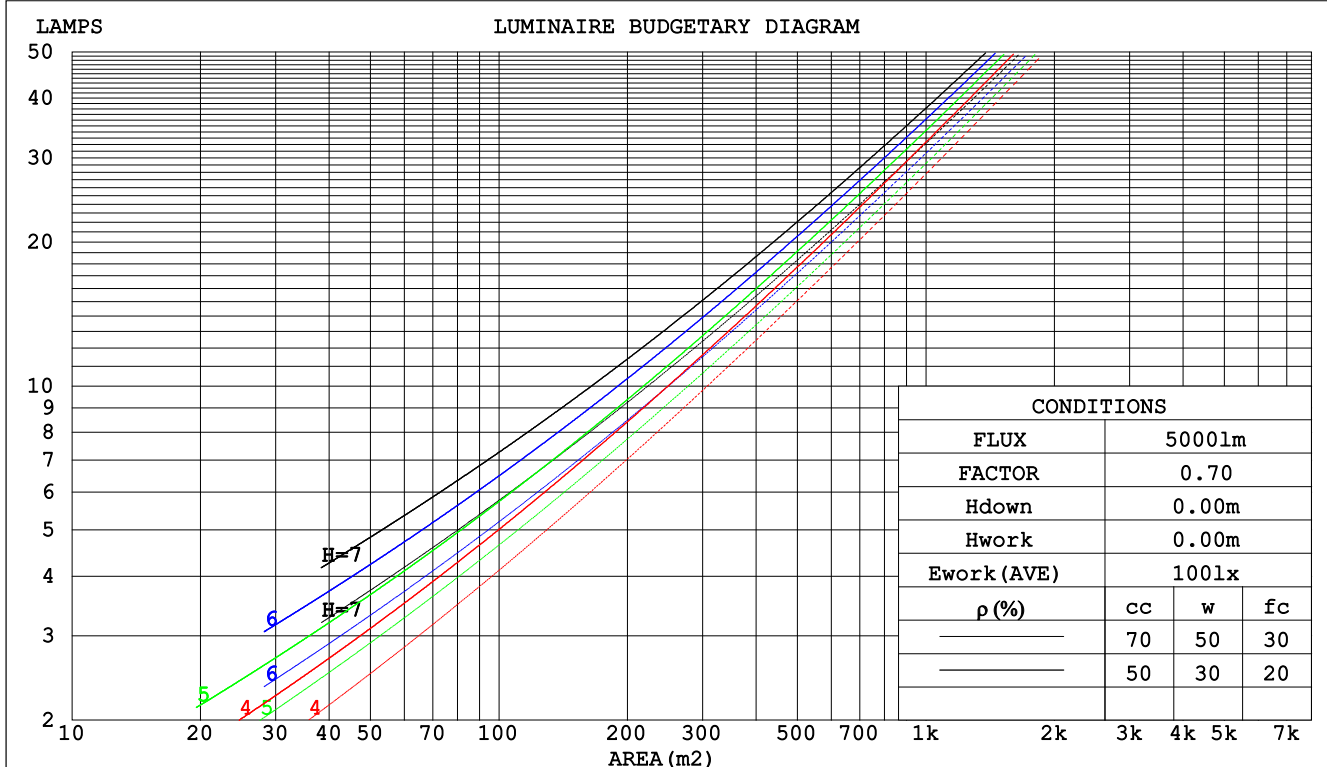


CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:24.00V I:0.1931A P:4.634W PF:1.000 Freq:50.00Hz Lamp Flux:27.0015x1 lm		
NAME: SF15-24V-5050-56-SPI4-RGBW(2700)-R	TYPE: 硅胶	WEIGHT:
SPEC.:	DIM.: 21mm*11.5mm	SERIAL No.:2021122906
MFR.: OLYMPIA	SUR.:1*0.0115	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	1.01	1.01	1.01	.99
1.0	1.04	.99	.95	1.01	.97	.94	.97	.94	.91	.93	.90	.88	.89	.87	.85	.83
2.0	.90	.83	.78	.88	.82	.77	.85	.79	.75	.81	.77	.73	.78	.74	.71	.69
3.0	.79	.71	.64	.78	.70	.64	.74	.68	.63	.72	.66	.61	.69	.64	.60	.58
4.0	.70	.61	.55	.69	.60	.54	.66	.59	.53	.64	.57	.52	.61	.56	.52	.49
5.0	.63	.54	.47	.61	.53	.47	.59	.52	.46	.57	.51	.45	.55	.49	.45	.43
6.0	.56	.47	.41	.55	.47	.41	.53	.46	.40	.52	.45	.40	.50	.44	.39	.37
7.0	.51	.42	.36	.50	.42	.36	.49	.41	.36	.47	.40	.35	.46	.40	.35	.33
8.0	.47	.38	.32	.46	.38	.32	.44	.37	.32	.43	.36	.32	.42	.36	.31	.29
9.0	.43	.35	.29	.42	.34	.29	.41	.34	.29	.40	.33	.28	.39	.33	.28	.26
10.0	.39	.32	.26	.39	.31	.26	.38	.31	.26	.37	.30	.26	.36	.30	.26	.24



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:LPC
 Test Date:2021-12-29

γ Range: 0 - 120DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
 Humidity:65.0%
 Test Distance:9.200m [K=1.0000]
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:24.00V I:0.1931A P:4.634W PF:1.000 Freq:50.00Hz Lamp Flux:27.0015x1 lm											
NAME: SF15-24V-5050-56-SPI4-RGBW(2700)-R						TYPE:硅胶			WEIGHT:		
SPEC.:						DIM.: 21mm*11.5mm			SERIAL No.:2021122906		
MFR.: OLYMPIA						SUR.:1*0.0115			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	24.6	26.1	24.9	26.3	26.6	24.2	25.7	24.4	25.9	26.1	
	3H	26.3	27.6	26.6	27.9	28.2	25.5	26.9	25.8	27.1	27.4
	4H	26.9	28.3	27.3	28.5	28.8	25.9	27.3	26.3	27.5	27.8
	6H	27.5	28.7	27.8	29.0	29.3	26.2	27.4	26.5	27.7	28.0
	8H	27.7	28.9	28.0	29.2	29.5	26.2	27.4	26.5	27.7	28.0
	12H	27.8	29.0	28.2	29.3	29.6	26.1	27.3	26.5	27.6	27.9
4H	2H	25.2	26.6	25.6	26.8	27.1	24.9	26.2	25.2	26.5	26.8
	3H	27.1	28.2	27.4	28.5	28.9	26.5	27.6	26.9	28.0	28.3
	4H	27.9	29.0	28.3	29.3	29.6	27.1	28.2	27.5	28.5	28.8
	6H	28.6	29.5	29.0	29.9	30.3	27.5	28.4	27.9	28.8	29.2
	8H	28.8	29.7	29.3	30.1	30.5	27.5	28.4	28.0	28.8	29.2
	12H	29.1	29.9	29.5	30.3	30.7	27.5	28.3	28.0	28.7	29.2
8H	4H	28.2	29.1	28.6	29.4	29.9	27.5	28.4	27.9	28.8	29.2
	6H	29.0	29.8	29.5	30.2	30.6	28.1	28.8	28.6	29.2	29.7
	8H	29.4	30.1	29.9	30.5	31.0	28.3	28.9	28.7	29.4	29.8
	12H	29.7	30.3	30.2	30.8	31.3	28.3	28.9	28.8	29.4	29.8
12H	4H	28.2	29.0	28.6	29.4	29.8	27.5	28.3	28.0	28.7	29.2
	6H	29.1	29.8	29.6	30.2	30.7	28.2	28.9	28.7	29.3	29.8
	8H	29.5	30.1	30.0	30.6	31.0	28.5	29.0	28.9	29.5	30.0
Variations with the observer position at spacings:											
S = 1.0H	+ 0.1 / - 0.2					+ 0.2 / - 0.2					
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.4					
2.0H	+ 0.1 / - 0.3					+ 0.2 / - 0.5					

CIE Pub.117, 27.00 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -12.5)

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:LPC
Test Date:2021-12-29

γ Range: 0 - 120DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:9.200m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:24.00V I:0.1931A P:4.634W PF:1.000 Freq:50.00Hz Lamp Flux:27.0015x1 lm		
NAME: SF15-24V-5050-56-SPI4-RGBW(2700)-R	TYPE:硅胶	WEIGHT:
SPEC.:	DIM.: 21mm*11.5mm	SERIAL No.:2021122906
MFR.: OLYMPIA	SUR.:1*0.0115	Shielding Angle:

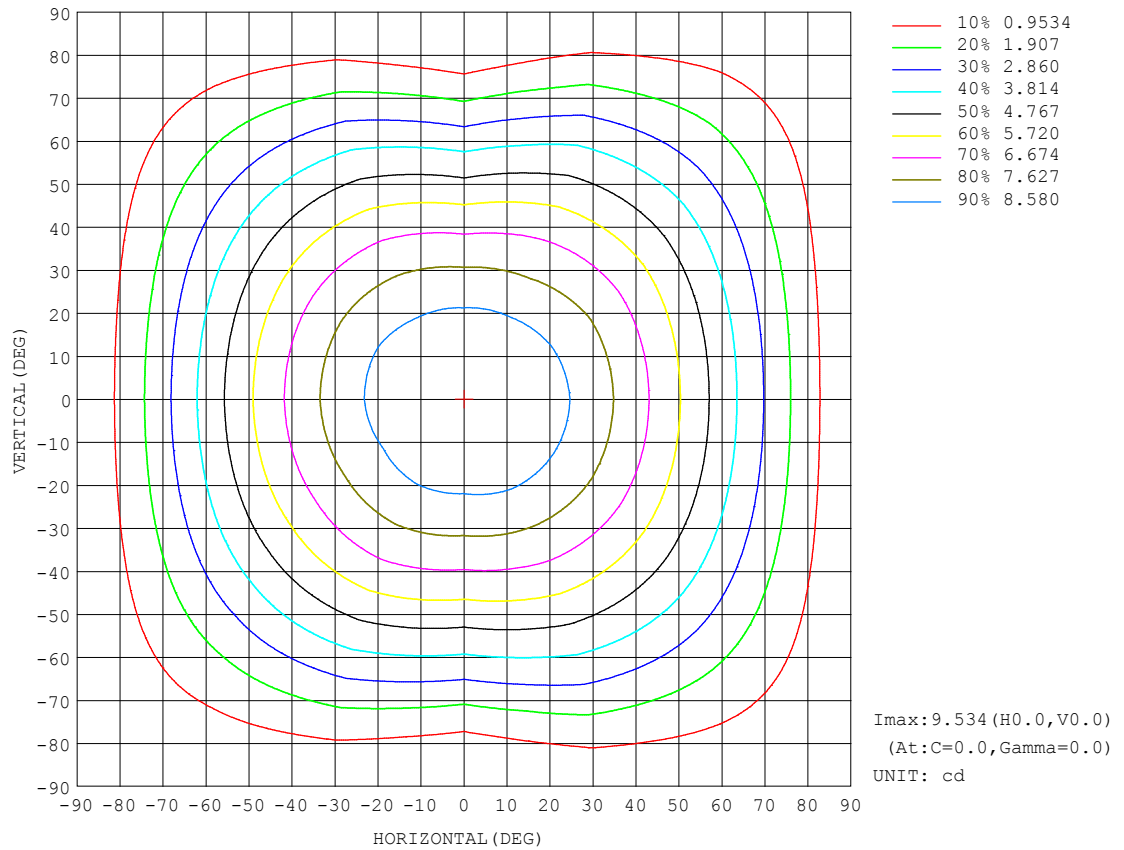
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	57	46	39	57	45	39	55	45	38	32
0.80	67	56	48	66	55	48	64	54	48	41
1.00	76	65	57	74	64	57	72	65	56	49
1.25	83	72	65	81	71	65	79	70	64	56
1.50	88	78	71	86	77	70	83	75	69	61
2.00	95	86	79	93	85	79	89	82	77	69
2.50	98	91	85	96	89	84	92	86	82	73
3.00	102	95	89	100	93	88	95	90	86	77
4.00	106	100	95	103	98	94	99	95	91	82
5.00	108	103	99	106	101	98	101	98	94	85
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:LPC
Test Date:2021-12-29

γ Range: 0 - 120DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:9.200m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

Test:U:24.00V I:0.1931A P:4.634W PF:1.000 Freq:50.00Hz Lamp Flux:27.0015x1 lm		
NAME: SF15-24V-5050-56-SPI4-RGBW(2700)-R	TYPE: 硅胶	WEIGHT:
SPEC.:	DIM.: 21mm*11.5mm	SERIAL No.:2021122906
MFR.: OLYMPIA	SUR.:1*0.0115	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: LPC
Test Date: 2021-12-29

γ Range: 0 - 120DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity: 65.0%
Test Distance: 9.200m [K=1.0000]
Remarks:

LED Avg.L Report

Test:U:24.00V I:0.1931A P:4.634W PF:1.000 Freq:50.00Hz Lamp Flux:27.0015x1 lm		
NAME: SF15-24V-5050-56-SPI4-RGBW(2700)-R	TYPE:硅胶	WEIGHT:
SPEC.:	DIM.: 21mm*11.5mm	SERIAL No.:2021122906
MFR.: OLYMPIA	SUR.:1*0.0115	Shielding Angle:

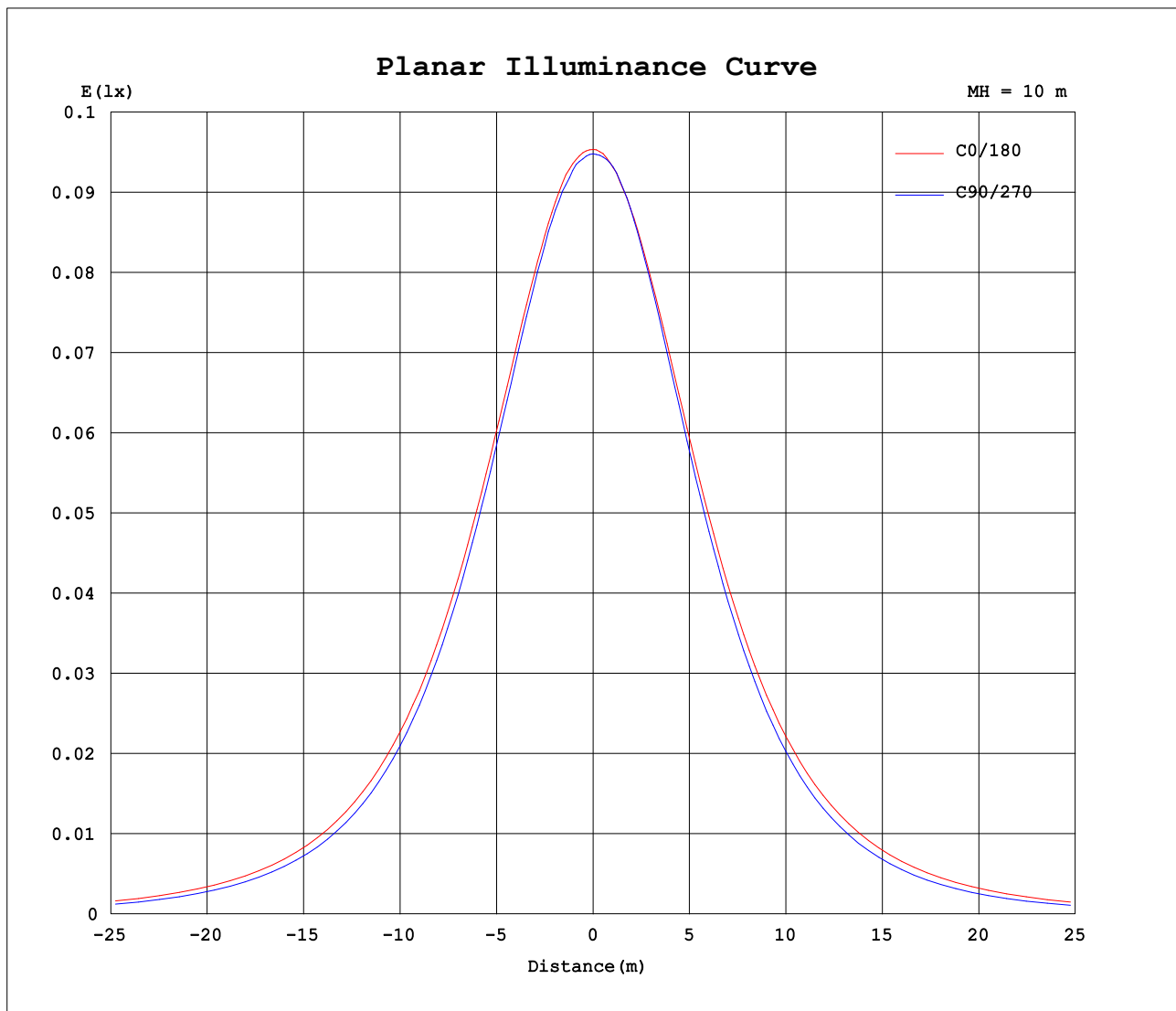
AvgL	cd/m2
L_0~180 (65) av	714
L_0~180 (75) av	647
L_0~180 (85) av	627
L_90~270 (65) av	564
L_90~270 (75) av	388
L_90~270 (85) av	45
L_45 (65) av	711
L_45 (75) av	647
L_45 (85) av	576

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:LPC
Test Date:2021-12-29

γ Range: 0 - 120DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:9.200m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: LPC
Test Date: 2021-12-29

γ Range: 0 - 120DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity: 65.0%
Test Distance: 9.200m [K=1.0000]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:24.00V I:0.1931A P:4.634W PF:1.000 Freq:50.00Hz Lamp Flux:27.0015x1 lm		
NAME: SF15-24V-5050-56-SPI4-RGBW(2700)-R	TYPE: 硅胶	WEIGHT:
SPEC.:	DIM.: 21mm*11.5mm	SERIAL No.:2021122906
MFR.: OLYMPIA	SUR.:1*0.0115	Shielding Angle:

Table--1

UNIT: cd

C (DEG) γ (DEG)	0	30	60	90	120	150	180	210	240	270	300	330						
0	9.53	9.53	9.50	9.48	9.46	9.45	9.53	9.53	9.50	9.48	9.46	9.45						
5	9.52	9.49	9.50	9.46	9.45	9.39	9.48	9.51	9.45	9.48	9.44	9.46						
10	9.42	9.36	9.39	9.31	9.31	9.24	9.35	9.36	9.30	9.34	9.31	9.37						
15	9.22	9.17	9.19	9.08	9.08	9.02	9.12	9.13	9.04	9.07	9.07	9.17						
20	8.93	8.89	8.86	8.74	8.76	8.71	8.81	8.82	8.71	8.69	8.72	8.85						
25	8.55	8.52	8.45	8.32	8.37	8.33	8.44	8.42	8.31	8.24	8.31	8.47						
30	8.11	8.08	7.97	7.83	7.91	7.87	7.98	7.97	7.85	7.71	7.80	8.06						
35	7.60	7.57	7.44	7.24	7.39	7.35	7.46	7.44	7.35	7.10	7.27	7.56						
40	7.03	7.01	6.87	6.63	6.81	6.78	6.88	6.86	6.77	6.45	6.77	7.01						
45	6.43	6.40	6.28	5.93	6.20	6.18	6.27	6.25	6.16	5.75	6.20	6.42						
50	5.77	5.75	5.63	5.21	5.52	5.49	5.59	5.57	5.49	4.98	5.57	5.76						
55	5.06	5.05	4.94	4.45	4.81	4.78	4.87	4.85	4.78	4.20	4.89	5.07						
60	4.33	4.33	4.22	3.70	4.08	4.03	4.12	4.10	4.05	3.40	4.18	4.36						
65	3.59	3.59	3.49	2.88	3.31	3.26	3.35	3.32	3.28	2.59	3.45	3.62						
70	2.82	2.82	2.74	2.07	2.52	2.48	2.58	2.54	2.51	1.79	2.70	2.85						
75	2.05	2.05	1.99	1.28	1.76	1.72	1.80	1.78	1.73	1.03	1.95	2.09						
80	1.32	1.32	1.27	0.59	1.05	1.03	1.11	1.07	1.00	0.39	1.22	1.36						
85	0.71	0.68	0.61	0.07	0.46	0.50	0.55	0.53	0.38	0.02	0.54	0.70						
90	0.32	0.27	0.21	0.07	0.18	0.17	0.19	0.19	0.07	0.00	0.12	0.29						
95	0.13	0.08	0.12	0.06	0.13	0.13	0.06	0.08	0.06	0.00	0.04	0.10						
100	0.08	0.07	0.10	0.08	0.11	0.10	0.06	0.07	0.05	0.00	0.04	0.06						
105	0.07	0.07	0.09	0.07	0.09	0.08	0.06	0.07	0.05	0.00	0.05	0.05						
110	0.07	0.07	0.09	0.07	0.06	0.06	0.06	0.07	0.06	0.00	0.06	0.05						
115	0.07	0.07	0.09	0.07	0.04	0.03	0.06	0.07	0.06	0.00	0.06	0.06						
120	0.07	0.07	0.09	0.08	0.01	0.01	0.06	0.07	0.06	0.02	0.06	0.05						
125	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
130	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
135	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
140	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
145	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
150	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
155	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
160	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
165	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
170	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
175	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
180	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:LPC
Test Date:2021-12-29

γ Range: 0 - 120DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:9.200m [K=1.0000]
Remarks:

Photometric Data Table [cd]

G/C	0.0	30.0	60.0	90.0	120.0	150.0	180.0	210.0	240.0	270.0
0.0	9.534	9.534	9.499	9.479	9.463	9.448	9.534	9.534	9.499	9.479
3.0	9.534	9.529	9.499	9.458	9.463	9.433	9.524	9.534	9.468	9.479
6.0	9.510	9.468	9.494	9.428	9.429	9.368	9.458	9.489	9.438	9.469
9.0	9.459	9.398	9.424	9.353	9.348	9.282	9.368	9.403	9.327	9.378
12.0	9.348	9.297	9.328	9.232	9.233	9.166	9.267	9.288	9.207	9.243
15.0	9.218	9.167	9.187	9.076	9.082	9.016	9.121	9.132	9.041	9.067
18.0	9.052	9.011	9.002	8.880	8.901	8.845	8.945	8.957	8.850	8.861
21.0	8.856	8.825	8.781	8.664	8.690	8.639	8.744	8.745	8.643	8.600
24.0	8.630	8.598	8.540	8.407	8.449	8.417	8.513	8.509	8.397	8.343
27.0	8.384	8.347	8.263	8.121	8.198	8.161	8.256	8.253	8.136	8.022
30.0	8.108	8.076	7.972	7.834	7.912	7.875	7.980	7.967	7.854	7.706
33.0	7.811	7.779	7.660	7.482	7.605	7.583	7.673	7.670	7.558	7.354
36.0	7.494	7.457	7.334	7.115	7.278	7.246	7.351	7.333	7.231	6.977
39.0	7.153	7.125	6.987	6.738	6.932	6.899	7.000	6.982	6.889	6.585
42.0	6.791	6.769	6.645	6.351	6.580	6.552	6.648	6.635	6.542	6.168
45.0	6.429	6.402	6.283	5.934	6.198	6.175	6.266	6.248	6.160	5.746
48.0	6.037	6.025	5.891	5.507	5.801	5.768	5.864	5.846	5.763	5.293
51.0	5.630	5.617	5.495	5.054	5.384	5.356	5.446	5.424	5.356	4.831
54.0	5.208	5.195	5.083	4.612	4.957	4.924	5.019	5.002	4.929	4.364
57.0	4.771	4.768	4.655	4.160	4.515	4.477	4.582	4.545	4.492	3.891
60.0	4.334	4.326	4.223	3.697	4.077	4.029	4.125	4.097	4.054	3.399
63.0	3.892	3.903	3.791	3.200	3.620	3.562	3.667	3.630	3.592	2.917
66.0	3.434	3.431	3.344	2.712	3.153	3.104	3.200	3.158	3.129	2.424
69.0	2.967	2.969	2.891	2.215	2.680	2.632	2.732	2.705	2.657	1.941
72.0	2.515	2.511	2.434	1.732	2.213	2.164	2.255	2.213	2.184	1.489
75.0	2.052	2.049	1.987	1.280	1.756	1.723	1.798	1.776	1.727	1.032
78.0	1.600	1.597	1.549	0.8531	1.323	1.295	1.381	1.353	1.275	0.6244
81.0	1.192	1.175	1.127	0.4663	0.9110	0.9085	0.9937	0.9509	0.8580	0.2873
84.0	0.8105	0.7779	0.7302	0.1350	0.5591	0.5920	0.6472	0.6192	0.4863	0.0408
87.0	0.5286	0.4867	0.4031	0.0603	0.3073	0.3563	0.3712	0.3576	0.2105	0.0001
90.0	0.3222	0.2659	0.2066	0.0653	0.1762	0.1706	0.1904	0.1914	0.0653	0
93.0	0.1863	0.1305	0.1258	0.0653	0.1357	0.1362	0.0653	0.1057	0.0603	0
96.0	0.1058	0.0704	0.1146	0.0603	0.1282	0.1221	0.0603	0.0804	0.0603	0
99.0	0.0754	0.0704	0.1056	0.0654	0.1187	0.1080	0.0603	0.0754	0.0602	0
102.0	0.0754	0.0704	0.0965	0.0704	0.1052	0.0939	0.0553	0.0704	0.0503	0
105.0	0.0704	0.0704	0.0905	0.0704	0.0894	0.0798	0.0553	0.0653	0.0503	0
108.0	0.0704	0.0704	0.0905	0.0704	0.0736	0.0657	0.0553	0.0653	0.0553	0
111.0	0.0704	0.0704	0.0905	0.0704	0.0578	0.0516	0.0553	0.0653	0.0553	0
114.0	0.0704	0.0704	0.0905	0.0704	0.0421	0.0376	0.0553	0.0653	0.0553	0
117.0	0.0704	0.0704	0.0905	0.0754	0.0263	0.0235	0.0553	0.0653	0.0603	0.0249
120.0	0.0704	0.0704	0.0854	0.0754	0.0105	0.0094	0.0603	0.0653	0.0603	0.0201
G/C	300.0	330.0								
0.0	9.463	9.448								
3.0	9.463	9.464								
6.0	9.433	9.468								
9.0	9.357	9.393								
12.0	9.227	9.303								
15.0	9.066	9.172								
18.0	8.894	8.982								
21.0	8.648	8.771								
24.0	8.402	8.554								
27.0	8.105	8.308								
30.0	7.799	8.057								
33.0	7.482	7.761								
36.0	7.176	7.459								
39.0	6.869	7.118								
42.0	6.553	6.766								
45.0	6.201	6.419								
48.0	5.823	6.017								
51.0	5.426	5.635								
54.0	5.024	5.208								
57.0	4.607	4.791								
60.0	4.175	4.363								
63.0	3.742	3.922								
66.0	3.305	3.464								
69.0	2.848	3.007								
72.0	2.396	2.570								
75.0	1.954	2.087								
78.0	1.501	1.640								
81.0	1.074	1.222								
84.0	0.6670	0.8206								
87.0	0.3406	0.5235								
90.0	0.1202	0.2920								

