



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

Nata

Client:

LumCAT: 3-2018-A

Luminaire: 92.70.065.00+92.70.089.00

Report No: nt0100

Test No: NATA07

LampCAT: LUMINUS CXM-14-AC40

Lamp flux(lm): 1357.0

Number of Lamps: 1

Length(mm): 0

Phm Type: C

Voltage(V): 220.5000

Current(A): 0.0690

Power (W): 14.2700

PF: 0.9290

Ballast type: AC

Width(mm): 0

Height(mm): 0

Photometric Results

Lumens(lm): 1172.71, Efficiency(%): 86.42% , Luminous Efficacy(lm/W): 82.18

Central intensity(cd): 2512.091, Maximum intensity(cd): 2512.091

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=38.4

[C90/270]Total=38.4

Field angle(10%Imax): [C0/180]Total=64.2

[C90/270]Total=64.2

Maximum s/h(1/2): C0_180=0.62 C90_270=0.62

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(%): 86.42%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 99.597%

Equipment: GMS 1800
Temperature(°C): 25.0

Date: 2020/1/9
Humidity(%): 60.0%

Operator: GC20200102
Distance(m): 6.81

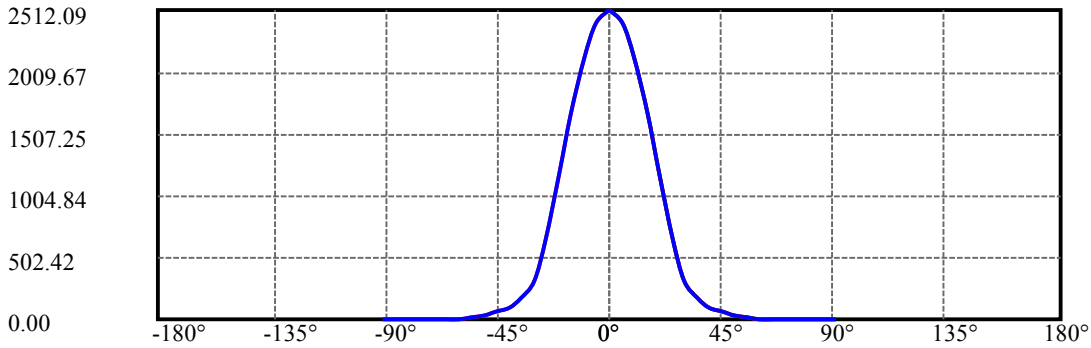
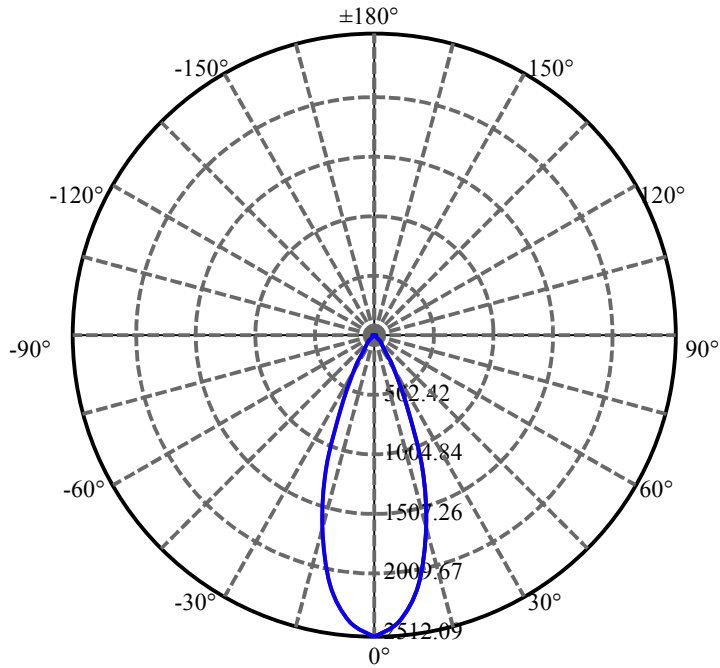
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	2512.091	0.000	0	.000%	.000%
5.0	2399.853	58.721	58.721	4.327%	5.007%
10.0	2118.939	161.651	220.372	11.912%	18.792%
15.0	1664.761	224.446	444.819	16.540%	37.931%
20.0	1180.600	234.498	679.316	17.281%	57.927%
25.0	652.071	192.213	871.53	14.165%	74.318%
30.0	305.844	121.225	992.755	8.933%	84.655%
35.0	176.547	71.036	1063.79	5.235%	90.712%
40.0	99.889	46.121	1109.912	3.399%	94.645%
45.0	58.172	29.266	1139.178	2.157%	97.141%
50.0	27.645	17.341	1156.519	1.278%	98.619%
55.0	10.632	8.323	1164.841	.613%	99.329%
60.0	2.958	3.141	1167.983	.231%	99.597%
65.0	1.642	1.118	1169.101	.082%	99.692%
70.0	1.386	0.767	1169.868	.056%	99.758%
75.0	1.293	0.700	1170.568	.052%	99.817%
80.0	1.282	0.689	1171.257	.051%	99.876%
85.0	1.340	0.712	1171.969	.052%	99.937%
90.0	1.369	0.742	1172.711	.055%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	992.75	73.16%	84.65%
0-40	1109.91	81.79%	94.64%
0-60	1167.98	86.07%	99.60%
0-90	1171.97	86.36%	99.94%
0-120	1171.97	86.36%	99.94%
0-180	1172.71	86.42%	100.00%
60-90	7.13	0.53%	0.61%
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%
0-27.75	938.17	69.14%	80.00%

