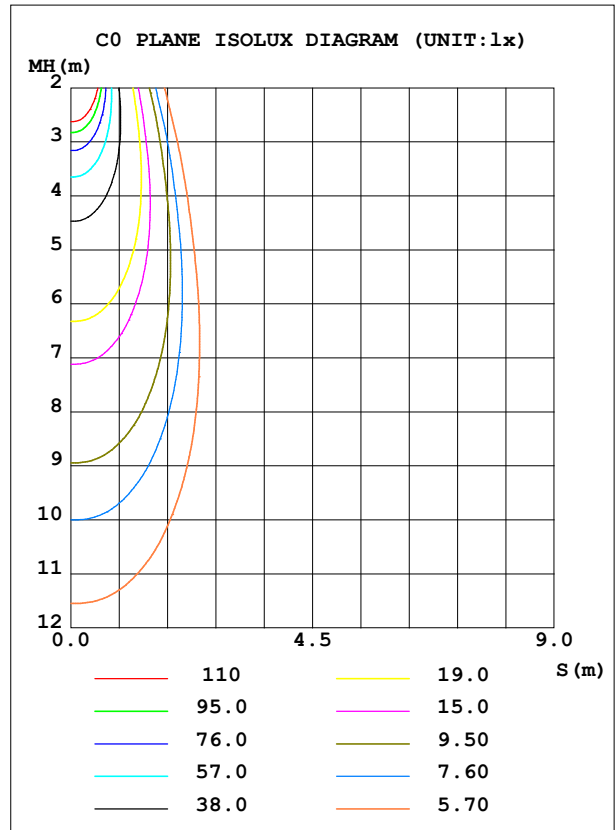
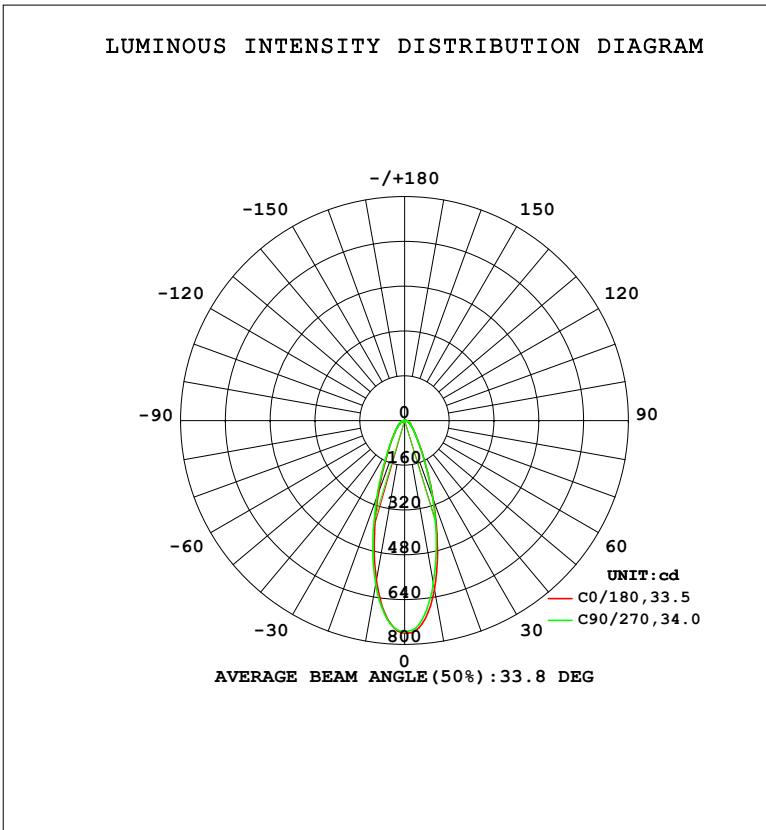


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:119.83V I:0.0474A P:5.0810W PF:0.8951 Freq:59.98Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:401.048x1 lm		
NAME: LED-2-S5W-3018KWH-FG	TYPE:	WEIGHT:
SPEC.: 3000K 90	DIM.:	SERIAL No.:
MFR.: LIGHT BY LOTUS	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 78.93 lm/W
MODEL		I _{max} (cd)	759.7	S/MH (C0/180)	0.54	
NOMINAL POWER (W)	5	LOR (%)	100.0	S/MH (C90/270)	0.56	
RATED VOLTAGE (V)	120.0	TOTAL FLUX (lm)	401.05	η UP, DN (C0-180)	0.0, 50.5	
NOMINAL FLUX (lm)	401.048	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 49.5	
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.50	
TEST VOLTAGE (V)	120	η 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: 2023-07-06

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-SPEX500_V1 SYSTEM V2.00.460
 Humidity: 65.0%
 Test Distance: 3.080m [K=1.0000]
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

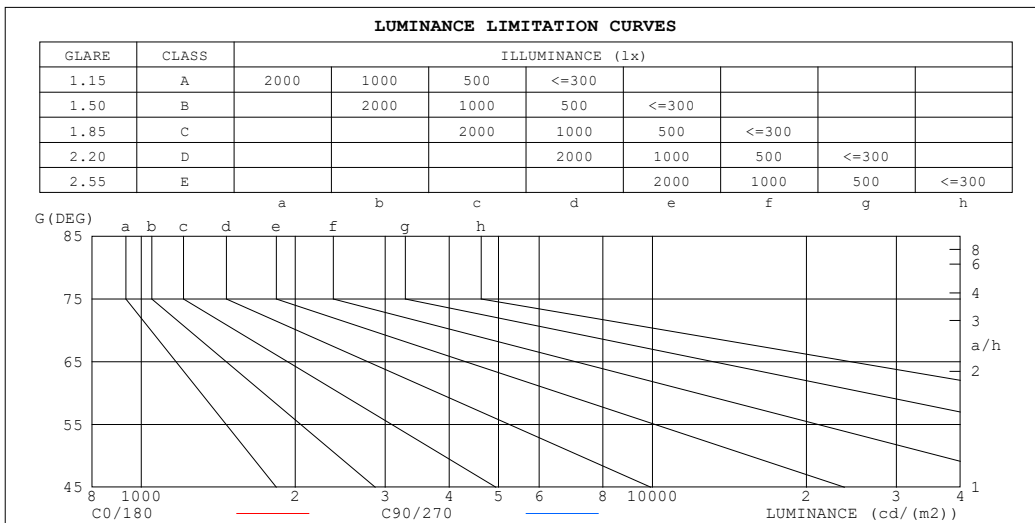
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum,lamp
10	614.1	609.8	592.3	572.6	580.8	582.7	595.2	606.0	0- 10	64.33	64.33	16,16
20	298.5	303.7	295.6	275.2	272.7	275.2	290.1	294.7	10- 20	119.4	183.7	45.8,45.8
30	117.6	118.7	114.2	109.9	108.8	108.7	113.2	117.1	20- 30	83.66	267.4	66.7,66.7
40	56.91	55.96	55.86	55.10	54.79	54.32	55.55	57.53	30- 40	49.04	316.4	78.9,78.9
50	33.23	32.65	32.65	32.38	32.12	31.57	32.34	33.48	40- 50	32.91	349.3	87.1,87.1
60	21.27	21.10	21.08	20.77	20.41	20.08	20.66	21.22	50- 60	23.41	372.7	92.9,92.9
70	13.01	13.04	12.85	12.44	12.17	11.97	12.41	12.86	60- 70	16.40	389.1	97,97
80	5.885	5.851	5.546	5.178	5.088	5.001	5.244	5.675	70- 80	9.412	398.5	99.4,99.4
90	0.0584	0.0551	0.0595	0.0555	0.0396	0.0399	0.0410	0.0359	80- 90	2.506	401.0	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:2023-07-06

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.00.460
 Humidity:65.0%
 Test Distance:3.080m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:119.83V I:0.0474A P:5.0810W PF:0.8951 Freq:59.98Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:401.048x1 lm		
NAME: LED-2-S5W-3018KWH-FG	TYPE:	WEIGHT:
SPEC.: 3000K 90	DIM.:	SERIAL No.:
MFR.: LIGHT BY LOTUS	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	267	230
80	305	287
75	325	315
70	342	338
65	360	357
60	383	380
55	414	411
50	465	457
45	546	540

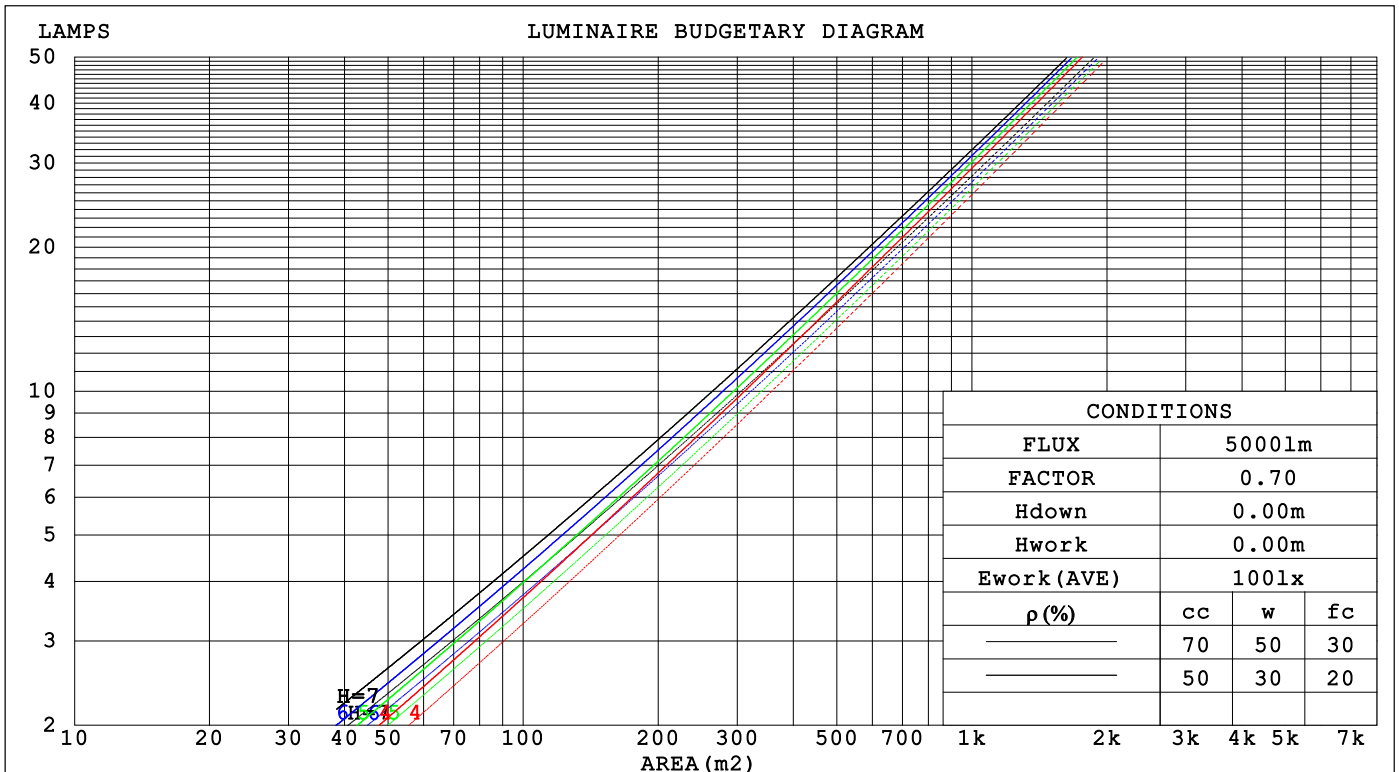
C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 25.3°C
 Operators:
 Test Date: 2023-07-06

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-SPEX500_V1 SYSTEM V2.00.460
 Humidity: 65.0%
 Test Distance: 3.080m [K=1.0000]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:119.83V I:0.0474A P:5.0810W PF:0.8951 Freq:59.98Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:401.048x1 lm		
NAME: LED-2-S5W-3018KWH-FG	TYPE:	WEIGHT:
SPEC.: 3000K 90	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	1.09	1.06	1.04	1.07	1.05	1.02	1.03	1.01	.99	.99	.98	.96	.96	.94	.93	.91
2.0	1.01	.96	.92	.99	.95	.91	.96	.92	.89	.93	.90	.87	.90	.87	.85	.84
3.0	.93	.88	.83	.92	.87	.83	.89	.85	.81	.87	.83	.80	.84	.81	.79	.77
4.0	.87	.81	.76	.86	.80	.76	.83	.79	.75	.81	.77	.74	.79	.76	.73	.71
5.0	.81	.75	.70	.80	.74	.70	.78	.73	.69	.77	.72	.69	.75	.71	.68	.67
6.0	.76	.70	.66	.76	.70	.65	.74	.69	.65	.73	.68	.64	.71	.67	.64	.62
7.0	.72	.66	.61	.71	.66	.61	.70	.65	.61	.69	.64	.61	.68	.64	.60	.59
8.0	.68	.62	.58	.68	.62	.58	.67	.61	.58	.66	.61	.57	.65	.60	.57	.56
9.0	.65	.59	.55	.64	.59	.55	.63	.58	.55	.63	.58	.54	.62	.57	.54	.53
10.0	.62	.56	.52	.61	.56	.52	.61	.55	.52	.60	.55	.52	.59	.55	.52	.50



C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3°C
 Operators:
 Test Date:2023-07-06

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.00.460
 Humidity:65.0%
 Test Distance:3.080m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:119.83V I:0.0474A P:5.0810W PF:0.8951 Freq:59.98Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:401.048x1 lm		
NAME: LED-2-S5W-3018KWH-FG	TYPE:	WEIGHT:
SPEC.: 3000K 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	.206	.117	.037	.199	.114	.036	.186	.107	.034	.175	.101	.032	.164	.095	.031	
2.0	.194	.106	.033	.188	.104	.032	.178	.099	.031	.168	.094	.029	.158	.090	.028	
3.0	.181	.097	.029	.177	.095	.028	.167	.091	.028	.159	.087	.027	.151	.083	.026	
4.0	.170	.088	.026	.165	.087	.026	.157	.083	.025	.150	.081	.024	.143	.078	.024	
5.0	.159	.081	.023	.155	.080	.023	.148	.077	.023	.142	.075	.022	.136	.073	.022	
6.0	.149	.075	.021	.146	.074	.021	.140	.072	.021	.134	.070	.021	.129	.068	.020	
7.0	.141	.070	.020	.138	.069	.020	.133	.067	.019	.128	.065	.019	.123	.064	.019	
8.0	.133	.065	.018	.131	.064	.018	.126	.063	.018	.121	.062	.018	.117	.060	.018	
9.0	.126	.061	.017	.124	.061	.017	.120	.059	.017	.116	.058	.017	.112	.057	.016	
10.0	.120	.058	.016	.118	.057	.016	.114	.056	.016	.111	.055	.016	.107	.054	.015	

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	.173	.157	.143	.148	.135	.123	.101	.093	.085	.058	.054	.049	.019	.017	.016	
2.0	.159	.132	.110	.136	.114	.095	.093	.079	.066	.054	.046	.039	.017	.015	.013	
3.0	.147	.114	.087	.126	.098	.075	.087	.068	.053	.050	.040	.031	.016	.013	.010	
4.0	.137	.099	.070	.118	.086	.061	.081	.060	.043	.047	.035	.025	.015	.011	.008	
5.0	.128	.088	.058	.110	.076	.050	.076	.053	.035	.044	.031	.021	.014	.010	.007	
6.0	.121	.079	.048	.104	.068	.042	.071	.048	.030	.041	.028	.018	.013	.009	.006	
7.0	.114	.071	.041	.098	.062	.036	.067	.043	.025	.039	.025	.015	.013	.008	.005	
8.0	.107	.065	.035	.092	.056	.031	.064	.039	.022	.037	.023	.013	.012	.008	.004	
9.0	.102	.059	.031	.088	.052	.027	.061	.036	.019	.035	.021	.011	.011	.007	.004	
10.0	.097	.055	.027	.083	.048	.024	.058	.034	.017	.034	.020	.010	.011	.007	.003	

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3°C
 Operators:
 Test Date:2023-07-06

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.00.460
 Humidity:65.0%
 Test Distance:3.080m [K=1.0000]
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:119.83V I:0.0474A P:5.0810W PF:0.8951 Freq:59.98Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:401.048x1 lm		
NAME: LED-2-S5W-3018KWH-FG	TYPE:	WEIGHT:
SPEC.: 3000K 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	10.2	11.2	10.4	11.4	11.5	10.1	11.2	10.4	11.3	11.5
3H	11.4	12.3	11.6	12.5	12.7	11.3	12.3	11.6	12.5	12.7
4H	11.9	12.8	12.2	13.0	13.2	11.8	12.7	12.1	12.9	13.2
6H	12.3	13.1	12.6	13.4	13.6	12.2	13.0	12.5	13.3	13.5
8H	12.4	13.2	12.7	13.5	13.8	12.3	13.1	12.6	13.4	13.7
12H	12.5	13.3	12.8	13.6	13.9	12.4	13.2	12.7	13.4	13.7
4H 2H	10.6	11.5	10.9	11.8	12.0	10.6	11.5	10.9	11.7	11.9
3H	12.0	12.8	12.4	13.1	13.4	12.0	12.8	12.3	13.0	13.3
4H	12.7	13.4	13.0	13.7	14.0	12.6	13.3	13.0	13.6	14.0
6H	13.2	13.9	13.6	14.2	14.6	13.1	13.8	13.5	14.1	14.5
8H	13.4	14.0	13.8	14.4	14.7	13.3	13.9	13.7	14.2	14.6
12H	13.6	14.1	14.0	14.5	14.9	13.4	13.9	13.8	14.3	14.7
8H 4H	12.9	13.5	13.3	13.9	14.2	12.9	13.4	13.3	13.8	14.2
6H	13.6	14.1	14.0	14.5	14.9	13.5	14.0	13.9	14.4	14.8
8H	13.9	14.3	14.3	14.7	15.2	13.8	14.2	14.2	14.6	15.1
12H	14.1	14.5	14.6	14.9	15.4	13.9	14.3	14.4	14.7	15.2
12H 4H	12.9	13.5	13.3	13.8	14.2	12.9	13.4	13.3	13.8	14.2
6H	13.7	14.1	14.1	14.5	14.9	13.6	14.0	14.0	14.4	14.9
8H	14.0	14.3	14.4	14.8	15.3	13.8	14.2	14.3	14.7	15.1

