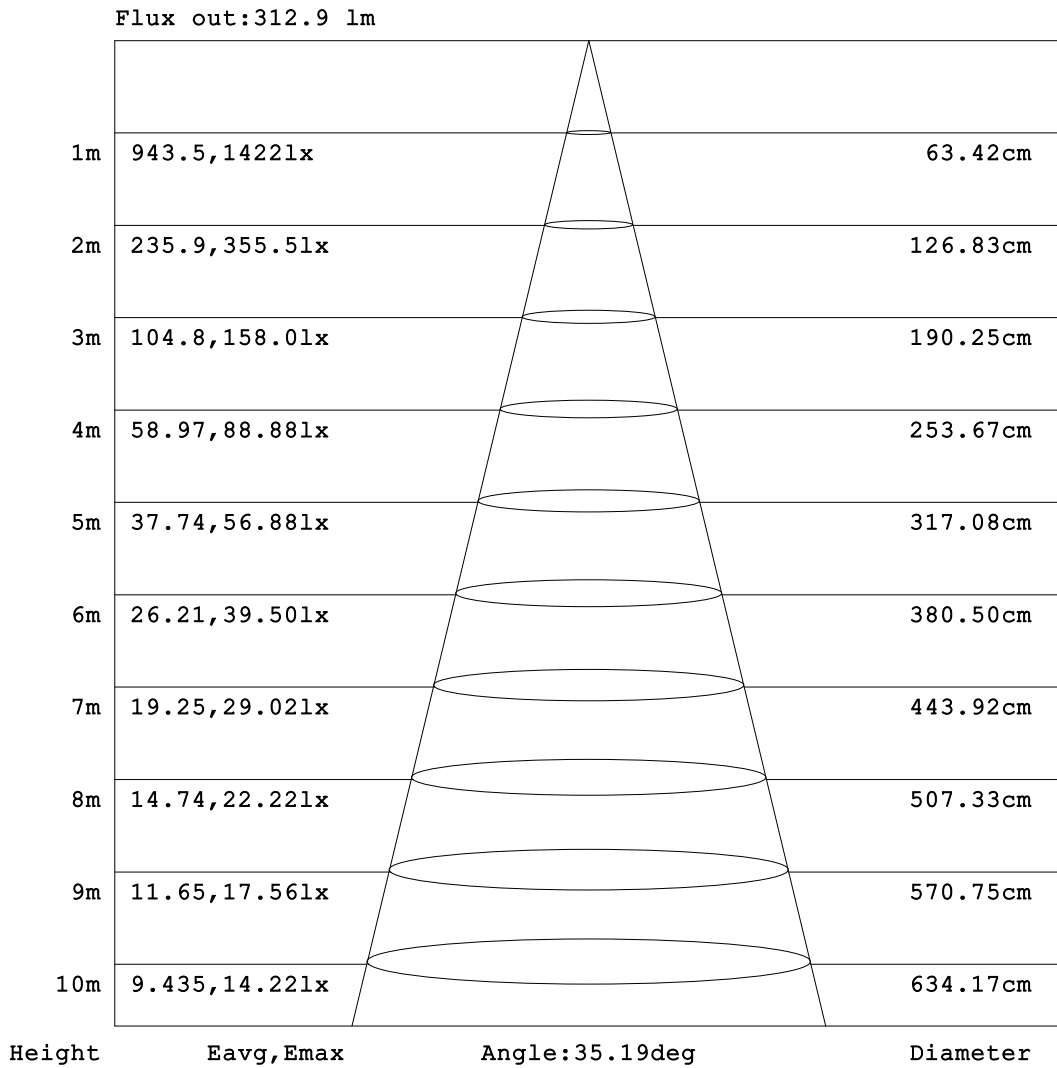
C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.3°C  
 Operators:  
 Test Date:2022-09-28

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:119.84V I:0.0771A P:7.0816W PF:0.7662 Freq:59.98Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:640.117x1 lm		
NAME: LED-3-S7W-5CCT-FG	TYPE:	WEIGHT:
SPEC.: 5000K	DIM.:	SERIAL No.:
MFR.: Light by lotus	SUR.:	Shielding Angle:



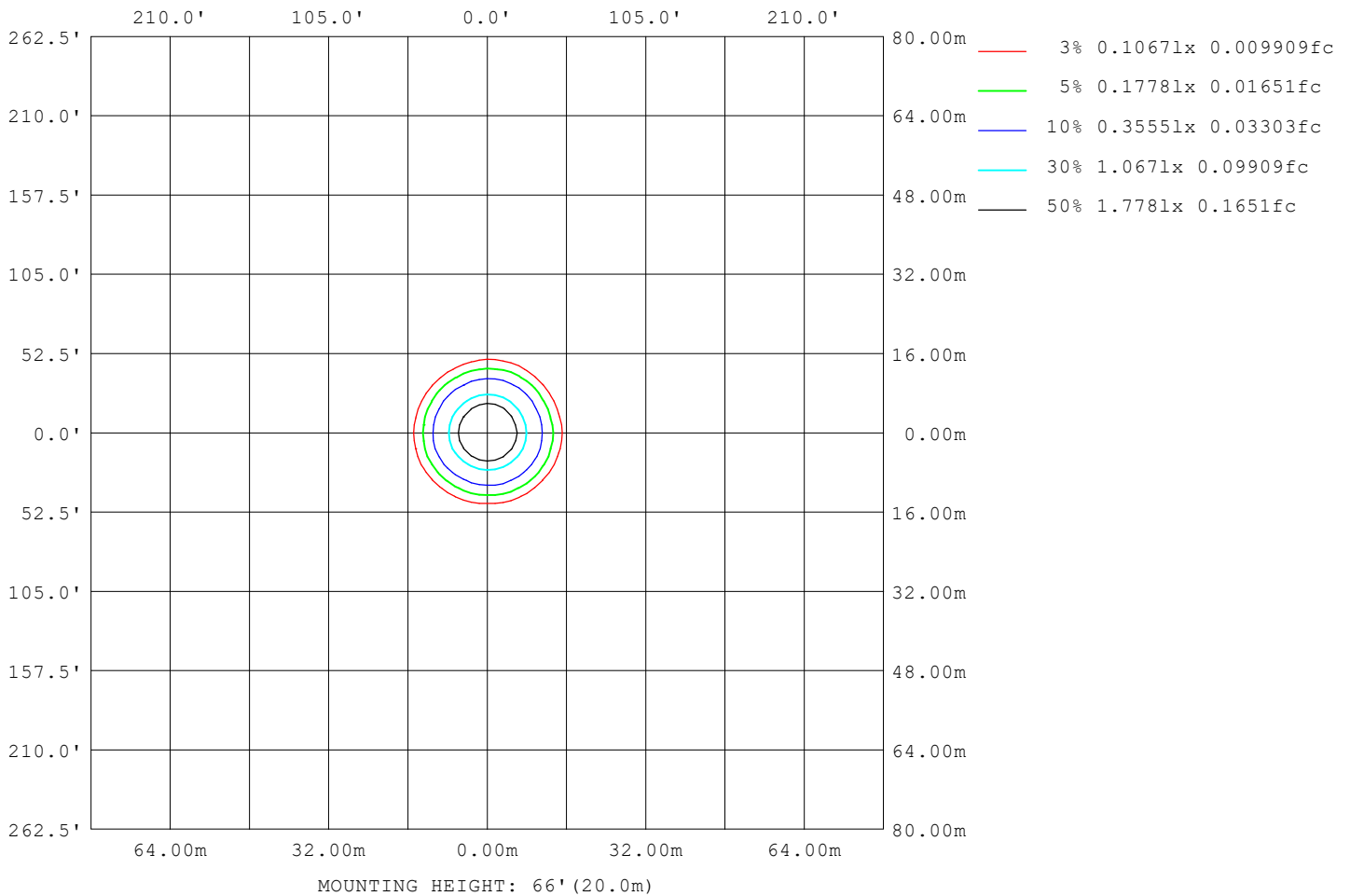
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature: 25.3 °C  
 Operators:  
 Test Date: 2022-09-28

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:119.84V I:0.0771A P:7.0816W PF:0.7662 Freq:59.98Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:640.117x1 lm		
NAME: LED-3-S7W-5CCT-FG	TYPE:	WEIGHT:
SPEC.: 5000K	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:2022-09-28

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:119.84V I:0.0771A P:7.0816W PF:0.7662 Freq:59.98Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:640.117x1 lm		
NAME: LED-3-S7W-5CCT-FG	TYPE:	WEIGHT:
SPEC.: 5000K	DIM.:	SERIAL No.:
MFR.: Light by lotus	SUR.:	Shielding Angle:

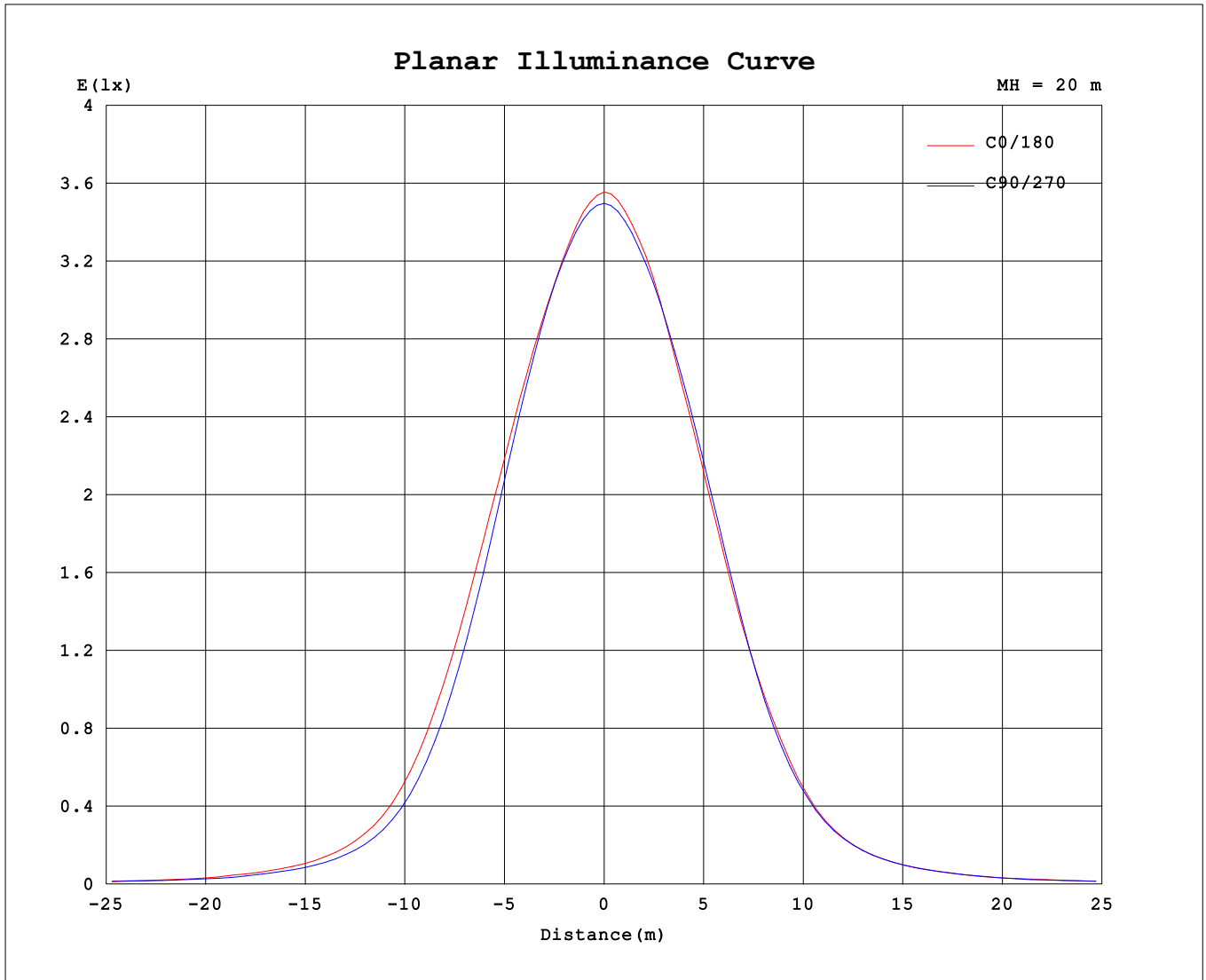
AvgL	cd/m2
L_0~180 (65) av	263
L_0~180 (75) av	180
L_0~180 (85) av	97
L_90~270 (65) av	248
L_90~270 (75) av	199
L_90~270 (85) av	6
L_45 (65) av	258
L_45 (75) av	212
L_45 (85) av	13

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.3℃  
 Operators:  
 Test Date:2022-09-28

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: 2022-09-28

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:

