SOTEN LIGHTING LTD.
www.soten.hk
Email:info@soten.hk
Tel:+86 750 3778811 Fax:+86 750 3778800
Address:Jin OU Road,JiangMen Gity,GuangDong,China

SOTEN

LumCAT: G1067
Luminaire: 1-0841-S
Report No:
Test No:
LampCAT: LUMILEDS-5050-3090*9
Lamp flux(lm): 3600.0
Number of Lamps: 1
Length(mm): 105
Phm Type: C

Voltage(V): 230.8000
Current(A): 0.1310
Power (W): 30.2300
PF: 0.9960
Ballast type: LC 30/500/54 FLXC SR SNC2
Width(mm): 105
Height(mm): 10

Photometric Results

Lumens(lm): 3198.66
Efficiency(%): 88.85%
Lumens(lm)/Power(W): 105.81
Central intensity(cd): 2391.107
Maximum intensity(cd): 4510.352
Angle of maximum intensity: C=180.0 γ=20.0
Beam Angle(50%Imax): [C0/180]Total=34.8
[C90/270]Total=77.5
Field angle(10%Imax): [C0/180]Total=63.1
[C90/270]Total=90.1
Maximum s/h(1/2): C0_180=0.44 C90_270=1.18
Maximum s/h(1/4): C0_180=0.42 C90_270=1.68
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 88.85%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 99.877%



Equipment: GMS-1800
Temperature(°C): 25.0
Date: 2022/8/29
Humidity(%): 65.0%
Operator: New
Distance(m): 7.18

SOTEN G1067

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	2355.546	.000	.000	.000%	.000%
2.0	2357.414	9.020	9.020	.251%	.251%
4.0	2360.668	27.077	36.097	.752%	1.003%
6.0	2367.303	45.186	81.283	1.255%	2.258%
8.0	2389.400	63.568	144.850	1.766%	4.024%
10.0	2410.273	82.334	227.184	2.287%	6.311%
12.0	2403.477	100.720	327.905	2.798%	9.108%
14.0	2402.162	118.543	446.447	3.293%	12.401%
16.0	2378.094	135.670	582.117	3.769%	16.170%
18.0	2338.800	151.226	733.343	4.201%	20.371%
20.0	2304.150	165.757	899.100	4.604%	24.975%
22.0	2254.074	179.127	1078.226	4.976%	29.951%
24.0	2157.695	189.028	1267.254	5.251%	35.202%
26.0	2054.886	195.223	1462.478	5.423%	40.624%
28.0	1925.258	198.144	1660.621	5.504%	46.128%
30.0	1798.085	197.943	1858.564	5.498%	51.627%
32.0	1671.765	195.968	2054.532	5.444%	57.070%
34.0	1538.101	191.704	2246.236	5.325%	62.395%
36.0	1391.147	184.240	2430.476	5.118%	67.513%
38.0	1220.894	172.377	2602.852	4.788%	72.301%
40.0	1038.456	155.916	2758.768	4.331%	76.632%
42.0	799.845	132.250	2891.018	3.674%	80.306%
44.0	623.324	106.433	2997.450	2.956%	83.263%
46.0	373.541	77.296	3074.746	2.147%	85.410%
48.0	252.665	50.220	3124.967	1.395%	86.805%
50.0	122.809	31.074	3156.041	.863%	87.668%
52.0	76.995	17.027	3173.068	.473%	88.141%
54.0	56.457	11.687	3184.755	.325%	88.465%
56.0	21.208	6.976	3191.731	.194%	88.659%
58.0	4.339	2.349	3194.080	.065%	88.724%
60.0	2.342	.628	3194.708	.017%	88.742%
62.0	2.062	.422	3195.131	.012%	88.754%
64.0	1.833	.380	3195.511	.011%	88.764%
66.0	1.675	.349	3195.860	.010%	88.774%
68.0	1.524	.323	3196.183	.009%	88.783%
70.0	1.424	.302	3196.484	.008%	88.791%
72.0	1.292	.282	3196.766	.008%	88.799%
74.0	1.205	.262	3197.028	.007%	88.806%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	1.118	.246	3197.274	.007%	88.813%
78.0	1.076	.234	3197.508	.007%	88.820%
80.0	1.011	.225	3197.733	.006%	88.826%
82.0	.934	.211	3197.943	.006%	88.832%
84.0	.876	.197	3198.140	.005%	88.837%
86.0	.809	.184	3198.324	.005%	88.842%
88.0	.751	.171	3198.495	.005%	88.847%
90.0	.734	.163	3198.658	.005%	88.852%

Zonal flux distribution table

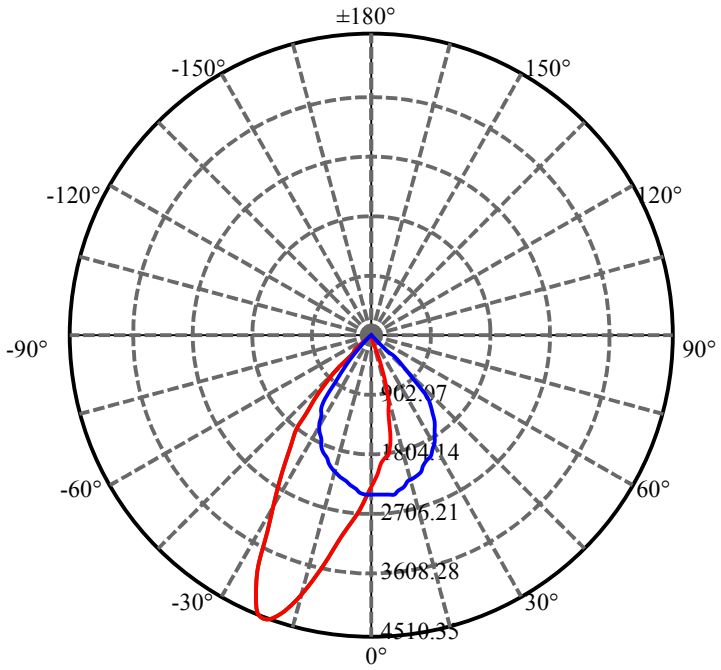
ZONAL LUMEN SUMMARY

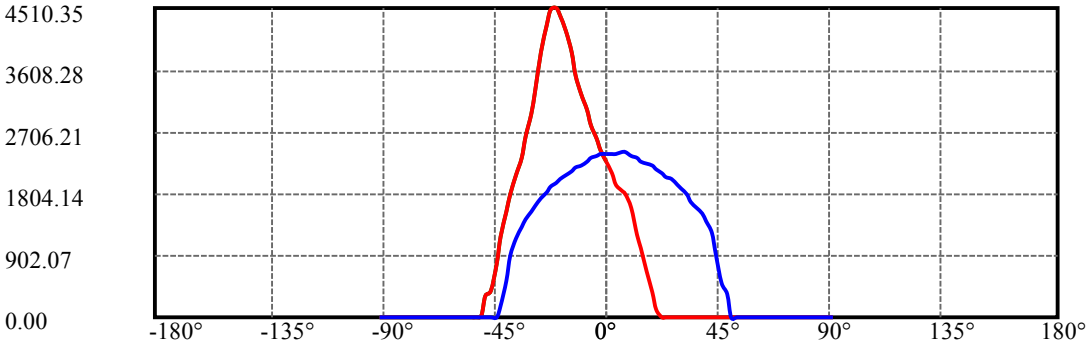
Zone	Lumens	%Lamp	%Fixt
0-30	1858.56	51.63%	58.10%
0-40	2758.77	76.63%	86.25%
0-60	3194.71	88.74%	99.88%
0-90	3198.50	88.85%	99.99%
0-120	3198.50	88.85%	99.99%
0-180	3198.66	88.85%	100.00%
60-90	4.41	0.12%	0.14%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-37.49	2558.93	71.08%	80.00%

ZONAL LUMEN SUMMARY

0-10	227.18
10-20	671.92
20-30	959.46
30-40	900.20
40-50	397.27
50-60	38.67
60-70	1.78
70-80	1.25
80-90	0.76
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

Light Distribution Curve [Unit:cd]





C180(Max):

C0/C180:

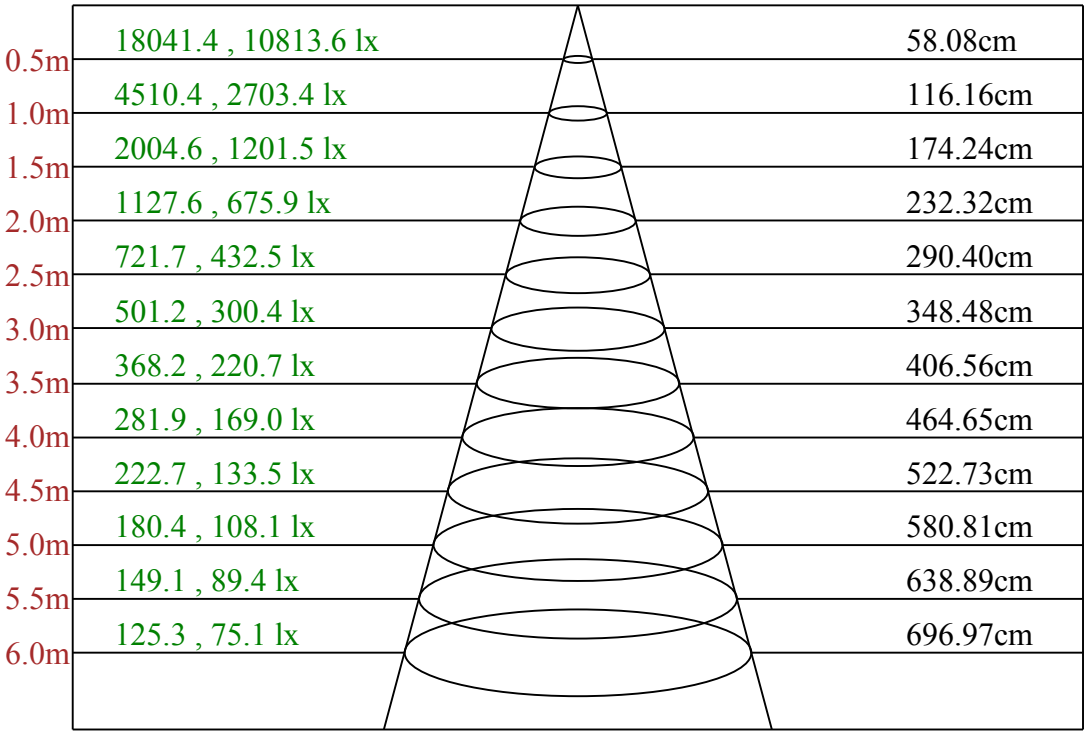
C90/C270:

Equipment: GMS-1800
Temperature(°C): 25.0

Date: 2022/8/29
Humidity(%): 65.0%

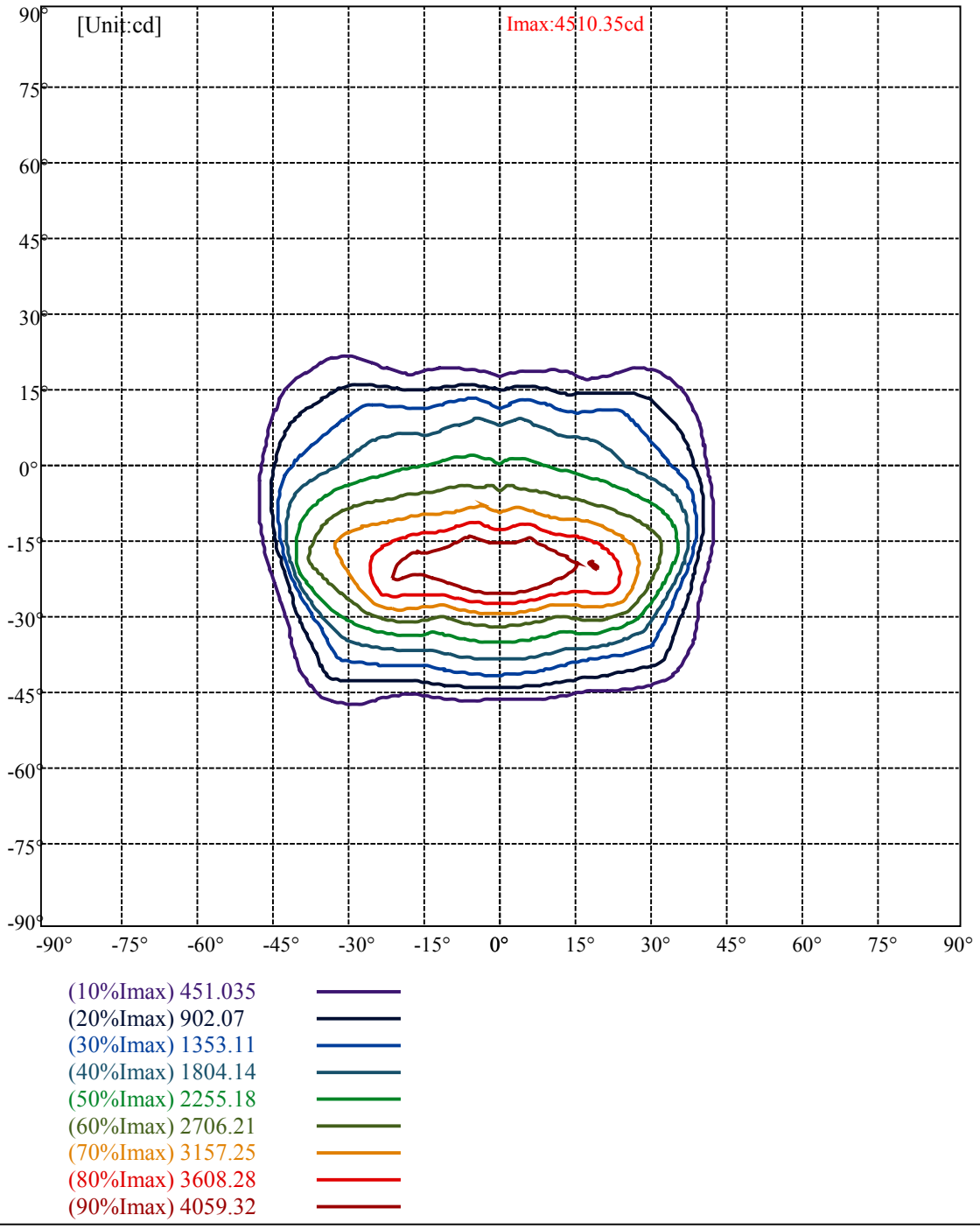
Operator: New
Distance(m): 7.18

Lux distance Curve

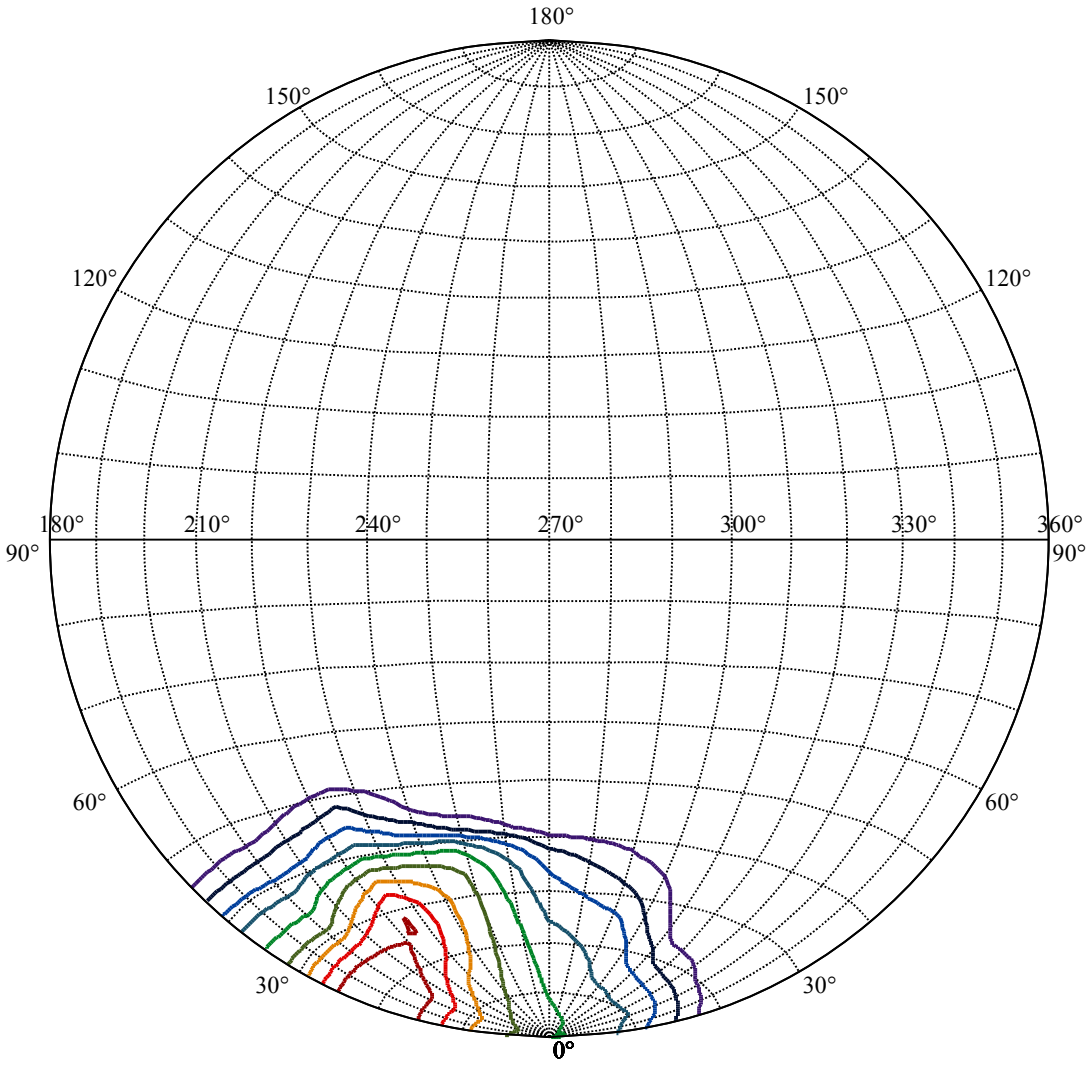


Max , Ave

Beam angle of C180plane56.18


[Unit:cd]
Imax:4510.35cd
90°
75°
60°
45°
30°
15°
0°
-15°
-30°
-45°
-60°
-75°
-90°
-90° -75° -60° -45° -30° -15° 0° 15° 30° 45° 60° 75° 90°
(10%Imax) 451.035
(20%Imax) 902.07
(30%Imax) 1353.11
(40%Imax) 1804.14
(50%Imax) 2255.18
(60%Imax) 2706.21
(70%Imax) 3157.25
(80%Imax) 3608.28
(90%Imax) 4059.32

ISO candela diagram on circular web



House [Unit:cd] Road

Imax:4510.35

(10%Imax) 451.035
(20%Imax) 902.07
(30%Imax) 1353.11
(40%Imax) 1804.14
(50%Imax) 2255.18
(60%Imax) 2706.21
(70%Imax) 3157.25
(80%Imax) 3608.28
(90%Imax) 4059.32

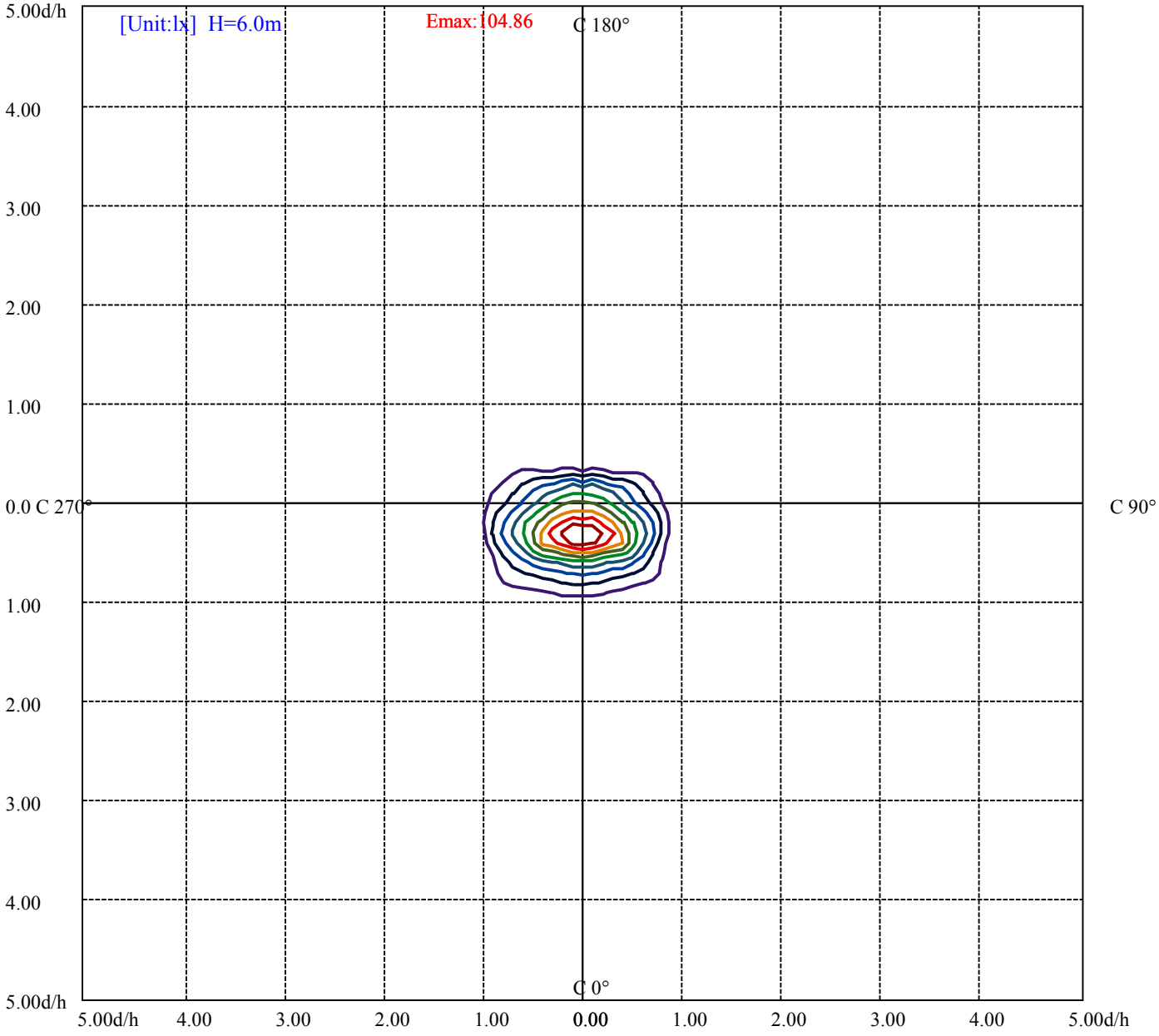
Equipment: GMS-1800
Temperature(°C): 25.0

Date: 2022/8/29
Humidity(%): 65.0%

Operator: New
Distance(m): 7.18

SOTEN G1067

ISO illuminance diagram



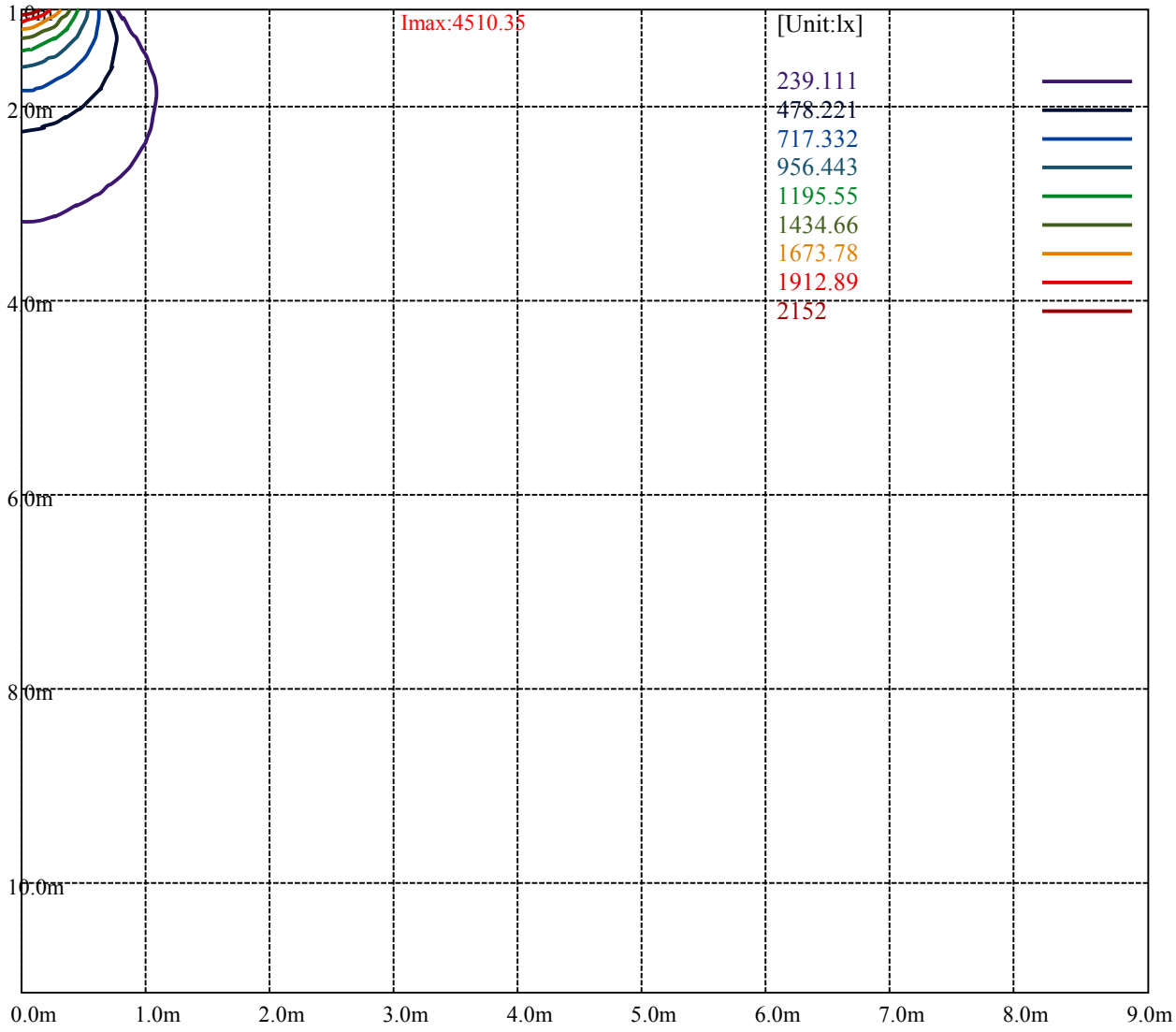
(10%Emax) 10.48553
(20%Emax) 20.97108
(30%Emax) 31.45667
(40%Emax) 41.94222
(50%Emax) 52.42778
(60%Emax) 62.91333
(70%Emax) 73.3989
(80%Emax) 83.88445
(90%Emax) 94.36972

Equipment: GMS-1800
Temperature(°C): 25.0

Date: 2022/8/29
Humidity(%): 65.0%

Operator: New
Distance(m): 7.18

Space ISO Lux diagram



Equipment: GMS-1800
Temperature(°C): 25.0

Date: 2022/8/29
Humidity(%): 65.0%

Operator: New
Distance(m): 7.18

SOTEN G1067

Luminance Limitting Curve(no luminous side)

Luminance Table

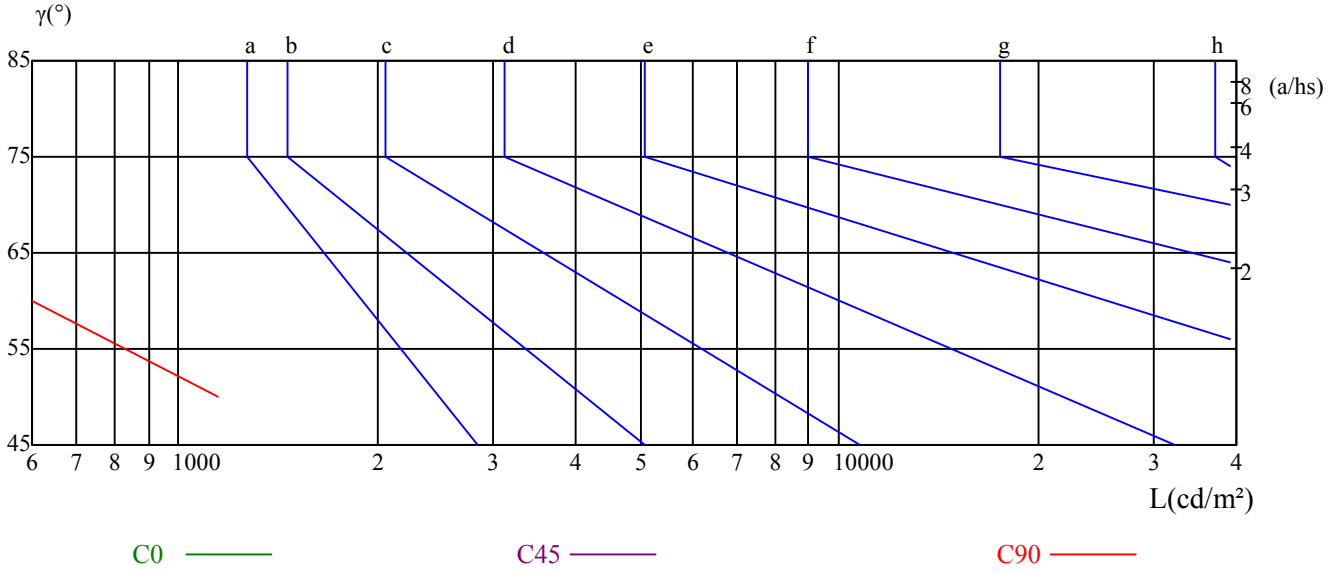
γ	45	50	55	60	65	70	75	80	85
C0	0	150	0	161	0	206	0	315	0
C45	0	232	0	212	0	279	0	443	0
C90	0	1149	0	369	0	412	0	507	0

L横(65)	L纵(65)	L45(65)	L横(75)	L纵(75)	L45(75)	L横(85)	L纵(85)	L45(85)
266795	266795	1750	63305	63305	578	27622	27622	375

