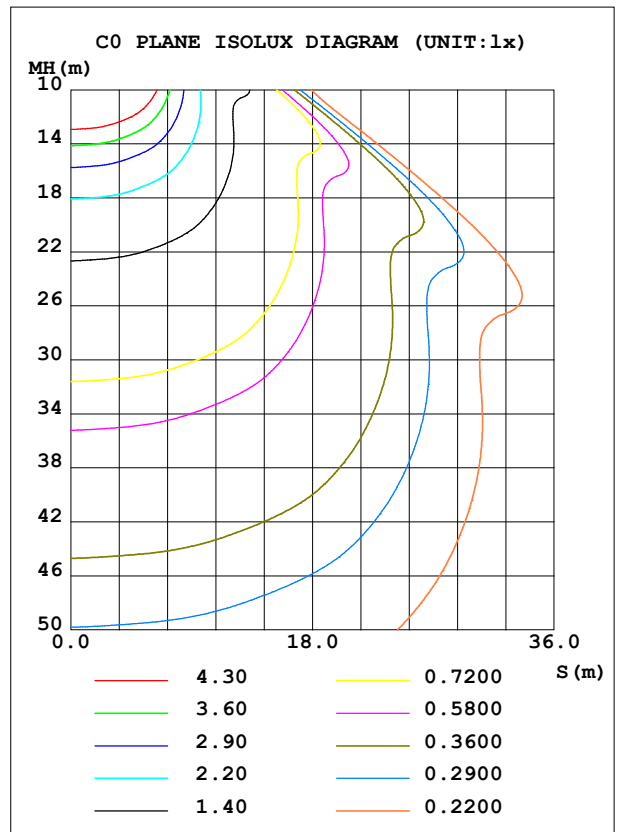
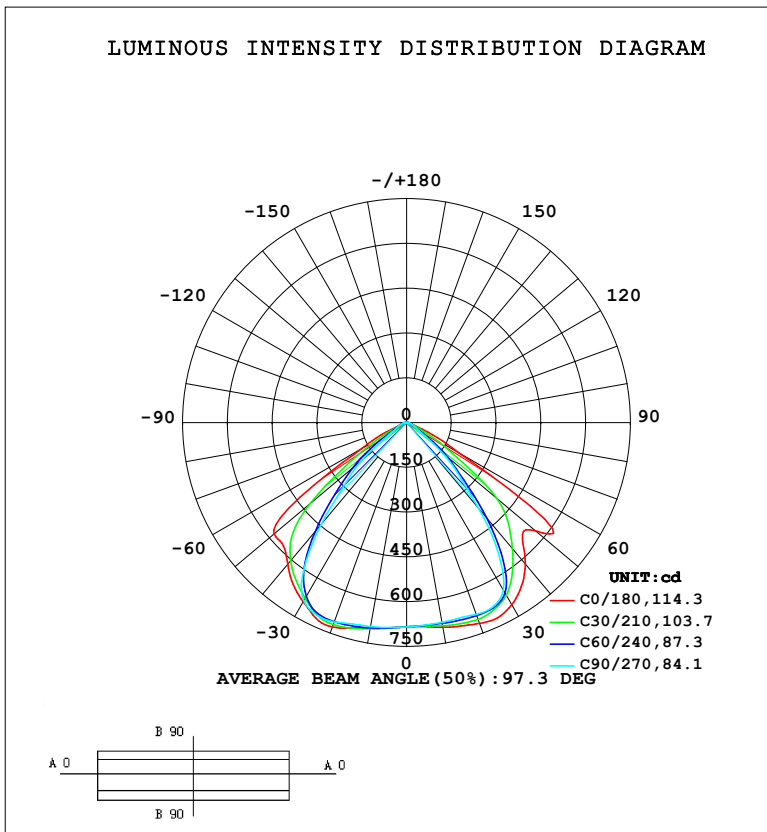


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:0V I:0A P:0W PF:0.0000 Freq:0Hz		
Lamp Flux:1528.25x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Solarstar Lighting	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA			
MODEL	SFL-150	I _{max} (cd)	730.2	S/MH (C0/180)	1.47
NOMINAL POWER (W)	10	LOR (%)	100.0	S/MH (C90/270)	1.24
RATED VOLTAGE (V)	220	TOTAL FLUX (lm)	1528.3	η UP, DN (C0-180)	0.0,48.5
NOMINAL FLUX (lm)	1528.25	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0,51.5
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)	220	η down (%)	100.0	CIBSE SHR MAX	1.30



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.3 °C
 Operators:
 Test Date: 2023-02-26

