



NATA LIGHTING CO.,LTD
www.nata.cn
Email:info@nata.cn
Tel:+86 0750-377 0000(10 lines) Fax:+86 0750-377 1111
Address:380JinOu Road,Gaoxin Zone,Jiang Men City,Guangdong,China

Nata

LumCAT: 2-1318-E	
Luminaire: 92.70.074.00	
Report No: NT2016030205	Voltage(V):
Test No: GC2016030205	Current(A):
LampCAT: CXA1820 3000K	Power (W): 24.2000
Lamp flux(lm): 2200.0	PF:
Number of Lamps: 1	Ballast type:
Length(mm): 58	Width(mm): 58
Phm Type: C	Height(mm): 0

Photometric Results

Lumens(lm): 1860.90
Efficiency(%): 84.59%
Lumens(lm)/Power(W): 76.90
Central intensity(cd): 4125.514
Maximum intensity(cd): 4125.514
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=66.7
 [C90/270]Total=66.7
Maximum s/h(1/2): C0_180=0.59 C90_270=0.59
Maximum s/h(1/4): C0_180=0.62 C90_270=0.62
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 84.59%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.441%

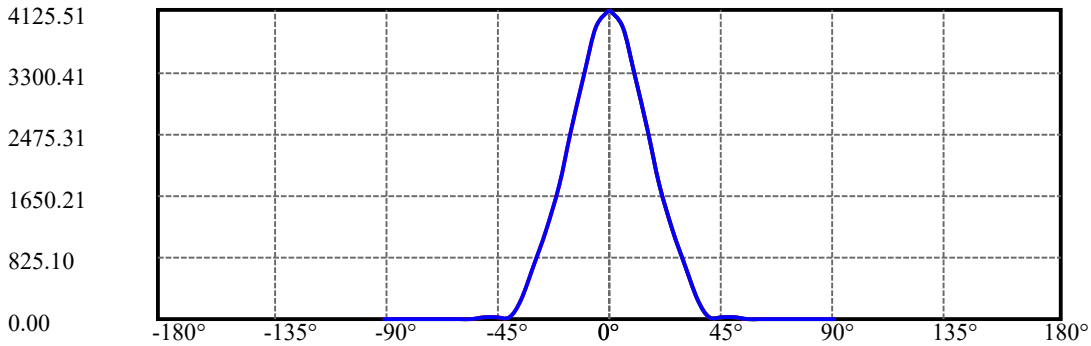
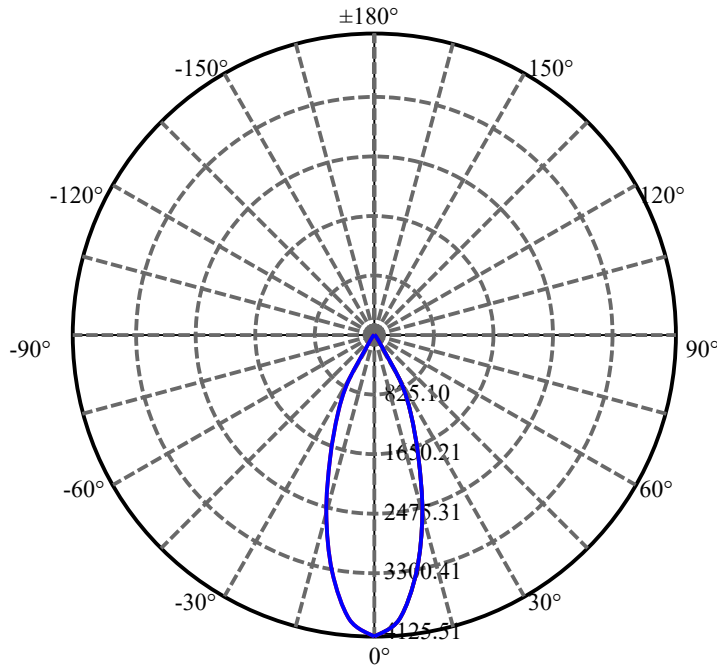
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	4125.514	0.000	0	.000%	.000%
5.0	3900.815	95.952	95.952	4.361%	5.156%
10.0	3272.346	256.607	352.559	11.664%	18.946%
15.0	2517.970	343.478	696.037	15.613%	37.403%
20.0	1801.755	356.006	1052.043	16.182%	56.534%
25.0	1185.880	313.348	1365.391	14.243%	73.373%
30.0	749.152	244.880	1610.271	11.131%	86.532%
35.0	249.447	147.051	1757.321	6.684%	94.434%
40.0	32.545	47.048	1804.37	2.139%	96.962%
45.0	18.351	9.424	1813.793	.428%	97.469%
50.0	14.411	6.620	1820.413	.301%	97.825%
55.0	12.642	5.882	1826.296	.267%	98.141%
60.0	11.569	5.596	1831.892	.254%	98.441%
65.0	10.750	5.426	1837.318	.247%	98.733%
70.0	10.085	5.276	1842.593	.240%	99.016%
75.0	9.380	5.088	1847.681	.231%	99.290%
80.0	8.276	4.724	1852.406	.215%	99.544%
85.0	7.636	4.324	1856.729	.197%	99.776%
90.0	7.581	4.166	1860.896	.189%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1610.27	73.19%	86.53%
0-40	1804.37	82.02%	96.96%
0-60	1831.89	83.27%	98.44%
0-90	1856.73	84.40%	99.78%
0-120	1856.73	84.40%	99.78%
0-180	1860.90	84.59%	100.00%
60-90	30.43	1.38%	1.64%
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%
0-27.52	1488.72	67.67%	80.00%

ZONAL LUMEN SUMMARY

0-10	352.56
10-20	699.48
20-30	558.23
30-40	194.10
40-50	16.04
50-60	11.48
60-70	10.70
70-80	9.81
80-90	4.32
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



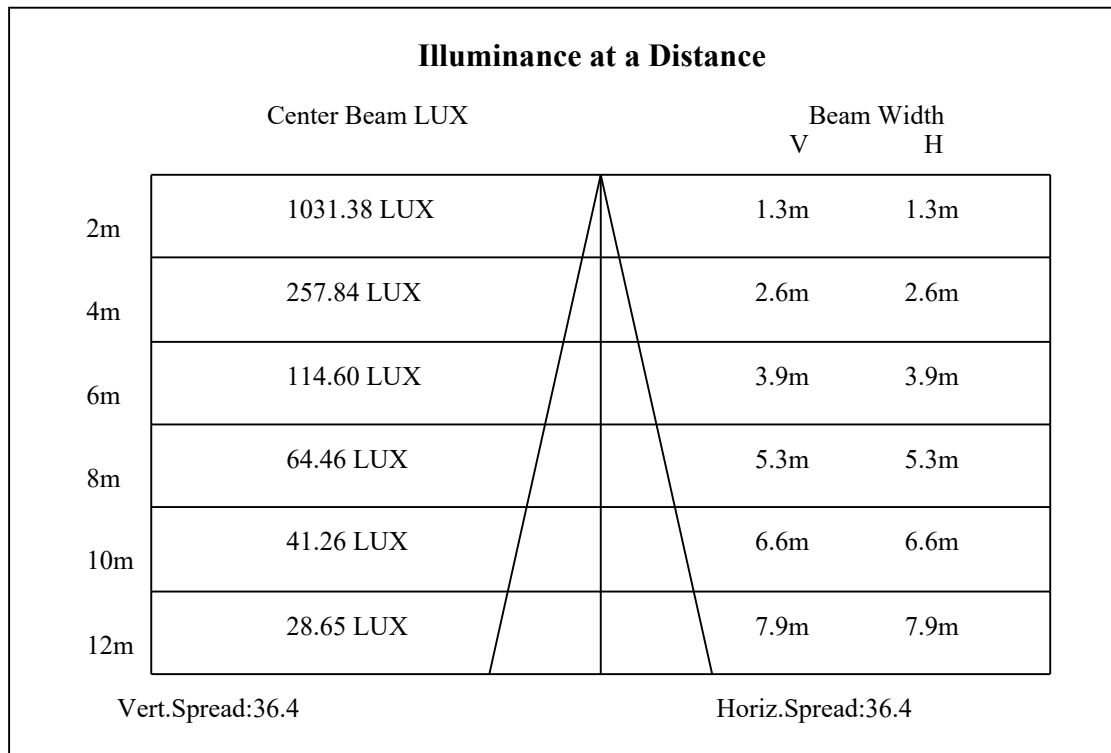
C0(Max): —————

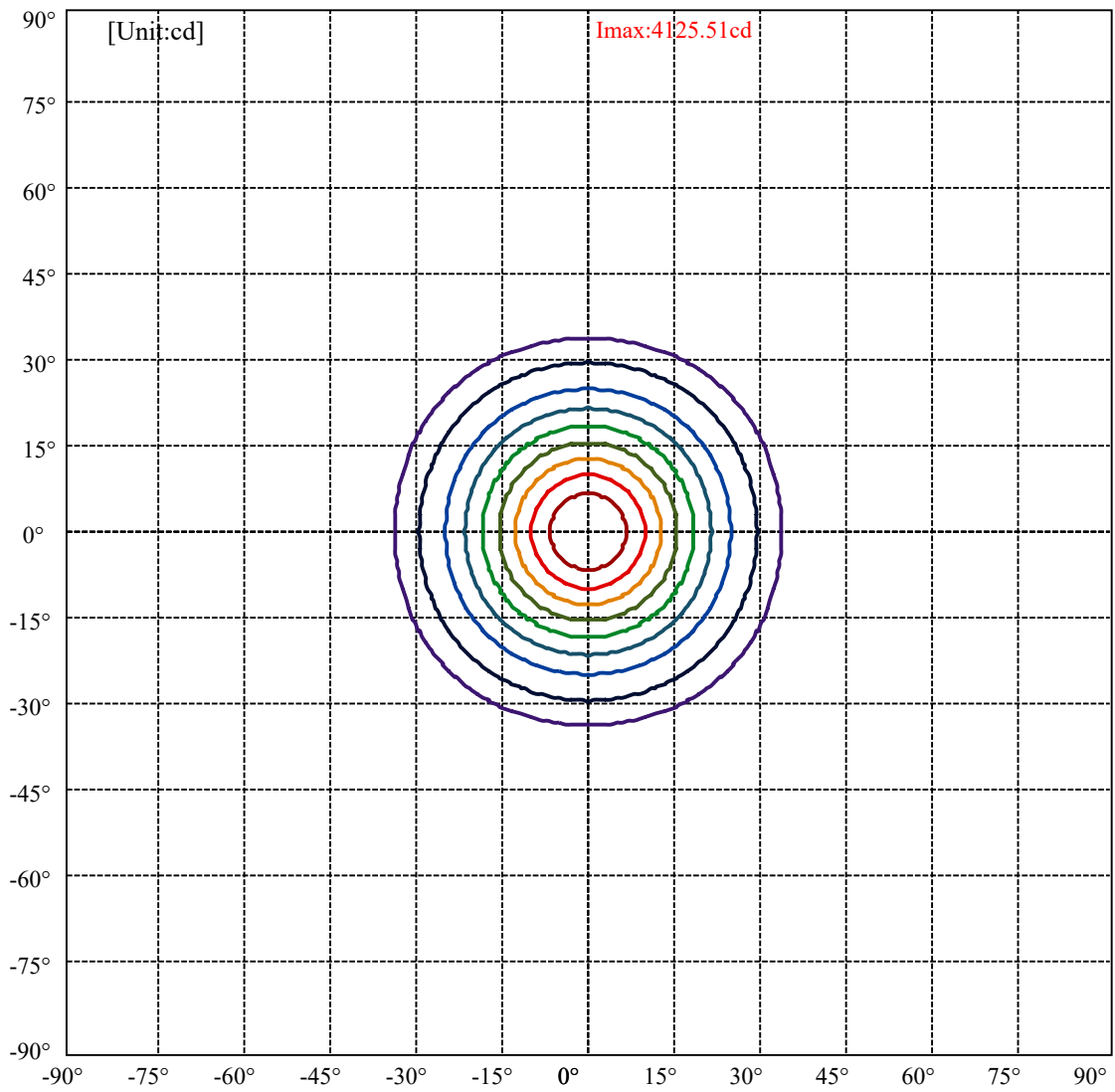
C0/C180: —————

C90/C270: —————

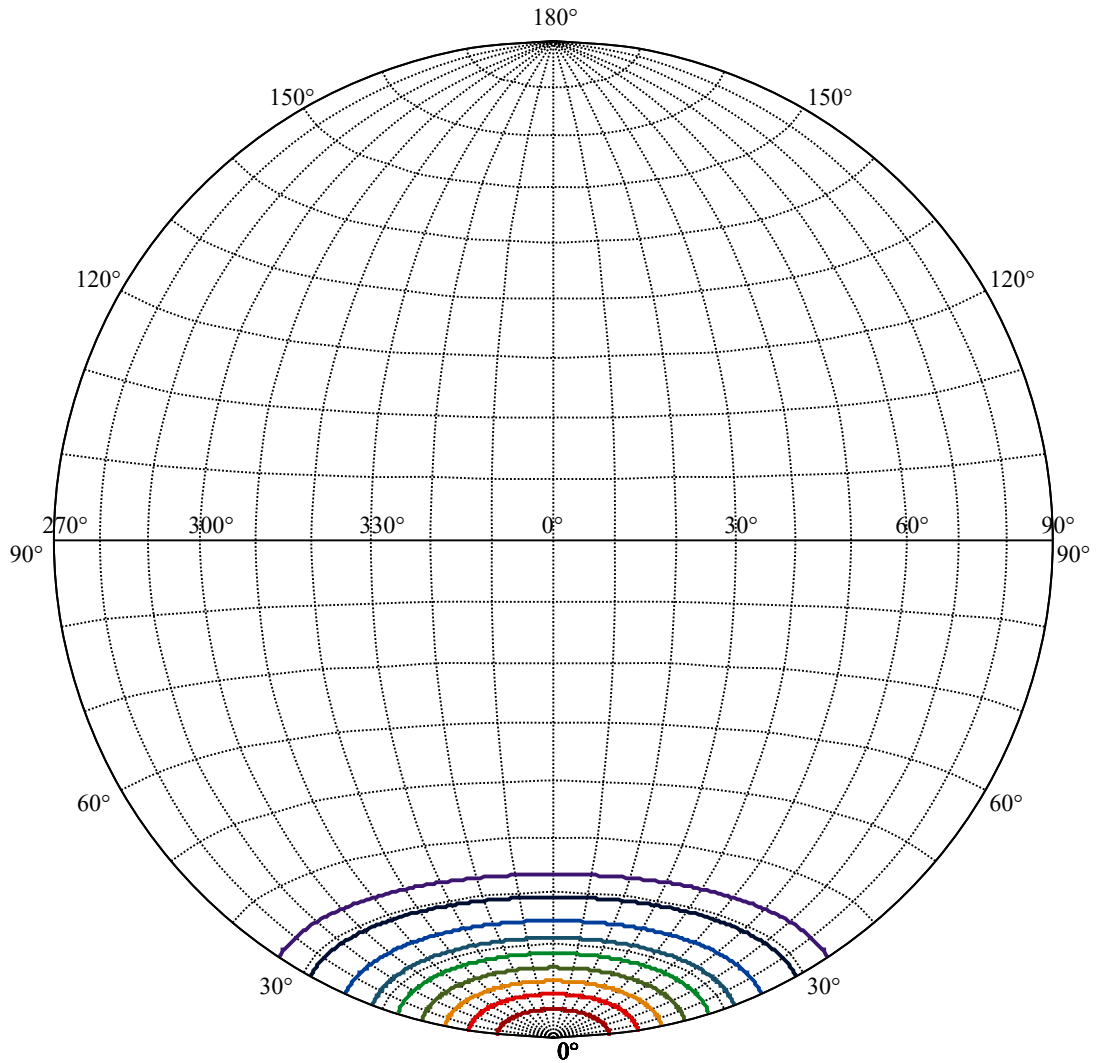
Field angle(10%Imax):C0/180Left:33.4 Right:33.4
:C90/270Left:33.4 Right:33.4

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





(10%Imax) 412.551	—
(20%Imax) 825.103	—
(30%Imax) 1237.65	—
(40%Imax) 1650.21	—
(50%Imax) 2062.76	—
(60%Imax) 2475.31	—
(70%Imax) 2887.86	—
(80%Imax) 3300.41	—
(90%Imax) 3712.96	—



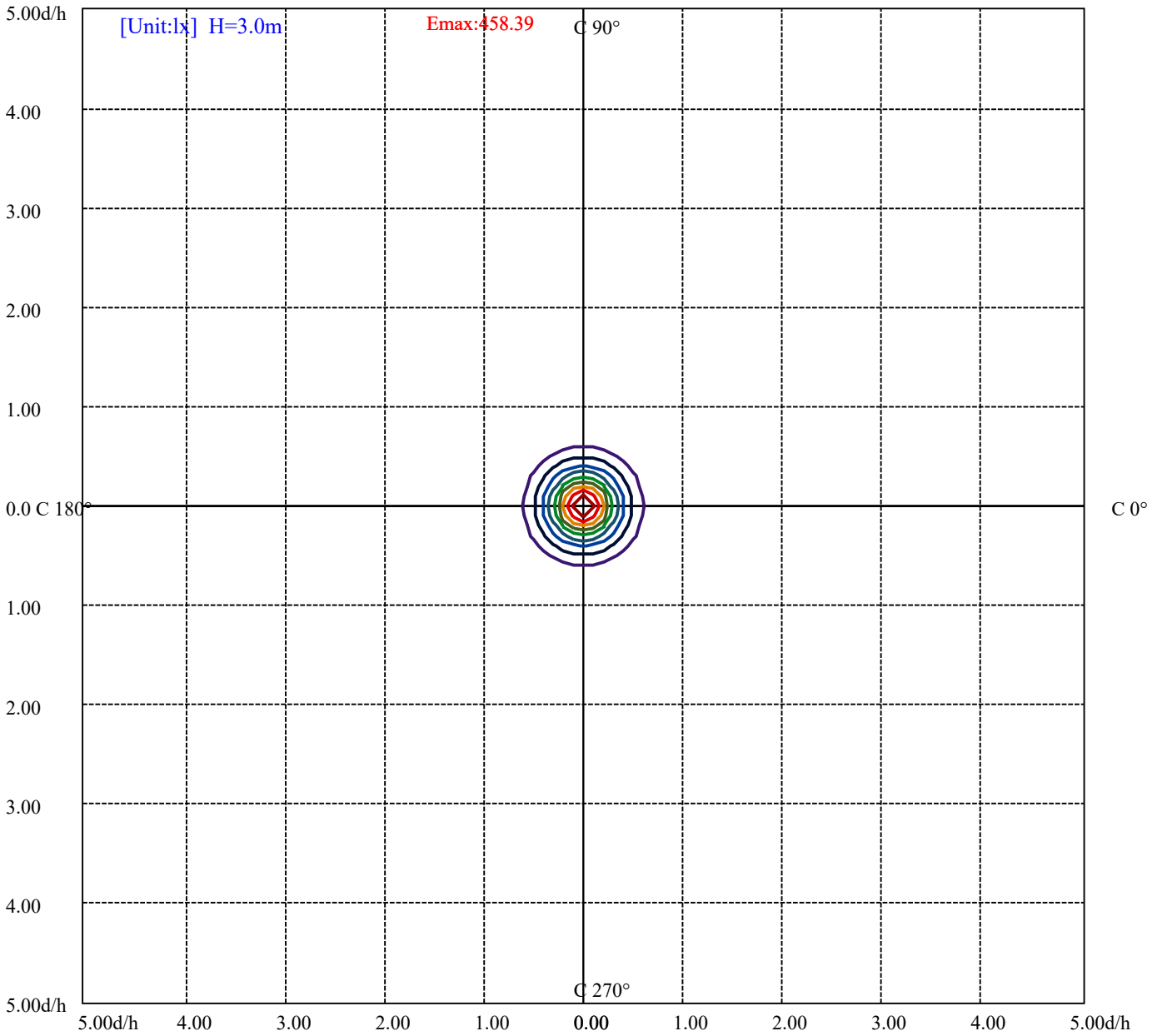
House

[Unit:cd]

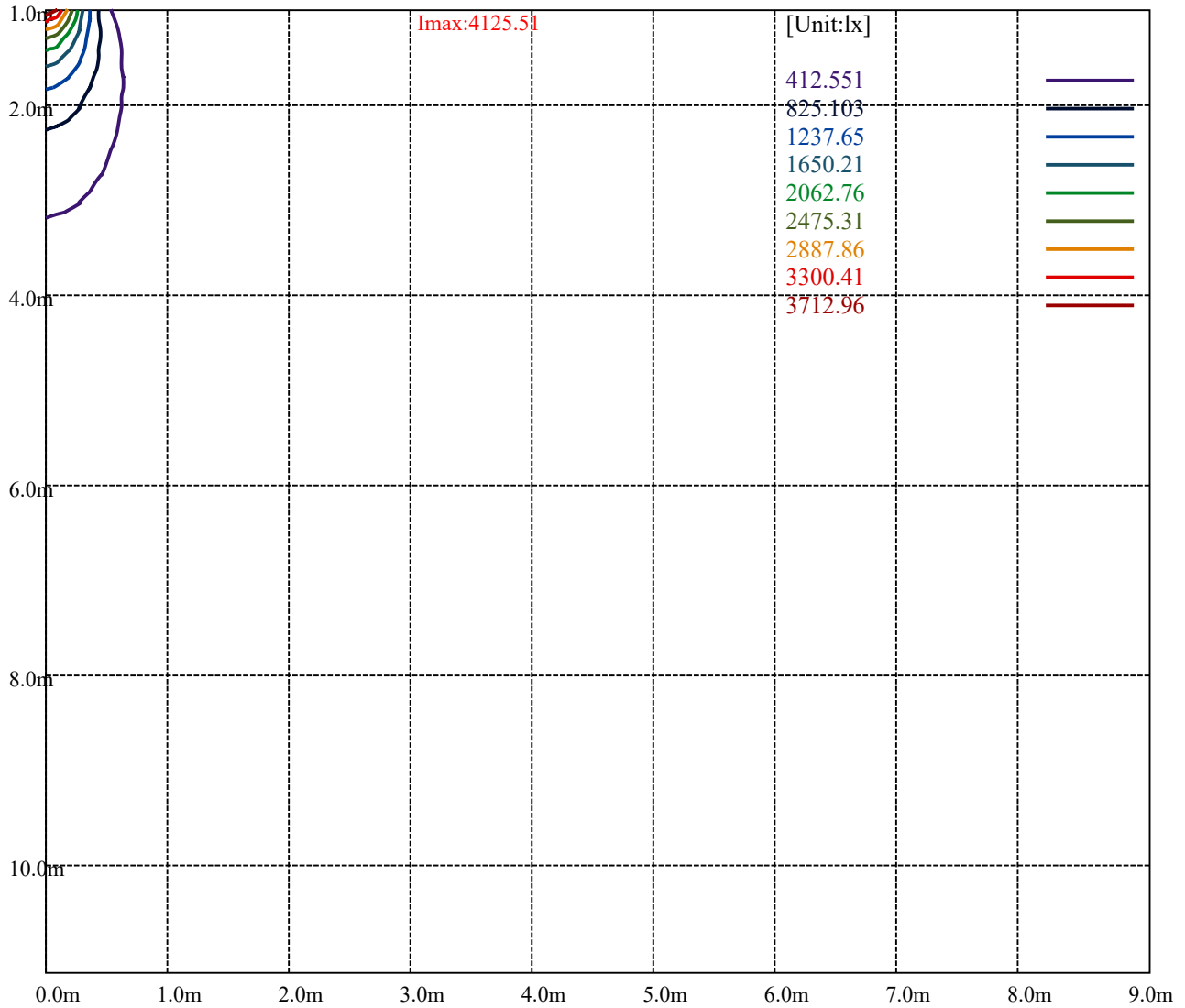
Road

I_{max}:4125.51

(10%I _{max})	412.551	—
(20%I _{max})	825.103	—
(30%I _{max})	1237.65	—
(40%I _{max})	1650.21	—
(50%I _{max})	2062.76	—
(60%I _{max})	2475.31	—
(70%I _{max})	2887.86	—
(80%I _{max})	3300.41	—
(90%I _{max})	3712.96	—



(10%Emax) 45.839	—
(20%Emax) 91.67789	—
(30%Emax) 137.5167	—
(40%Emax) 183.3555	—
(50%Emax) 229.1944	—
(60%Emax) 275.0333	—
(70%Emax) 320.8734	—
(80%Emax) 366.7122	—
(90%Emax) 412.5511	—



Luminance Table

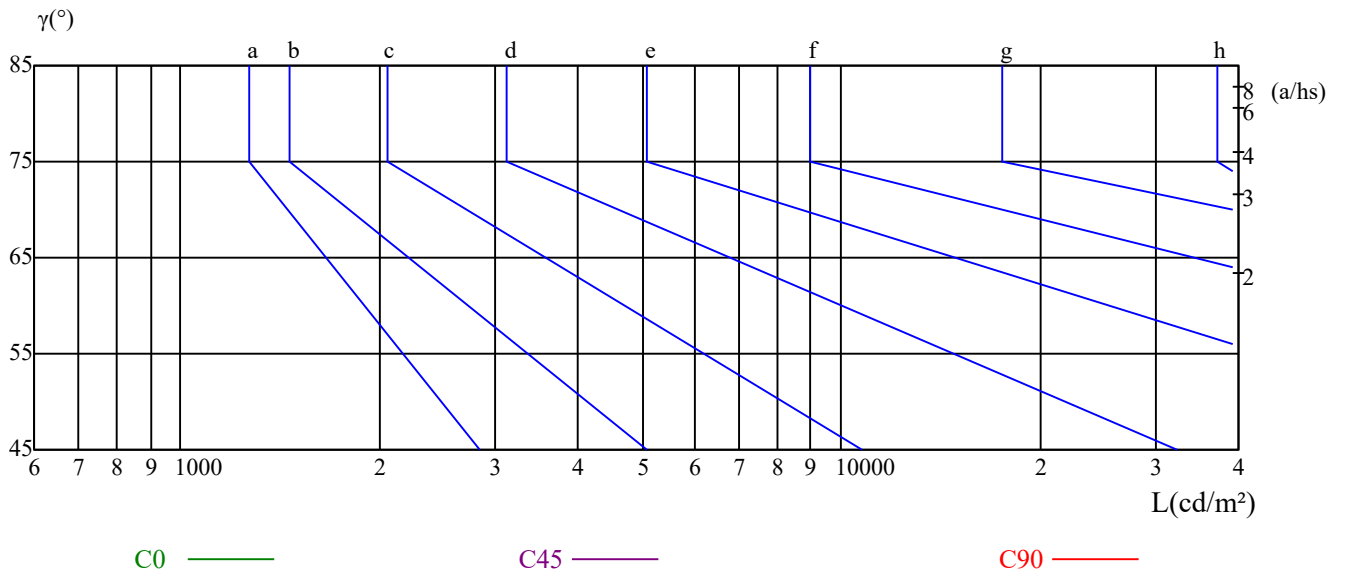
γ	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

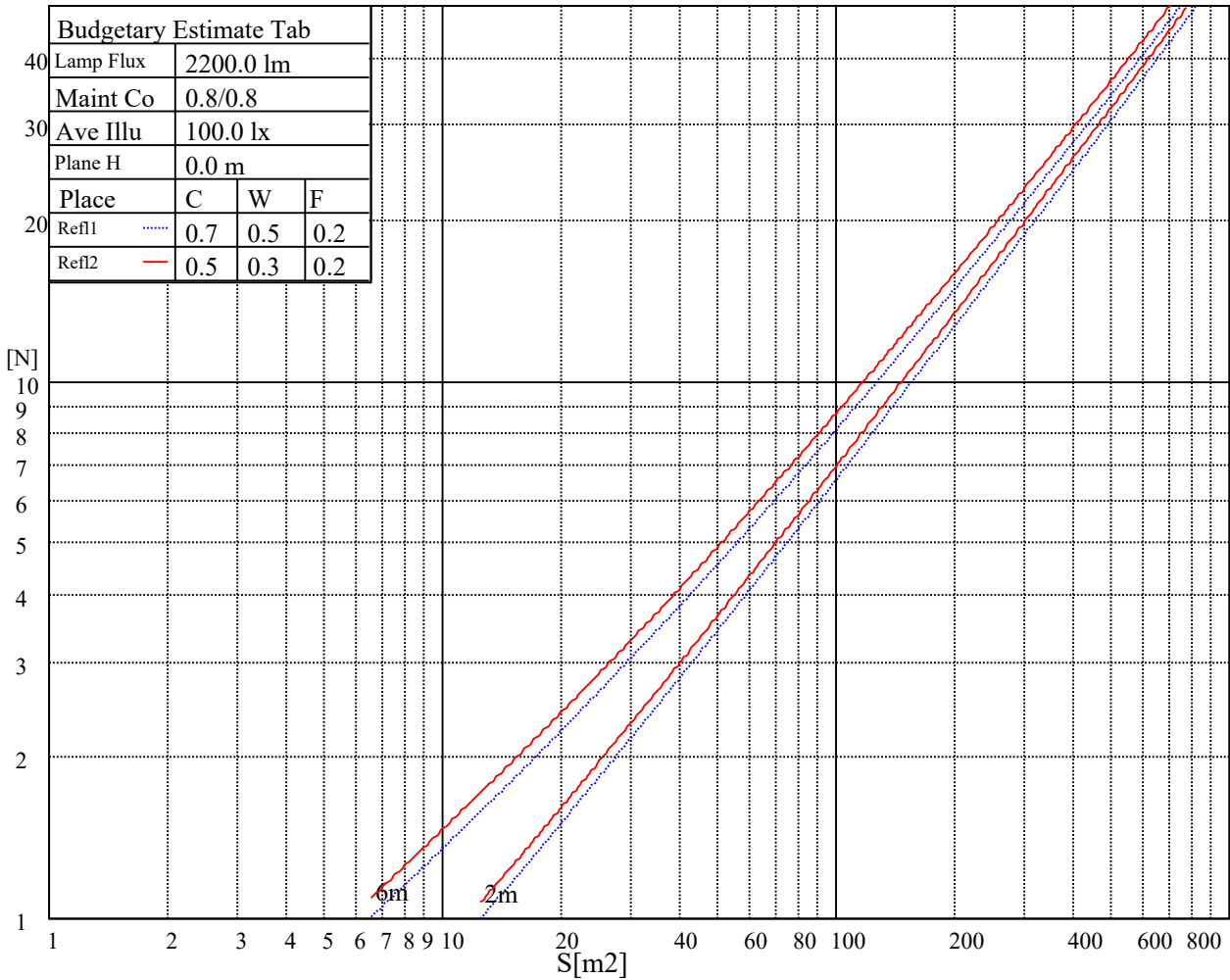
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
0	0	0	0	0	0	0	0	0

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 RHOF=20 CU															
0	1.01	1.01	1.01	0.98	0.98	0.98	0.94	0.94	0.94	0.90	0.90	0.90	0.86	0.86	0.86	0.85
1	0.94	0.92	0.91	0.92	0.91	0.89	0.89	0.88	0.86	0.86	0.85	0.84	0.83	0.82	0.81	0.80
2	0.89	0.86	0.83	0.87	0.84	0.82	0.85	0.82	0.80	0.82	0.80	0.79	0.80	0.78	0.77	0.76
3	0.84	0.80	0.77	0.83	0.79	0.76	0.80	0.78	0.75	0.78	0.76	0.74	0.77	0.75	0.73	0.72
4	0.79	0.75	0.72	0.78	0.75	0.72	0.77	0.73	0.71	0.75	0.72	0.70	0.73	0.71	0.69	0.68
5	0.75	0.71	0.68	0.75	0.71	0.68	0.73	0.70	0.67	0.72	0.69	0.66	0.71	0.68	0.66	0.65
6	0.72	0.67	0.64	0.71	0.67	0.64	0.70	0.66	0.64	0.69	0.66	0.63	0.68	0.65	0.63	0.62
7	0.68	0.64	0.61	0.68	0.64	0.61	0.67	0.63	0.60	0.66	0.63	0.60	0.65	0.62	0.60	0.59
8	0.65	0.61	0.58	0.65	0.61	0.58	0.64	0.60	0.58	0.63	0.60	0.57	0.62	0.59	0.57	0.56
9	0.63	0.58	0.55	0.62	0.58	0.55	0.61	0.58	0.55	0.61	0.57	0.55	0.60	0.57	0.55	0.54
10	0.60	0.56	0.53	0.60	0.56	0.53	0.59	0.55	0.53	0.58	0.55	0.53	0.58	0.55	0.53	0.52

