



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

Nata

Client:

LumCAT: 3-2097-M

Luminaire: 92.70.136.00

Report No: nata-0100

Test No:

LampCAT: CREE CMT2850

Lamp flux(lm): 3326.9

Number of Lamps: 1

Length(mm): 78

Phm Type: C

Voltage(V): 33.9000

Current(A): 0.6500

Power (W): 22.0350

PF: 0.0000

Ballast type: DC

Width(mm): 78

Height(mm): 0

Photometric Results

Lumens(lm): 2675.15, Efficiency(%): 80.41% , Luminous Efficacy(lm/W): 121.40

Central intensity(cd): 4249.666, Maximum intensity(cd): 4249.666

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=46.4

[C90/270]Total=46.4

Field angle(10%Imax): [C0/180]Total=76.2

[C90/270]Total=76.2

Maximum s/h(1/2): C0_180=0.73 C90_270=0.73

Maximum s/h(1/4): C0_180=0.75 C90_270=0.75

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 81.10%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 97.785%

Equipment: GMS1980
Temperature(°C): 25.0

Date: 2018/5/23
Humidity(%): 60.0%

Operator: NT07
Distance(m): 7.42

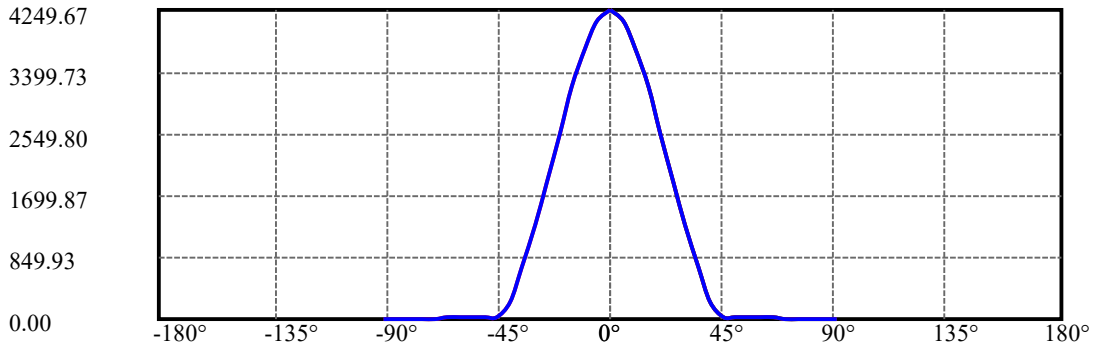
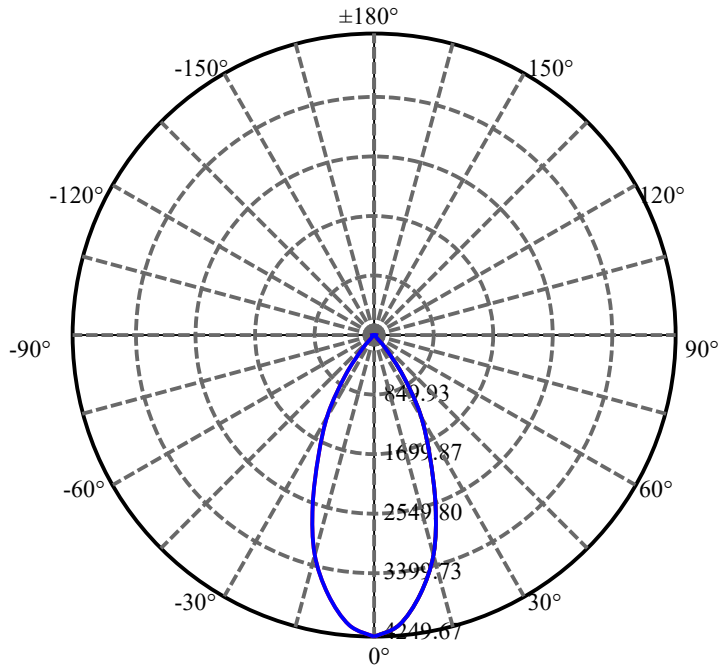
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	4249.666	25.414	25.414	.764%	.950%
5.0	4101.427	195.939	221.353	5.889%	8.274%
10.0	3714.449	353.553	574.905	10.627%	21.491%
15.0	3195.336	453.317	1028.222	13.626%	38.436%
20.0	2561.224	480.163	1508.385	14.433%	56.385%
25.0	1880.245	435.564	1943.949	13.092%	72.667%
30.0	1283.358	351.728	2295.678	10.572%	85.815%
35.0	708.307	222.691	2518.369	6.694%	94.139%
40.0	246.770	86.946	2605.314	2.613%	97.389%
45.0	27.707	10.739	2616.053	.323%	97.791%
50.0	18.699	7.851	2623.905	.236%	98.084%
55.0	16.331	7.333	2631.238	.220%	98.359%
60.0	14.776	7.014	2638.252	.211%	98.621%
65.0	13.633	6.773	2645.025	.204%	98.874%
70.0	12.849	6.618	2651.643	.199%	99.121%
75.0	12.415	6.573	2658.216	.198%	99.367%
80.0	12.429	6.709	2664.925	.202%	99.618%
85.0	13.035	7.118	2672.043	.214%	99.884%
90.0	11.335	3.106	2675.149	.093%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	2295.68	69.00%	85.81%
0-40	2605.31	78.31%	97.39%
0-60	2638.25	79.30%	98.62%
0-90	2672.04	80.32%	99.88%
0-120	2672.04	80.32%	99.88%
0-180	2675.15	80.41%	100.00%
60-90	40.81	1.23%	1.53%
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%
0-27.79	2140.12	64.33%	80.00%

ZONAL LUMEN SUMMARY

0-10	574.91
10-20	933.48
20-30	787.29
30-40	309.64
40-50	18.59
50-60	14.35
60-70	13.39
70-80	13.28
80-90	7.12
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



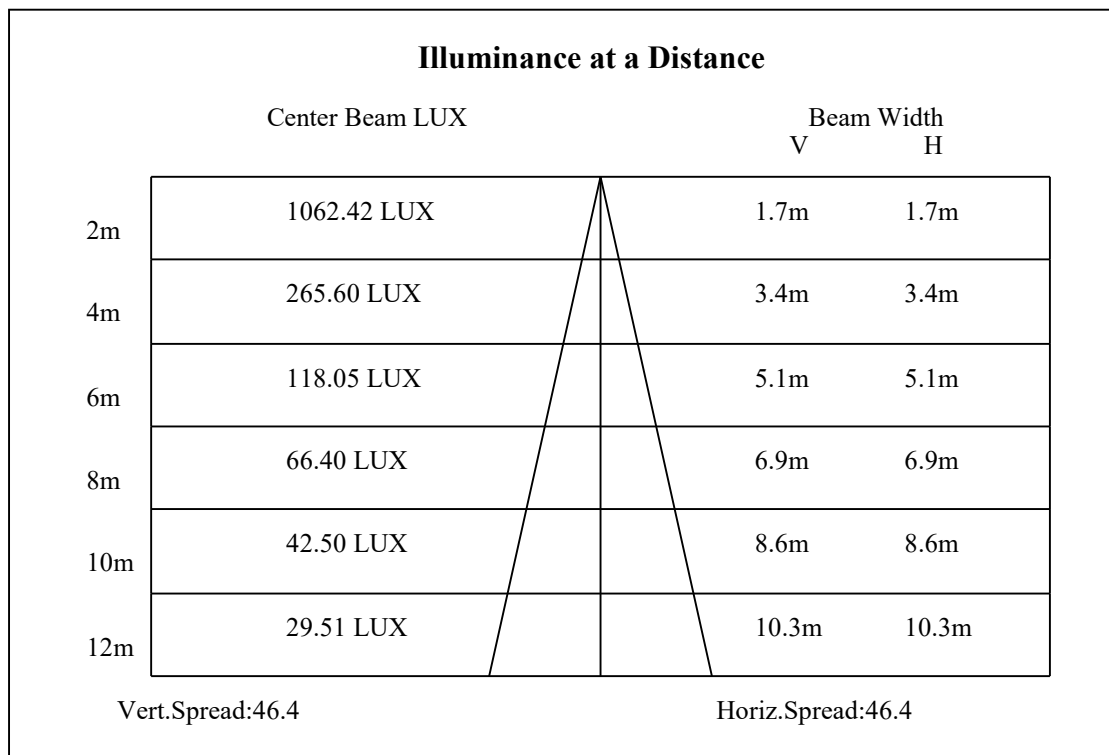
C0(Max): —————

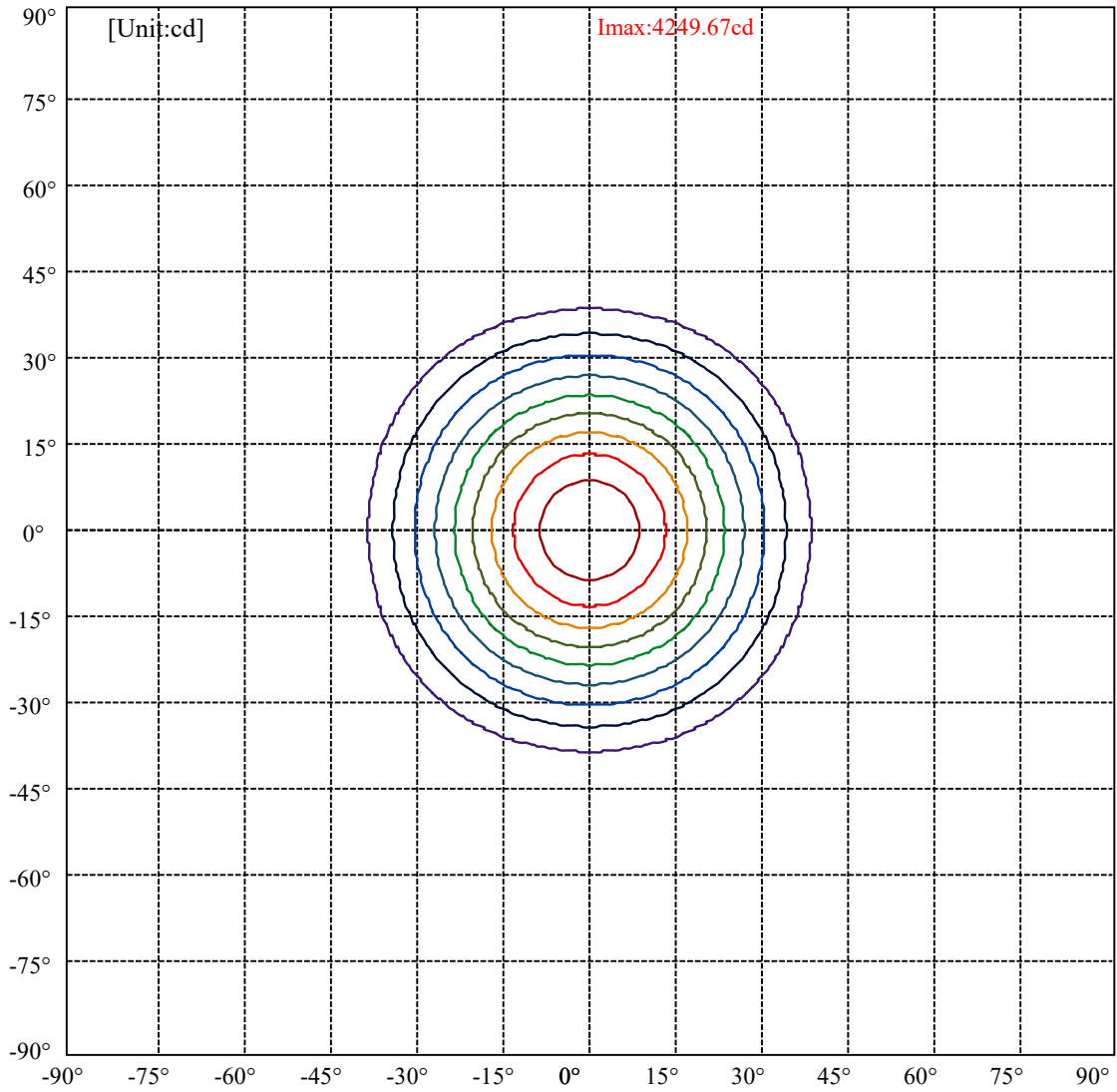
C0/C180: —————

C90/C270: —————

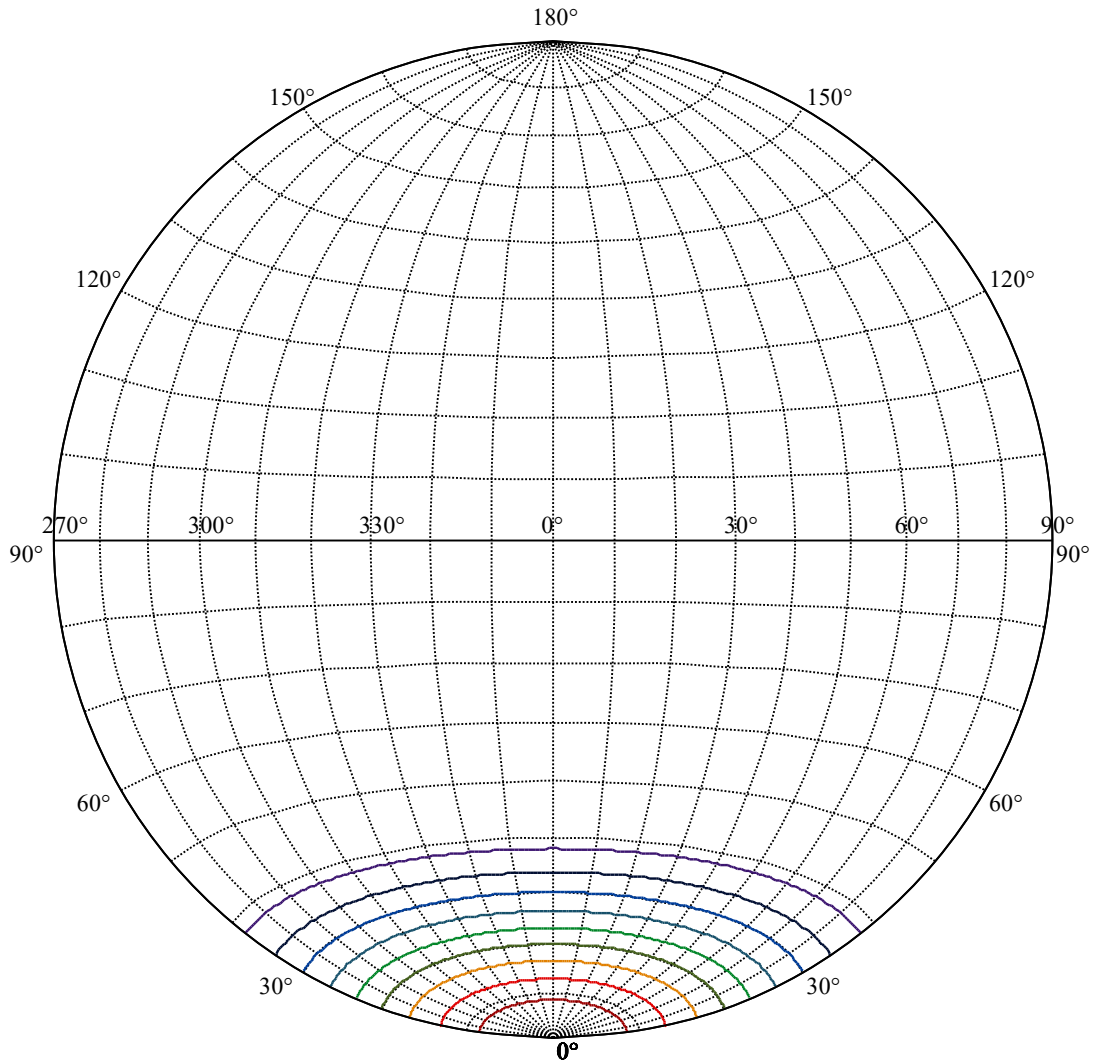
Field angle(10%Imax):C0/180Left:38.1 Right:38.1
:C90/270Left:38.1 Right:38.1

Beam Angle(50%Imax):C0/180Left:23.2 Right:23.2
:C90/270Left:23.2 Right:23.2





(10%Imax) 424.967	—
(20%Imax) 849.933	—
(30%Imax) 1274.9	—
(40%Imax) 1699.87	—
(50%Imax) 2124.83	—
(60%Imax) 2549.8	—
(70%Imax) 2974.77	—
(80%Imax) 3399.73	—
(90%Imax) 3824.7	—



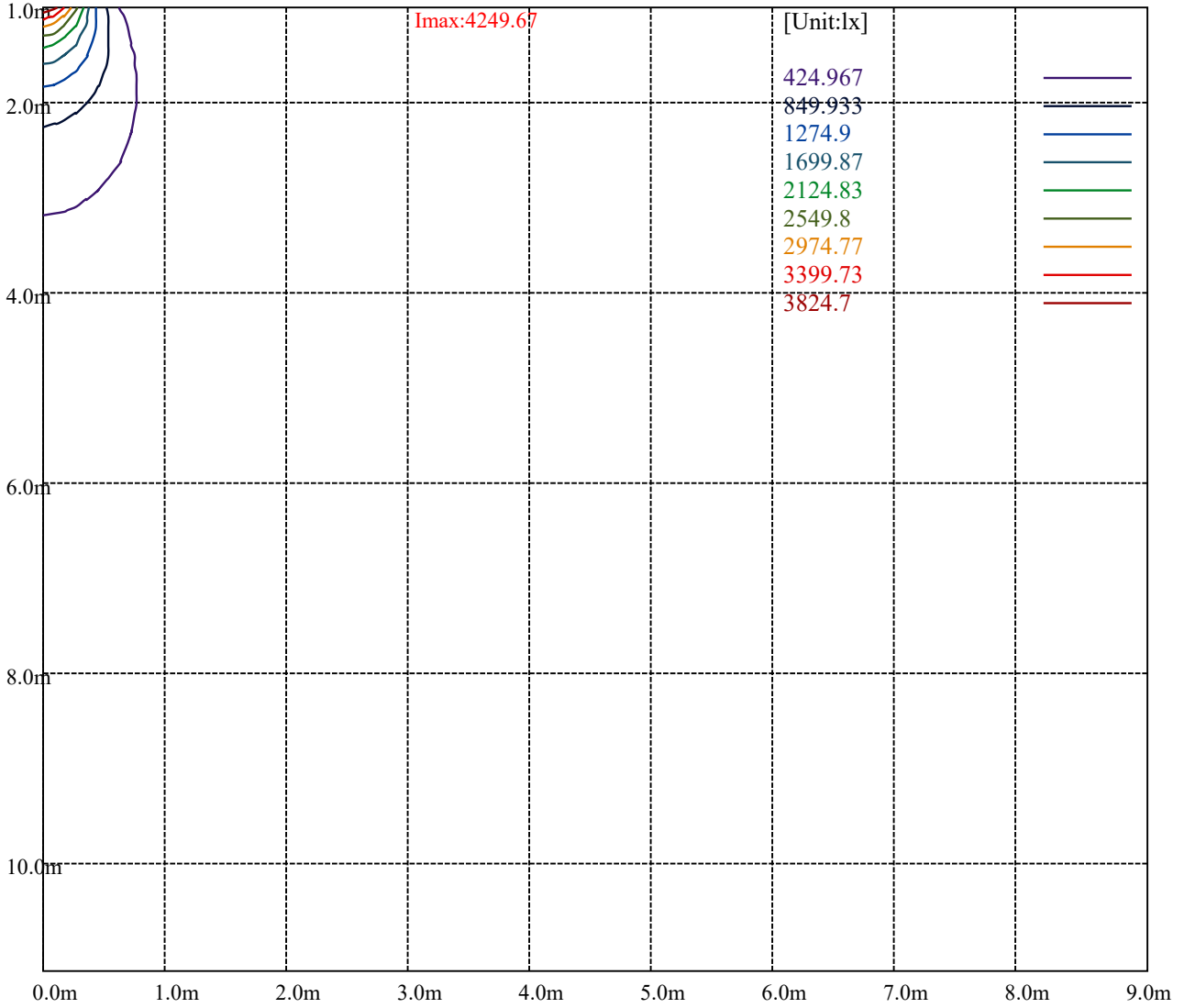
House

[Unit:cd]

Road

Imax:4249.67

(10%Imax) 424.967	—
(20%Imax) 849.933	—
(30%Imax) 1274.9	—
(40%Imax) 1699.87	—
(50%Imax) 2124.83	—
(60%Imax) 2549.8	—
(70%Imax) 2974.77	—
(80%Imax) 3399.73	—
(90%Imax) 3824.7	—



Luminance Table

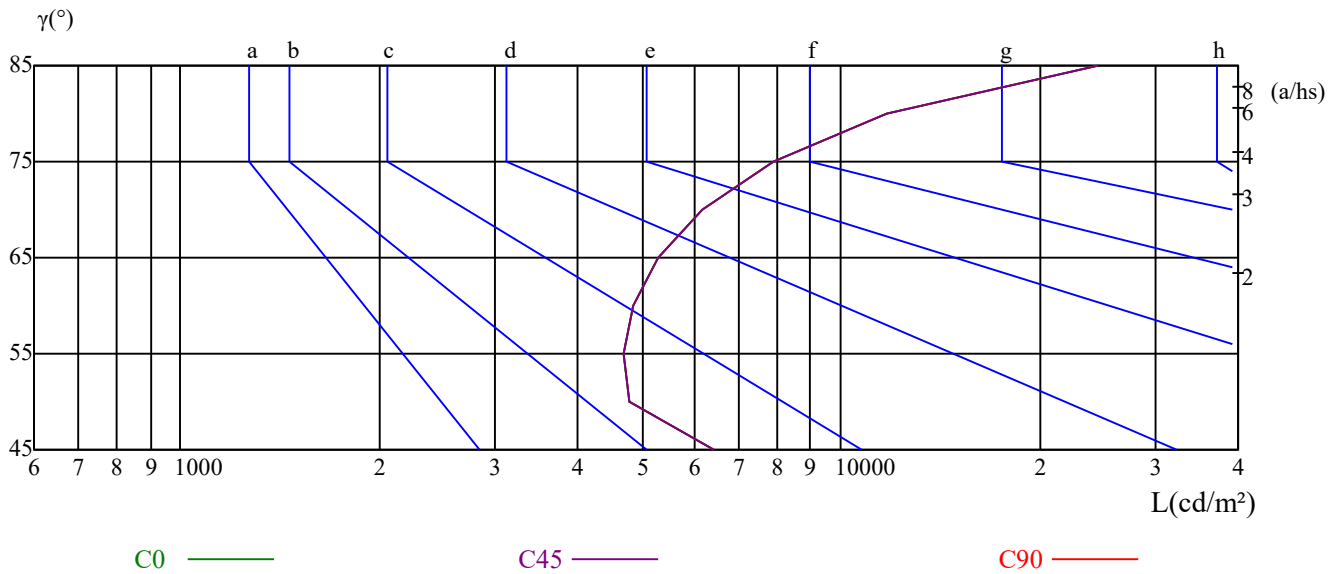
γ	45	50	55	60	65	70	75	80	85
C0	6440	4781	4680	4857	5302	6175	7884	11765	24582
C45	6440	4781	4680	4857	5302	6175	7884	11765	24582
C90	6440	4781	4680	4857	5302	6175	7884	11765	24582

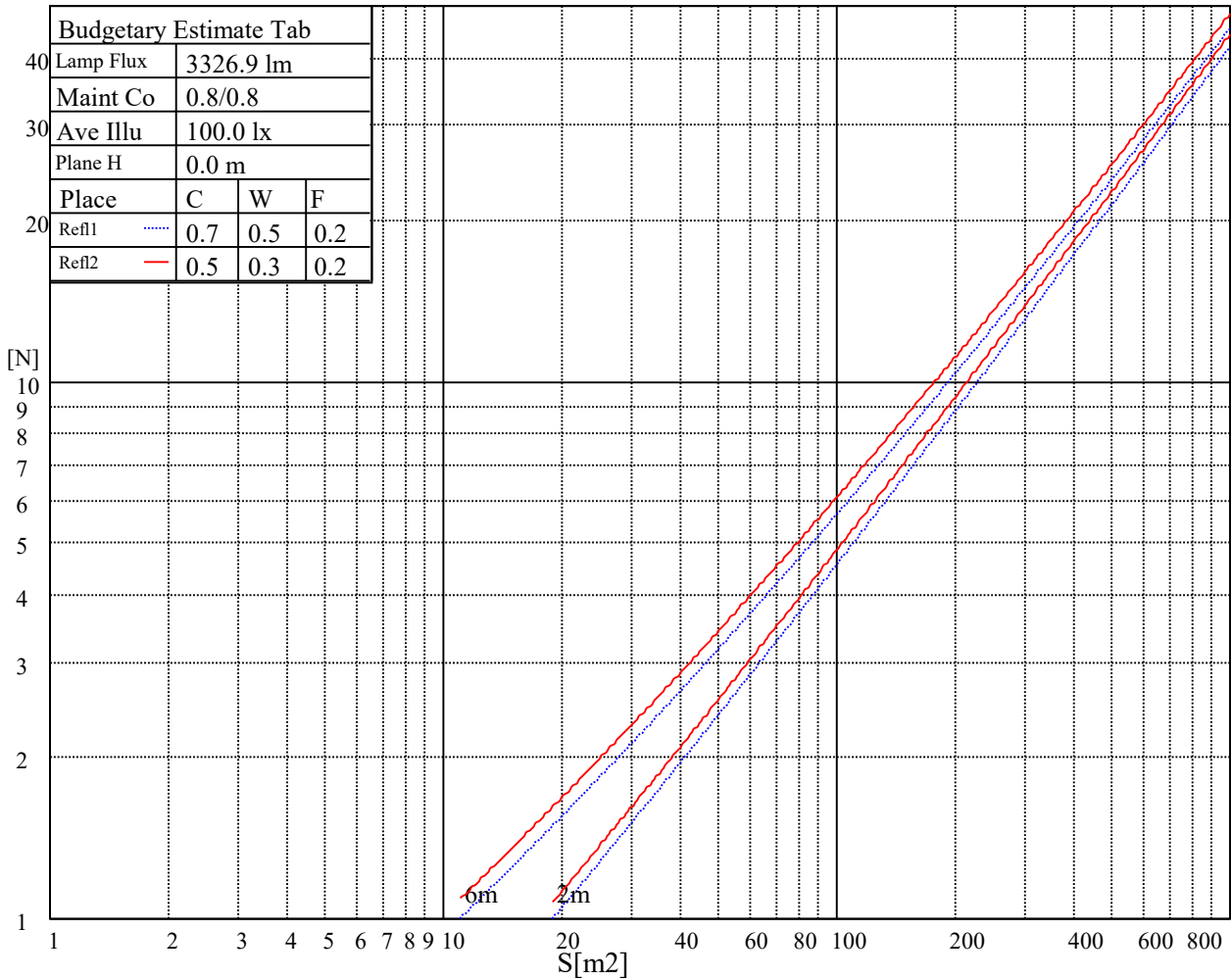
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
5302	5302	5302	7884	7884	7884	24582	24582	24582

Glare Table

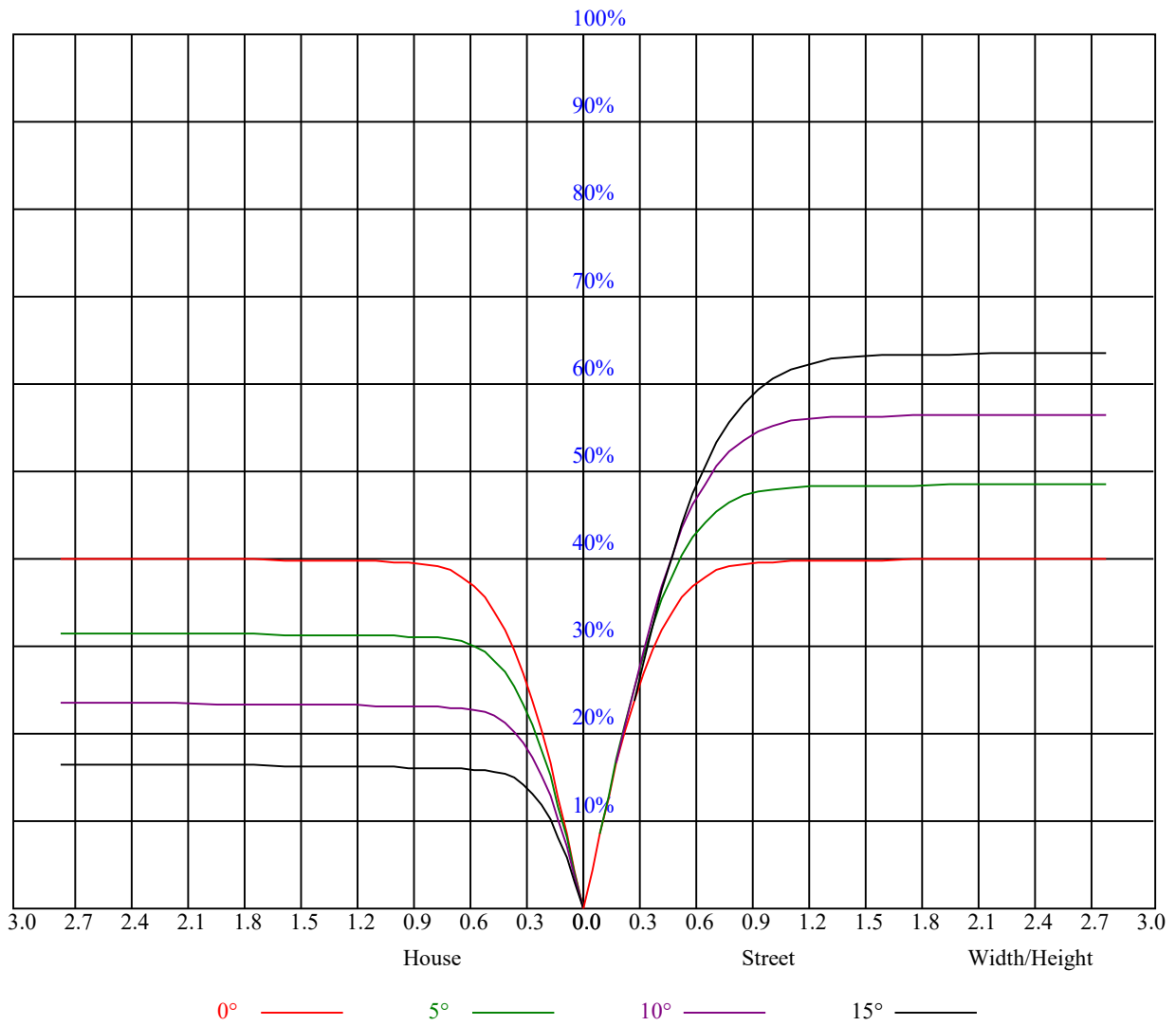
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

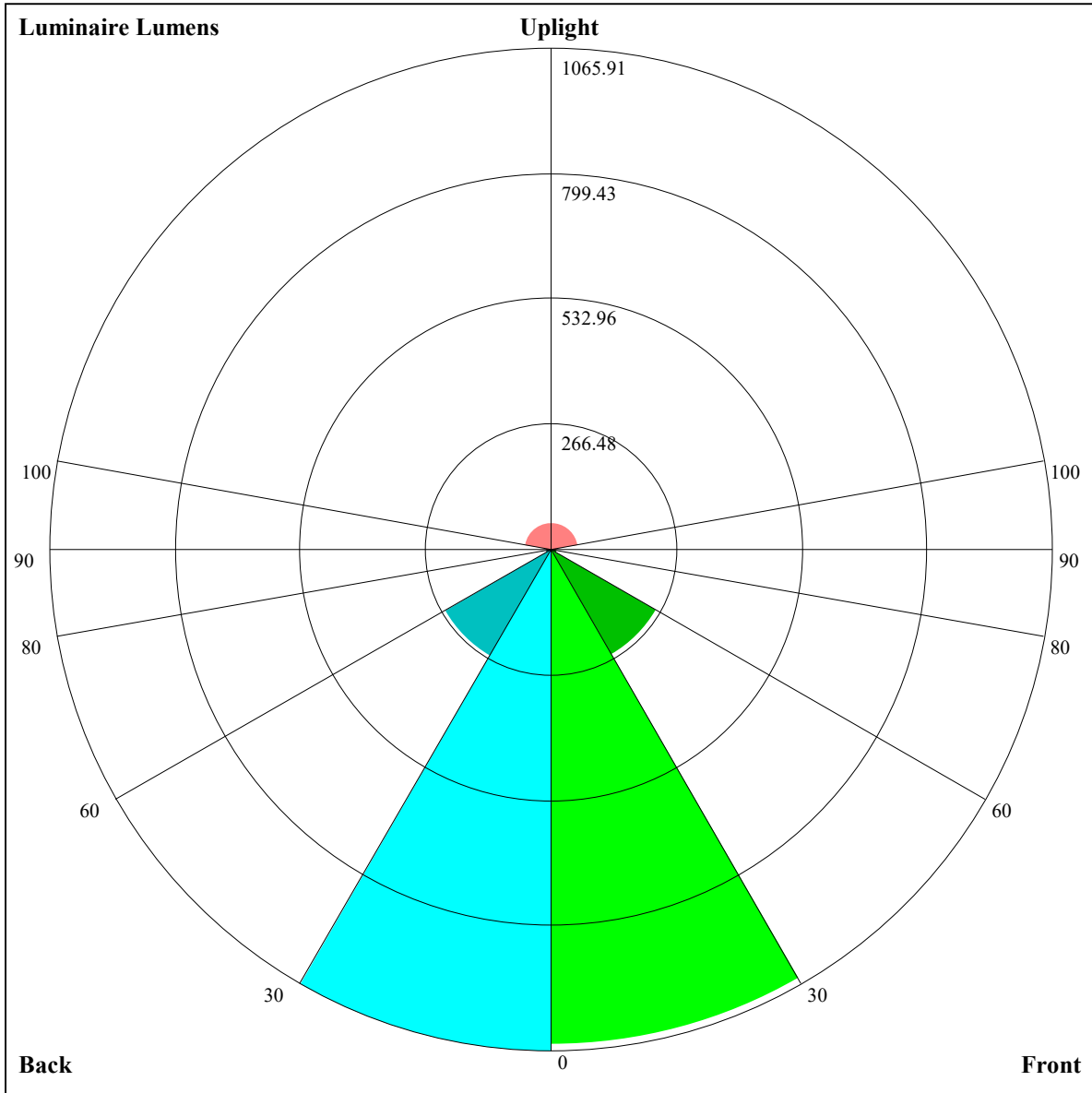
Luminance Limiting Curve





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	0.97	0.97	0.97	0.94	0.94	0.94	0.90	0.90	0.90	0.86	0.86	0.86	0.83	0.83	0.83	0.81
1	0.89	0.87	0.85	0.88	0.86	0.84	0.84	0.83	0.82	0.81	0.80	0.79	0.79	0.78	0.77	0.75
2	0.84	0.81	0.78	0.83	0.80	0.77	0.80	0.78	0.76	0.78	0.76	0.74	0.76	0.74	0.73	0.71
3	0.79	0.76	0.73	0.78	0.75	0.72	0.76	0.73	0.71	0.74	0.72	0.70	0.73	0.71	0.69	0.68
4	0.75	0.71	0.68	0.74	0.71	0.68	0.73	0.69	0.67	0.71	0.68	0.66	0.70	0.67	0.65	0.64
5	0.71	0.67	0.64	0.71	0.67	0.64	0.69	0.66	0.63	0.68	0.65	0.63	0.67	0.64	0.62	0.61
6	0.68	0.64	0.61	0.67	0.63	0.61	0.66	0.63	0.60	0.65	0.62	0.60	0.64	0.61	0.59	0.58
7	0.65	0.61	0.58	0.64	0.60	0.58	0.63	0.60	0.57	0.63	0.59	0.57	0.62	0.59	0.57	0.56
8	0.62	0.58	0.55	0.62	0.58	0.55	0.61	0.57	0.55	0.60	0.57	0.54	0.59	0.56	0.54	0.53
9	0.59	0.55	0.52	0.59	0.55	0.52	0.58	0.55	0.52	0.58	0.54	0.52	0.57	0.54	0.52	0.51
10	0.57	0.53	0.50	0.57	0.53	0.50	0.56	0.53	0.50	0.56	0.52	0.50	0.55	0.52	0.50	0.49





Luminaire Lumens:

FL=1052.76,FM=258.19,FH=13.44,FVH=6.62

BL=1065.91,BM=263.63,BH=13.45,BVH=6.96

UL=12.37,UH=58.85

BUG Rating:B3-U2-G0

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	4245.40	4100.05	3720.71	3215.84	2595.91	1887.33	1387.42	747.12	280.79
45.0	4256.41	4068.12	3685.48	3145.92	2484.70	1802.00	1289.97	644.16	294.55
90.0	4245.40	4027.38	3561.05	3065.54	2381.19	1748.59	1091.55	547.15	109.40
135.0	4251.46	4133.63	3750.44	3245.02	2620.68	1911.01	1373.11	749.32	290.70
180.0	4245.40	4097.85	3689.33	3145.37	2498.46	1844.94	1095.79	657.81	205.14
225.0	4256.41	4123.72	3786.78	3251.08	2642.71	1961.66	1446.33	772.22	270.44
270.0	4245.40	4180.98	3840.73	3358.44	2731.90	2044.79	1512.95	859.43	328.14
315.0	4251.46	4079.68	3681.07	3135.46	2534.25	1841.64	1069.75	689.25	195.01
360.0	4245.40	4100.05	3720.71	3215.84	2595.91	1887.33	1387.42	747.12	280.79
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	25.77	19.05	16.52	14.87	13.71	12.88	12.33	12.17	12.44
45.0	23.34	18.66	16.30	14.87	13.65	12.83	12.33	12.11	12.39
90.0	22.85	18.55	16.19	14.70	13.54	12.77	12.44	12.72	13.82
135.0	23.84	18.28	15.97	14.59	13.54	12.88	12.72	13.43	15.47
180.0	22.08	17.56	15.64	14.20	13.27	12.72	12.50	12.77	13.82
225.0	35.13	18.61	16.19	14.70	13.54	12.77	12.28	12.22	12.50
270.0	43.66	19.77	17.23	15.31	13.98	13.10	12.44	12.06	12.00
315.0	25.00	19.10	16.63	14.98	13.82	12.83	12.28	11.95	11.84
360.0	25.77	19.05	16.52	14.87	13.71	12.88	12.33	12.17	12.44
C/ γ (°)	90.0								
0.0	11.29								
45.0	11.34								
90.0	11.34								
135.0	11.34								
180.0	11.29								
225.0	11.40								
270.0	11.34								
315.0	11.34								
360.0	11.29								