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: LPC
Test Date: 2021-12-29

```

γ Range: 0 - 120DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:9.200m [K=1.0000]
Remarks:

```

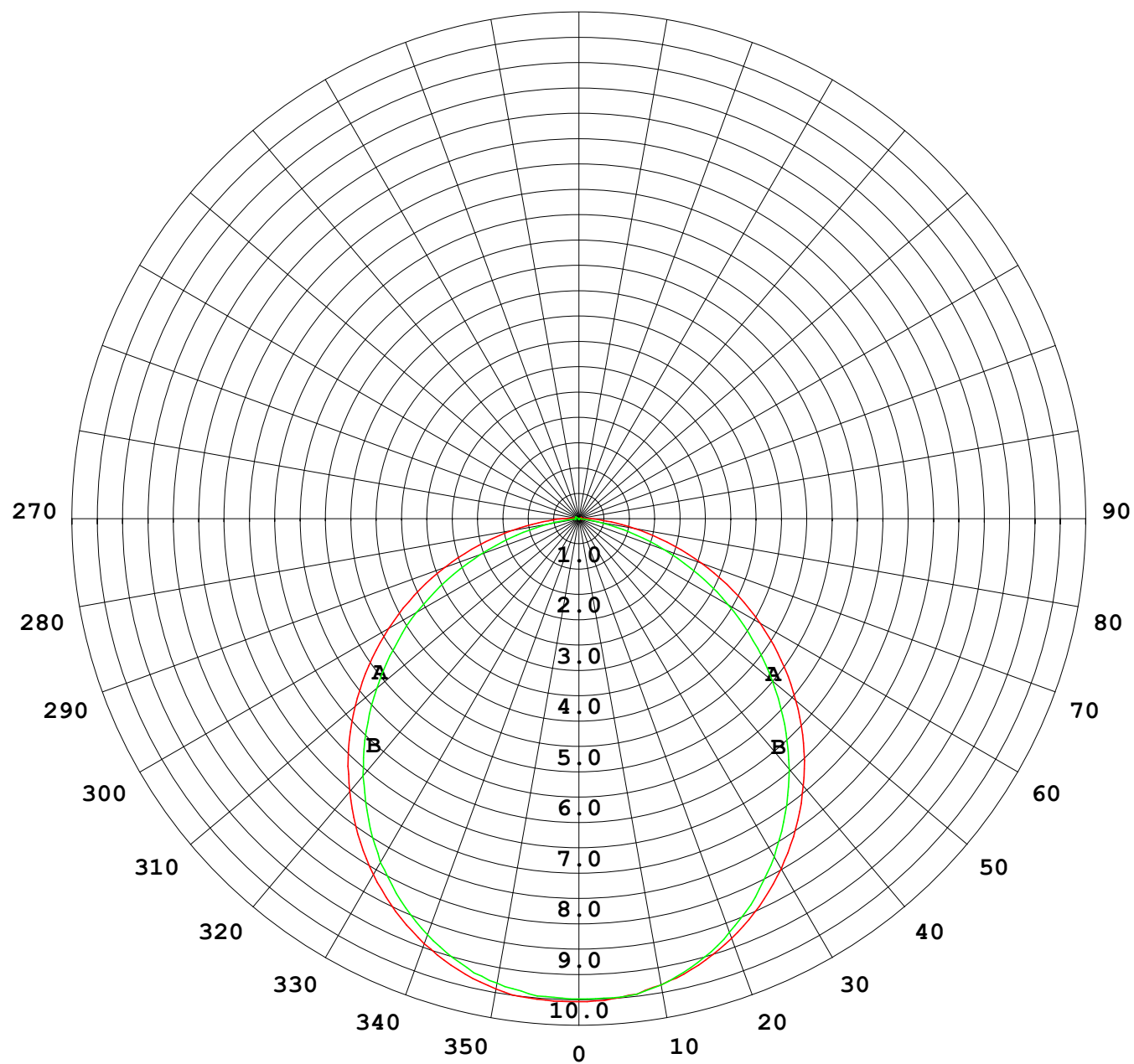
Photometric Data Table [cd]

93.0	0.0402	0.1612
96.0	0.0402	0.0806
99.0	0.0402	0.0504
102.0	0.0403	0.0503
105.0	0.0503	0.0503
108.0	0.0603	0.0503
111.0	0.0603	0.0503
114.0	0.0603	0.0603
117.0	0.0603	0.0653
120.0	0.0553	0.0503

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: LPC
Test Date: 2021-12-29

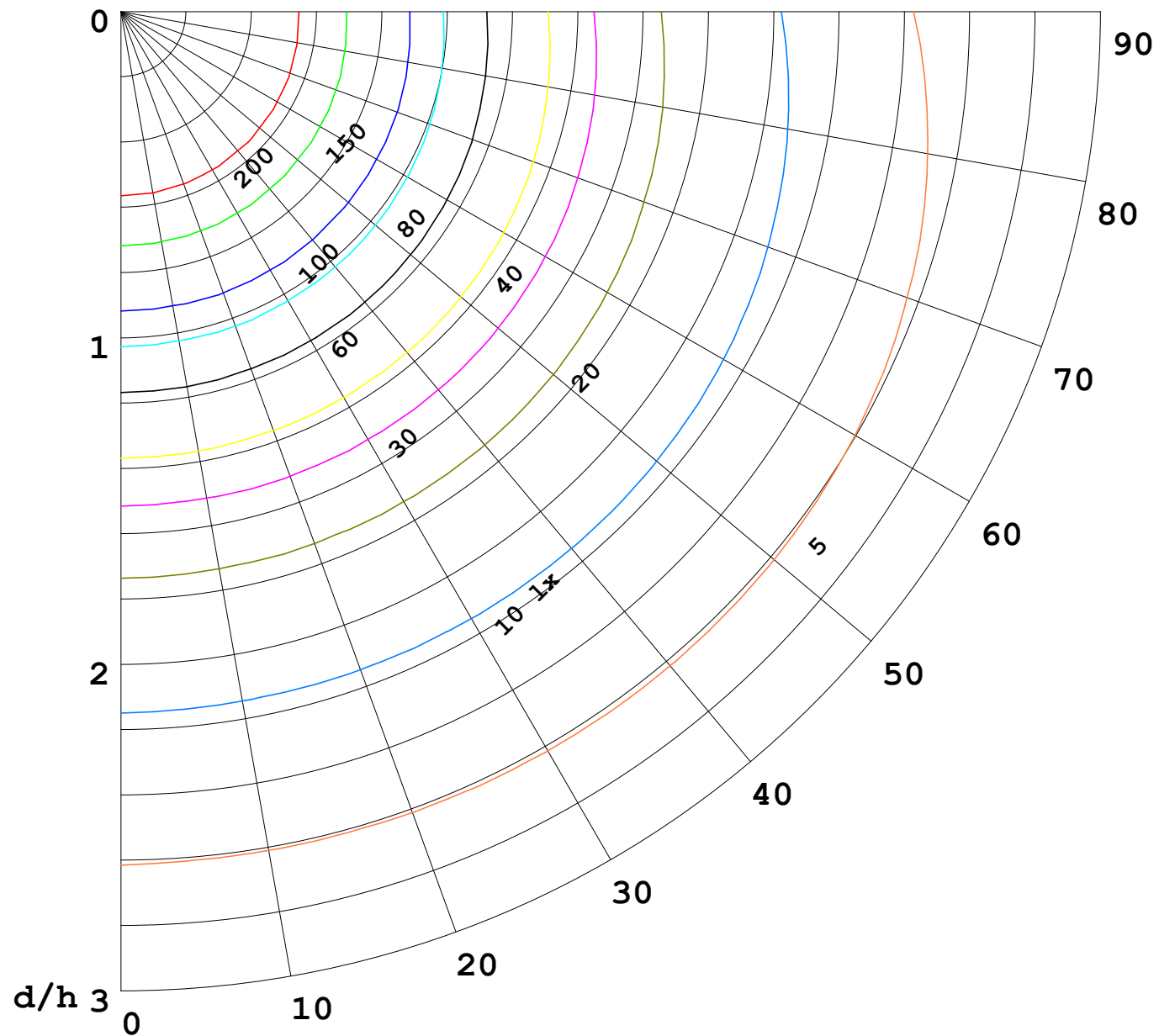
γ Range: 0 - 120DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity: 65.0%
Test Distance: 9.200m [K=1.0000]
Remarks:

I (cd)



1000 lm

$\kappa = 1$



F = 5000 lm
 K = 0.7
 Hcc = 0.0 m
 Hfc = 0.0 m
 Eave = 100 lx

	Pcc	Pw	Pfc
—	70	50	30
—	50	30	20

