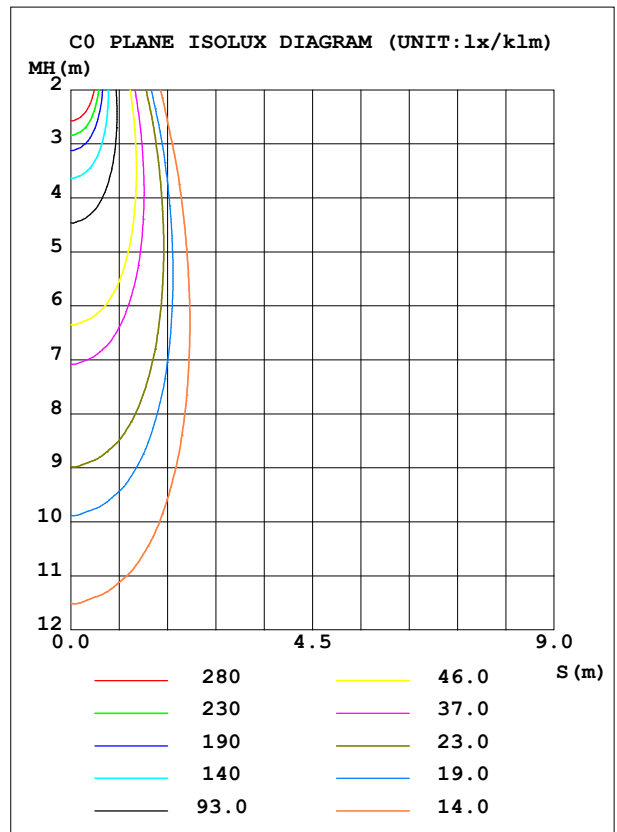
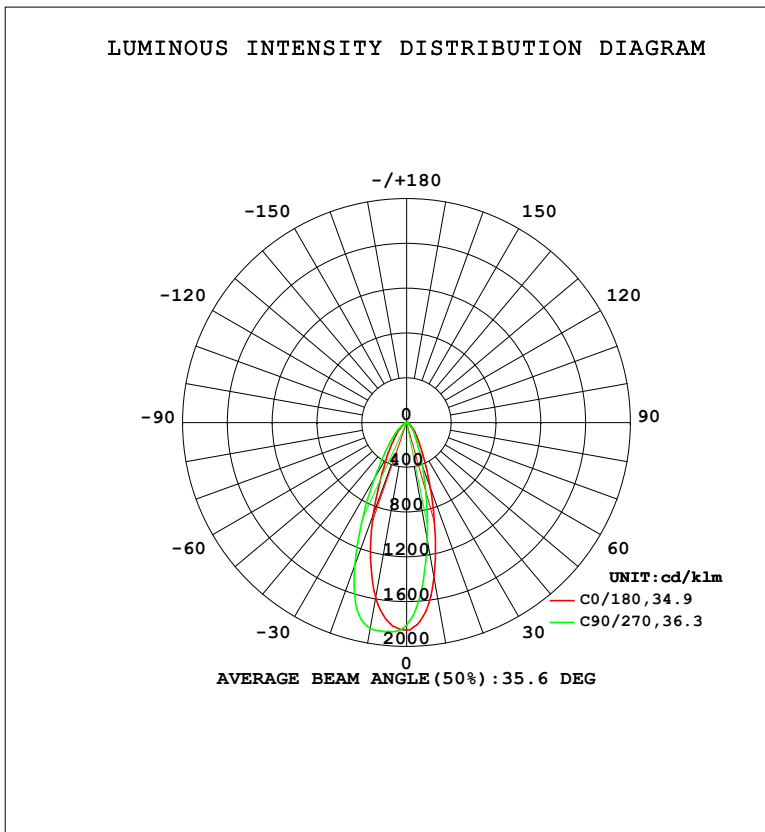


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:120.09V I:0.1183A P:10.444W PF:0.7349 Freq:59.98Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:778.102x1 lm		
NAME: LED-2-S11W-DTW-WH-EY-T	TYPE:	WEIGHT:
SPEC.: 3000K-1800K 90	DIM.:	SERIAL No.:
MFR.: LTS	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 74.50 lm/W
MODEL LED	-2-S11W-DTW-WH-EY-T	I _{max} (cd/klm)	1879	S/MH (C0/180)	0.63	
NOMINAL POWER (W)	11	LOR (%)	100.0	S/MH (C90/270)	0.77	
RATED VOLTAGE (V)	120.0	TOTAL FLUX (lm/klm)	1000.0	η UP, DN (C0-180)	0.0, 35.0	
NOMINAL FLUX (lm)	778.102	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 65.0	
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.50	
TEST VOLTAGE (V)	120.0	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: 2023-02-27