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.00.458
 Humidity: 65.0%
 Test Distance: 9.420m [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	696.0	687.1	679.5	688.0	699.2	700.6	693.7	696.7	0- 10	65.74	65.74	4.3,4.3
20	715.8	694.8	683.5	685.3	728.4	711.6	710.5	712.2	10- 20	198.4	264.1	17.3,17.3
30	704.8	663.3	647.8	641.3	693.0	673.1	688.9	694.9	20- 30	322.2	586.3	38.4,38.4
40	618.8	494.2	378.1	492.6	619.3	544.2	444.5	524.7	30- 40	378.0	964.2	63.1,63.1
50	563.9	254.6	153.6	253.4	579.7	304.8	193.8	268.6	40- 50	318.2	1282	83.9,83.9
60	200.1	60.03	37.66	47.86	174.2	67.49	42.40	73.04	50- 60	181.6	1464	95.8,95.8
70	24.72	19.62	19.75	17.79	20.72	20.77	21.86	22.85	60- 70	46.00	1510	98.8,98.8
80	9.094	6.322	5.716	4.760	6.623	7.190	8.216	9.306	70- 80	14.85	1525	99.8,99.8
90	0.1505	0.0439	0.0512	0.0387	0.0662	0.0502	0.1217	0.3677	80- 90	3.351	1528	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		

Conical surface Flux(90deg): 1133.9 lm

%lum = 74.2%

%lamp = 74.2%

Conical surface Flux(130deg): 1494.7 lm

%lum = 97.8%

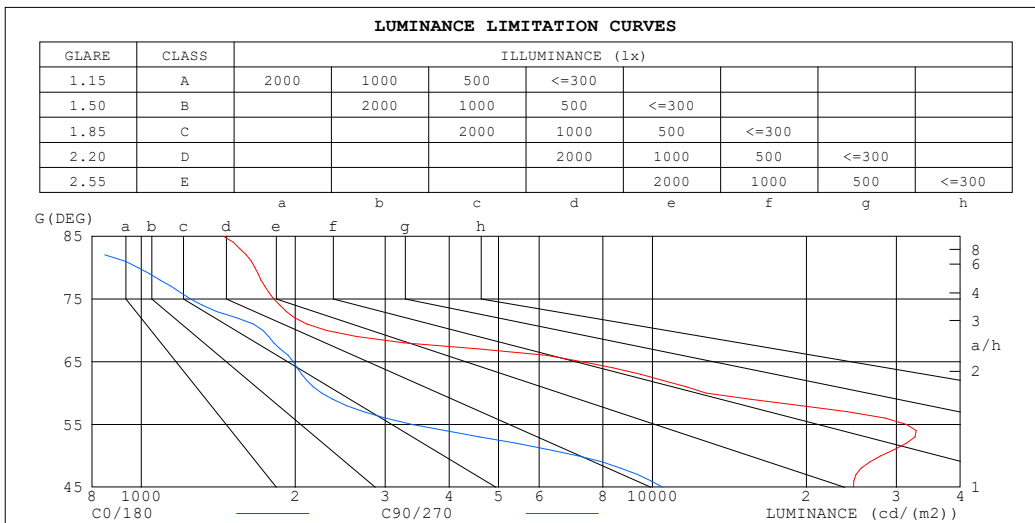
%lamp = 97.8%

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3°C
 Operators:
 Test Date:2023-02-26

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.458
 Humidity:65.0%
 Test Distance:9.420m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:0V I:0A P:0W PF:0.0000 Freq:0Hz		
Lamp Flux:1528.25x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Solarstar Lighting	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	1448	340
80	1668	985
75	1816	1248
70	2302	1729
65	7276	1982
60	12748	2255
55	31401	3392
50	27942	7154
45	24742	10469

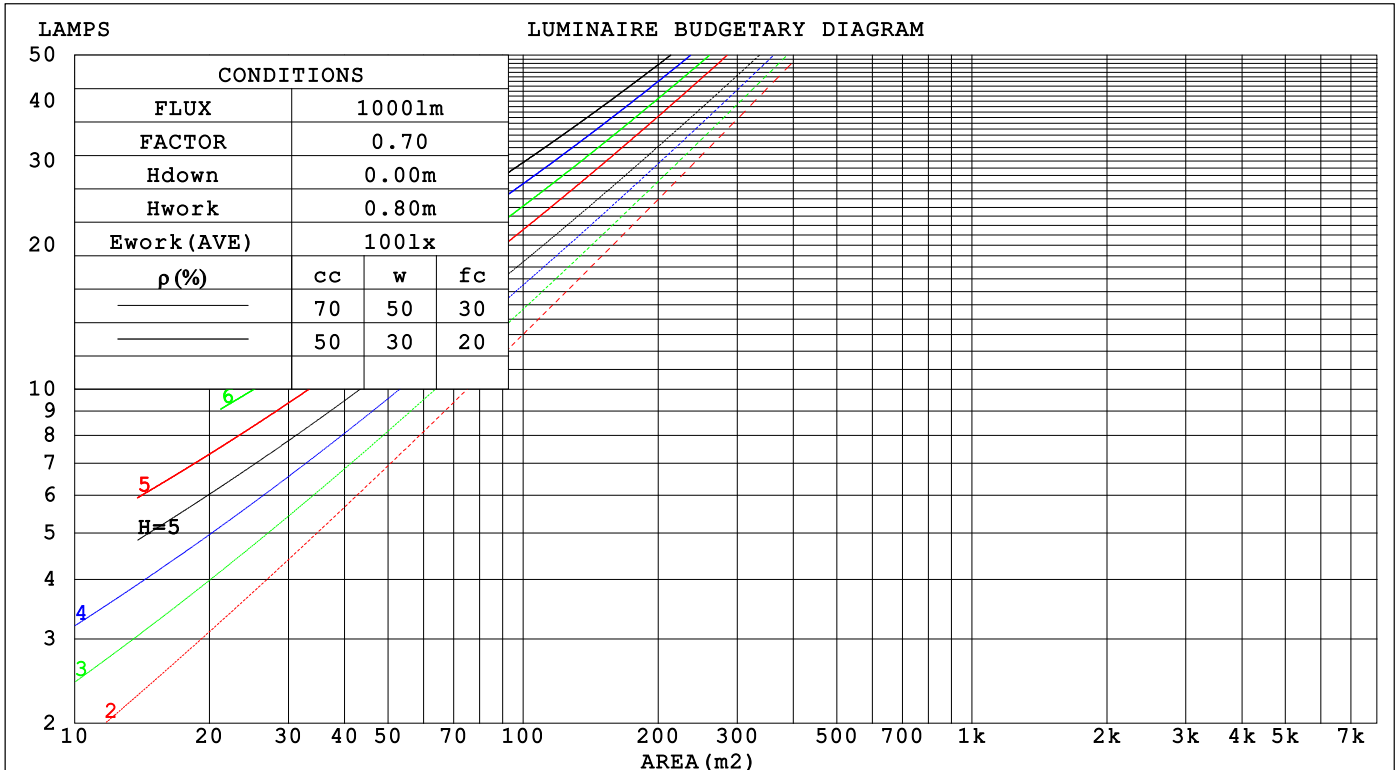
C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.3 °C
 Operators:
 Test Date: 2023-02-26

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.00.458
 Humidity: 65.0%
 Test Distance: 9.420m [K=1.0000]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:0V I:0A P:0W PF:0.0000 Freq:0Hz		
Lamp Flux:1528.25x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Solarstar Lighting	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	1.08	1.05	1.02	1.06	1.03	1.00	1.02	.99	.97	.98	.96	.94	.94	.93	.91	.90
2.0	.97	.92	.87	.95	.91	.86	.92	.88	.85	.89	.86	.83	.86	.83	.81	.79
3.0	.88	.81	.76	.86	.80	.75	.83	.78	.74	.81	.76	.73	.78	.75	.72	.70
4.0	.79	.72	.66	.78	.71	.66	.76	.70	.65	.73	.68	.64	.71	.67	.63	.62
5.0	.72	.64	.59	.71	.64	.58	.69	.62	.58	.67	.61	.57	.65	.60	.57	.55
6.0	.65	.58	.52	.65	.57	.52	.63	.56	.51	.61	.55	.51	.60	.55	.51	.49
7.0	.60	.52	.47	.59	.52	.46	.58	.51	.46	.56	.50	.46	.55	.50	.46	.44
8.0	.55	.47	.42	.54	.47	.42	.53	.46	.42	.52	.46	.41	.51	.45	.41	.39
9.0	.51	.43	.38	.50	.43	.38	.49	.42	.38	.48	.42	.38	.47	.41	.37	.36
10.0	.47	.40	.35	.46	.39	.35	.45	.39	.35	.44	.39	.34	.44	.38	.34	.33



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3°C
 Operators:
 Test Date:2023-02-26

