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Nata

LumCAT: 2-1122-A4
Luminaire: 92.76.365.00
Report No: NATA0100
Test No: GC2019111503
LampCAT: LUMENS EDC-47-10W
Lamp flux(lm): 691.0
Number of Lamps: 1
Length(mm): 0
Phm Type: C

Voltage(V): 218.0000
Current(A): 0.0440
Power (W): 9.5000
PF: 0.9940
Ballast type: DC
Width(mm): 0
Height(mm): 0

Photometric Results

Lumens(lm): 630.70
Efficiency(%): 91.27%
Lumens(lm)/Power(W): 66.39
Central intensity(cd): 1799.297
Maximum intensity(cd): 1799.297
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=27.9
 [C90/270]Total=27.9
Field angle(10%Imax): [C0/180]Total=66.5
 [C90/270]Total=66.5
Maximum s/h(1/2): C0_180=0.46 C90_270=0.46
Maximum s/h(1/4): C0_180=0.49 C90_270=0.49
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 91.27%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.380%

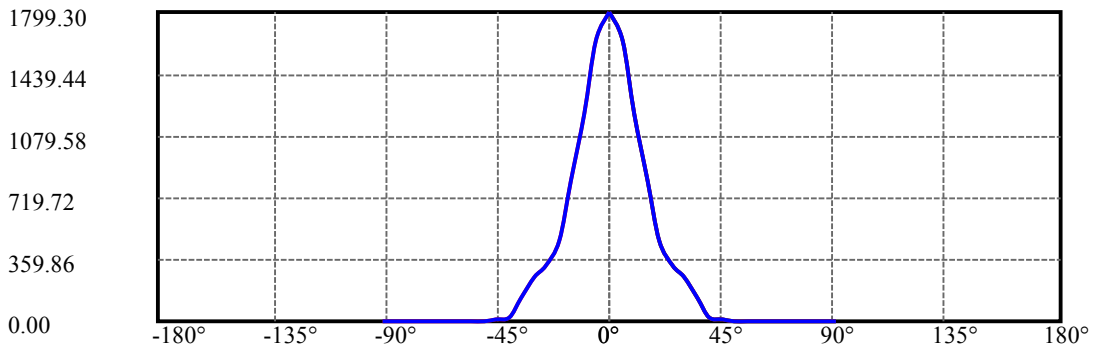
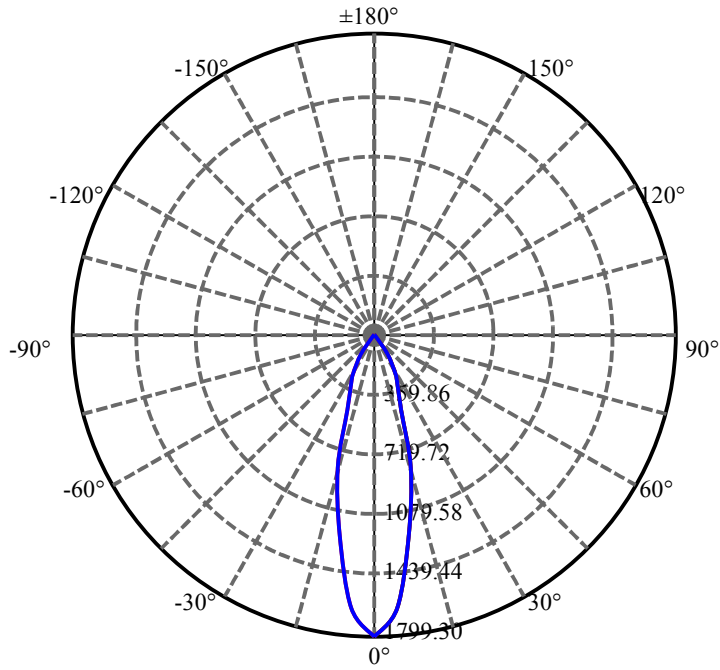
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	1799.297	0.000	0	.000%	.000%
5.0	1630.969	41.008	41.008	5.935%	6.502%
10.0	1204.840	101.446	142.454	14.681%	22.587%
15.0	820.308	120.130	262.584	17.385%	41.634%
20.0	470.130	106.350	368.934	15.391%	58.496%
25.0	322.383	83.120	452.054	12.029%	71.675%
30.0	258.659	73.531	525.586	10.641%	83.334%
35.0	138.038	58.416	584.002	8.454%	92.596%
40.0	18.042	26.041	610.043	3.769%	96.725%
45.0	6.743	4.589	614.632	.664%	97.452%
50.0	4.451	2.262	616.894	.327%	97.811%
55.0	3.959	1.828	618.722	.265%	98.101%
60.0	3.670	1.763	620.485	.255%	98.380%
65.0	3.452	1.732	622.217	.251%	98.655%
70.0	3.326	1.716	623.933	.248%	98.927%
75.0	3.255	1.720	625.654	.249%	99.200%
80.0	3.199	1.727	627.381	.250%	99.474%
85.0	3.094	1.710	629.091	.247%	99.745%
90.0	2.784	1.609	630.7	.233%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	525.59	76.06%	83.33%
0-40	610.04	88.28%	96.72%
0-60	620.49	89.80%	98.38%
0-90	629.09	91.04%	99.74%
0-120	629.09	91.04%	99.74%
0-180	630.70	91.27%	100.00%
60-90	10.37	1.50%	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%
0-28.57	504.56	73.02%	80.00%