ZONAL LUMEN SUMMARY

0-10	220.37
10-20	458.94
20-30	313.44
30-40	117.16
40-50	46.61
50-60	11.46
60-70	1.88
70-80	1.39
80-90	0.71
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



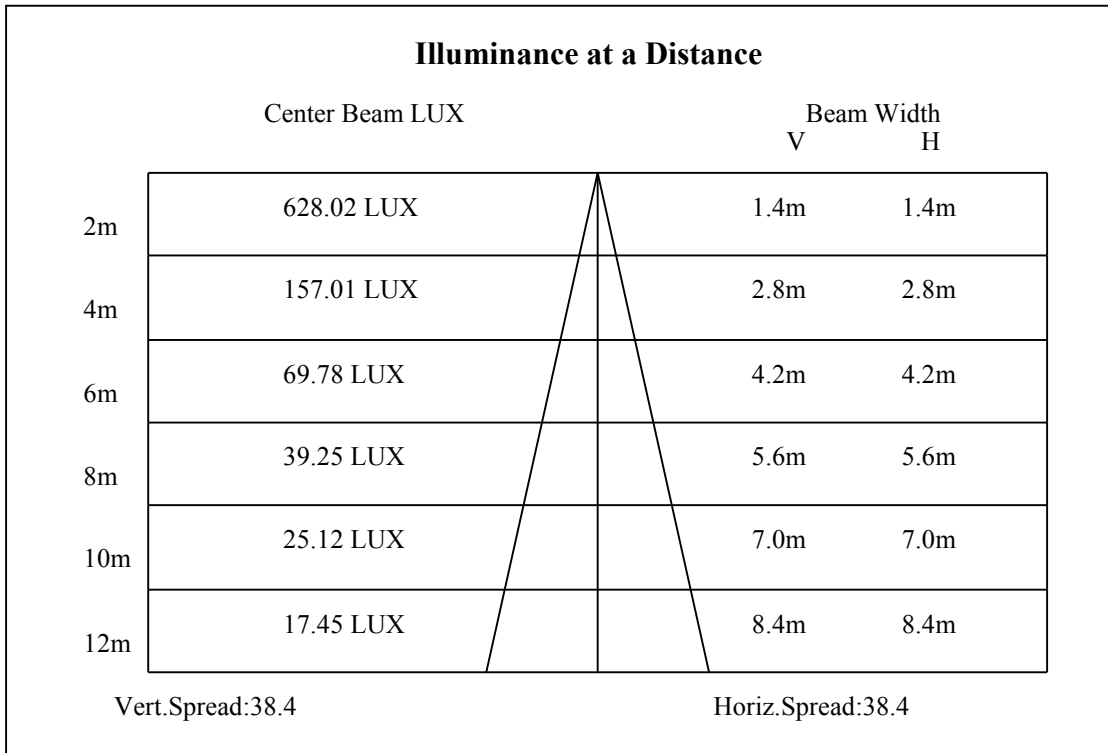
C0(Max): —————

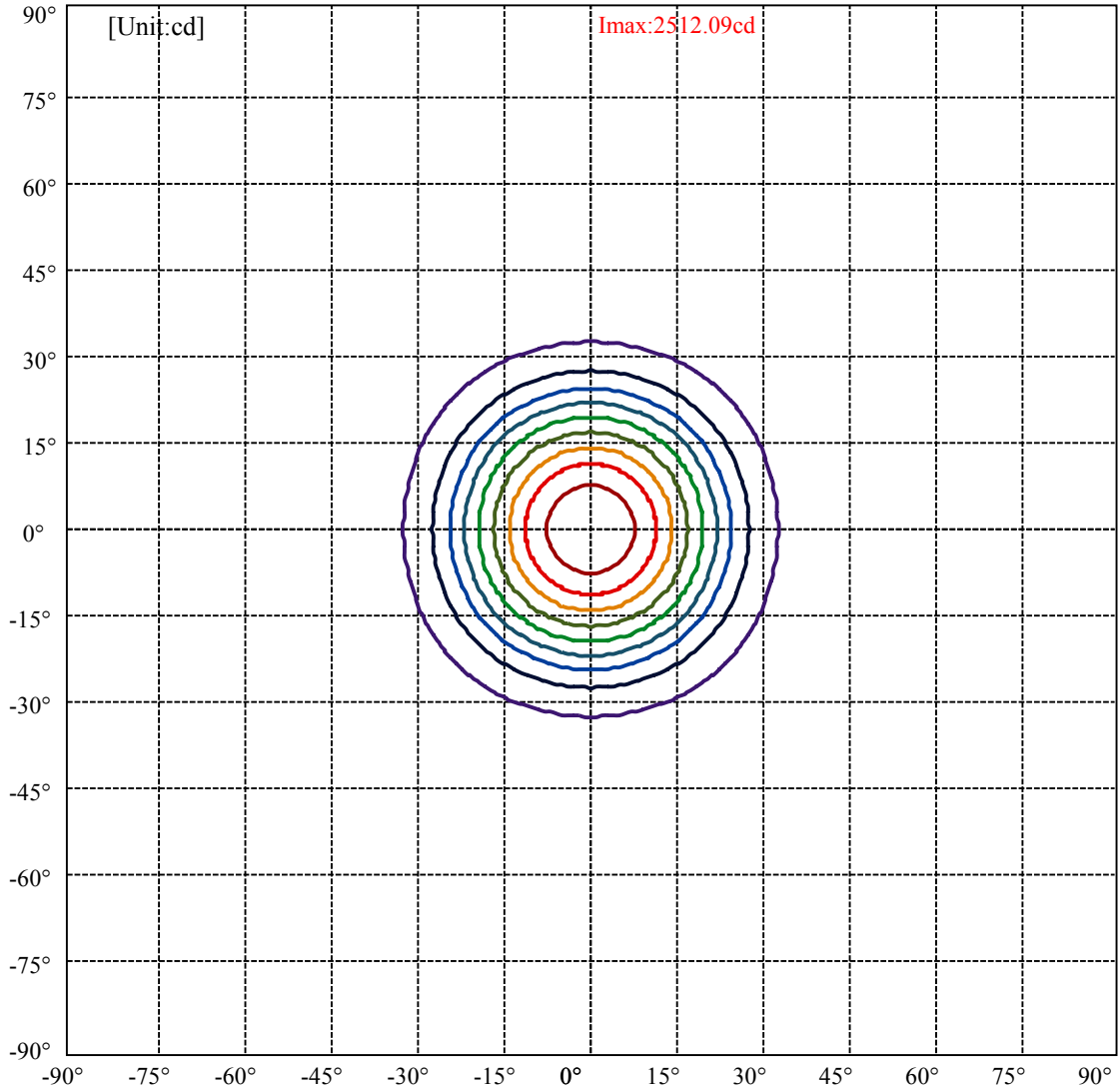
C0/C180: —————

C90/C270: —————

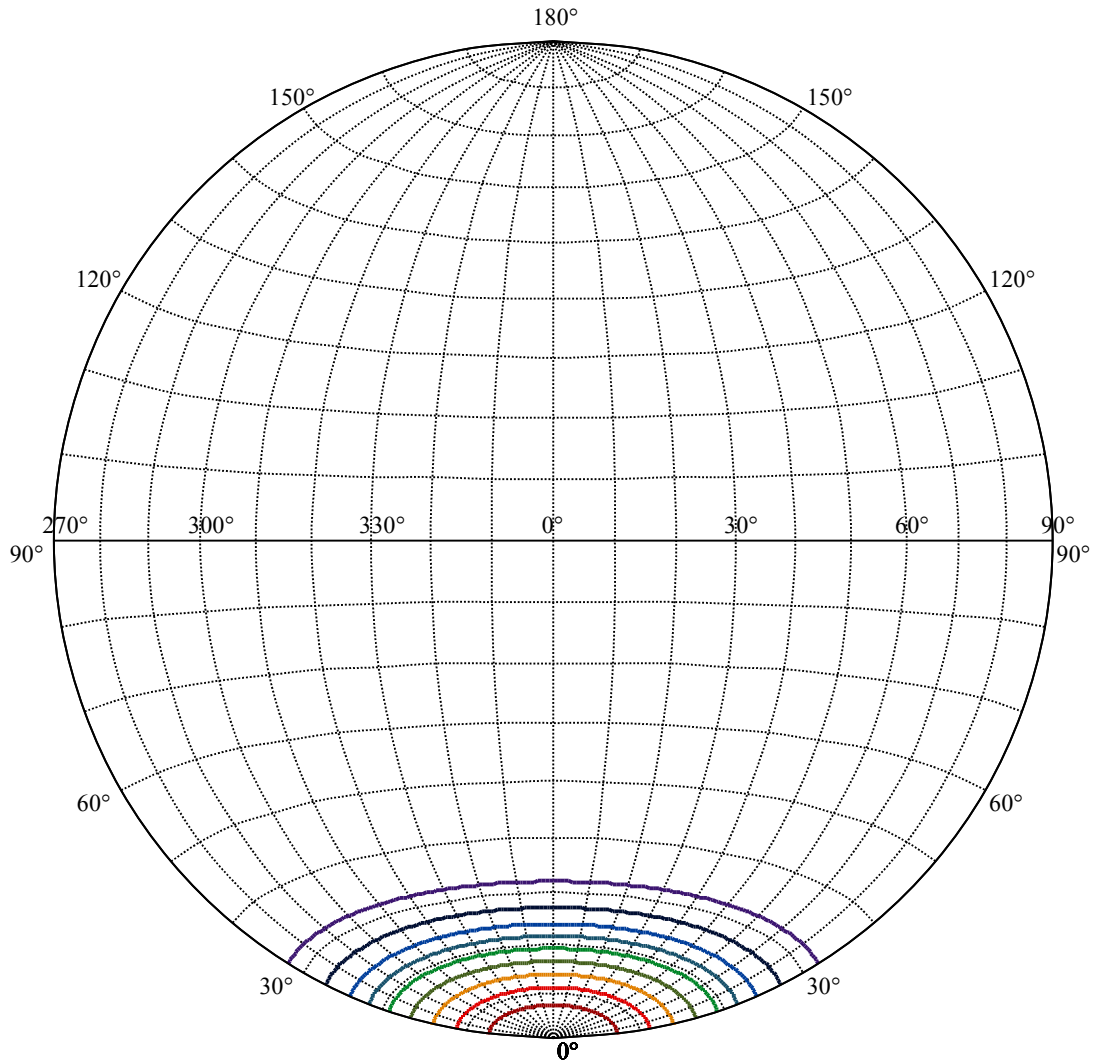
Field angle(10%Imax):C0/180Left:32.1 Right:32.1
:C90/270Left:32.1 Right:32.1

Beam Angle(50%Imax):C0/180Left:19.2 Right:19.2
:C90/270Left:19.2 Right:19.2





(10%Imax) 251.209	—
(20%Imax) 502.418	—
(30%Imax) 753.627	—
(40%Imax) 1004.84	—
(50%Imax) 1256.05	—
(60%Imax) 1507.25	—
(70%Imax) 1758.46	—
(80%Imax) 2009.67	—
(90%Imax) 2260.88	—



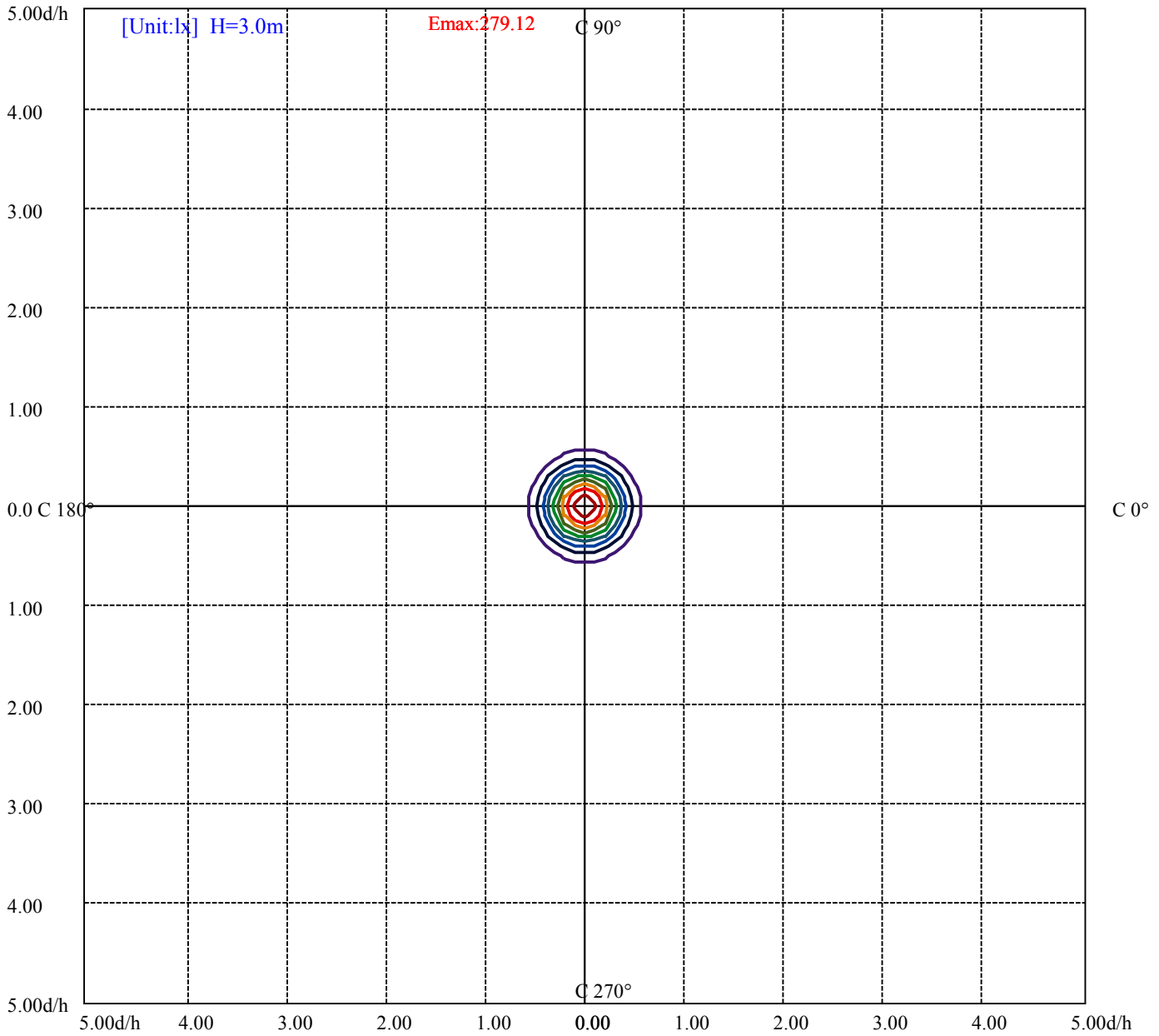
House

[Unit:cd]

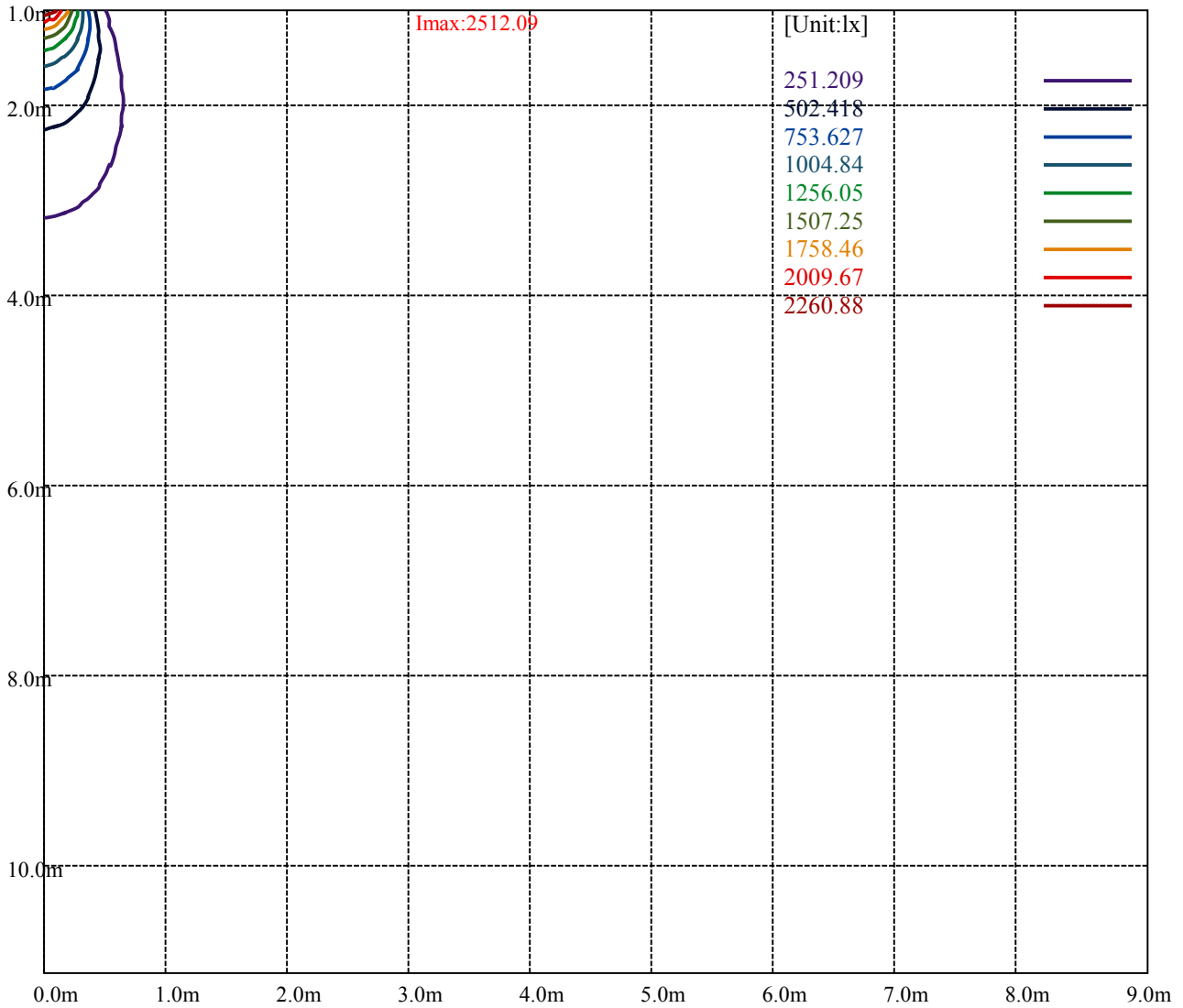
Road

Imax:2512.09

(10%Imax)	251.209	—
(20%Imax)	502.418	—
(30%Imax)	753.627	—
(40%Imax)	1004.84	—
(50%Imax)	1256.05	—
(60%Imax)	1507.25	—
(70%Imax)	1758.46	—
(80%Imax)	2009.67	—
(90%Imax)	2260.88	—



(10%Emax) 27.91211	—
(20%Emax) 55.82422	—
(30%Emax) 83.73622	—
(40%Emax) 111.6489	—
(50%Emax) 139.56	—
(60%Emax) 167.4722	—
(70%Emax) 195.3844	—
(80%Emax) 223.2967	—
(90%Emax) 251.2089	—



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

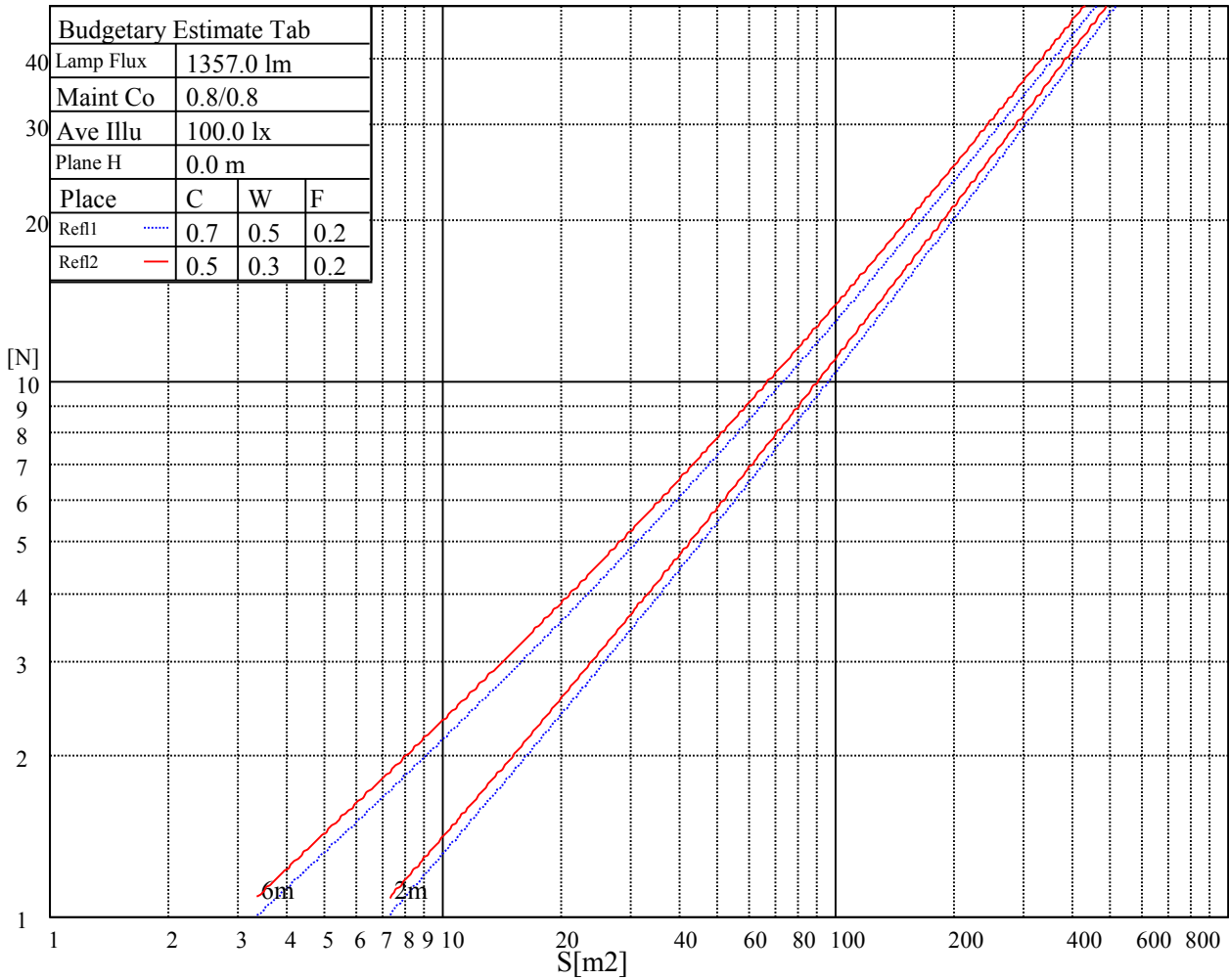
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
0	0	0	0	0	0	0	0	0

Glare Table

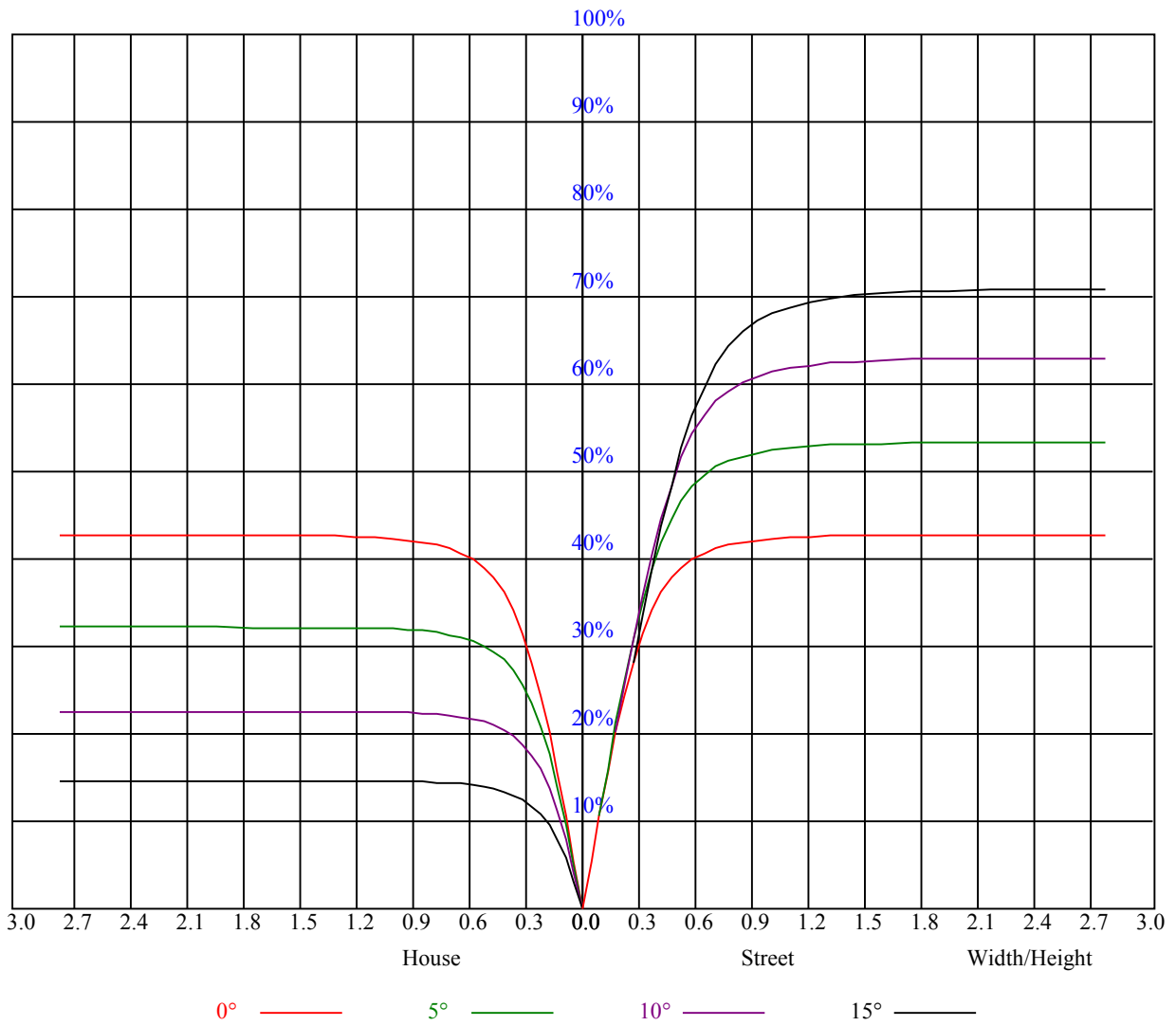
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

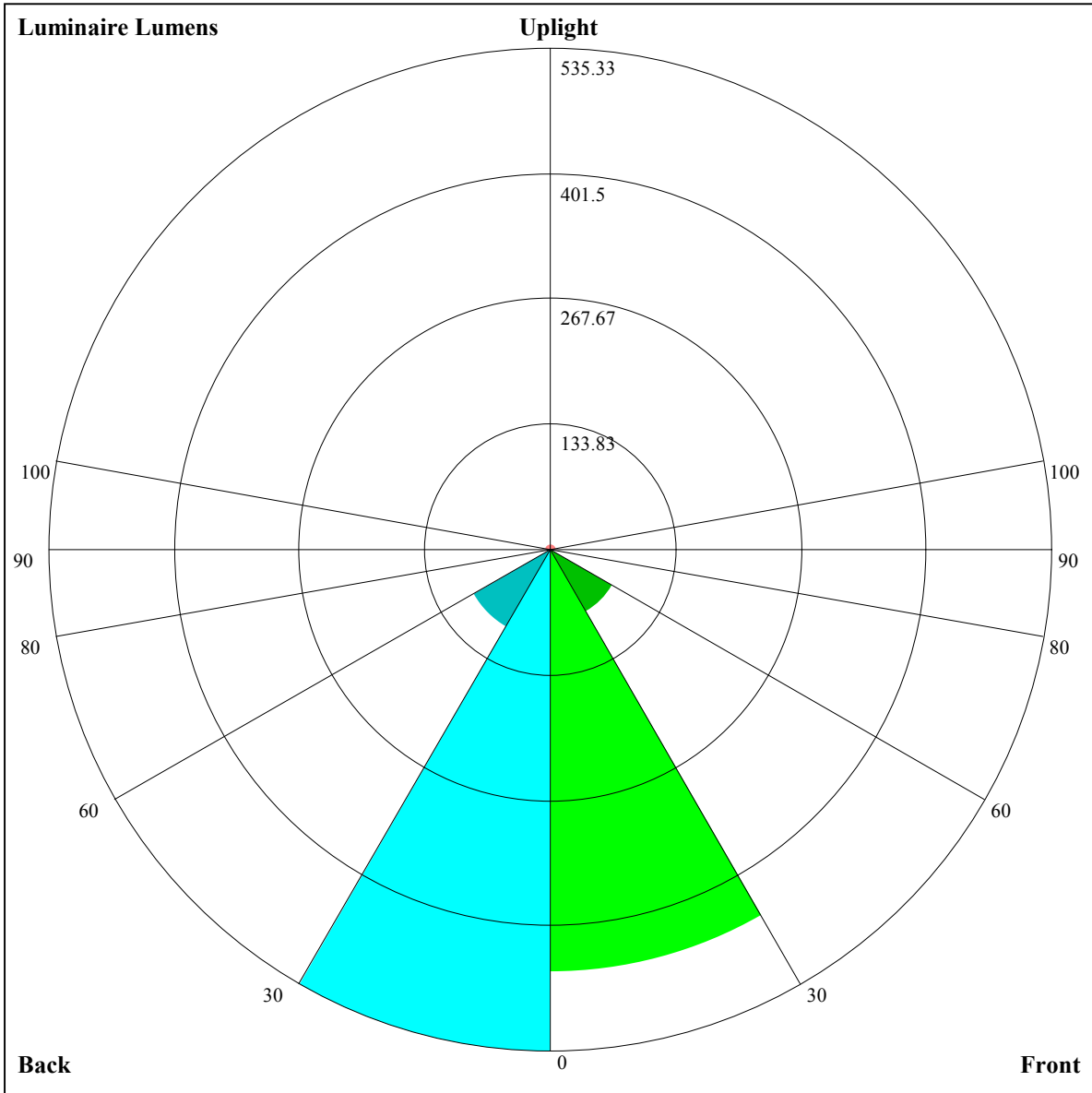
Luminance Limiting Curve





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	1.03	1.03	1.03	1.00	1.00	1.00	0.96	0.96	0.96	0.92	0.92	0.92	0.88	0.88	0.88	0.86
1	0.96	0.95	0.93	0.95	0.93	0.91	0.91	0.90	0.89	0.88	0.87	0.86	0.85	0.84	0.83	0.82
2	0.91	0.88	0.85	0.89	0.86	0.84	0.87	0.84	0.82	0.84	0.82	0.81	0.82	0.80	0.79	0.78
3	0.86	0.82	0.79	0.84	0.81	0.78	0.82	0.79	0.77	0.80	0.78	0.76	0.78	0.76	0.75	0.73
4	0.81	0.77	0.74	0.80	0.76	0.73	0.78	0.75	0.72	0.77	0.74	0.72	0.75	0.73	0.71	0.70
5	0.77	0.73	0.69	0.76	0.72	0.69	0.75	0.71	0.68	0.73	0.70	0.68	0.72	0.69	0.67	0.66
6	0.73	0.69	0.66	0.73	0.68	0.65	0.71	0.68	0.65	0.70	0.67	0.64	0.69	0.66	0.64	0.63
7	0.70	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
8	0.67	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
9	0.64	0.59	0.56	0.63	0.59	0.56	0.63	0.59	0.56	0.62	0.58	0.56	0.61	0.58	0.56	0.55
10	0.61	0.57	0.54	0.61	0.57	0.54	0.60	0.56	0.54	0.59	0.56	0.54	0.59	0.56	0.53	0.52





Luminaire Lumens:

FL=450.98,FM=76.64,FH=1.56,FVH=0.75

BL=535.33,BM=96.42,BH=1.68,BVH=0.71

UL=1.49,UH=7.11

BUG Rating:B2-U1-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	2489.12	2252.00	1867.78	1309.55	811.46	400.74	186.36	107.42	65.80
45.0	2518.82	2488.66	2189.36	1864.53	1420.45	812.57	375.91	249.70	120.60
90.0	2559.19	2481.70	2233.44	1894.23	1423.24	722.08	326.49	192.95	112.20
135.0	2481.23	2598.17	2472.42	2191.21	1629.27	1056.65	495.17	233.92	136.89
180.0	2489.12	2539.70	2396.78	2076.13	1520.68	899.34	411.64	253.41	121.90
225.0	2518.82	2317.89	2027.87	1549.92	875.54	460.14	239.95	136.70	90.25
270.0	2559.19	2345.27	2013.49	1539.25	1071.04	547.61	245.06	143.85	92.25
315.0	2481.23	2175.44	1750.38	893.26	693.13	317.45	166.17	94.43	59.21
360.0	2489.12	2252.00	1867.78	1309.55	811.46	400.74	186.36	107.42	65.80
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	38.61	15.41	5.01	1.95	1.53	1.35	1.35	1.35	1.39
45.0	71.97	37.54	17.22	3.53	1.76	1.44	1.35	1.30	1.35
90.0	67.84	29.47	11.97	2.55	1.67	1.39	1.30	1.30	1.30
135.0	87.05	47.15	19.40	5.94	1.95	1.48	1.30	1.21	1.30
180.0	73.69	36.24	14.71	4.22	1.81	1.44	1.25	1.21	1.21
225.0	43.06	20.28	6.03	1.76	1.44	1.25	1.25	1.25	1.30
270.0	50.86	22.18	7.38	2.00	1.53	1.39	1.30	1.30	1.39
315.0	32.30	12.90	3.34	1.72	1.44	1.35	1.25	1.35	1.48
360.0	38.61	15.41	5.01	1.95	1.53	1.35	1.35	1.35	1.39
C/γ(°)	90.0								
0.0	1.30								
45.0	1.48								
90.0	1.44								
135.0	1.35								
180.0	1.30								
225.0	1.25								
270.0	1.48								
315.0	1.35								
360.0	1.30								