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.458
 Humidity:65.0%
 Test Distance:9.420m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:0V I:0A P:0W PF:0.0000 Freq:0Hz		
Lamp Flux:1528.25x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Solarstar Lighting	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	.231	.131	.042	.224	.128	.041	.211	.121	.039	.199	.115	.037	.189	.109	.035	
2.0	.226	.124	.038	.220	.121	.037	.209	.116	.036	.199	.112	.035	.189	.107	.034	
3.0	.217	.115	.035	.212	.113	.034	.202	.109	.033	.193	.106	.032	.185	.102	.032	
4.0	.206	.107	.031	.201	.105	.031	.193	.102	.031	.185	.099	.030	.178	.096	.029	
5.0	.195	.099	.029	.191	.098	.029	.184	.096	.028	.177	.093	.028	.170	.091	.027	
6.0	.185	.093	.027	.181	.092	.026	.175	.089	.026	.168	.087	.026	.162	.085	.025	
7.0	.175	.087	.025	.172	.086	.024	.166	.084	.024	.160	.082	.024	.155	.080	.024	
8.0	.166	.081	.023	.163	.080	.023	.158	.079	.022	.152	.077	.022	.148	.076	.022	
9.0	.157	.076	.021	.155	.075	.021	.150	.074	.021	.145	.073	.021	.141	.072	.021	
10.0	.149	.072	.020	.147	.071	.020	.143	.070	.020	.139	.069	.020	.135	.068	.019	

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	.175	.157	.141	.150	.135	.121	.102	.093	.084	.059	.054	.049	.019	.017	.016	
2.0	.163	.132	.106	.140	.114	.092	.096	.079	.064	.055	.046	.037	.018	.015	.012	
3.0	.154	.114	.082	.132	.098	.071	.091	.068	.050	.052	.040	.029	.017	.013	.010	
4.0	.146	.100	.065	.125	.086	.056	.086	.060	.040	.050	.035	.023	.016	.011	.008	
5.0	.139	.089	.052	.119	.077	.046	.082	.054	.032	.048	.032	.019	.015	.010	.006	
6.0	.132	.081	.043	.114	.070	.038	.079	.049	.027	.046	.029	.016	.015	.009	.005	
7.0	.126	.074	.036	.109	.064	.032	.075	.045	.023	.044	.026	.013	.014	.009	.004	
8.0	.121	.068	.031	.104	.059	.027	.072	.041	.019	.042	.024	.012	.014	.008	.004	
9.0	.115	.063	.027	.099	.054	.024	.069	.038	.017	.040	.023	.010	.013	.007	.003	
10.0	.111	.059	.024	.095	.051	.021	.066	.036	.015	.039	.021	.009	.013	.007	.003	

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3°C
 Operators:
 Test Date:2023-02-26

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.458
 Humidity:65.0%
 Test Distance:9.420m [K=1.0000]
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:0V I:0A P:0W PF:0.0000 Freq:0Hz										
Lamp Flux:1528.25x1 lm										
NAME:			TYPE:			WEIGHT:				
SPEC.:			DIM.:			SERIAL No.:				
MFR.: Solarstar Lighting			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	21.8	23.1	22.0	23.3	23.5	16.0	17.3	16.2	17.5	17.7
3H	21.7	22.9	22.0	23.1	23.3	16.0	17.1	16.2	17.3	17.6
4H	21.6	22.8	21.9	23.0	23.2	15.9	17.0	16.2	17.3	17.5
6H	21.6	22.6	21.9	22.9	23.1	15.9	16.9	16.2	17.2	17.4
8H	21.5	22.5	21.8	22.8	23.1	15.8	16.8	16.2	17.1	17.4
12H	21.5	22.4	21.8	22.7	23.0	15.8	16.8	16.1	17.0	17.3
4H 2H	21.5	22.6	21.8	22.9	23.1	16.1	17.2	16.4	17.5	17.7
3H	21.5	22.4	21.8	22.7	23.0	16.1	17.1	16.5	17.4	17.7
4H	21.4	22.3	21.8	22.6	22.9	16.2	17.0	16.5	17.3	17.7
6H	21.4	22.1	21.7	22.5	22.8	16.2	16.9	16.5	17.2	17.6
8H	21.3	22.0	21.7	22.4	22.8	16.1	16.8	16.5	17.2	17.6
12H	21.3	21.9	21.7	22.3	22.7	16.1	16.7	16.5	17.1	17.5
8H 4H	21.3	22.0	21.7	22.4	22.7	16.1	16.8	16.5	17.1	17.5
6H	21.2	21.8	21.7	22.2	22.6	16.1	16.7	16.6	17.1	17.5
8H	21.2	21.7	21.7	22.1	22.6	16.1	16.6	16.6	17.0	17.5
12H	21.2	21.6	21.7	22.1	22.5	16.1	16.5	16.6	17.0	17.4
12H 4H	21.3	21.9	21.7	22.3	22.7	16.1	16.7	16.5	17.1	17.5
6H	21.2	21.7	21.7	22.1	22.6	16.1	16.6	16.5	17.0	17.5
8H	21.2	21.6	21.7	22.1	22.5	16.1	16.5	16.6	17.0	17.4
Variations with the observer position at spacings(CIE Pub.117):										
S = 1.0H	+ 1.4 / - 1.4					+ 1.9 / - 4.5				
1.5H	+ 2.6 / - 3.4					+ 1.8 / - 3.0				
2.0H	+ 4.0 / - 8.1					+ 3.3 / - 4.1				

