
Nata

LumCAT: 2-1720-A
Luminaire: 92.70.150.00+92.70.152.00
Report No: NT2017072102
Test No: GC2017072102
LampCAT: CITIZEN LCN-C01B
Lamp flux(lm): 1382.0
Number of Lamps: 1
Length(mm): 70
Phm Type: C

Voltage(V): 23.5000
Current(A): 0.5000
Power (W): 11.7500
PF: 0.0000
Ballast type: DC
Width(mm): 70
Height(mm): 0

Photometric Results

Lumens(lm): 1211.72
Efficiency(%): 87.68%
Lumens(lm)/Power(W): 103.12
Central intensity(cd): 4547.849
Maximum intensity(cd): 4589.587
Angle of maximum intensity: C=90.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=22.2
[C90/270]Total=22.8
Field angle(10%Imax): [C0/180]Total=56.7
[C90/270]Total=57.4
Maximum s/h(1/2): C0_180=0.38 C90_270=0.39
Maximum s/h(1/4): C0_180=0.38 C90_270=0.37
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 87.68%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.536%

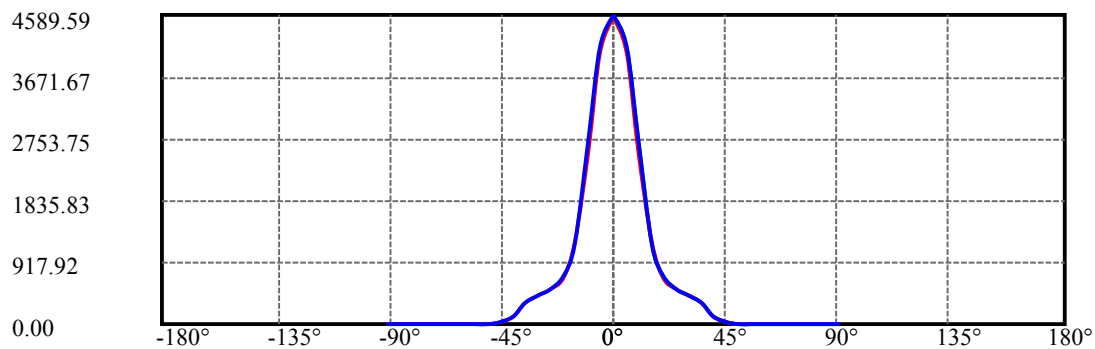
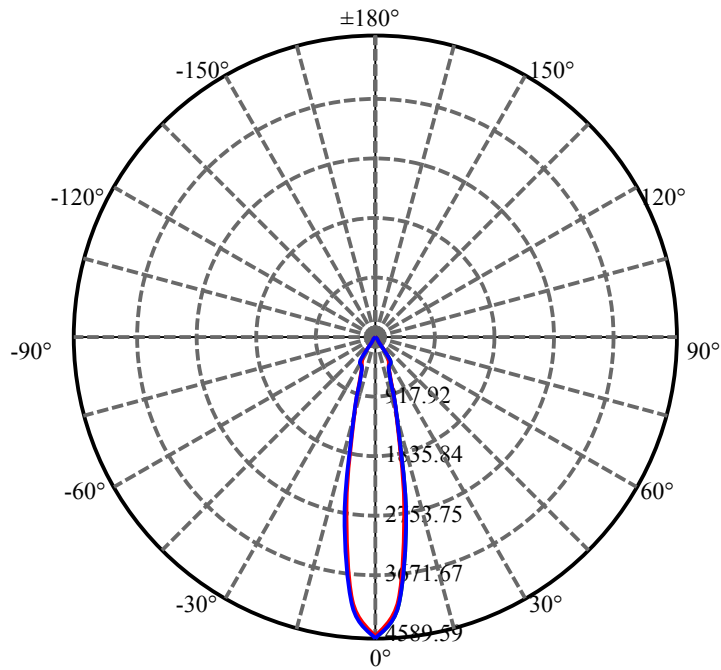
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	4566.770	0.000	0	.000%	.000%
5.0	4064.306	103.182	103.182	7.466%	8.515%
10.0	2666.268	240.774	343.956	17.422%	28.386%
15.0	1232.154	231.252	575.208	16.733%	47.470%
20.0	690.553	158.458	733.666	11.466%	60.548%
25.0	510.089	125.925	859.591	9.112%	70.940%
30.0	435.975	119.725	979.316	8.663%	80.820%
35.0	314.668	110.537	1089.853	7.998%	89.943%
40.0	101.397	69.417	1159.271	5.023%	95.672%
45.0	23.819	23.185	1182.456	1.678%	97.585%
50.0	6.748	6.176	1188.632	.447%	98.095%
55.0	5.746	2.717	1191.349	.197%	98.319%
60.0	5.635	2.631	1193.979	.190%	98.536%
65.0	5.551	2.719	1196.698	.197%	98.761%
70.0	5.607	2.825	1199.524	.204%	98.994%
75.0	5.676	2.949	1202.473	.213%	99.237%
80.0	5.802	3.071	1205.544	.222%	99.491%
85.0	6.066	3.225	1208.769	.233%	99.757%
90.0	4.703	2.949	1211.718	.213%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	979.32	70.86%	80.82%
0-40	1159.27	83.88%	95.67%
0-60	1193.98	86.40%	98.54%
0-90	1208.77	87.47%	99.76%
0-120	1208.77	87.47%	99.76%
0-180	1211.72	87.68%	100.00%
60-90	17.42	1.26%	1.44%
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%
0-29.58	969.37	70.14%	80.00%

ZONAL LUMEN SUMMARY

0-10	343.96
10-20	389.71
20-30	245.65
30-40	179.95
40-50	29.36
50-60	5.35
60-70	5.54
70-80	6.02
80-90	3.22
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



C90(Max): —————

C0/C180: —————

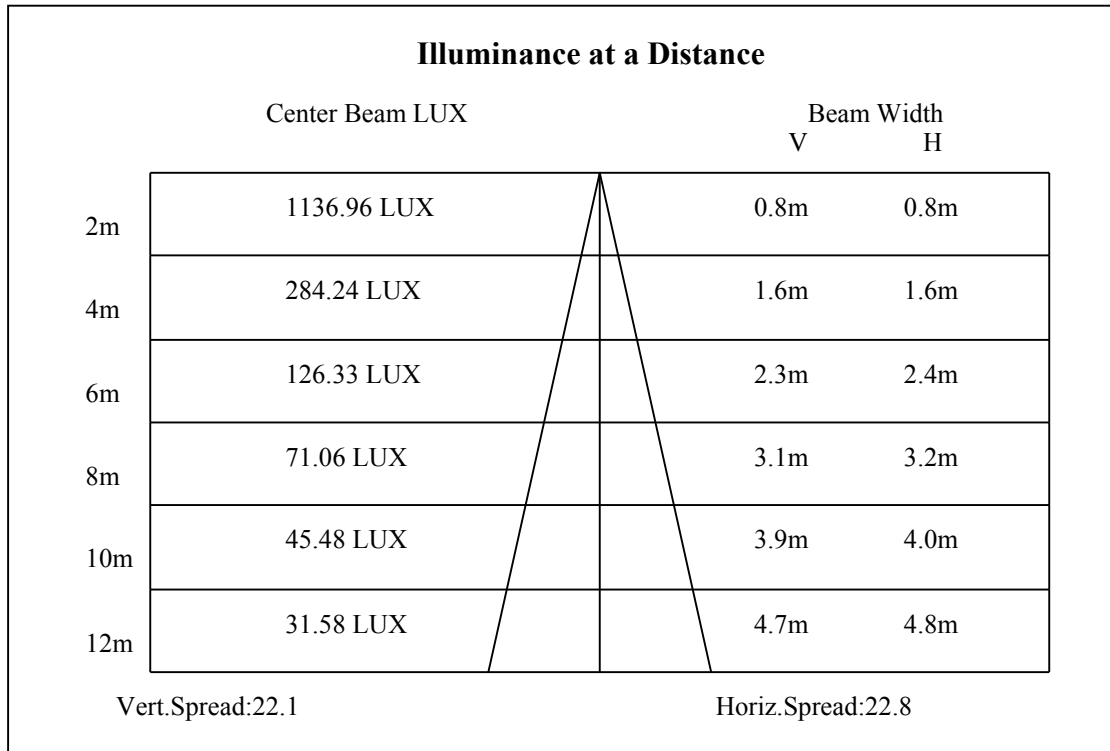
C90/C270: —————

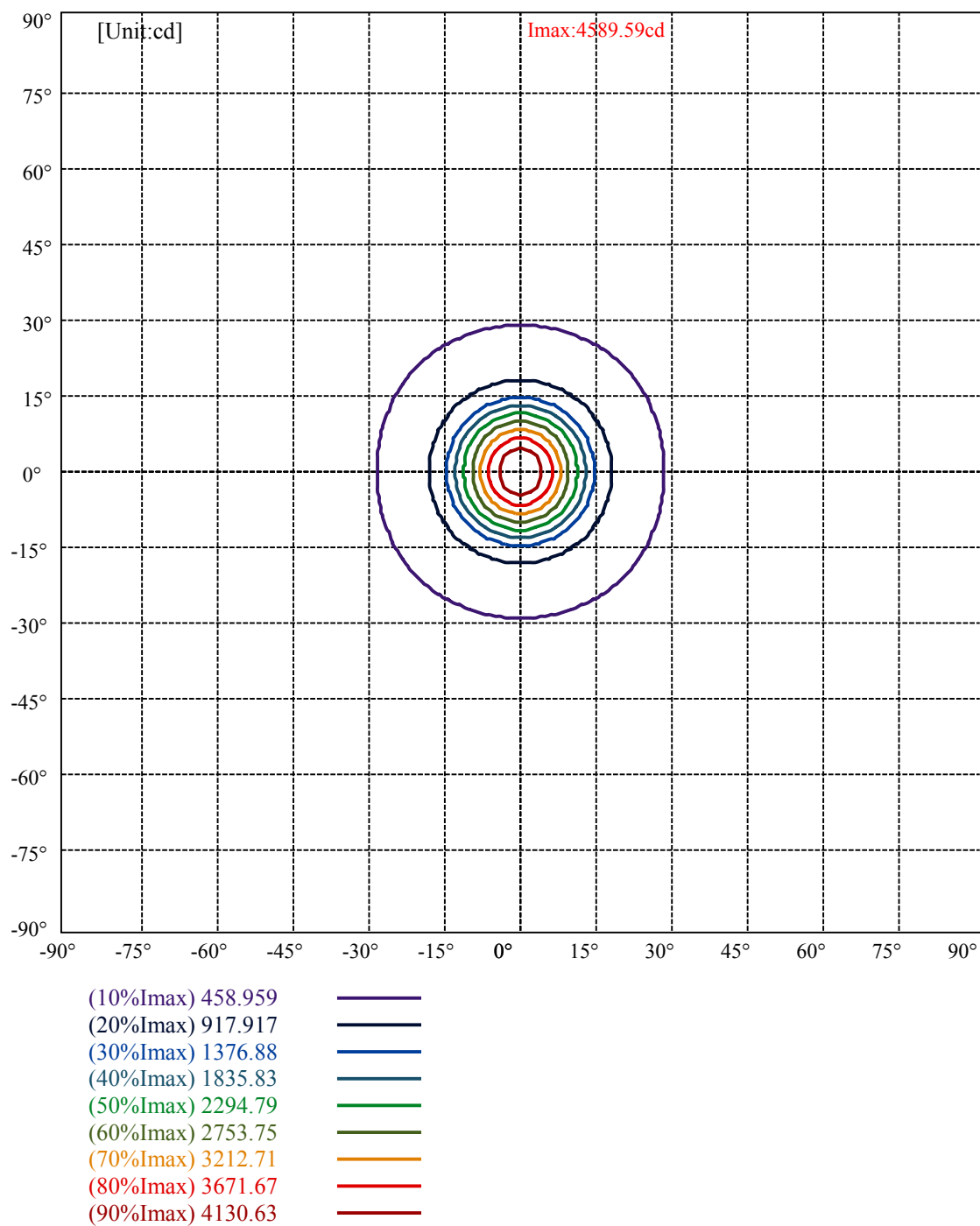
Field angle(10%Imax):C0/180Left:28.4 Right:28.4

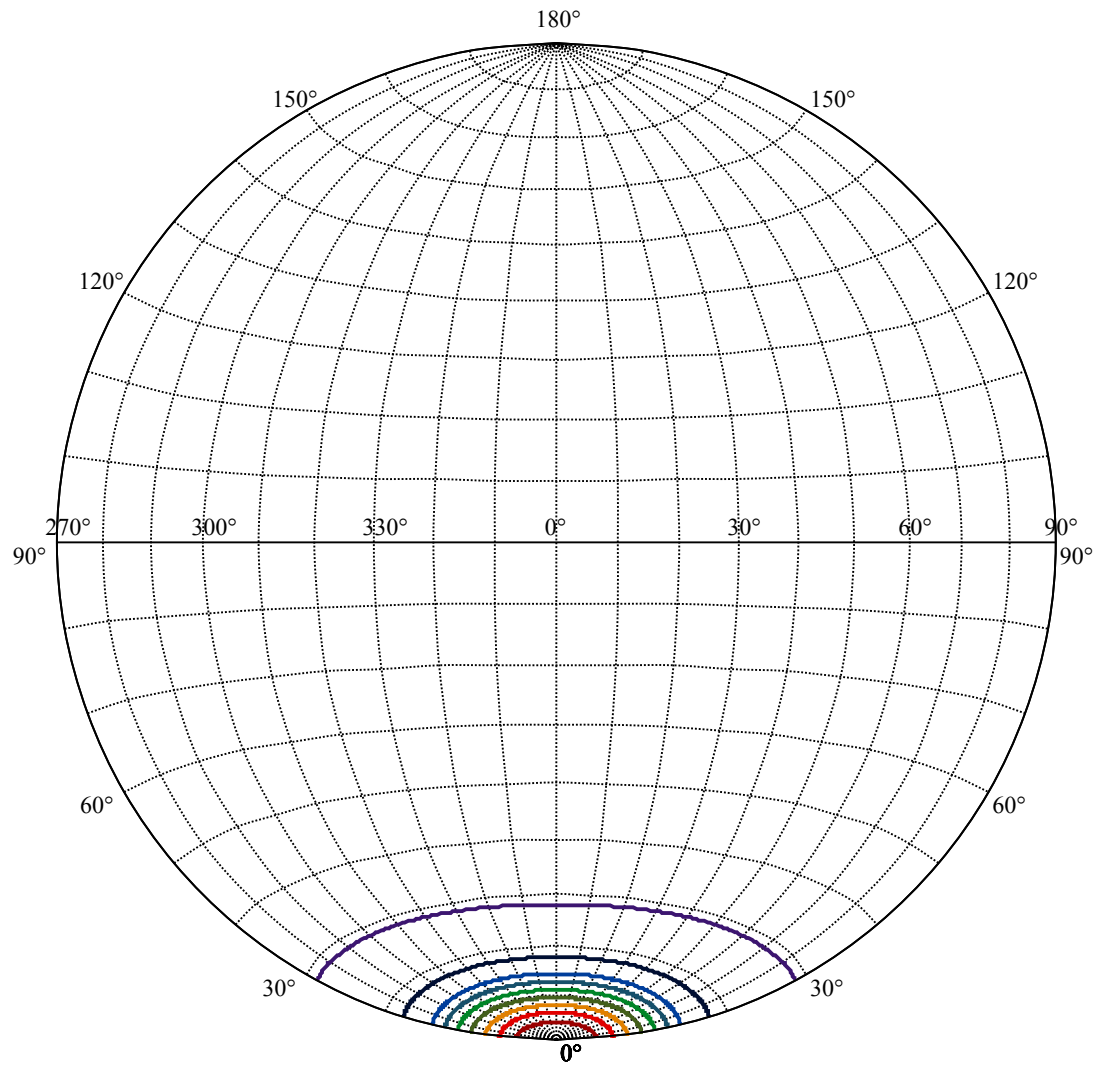
:C90/270Left:28.7 Right:28.7

Beam Angle(50%Imax):C0/180Left:11.1 Right:11.1

:C90/270Left:11.4 Right:11.4





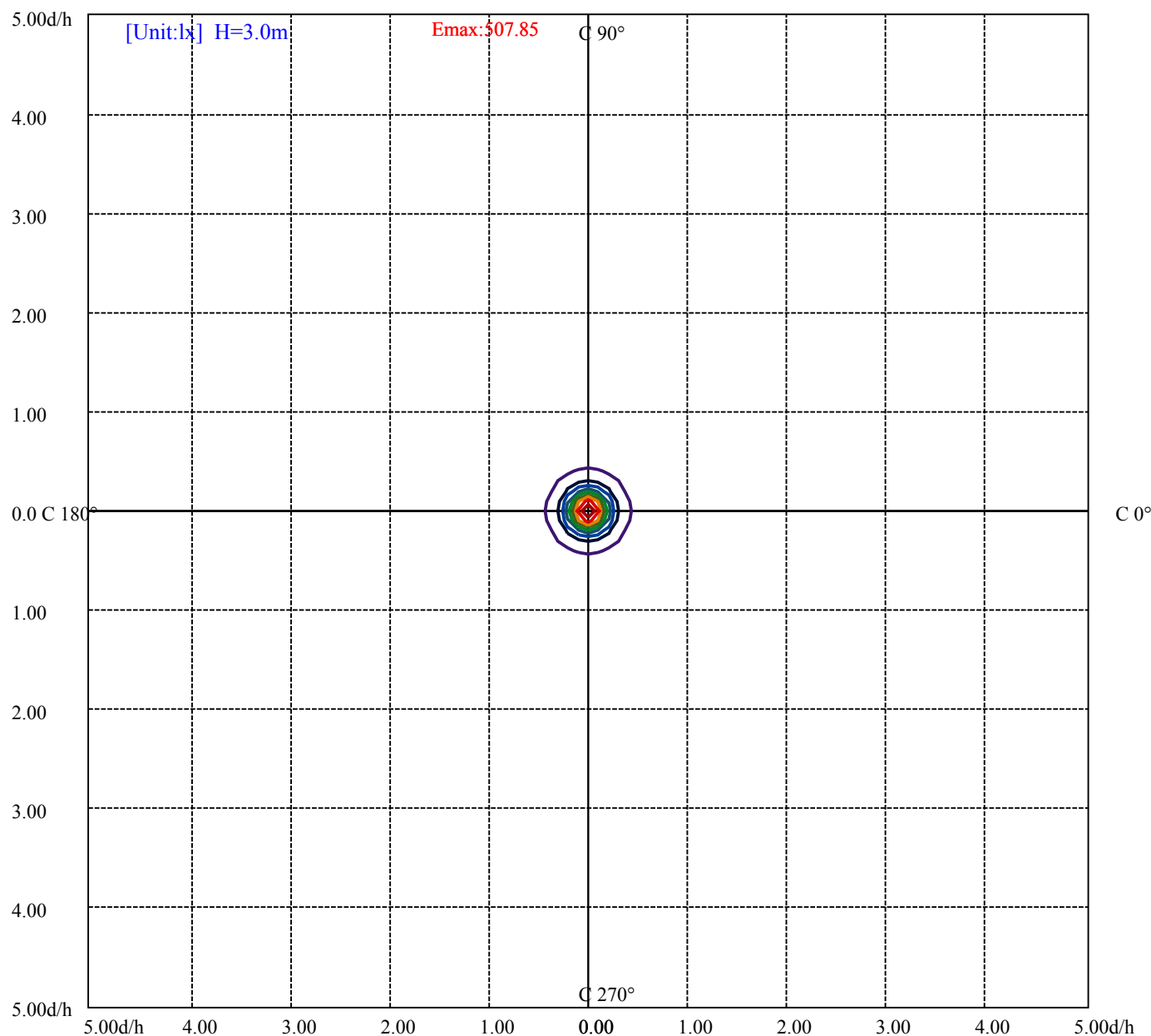


House

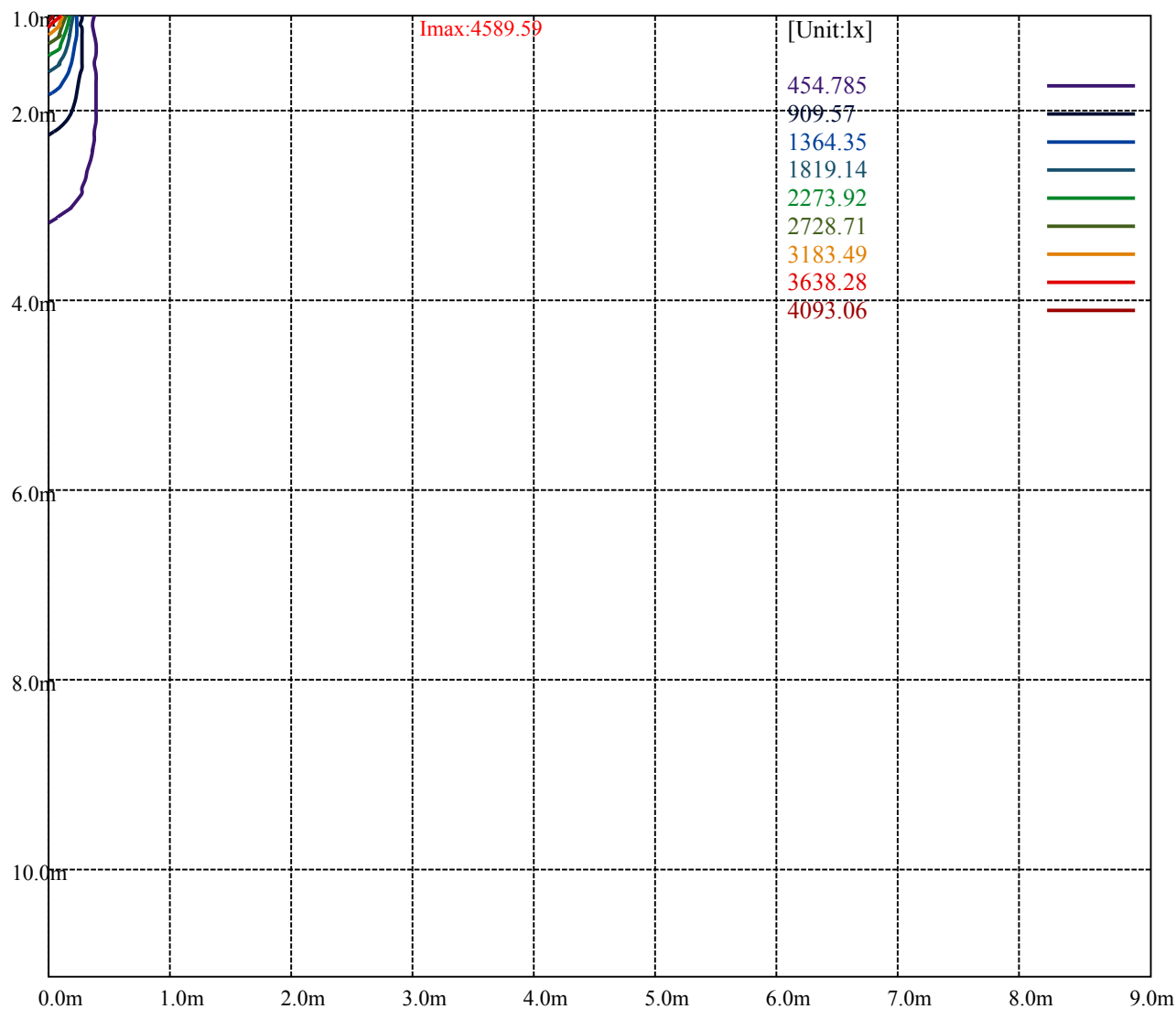
[Unit:cd]

Road

Imax:4589.59	
(10%Imax) 458.959	—
(20%Imax) 917.917	—
(30%Imax) 1376.88	—
(40%Imax) 1835.83	—
(50%Imax) 2294.79	—
(60%Imax) 2753.75	—
(70%Imax) 3212.71	—
(80%Imax) 3671.67	—
(90%Imax) 4130.63	—



(10%Emax) 50.785	—
(20%Emax) 101.57	—
(30%Emax) 152.3555	—
(40%Emax) 203.14	—
(50%Emax) 253.9256	—
(60%Emax) 304.71	—
(70%Emax) 355.4955	—
(80%Emax) 406.28	—
(90%Emax) 457.0656	—



Luminance Table

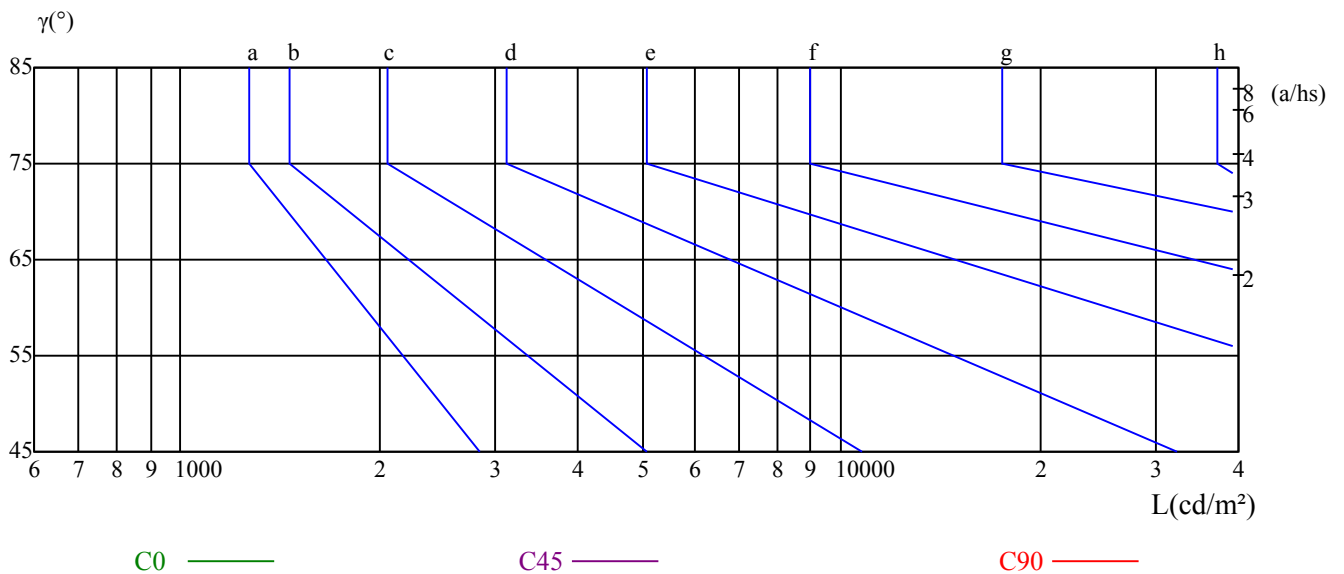
γ	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

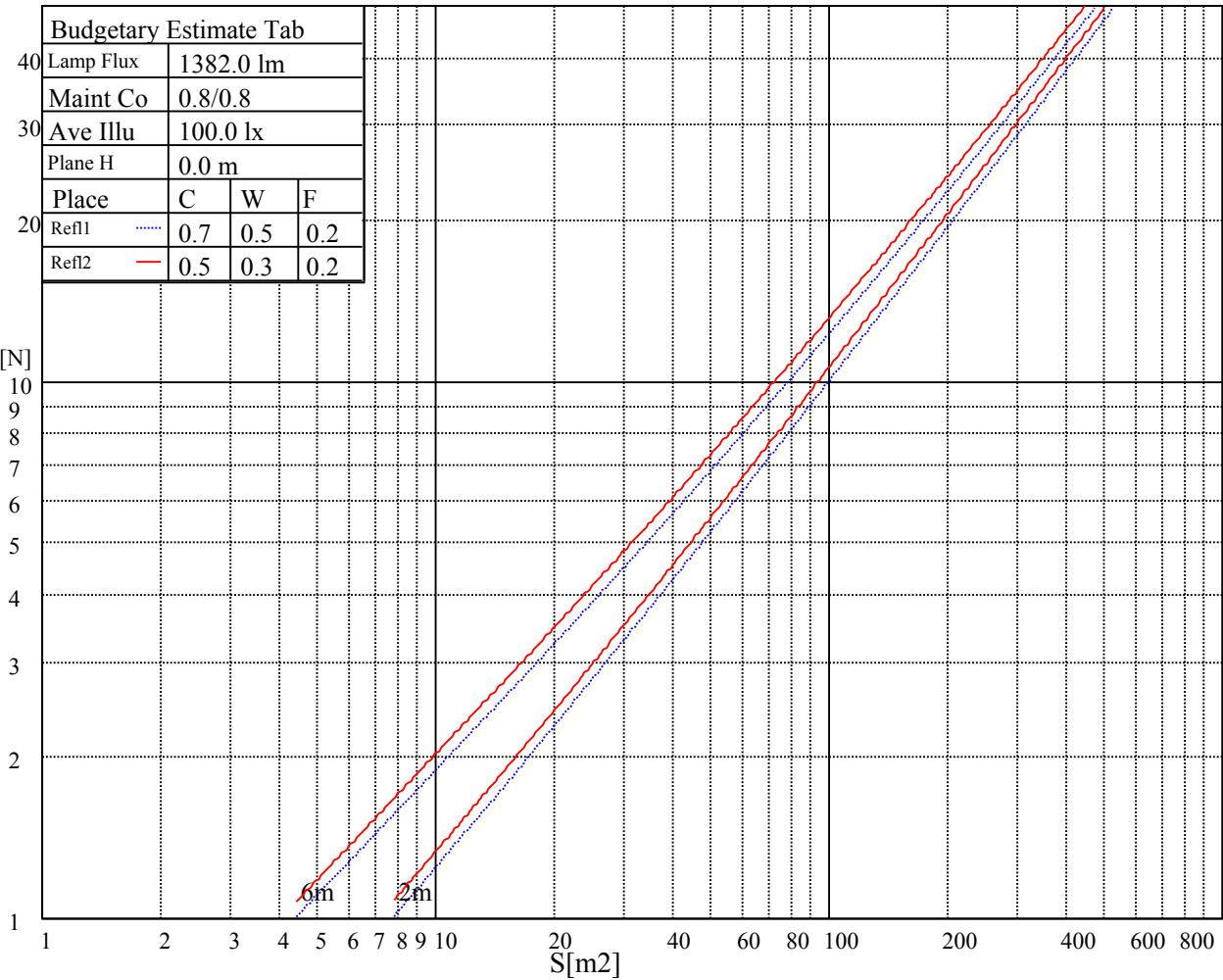
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
0	0	0	0	0	0	0	0	0

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





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	1.04	1.04	1.04	1.02	1.02	1.02	0.97	0.97	0.97	0.93	0.93	0.93	0.89	0.89	0.89	0.88
1	0.98	0.96	0.94	0.96	0.94	0.93	0.92	0.91	0.90	0.89	0.88	0.87	0.86	0.85	0.85	0.83
2	0.92	0.89	0.87	0.91	0.88	0.86	0.88	0.86	0.84	0.85	0.84	0.82	0.83	0.82	0.80	0.79
3	0.87	0.84	0.81	0.86	0.83	0.80	0.84	0.81	0.79	0.82	0.79	0.77	0.80	0.78	0.76	0.75
4	0.83	0.79	0.76	0.82	0.78	0.75	0.80	0.77	0.74	0.78	0.76	0.74	0.77	0.75	0.73	0.72
5	0.79	0.75	0.72	0.78	0.74	0.71	0.77	0.73	0.71	0.75	0.72	0.70	0.74	0.71	0.69	0.68
6	0.75	0.71	0.68	0.75	0.71	0.68	0.74	0.70	0.67	0.72	0.69	0.67	0.71	0.69	0.66	0.65
7	0.72	0.68	0.65	0.72	0.68	0.65	0.71	0.67	0.64	0.70	0.66	0.64	0.69	0.66	0.64	0.63
8	0.69	0.65	0.62	0.69	0.65	0.62	0.68	0.64	0.62	0.67	0.64	0.61	0.66	0.63	0.61	0.60
9	0.67	0.62	0.60	0.66	0.62	0.59	0.66	0.62	0.59	0.65	0.61	0.59	0.64	0.61	0.59	0.58
10	0.64	0.60	0.57	0.64	0.60	0.57	0.63	0.60	0.57	0.63	0.59	0.57	0.62	0.59	0.57	0.56

Intensity data(cd)

C/γ(°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	4547.85	4023.33	2571.66	1237.14	676.33	506.04	429.57	309.76	102.01
45.0	4570.67	4067.02	2685.47	1241.92	692.92	510.49	437.25	314.82	100.73
90.0	4589.59	4099.85	2722.48	1207.64	700.04	513.33	439.81	319.27	102.12
135.0	4558.98	4067.02	2685.47	1241.92	692.92	510.49	437.25	314.82	100.73
180.0	4547.85	4023.33	2571.66	1237.14	676.33	506.04	429.57	309.76	102.01
225.0	4570.67	4067.02	2685.47	1241.92	692.92	510.49	437.25	314.82	100.73
270.0	4589.59	4099.85	2722.48	1207.64	700.04	513.33	439.81	319.27	102.12
315.0	4558.98	4067.02	2685.47	1241.92	692.92	510.49	437.25	314.82	100.73
360.0	4547.85	4023.33	2571.66	1237.14	676.33	506.04	429.57	309.76	102.01

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	24.49	6.90	5.90	5.79	5.73	5.84	6.07	6.12	6.29
45.0	23.48	6.68	5.73	5.62	5.51	5.57	5.57	5.73	6.01
90.0	23.82	6.73	5.62	5.51	5.45	5.45	5.51	5.62	5.95
135.0	23.48	6.68	5.73	5.62	5.51	5.57	5.57	5.73	6.01
180.0	24.49	6.90	5.90	5.79	5.73	5.84	6.07	6.12	6.29
225.0	23.48	6.68	5.73	5.62	5.51	5.57	5.57	5.73	6.01
270.0	23.82	6.73	5.62	5.51	5.45	5.45	5.51	5.62	5.95
315.0	23.48	6.68	5.73	5.62	5.51	5.57	5.57	5.73	6.01
360.0	24.49	6.90	5.90	5.79	5.73	5.84	6.07	6.12	6.29

C/γ(°)	90.0
0.0	4.67
45.0	4.73
90.0	4.67
135.0	4.73
180.0	4.67
225.0	4.73
270.0	4.67
315.0	4.73
360.0	4.67