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Nata

LumCAT: 2-1794-N	
Luminaire:92.70.131.00	
Report No: NATA0100	Voltage(V): 34.9100
Test No: GC20190308	Current(A): 0.3970
LampCAT: TRIDONIC SLE G7 13MM	Power (W): 13.8600
Lamp flux(lm): 1702.0	PF: 0.0000
Number of Lamps: 1	Ballast type: DC
Length(mm): 69	Width(mm): 69
Phm Type: C	Height(mm): 0

Photometric Results

Lumens(lm): 1546.80
Efficiency(%): 90.88%
Lumens(lm)/Power(W): 111.60
Central intensity(cd): 5065.594
Maximum intensity(cd): 5065.594
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=27.0
[C90/270]Total=27.0
Field angle(10%Imax): [C0/180]Total=57.9
[C90/270]Total=57.9
Maximum s/h(1/2): C0_180=0.45 C90_270=0.45
Maximum s/h(1/4): C0_180=0.47 C90_270=0.47
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 90.88%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 97.786%

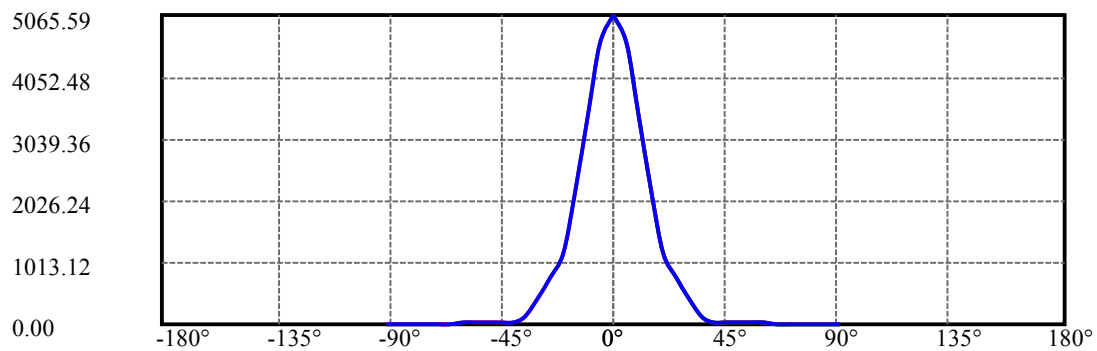
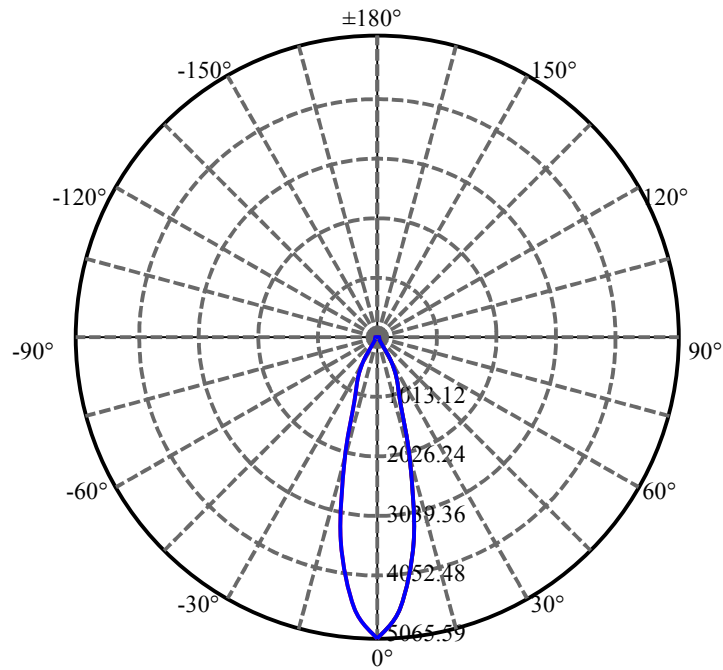
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	5065.594	0.000	0	.000%	.000%
5.0	4581.141	115.324	115.324	6.776%	7.456%
10.0	3473.508	288.140	403.464	16.930%	26.084%
15.0	2124.773	332.086	735.55	19.512%	47.553%
20.0	1174.472	271.904	1007.455	15.976%	65.132%
25.0	742.261	201.030	1208.484	11.811%	78.128%
30.0	444.199	150.148	1358.632	8.822%	87.835%
35.0	120.776	83.197	1441.828	4.888%	93.214%
40.0	45.668	27.770	1469.598	1.632%	95.009%
45.0	31.219	14.236	1483.835	.836%	95.930%
50.0	23.787	11.115	1494.949	.653%	96.648%
55.0	19.322	9.373	1504.322	.551%	97.254%
60.0	16.291	8.232	1512.554	.484%	97.786%
65.0	13.830	7.323	1519.877	.430%	98.260%
70.0	12.185	6.587	1526.464	.387%	98.686%
75.0	10.695	5.980	1532.445	.351%	99.072%
80.0	9.394	5.375	1537.82	.316%	99.420%
85.0	8.142	4.765	1542.585	.280%	99.728%
90.0	7.235	4.210	1546.795	.247%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1358.63	79.83%	87.84%
0-40	1469.60	86.35%	95.01%
0-60	1512.55	88.87%	97.79%
0-90	1542.58	90.63%	99.73%
0-120	1542.58	90.63%	99.73%
0-180	1546.80	90.88%	100.00%
60-90	38.26	2.25%	2.47%
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%
0-25.96	1237.44	72.70%	80.00%

ZONAL LUMEN SUMMARY

0-10	403.46
10-20	603.99
20-30	351.18
30-40	110.97
40-50	25.35
50-60	17.61
60-70	13.91
70-80	11.36
80-90	4.76
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



C0(Max):

C0/C180:

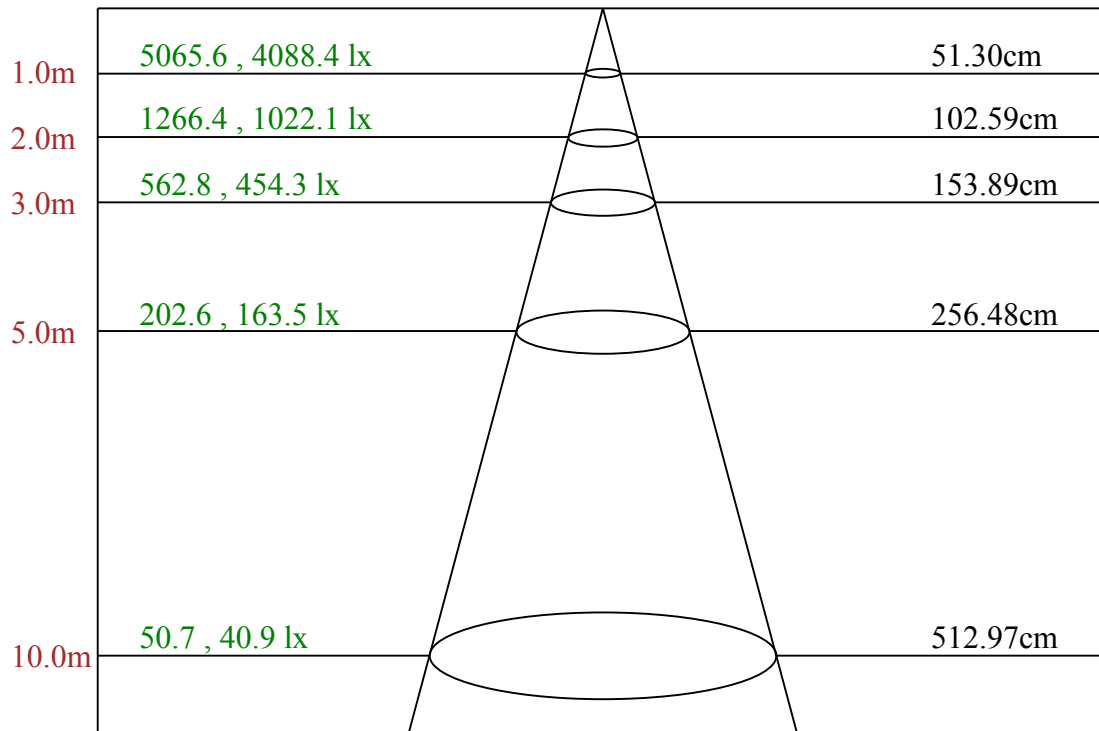
C90/C270:

Field angle(10%Imax):C0/180Left:29.0 Right:29.0

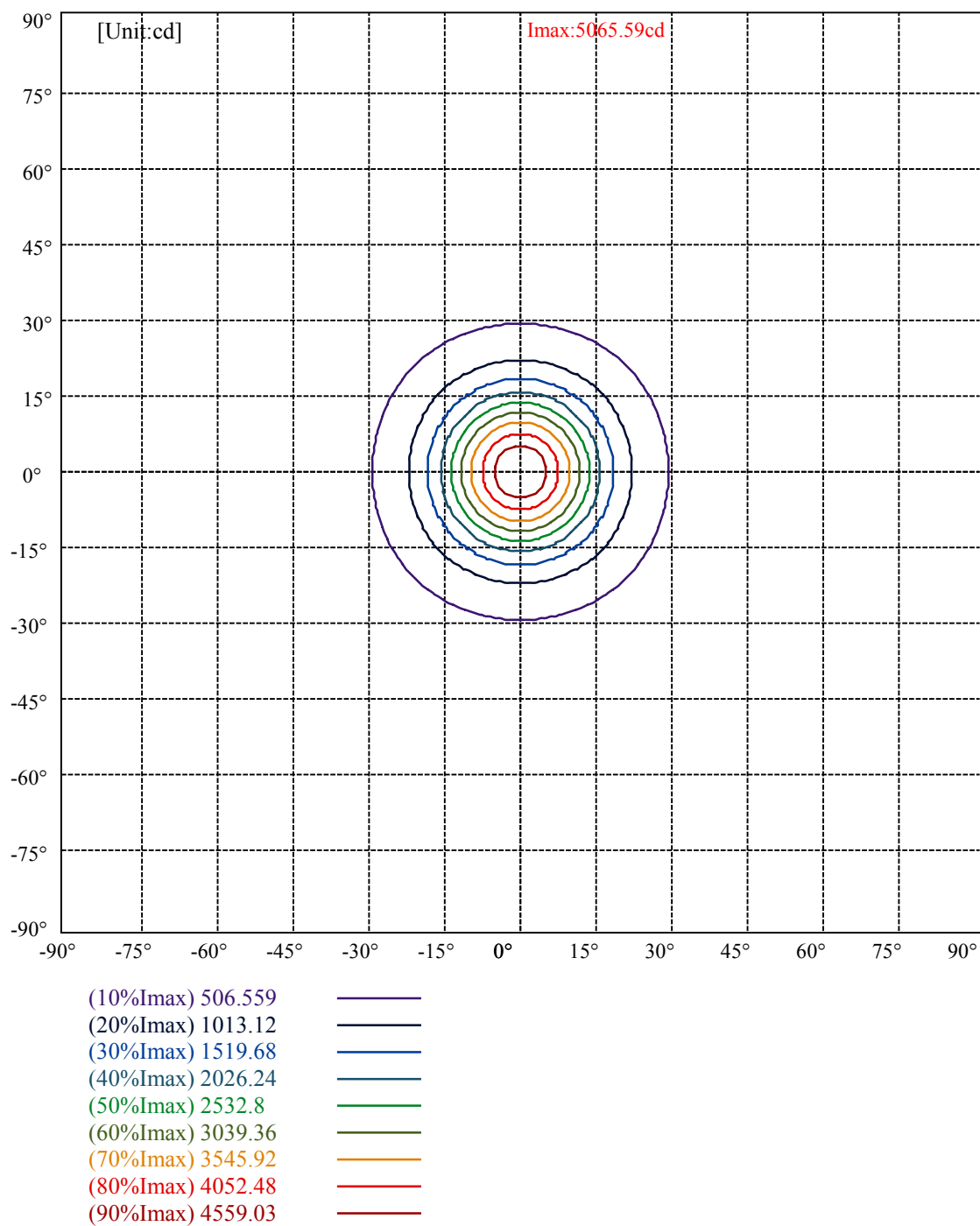
:C90/270Left:29.0 Right:29.0

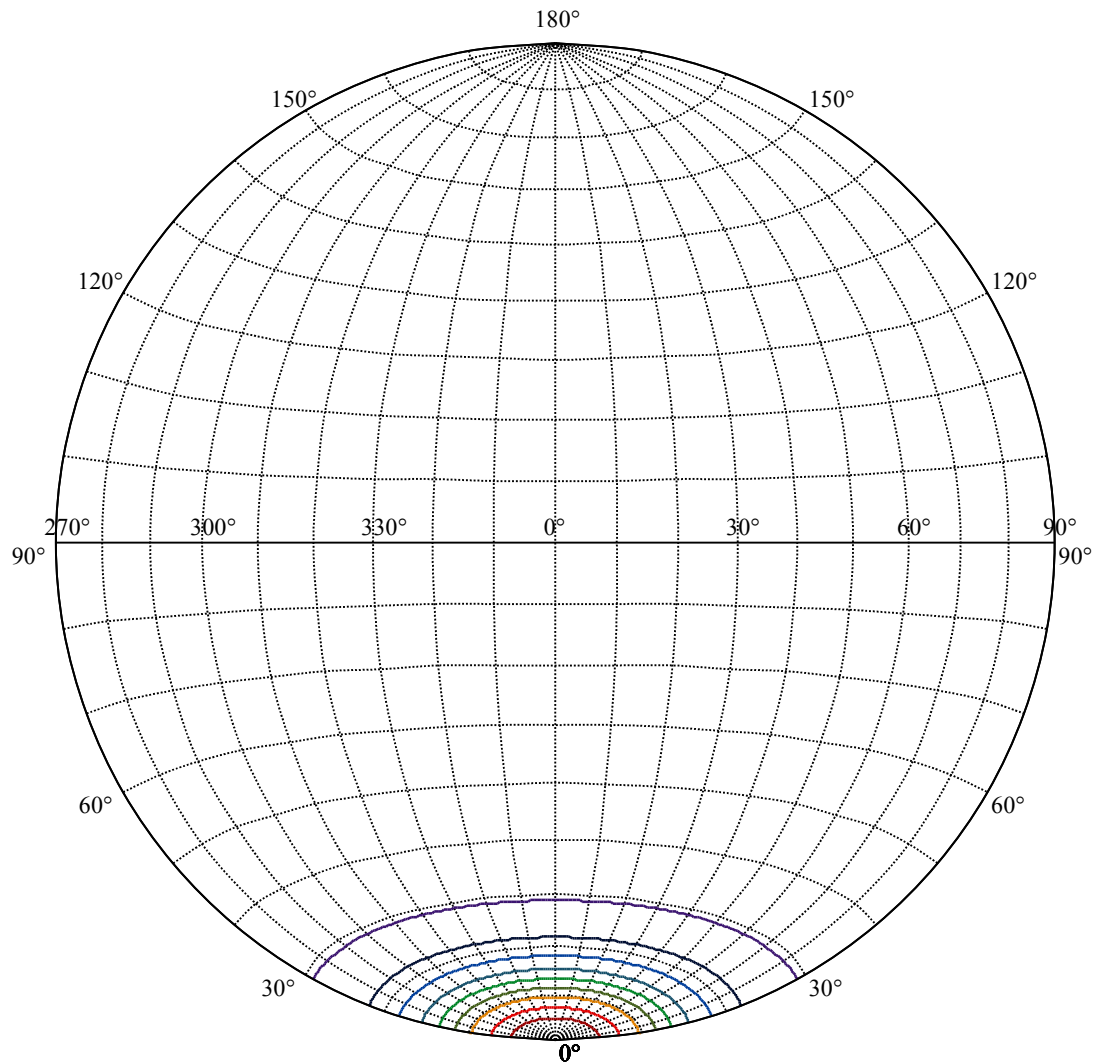
Beam Angle(50%Imax):C0/180Left:13.5 Right:13.5

:C90/270Left:13.5 Right:13.5



Max , Ave Beam angle of C0 plane 28.77





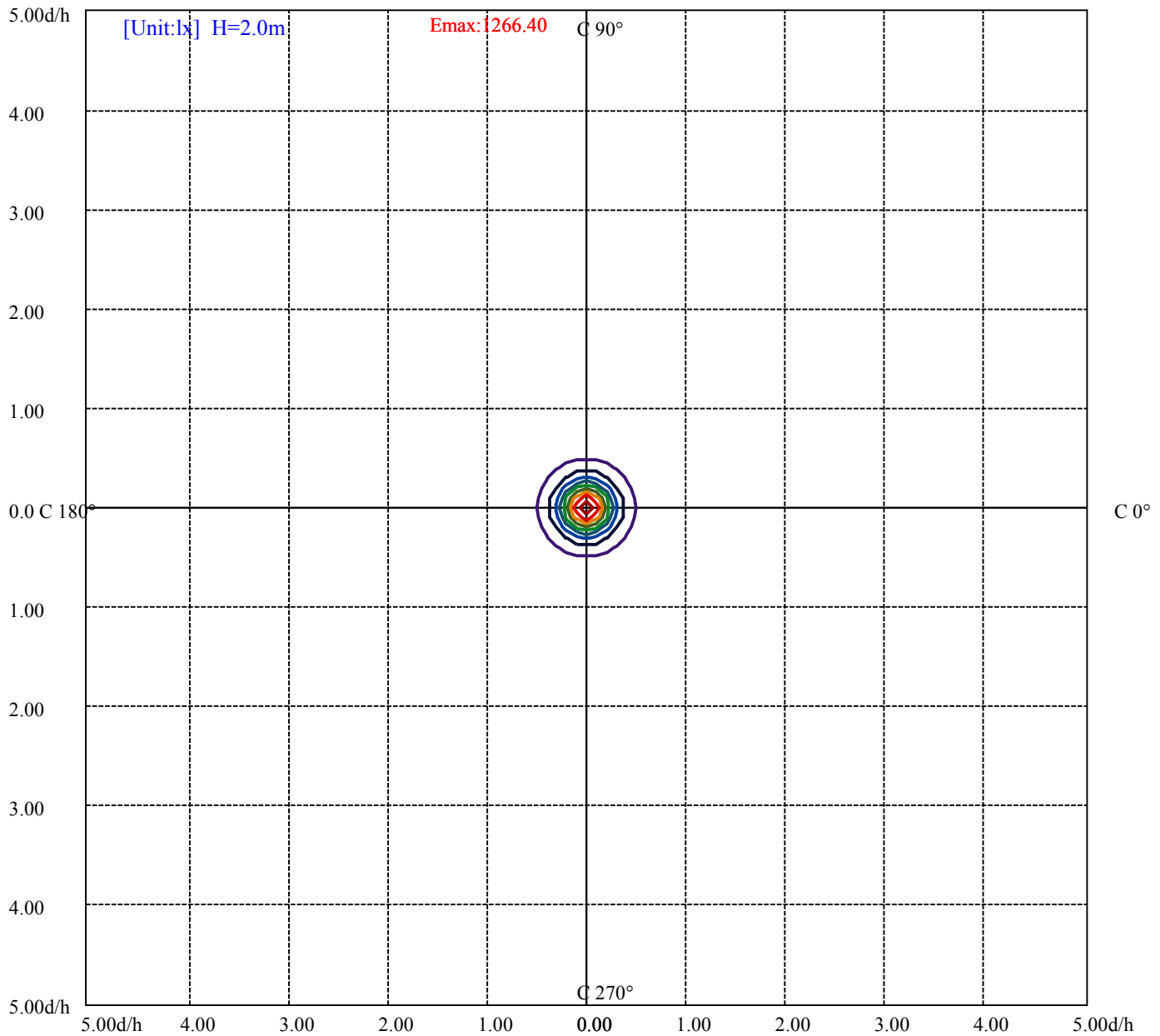
House

[Unit:cd]

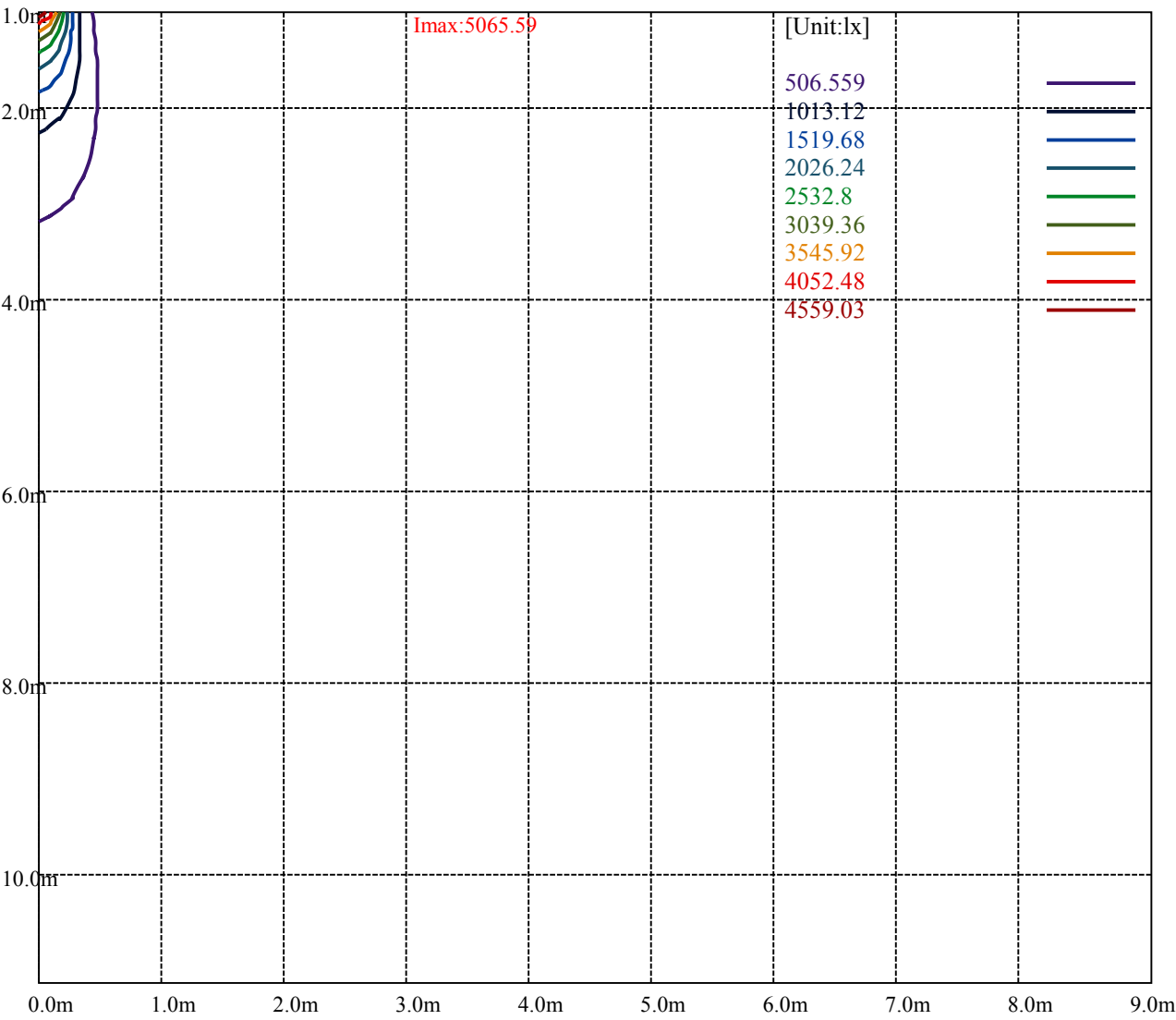
Road

Imax:5065.59

(10%Imax)	506.559	—
(20%Imax)	1013.12	—
(30%Imax)	1519.68	—
(40%Imax)	2026.24	—
(50%Imax)	2532.8	—
(60%Imax)	3039.36	—
(70%Imax)	3545.92	—
(80%Imax)	4052.48	—
(90%Imax)	4559.03	—



(10%Emax) 126.6395	—
(20%Emax) 253.28	—
(30%Emax) 379.9175	—
(40%Emax) 506.5575	—
(50%Emax) 633.1975	—
(60%Emax) 759.8375	—
(70%Emax) 886.4775	—
(80%Emax) 1013.115	—
(90%Emax) 1139.755	—



Luminance Table

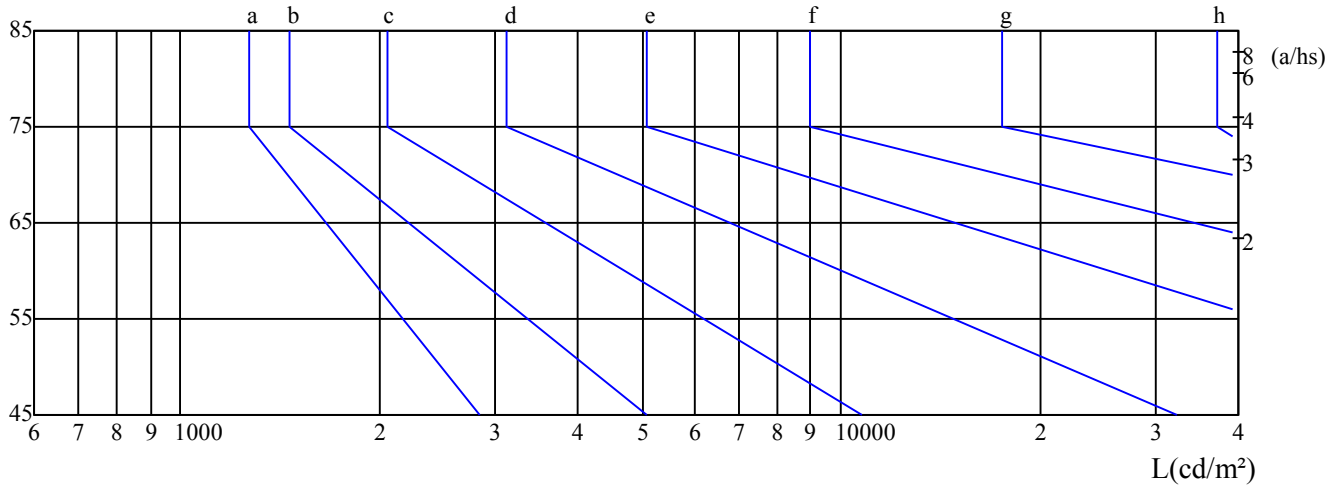
γ	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
0	0	0	0	0	0	0	0	0

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

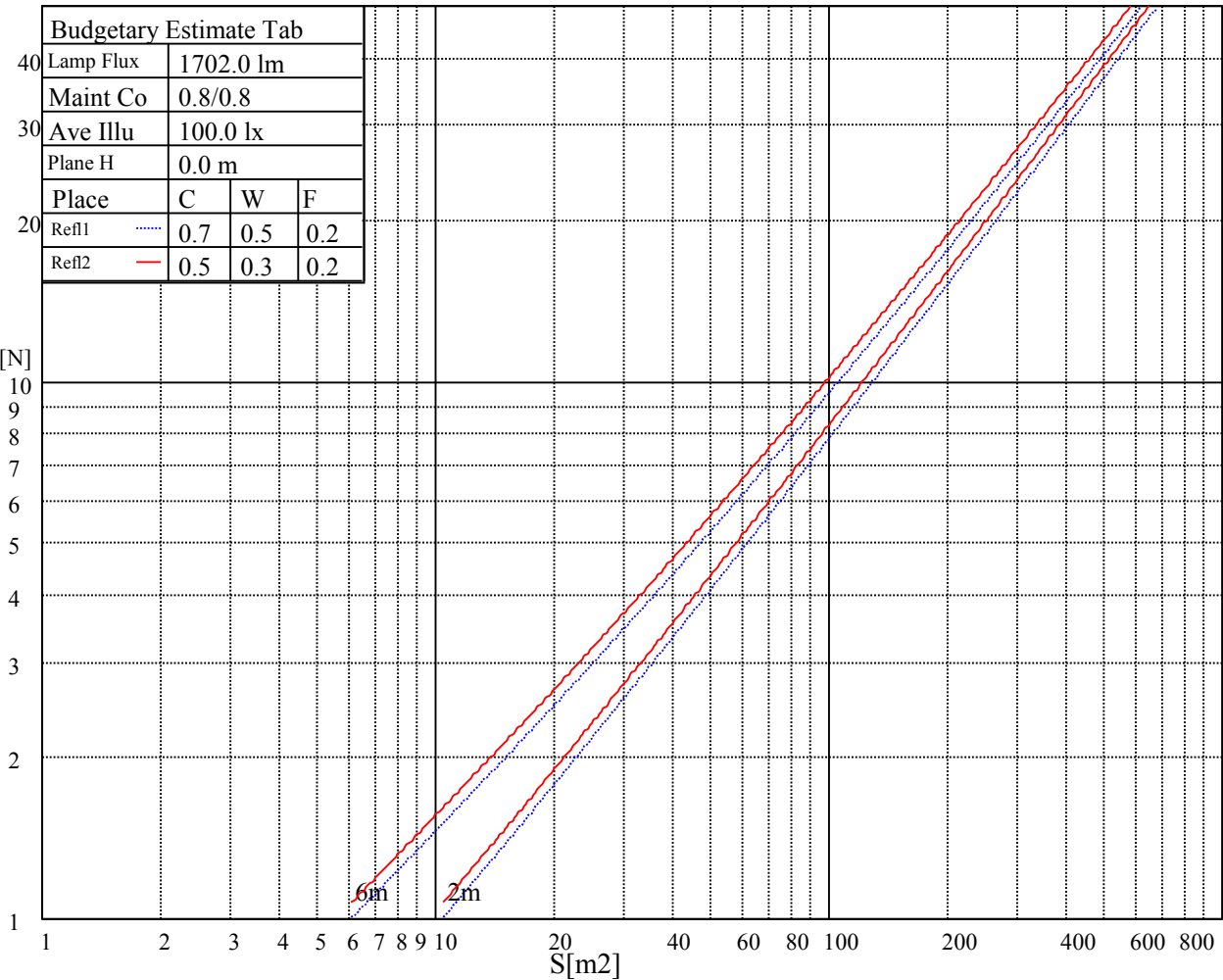
Luminance Limiting Curve

 $\gamma(^{\circ})$ 

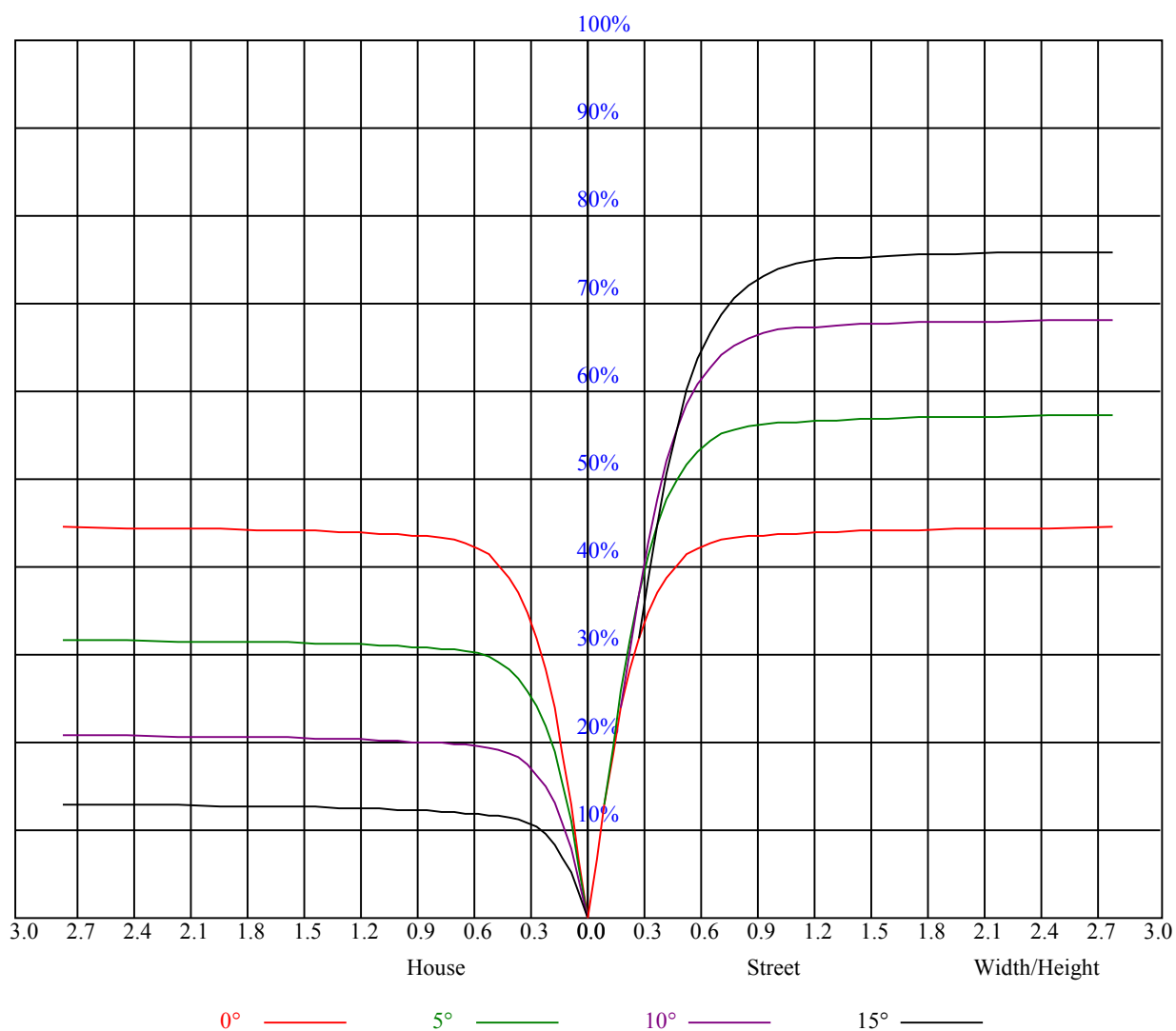
C0 ———

C45 ———

C90 ———



RHOC	80			70			50			30			10			0
RHOW	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR	COEFFICIENTS OF UTILIZATION RHOFC=20 CU															
0	1.08	1.08	1.08	1.06	1.06	1.06	1.01	1.01	1.01	0.97	0.97	0.97	0.93	0.93	0.93	0.91
1	1.01	0.99	0.98	0.99	0.98	0.96	0.96	0.94	0.93	0.92	0.91	0.90	0.89	0.88	0.88	0.86
2	0.96	0.92	0.90	0.94	0.91	0.89	0.91	0.89	0.87	0.89	0.87	0.85	0.86	0.85	0.83	0.82
3	0.91	0.87	0.84	0.89	0.86	0.83	0.87	0.84	0.82	0.85	0.83	0.81	0.83	0.81	0.79	0.78
4	0.86	0.82	0.79	0.85	0.81	0.78	0.83	0.80	0.78	0.82	0.79	0.77	0.80	0.78	0.76	0.75
5	0.82	0.78	0.75	0.82	0.78	0.74	0.80	0.77	0.74	0.79	0.76	0.73	0.77	0.75	0.73	0.71
6	0.79	0.74	0.71	0.78	0.74	0.71	0.77	0.73	0.71	0.76	0.73	0.70	0.75	0.72	0.70	0.69
7	0.76	0.71	0.68	0.75	0.71	0.68	0.74	0.70	0.68	0.73	0.70	0.67	0.72	0.69	0.67	0.66
8	0.73	0.68	0.65	0.72	0.68	0.65	0.71	0.68	0.65	0.71	0.67	0.65	0.70	0.67	0.64	0.63
9	0.70	0.66	0.63	0.70	0.66	0.63	0.69	0.65	0.63	0.68	0.65	0.62	0.68	0.64	0.62	0.61
10	0.68	0.63	0.61	0.67	0.63	0.60	0.67	0.63	0.60	0.66	0.63	0.60	0.65	0.62	0.60	0.59



Intensity data(cd)										Appendix Page: 14 Total:14	
C/γ(°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0		
0.0	5075.44	4485.94	3322.13	2026.13	1155.94	706.50	431.44	87.47	44.66		
45.0	5071.50	4570.88	3592.69	2160.56	1236.38	755.44	457.88	97.93	44.33		
90.0	5071.50	4602.38	3407.06	2110.50	1102.84	736.31	452.25	105.53	44.21		
135.0	5043.94	4801.50	3880.13	2478.38	1440.00	808.88	537.19	288.00	52.71		
180.0	5075.44	4703.06	3584.81	2220.75	1117.58	767.48	474.86	125.21	47.93		
225.0	5071.50	4585.50	3457.69	2103.75	1107.45	761.91	430.43	90.28	44.16		
270.0	5071.50	4548.38	3478.50	2127.38	1218.38	759.94	444.38	99.28	44.89		
315.0	5043.94	4351.50	3065.06	1770.75	1017.23	641.64	325.18	72.51	42.47		
360.0	5075.44	4485.94	3322.13	2026.13	1155.94	706.50	431.44	87.47	44.66		
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0		
0.0	31.11	23.57	19.24	16.14	13.73	12.09	10.52	9.28	7.93		
45.0	30.94	23.63	19.24	16.48	14.01	12.32	10.86	9.51	8.21		
90.0	30.94	23.57	19.24	16.20	13.84	12.21	10.69	9.39	8.21		
135.0	34.03	25.76	20.53	17.10	14.51	12.66	11.08	9.73	8.33		
180.0	31.95	24.19	19.58	16.43	13.84	12.15	10.74	9.45	8.21		
225.0	30.38	23.12	18.73	16.14	13.78	12.15	10.80	9.51	8.38		
270.0	30.83	23.40	19.24	16.20	13.67	12.15	10.63	9.34	8.04		
315.0	29.59	23.06	18.79	15.64	13.28	11.76	10.24	8.94	7.82		
360.0	31.11	23.57	19.24	16.14	13.73	12.09	10.52	9.28	7.93		
C/γ(°)	90.0										
0.0	7.09										
45.0	7.20										
90.0	7.20										
135.0	7.31										
180.0	7.37										
225.0	7.31										
270.0	7.26										
315.0	7.14										
360.0	7.09										