ZONAL LUMEN SUMMARY

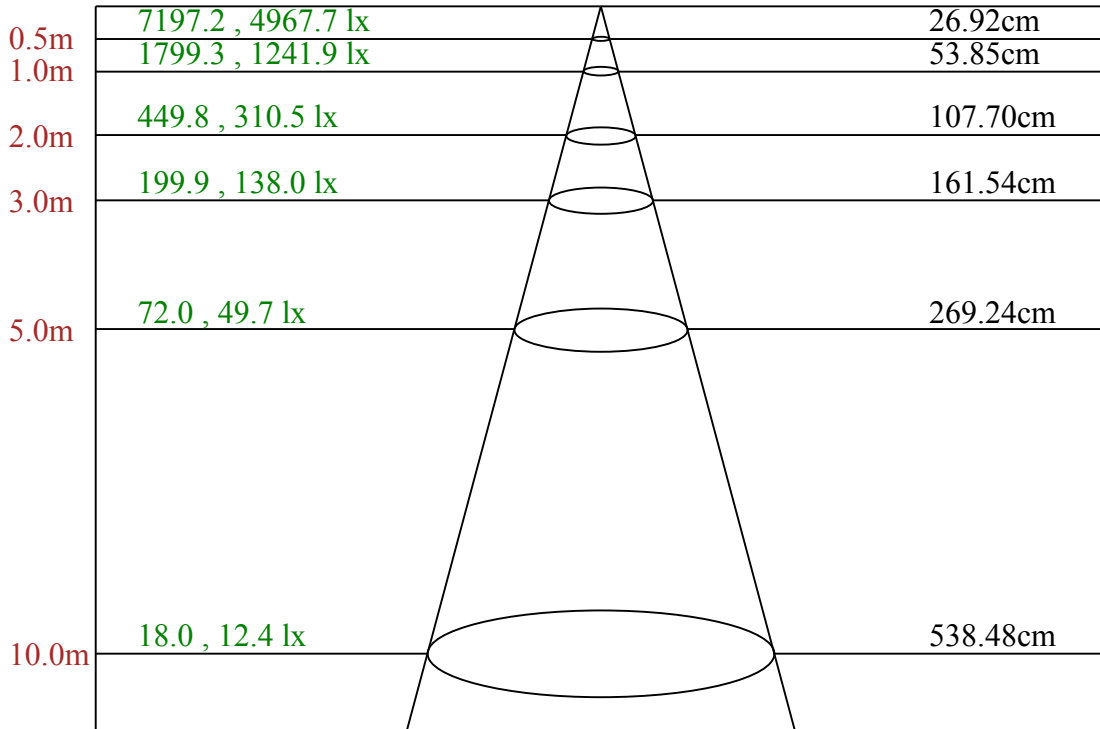
0-10	142.45
10-20	226.48
20-30	156.65
30-40	84.46
40-50	6.85
50-60	3.59
60-70	3.45
70-80	3.45
80-90	1.71
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00