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	4126.48	3890.29	3208.69	2440.10	1776.67	1077.45	704.94	234.16	31.71
22.5	4122.62	3930.48	3411.29	2584.90	1869.17	1254.74	809.88	305.01	35.13
45.0	4118.77	3871.57	3187.22	2449.46	1683.07	1094.74	679.51	197.98	30.50
67.5	4120.97	3942.04	3354.04	2571.13	1855.40	1264.10	786.76	286.29	35.68
90.0	4114.37	3833.58	3210.89	2480.84	1738.13	1095.68	697.12	179.21	27.03
112.5	4133.64	3846.24	3138.77	2395.50	1675.92	1072.61	634.86	123.11	26.87
135.0	4141.89	3904.60	3318.80	2532.04	1821.27	1247.03	757.03	300.61	31.11
157.5	4125.38	3829.72	3167.40	2412.02	1680.32	1076.08	653.02	166.55	27.64
180.0	4126.48	3924.42	3304.49	2506.17	1830.63	1237.12	765.28	285.74	34.47
202.5	4122.62	3836.33	3126.10	2403.76	1683.63	1097.38	685.73	188.79	29.62
225.0	4118.77	3918.36	3309.44	2539.75	1826.77	1260.24	793.91	278.59	35.29
247.5	4120.97	3847.34	3155.83	2440.10	1717.21	1088.69	690.52	208.77	30.17
270.0	4114.37	3912.31	3315.50	2576.64	1863.11	1282.26	831.90	303.36	33.81
292.5	4133.64	4019.12	3472.96	2701.07	2013.41	1397.88	901.82	352.91	41.07
315.0	4141.89	3936.53	3281.36	2593.71	1850.45	1095.18	757.30	262.95	33.09
337.5	4125.38	3970.12	3394.78	2660.33	1942.94	1332.92	836.86	317.13	37.55
360.0	4126.48	3890.29	3208.69	2440.10	1776.67	1077.45	704.94	234.16	31.71
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	18.06	14.15	12.61	11.51	10.68	10.08	9.47	8.31	7.54
22.5	18.99	14.59	12.72	11.67	10.85	10.19	9.53	8.70	7.60
45.0	18.00	14.15	12.50	11.51	10.68	9.97	9.31	8.20	7.54
67.5	18.66	14.48	12.61	11.56	10.68	10.02	9.25	8.20	7.60
90.0	17.34	13.93	12.33	11.29	10.52	9.86	9.08	7.87	7.54
112.5	17.18	13.87	12.33	11.34	10.57	9.86	9.08	7.93	7.65
135.0	18.44	14.54	12.61	11.56	10.68	10.08	9.25	8.26	7.65
157.5	17.84	14.09	12.50	11.40	10.68	9.97	9.31	8.04	7.60
180.0	18.72	14.54	12.77	11.67	10.85	10.19	9.58	8.53	7.60
202.5	17.73	14.21	12.55	11.51	10.79	10.08	9.47	8.15	7.60
225.0	18.77	14.65	12.83	11.73	10.90	10.24	9.53	8.64	7.71
247.5	17.84	14.15	12.61	11.51	10.74	10.02	9.36	8.04	7.65
270.0	18.33	14.65	12.72	11.67	10.79	10.19	9.42	8.09	7.71
292.5	19.93	15.09	12.99	11.84	10.96	10.30	9.58	8.42	7.76
315.0	18.66	14.59	12.77	11.62	10.74	10.13	9.36	8.31	7.71
337.5	19.11	14.92	12.83	11.73	10.90	10.24	9.53	8.70	7.71
360.0	18.06	14.15	12.61	11.51	10.68	10.08	9.47	8.31	7.54
C/γ(°)	90.0								
0.0	7.54								
22.5	7.60								
45.0	7.54								
67.5	7.54								
90.0	7.54								
112.5	7.65								
135.0	7.60								
157.5	7.54								
180.0	7.60								
202.5	7.54								
225.0	7.60								
247.5	7.54								
270.0	7.60								
292.5	7.65								
315.0	7.60								
337.5	7.60								
360.0	7.54								