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:

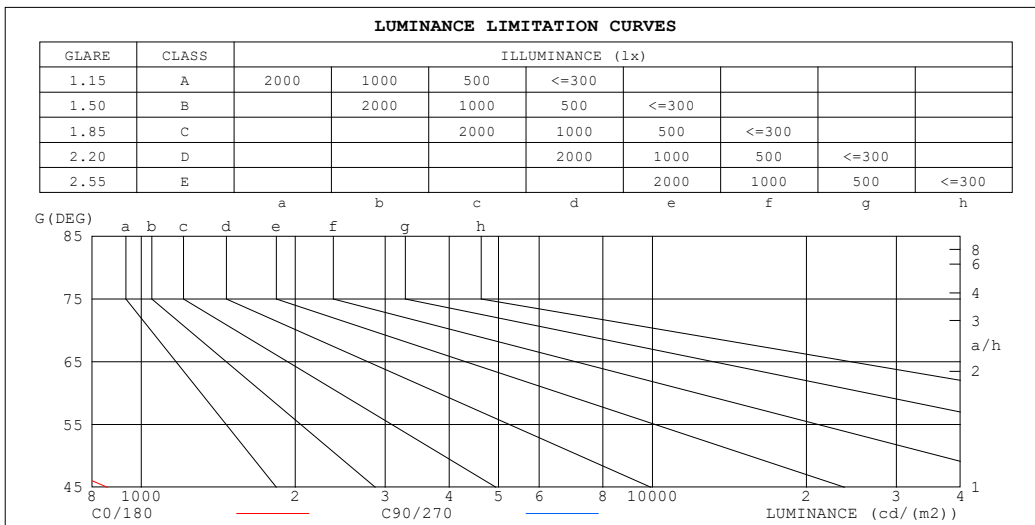
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum,lamp
10	1407	1213	1066	1136	1590	1811	1867	1747	0- 10	156.6	156.6	15.7,15.7
20	626.4	486.9	418.5	463.7	870.4	1190	1354	1123	10- 20	316.5	473.1	47.3,47.3
30	250.9	194.2	170.7	188.7	349.1	480.8	571.8	457.5	20- 30	244.3	717.4	71.7,71.7
40	122.5	100.3	90.58	98.38	155.5	200.2	232.6	197.1	30- 40	139.3	856.7	85.7,85.7
50	53.33	47.34	42.10	45.34	64.11	77.19	101.9	85.04	40- 50	79.49	936.2	93.6,93.6
60	24.32	20.95	17.97	19.68	28.01	33.66	39.17	35.56	50- 60	37.66	973.8	97.4,97.4
70	8.438	8.001	7.522	7.692	9.882	12.71	15.97	13.90	60- 70	17.46	991.3	99.1,99.1
80	4.121	3.194	2.278	2.729	4.479	4.907	5.262	5.124	70- 80	7.001	998.3	99.8,99.8
90	0.0918	0.0966	0.1047	0.1023	0.0722	0.0717	0.1789	0.0737	80- 90	1.696	1000	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/klm									UNIT:lm/klm		

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3°C
 Operators:
 Test Date:2023-02-27

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:120.09V I:0.1183A P:10.444W PF:0.7349 Freq:59.98Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:778.102x1 lm		
NAME: LED-2-S11W-DTW-WH-EY-T	TYPE:	WEIGHT:
SPEC.: 3000K-1800K 90	DIM.:	SERIAL No.:
MFR.: LTS	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	12	7
80	166	92
75	173	139
70	173	154
65	255	167
60	341	252
55	455	332
50	581	459
45	858	585

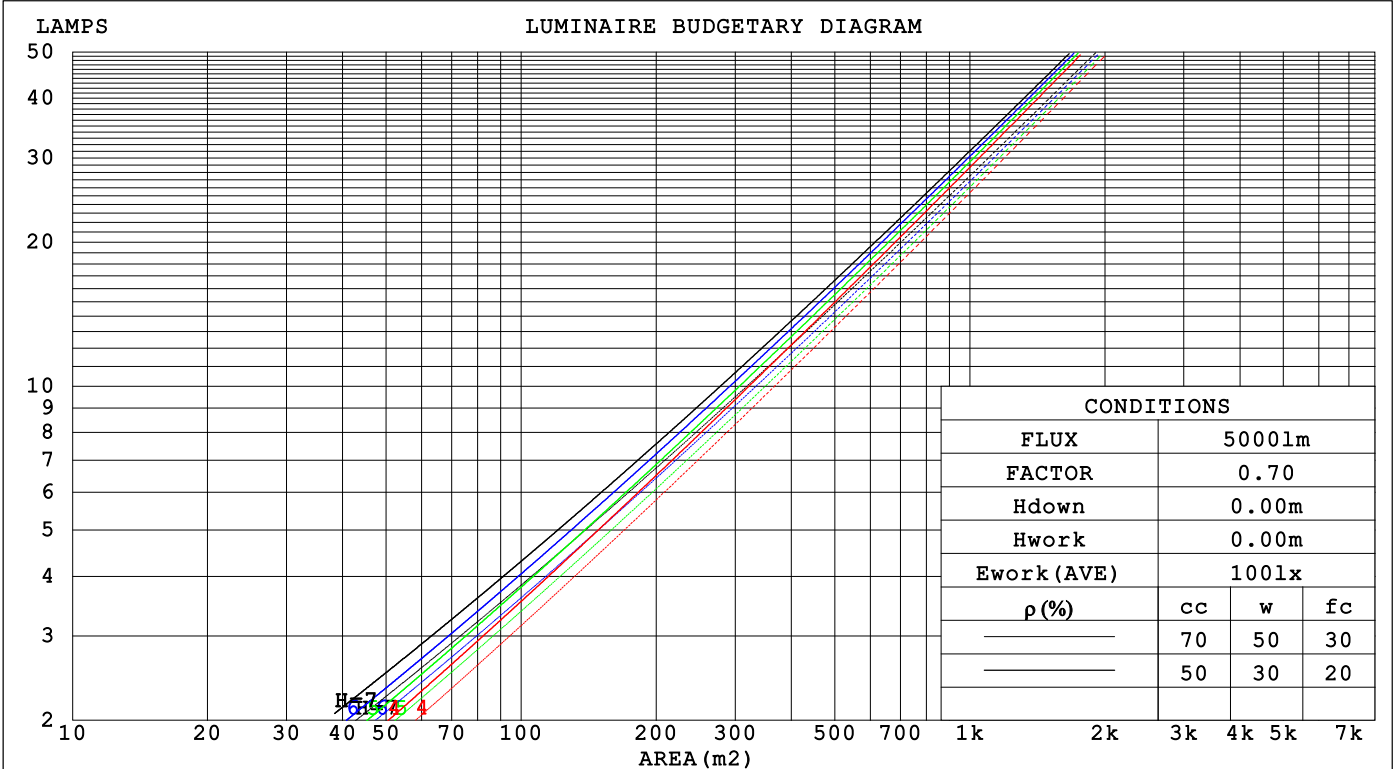
C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 25.3 °C
 Operators:
 Test Date: 2023-02-27

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:120.09V I:0.1183A P:10.444W PF:0.7349 Freq:59.98Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:778.102x1 lm		
NAME: LED-2-S11W-DTW-WH-EY-T	TYPE:	WEIGHT:
SPEC.: 3000K-1800K 90	DIM.:	SERIAL No.:
MFR.: LTS	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	1.10	1.08	1.06	1.08	1.06	1.04	1.04	1.02	1.01	1.01	.99	.98	.97	.96	.95	.93
2.0	1.03	.99	.95	1.01	.97	.94	.98	.95	.92	.95	.92	.90	.92	.90	.88	.86
3.0	.96	.91	.87	.94	.90	.86	.92	.88	.85	.89	.86	.83	.87	.84	.82	.80
4.0	.90	.84	.80	.88	.83	.79	.86	.82	.78	.84	.81	.77	.82	.79	.77	.75
5.0	.84	.78	.74	.83	.78	.74	.81	.77	.73	.80	.76	.72	.78	.75	.72	.70
6.0	.79	.73	.69	.78	.73	.69	.77	.72	.68	.76	.71	.68	.74	.70	.68	.66
7.0	.75	.69	.65	.74	.69	.65	.73	.68	.64	.72	.67	.64	.71	.67	.64	.62
8.0	.71	.65	.61	.70	.65	.61	.69	.64	.61	.68	.64	.61	.67	.63	.60	.59
9.0	.67	.62	.58	.67	.62	.58	.66	.61	.58	.65	.61	.57	.64	.60	.57	.56
10.0	.64	.59	.55	.64	.58	.55	.63	.58	.55	.62	.58	.55	.62	.57	.54	.53



C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3°C
 Operators:
 Test Date:2023-02-27

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:120.09V I:0.1183A P:10.444W PF:0.7349 Freq:59.98Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:778.102x1 lm		
NAME: LED-2-S11W-DTW-WH-EY-T	TYPE:	WEIGHT:
SPEC.: 3000K-1800K 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	.183	.104	.033	.176	.101	.032	.164	.094	.030	.152	.088	.028	.141	.082	.026	
2.0	.175	.096	.029	.169	.093	.029	.158	.088	.027	.148	.083	.026	.139	.079	.025	
3.0	.165	.088	.026	.160	.086	.026	.151	.082	.025	.143	.078	.024	.135	.075	.023	
4.0	.156	.081	.024	.152	.080	.024	.144	.076	.023	.137	.074	.022	.130	.071	.022	
5.0	.148	.075	.022	.144	.074	.022	.137	.072	.021	.131	.069	.021	.125	.067	.020	
6.0	.140	.070	.020	.137	.069	.020	.131	.067	.020	.125	.065	.019	.120	.063	.019	
7.0	.133	.066	.019	.130	.065	.019	.125	.063	.018	.120	.062	.018	.115	.060	.018	
8.0	.127	.062	.017	.124	.061	.017	.120	.060	.017	.115	.058	.017	.111	.057	.017	
9.0	.121	.058	.016	.119	.058	.016	.114	.057	.016	.111	.055	.016	.107	.054	.016	
10.0	.116	.055	.015	.114	.055	.015	.110	.054	.015	.106	.053	.015	.103	.052	.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	.172	.157	.144	.147	.135	.124	.100	.093	.086	.058	.054	.050	.019	.017	.016	
2.0	.157	.132	.112	.134	.114	.097	.092	.079	.068	.053	.046	.040	.017	.015	.013	
3.0	.144	.114	.089	.124	.098	.077	.085	.068	.054	.049	.040	.032	.016	.013	.010	
4.0	.134	.099	.072	.115	.085	.063	.079	.060	.044	.046	.035	.026	.015	.011	.009	
5.0	.125	.087	.059	.107	.076	.052	.074	.053	.037	.043	.031	.022	.014	.010	.007	
6.0	.117	.078	.050	.101	.068	.043	.070	.047	.031	.040	.028	.018	.013	.009	.006	
7.0	.111	.070	.042	.095	.061	.037	.066	.043	.026	.038	.025	.015	.012	.008	.005	
8.0	.105	.064	.036	.090	.056	.032	.062	.039	.022	.036	.023	.013	.012	.008	.004	
9.0	.099	.059	.031	.086	.051	.027	.059	.036	.019	.035	.021	.012	.011	.007	.004	
10.0	.095	.054	.028	.081	.047	.024	.057	.033	.017	.033	.020	.010	.011	.006	.003	

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3°C
 Operators:
 Test Date:2023-02-27

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:120.09V I:0.1183A P:10.444W PF:0.7349 Freq:59.98Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:778.102x1 lm		
NAME: LED-2-S11W-DTW-WH-EY-T	TYPE:	WEIGHT:
SPEC.: 3000K-1800K 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	6.6	7.5	6.8	7.7	7.9	5.6	6.5	5.8	6.7	6.9
3H	6.8	7.7	7.0	7.9	8.1	5.7	6.6	6.0	6.8	7.0
4H	6.9	7.7	7.1	7.9	8.1	5.8	6.7	6.1	6.9	7.1
6H	7.0	7.7	7.2	8.0	8.2	5.9	6.6	6.2	6.9	7.1
8H	7.0	7.7	7.3	8.0	8.2	5.8	6.6	6.1	6.8	7.1
12H	6.9	7.6	7.2	7.9	8.2	5.8	6.5	6.1	6.8	7.0
4H 2H	6.6	7.4	6.9	7.6	7.9	5.7	6.5	5.9	6.7	6.9
3H	6.9	7.6	7.2	7.9	8.1	5.9	6.7	6.3	6.9	7.2
4H	7.0	7.7	7.4	8.0	8.3	6.1	6.8	6.5	7.1	7.4
6H	7.2	7.8	7.6	8.1	8.4	6.2	6.8	6.6	7.1	7.4
8H	7.2	7.7	7.6	8.1	8.5	6.2	6.7	6.6	7.1	7.4
12H	7.2	7.7	7.6	8.0	8.4	6.1	6.6	6.5	7.0	7.4
8H 4H	7.0	7.5	7.4	7.9	8.3	6.1	6.7	6.5	7.0	7.4
6H	7.2	7.7	7.7	8.1	8.5	6.3	6.7	6.7	7.1	7.5
8H	7.3	7.7	7.7	8.1	8.5	6.3	6.7	6.7	7.1	7.5
12H	7.2	7.6	7.7	8.0	8.5	6.2	6.6	6.7	7.0	7.5
12H 4H	7.0	7.5	7.4	7.8	8.2	6.1	6.6	6.5	7.0	7.3
6H	7.2	7.6	7.7	8.0	8.5	6.3	6.6	6.7	7.1	7.5
8H	7.3	7.6	7.7	8.0	8.5	6.3	6.6	6.7	7.0	7.5

