



NATA LIGHTING CO.,LTD.
www.nata.cn
Email:info@nata.cn
Tel:+86-750-3770000 Fax:+86-750-3771111
Address:380JinOu Road,GaoXin Zone,Jiang Men City,Guangdong,China

Nata

LumCAT: 1-1221-L	
Luminaire: 92.70.124.00	
Report No: 220519-B014	Voltage(V): 35.5000
Test No: 220519-C014	Current(A): 0.2800
LampCAT: CITIZEN CLU028	Power (W): 9.9400
Lamp flux(lm): 1195.8	PF: 0.0000
Number of Lamps: 1	Ballast type: DC
Length(mm): 43	Width(mm): 43
Phm Type: C	Height(mm): 0

Photometric Results

Lumens(lm): 1050.39
Efficiency(%): 87.84%
Lumens(lm)/Power(W): 105.67
Central intensity(cd): 2428.806
Maximum intensity(cd): 2428.806
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=36.4
 [C90/270]Total=36.4
Field angle(10%Imax): [C0/180]Total=64.6
 [C90/270]Total=64.6
Maximum s/h(1/2): C0_180=0.59 C90_270=0.59
Maximum s/h(1/4): C0_180=0.61 C90_270=0.61
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 87.84%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.632%

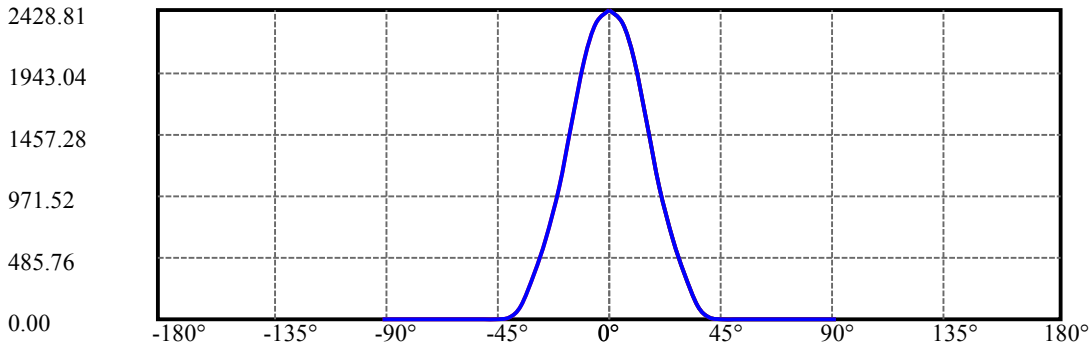
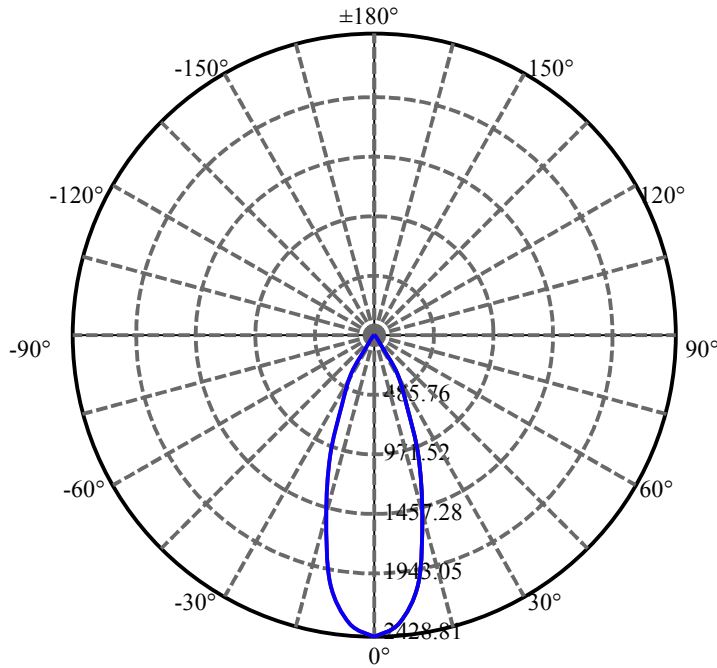
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	2428.806	0.000	0	.000%	.000%
5.0	2324.985	56.830	56.83	4.752%	5.410%
10.0	2033.167	155.905	212.735	13.037%	20.253%
15.0	1513.182	210.367	423.102	17.592%	40.281%
20.0	1045.063	210.835	633.938	17.631%	60.353%
25.0	639.968	176.729	810.666	14.779%	77.178%
30.0	358.995	126.420	937.086	10.572%	89.214%
35.0	106.465	68.542	1005.628	5.732%	95.739%
40.0	13.377	19.995	1025.623	1.672%	97.642%
45.0	6.028	3.593	1029.216	.300%	97.985%
50.0	5.333	2.296	1031.511	.192%	98.203%
55.0	4.989	2.244	1033.756	.188%	98.417%
60.0	4.780	2.258	1036.014	.189%	98.632%
65.0	4.668	2.297	1038.311	.192%	98.850%
70.0	4.601	2.347	1040.658	.196%	99.074%
75.0	4.541	2.390	1043.048	.200%	99.301%
80.0	4.519	2.424	1045.472	.203%	99.532%
85.0	4.511	2.454	1047.926	.205%	99.766%
90.0	4.474	2.460	1050.386	.206%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	937.09	78.36%	89.21%
0-40	1025.62	85.77%	97.64%
0-60	1036.01	86.64%	98.63%
0-90	1047.93	87.63%	99.77%
0-120	1047.93	87.63%	99.77%
0-180	1050.39	87.84%	100.00%
60-90	14.17	1.18%	1.35%
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%
0-26.17	840.31	70.27%	80.00%

ZONAL LUMEN SUMMARY

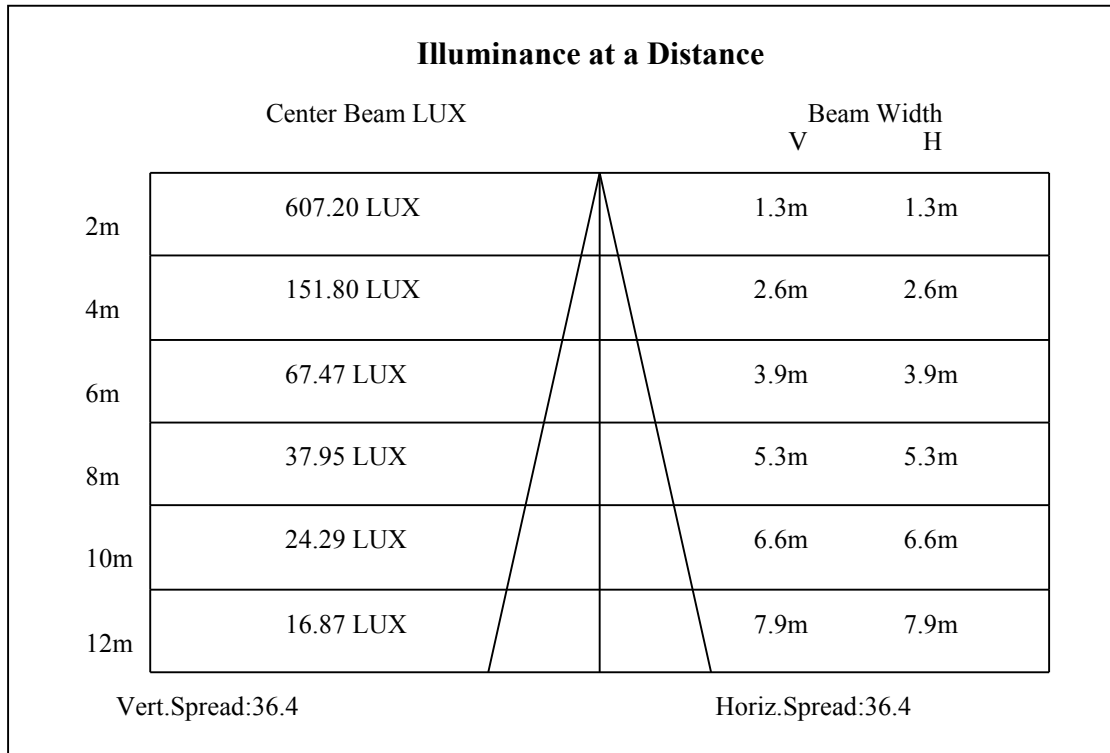
0-10	212.74
10-20	421.20
20-30	303.15
30-40	88.54
40-50	5.89
50-60	4.50
60-70	4.64
70-80	4.81
80-90	2.45
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

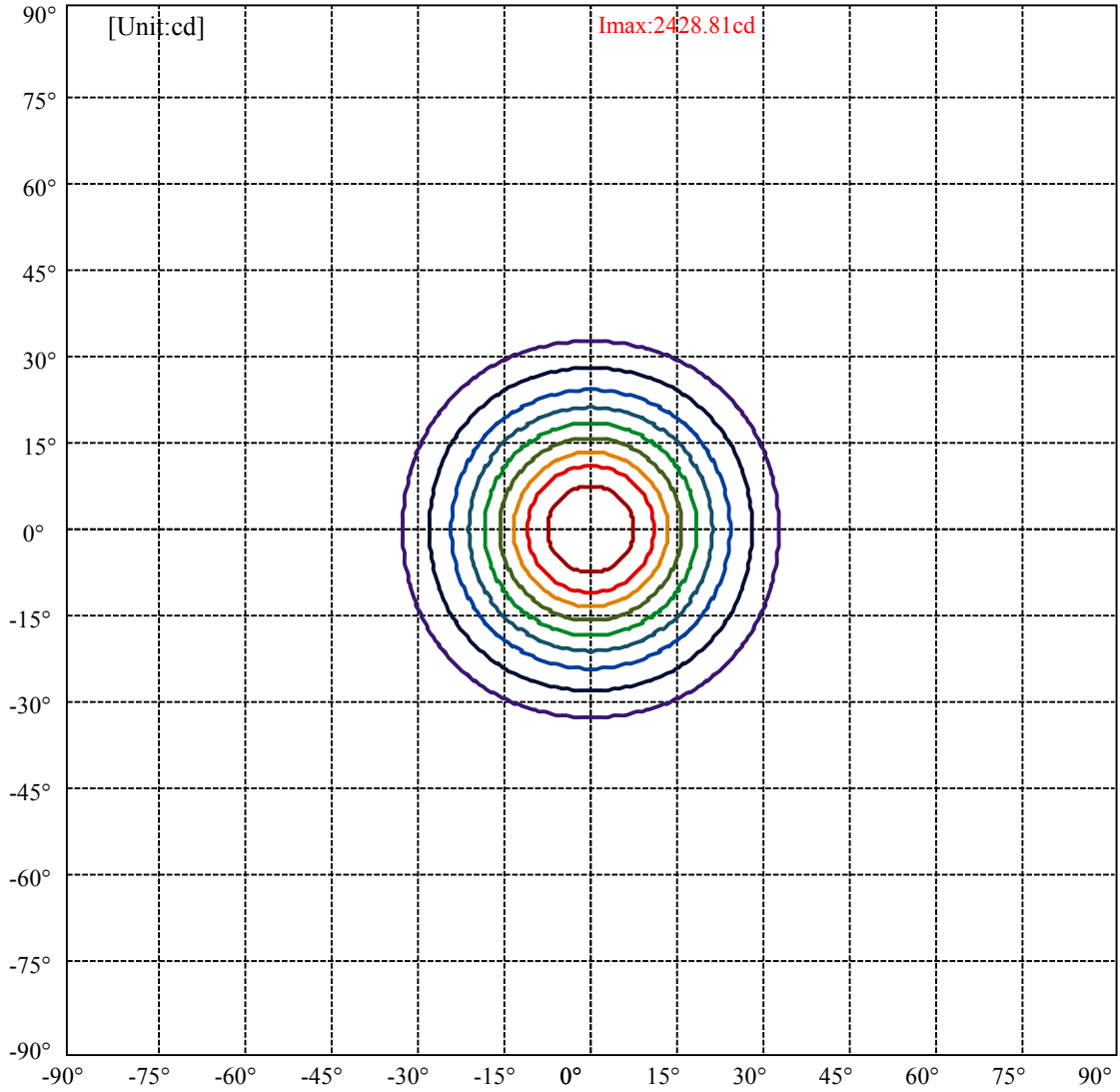


C0(Max): ———
C0/C180: ———
C90/C270: ———

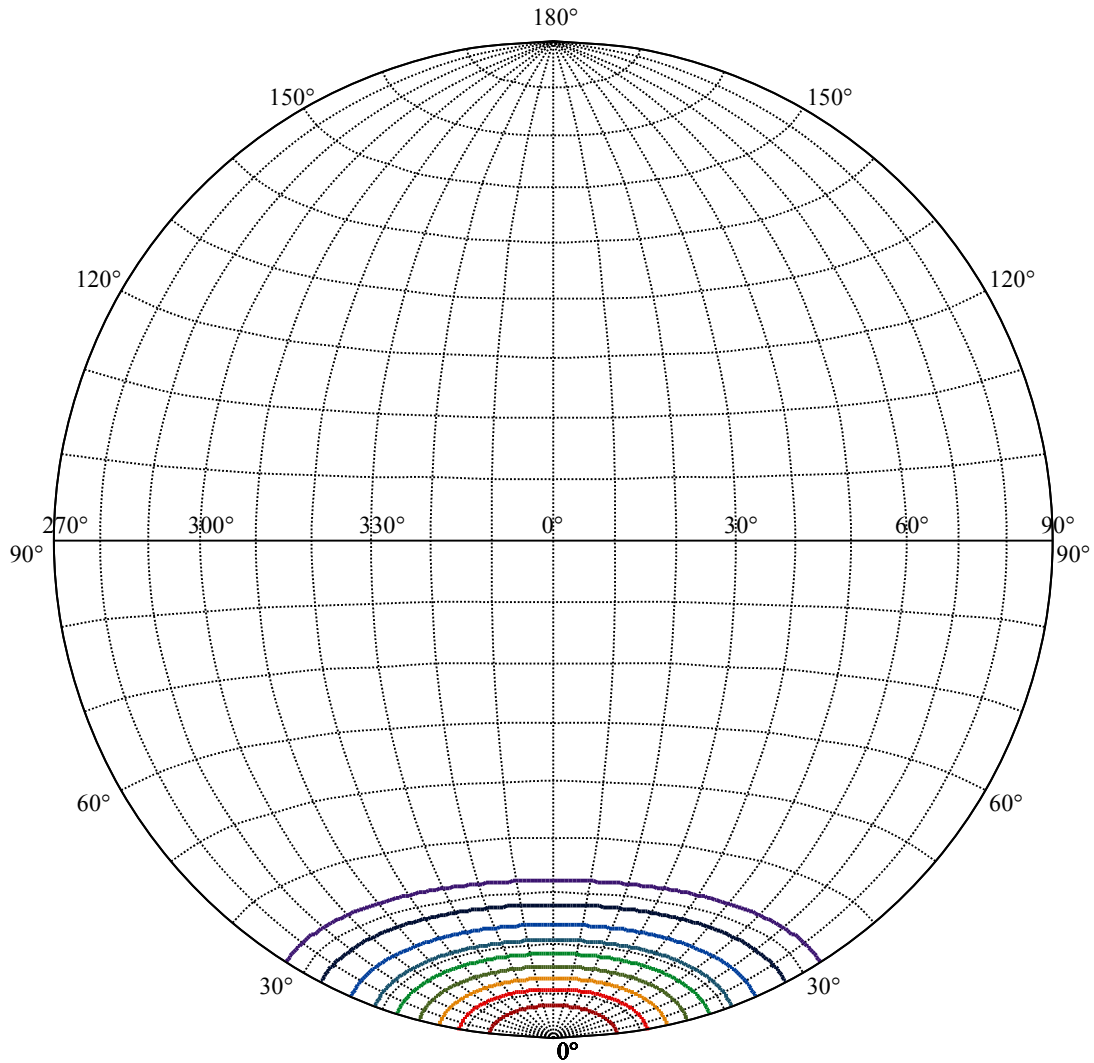
Field angle(10%Imax):C0/180Left:32.3 Right:32.3
:C90/270Left:32.3 Right:32.3

Beam Angle(50%Imax):C0/180Left:18.2 Right:18.2
:C90/270Left:18.2 Right:18.2





(10%Imax) 242.881	—
(20%Imax) 485.761	—
(30%Imax) 728.642	—
(40%Imax) 971.522	—
(50%Imax) 1214.4	—
(60%Imax) 1457.28	—
(70%Imax) 1700.16	—
(80%Imax) 1943.04	—
(90%Imax) 2185.93	—



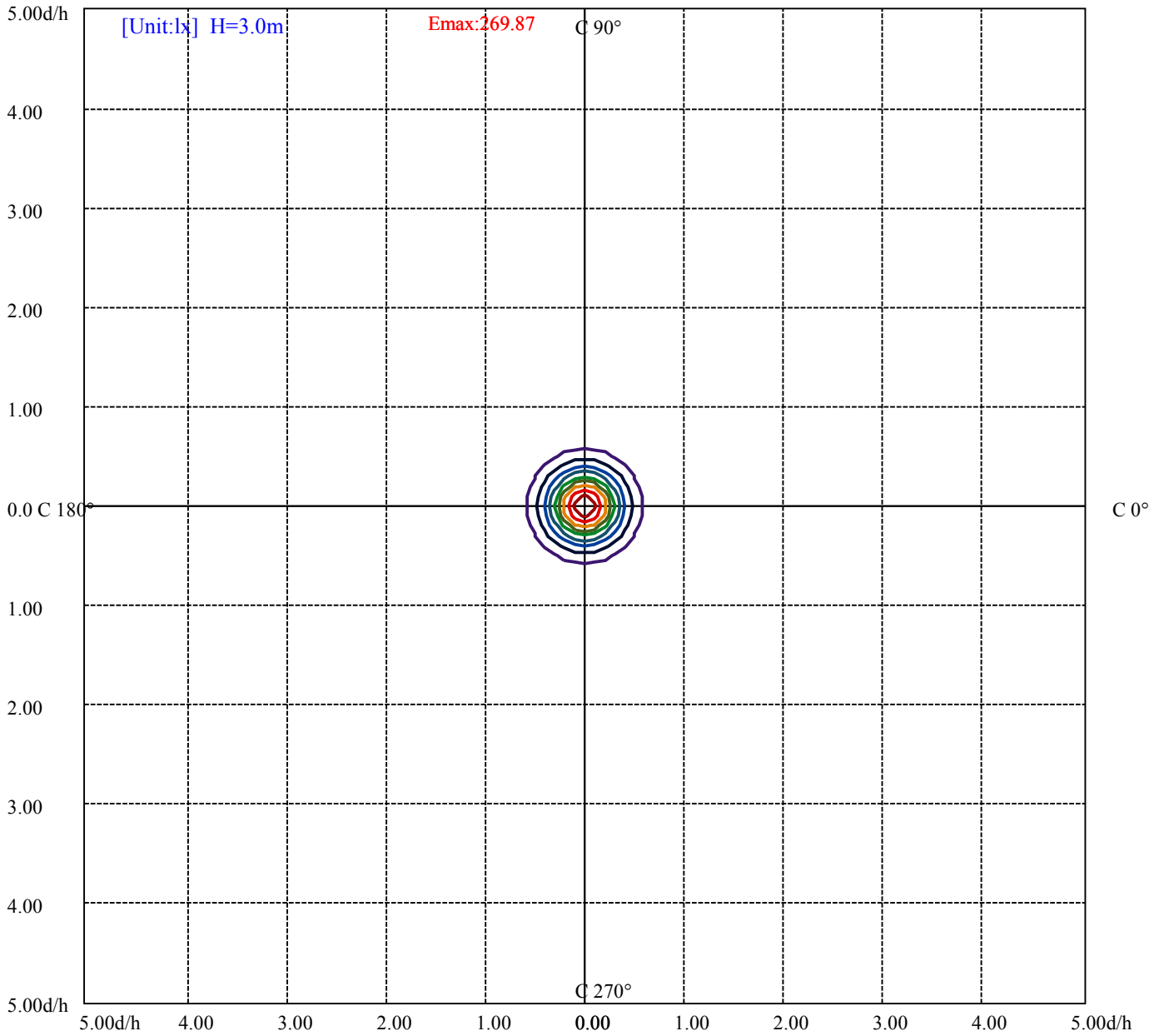
House

[Unit:cd]

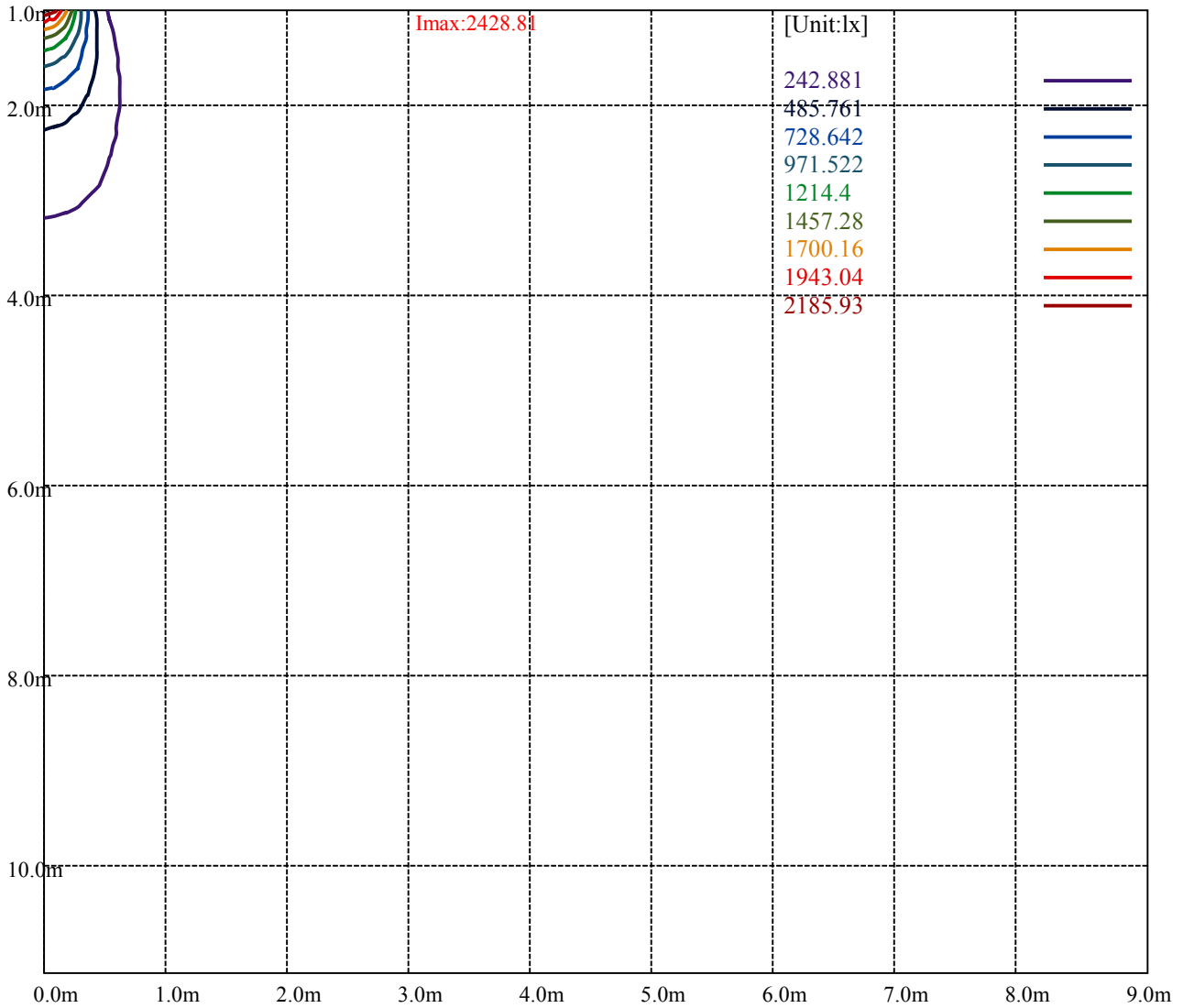
Road

Imax:2428.81

(10%Imax)	242.881	—
(20%Imax)	485.761	—
(30%Imax)	728.642	—
(40%Imax)	971.522	—
(50%Imax)	1214.4	—
(60%Imax)	1457.28	—
(70%Imax)	1700.16	—
(80%Imax)	1943.04	—
(90%Imax)	2185.93	—



(10%Emax) 26.98667	—
(20%Emax) 53.97344	—
(30%Emax) 80.96011	—
(40%Emax) 107.9468	—
(50%Emax) 134.9333	—
(60%Emax) 161.92	—
(70%Emax) 188.9067	—
(80%Emax) 215.8933	—
(90%Emax) 242.88	—



Luminance Table

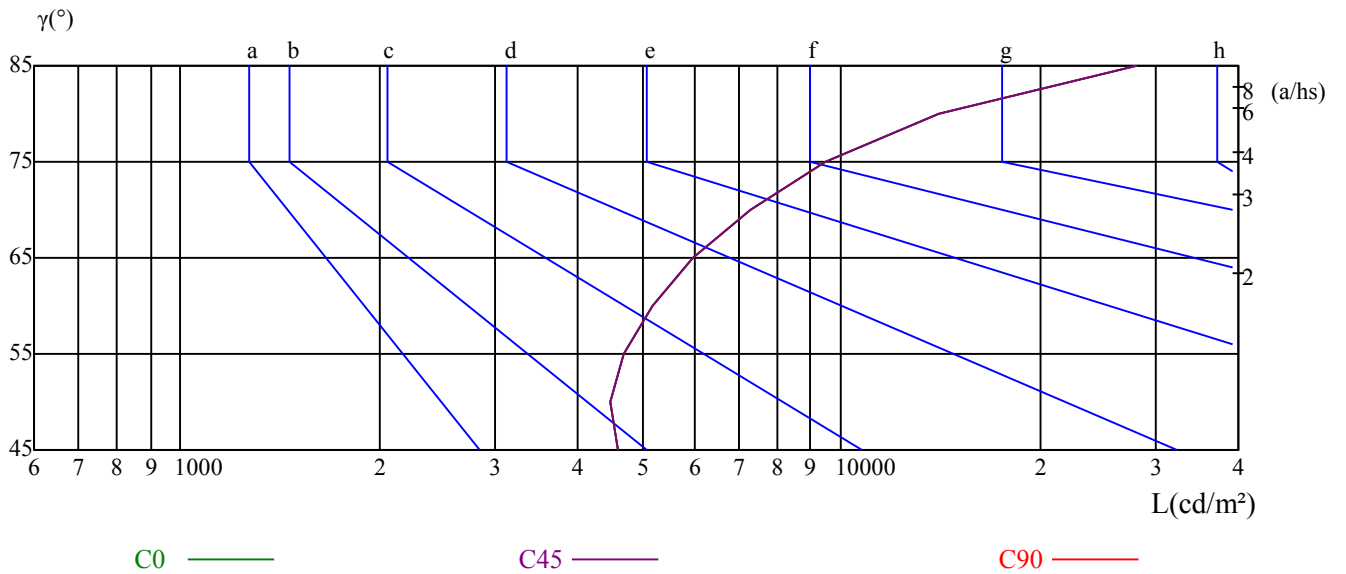
γ	45	50	55	60	65	70	75	80	85
C0	4610	4487	4705	5171	5974	7275	9489	14074	27995
C45	4610	4487	4705	5171	5974	7275	9489	14074	27995
C90	4610	4487	4705	5171	5974	7275	9489	14074	27995

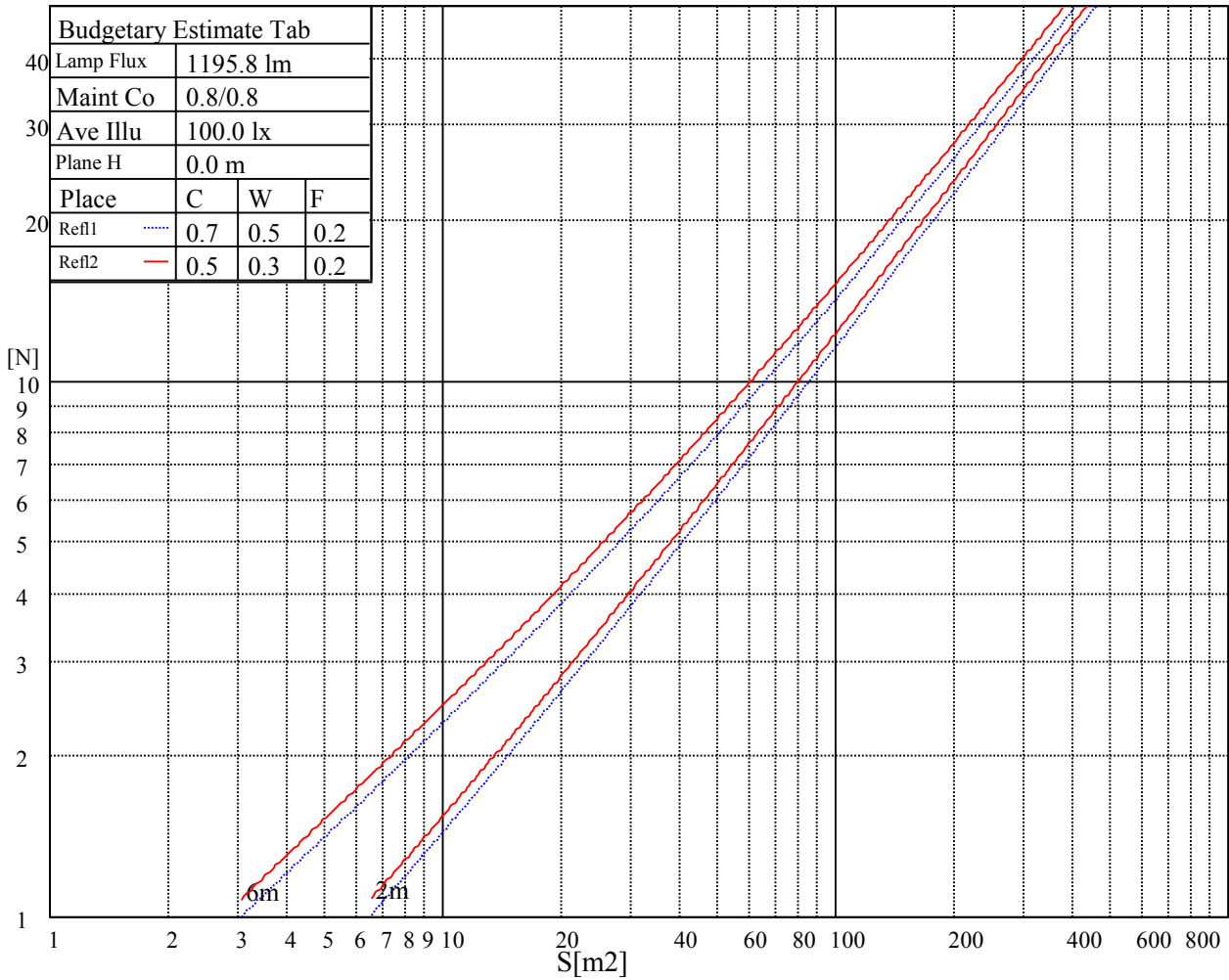
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
5974	5974	5974	9489	9489	9489	27995	27995	27995

Glare Table

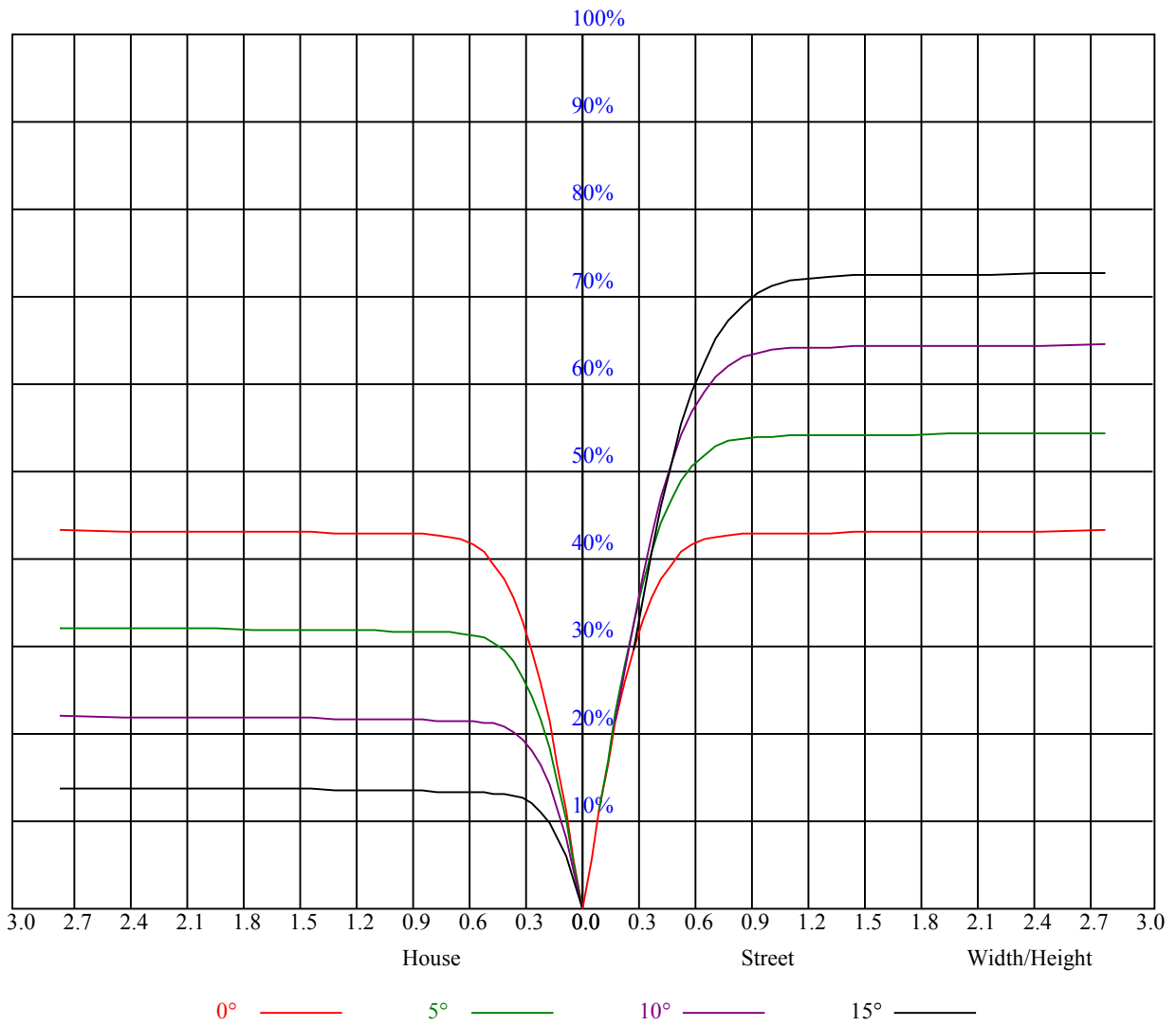
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	1.05	1.05	1.05	1.02	1.02	1.02	0.98	0.98	0.98	0.93	0.93	0.93	0.90	0.90	0.90	0.88
1	0.98	0.96	0.94	0.96	0.94	0.93	0.93	0.91	0.90	0.89	0.88	0.87	0.86	0.86	0.85	0.83
2	0.92	0.89	0.87	0.91	0.88	0.86	0.88	0.86	0.84	0.86	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	0.80	0.78	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	0.75	0.79	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	0.72	0.70	0.68
6	0.76	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	0.67	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	0.61	0.67	0.64	0.61	0.66	0.63	0.61	0.60
9	0.66	0.62	0.59	0.66	0.62	0.59	0.65	0.61	0.59	0.64	0.61	0.59	0.64	0.61	0.58	0.57
10	0.64	0.59	0.57	0.63	0.59	0.57	0.63	0.59	0.56	0.62	0.59	0.56	0.62	0.58	0.56	0.55



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	2421.19	2389.52	2170.23	1719.69	1201.03	761.25	445.76	161.39	19.24
45.0	2431.94	2322.60	2030.40	1544.01	1033.13	608.28	343.58	87.06	11.71
90.0	2427.16	2279.57	1945.55	1332.49	949.06	558.39	274.39	65.97	9.20
135.0	2434.93	2314.83	2007.70	1499.20	1004.45	596.33	338.80	83.59	11.53
180.0	2421.19	2255.07	1874.45	1180.84	904.54	537.54	286.63	53.84	8.54
225.0	2431.94	2329.77	2045.34	1543.42	1023.15	649.16	375.67	112.22	14.64
270.0	2427.16	2370.40	2111.07	1695.19	1159.80	736.75	419.47	167.91	17.03
315.0	2434.93	2338.13	2080.60	1590.62	1085.35	672.04	387.68	119.74	15.12
360.0	2421.19	2389.52	2170.23	1719.69	1201.03	761.25	445.76	161.39	19.24
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	6.39	5.50	5.08	4.84	4.72	4.60	4.54	4.54	4.54
45.0	5.86	5.32	4.96	4.78	4.66	4.60	4.54	4.48	4.48
90.0	5.80	5.20	4.96	4.72	4.60	4.54	4.54	4.48	4.48
135.0	6.04	5.32	5.02	4.78	4.66	4.60	4.54	4.48	4.48
180.0	5.80	5.26	4.96	4.72	4.66	4.60	4.54	4.54	4.48
225.0	6.04	5.32	4.96	4.78	4.66	4.60	4.48	4.54	4.54
270.0	6.21	5.38	5.02	4.78	4.66	4.60	4.54	4.48	4.48
315.0	6.09	5.38	4.96	4.84	4.72	4.66	4.60	4.60	4.60
360.0	6.39	5.50	5.08	4.84	4.72	4.60	4.54	4.54	4.54
C/γ(°)	90.0								
0.0	4.48								
45.0	4.48								
90.0	4.48								
135.0	4.42								
180.0	4.48								
225.0	4.54								
270.0	4.42								
315.0	4.48								
360.0	4.48								