Variations with the observer position at spacings(CIE Pub.117):		
S = 1.0H	+ 0.3 / - 0.4	+ 0.3 / - 0.4
1.5H	+ 0.2 / - 0.2	+ 0.2 / - 0.3
2.0H	+ 0.4 / - 0.3	+ 0.4 / - 0.4

CIE Pub.117, 401.0 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -3.2)
Area: 0.111111 m2

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:
Test Date:2023-07-06

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.00.460
Humidity:65.0%
Test Distance:3.080m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:119.83V I:0.0474A P:5.0810W PF:0.8951 Freq:59.98Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:401.048x1 lm		
NAME: LED-2-S5W-3018KWH-FG	TYPE:	WEIGHT:
SPEC.: 3000K 90	DIM.:	SERIAL No.:
MFR.: LIGHT BY LOTUS	SUR.:	Shielding Angle:

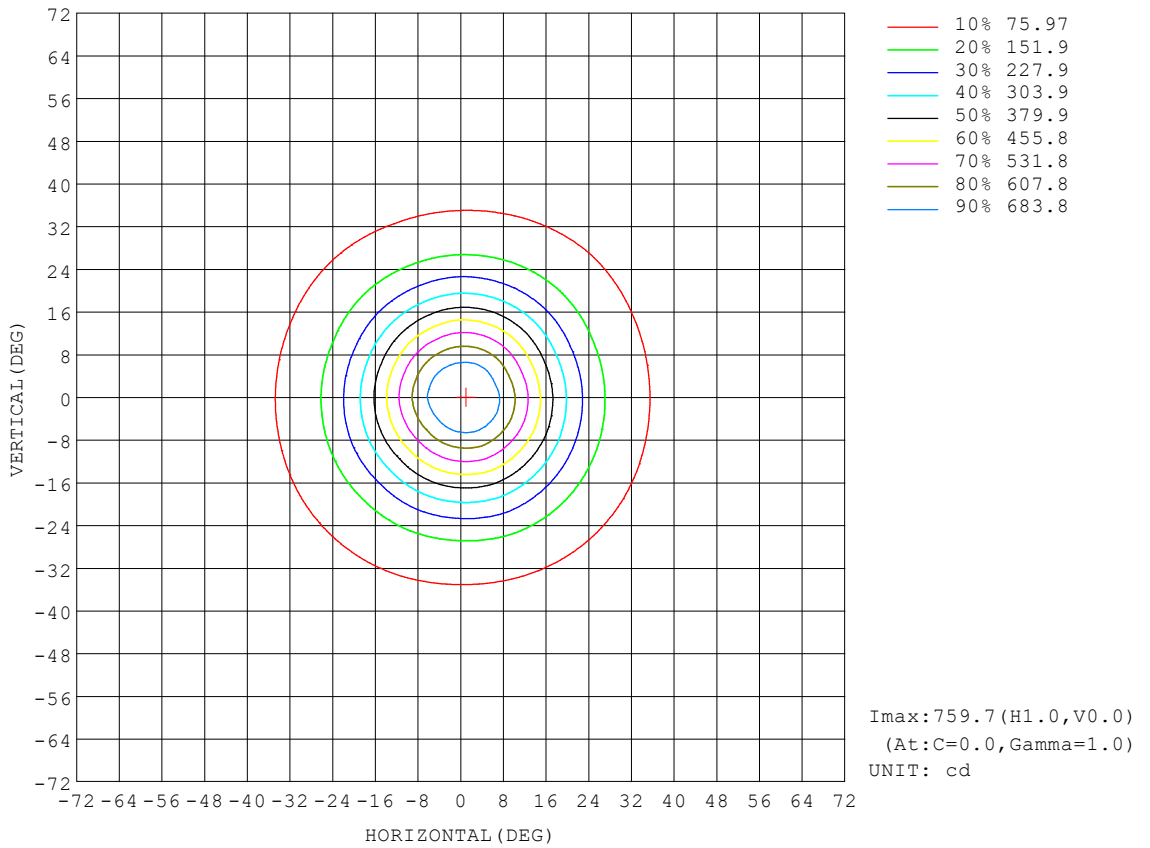
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	79	71	66	78	70	66	77	70	66	61
0.80	87	79	74	86	79	74	85	78	74	69
1.00	92	85	80	91	85	80	90	85	80	75
1.25	97	90	86	96	90	86	94	89	85	80
1.50	101	94	90	99	94	89	97	92	88	83
2.00	105	99	95	103	98	94	100	96	93	87
2.50	107	102	98	105	101	97	102	98	95	89
3.00	109	105	101	107	103	100	103	100	98	91
4.00	112	108	105	109	106	104	106	103	101	93
5.00	113	110	108	111	108	106	107	105	103	95
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:2023-07-06

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.00.460
 Humidity:65.0%
 Test Distance:3.080m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:119.83V I:0.0474A P:5.0810W PF:0.8951 Freq:59.98Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:401.048x1 lm		
NAME: LED-2-S5W-3018KWH-FG	TYPE:	WEIGHT:
SPEC.: 3000K 90	DIM.:	SERIAL No.:
MFR.: LIGHT BY LOTUS	SUR.:	Shielding Angle:

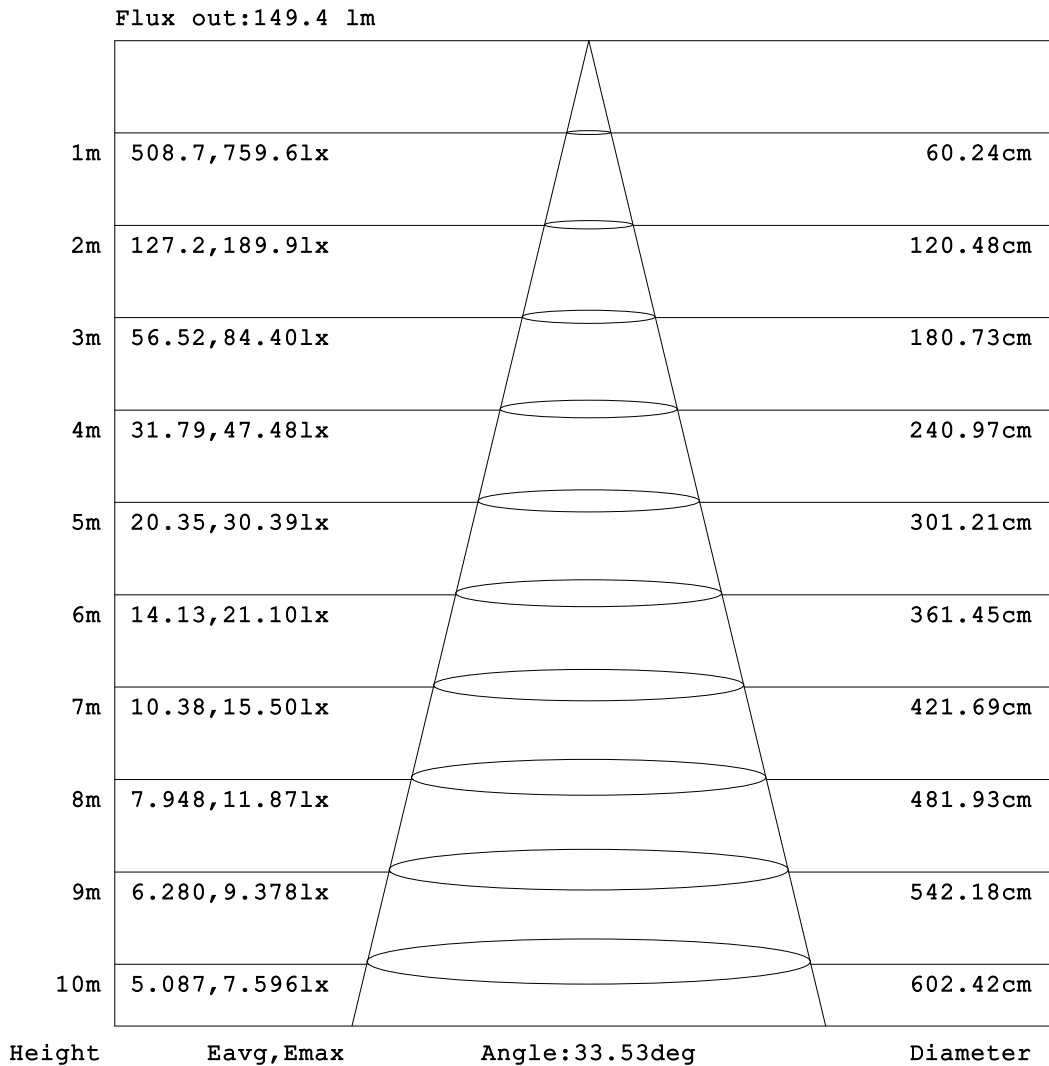


C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 25.3°C
 Operators:
 Test Date: 2023-07-06

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-SPEX500_V1 SYSTEM V2.00.460
 Humidity: 65.0%
 Test Distance: 3.080m [K=1.0000]
 Remarks:

AAI Figure

Test:U:119.83V I:0.0474A P:5.0810W PF:0.8951 Freq:59.98Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:401.048x1 lm		
NAME: LED-2-S5W-3018KWH-FG	TYPE:	WEIGHT:
SPEC.: 3000K 90	DIM.:	SERIAL No.:
MFR.: LIGHT BY LOTUS	SUR.:	Shielding Angle:



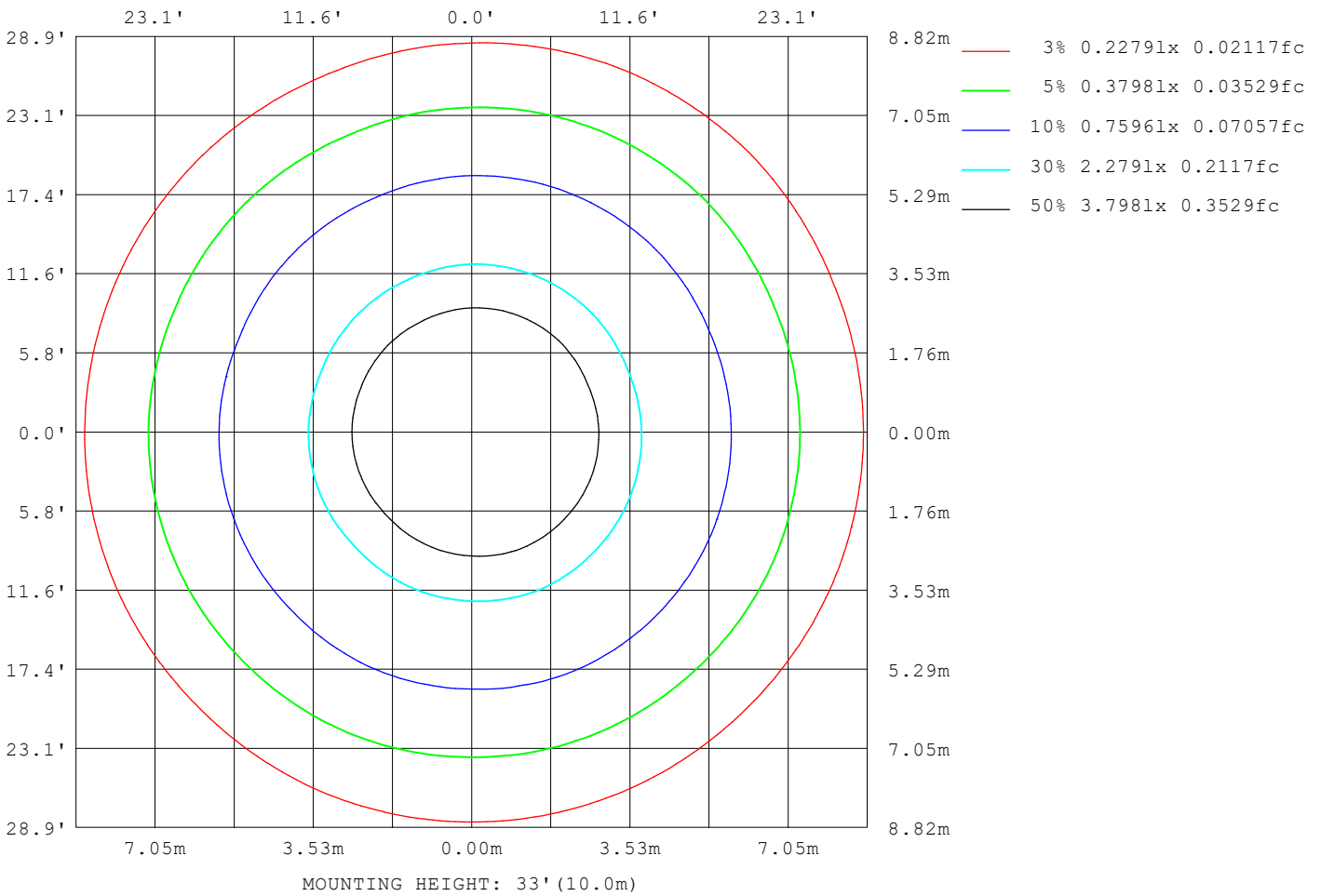
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 25.3 °C
 Operators:
 Test Date: 2023-07-06

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-SPEX500_V1 SYSTEM V2.00.460
 Humidity: 65.0%
 Test Distance: 3.080m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM

Test:U:119.83V I:0.0474A P:5.0810W PF:0.8951 Freq:59.98Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:401.048x1 lm		
NAME: LED-2-S5W-3018KWH-FG	TYPE:	WEIGHT:
SPEC.: 3000K 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:2023-07-06

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.00.460
 Humidity:65.0%
 Test Distance:3.080m [K=1.0000]
 Remarks:

LED Avg.L Report

Test:U:119.83V I:0.0474A P:5.0810W PF:0.8951 Freq:59.98Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:401.048x1 lm		
NAME: LED-2-S5W-3018KWH-FG	TYPE:	WEIGHT:
SPEC.: 3000K 90	DIM.:	SERIAL No.:
MFR.: LIGHT BY LOTUS	SUR.:	Shielding Angle:

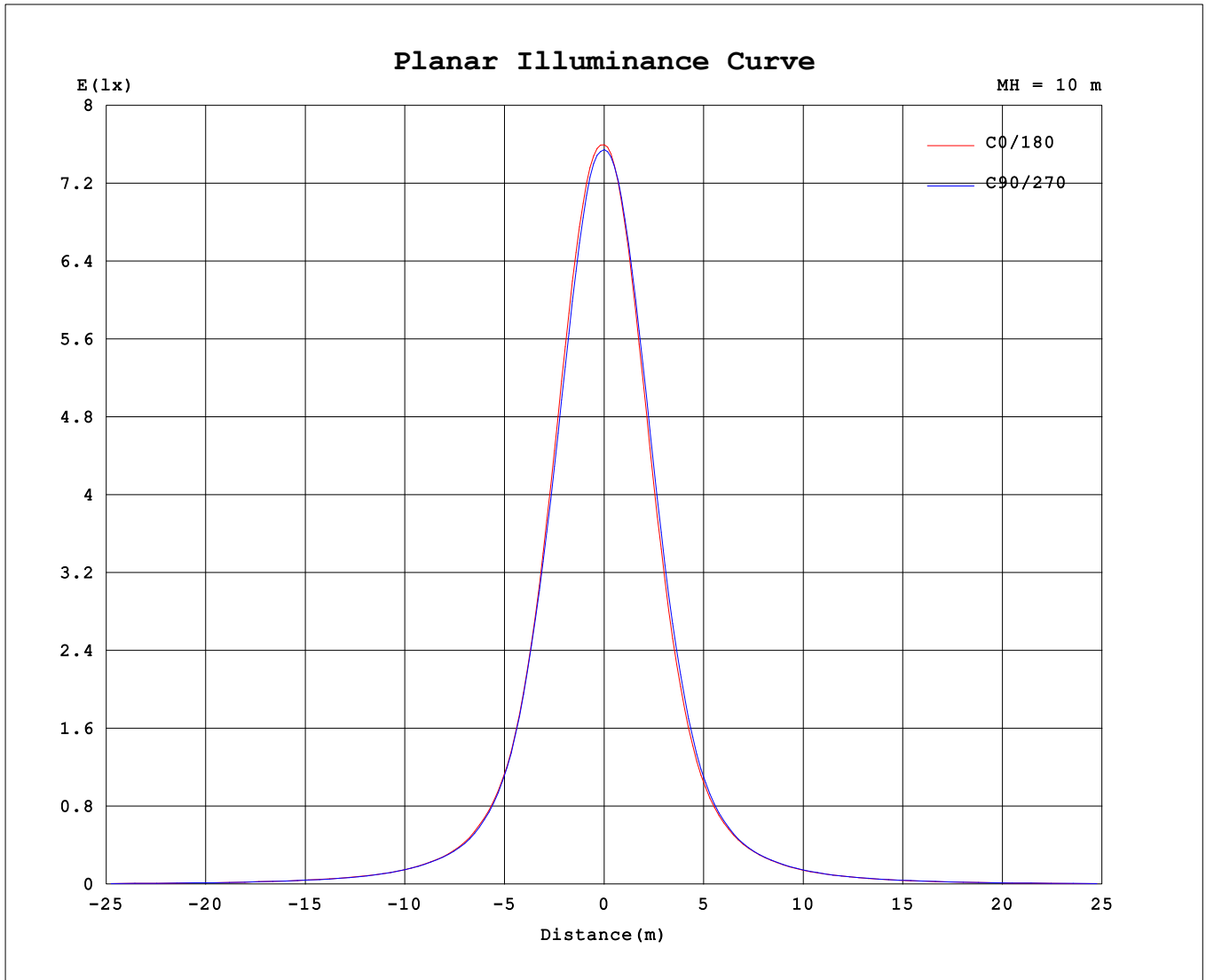
AvgL	cd/m2
L_0~180 (65) av	351
L_0~180 (75) av	310
L_0~180 (85) av	226
L_90~270 (65) av	353
L_90~270 (75) av	309
L_90~270 (85) av	217
L_45 (65) av	351
L_45 (75) av	308
L_45 (85) av	221

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3℃
 Operators:
 Test Date:2023-07-06

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.00.460
 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: 2023-07-06

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-SPEX500_V1 SYSTEM V2.00.460
 Humidity: 65.0%
 Test Distance: 3.080m [K=1.0000]
 Remarks:

