
Nata

LumCAT: 1633-M
Luminaire: BJB47.319.6060
Report No: NT2017041409
Test No: GC2017041409
LampCAT: CITIZEN CLU022
Lamp flux(lm): 1508.0
Number of Lamps: 1
Length(mm): 46
Phm Type: C

Voltage(V): 37.7000
Current(A): 0.3500
Power (W): 13.1950
PF: 0.0000
Ballast type: DC
Width(mm):46
Height(mm): 0

Photometric Results

Lumens(lm): 1415.45
Efficiency(%): 93.86%
Lumens(lm)/Power(W): 107.27
Central intensity(cd): 3729.796
Maximum intensity(cd): 3729.796
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=25.9
 [C90/270]Total=25.9
Field angle(10%Imax): [C0/180]Total=77.7
 [C90/270]Total=77.7
Maximum s/h(1/2): C0_180=0.44 C90_270=0.44
Maximum s/h(1/4): C0_180=0.46 C90_270=0.46
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 93.86%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.814%

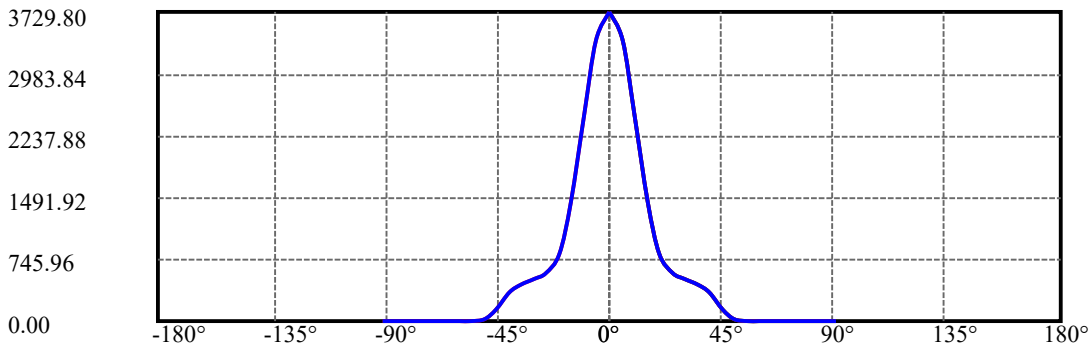
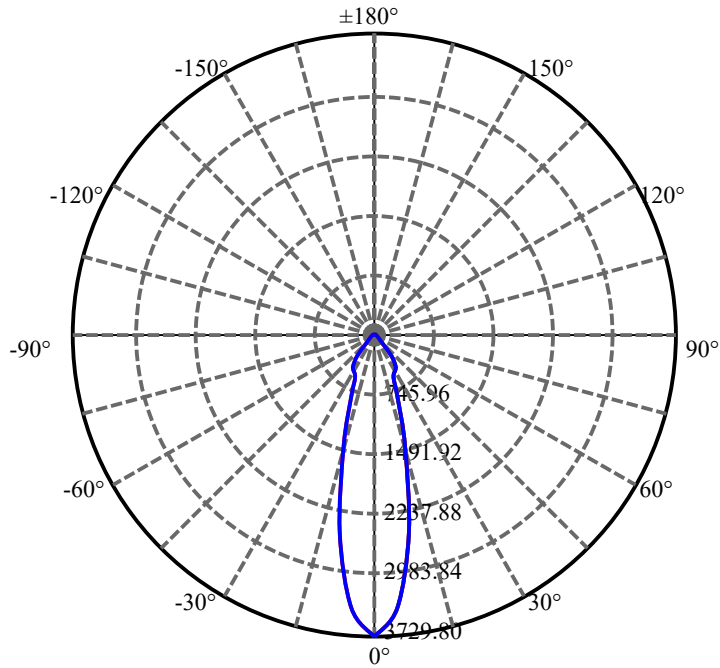
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	3729.796	0.000	0	.000%	.000%
5.0	3376.403	84.953	84.953	5.633%	6.002%
10.0	2492.472	209.948	294.901	13.922%	20.834%
15.0	1432.361	232.818	527.719	15.439%	37.283%
20.0	801.160	184.074	711.793	12.206%	50.287%
25.0	574.672	144.299	856.092	9.569%	60.482%
30.0	504.296	136.544	992.636	9.055%	70.129%
35.0	450.774	140.641	1133.277	9.326%	80.065%
40.0	349.815	133.572	1266.849	8.858%	89.502%
45.0	140.153	90.721	1357.571	6.016%	95.911%
50.0	18.313	32.020	1389.591	2.123%	98.173%
55.0	8.369	5.801	1395.393	.385%	98.583%
60.0	5.760	3.266	1398.659	.217%	98.814%
65.0	5.320	2.694	1401.352	.179%	99.004%
70.0	5.320	2.694	1404.046	.179%	99.194%
75.0	5.485	2.824	1406.87	.187%	99.394%
80.0	5.361	2.902	1409.772	.192%	99.599%
85.0	5.230	2.878	1412.65	.191%	99.802%
90.0	4.989	2.798	1415.449	.186%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	992.64	65.82%	70.13%
0-40	1266.85	84.01%	89.50%
0-60	1398.66	92.75%	98.81%
0-90	1412.65	93.68%	99.80%
0-120	1412.65	93.68%	99.80%
0-180	1415.45	93.86%	100.00%
60-90	17.26	1.14%	1.22%
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%
0-34.97	1132.36	75.09%	80.00%

ZONAL LUMEN SUMMARY

0-10	294.90
10-20	416.89
20-30	280.84
30-40	274.21
40-50	122.74
50-60	9.07
60-70	5.39
70-80	5.73
80-90	2.88
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



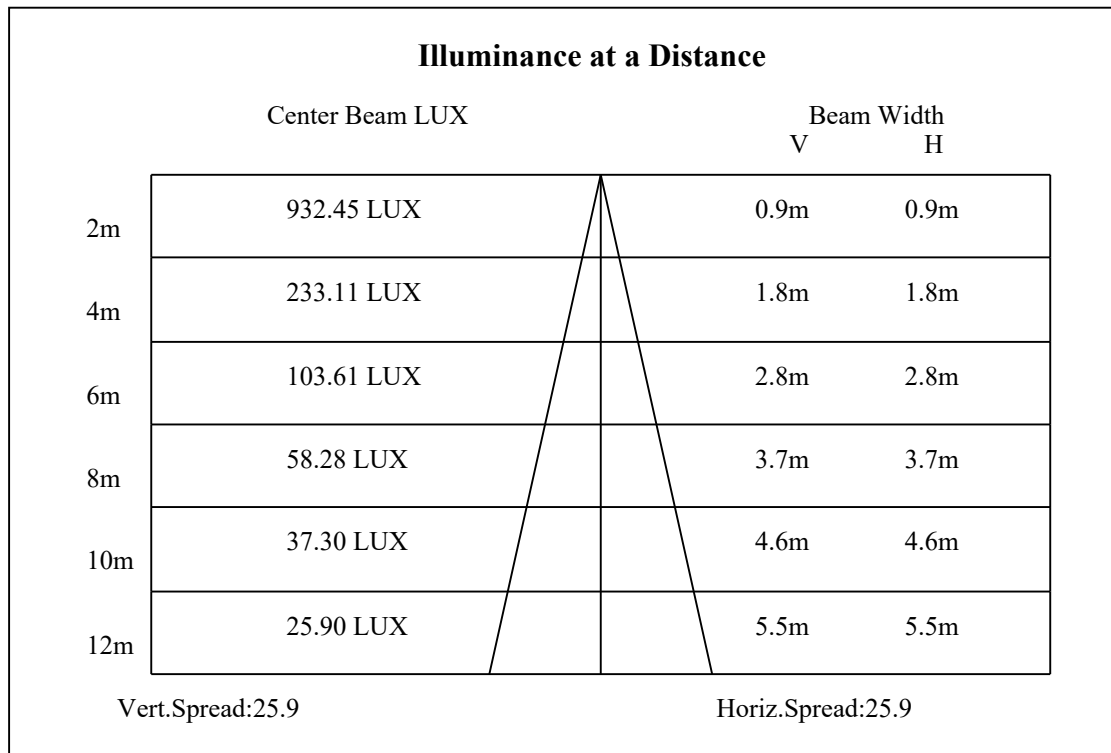
C0(Max): —————

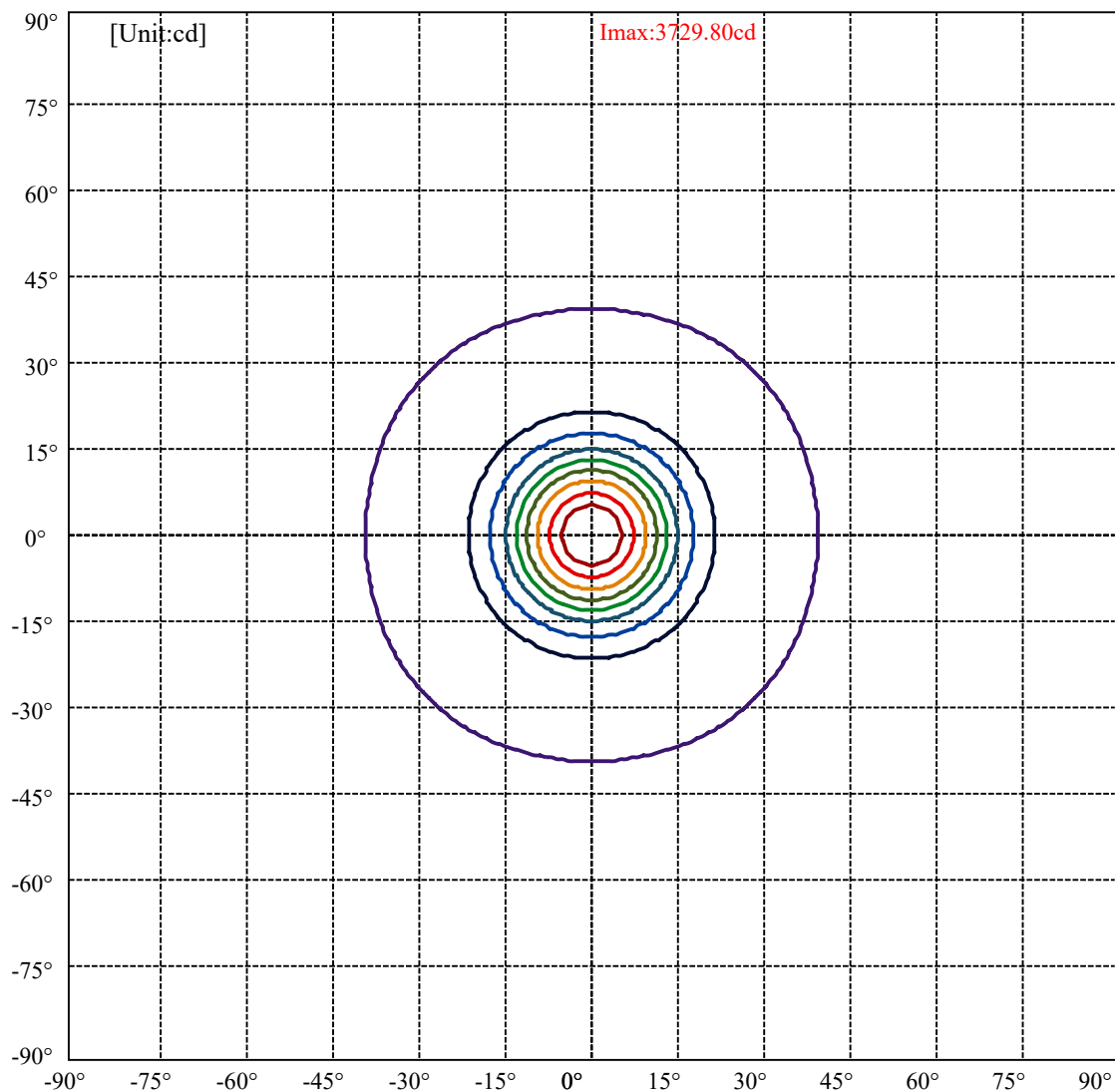
C0/C180: —————

C90/C270: —————

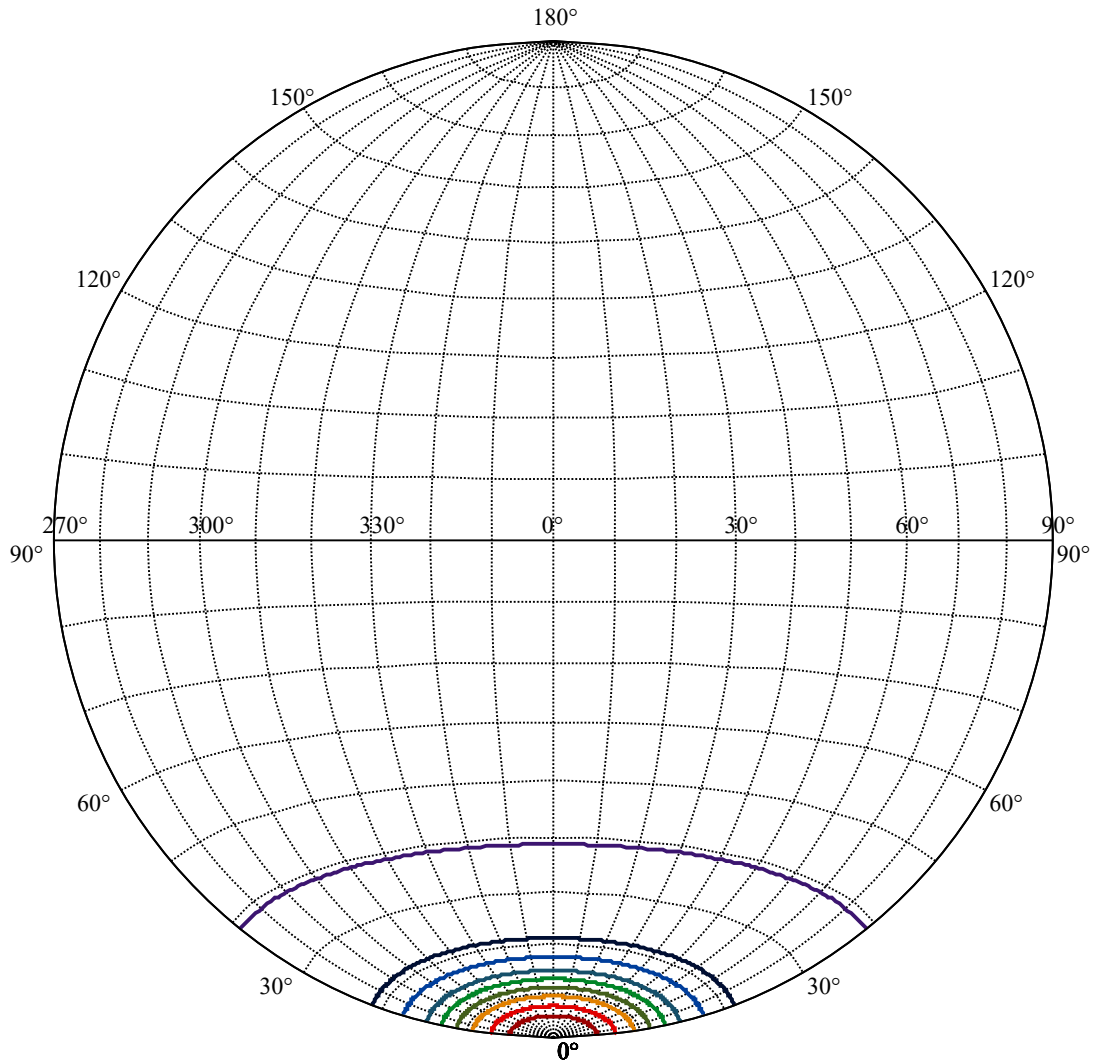
Field angle(10%Imax):C0/180Left:38.9 Right:38.9
:C90/270Left:38.9 Right:38.9

Beam Angle(50%Imax):C0/180Left:13.0 Right:13.0
:C90/270Left:13.0 Right:13.0





(10%Imax) 372.98	—
(20%Imax) 745.959	—
(30%Imax) 1118.94	—
(40%Imax) 1491.92	—
(50%Imax) 1864.9	—
(60%Imax) 2237.88	—
(70%Imax) 2610.86	—
(80%Imax) 2983.84	—
(90%Imax) 3356.82	—



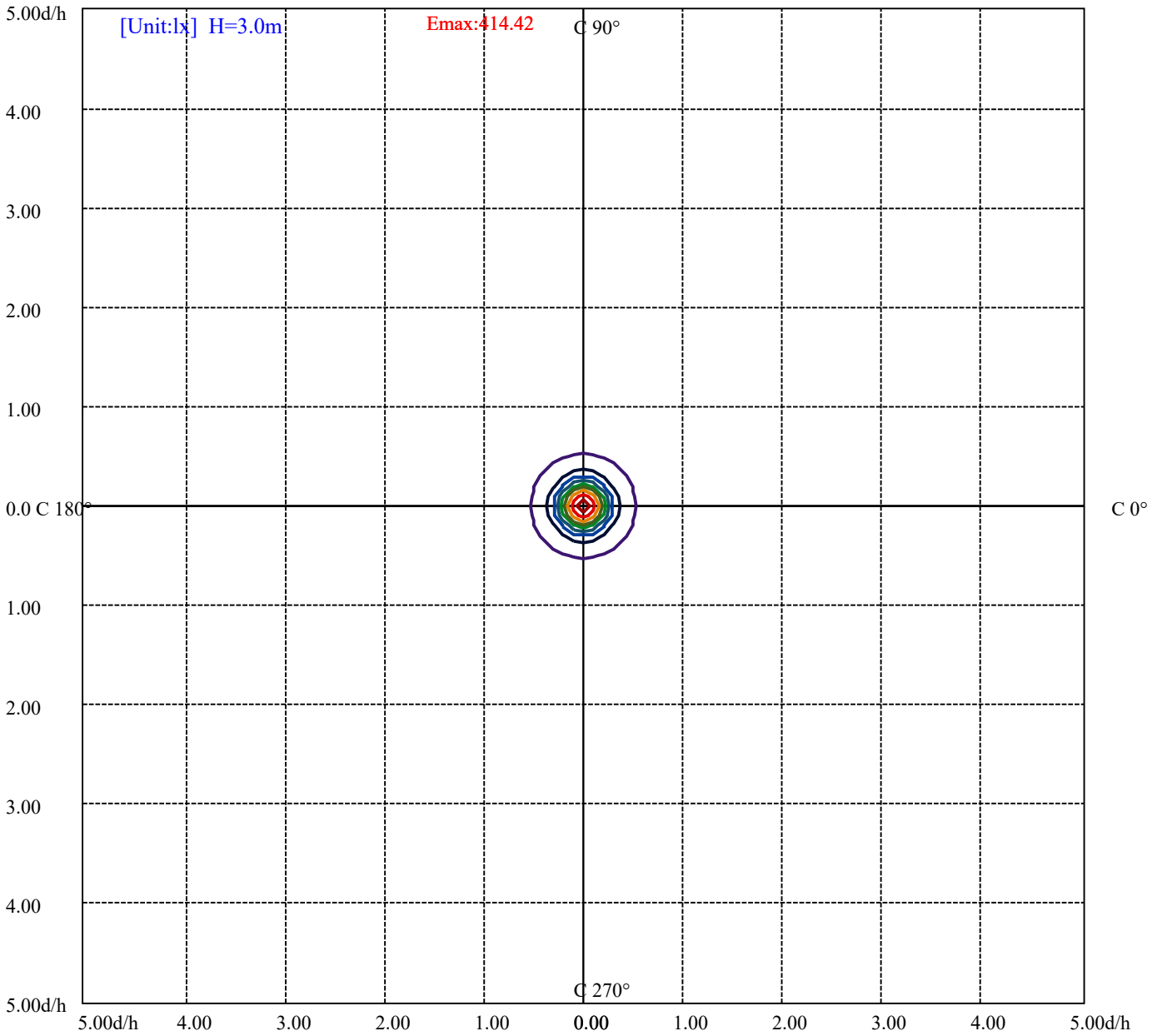
House

[Unit:cd]

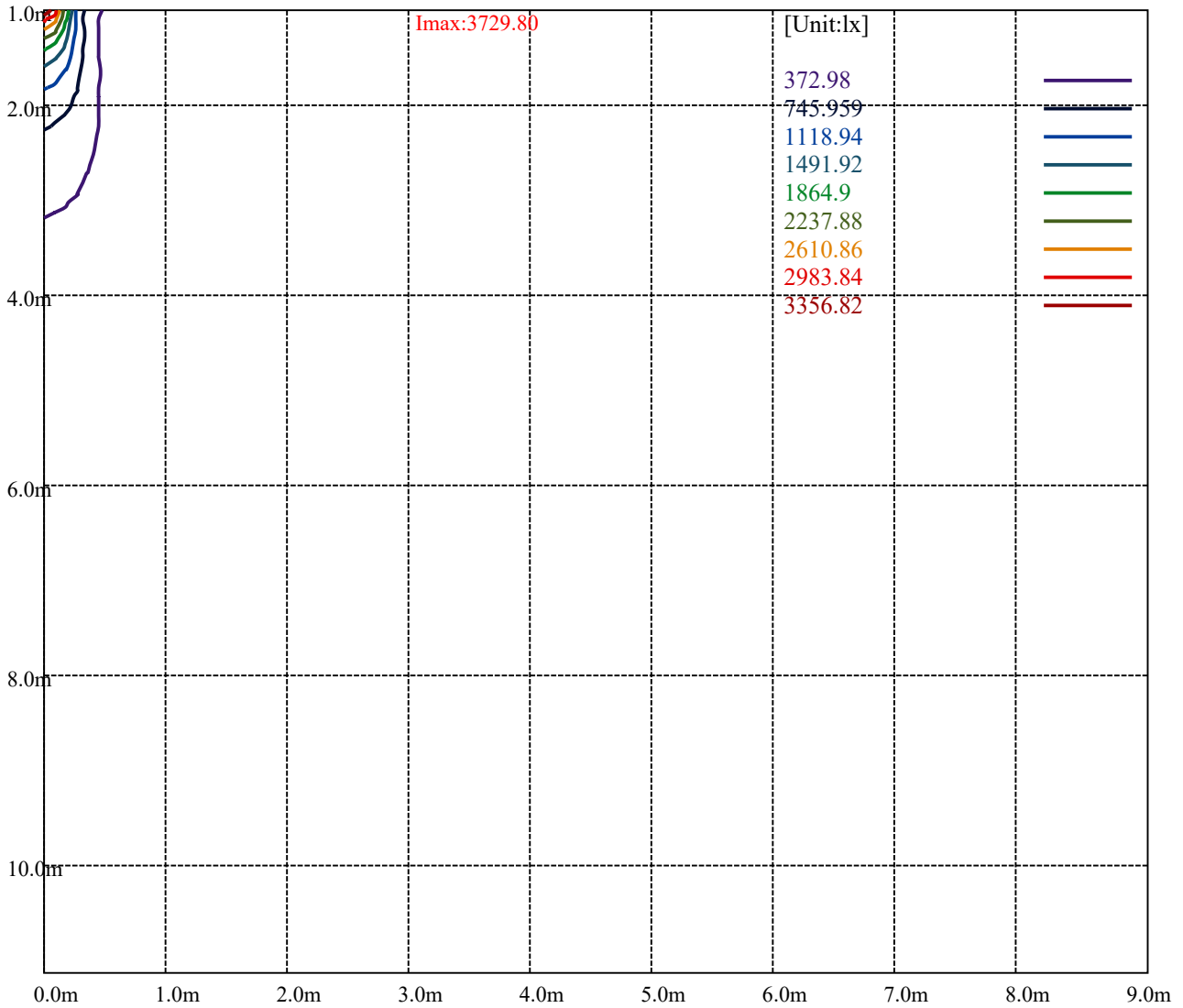
Road

Imax:3729.80

(10%Imax) 372.98	—
(20%Imax) 745.959	—
(30%Imax) 1118.94	—
(40%Imax) 1491.92	—
(50%Imax) 1864.9	—
(60%Imax) 2237.88	—
(70%Imax) 2610.86	—
(80%Imax) 2983.84	—
(90%Imax) 3356.82	—



(10%Emax) 41.44211	—
(20%Emax) 82.88411	—
(30%Emax) 124.3267	—
(40%Emax) 165.7678	—
(50%Emax) 207.21	—
(60%Emax) 248.6522	—
(70%Emax) 290.0945	—
(80%Emax) 331.5367	—
(90%Emax) 372.9789	—



Luminance Table

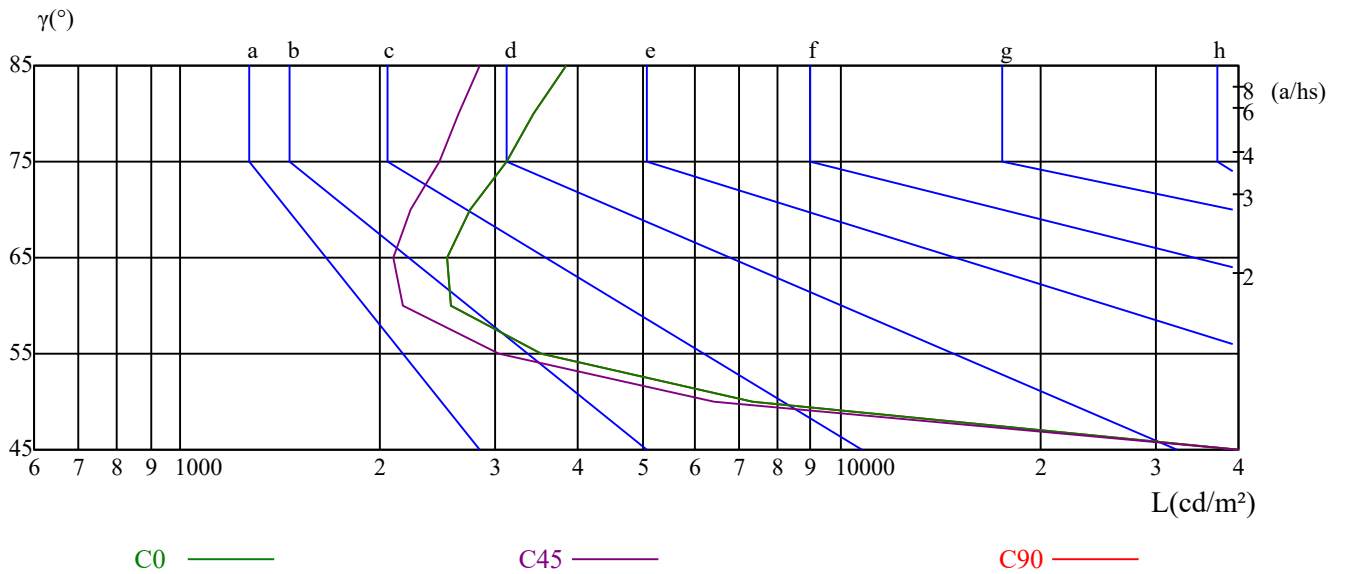
γ	45	50	55	60	65	70	75	80	85
C0	54303	7361	3522	2565	2535	2748	3120	3422	3836
C45	48034	6419	3025	2167	2102	2232	2473	2633	2846
C90	54303	7361	3522	2565	2535	2748	3120	3422	3836

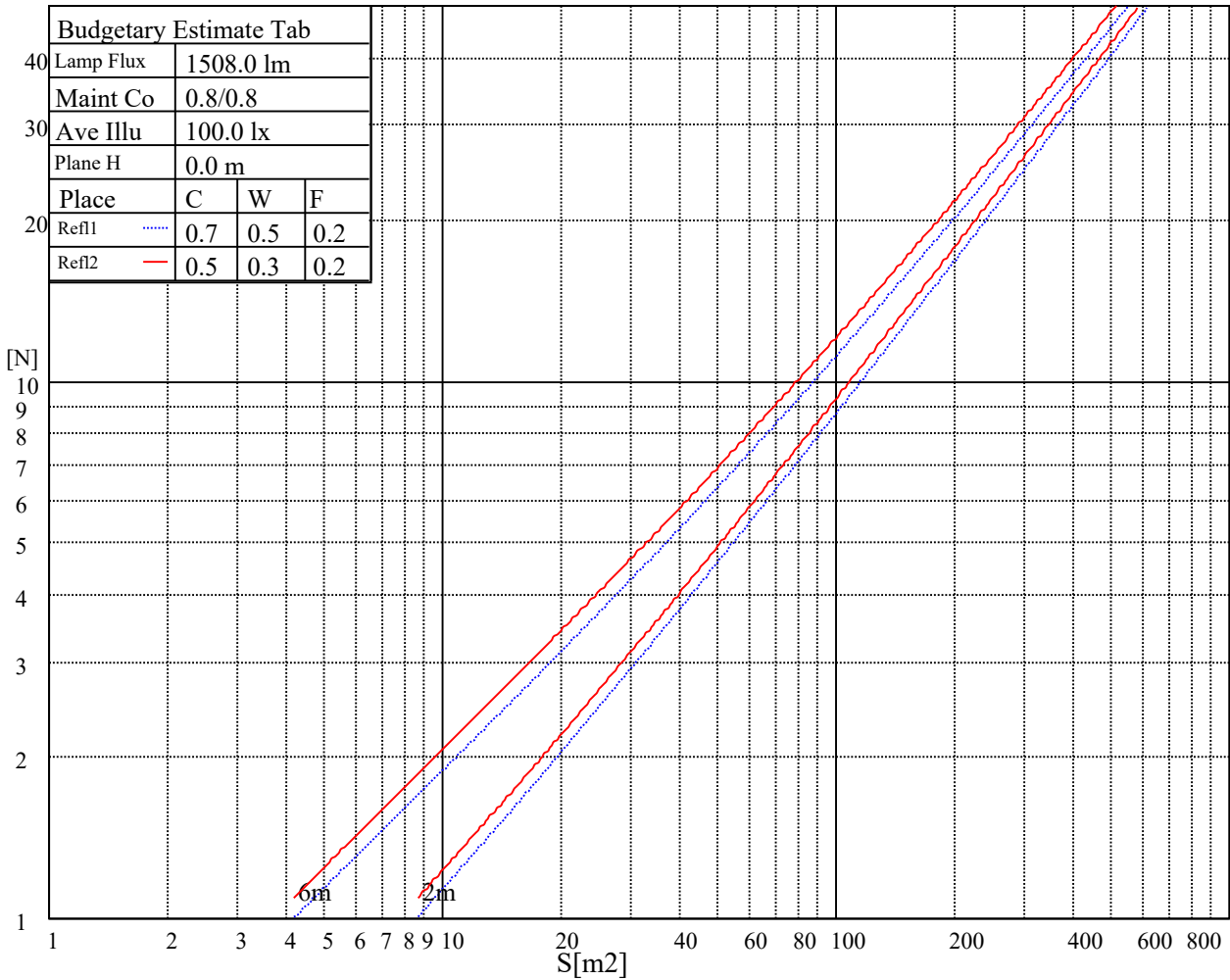
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
5035	5035	5035	8477	8477	8477	24005	24005	24005

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	1.12	1.12	1.12	1.09	1.09	1.09	1.04	1.04	1.04	1.00	1.00	1.00	0.96	0.96	0.96	0.94
1	1.04	1.02	1.00	1.02	1.00	0.98	0.98	0.97	0.95	0.95	0.94	0.92	0.92	0.91	0.90	0.88
2	0.97	0.94	0.91	0.96	0.92	0.90	0.93	0.90	0.88	0.90	0.88	0.86	0.87	0.86	0.84	0.82
3	0.91	0.87	0.83	0.90	0.86	0.83	0.87	0.84	0.81	0.85	0.82	0.80	0.83	0.81	0.79	0.77
4	0.86	0.81	0.77	0.85	0.80	0.77	0.83	0.79	0.76	0.81	0.78	0.75	0.79	0.76	0.74	0.73
5	0.81	0.76	0.72	0.80	0.75	0.72	0.78	0.74	0.71	0.77	0.73	0.70	0.75	0.72	0.70	0.68
6	0.77	0.71	0.67	0.76	0.71	0.67	0.74	0.70	0.67	0.73	0.69	0.66	0.72	0.69	0.66	0.65
7	0.73	0.67	0.64	0.72	0.67	0.63	0.71	0.66	0.63	0.70	0.66	0.63	0.69	0.65	0.62	0.61
8	0.69	0.64	0.60	0.68	0.63	0.60	0.67	0.63	0.60	0.67	0.62	0.60	0.66	0.62	0.59	0.58
9	0.66	0.61	0.57	0.65	0.60	0.57	0.64	0.60	0.57	0.64	0.60	0.57	0.63	0.59	0.56	0.55
10	0.63	0.58	0.54	0.62	0.58	0.54	0.62	0.57	0.54	0.61	0.57	0.54	0.60	0.57	0.54	0.53

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	3739.43	3284.66	2330.54	1314.20	749.32	568.73	504.32	454.22	323.18
45.0	3727.32	3504.89	2620.13	1668.76	861.63	592.41	519.18	465.78	384.84
90.0	3735.58	3388.17	2560.12	1481.57	785.32	576.11	505.31	451.35	362.66
135.0	3716.86	3569.31	2860.18	1792.64	945.32	610.58	522.49	460.27	409.07
180.0	3739.43	3518.65	2676.29	1548.19	857.39	578.48	497.21	449.21	378.24
225.0	3727.32	3237.87	2299.71	1064.41	721.18	552.27	490.22	438.91	329.02
270.0	3735.58	3361.19	2489.10	1498.08	791.71	568.73	504.87	449.26	334.74
315.0	3716.86	3146.47	2103.71	1091.05	697.40	550.07	490.77	437.20	276.77
360.0	3739.43	3284.66	2330.54	1314.20	749.32	568.73	504.32	454.22	323.18

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	96.07	14.92	7.87	5.56	5.40	5.51	6.00	5.51	5.12
45.0	156.14	19.32	8.97	5.84	5.34	5.29	5.29	5.34	5.23
90.0	140.12	16.02	7.21	5.45	5.29	5.18	5.18	5.23	5.34
135.0	280.24	27.25	9.52	6.39	5.45	5.56	6.06	6.00	5.67
180.0	162.20	24.33	10.35	6.06	5.34	5.29	5.23	5.23	5.34
225.0	93.65	15.91	8.53	5.45	5.18	5.18	5.12	5.12	5.01
270.0	119.47	16.52	7.82	5.95	5.29	5.23	5.18	5.23	5.07
315.0	73.34	12.22	6.66	5.40	5.29	5.34	5.84	5.23	5.07
360.0	96.07	14.92	7.87	5.56	5.40	5.51	6.00	5.51	5.12

C/γ(°)	90.0
0.0	4.96
45.0	5.01
90.0	4.96
135.0	4.96
180.0	5.07
225.0	4.96
270.0	5.01
315.0	5.01
360.0	4.96