Glare Table

Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

Luminance Limitting Curve



Equipment: GMS-1800
Temperature(°C): 25.0

Date: 2022/8/29
Humidity(%): 65.0%

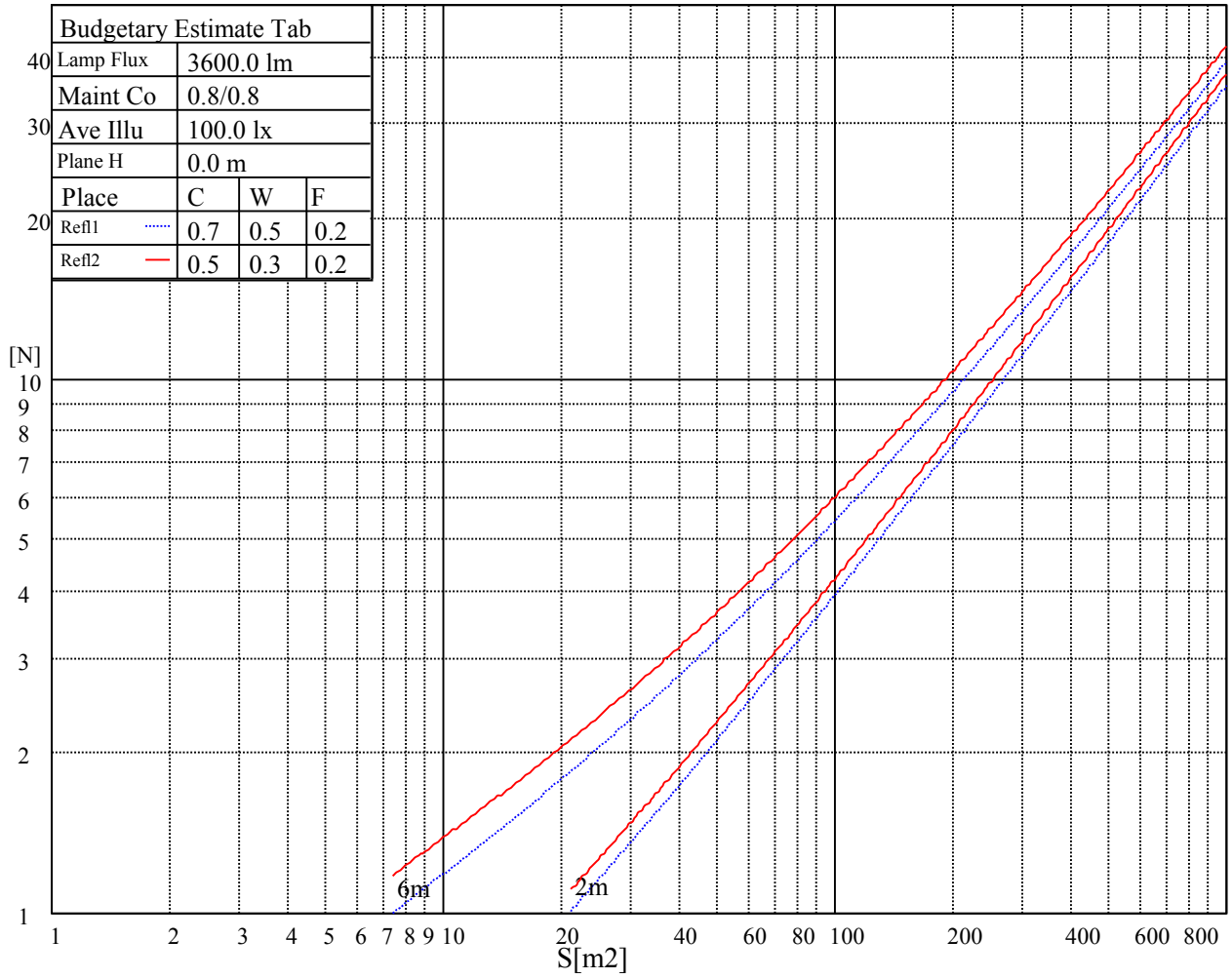
Operator: New
Distance(m): 7.18

Illuminatin assessment according UGR

Rf of Ceiling		70	70	50	50	30	70	70	50	50	30
Rf of Wall		50	30	50	30	30	50	30	50	30	30
Rf of Floor		20	20	20	20	20	20	20	20	20	20
Room dimensions		Viewed crosswise					Viewed endwise				
X	Y										
2H	2H	-20.4	-19.5	-20.2	-19.3	-19.1	10.9	11.9	11.2	12.1	12.3
	3H	-18.0	-17.1	-17.7	-16.9	-16.6	10.8	11.6	11.1	11.9	12.1
	4H	-16.6	-16.0	-16.3	-15.7	-15.3	10.6	11.3	10.9	11.6	11.9
	6H	-14.8	-14.2	-14.5	-13.8	-13.5	10.6	11.3	10.9	11.6	11.9
	8H	-14.0	-13.3	-13.6	-13.0	-12.7	10.6	11.3	10.9	11.6	11.9
	12H	-13.3	-12.8	-12.9	-12.4	-12.0	10.4	10.9	10.8	11.3	11.7
4H	2H	-19.7	-19.0	-19.3	-18.7	-18.4	10.6	11.3	10.9	11.6	11.9
	3H	-17.1	-16.6	-16.7	-16.3	-15.9	10.4	10.9	10.8	11.3	11.7
	4H	-15.5	-15.0	-15.1	-14.7	-14.3	10.4	10.9	10.8	11.3	11.7
	6H	-13.6	-13.1	-13.2	-12.7	-12.3	10.4	10.9	10.8	11.3	11.7
	8H	-12.8	-12.6	-12.3	-12.1	-11.6	10.2	10.5	10.7	10.9	11.5
	12H	-11.9	-11.6	-11.4	-11.1	-10.6	10.2	10.5	10.7	10.9	11.5
8H	4H	-15.1	-14.8	-14.6	-14.3	-13.8	10.2	10.5	10.7	10.9	11.4
	6H	-13.0	-12.7	-12.5	-12.3	-11.8	10.2	10.5	10.7	10.9	11.5
	8H	-11.9	-11.6	-11.4	-11.2	-10.7	10.2	10.5	10.7	11.0	11.5
	12H	-10.8	-10.5	-10.3	-10.0	-9.5	10.2	10.5	10.7	11.0	11.5
12H	4H	-14.9	-14.6	-14.4	-14.2	-13.7	10.2	10.5	10.7	10.9	11.4
	6H	-12.8	-12.5	-12.3	-12.0	-11.5	10.2	10.5	10.7	10.9	11.5
	8H	-11.6	-11.3	-11.1	-10.9	-10.4	10.2	10.5	10.7	11.0	11.5

Variation with the observer position at spacings:		
S = 1.0H	0.3/-1.1	6.6/-25.2
S = 1.5H	0.4/-1.0	9.4/-23.6
S = 2.0H	0.1/-0.7	11.4/-22.4
Standard tables:	BKBF	BK0
Uncorrected UGR	-23.8	-2.5

Budgetary Estimate Table

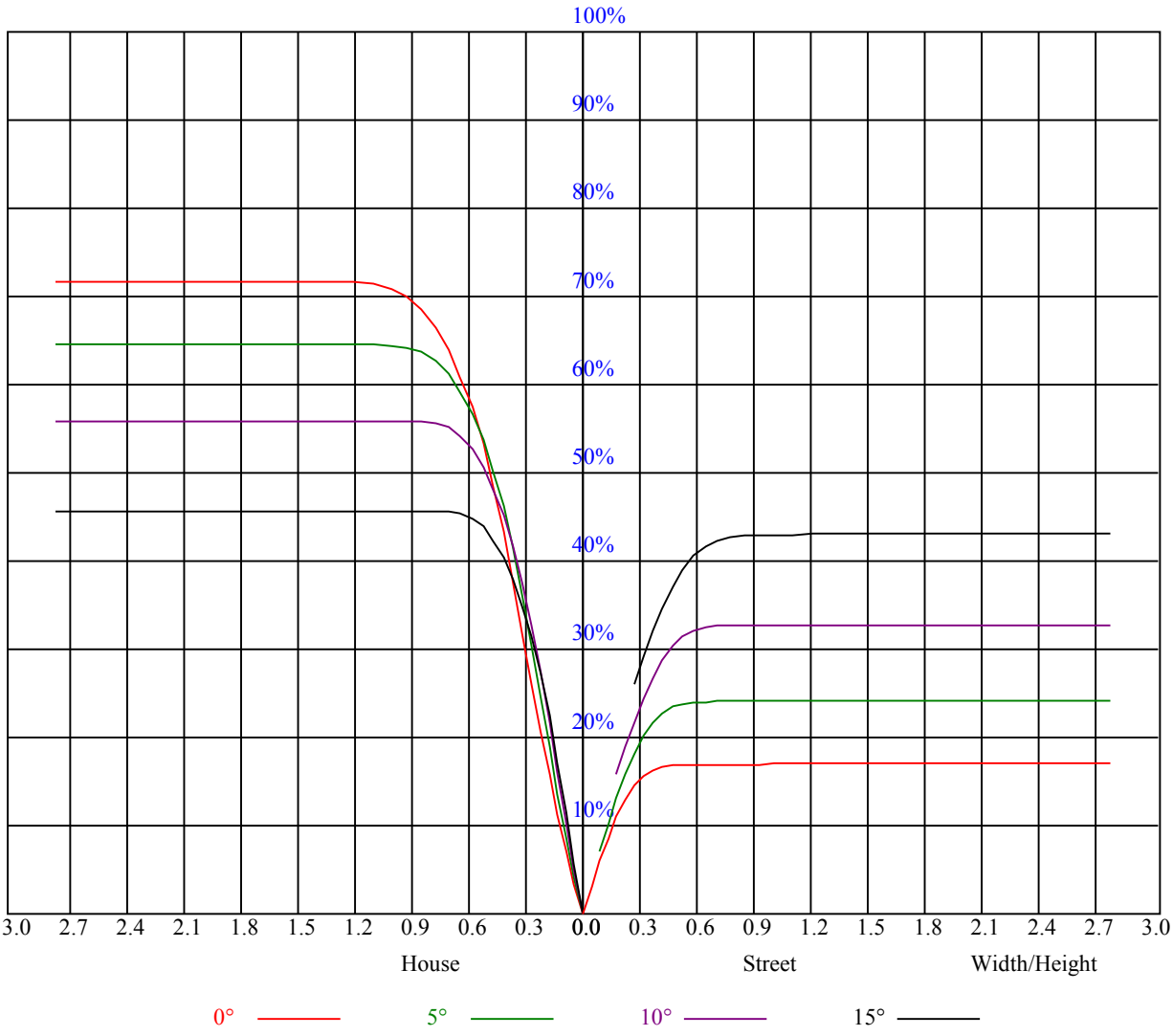


Equipment: GMS-1800 Date: 2022/8/29 Operator: New
Temperature(°C): 25.0 Humidity(%): 65.0% Distance(m): 7.18

Utilization factor table for indoor luminaire

RHOCC	80			70			50			30			10			0
RHOW	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR	COEFFCIENTS OF UTILIZATION RHOFC=20 CU															
0	1.06	1.06	1.06	1.03	1.03	1.03	0.99	0.99	0.99	0.95	0.95	0.95	0.91	0.91	0.91	0.89
1	0.98	0.95	0.93	0.96	0.94	0.92	0.92	0.91	0.89	0.89	0.88	0.86	0.86	0.85	0.84	0.82
2	0.90	0.86	0.83	0.89	0.85	0.82	0.86	0.83	0.80	0.83	0.81	0.79	0.81	0.79	0.77	0.76
3	0.83	0.79	0.75	0.82	0.78	0.74	0.80	0.76	0.73	0.78	0.74	0.72	0.76	0.73	0.71	0.69
4	0.77	0.72	0.68	0.76	0.71	0.67	0.74	0.70	0.67	0.72	0.69	0.66	0.71	0.68	0.65	0.64
5	0.72	0.66	0.62	0.71	0.65	0.61	0.69	0.64	0.61	0.67	0.63	0.60	0.66	0.63	0.60	0.58
6	0.66	0.61	0.56	0.66	0.60	0.56	0.64	0.59	0.56	0.63	0.59	0.55	0.62	0.58	0.55	0.54
7	0.62	0.56	0.52	0.61	0.56	0.52	0.60	0.55	0.51	0.59	0.54	0.51	0.58	0.54	0.51	0.49
8	0.58	0.52	0.48	0.57	0.52	0.48	0.56	0.51	0.47	0.55	0.51	0.47	0.54	0.50	0.47	0.46
9	0.54	0.48	0.44	0.53	0.48	0.44	0.52	0.47	0.44	0.52	0.47	0.44	0.51	0.47	0.44	0.42
10	0.50	0.45	0.41	0.50	0.45	0.41	0.49	0.44	0.41	0.49	0.44	0.41	0.48	0.44	0.41	0.39

Coefficient Utilization Curve



Equipment: GMS-1800
Temperature(°C): 25.0

Date: 2022/8/29
Humidity(%): 65.0%

Operator: New
Distance(m): 7.18

Intensity data(cd)

C/γ(°)	0.0	2.0	4.0	6.0	8.0	10.0	12.0	14.0	16.0
0.0	2275.15	2105.59	1943.76	1862.84	1798.42	1587.11	1197.49	1009.99	678.50
22.5	2393.17	2230.31	2077.24	1934.48	1869.54	1823.67	1657.21	1368.59	1052.66
45.0	2306.59	2192.69	2089.09	1981.38	1900.47	1844.80	1778.32	1648.96	1426.83
67.5	2369.46	2317.41	2273.09	2219.49	2137.03	2040.65	1934.48	1845.84	1784.51
90.0	2391.11	2376.16	2391.62	2411.72	2397.81	2364.31	2313.29	2259.17	2229.79
112.5	2382.35	2448.83	2535.93	2605.51	2649.83	2676.63	2699.82	2728.68	2785.89
135.0	2321.02	2428.22	2553.97	2695.18	2815.27	2991.53	3104.91	3247.67	3407.44
157.5	2405.54	2556.03	2720.95	2881.75	3102.33	3341.98	3627.51	3953.23	4217.62
180.0	2275.15	2444.71	2611.69	2801.35	3019.87	3260.55	3518.76	3866.64	4168.65
202.5	2393.17	2555.00	2722.50	2891.03	3096.15	3310.55	3584.73	3896.02	4149.07
225.0	2306.59	2432.34	2559.64	2669.93	2784.86	2909.58	3008.02	3141.50	3300.24
247.5	2369.46	2449.35	2498.82	2532.84	2556.54	2574.07	2594.68	2629.21	2675.08
270.0	2391.11	2387.50	2357.09	2321.53	2270.51	2216.91	2178.26	2136.51	2077.24
292.5	2382.35	2337.51	2261.75	2168.98	2072.60	1972.10	1877.79	1804.60	1763.37
315.0	2321.02	2202.99	2073.63	1943.76	1876.24	1827.28	1746.37	1568.05	1323.76
337.5	2405.54	2254.02	2099.92	1955.10	1882.94	1822.64	1634.01	1329.94	1008.86
360.0	2275.15	2105.59	1943.76	1862.84	1798.42	1587.11	1197.49	1009.99	678.50

C/γ(°)	18.0	20.0	22.0	24.0	26.0	28.0	30.0	32.0	34.0
0.0	359.48	109.72	10.31	4.59	3.14	2.63	2.32	2.11	2.01
22.5	737.25	490.38	281.14	51.74	7.27	4.07	3.14	2.68	2.42
45.0	1152.65	961.24	725.19	491.47	284.54	142.25	32.21	7.37	4.64
67.5	1752.55	1705.65	1658.75	1587.11	1526.30	1416.01	1274.28	1116.57	960.93
90.0	2207.63	2156.61	2098.37	2052.50	2009.73	1930.36	1873.15	1783.47	1688.64
112.5	2854.95	2901.33	2935.87	2996.16	3065.74	3131.71	3190.98	3217.26	3201.80
135.0	3596.07	3797.58	3975.39	4116.60	4192.36	4173.81	4092.89	3892.93	3571.33
157.5	4400.06	4489.22	4444.90	4243.90	3880.56	3480.62	2986.89	2626.12	2341.12
180.0	4386.15	4510.35	4492.83	4271.22	3862.00	3316.22	2958.54	2620.45	2331.84
202.5	4321.72	4408.31	4370.68	4219.68	3888.29	3408.98	2933.29	2597.78	2313.80
225.0	3501.75	3723.88	3892.41	4010.43	4080.52	4075.89	4009.40	3763.05	3416.20
247.5	2705.49	2736.41	2770.43	2795.68	2813.72	2827.12	2829.18	2804.96	2743.63
270.0	2027.76	1971.07	1902.01	1823.67	1733.48	1636.59	1536.61	1436.62	1325.82
292.5	1713.38	1655.66	1588.15	1488.68	1375.29	1208.31	1035.66	869.70	699.63
315.0	1008.39	830.74	634.02	345.72	149.00	45.92	7.73	4.54	3.40
337.5	695.51	418.23	284.75	23.97	6.24	3.66	3.09	2.63	2.42
360.0	359.48	109.72	10.31	4.59	3.14	2.63	2.32	2.11	2.01

C/γ(°)	36.0	38.0	40.0	42.0	44.0	46.0	48.0	50.0	52.0
0.0	1.80	1.75	1.49	1.49	1.34	1.34	1.24	1.19	1.13
22.5	2.22	2.06	2.01	1.80	1.75	1.60	1.55	1.44	1.39
45.0	3.66	3.20	2.83	2.63	2.47	2.22	2.01	1.91	1.80
67.5	807.86	655.82	520.79	382.67	258.46	113.02	19.28	2.68	2.27
90.0	1594.85	1498.98	1396.94	1225.32	917.63	513.58	322.37	9.07	3.30
112.5	3134.80	3032.76	2858.56	2637.98	2158.16	904.75	609.39	90.76	6.70
135.0	3146.66	2715.28	2381.83	2098.89	1836.04	1584.54	1340.25	1102.14	831.05
157.5	2087.55	1831.92	1579.90	1219.13	985.41	599.85	270.21	37.67	14.17
180.0	2069.51	1802.54	1526.81	1183.57	772.81	395.04	296.09	18.61	9.17
202.5	2059.20	1793.78	1536.61	997.11	918.92	534.76	209.81	23.45	10.87
225.0	3043.58	2555.00	2151.97	1813.88	1483.01	1205.73	951.65	663.04	338.86
247.5	2600.35	2338.02	1844.29	943.15	598.36	111.89	11.49	6.44	5.00
270.0	1155.23	898.51	523.63	158.94	9.43	2.99	2.58	2.27	2.06
292.5	546.05	400.19	283.72	127.04	26.08	2.47	2.01	1.80	1.70
315.0	2.83	2.53	2.16	2.32	1.75	1.60	1.39	1.29	1.24
337.5	2.22	1.96	1.75	1.60	1.55	1.29	1.34	1.19	1.19
360.0	1.80	1.75	1.49	1.49	1.34	1.34	1.24	1.19	1.13

Intensity data(cd)

C/γ(°)	54.0	56.0	58.0	60.0	62.0	64.0	66.0	68.0	70.0
0.0	1.13	1.08	1.08	1.03	1.03	0.98	0.98	0.98	0.98
22.5	1.34	1.34	1.29	1.24	1.24	1.24	1.19	1.24	1.24
45.0	1.65	1.60	1.49	1.44	1.44	1.39	1.39	1.39	1.44
67.5	2.22	2.11	2.06	2.06	1.86	1.86	1.91	1.80	1.70
90.0	2.94	2.68	2.47	2.37	2.27	2.16	2.01	1.96	1.96
112.5	3.81	3.14	2.89	2.68	2.32	2.16	1.96	1.91	1.70
135.0	568.21	292.48	31.13	3.81	3.14	2.63	2.32	2.01	1.80
157.5	7.01	5.67	4.64	3.76	2.99	2.58	2.27	1.80	1.55
180.0	7.52	6.08	5.05	4.17	3.50	2.89	2.42	2.16	1.80
202.5	7.58	6.03	4.79	3.87	3.09	2.63	2.16	1.86	1.60
225.0	290.42	8.25	4.84	3.81	3.25	2.68	2.32	1.96	1.80
247.5	3.92	3.40	2.78	2.53	2.27	1.91	1.70	1.49	1.39
270.0	1.86	1.75	1.65	1.49	1.49	1.34	1.29	1.19	1.13
292.5	1.55	1.49	1.24	1.24	1.24	1.08	1.08	0.98	1.03
315.0	1.13	1.13	1.03	1.03	0.93	0.93	0.88	0.88	0.82
337.5	1.03	1.08	0.98	0.93	0.93	0.88	0.93	0.77	0.82
360.0	1.13	1.08	1.08	1.03	1.03	0.98	0.98	0.98	0.98

C/γ(°)	72.0	74.0	76.0	78.0	80.0	82.0	84.0	86.0	88.0
0.0	0.98	0.93	0.98	0.93	0.93	0.82	0.77	0.72	0.62
22.5	1.24	1.24	1.24	1.19	1.13	1.24	1.19	1.13	1.08
45.0	1.44	1.49	1.55	1.55	1.49	1.49	1.39	1.24	1.19
67.5	1.70	1.60	1.60	1.75	1.80	1.70	1.65	1.34	1.08
90.0	1.80	1.75	1.55	1.55	1.49	1.49	1.39	1.34	1.29
112.5	1.65	1.44	1.44	1.39	1.24	1.19	1.13	1.19	1.08
135.0	1.60	1.49	1.34	1.24	1.19	1.13	1.08	0.98	0.88
157.5	1.34	1.19	1.03	0.93	0.82	0.72	0.67	0.57	0.57
180.0	1.55	1.29	1.08	1.03	0.82	0.72	0.72	0.62	0.52
202.5	1.34	1.19	0.98	0.82	0.72	0.62	0.52	0.46	0.41
225.0	1.49	1.24	1.08	0.98	0.93	0.57	0.62	0.46	0.41
247.5	1.19	1.13	0.88	0.88	0.72	0.72	0.62	0.57	0.46
270.0	0.98	0.98	0.82	0.77	0.77	0.67	0.46	0.52	0.57
292.5	0.88	0.93	0.82	0.82	0.77	0.67	0.46	0.67	0.62
315.0	0.77	0.72	0.77	0.67	0.67	0.57	0.67	0.67	0.72
337.5	0.72	0.67	0.72	0.72	0.67	0.62	0.67	0.46	0.52
360.0	0.98	0.93	0.98	0.93	0.93	0.82	0.77	0.72	0.62

C/γ(°)	90.0
0.0	0.46
22.5	1.03
45.0	1.13
67.5	1.13
90.0	1.24
112.5	1.03
135.0	0.88
157.5	0.52
180.0	0.41
202.5	0.36
225.0	0.46
247.5	0.52
270.0	0.52
292.5	0.67
315.0	0.82
337.5	0.57
360.0	0.46