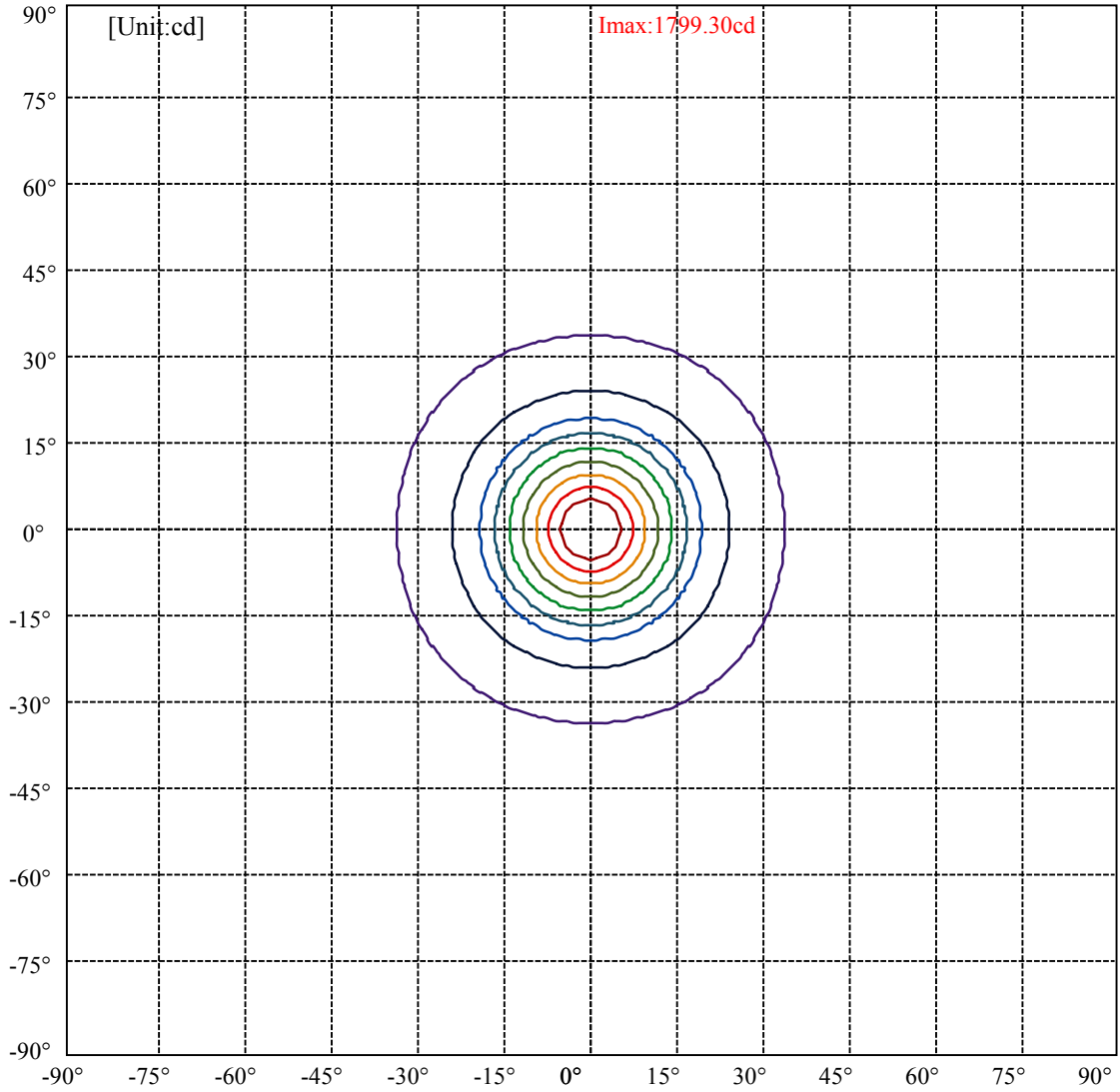
C0(Max): —————
C0/C180: —————
C90/C270: —————

Field angle(10%Imax):C0/180Left:33.3 Right:33.3
:C90/270Left:33.3 Right:33.3

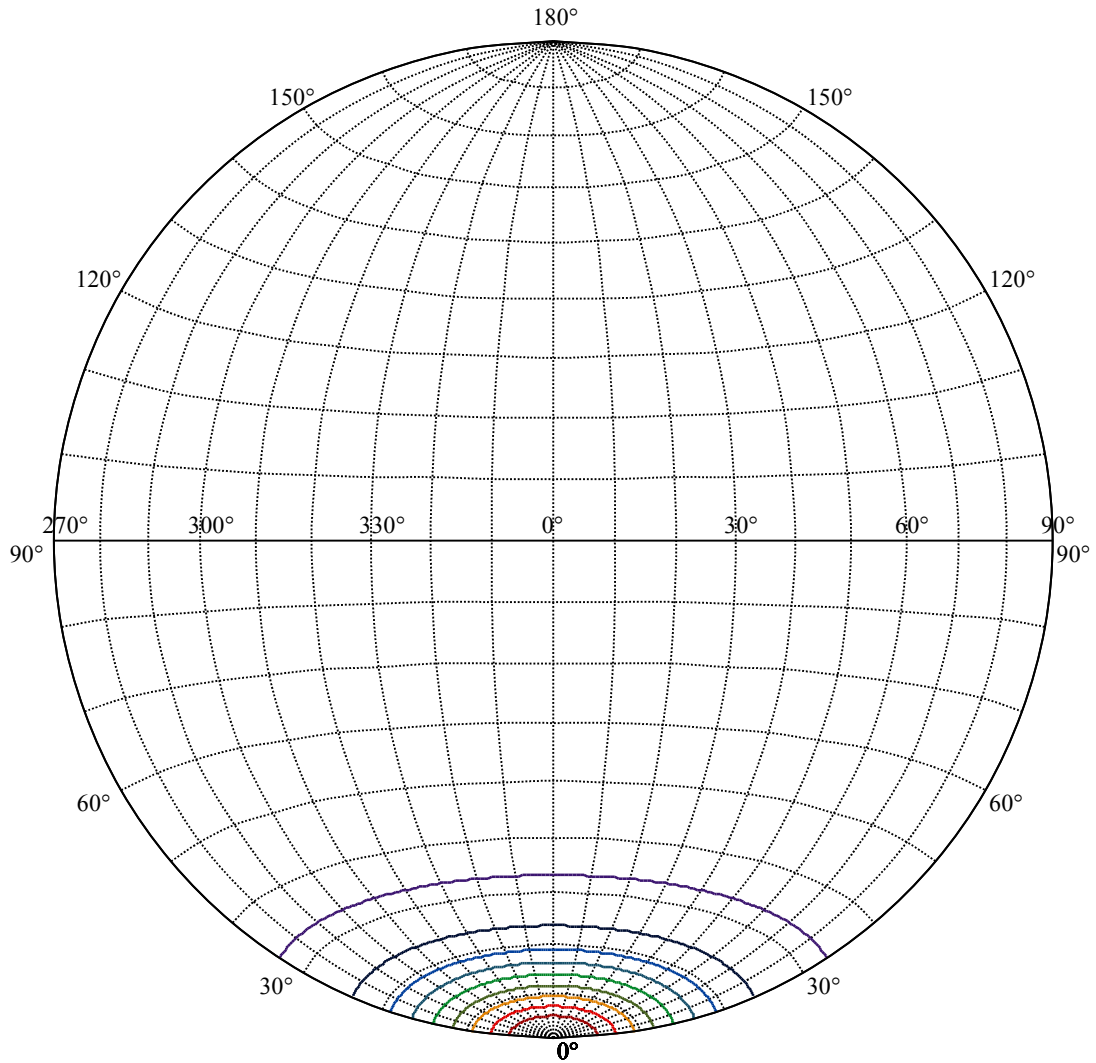
Beam Angle(50%Imax):C0/180Left:14.0 Right:14.0
:C90/270Left:14.0 Right:14.0



Max , Ave Beam angle of C0 plane 30.14



(10%Imax) 179.93	—
(20%Imax) 359.859	—
(30%Imax) 539.789	—
(40%Imax) 719.719	—
(50%Imax) 899.648	—
(60%Imax) 1079.58	—
(70%Imax) 1259.51	—
(80%Imax) 1439.44	—
(90%Imax) 1619.37	—



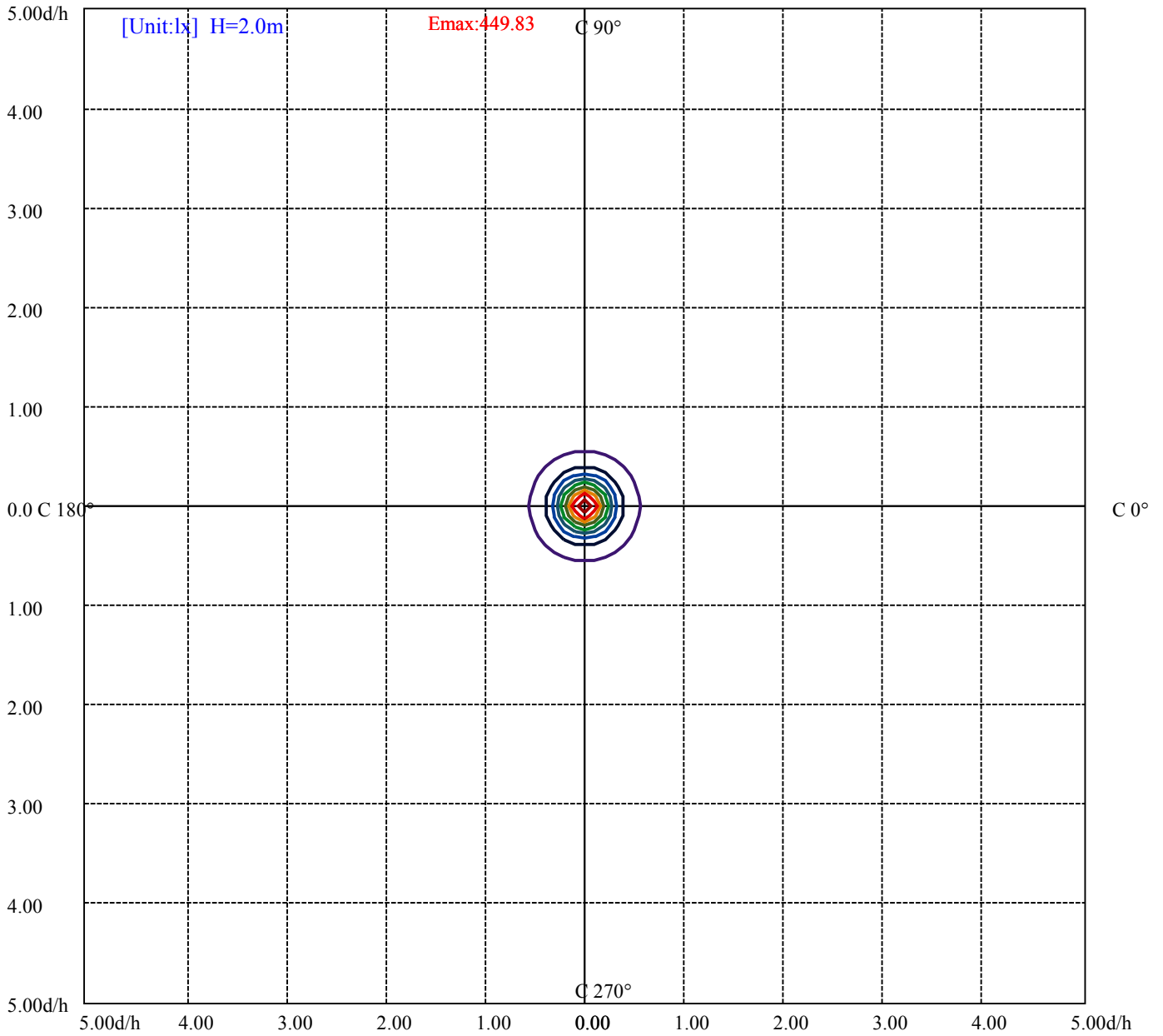
House

[Unit:cd]

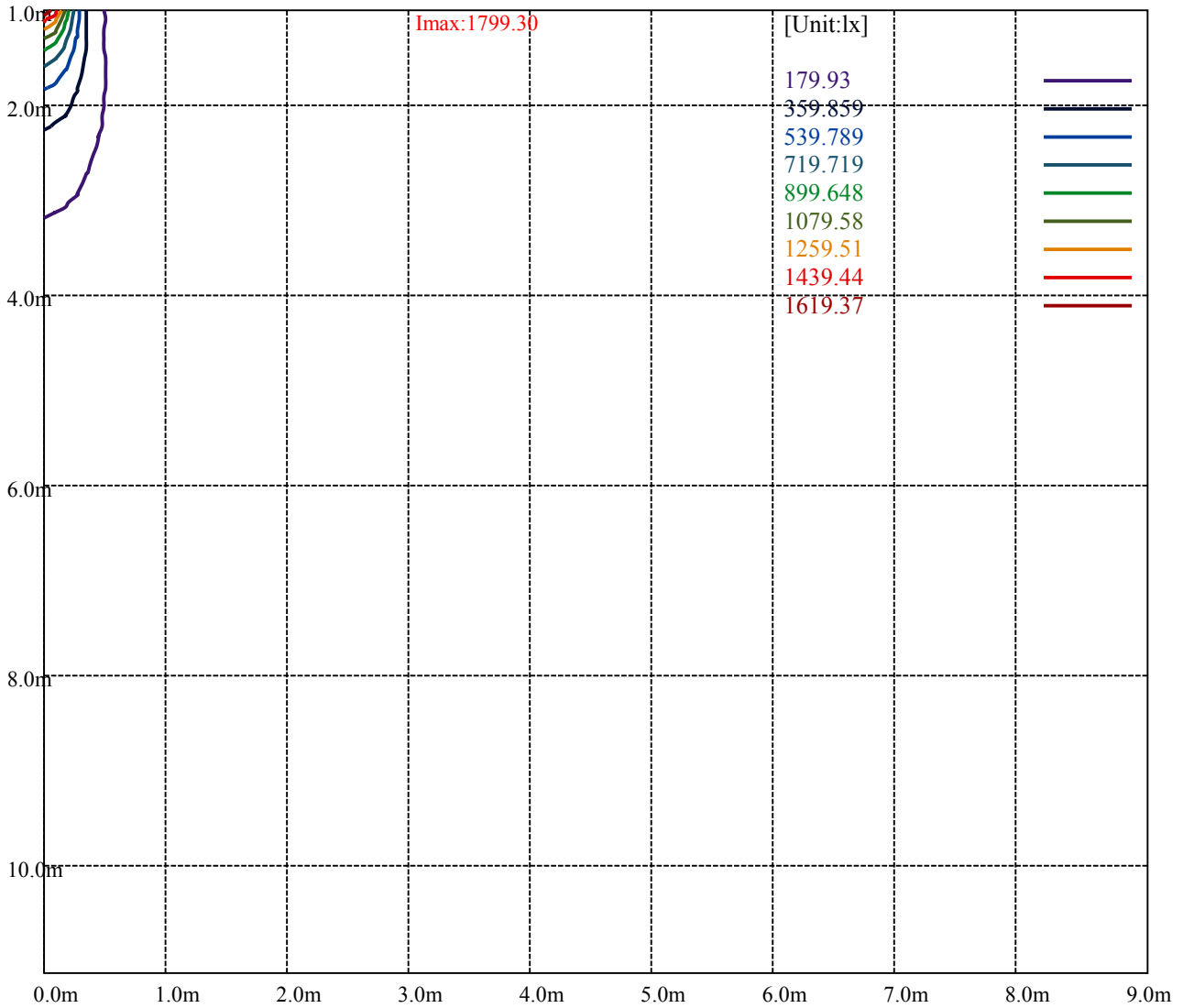
Road

Imax:1799.30

(10%Imax) 179.93	—
(20%Imax) 359.859	—
(30%Imax) 539.789	—
(40%Imax) 719.719	—
(50%Imax) 899.648	—
(60%Imax) 1079.58	—
(70%Imax) 1259.51	—
(80%Imax) 1439.44	—
(90%Imax) 1619.37	—



- (10%Emax) 44.98225
- (20%Emax) 89.9645
- (30%Emax) 134.947
- (40%Emax) 179.9292
- (50%Emax) 224.9115
- (60%Emax) 269.895
- (70%Emax) 314.875
- (80%Emax) 359.8575
- (90%Emax) 404.84



Luminance Table

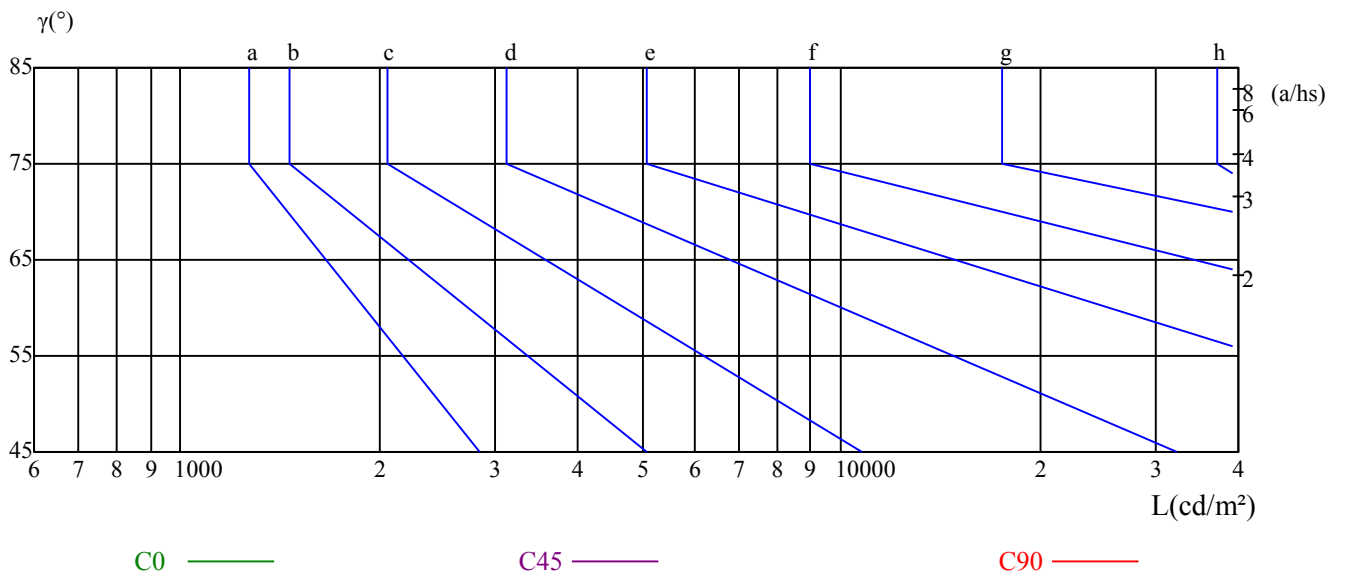
γ	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

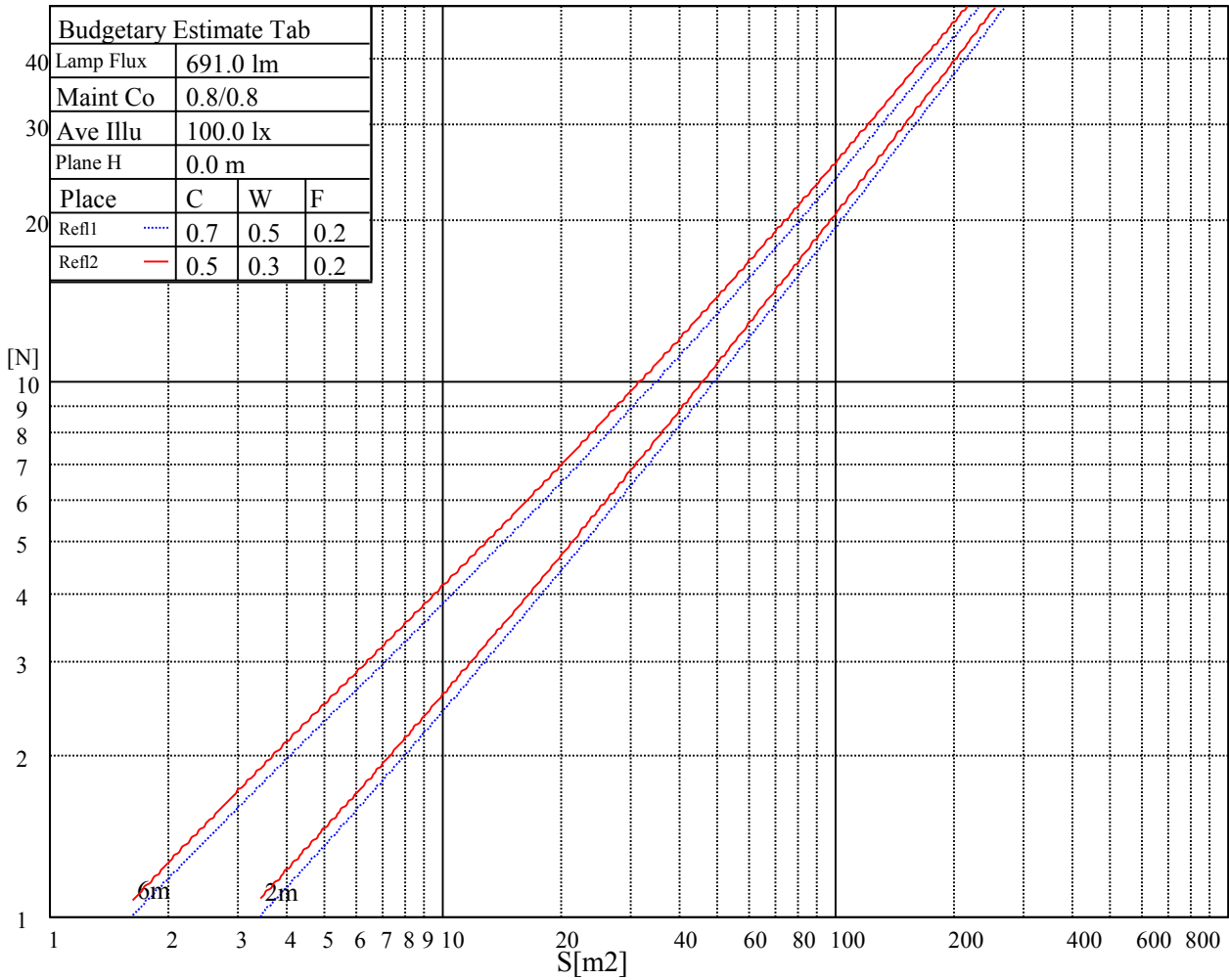
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
0	0	0	0	0	0	0	0	0

Glare Table

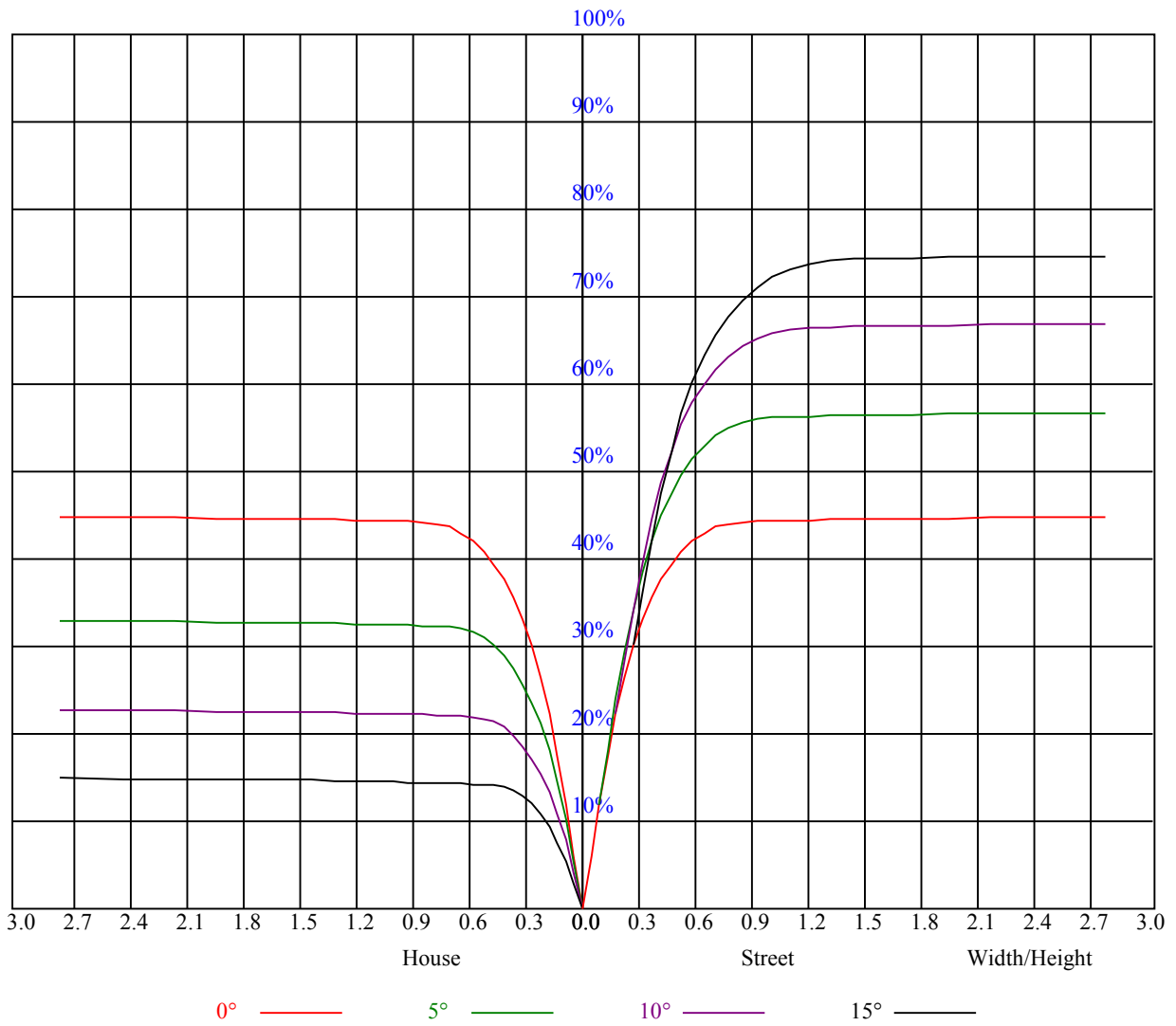
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	1.09	1.09	1.09	1.06	1.06	1.06	1.01	1.01	1.01	0.97	0.97	0.97	0.93	0.93	0.93	0.91
1	1.02	1.00	0.98	1.00	0.98	0.96	0.96	0.95	0.93	0.93	0.92	0.90	0.90	0.89	0.88	0.86
2	0.96	0.92	0.90	0.94	0.91	0.89	0.91	0.89	0.87	0.89	0.87	0.85	0.86	0.85	0.83	0.82
3	0.90	0.86	0.83	0.89	0.86	0.83	0.87	0.84	0.81	0.85	0.82	0.80	0.83	0.81	0.79	0.78
4	0.86	0.81	0.78	0.85	0.81	0.78	0.83	0.79	0.77	0.81	0.78	0.76	0.80	0.77	0.75	0.74
5	0.82	0.77	0.74	0.81	0.76	0.73	0.79	0.76	0.73	0.78	0.75	0.72	0.76	0.74	0.71	0.70
6	0.78	0.73	0.70	0.77	0.73	0.70	0.76	0.72	0.69	0.75	0.71	0.69	0.73	0.71	0.68	0.67
7	0.74	0.70	0.66	0.74	0.69	0.66	0.73	0.69	0.66	0.72	0.68	0.66	0.71	0.68	0.65	0.64
8	0.71	0.66	0.63	0.71	0.66	0.63	0.70	0.66	0.63	0.69	0.65	0.63	0.68	0.65	0.62	0.61
9	0.68	0.64	0.61	0.68	0.63	0.60	0.67	0.63	0.60	0.66	0.63	0.60	0.66	0.62	0.60	0.59
10	0.66	0.61	0.58	0.65	0.61	0.58	0.64	0.61	0.58	0.64	0.60	0.58	0.63	0.60	0.58	0.57



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	1806.75	1653.75	1279.13	846.56	478.13	327.38	273.04	146.98	19.24
45.0	1801.69	1662.75	1287.00	856.13	475.88	333.00	263.70	139.22	19.52
90.0	1793.25	1582.31	1101.49	776.59	453.26	314.61	251.21	131.01	16.82
135.0	1797.75	1659.38	1334.81	884.25	497.81	330.75	265.16	163.29	21.49
180.0	1806.75	1602.00	1108.29	794.93	451.18	317.25	249.08	129.32	16.14
225.0	1801.69	1609.31	1114.14	807.30	461.76	315.11	252.56	129.94	16.09
270.0	1788.75	1666.69	1303.88	862.88	501.19	331.88	268.03	151.26	20.48
315.0	1797.75	1611.56	1109.98	733.84	441.84	309.09	246.49	113.29	14.57
360.0	1806.75	1653.75	1279.13	846.56	478.13	327.38	273.04	146.98	19.24

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	7.09	4.44	3.94	3.66	3.43	3.32	3.21	3.09	2.98
45.0	6.92	4.44	3.99	3.71	3.49	3.32	3.21	3.09	3.04
90.0	6.47	4.44	3.99	3.71	3.49	3.38	3.26	3.15	3.09
135.0	7.43	4.61	4.05	3.77	3.54	3.43	3.43	3.60	3.32
180.0	6.75	4.50	3.94	3.66	3.43	3.32	3.26	3.09	3.04
225.0	6.41	4.39	3.94	3.60	3.43	3.32	3.26	3.32	3.21
270.0	6.92	4.50	3.94	3.66	3.43	3.26	3.21	3.15	3.04
315.0	5.96	4.28	3.88	3.60	3.38	3.26	3.21	3.09	3.04
360.0	7.09	4.44	3.94	3.66	3.43	3.32	3.21	3.09	2.98

C/γ(°)	90.0
0.0	2.81
45.0	2.81
90.0	2.76
135.0	2.81
180.0	2.76
225.0	2.81
270.0	2.76
315.0	2.76
360.0	2.81