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Nata

LumCAT: LM40L25030AU

Luminaire:

Report No: NATA0100

Voltage(V): 57.0100

Test No: GC20191017008

Current(A): 0.2950

LampCAT: LUMILEDS LUXEON 3030 2D

Power (W): 16.6800

Lamp flux(lm): 1967.0

PF: 0.0000

Number of Lamps: 1

Ballast type: DC

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 1692.72

Efficiency(%): 86.06%

Lumens(lm)/Power(W): 101.48

Central intensity(cd): 1090.069

Maximum intensity(cd): 1850.625

Angle of maximum intensity: C=270.0 γ =15.0

Beam Angle(50%Imax): [C0/180]Total=95.5

[C90/270]Total=29.2

Field angle(10%Imax): [C0/180]Total=130.3

[C90/270]Total=82.5

Maximum s/h(1/2): C0_180=1.22 C90_270=0.33

Maximum s/h(1/4): C0_180=1.29 C90_270=0.49

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 86.06%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 91.658%

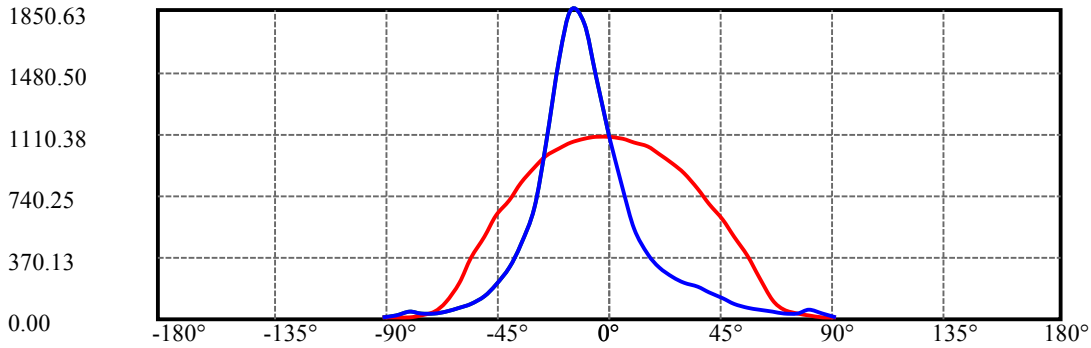
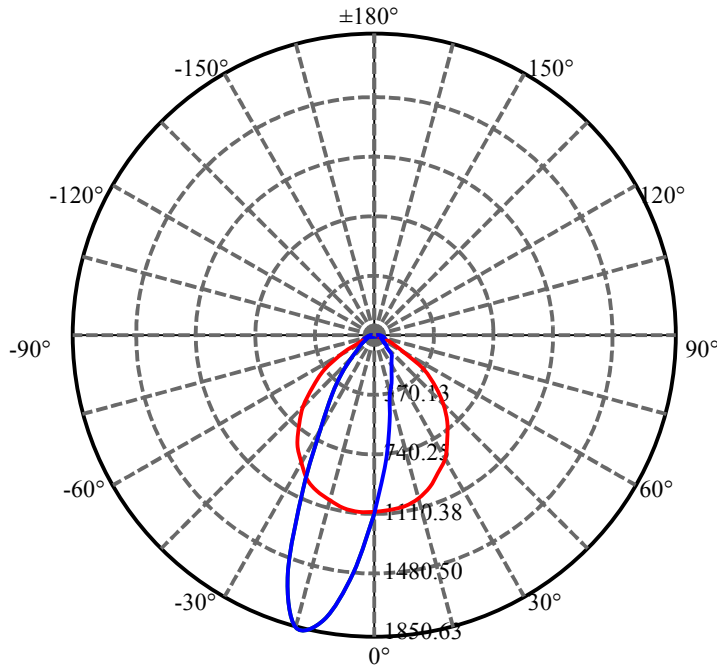
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	1117.195	0.000	0	.000%	.000%
5.0	1129.500	26.859	26.859	1.365%	1.587%
10.0	1140.117	81.191	108.05	4.128%	6.383%
15.0	1115.944	133.828	241.878	6.804%	14.289%
20.0	1016.571	175.749	417.627	8.935%	24.672%
25.0	842.477	194.980	612.607	9.913%	36.191%
30.0	674.719	192.002	804.609	9.761%	47.533%
35.0	531.042	177.557	982.166	9.027%	58.023%
40.0	421.270	158.886	1141.052	8.078%	67.409%
45.0	323.452	137.891	1278.944	7.010%	75.555%
50.0	242.543	114.367	1393.311	5.814%	82.312%
55.0	174.874	90.760	1484.072	4.614%	87.674%
60.0	116.902	67.443	1551.515	3.429%	91.658%
65.0	67.008	44.709	1596.223	2.273%	94.299%
70.0	41.864	27.567	1623.79	1.401%	95.928%
75.0	29.025	18.529	1642.32	.942%	97.022%
80.0	37.378	17.768	1660.087	.903%	98.072%
85.0	37.702	20.401	1680.488	1.037%	99.277%
90.0	6.989	12.237	1692.725	.622%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	804.61	40.91%	47.53%
0-40	1141.05	58.01%	67.41%
0-60	1551.51	78.88%	91.66%
0-90	1680.49	85.43%	99.28%
0-120	1680.49	85.43%	99.28%
0-180	1692.72	86.06%	100.00%
60-90	196.42	9.99%	11.60%
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%
0-48.29	1354.18	68.84%	80.00%

ZONAL LUMEN SUMMARY

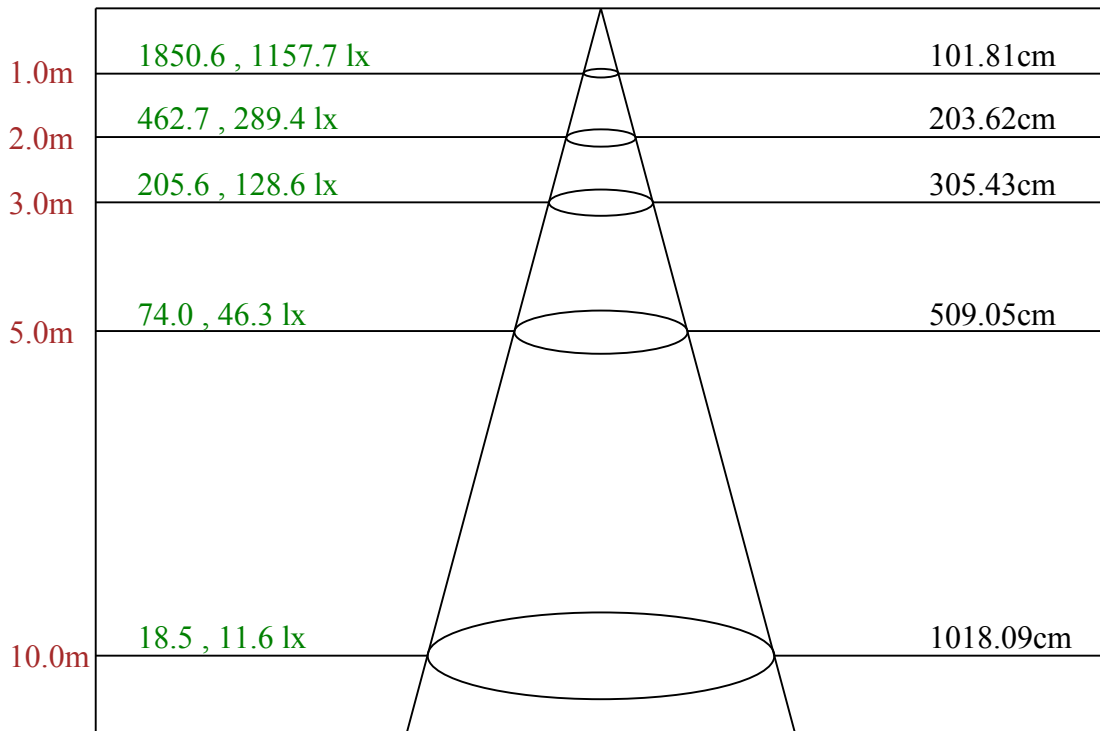
0-10	108.05
10-20	309.58
20-30	386.98
30-40	336.44
40-50	252.26
50-60	158.20
60-70	72.28
70-80	36.30
80-90	20.40
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00



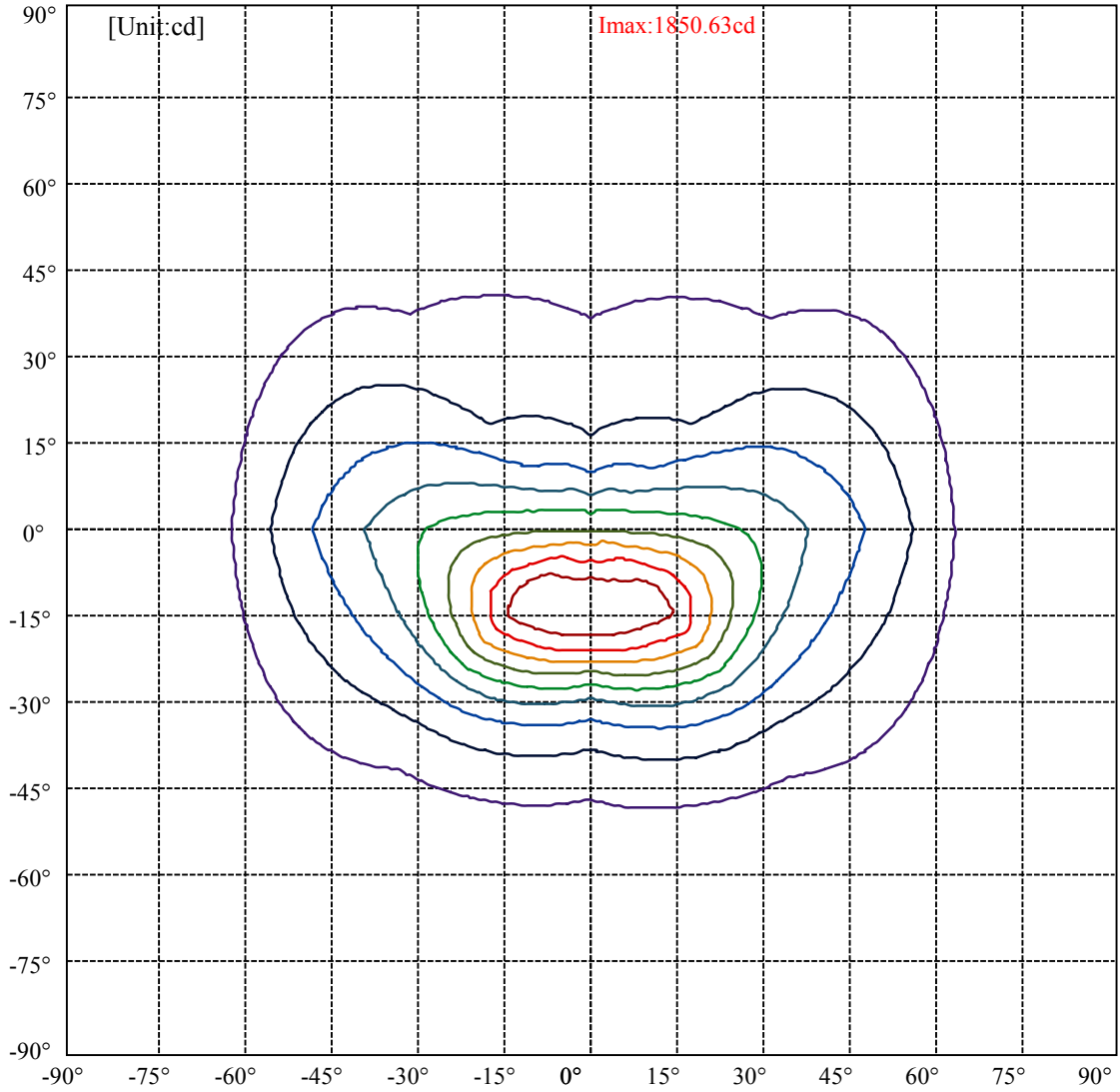
C270(Max): ———
 C0/C180: ———
 C90/C270: ———

Field angle(10%Imax):C0/180Left:64.6 Right:65.7
 :C90/270Left:31.3 Right:51.2

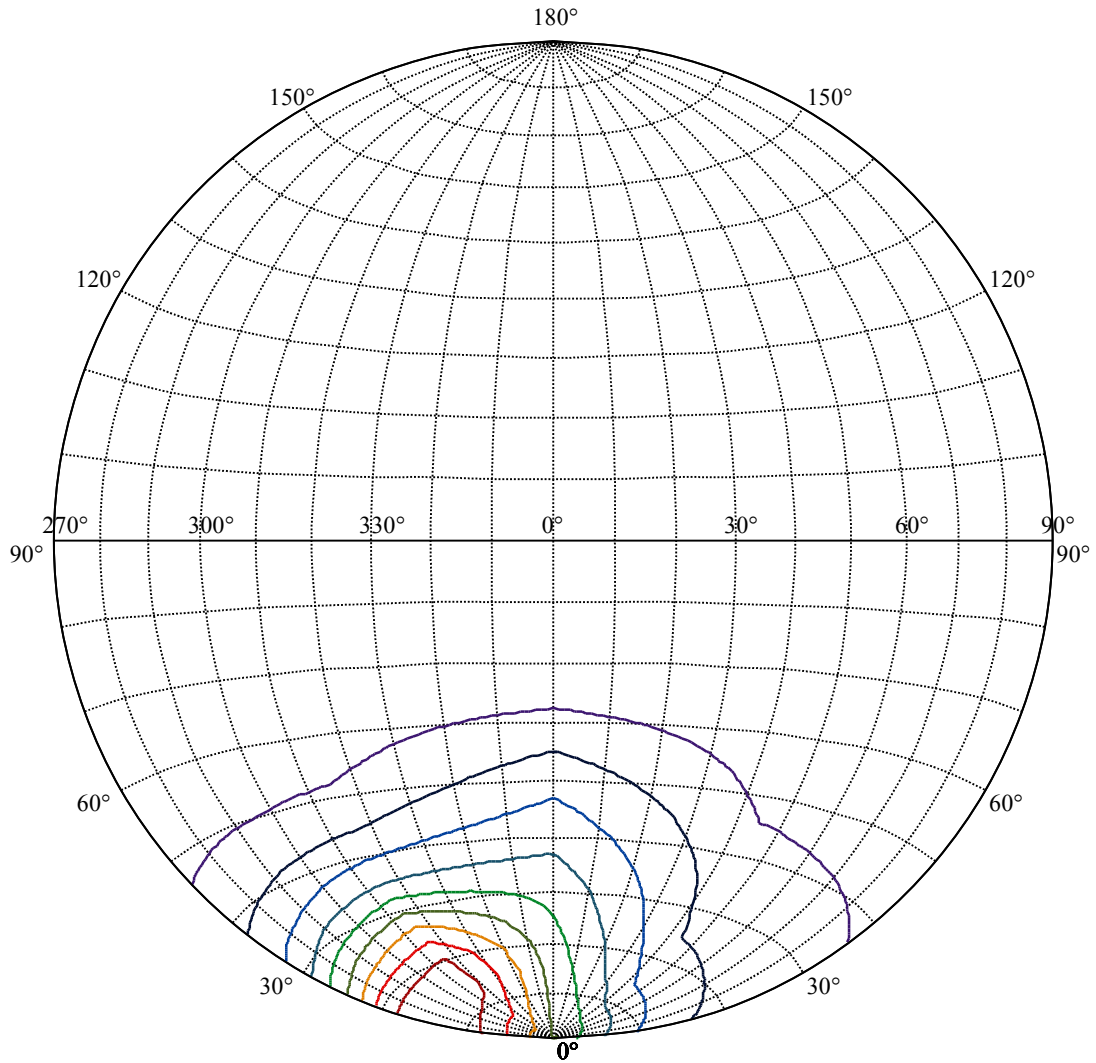
Beam Angle(50%Imax):C0/180Left:48.0 Right:47.5
 :C90/270Left:11.5 Right:17.7



Max , Ave Beam angle of C270 plane 51.83



(10%Imax) 185.063	—
(20%Imax) 370.125	—
(30%Imax) 555.188	—
(40%Imax) 740.25	—
(50%Imax) 925.313	—
(60%Imax) 1110.38	—
(70%Imax) 1295.44	—
(80%Imax) 1480.5	—
(90%Imax) 1665.56	—



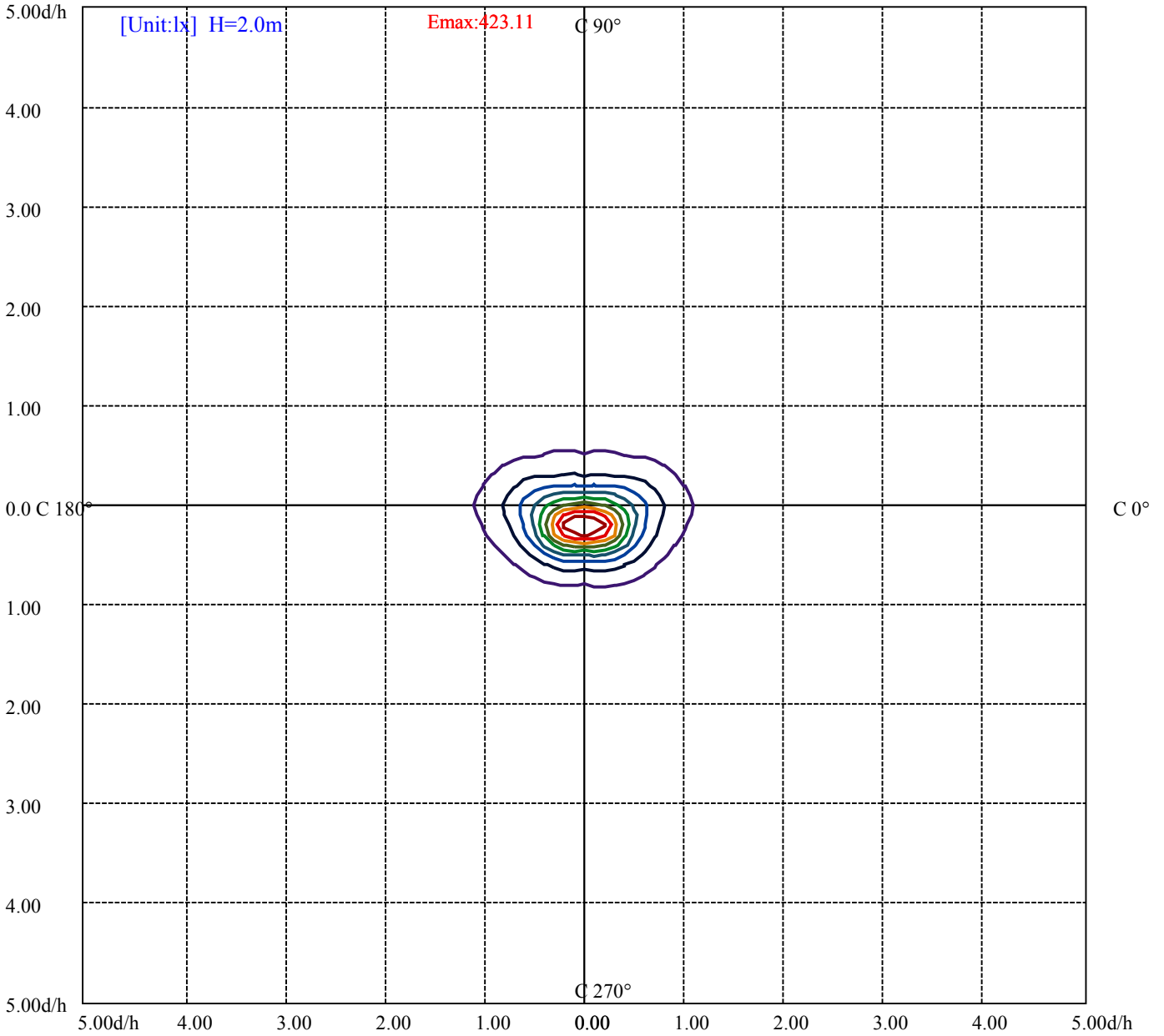
House

[Unit:cd]

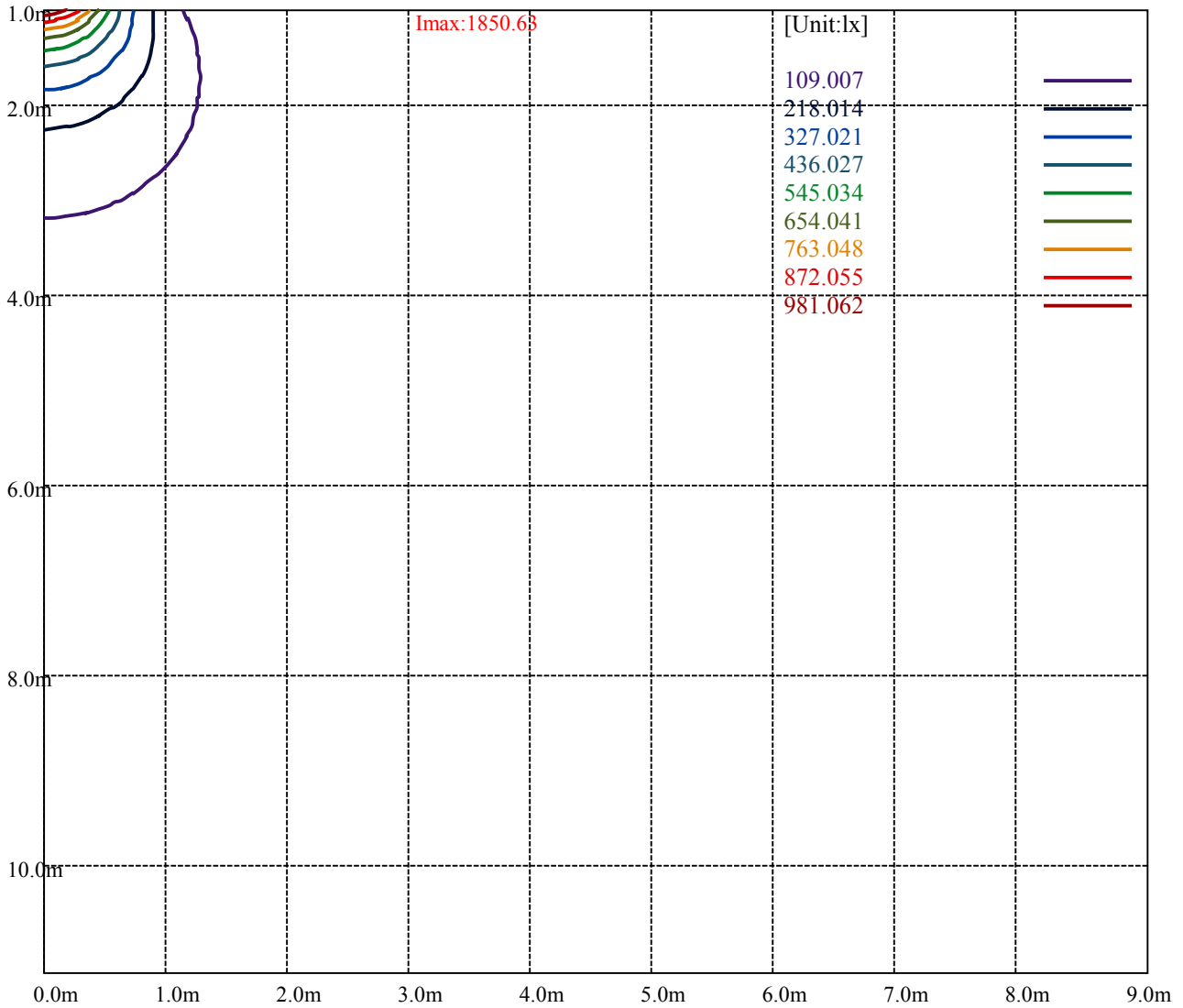
Road

I_{max}:1850.63

(10%I _{max}) 185.063	—
(20%I _{max}) 370.125	—
(30%I _{max}) 555.188	—
(40%I _{max}) 740.25	—
(50%I _{max}) 925.313	—
(60%I _{max}) 1110.38	—
(70%I _{max}) 1295.44	—
(80%I _{max}) 1480.5	—
(90%I _{max}) 1665.56	—



(10%Emax) 42.311	—
(20%Emax) 84.622	—
(30%Emax) 126.9327	—
(40%Emax) 169.2437	—
(50%Emax) 211.5547	—
(60%Emax) 253.865	—
(70%Emax) 296.1775	—
(80%Emax) 338.4875	—
(90%Emax) 380.7975	—



Luminance Table

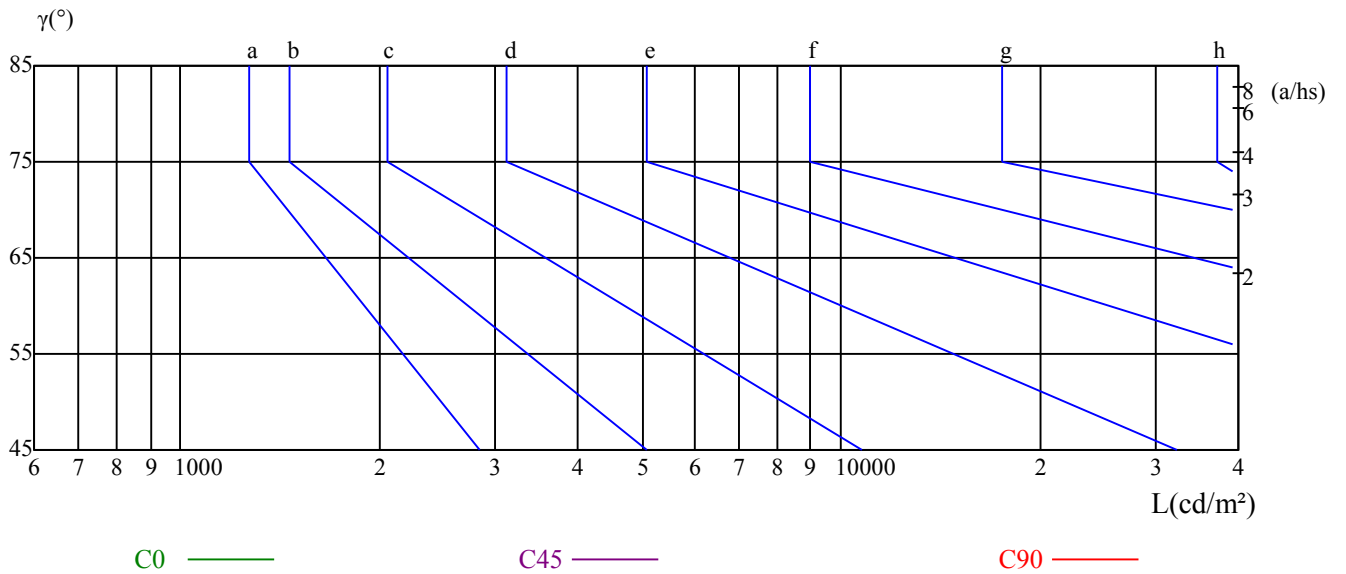
γ	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

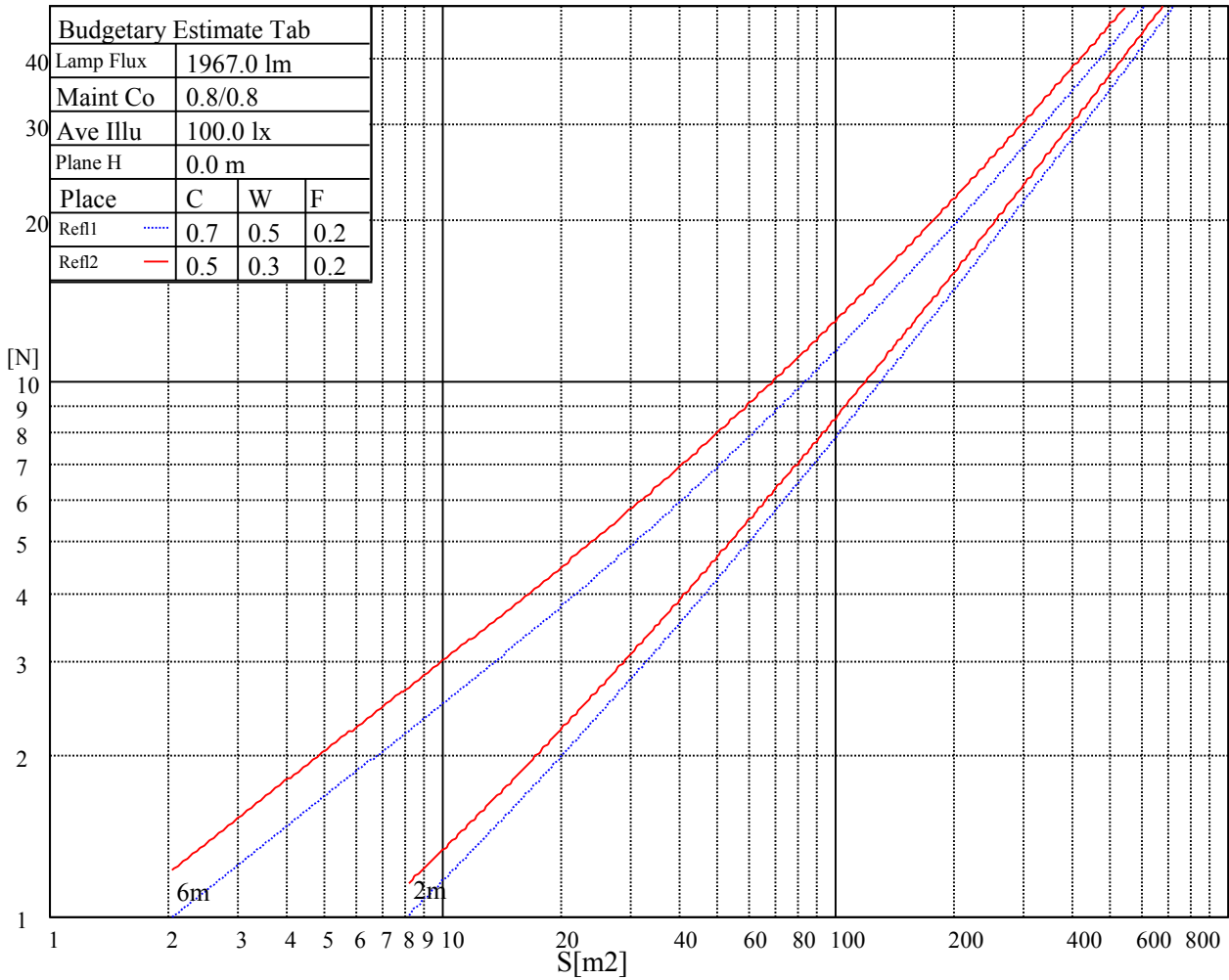
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
0	0	0	0	0	0	0	0	0

Glare Table

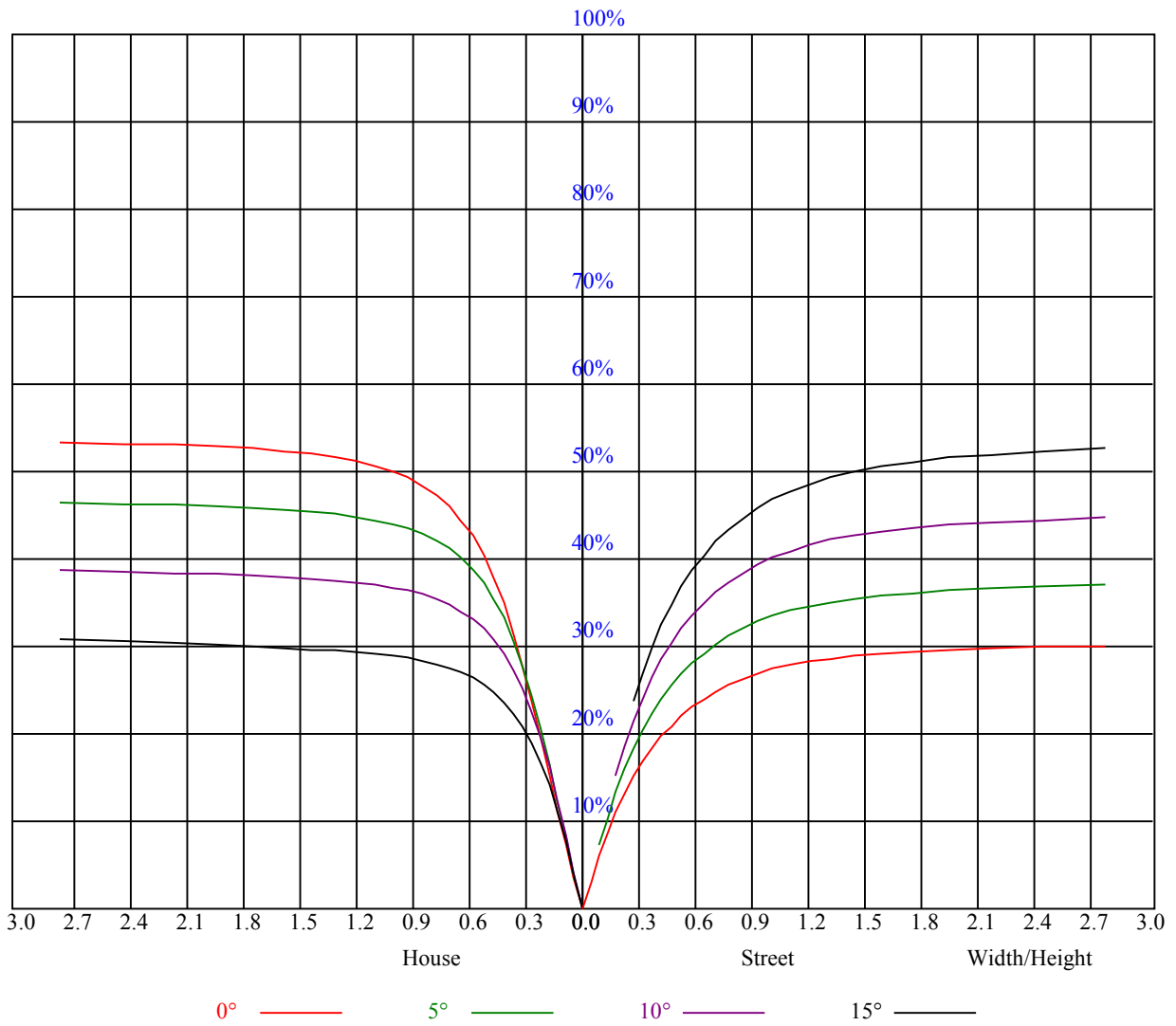
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	1.02	1.02	1.02	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	0.92	0.89	0.87	0.90	0.88	0.85	0.87	0.85	0.83	0.84	0.82	0.80	0.80	0.79	0.78	0.76
2	0.83	0.79	0.75	0.82	0.78	0.74	0.79	0.75	0.72	0.76	0.73	0.71	0.74	0.71	0.69	0.68
3	0.76	0.70	0.66	0.74	0.69	0.65	0.72	0.68	0.64	0.70	0.66	0.63	0.68	0.65	0.62	0.60
4	0.69	0.63	0.58	0.68	0.62	0.58	0.66	0.61	0.57	0.64	0.60	0.56	0.62	0.59	0.56	0.54
5	0.63	0.57	0.52	0.62	0.56	0.52	0.61	0.55	0.51	0.59	0.54	0.51	0.58	0.54	0.50	0.49
6	0.58	0.52	0.47	0.57	0.51	0.47	0.56	0.51	0.47	0.55	0.50	0.46	0.53	0.49	0.46	0.44
7	0.54	0.47	0.43	0.53	0.47	0.43	0.52	0.46	0.42	0.51	0.46	0.42	0.50	0.45	0.42	0.40
8	0.50	0.44	0.39	0.49	0.43	0.39	0.48	0.43	0.39	0.47	0.42	0.39	0.46	0.42	0.39	0.37
9	0.46	0.40	0.36	0.46	0.40	0.36	0.45	0.40	0.36	0.44	0.39	0.36	0.43	0.39	0.36	0.34
10	0.43	0.37	0.33	0.43	0.37	0.33	0.42	0.37	0.33	0.41	0.37	0.33	0.41	0.36	0.33	0.32



Nata LM40L25030AU

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	1090.07	1080.73	1062.17	1032.02	987.86	933.98	870.64	781.31	690.98
45.0	1140.19	910.13	697.50	540.56	441.00	364.50	316.69	285.19	244.13
90.0	1095.53	782.55	542.53	386.66	309.83	254.81	220.61	192.94	160.14
135.0	1143.00	907.88	699.75	550.13	443.81	367.31	320.63	284.63	247.28
180.0	1090.07	1088.16	1075.61	1051.93	1018.07	972.84	902.48	813.21	714.15
225.0	1140.19	1400.06	1653.75	1773.56	1690.88	1382.63	1029.26	695.70	478.74
270.0	1095.53	1462.50	1775.25	1850.63	1561.50	1040.63	661.50	447.75	304.88
315.0	1143.00	1404.00	1614.38	1742.06	1679.63	1423.13	1075.95	747.62	529.88
360.0	1090.07	1080.73	1062.17	1032.02	987.86	933.98	870.64	781.31	690.98

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	597.71	491.79	373.78	248.40	117.45	57.09	30.09	18.28	10.29
45.0	194.91	145.29	105.36	73.35	48.21	36.68	27.56	23.57	33.64
90.0	122.12	96.24	74.59	58.22	46.86	38.87	34.43	60.30	35.44
135.0	203.63	151.93	110.31	79.54	53.38	39.09	29.76	30.21	63.11
180.0	614.98	499.95	366.98	223.14	100.01	47.70	25.26	15.98	9.56
225.0	307.01	197.66	128.53	86.68	57.21	37.69	26.10	45.62	55.29
270.0	201.49	138.66	94.56	67.73	50.12	37.69	30.15	47.19	22.84
315.0	345.77	218.81	144.90	98.16	62.83	40.11	28.86	57.88	71.44
360.0	597.71	491.79	373.78	248.40	117.45	57.09	30.09	18.28	10.29

C/γ(°)	90.0
0.0	6.08
45.0	6.41
90.0	7.37
135.0	7.82
180.0	6.02
225.0	6.30
270.0	7.76
315.0	8.16
360.0	6.08