Variations with the observer position at spacings(CIE Pub.117):		
S = 1.0H	+ 1.2 / - 1.5	+ 1.2 / - 1.7
1.5H	+ 1.8 / - 1.4	+ 1.3 / - 1.1
2.0H	+ 2.8 / - 2.0	+ 2.0 / - 1.9

CIE Pub.117, 778.1 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -0.9)
 Area: 0.111111 m2

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3°C
 Operators:
 Test Date:2023-02-27

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:120.09V I:0.1183A P:10.444W PF:0.7349 Freq:59.98Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:778.102x1 lm		
NAME: LED-2-S11W-DTW-WH-EY-T	TYPE:	WEIGHT:
SPEC.: 3000K-1800K 90	DIM.:	SERIAL No.:
MFR.: LTS	SUR.:	Shielding Angle:

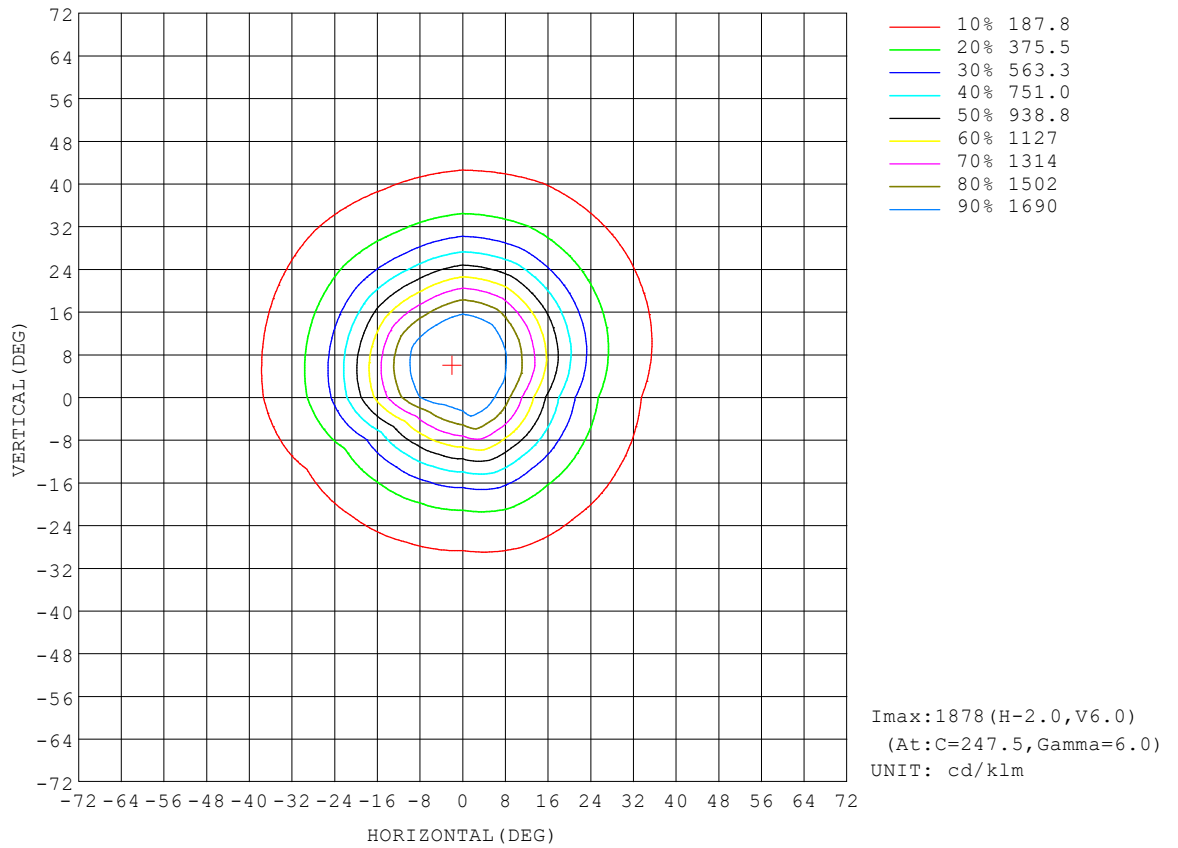
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	83	75	71	82	75	71	81	75	71	67
0.80	91	84	80	90	83	79	89	83	79	75
1.00	96	89	85	95	89	85	93	89	85	80
1.25	100	95	91	99	94	90	97	93	89	85
1.50	103	98	94	102	97	94	100	96	93	88
2.00	107	102	99	105	101	98	103	99	96	91
2.50	109	104	101	107	103	100	104	101	98	92
3.00	111	107	104	109	105	103	105	103	100	94
4.00	113	110	107	111	108	106	107	105	103	96
5.00	114	112	109	112	110	108	108	106	105	97
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:2023-02-27

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:120.09V I:0.1183A P:10.444W PF:0.7349 Freq:59.98Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:778.102x1 lm		
NAME: LED-2-S11W-DTW-WH-EY-T	TYPE:	WEIGHT:
SPEC.: 3000K-1800K 90	DIM.:	SERIAL No.:
MFR.: LTS	SUR.:	Shielding Angle:

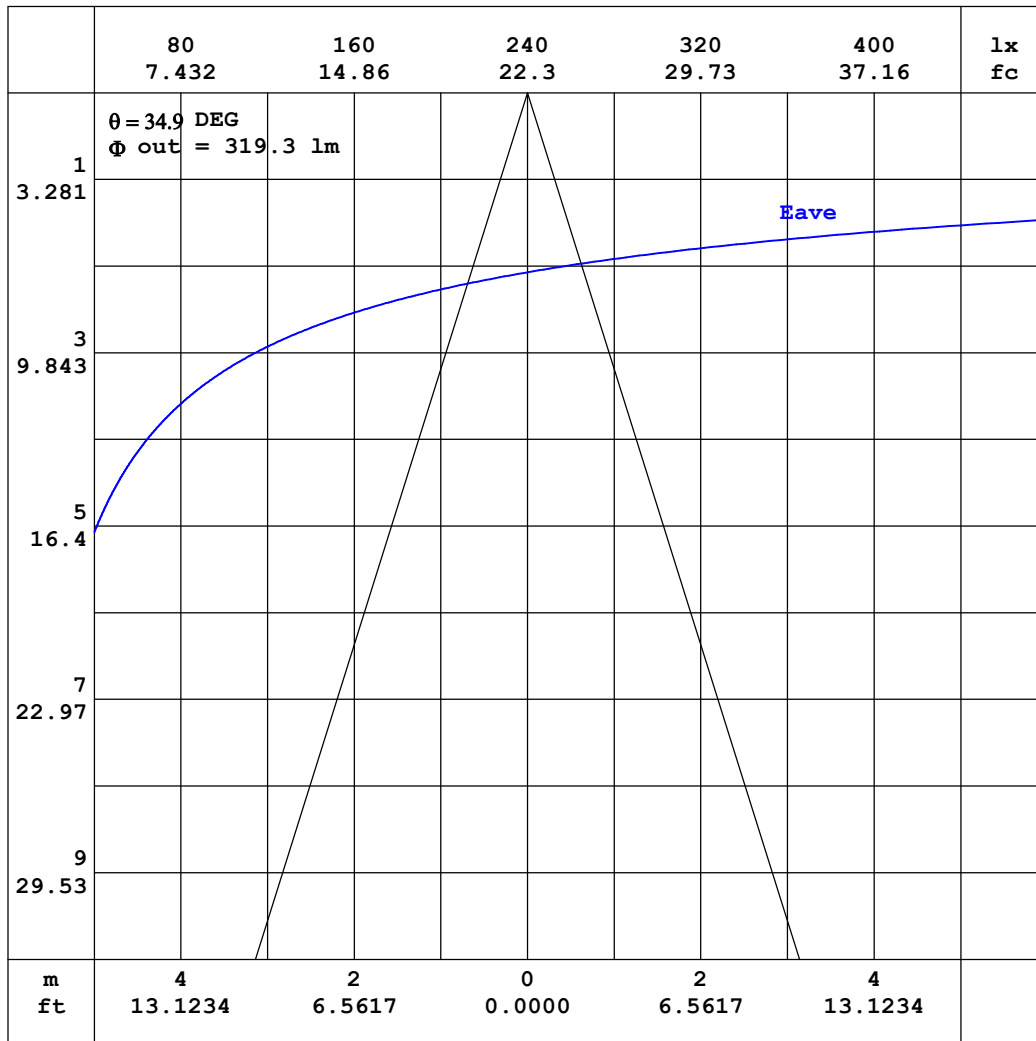


C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3°C
 Operators:
 Test Date:2023-02-27

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 CURVES

Test:U:120.09V I:0.1183A P:10.444W PF:0.7349 Freq:59.98Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:778.102x1 lm		
NAME: LED-2-S11W-DTW-WH-EY-T	TYPE:	WEIGHT:
SPEC.: 3000K-1800K 90	DIM.:	SERIAL No.:
MFR.: LTS	SUR.:	Shielding Angle:



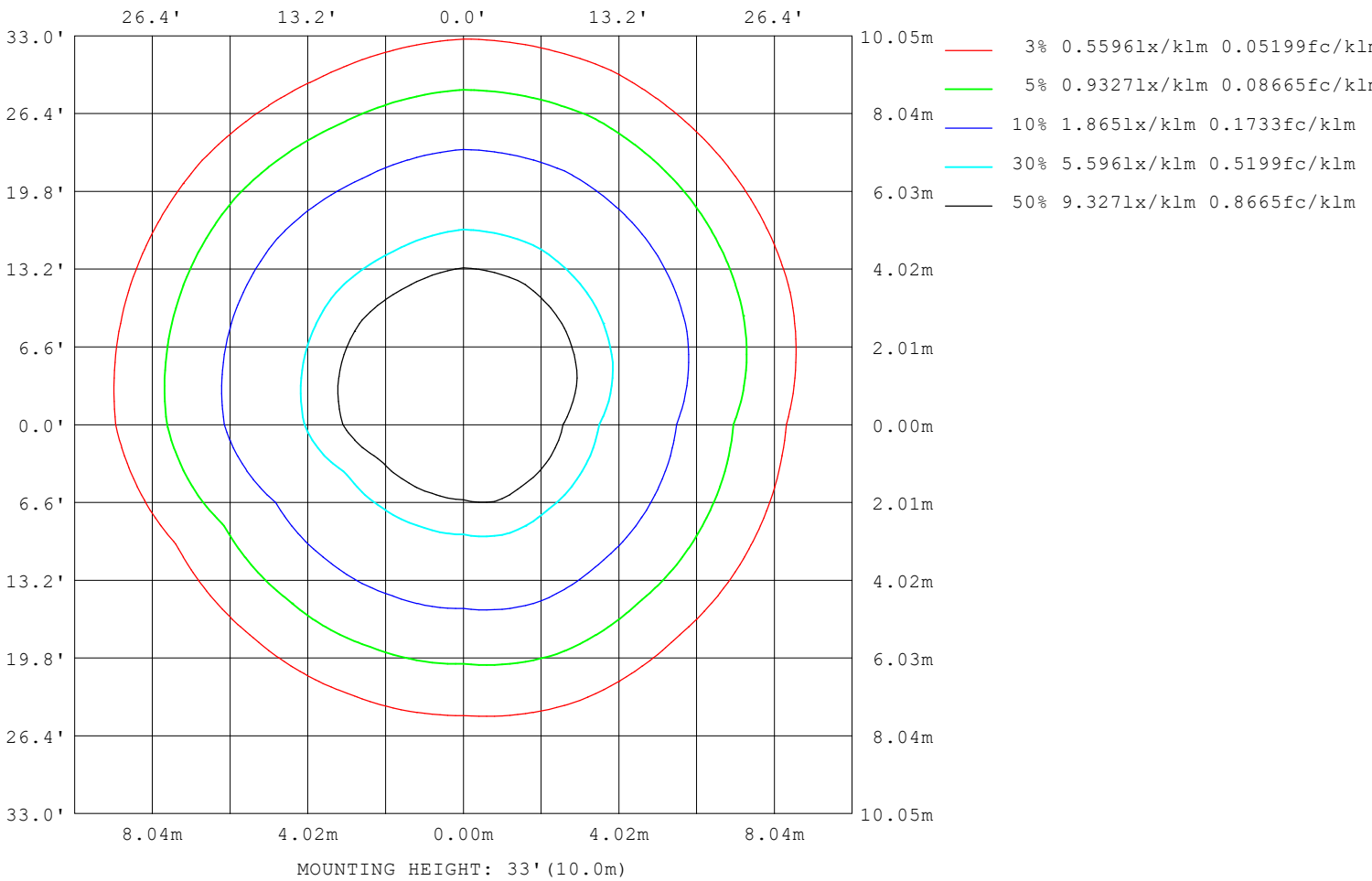
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 25.3°C
 Operators:
 Test Date: 2023-02-27

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:120.09V I:0.1183A P:10.444W PF:0.7349 Freq:59.98Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:778.102x1 lm		
NAME: LED-2-S11W-DTW-WH-EY-T	TYPE:	WEIGHT:
SPEC.: 3000K-1800K 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:2023-02-27

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:120.09V I:0.1183A P:10.444W PF:0.7349 Freq:59.98Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:778.102x1 lm		
NAME: LED-2-S11W-DTW-WH-EY-T	TYPE:	WEIGHT:
SPEC.: 3000K-1800K 90	DIM.:	SERIAL No.:
MFR.: LTS	SUR.:	Shielding Angle:

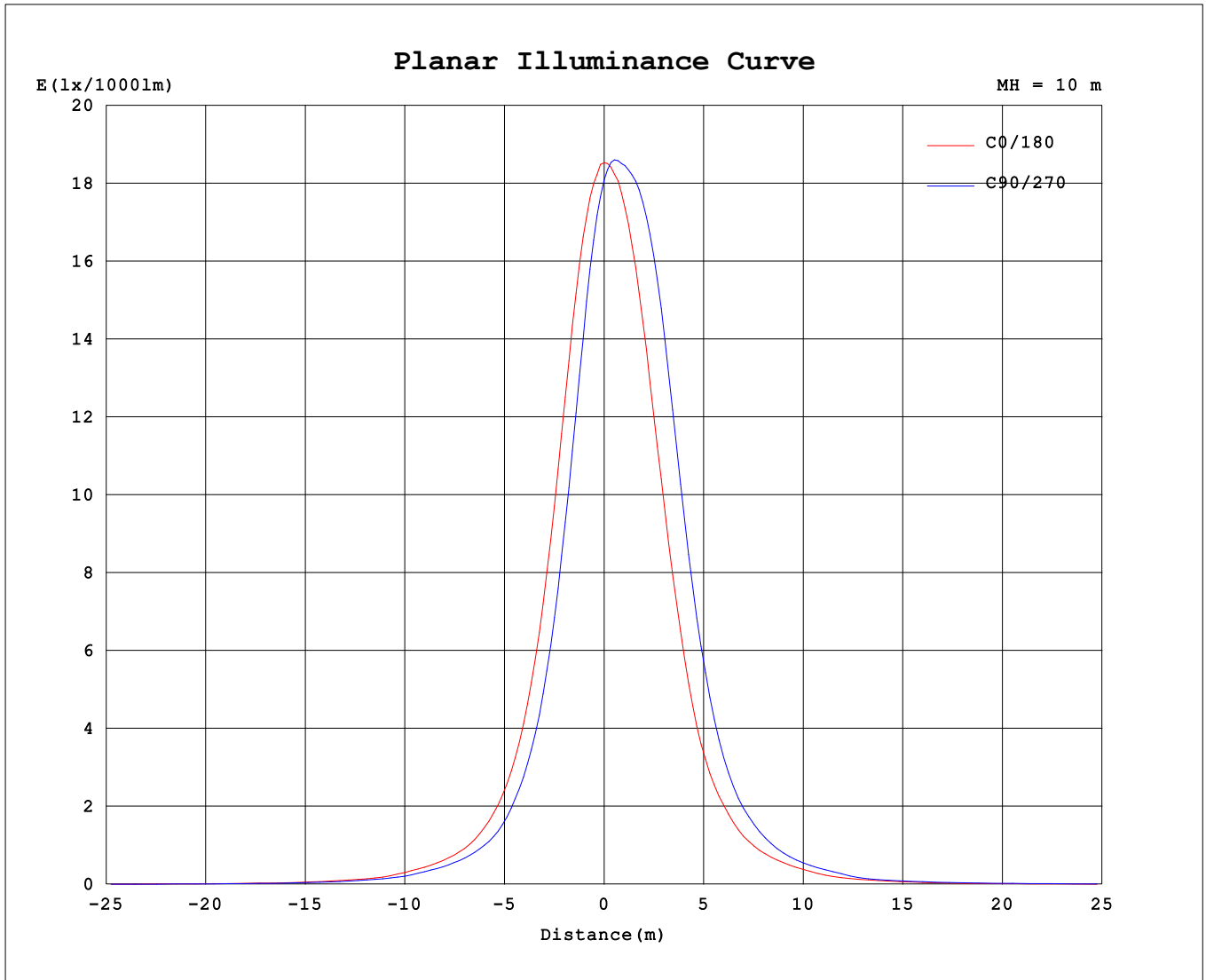
AvgL	cd/m2
L_0~180 (65) av	280
L_0~180 (75) av	171
L_0~180 (85) av	34
L_90~270 (65) av	290
L_90~270 (75) av	177
L_90~270 (85) av	150
L_45 (65) av	281
L_45 (75) av	170
L_45 (85) av	104

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3℃
 Operators:
 Test Date:2023-02-27

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: 2023-02-27

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:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:120.09V I:0.1183A P:10.444W PF:0.7349 Freq:59.98Hz
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:778.102x1 lm
NAME: LED-2-S11W-DTW-WH-EY-T TYPE: WEIGHT:
SPEC.: 3000K-1800K 90 DIM.: SERIAL No.:
MFR.: LTS SUR.: Shielding Angle:

Table--1

UNIT: cd/klm

Table with 18 columns (C (DEG) and 17 data columns) and 20 rows (gamma (DEG) from 0 to 90). Values range from 1853 to 0.09.

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:
Test Date:2023-02-27

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: