
Nata

LumCAT: 3-1939-M	
Luminaire: BJB 47.319.2141	
Report No: GC2017041505	Voltage(V): 0.0780
Test No: NT-0010	Current(A): 0.0780
LampCAT: BRIDGELUX V18B	Power (W): 0.0460
Lamp flux(lm): 3874.0	PF: 0.0000
Number of Lamps: 1	Ballast type: DC
Length(mm): 78	Width(mm): 78
Phm Type: C	Height(mm): 0

Photometric Results

Lumens(lm): 3472.80
Efficiency(%): 89.64%
Lumens(lm)/Power(W): 75495.66
Central intensity(cd): 10174.560
Maximum intensity(cd): 10174.560
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=30.5
[C90/270]Total=30.5
Field angle(10%Imax): [C0/180]Total=61.4
[C90/270]Total=61.4
Maximum s/h(1/2): C0_180=0.52 C90_270=0.52
Maximum s/h(1/4): C0_180=0.48 C90_270=0.48
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 89.64%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.737%

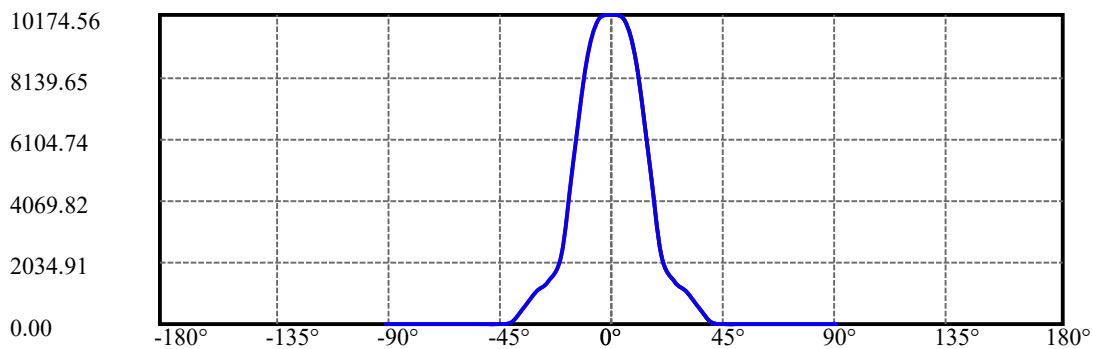
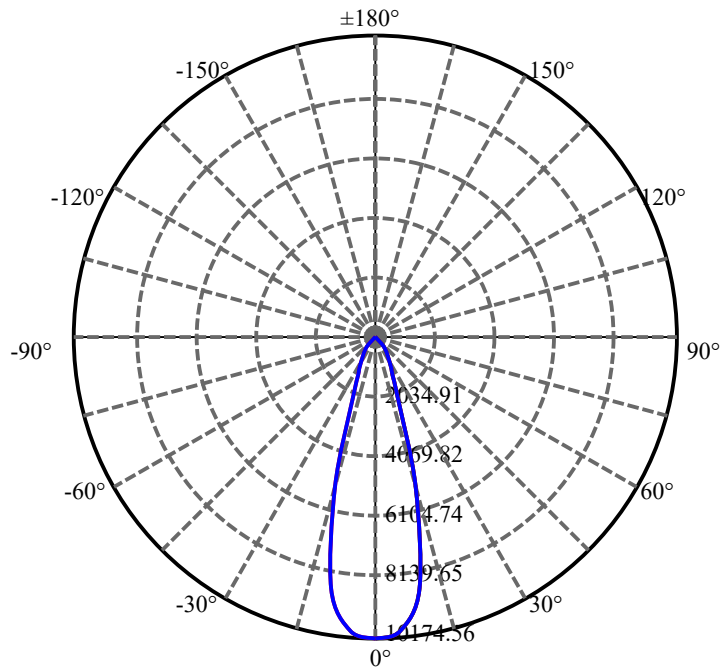
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	10174.560	0.000	0	.000%	.000%
5.0	9974.912	240.881	240.881	6.218%	6.936%
10.0	8614.056	664.986	905.867	17.165%	26.085%
15.0	5225.128	820.931	1726.798	21.191%	49.724%
20.0	2261.786	617.027	2343.825	15.927%	67.491%
25.0	1413.367	385.456	2729.281	9.950%	78.590%
30.0	1101.307	318.234	3047.515	8.215%	87.754%
35.0	512.018	237.573	3285.088	6.133%	94.595%
40.0	94.346	101.167	3386.255	2.611%	97.508%
45.0	20.983	21.354	3407.609	.551%	98.123%
50.0	16.317	7.537	3415.147	.195%	98.340%
55.0	15.264	6.867	3422.013	.177%	98.538%
60.0	14.679	6.921	3428.935	.179%	98.737%
65.0	14.280	7.040	3435.975	.182%	98.940%
70.0	13.991	7.159	3443.134	.185%	99.146%
75.0	13.812	7.267	3450.401	.188%	99.355%
80.0	13.964	7.432	3457.833	.192%	99.569%
85.0	13.757	7.532	3465.365	.194%	99.786%
90.0	13.392	7.434	3472.799	.192%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	3047.51	78.67%	87.75%
0-40	3386.26	87.41%	97.51%
0-60	3428.93	88.51%	98.74%
0-90	3465.37	89.45%	99.79%
0-120	3465.37	89.45%	99.79%
0-180	3472.80	89.64%	100.00%
60-90	43.35	1.12%	1.25%
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%
0-25.77	2778.24	71.72%	80.00%

ZONAL LUMEN SUMMARY

0-10	905.87
10-20	1437.96
20-30	703.69
30-40	338.74
40-50	28.89
50-60	13.79
60-70	14.20
70-80	14.70
80-90	7.53
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:

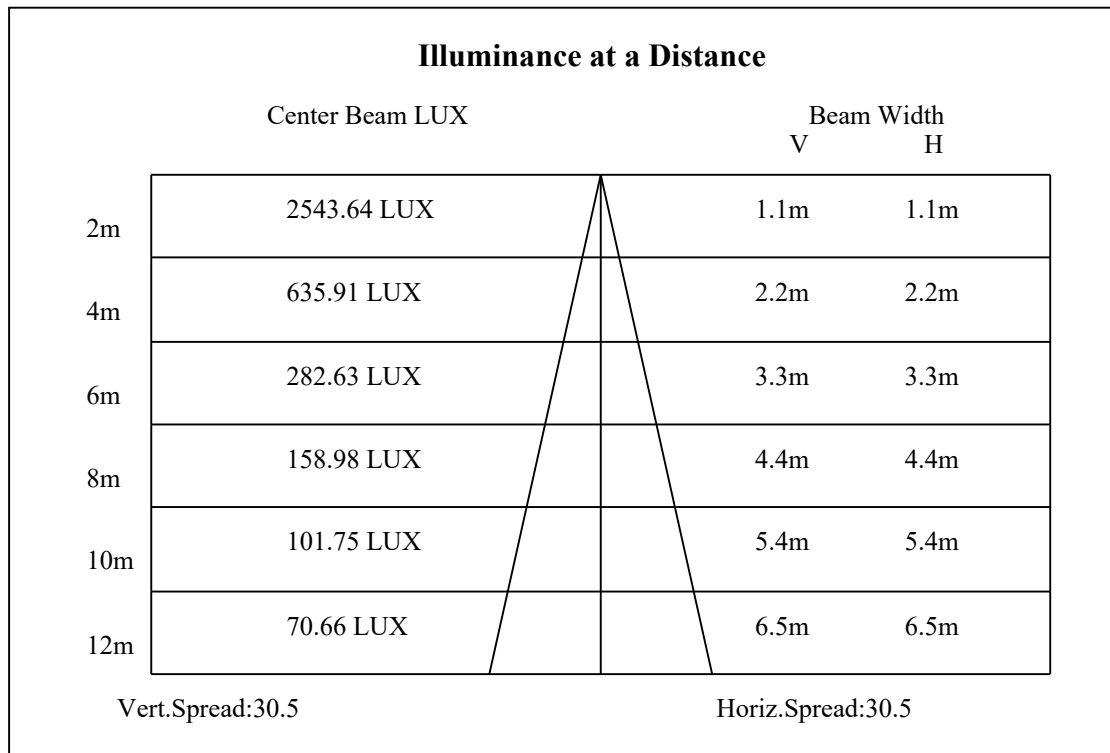
C90/C270:

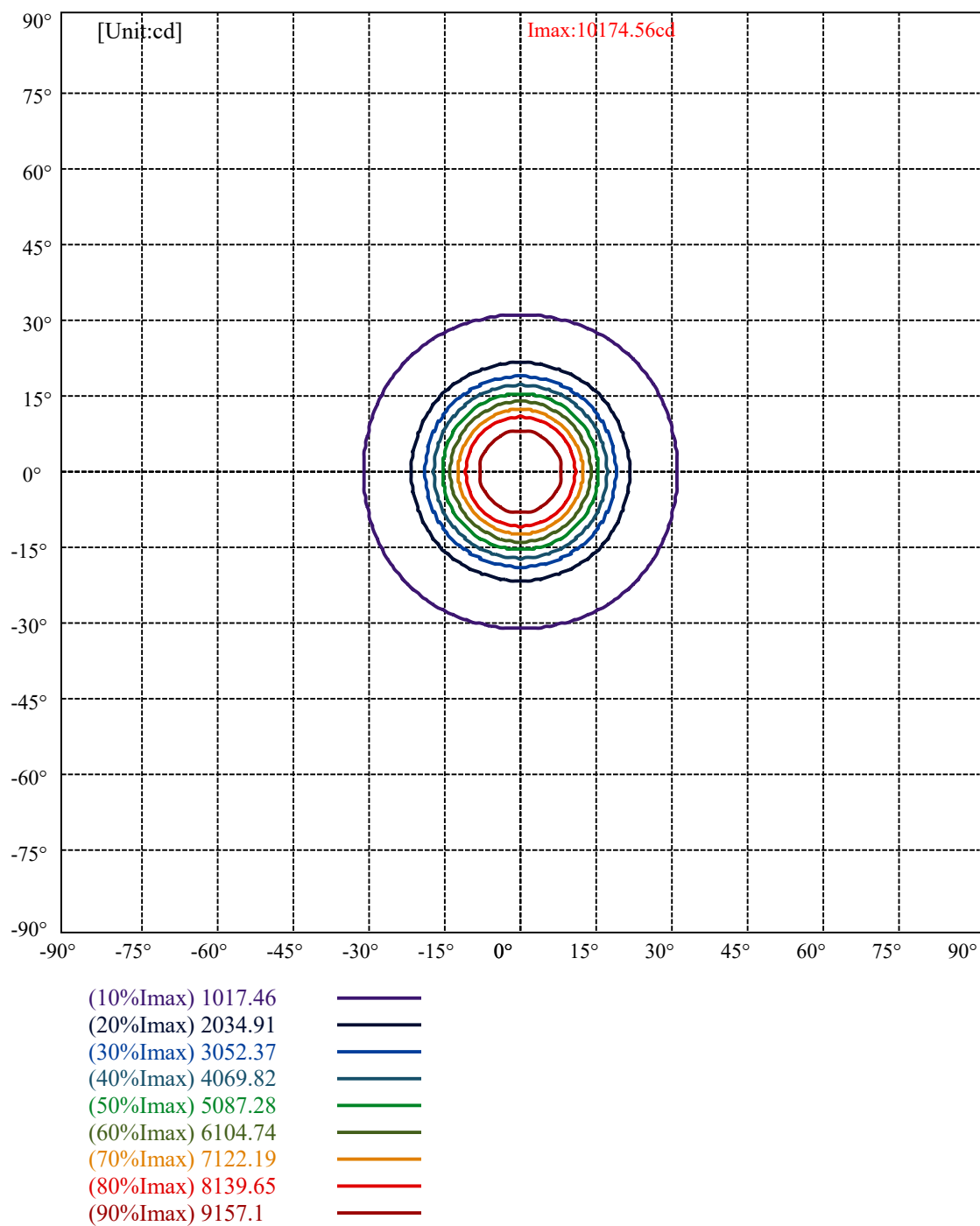
Field angle(10%Imax):C0/180Left:30.7 Right:30.7

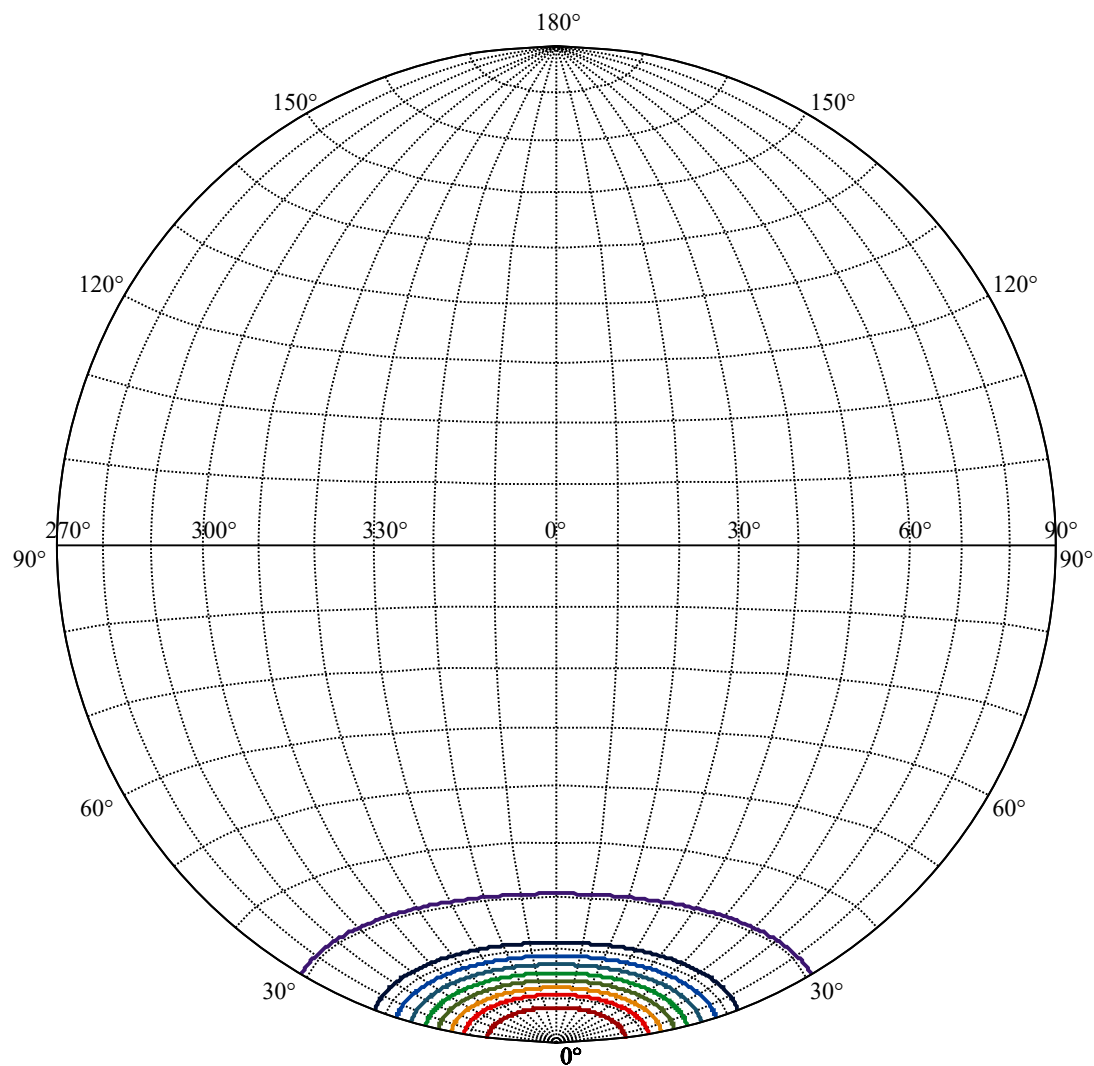
:C90/270Left:30.7 Right:30.7

Beam Angle(50%Imax):C0/180Left:15.2 Right:15.2

:C90/270Left:15.2 Right:15.2





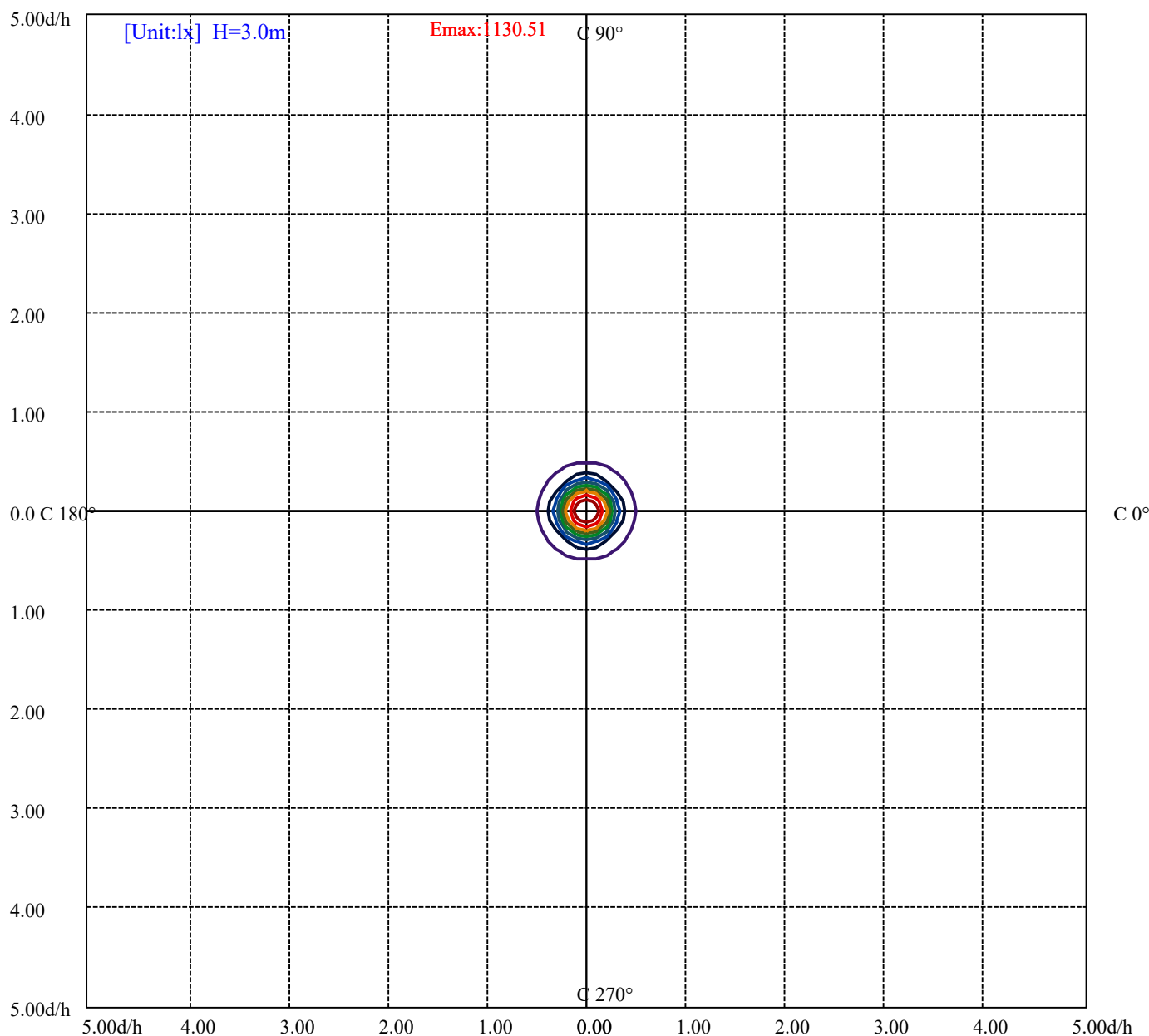


House

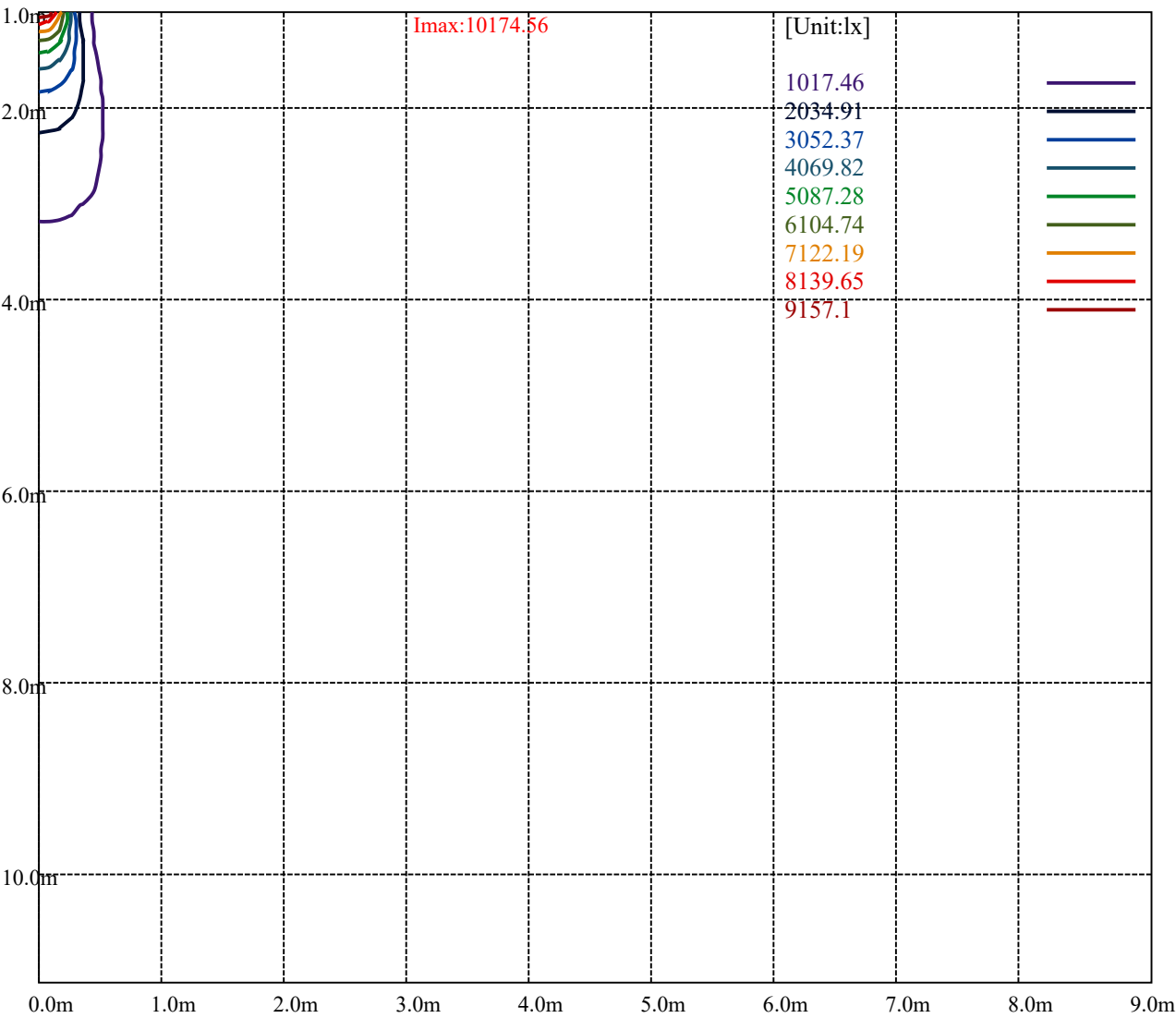
[Unit:cd]

Road

	Imax:10174.56	
(10%Imax)	1017.46	—
(20%Imax)	2034.91	—
(30%Imax)	3052.37	—
(40%Imax)	4069.82	—
(50%Imax)	5087.28	—
(60%Imax)	6104.74	—
(70%Imax)	7122.19	—
(80%Imax)	8139.65	—
(90%Imax)	9157.1	—



(10%Emax)	113.0511	—
(20%Emax)	226.1011	—
(30%Emax)	339.1522	—
(40%Emax)	452.2022	—
(50%Emax)	565.2533	—
(60%Emax)	678.3033	—
(70%Emax)	791.3544	—
(80%Emax)	904.4045	—
(90%Emax)	1017.456	—



Luminance Table

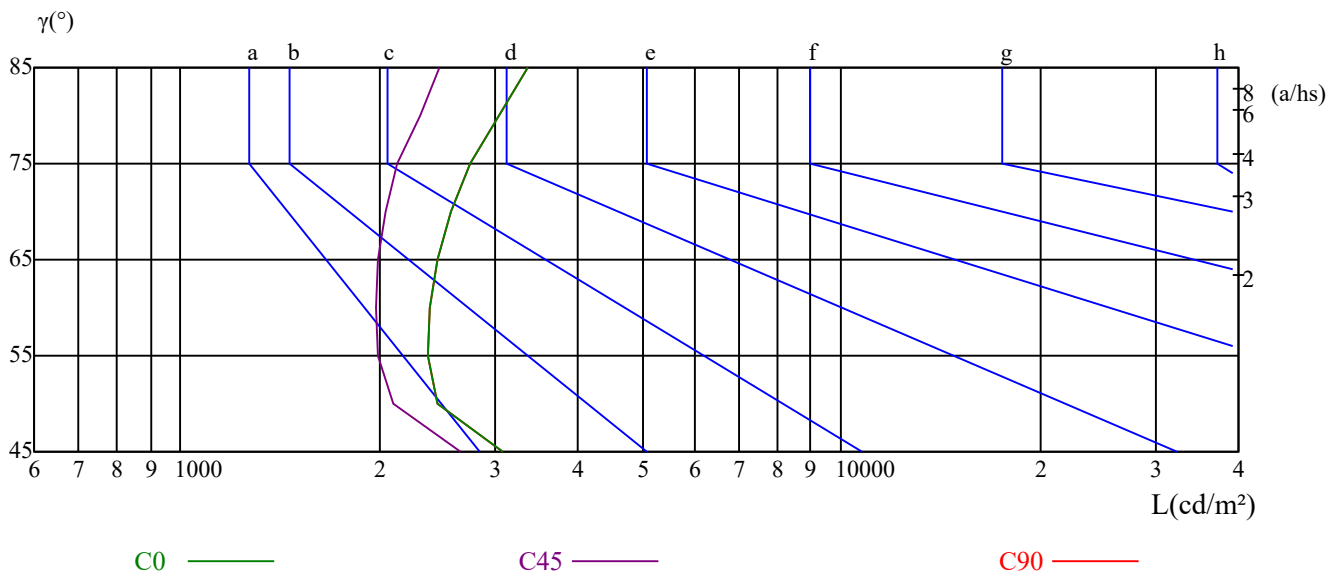
γ	45	50	55	60	65	70	75	80	85
C0	3068	2450	2374	2387	2452	2566	2740	3042	3352
C45	2659	2093	1996	1974	1992	2043	2133	2307	2463
C90	3068	2450	2374	2387	2452	2566	2740	3042	3352

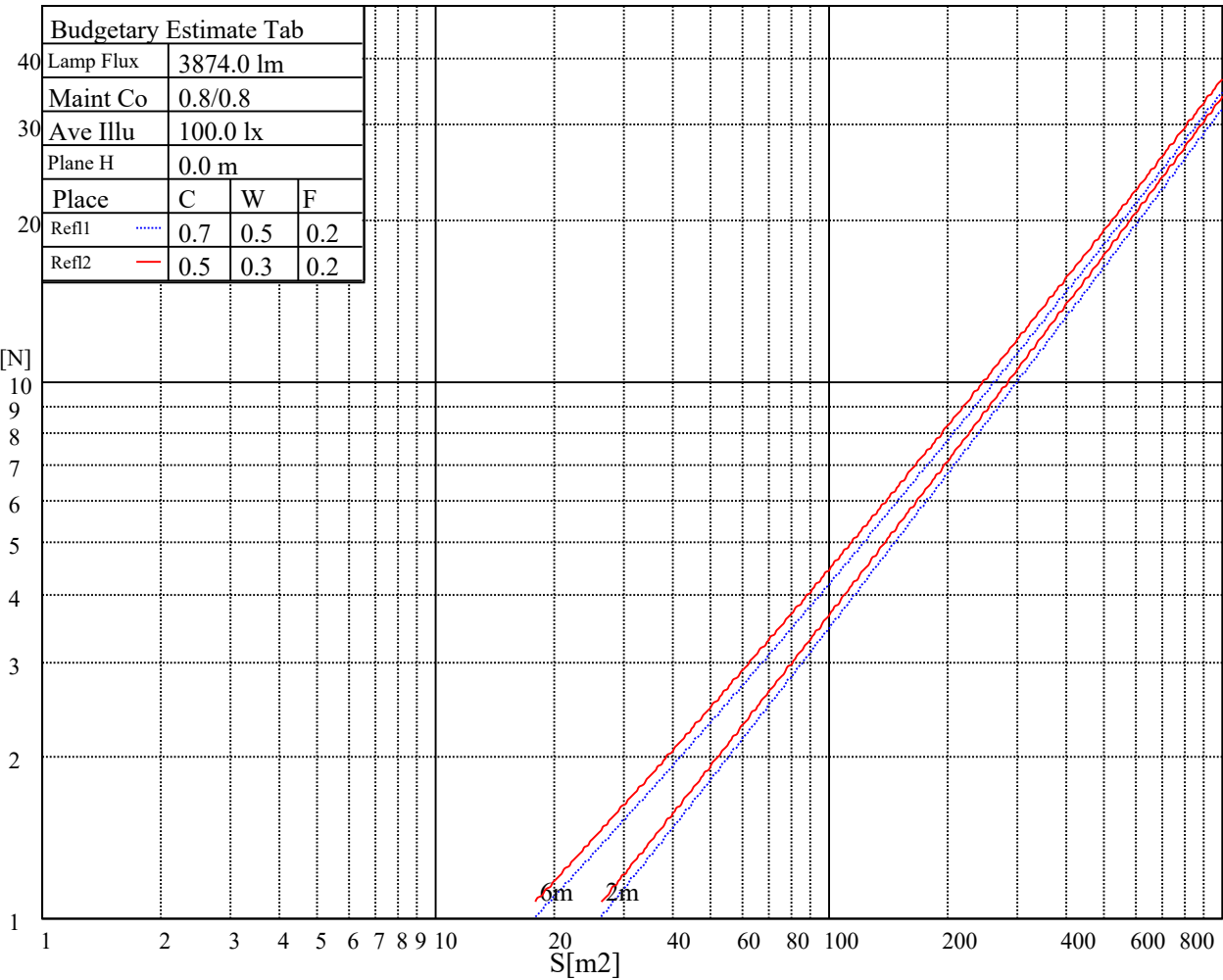
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
5554	5554	5554	8772	8772	8772	25945	25945	25945

Glare Table

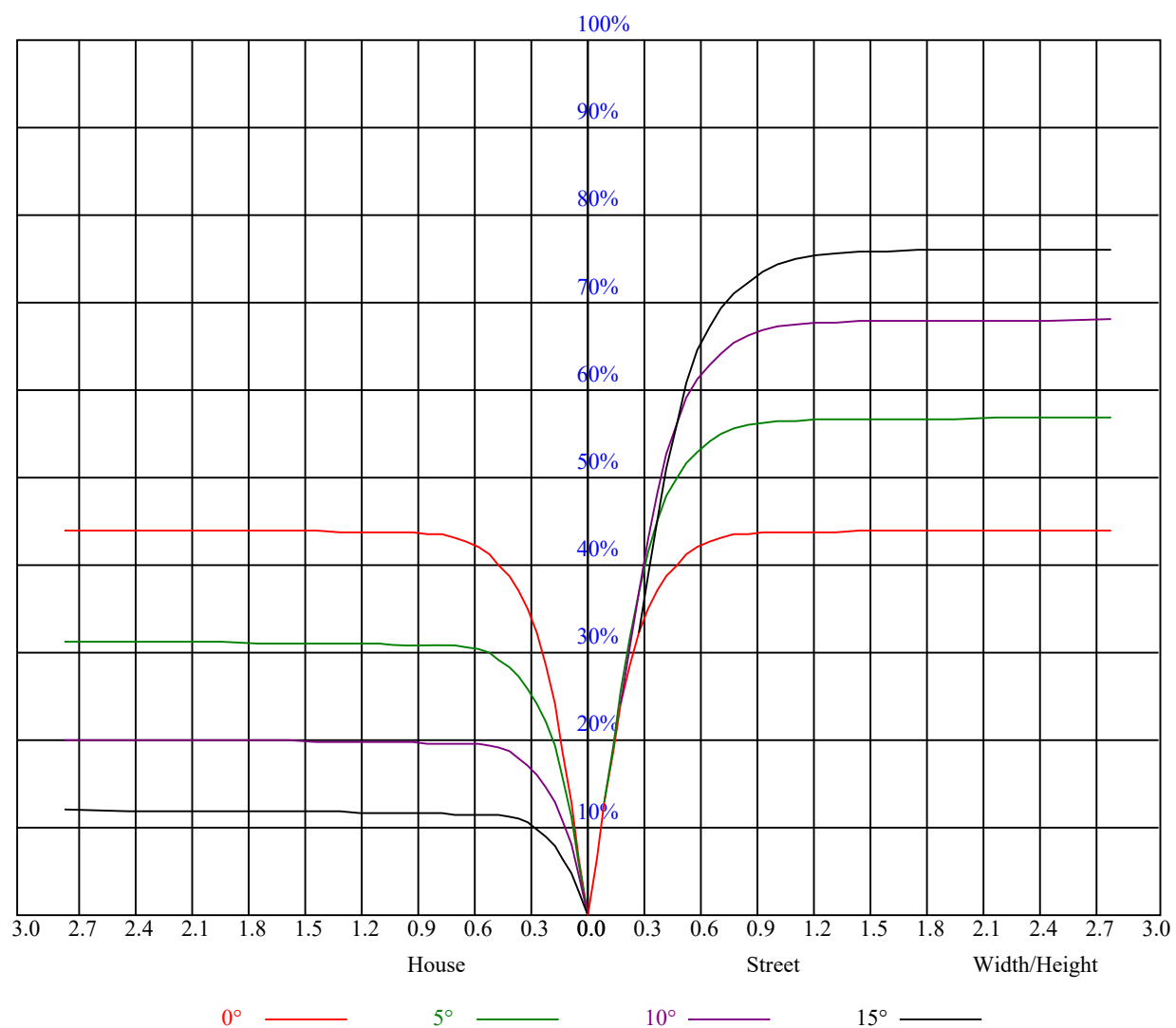
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	≤ 300				
1.5	B		2000	1000	500	≤ 300			
1.85	C			2000	1000	500	≤ 300		
2.2	D				2000	1000	500	≤ 300	
2.55	E					2000	1000	500	≤ 300
		a	b	c	d	e	f	g	h

Luminance Limiting Curve





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	COEFFICIENTS OF UTILIZATION RHOFC=20 CU															
0	1.07	1.07	1.07	1.04	1.04	1.04	1.00	1.00	1.00	0.95	0.95	0.95	0.91	0.91	0.91	0.90
1	1.00	0.98	0.97	0.98	0.97	0.95	0.95	0.93	0.92	0.91	0.90	0.89	0.88	0.88	0.87	0.85
2	0.95	0.92	0.89	0.93	0.91	0.88	0.91	0.88	0.86	0.88	0.86	0.85	0.85	0.84	0.83	0.81
3	0.90	0.86	0.83	0.89	0.86	0.83	0.87	0.84	0.82	0.85	0.82	0.80	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	0.77	0.81	0.79	0.77	0.80	0.78	0.76	0.75
5	0.82	0.78	0.75	0.81	0.77	0.74	0.80	0.76	0.74	0.78	0.75	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	0.72	0.70	0.74	0.72	0.70	0.69
7	0.75	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	0.70	0.67	0.65	0.70	0.67	0.65	0.64
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	0.67	0.64	0.62	0.61
10	0.67	0.63	0.61	0.67	0.63	0.61	0.66	0.63	0.60	0.66	0.63	0.60	0.65	0.62	0.60	0.59



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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	10190.94	10124.32	9121.74	5835.43	2488.00	1463.95	1174.90	599.56	172.99		
45.0	10155.15	10170.57	9474.11	6595.21	3147.02	1547.64	1260.24	714.63	294.00		
90.0	10183.78	10045.04	8725.34	5183.01	2216.02	1404.49	1074.65	519.02	57.59		
135.0	10168.37	10066.51	8877.29	5578.31	2298.05	1412.20	1151.23	553.87	61.55		
180.0	10190.94	9891.43	8241.39	4751.37	1982.03	1368.15	1041.61	413.97	35.40		
225.0	10155.15	9599.63	7457.94	3880.38	1729.32	1311.44	932.10	305.67	31.55		
270.0	10183.78	9929.42	8519.43	5052.53	2188.49	1406.14	1104.43	524.69	53.57		
315.0	10168.37	9972.37	8495.20	4924.79	2045.35	1392.93	1071.29	464.73	48.12		
360.0	10190.94	10124.32	9121.74	5835.43	2488.00	1463.95	1174.90	599.56	172.99		
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0		
0.0	21.53	16.74	15.53	14.92	14.48	14.09	13.93	13.76	13.87		
45.0	25.93	16.79	15.58	14.87	14.37	14.09	13.76	13.65	13.65		
90.0	20.87	16.13	15.25	14.65	14.31	14.04	13.93	15.42	13.71		
135.0	20.92	16.41	15.42	14.87	14.48	14.20	13.98	13.87	13.93		
180.0	19.71	16.24	15.25	14.70	14.31	14.04	13.87	13.87	14.15		
225.0	17.34	15.91	14.92	14.37	13.98	13.71	13.54	13.49	13.54		
270.0	20.76	16.19	15.09	14.53	14.15	13.87	13.71	13.93	13.54		
315.0	20.81	16.13	15.09	14.53	14.15	13.87	13.76	13.71	13.65		
360.0	21.53	16.74	15.53	14.92	14.48	14.09	13.93	13.76	13.87		
C/ γ (°)	90.0										
0.0	13.60										
45.0	13.27										
90.0	13.32										
135.0	13.43										
180.0	13.54										
225.0	13.27										
270.0	13.32										
315.0	13.38										
360.0	13.60										