CIE Pub.117, 1528 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 1.5)
 Area: 0.033 m2

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3°C
 Operators:
 Test Date:2023-02-26

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.458
 Humidity:65.0%
 Test Distance:9.420m [K=1.0000]
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:0V I:0A P:0W PF:0.0000 Freq:0Hz Lamp Flux:1528.25x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Solarstar Lighting	SUR.:	Shielding Angle:

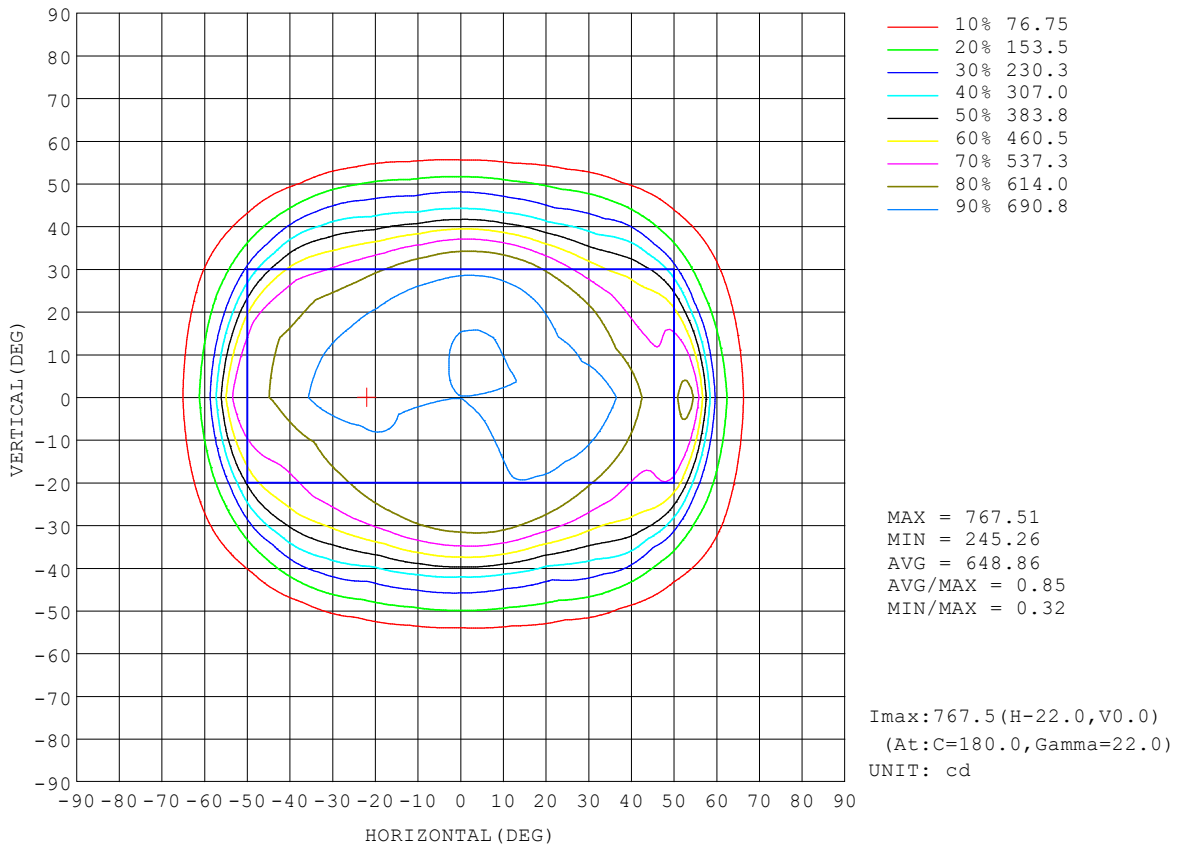
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	68	58	52	67	58	52	66	57	52	46
0.80	78	69	63	77	68	63	76	68	62	56
1.00	86	78	72	85	77	72	83	78	71	66
1.25	93	85	79	92	84	79	89	83	78	73
1.50	97	90	85	96	89	84	93	87	83	77
2.00	102	96	92	101	95	91	98	93	89	83
2.50	105	99	95	103	98	94	100	96	92	85
3.00	107	102	98	105	101	97	102	98	95	88
4.00	110	106	103	108	104	101	104	101	99	91
5.00	112	108	105	109	106	104	105	103	101	92
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3°C
 Operators:
 Test Date:2023-02-26

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.458
 Humidity:65.0%
 Test Distance:9.420m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:0V I:0A P:0W PF:0.0000 Freq:0Hz Lamp Flux:1528.25x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Solarstar Lighting	SUR.:	Shielding Angle:

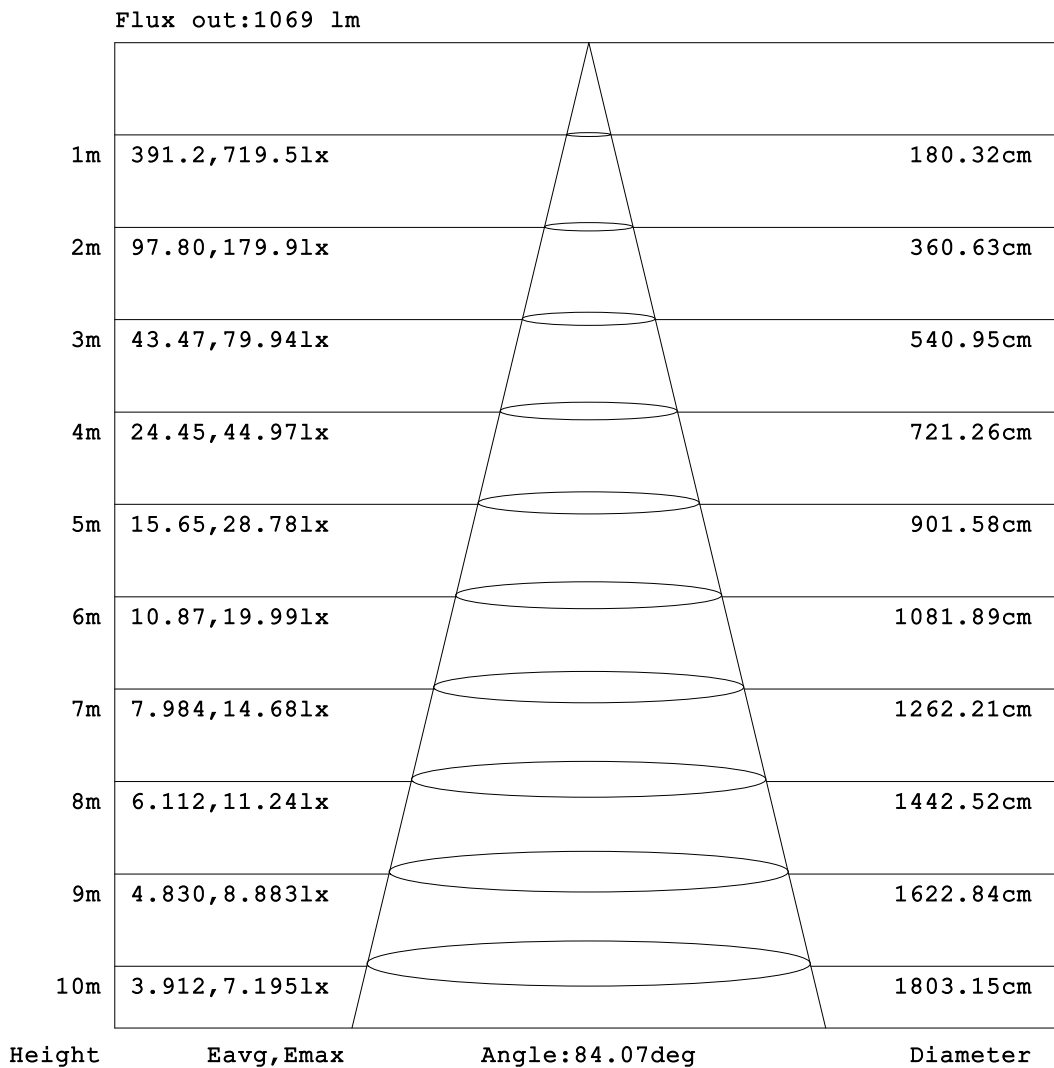


C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.3 °C
 Operators:
 Test Date: 2023-02-26

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.00.458
 Humidity: 65.0%
 Test Distance: 9.420m [K=1.0000]
 Remarks:

AAI Figure

Test:U:0V I:0A P:0W PF:0.0000 Freq:0Hz Lamp Flux:1528.25x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Solarstar Lighting	SUR.:	Shielding Angle:



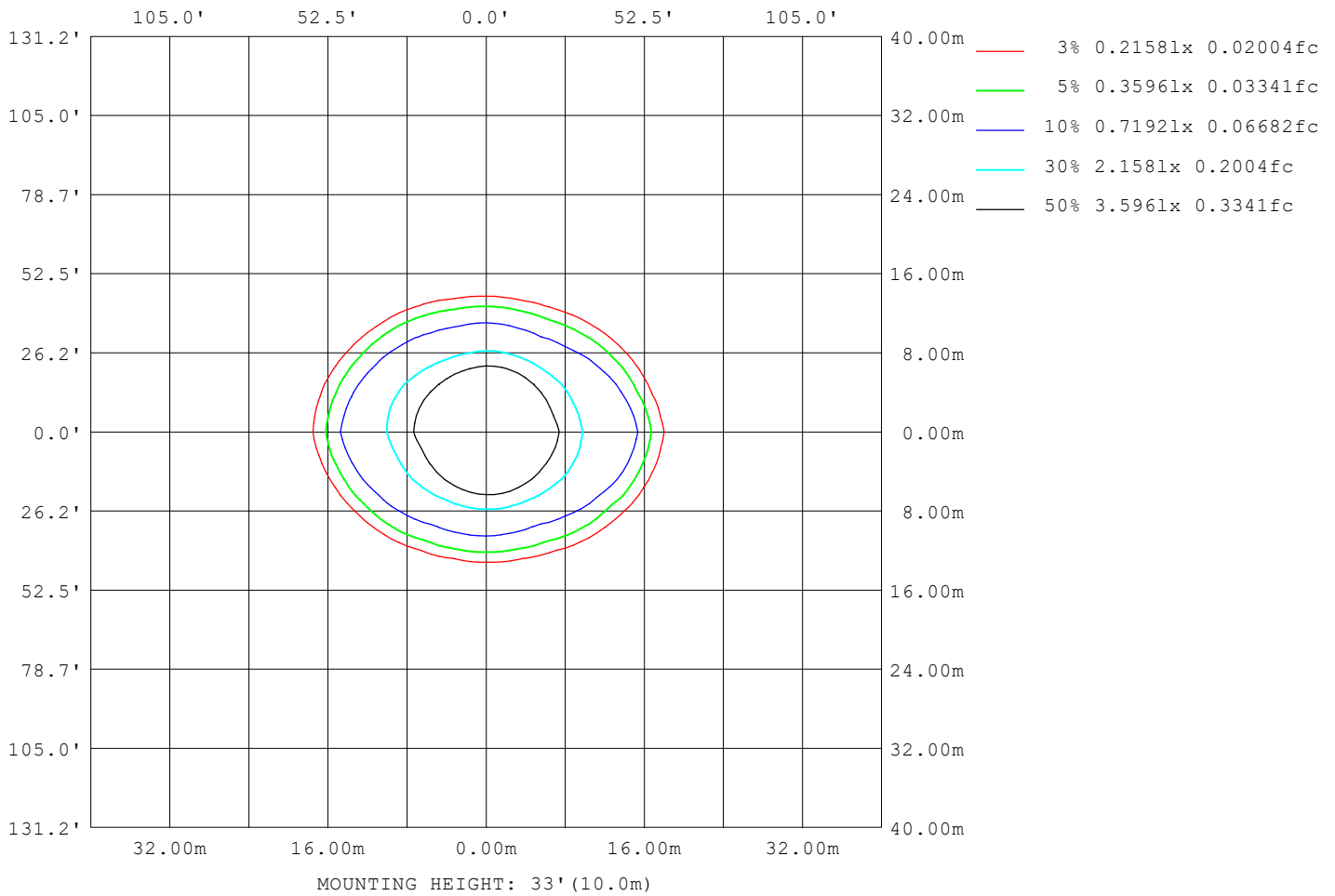
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.3 °C
 Operators:
 Test Date: 2023-02-26

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.00.458
 Humidity: 65.0%
 Test Distance: 9.420m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM

Test:U:0V I:0A P:0W PF:0.0000 Freq:0Hz		
Lamp Flux:1528.25x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Solarstar Lighting	SUR.:	Shielding Angle:



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3°C
 Operators:
 Test Date:2023-02-26

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.458
 Humidity:65.0%
 Test Distance:9.420m [K=1.0000]
 Remarks:

LED Avg.L Report

Test:U:0V I:0A P:0W PF:0.0000 Freq:0Hz Lamp Flux:1528.25x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Solarstar Lighting	SUR.:	Shielding Angle:

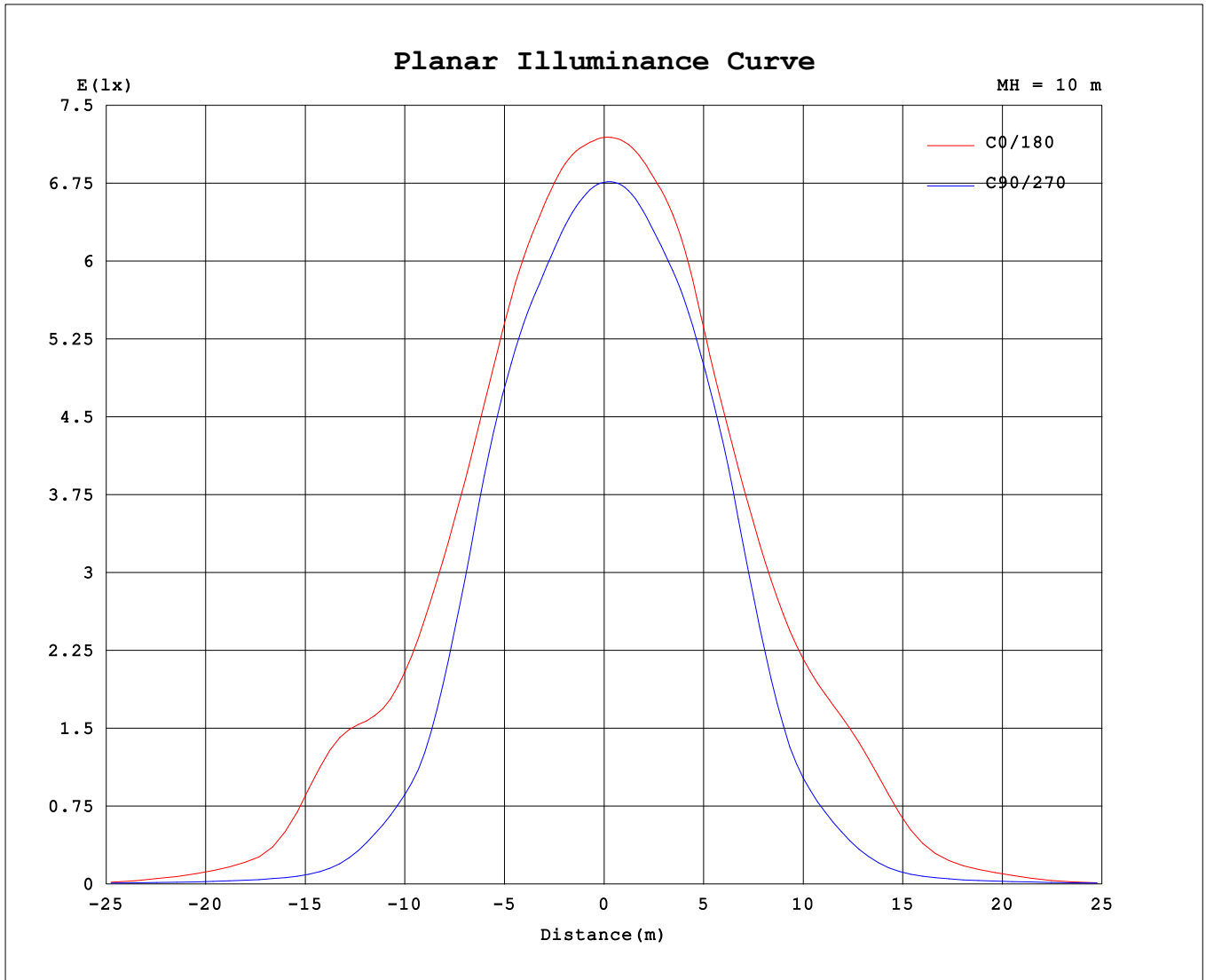
AvgL	cd/m2
L_0~180 (65) av	6139
L_0~180 (75) av	1564
L_0~180 (85) av	1080
L_90~270 (65) av	2071
L_90~270 (75) av	1488
L_90~270 (85) av	953
L_45 (65) av	2202
L_45 (75) av	1535
L_45 (85) av	766

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3℃
 Operators:
 Test Date:2023-02-26

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.458
 Humidity:65.0%
 Test Distance:9.420m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.3 °C
 Operators:
 Test Date: 2023-02-26

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.00.458
 Humidity: 65.0%
 Test Distance: 9.420m [K=1.0000]
 Remarks:

