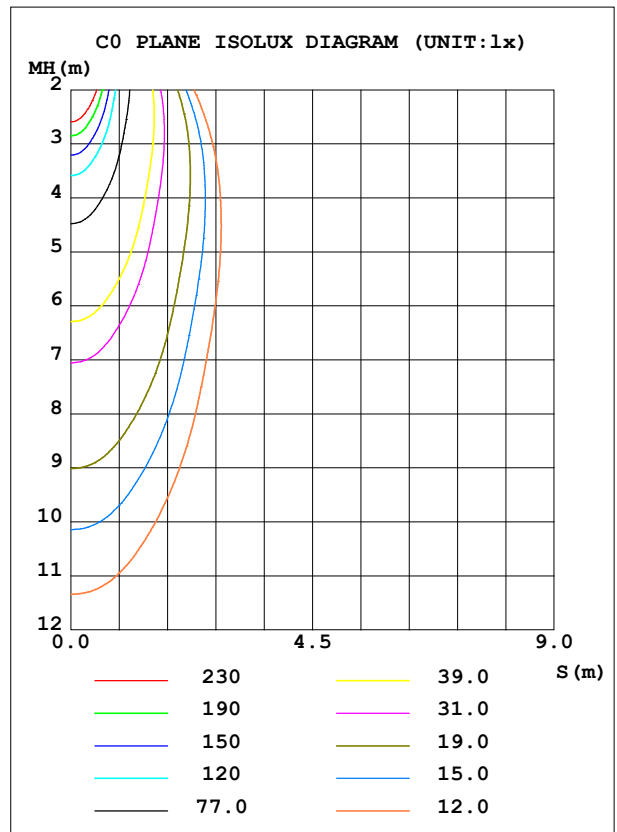
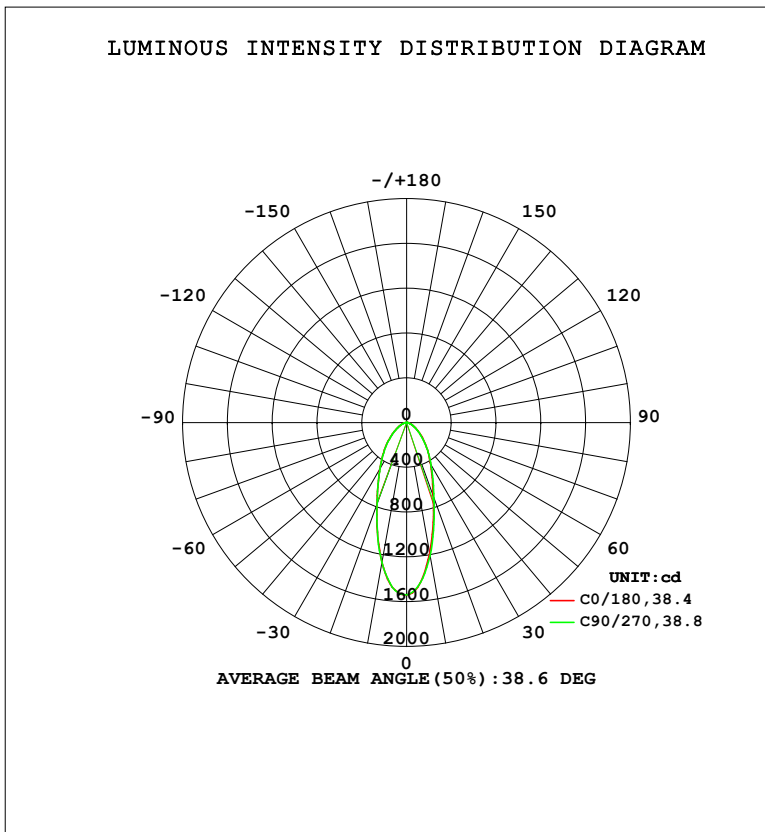


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:119.74V I:0.1138A P:13.439W PF:0.9863 Freq:59.98Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1273.17x1 lm		
NAME: FR-LED-6-S15W-5CCT-FG-WH	TYPE:	WEIGHT:
SPEC.: 3000K 90	DIM.:	SERIAL No.:
MFR.: LTS	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA			
MODEL		Imax (cd)	1539	S/MH (C0/180)	0.63
NOMINAL POWER (W)	15	LOR (%)	100.0	S/MH (C90/270)	0.63
RATED VOLTAGE (V)	120	TOTAL FLUX (lm)	1273.2	η UP, DN (C0-180)	0.0,48.7
NOMINAL FLUX (lm)	1273.17	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0,51.3
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.75
TEST VOLTAGE (V)	120	η down (%)	100.0	CIBSE SHR MAX	0.75



C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 25.3 °C
 Operators:
 Test Date: 2022-12-19

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:

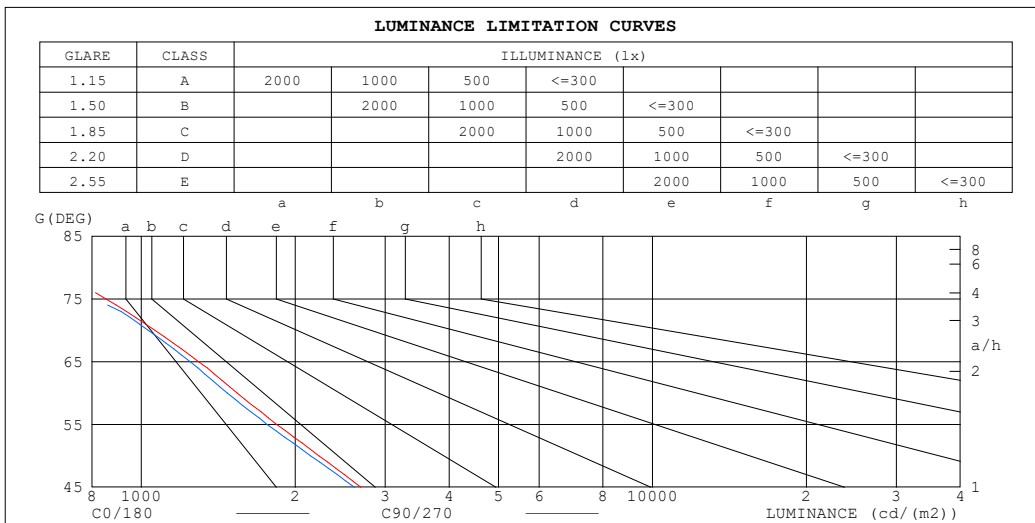
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum,lamp
10	1185	1178	1210	1262	1269	1265	1268	1213	0- 10	131.4	131.4	10.3,10.3
20	696.9	688.2	716.0	769.4	778.6	775.3	776.0	737.1	10- 20	269.6	401.0	31.5,31.5
30	430.9	424.7	437.8	468.4	481.4	485.0	477.7	449.3	20- 30	266.8	667.8	52.5,52.5
40	272.4	267.3	269.6	287.0	303.8	309.8	298.8	279.8	30- 40	227.7	895.6	70.3,70.3
50	158.3	155.2	153.2	163.3	177.8	183.0	173.4	160.7	40- 50	170.7	1066	83.7,83.7
60	85.16	83.49	81.90	87.54	95.54	98.09	92.32	85.87	50- 60	110.4	1177	92.4,92.4
70	40.20	39.04	39.26	43.05	46.85	47.68	45.30	41.60	60- 70	63.44	1240	97.4,97.4
80	12.35	8.070	8.175	14.77	16.35	15.40	15.04	13.43	70- 80	28.44	1269	99.6,99.6
90	0.2196	0.2067	0.2026	0.2130	0.1385	0.1351	0.1393	0.1495	80- 90	4.625	1273	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:2022-12-19

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:119.74V I:0.1138A P:13.439W PF:0.9863 Freq:59.98Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1273.17x1 lm		
NAME: FR-LED-6-S15W-5CCT-FG-WH	TYPE:	WEIGHT:
SPEC.: 3000K 90	DIM.:	SERIAL No.:
MFR.: LTS	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	314	34
80	643	423
75	854	799
70	1063	1032
65	1294	1247
60	1540	1473
55	1840	1761
50	2226	2144
45	2686	2612

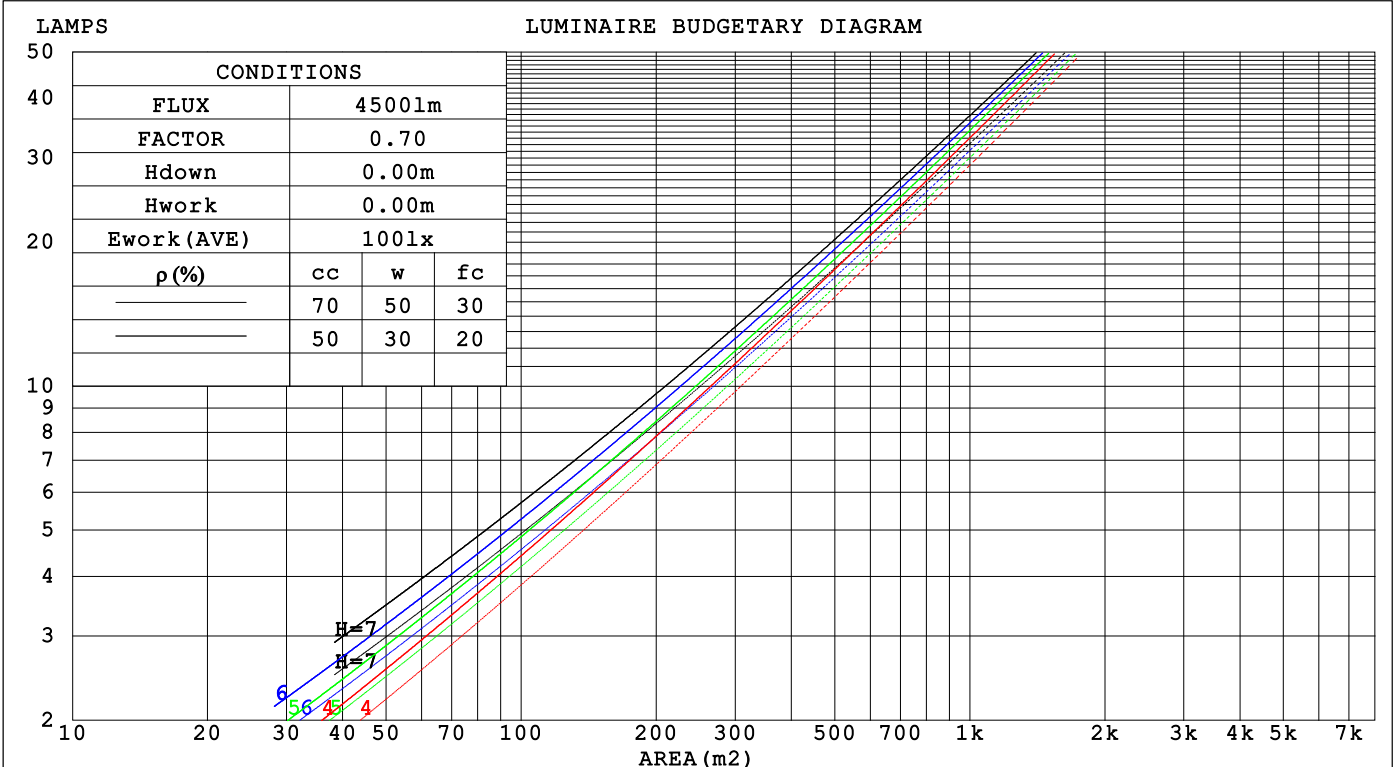
C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 25.3°C
 Operators:
 Test Date: 2022-12-19

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:119.74V I:0.1138A P:13.439W PF:0.9863 Freq:59.98Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1273.17x1 lm		
NAME: FR-LED-6-S15W-5CCT-FG-WH	TYPE:	WEIGHT:
SPEC.: 3000K 90	DIM.:	SERIAL No.:
MFR.: LTS	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															
	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	1.08	1.05	1.02	1.06	1.03	1.01	1.02	.90	.98	.98	.96	.95	.95	.93	.92	.90
2.0	.98	.93	.89	.97	.92	.88	.93	.89	.86	.90	.87	.84	.87	.85	.82	.81
3.0	.90	.84	.79	.88	.83	.78	.86	.81	.77	.83	.79	.76	.81	.77	.74	.73
4.0	.82	.76	.70	.81	.75	.70	.79	.73	.69	.77	.72	.68	.75	.71	.67	.66
5.0	.76	.69	.64	.75	.68	.63	.73	.67	.63	.71	.66	.62	.70	.65	.62	.60
6.0	.70	.63	.58	.70	.63	.58	.68	.62	.58	.66	.61	.57	.65	.60	.57	.55
7.0	.66	.58	.54	.65	.58	.53	.63	.57	.53	.62	.57	.53	.61	.56	.52	.51
8.0	.61	.54	.50	.61	.54	.49	.59	.53	.49	.58	.53	.49	.57	.52	.49	.47
9.0	.57	.51	.46	.57	.50	.46	.56	.50	.46	.55	.50	.46	.54	.49	.45	.44
10.0	.54	.47	.43	.54	.47	.43	.53	.47	.43	.52	.47	.43	.51	.46	.43	.41



C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3°C
 Operators:
 Test Date:2022-12-19

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:119.74V I:0.1138A P:13.439W PF:0.9863 Freq:59.98Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1273.17x1 lm		
NAME: FR-LED-6-S15W-5CCT-FG-WH	TYPE:	WEIGHT:
SPEC.: 3000K 90	DIM.:	SERIAL No.:
MFR.: LTS	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	.223	.127	.040	.217	.124	.039	.204	.117	.037	.192	.111	.036	.181	.105	.034	
2.0	.215	.118	.036	.209	.115	.035	.198	.110	.034	.188	.105	.033	.178	.101	.032	
3.0	.203	.108	.032	.198	.106	.032	.188	.102	.031	.179	.098	.030	.171	.095	.029	
4.0	.191	.099	.029	.186	.097	.029	.178	.094	.028	.170	.091	.028	.163	.089	.027	
5.0	.179	.091	.026	.175	.090	.026	.168	.088	.026	.161	.085	.025	.155	.083	.025	
6.0	.169	.085	.024	.165	.084	.024	.159	.081	.024	.153	.079	.023	.147	.077	.023	
7.0	.159	.079	.022	.156	.078	.022	.150	.076	.022	.145	.074	.022	.140	.073	.021	
8.0	.150	.074	.021	.148	.073	.021	.143	.071	.020	.138	.070	.020	.133	.068	.020	
9.0	.143	.069	.019	.140	.068	.019	.136	.067	.019	.131	.066	.019	.127	.065	.019	
10.0	.135	.065	.018	.133	.064	.018	.129	.063	.018	.125	.062	.018	.121	.061	.018	

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	.174	.157	.141	.149	.135	.122	.102	.093	.084	.059	.054	.049	.019	.017	.016	
2.0	.162	.132	.107	.139	.114	.093	.095	.079	.065	.055	.046	.038	.018	.015	.012	
3.0	.152	.114	.084	.130	.098	.073	.089	.068	.051	.052	.040	.030	.017	.013	.010	
4.0	.142	.100	.067	.122	.086	.058	.084	.060	.041	.049	.035	.024	.016	.011	.008	
5.0	.134	.089	.055	.115	.077	.048	.079	.054	.034	.046	.031	.020	.015	.010	.007	
6.0	.127	.080	.046	.109	.069	.040	.075	.048	.028	.044	.028	.017	.014	.009	.006	
7.0	.120	.072	.039	.104	.063	.034	.072	.044	.024	.042	.026	.014	.013	.008	.005	
8.0	.114	.066	.033	.099	.057	.029	.068	.040	.021	.040	.024	.012	.013	.008	.004	
9.0	.109	.061	.029	.094	.053	.025	.065	.037	.018	.038	.022	.011	.012	.007	.004	
10.0	.104	.057	.025	.090	.049	.022	.062	.035	.016	.036	.021	.009	.012	.007	.003	

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3°C
 Operators:
 Test Date:2022-12-19

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:119.74V I:0.1138A P:13.439W PF:0.9863 Freq:59.98Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1273.17x1 lm		
NAME: FR-LED-6-S15W-5CCT-FG-WH	TYPE:	WEIGHT:
SPEC.: 3000K 90	DIM.:	SERIAL No.:
MFR.: LTS	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	12.5	13.6	12.7	13.8	14.0	12.3	13.5	12.5	13.6	13.8
3H	13.1	14.1	13.3	14.4	14.6	12.9	14.0	13.2	14.2	14.4
4H	13.3	14.3	13.6	14.5	14.7	13.1	14.1	13.4	14.3	14.6
6H	13.3	14.3	13.7	14.6	14.8	13.1	14.1	13.4	14.3	14.6
8H	13.3	14.3	13.7	14.5	14.8	13.1	14.0	13.4	14.3	14.5
12H	13.3	14.2	13.6	14.5	14.8	13.0	13.9	13.4	14.2	14.5
4H 2H	12.7	13.7	13.0	13.9	14.2	12.5	13.6	12.8	13.8	14.0
3H	13.5	14.3	13.8	14.6	14.9	13.3	14.2	13.6	14.5	14.8
4H	13.7	14.5	14.1	14.8	15.2	13.6	14.4	13.9	14.7	15.0
6H	13.9	14.6	14.3	14.9	15.3	13.6	14.3	14.0	14.7	15.0
8H	13.9	14.6	14.3	14.9	15.3	13.6	14.3	14.0	14.6	15.0
12H	13.9	14.5	14.3	14.8	15.2	13.6	14.2	14.0	14.5	14.9
8H 4H	13.8	14.4	14.2	14.8	15.1	13.6	14.3	14.0	14.6	15.0
6H	14.0	14.5	14.4	14.9	15.3	13.7	14.2	14.1	14.6	15.1
8H	14.0	14.5	14.4	14.9	15.3	13.7	14.1	14.1	14.6	15.0
12H	14.0	14.4	14.4	14.8	15.3	13.6	14.0	14.1	14.5	14.9
12H 4H	13.7	14.3	14.1	14.7	15.1	13.6	14.2	14.0	14.5	14.9
6H	13.9	14.4	14.4	14.8	15.3	13.7	14.1	14.1	14.6	15.0
8H	14.0	14.4	14.4	14.8	15.3	13.6	14.0	14.1	14.5	15.0

Variations with the observer position at spacings(CIE Pub.117):		
S = 1.0H	+ 0.6 / - 0.8	+ 0.6 / - 0.9
1.5H	+ 0.4 / - 0.4	+ 0.5 / - 0.5
2.0H	+ 1.2 / - 1.0	+ 1.3 / - 1.0

CIE Pub.117, 1273 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 0.8)
 Area: 0.111111 m2

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 V2.00.460
Temperature:25.3°C	Humidity:65.0%
Operators:	Test Distance:3.090m [K=1.0000]
Test Date:2022-12-19	Remarks:

UTILIZATION FACTORS TABLE

Test:U:119.74V I:0.1138A P:13.439W PF:0.9863 Freq:59.98Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1273.17x1 lm		
NAME: FR-LED-6-S15W-5CCT-FG-WH	TYPE:	WEIGHT:
SPEC.: 3000K 90	DIM.:	SERIAL No.:
MFR.: LTS	SUR.:	Shielding Angle:

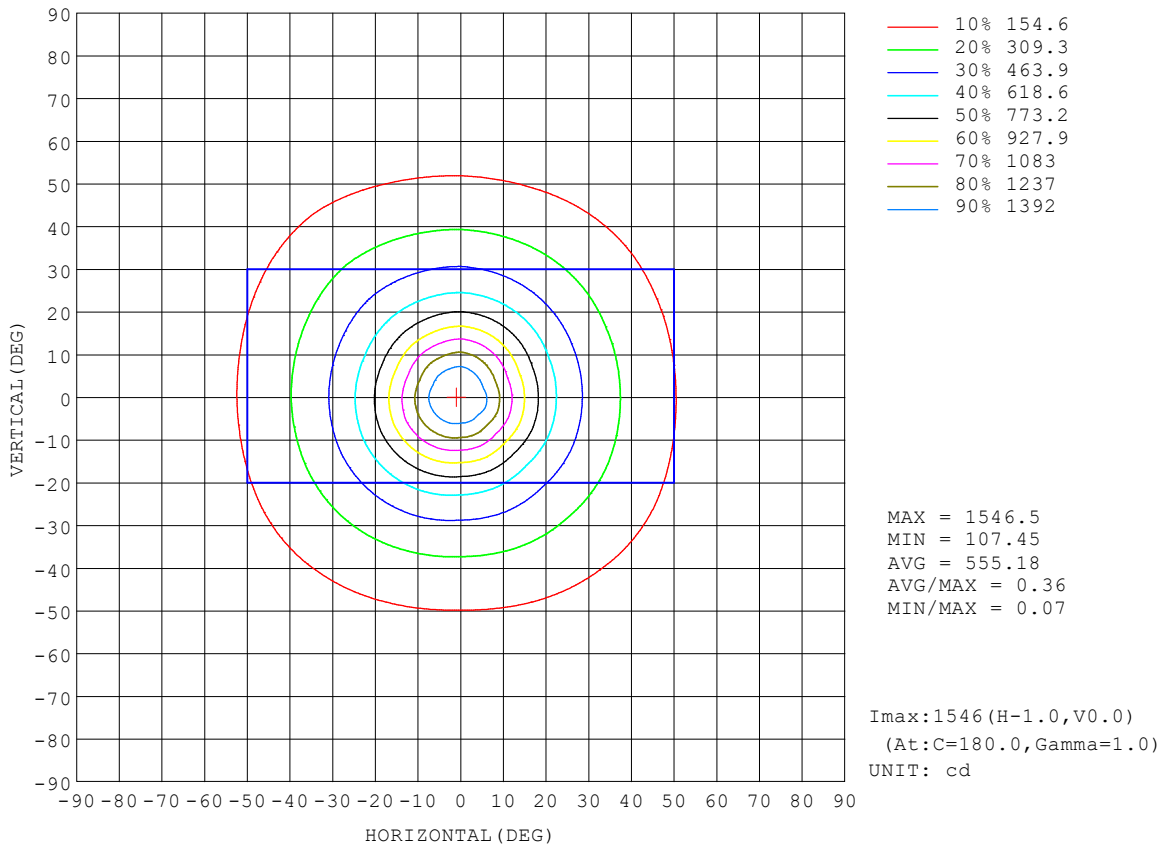
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	73	64	59	72	64	59	71	63	58	54
0.80	82	73	68	81	73	68	80	72	67	62
1.00	89	81	75	88	80	75	86	81	75	69
1.25	94	87	82	93	86	81	91	85	81	75
1.50	98	91	86	97	90	86	94	89	85	79
2.00	103	97	92	101	96	92	98	94	90	84
2.50	106	100	96	104	99	95	100	96	93	86
3.00	108	103	99	106	102	98	102	99	96	89
4.00	111	107	104	108	105	102	105	102	99	92
5.00	112	109	106	110	107	105	106	104	102	93
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:2022-12-19

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:119.74V I:0.1138A P:13.439W PF:0.9863 Freq:59.98Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1273.17x1 lm		
NAME: FR-LED-6-S15W-5CCT-FG-WH	TYPE:	WEIGHT:
SPEC.: 3000K 90	DIM.:	SERIAL No.:
MFR.: LTS	SUR.:	Shielding Angle:

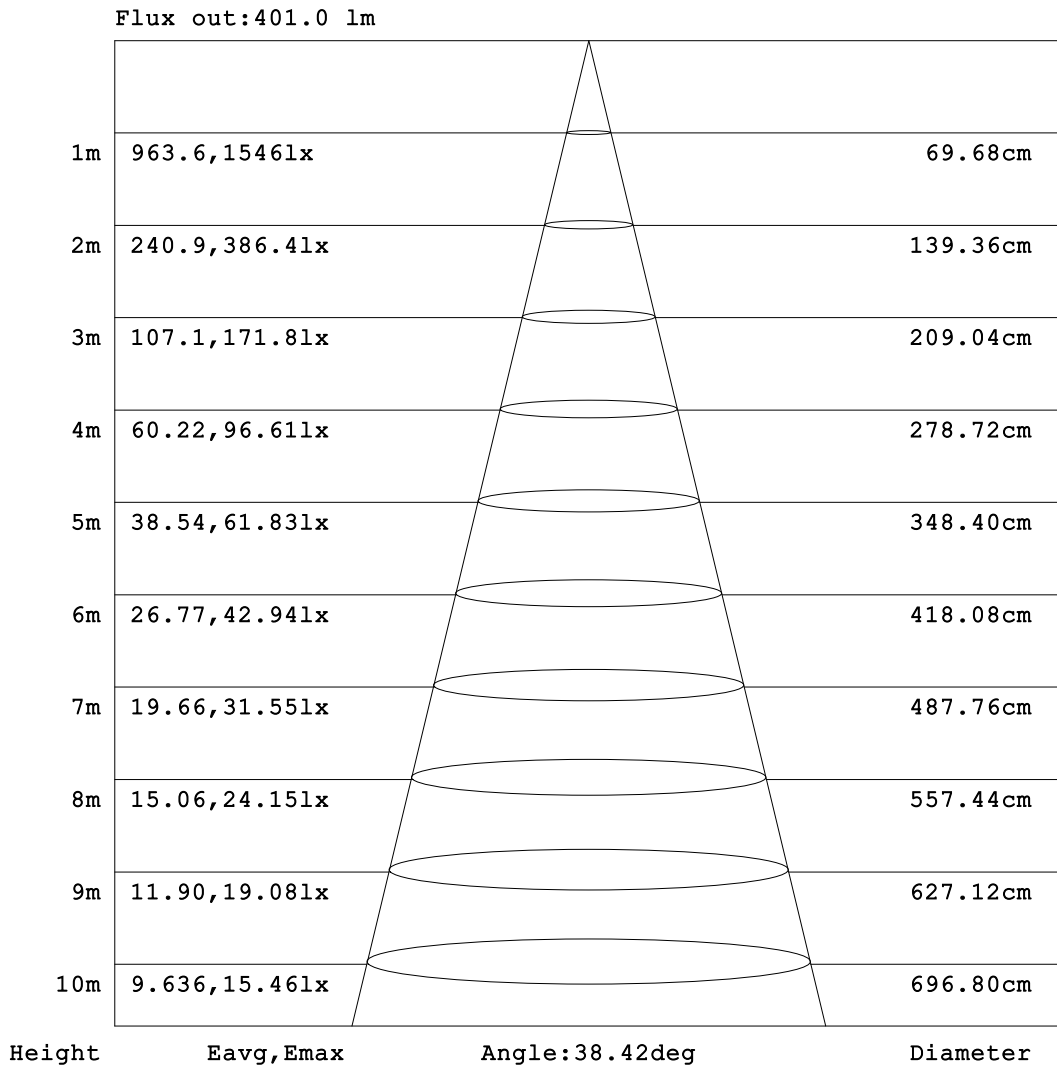


C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3°C
 Operators:
 Test Date:2022-12-19

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:119.74V I:0.1138A P:13.439W PF:0.9863 Freq:59.98Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1273.17x1 lm		
NAME: FR-LED-6-S15W-5CCT-FG-WH	TYPE:	WEIGHT:
SPEC.: 3000K 90	DIM.:	SERIAL No.:
MFR.: LTS	SUR.:	Shielding Angle:



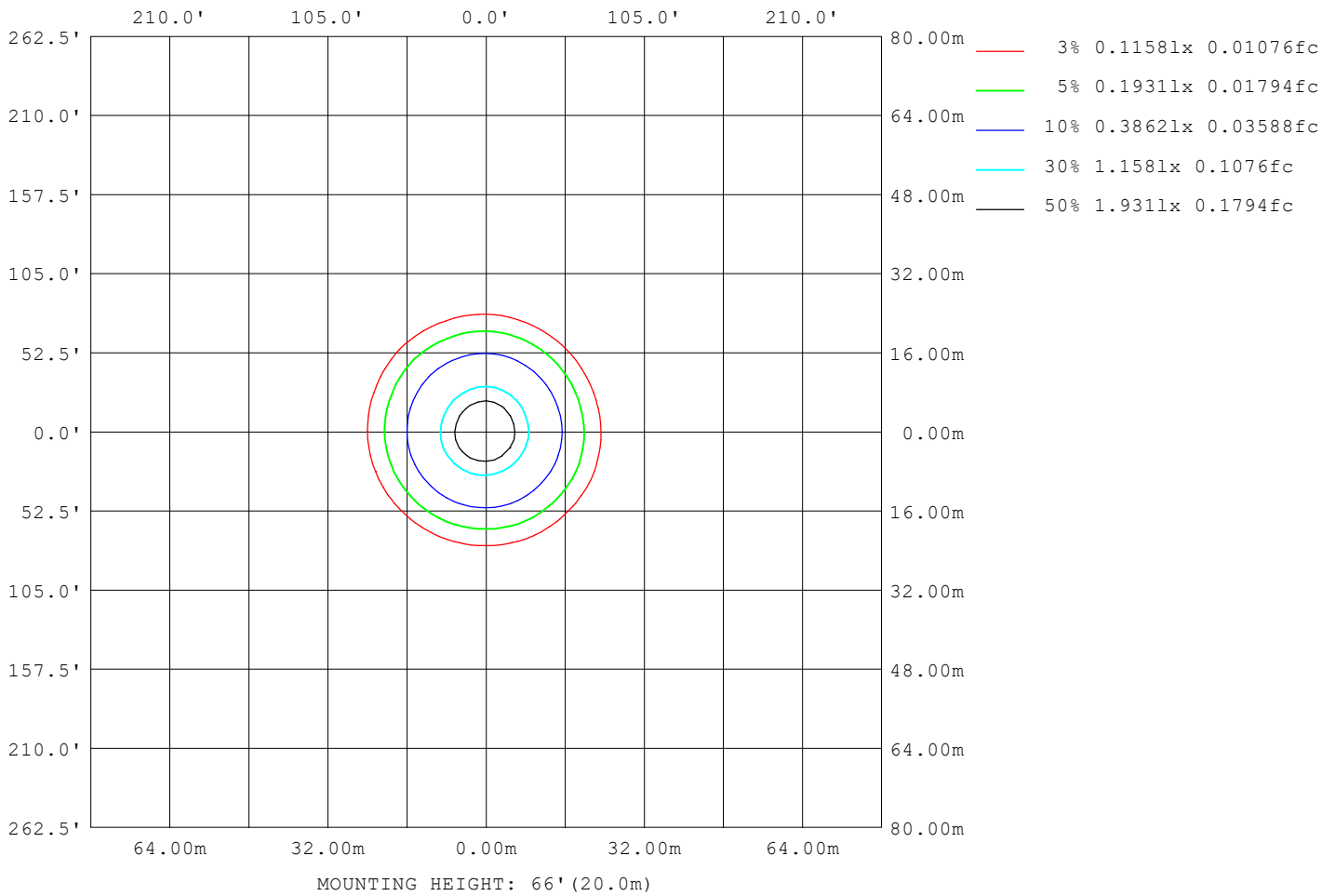
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3°C
 Operators:
 Test Date:2022-12-19

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:119.74V I:0.1138A P:13.439W PF:0.9863 Freq:59.98Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1273.17x1 lm		
NAME: FR-LED-6-S15W-5CCT-FG-WH	TYPE:	WEIGHT:
SPEC.: 3000K 90	DIM.:	SERIAL No.:
MFR.: LTS	SUR.:	Shielding Angle:



C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3°C
 Operators:
 Test Date:2022-12-19

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:119.74V I:0.1138A P:13.439W PF:0.9863 Freq:59.98Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1273.17x1 lm		
NAME: FR-LED-6-S15W-5CCT-FG-WH	TYPE:	WEIGHT:
SPEC.: 3000K 90	DIM.:	SERIAL No.:
MFR.: LTS	SUR.:	Shielding Angle:

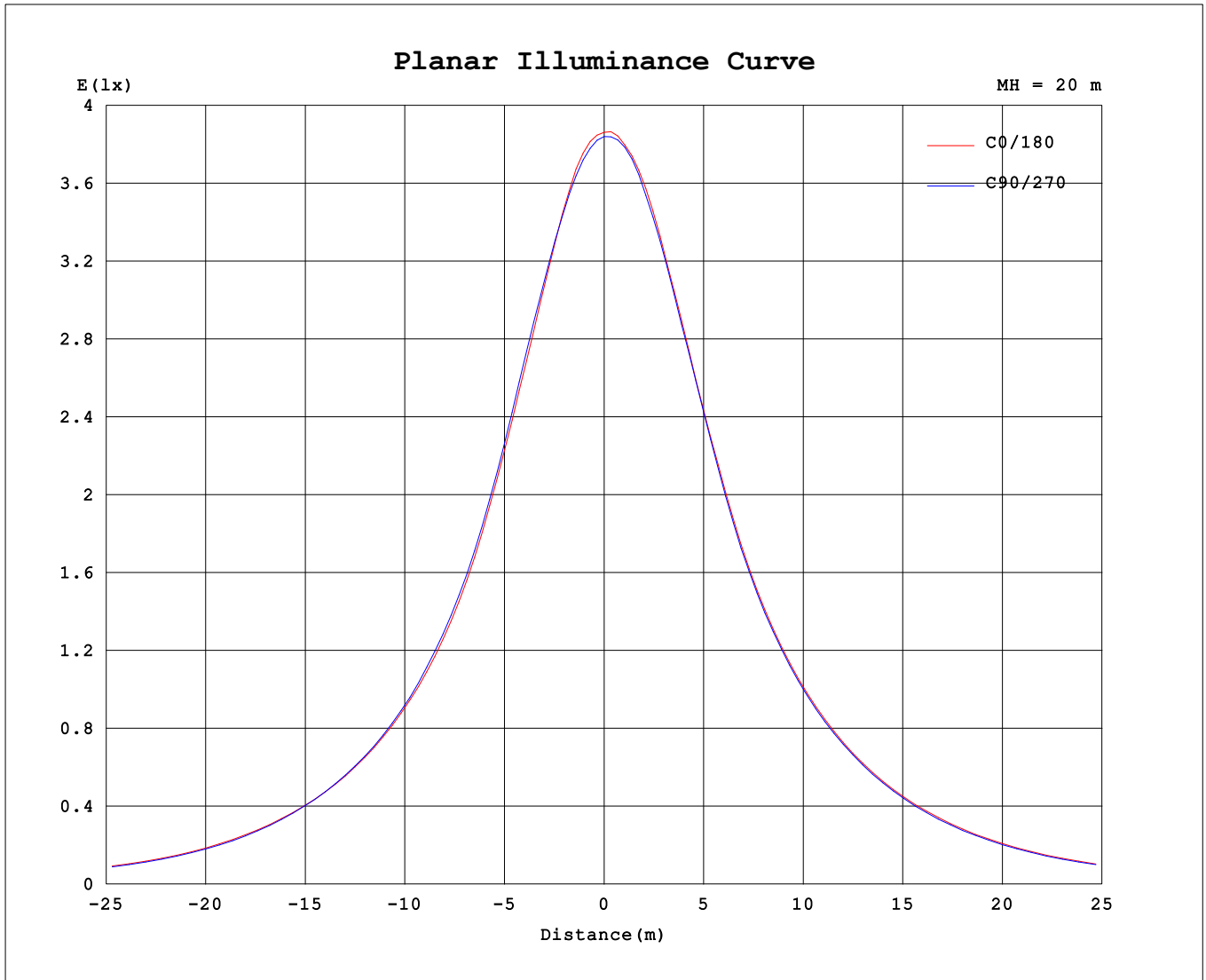
AvgL	cd/m2
L_0~180 (65) av	1374
L_0~180 (75) av	942
L_0~180 (85) av	453
L_90~270 (65) av	1329
L_90~270 (75) av	896
L_90~270 (85) av	162
L_45 (65) av	1351
L_45 (75) av	921
L_45 (85) av	301

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3℃
 Operators:
 Test Date:2022-12-19

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: 2022-12-19

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:

