



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

LumCAT: 3-2442-A
Luminaire: 92.70.151.00+92.70.153.00
Report No: NATA0100
Test No: GC2020011305
LampCAT: CITIZEN LCN-C03A
Lamp flux(lm): 2216.0
Number of Lamps: 1
Length(mm): 0
Phm Type: C

Voltage(V): 33.8800
Current(A): 0.4970
Power (W): 16.8000
PF: 0.0000
Ballast type: DC
Width(mm): 0
Height(mm): 0

Photometric Results

Lumens(lm): 1865.01
Efficiency(%): 84.16%
Lumens(lm)/Power(W): 111.01
Central intensity(cd): 3154.922
Maximum intensity(cd): 3154.922
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=41.0
 [C90/270]Total=41.0
Field angle(10%Imax): [C0/180]Total=77.4
 [C90/270]Total=77.4
Maximum s/h(1/2): C0_180=0.66 C90_270=0.66
Maximum s/h(1/4): C0_180=0.68 C90_270=0.68
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 84.16%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.499%

Equipment: GMS1980
Temperature(°C): 25.0

Date: 2020/1/13
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.50

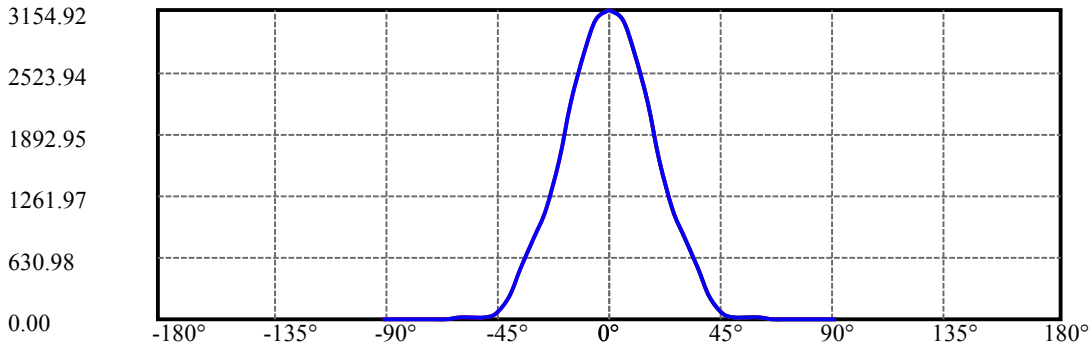
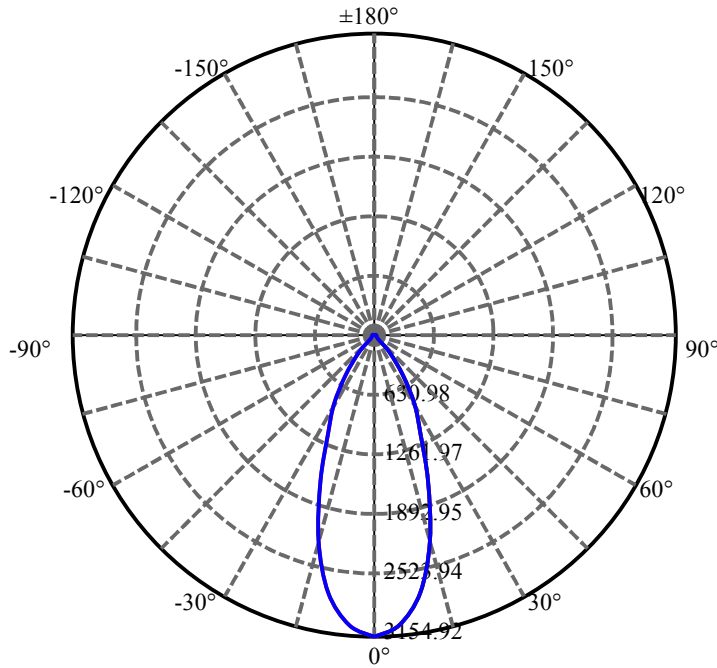
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	3154.922	0.000	0	.000%	.000%
5.0	3052.617	74.209	74.209	3.349%	3.979%
10.0	2728.336	206.803	281.012	9.332%	15.068%
15.0	2216.953	293.351	574.363	13.238%	30.797%
20.0	1627.313	316.821	891.185	14.297%	47.784%
25.0	1125.555	288.725	1179.91	13.029%	63.266%
30.0	836.902	248.351	1428.261	11.207%	76.582%
35.0	523.336	200.304	1628.565	9.039%	87.322%
40.0	243.063	127.868	1756.433	5.770%	94.178%
45.0	56.405	55.449	1811.882	2.502%	97.151%
50.0	14.984	14.425	1826.307	.651%	97.925%
55.0	11.334	5.722	1832.029	.258%	98.232%
60.0	10.209	4.980	1837.009	.225%	98.499%
65.0	9.534	4.800	1841.809	.217%	98.756%
70.0	9.120	4.723	1846.532	.213%	99.009%
75.0	8.817	4.688	1851.221	.212%	99.261%
80.0	8.684	4.683	1855.903	.211%	99.512%
85.0	8.367	4.633	1860.536	.209%	99.760%
90.0	7.973	4.474	1865.011	.202%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1428.26	64.45%	76.58%
0-40	1756.43	79.26%	94.18%
0-60	1837.01	82.90%	98.50%
0-90	1860.54	83.96%	99.76%
0-120	1860.54	83.96%	99.76%
0-180	1865.01	84.16%	100.00%
60-90	28.51	1.29%	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%
0-31.59	1492.01	67.33%	80.00%

ZONAL LUMEN SUMMARY

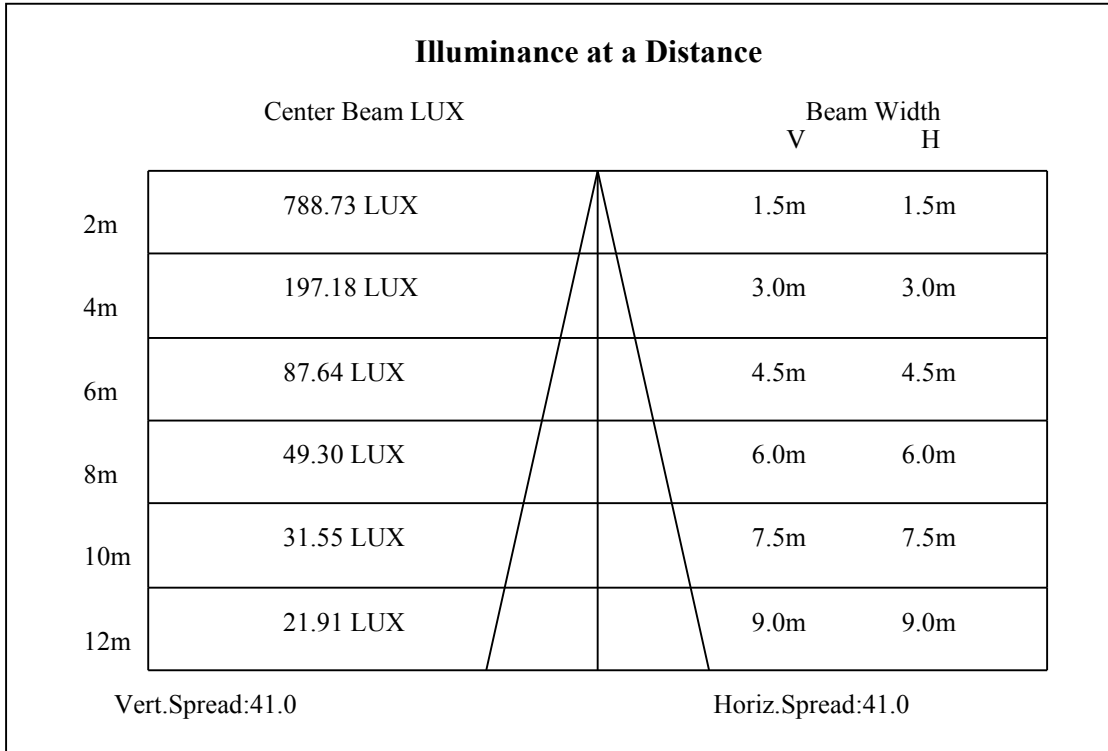
0-10	281.01
10-20	610.17
20-30	537.08
30-40	328.17
40-50	69.87
50-60	10.70
60-70	9.52
70-80	9.37
80-90	4.63
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

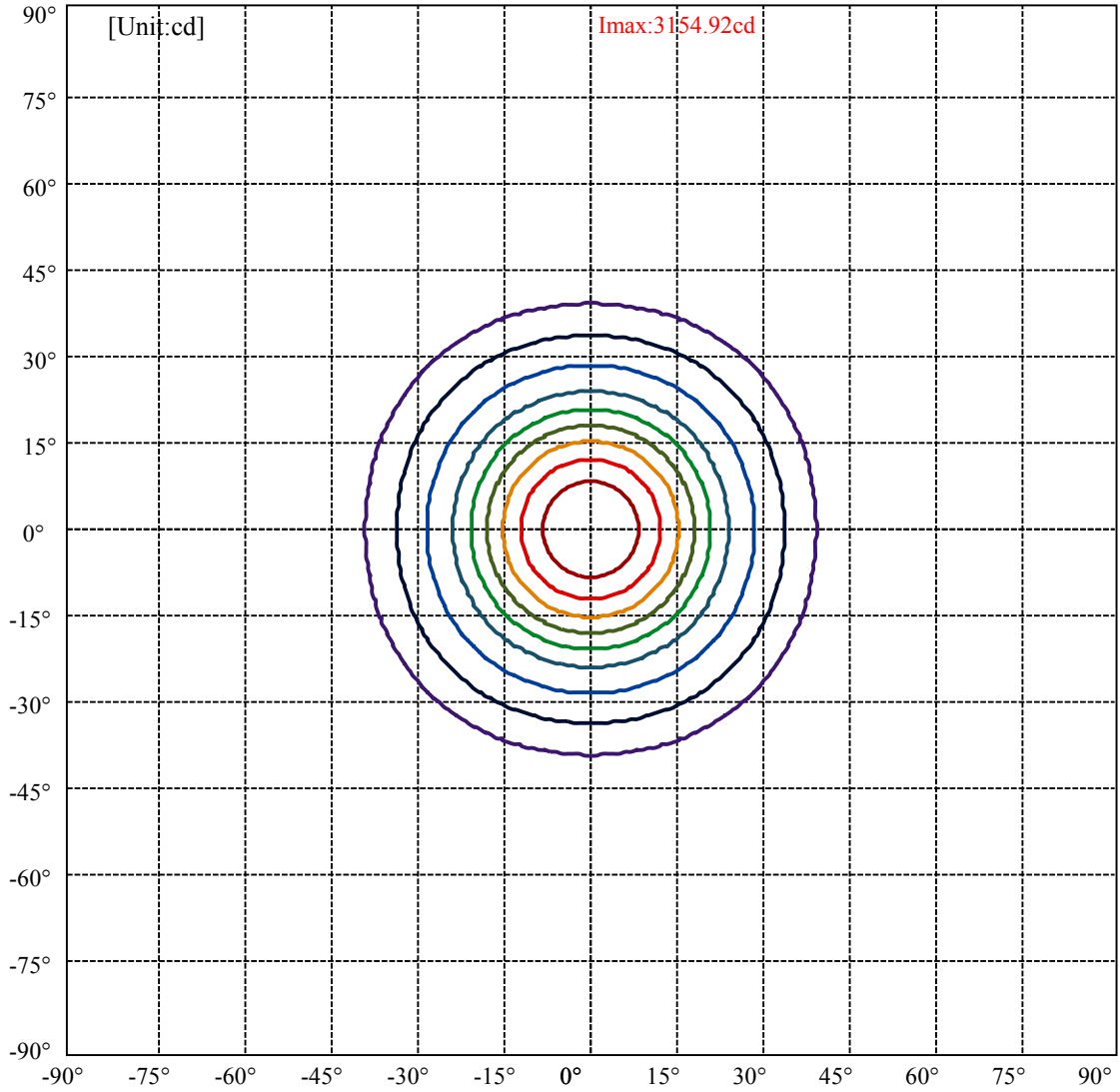


C0(Max): ———
C0/C180: ———
C90/C270: ———

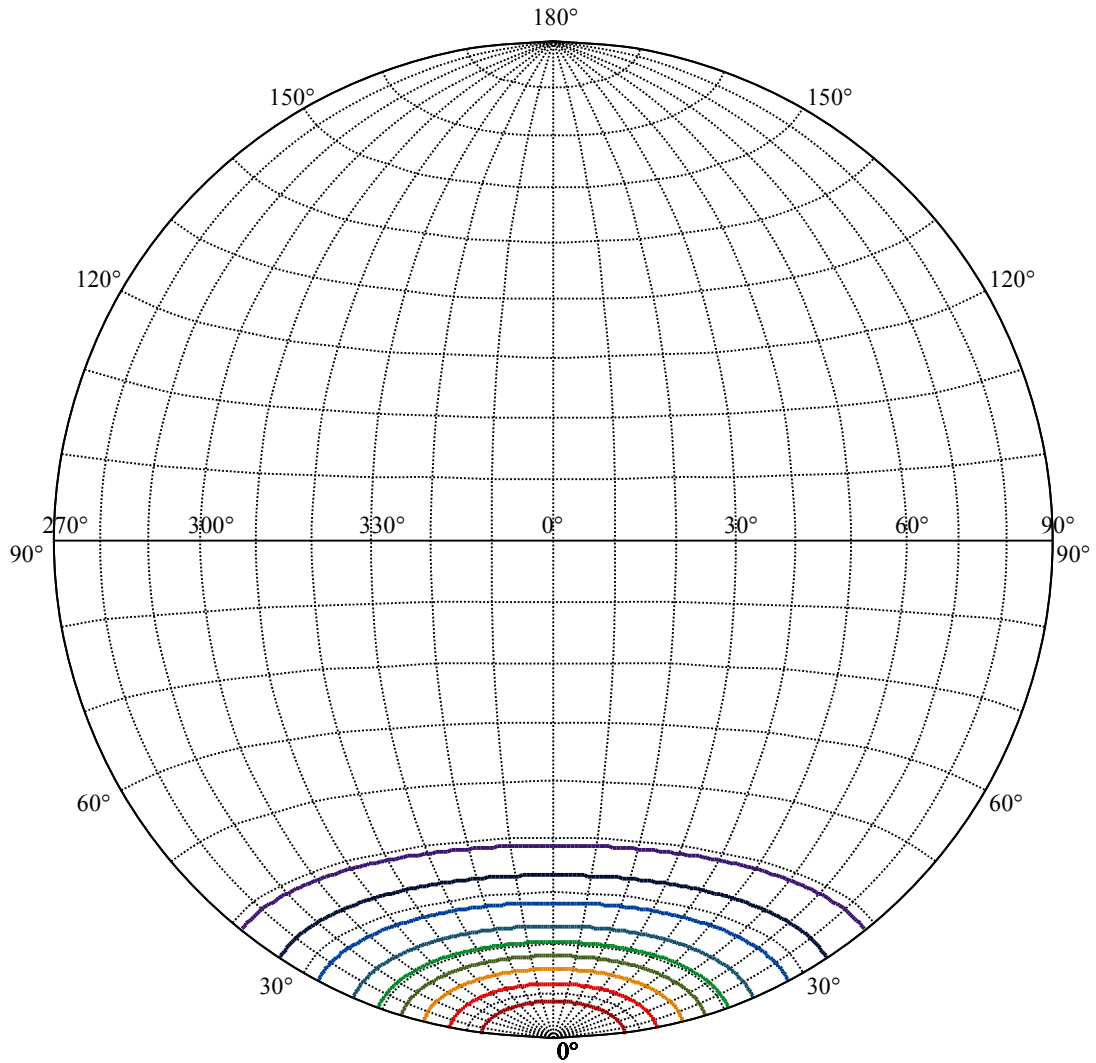
Field angle(10%Imax):C0/180Left:38.7 Right:38.7
:C90/270Left:38.7 Right:38.7

Beam Angle(50%Imax):C0/180Left:20.5 Right:20.5
:C90/270Left:20.5 Right:20.5





(10%Imax) 315.492	—
(20%Imax) 630.984	—
(30%Imax) 946.477	—
(40%Imax) 1261.97	—
(50%Imax) 1577.46	—
(60%Imax) 1892.95	—
(70%Imax) 2208.45	—
(80%Imax) 2523.94	—
(90%Imax) 2839.43	—



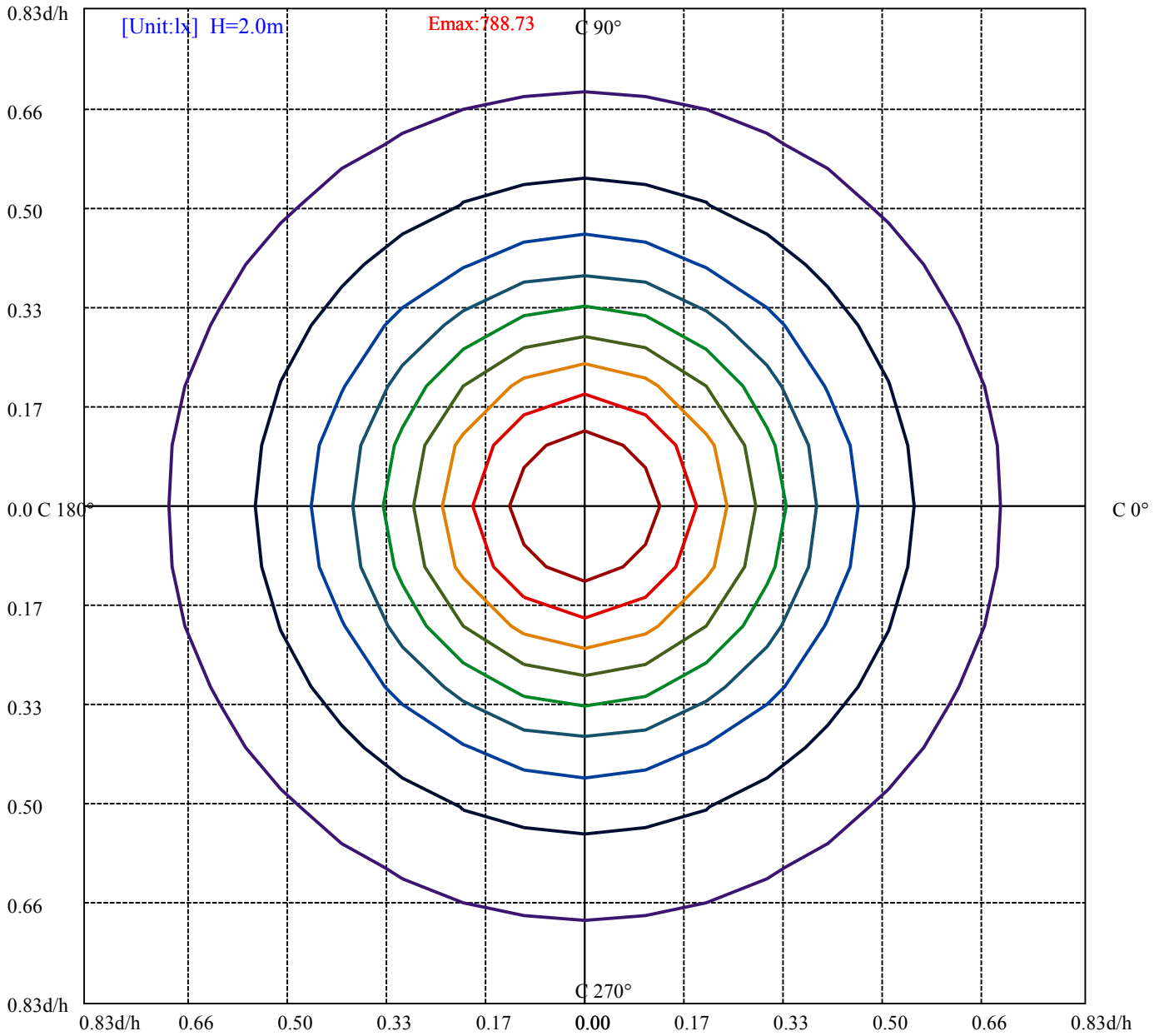
House

[Unit:cd]

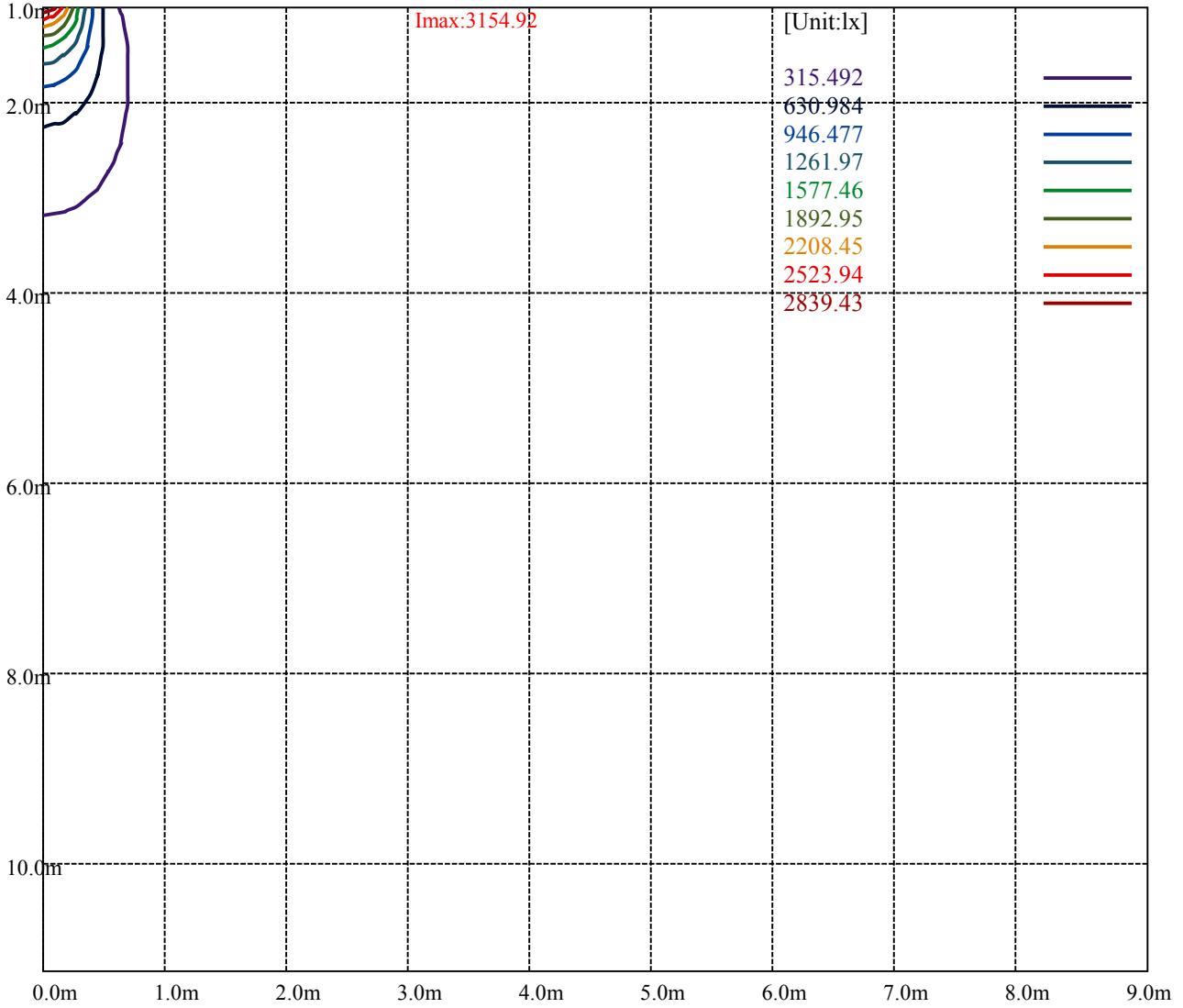
Road

Imax:3154.92

(10%Imax)	315.492	—
(20%Imax)	630.984	—
(30%Imax)	946.477	—
(40%Imax)	1261.97	—
(50%Imax)	1577.46	—
(60%Imax)	1892.95	—
(70%Imax)	2208.45	—
(80%Imax)	2523.94	—
(90%Imax)	2839.43	—



(10%Emax) 78.873	—
(20%Emax) 157.746	—
(30%Emax) 236.619	—
(40%Emax) 315.4925	—
(50%Emax) 394.365	—
(60%Emax) 473.2375	—
(70%Emax) 552.11	—
(80%Emax) 630.985	—
(90%Emax) 709.8575	—



Luminance Table

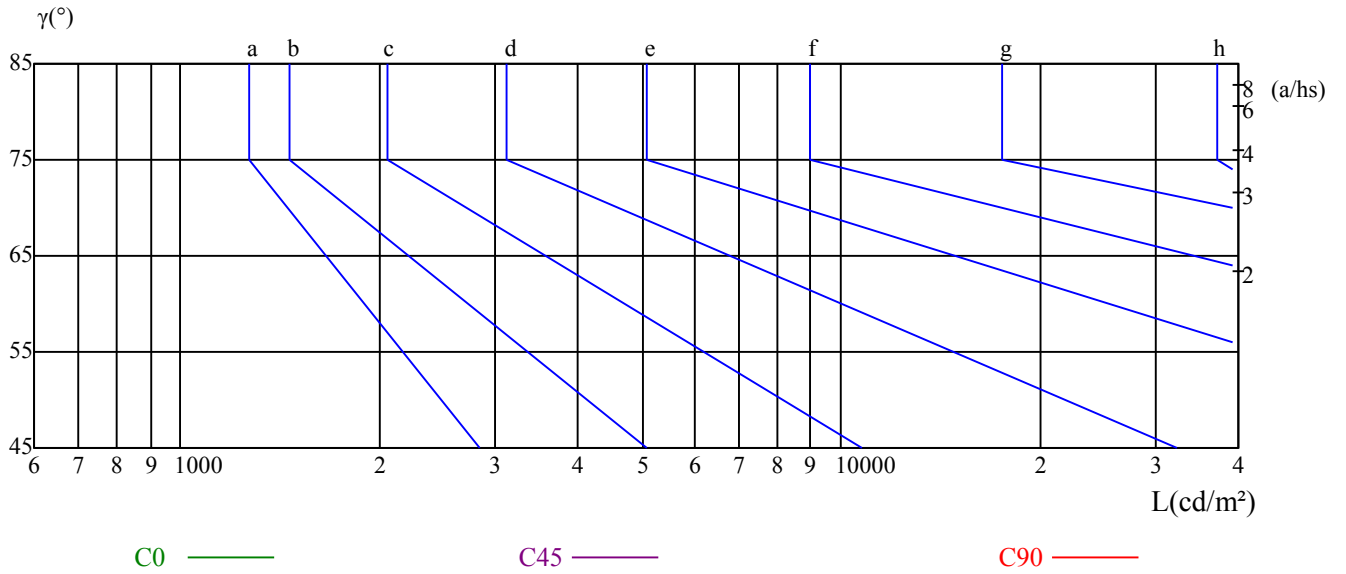
γ	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

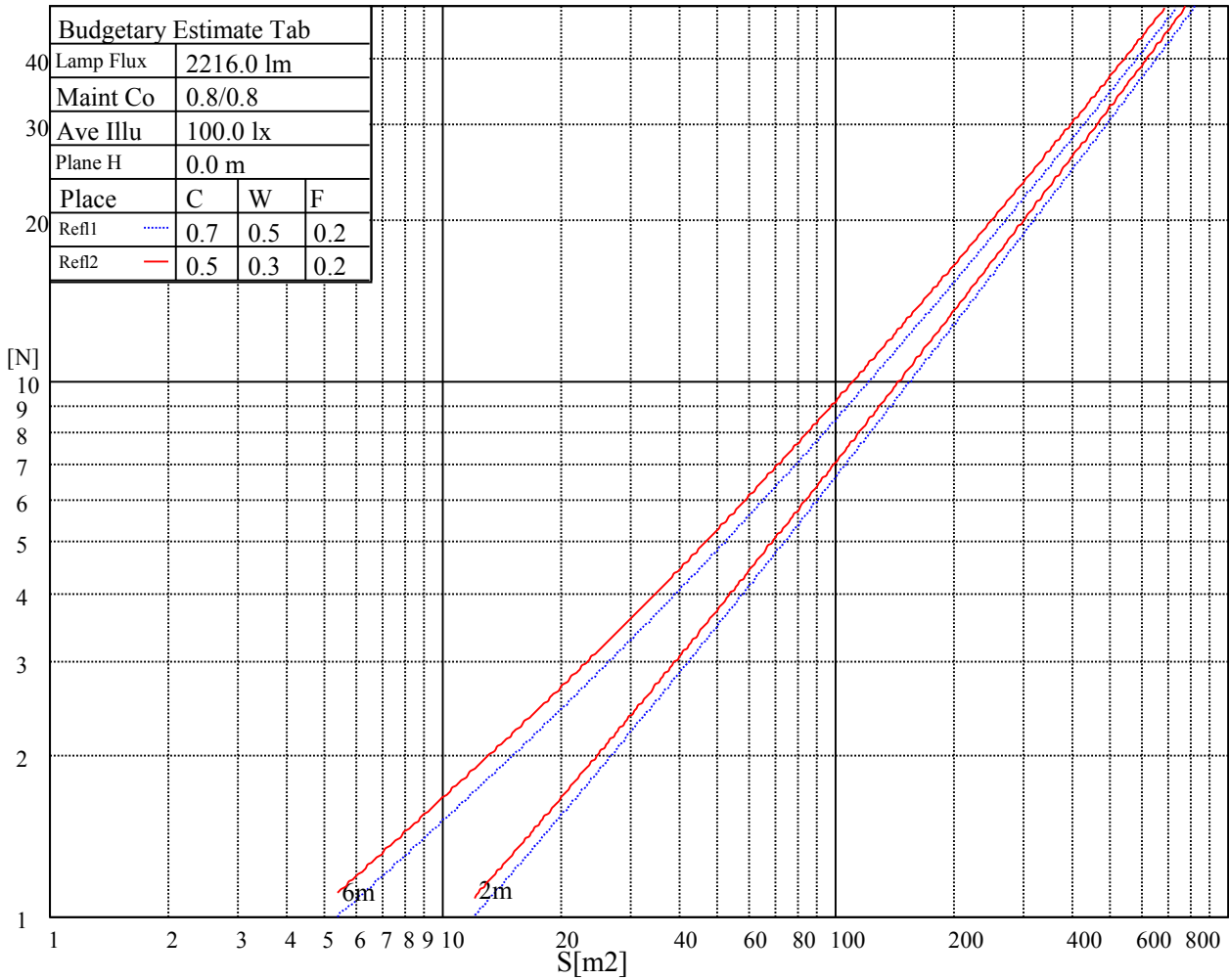
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
0	0	0	0	0	0	0	0	0

Glare Table

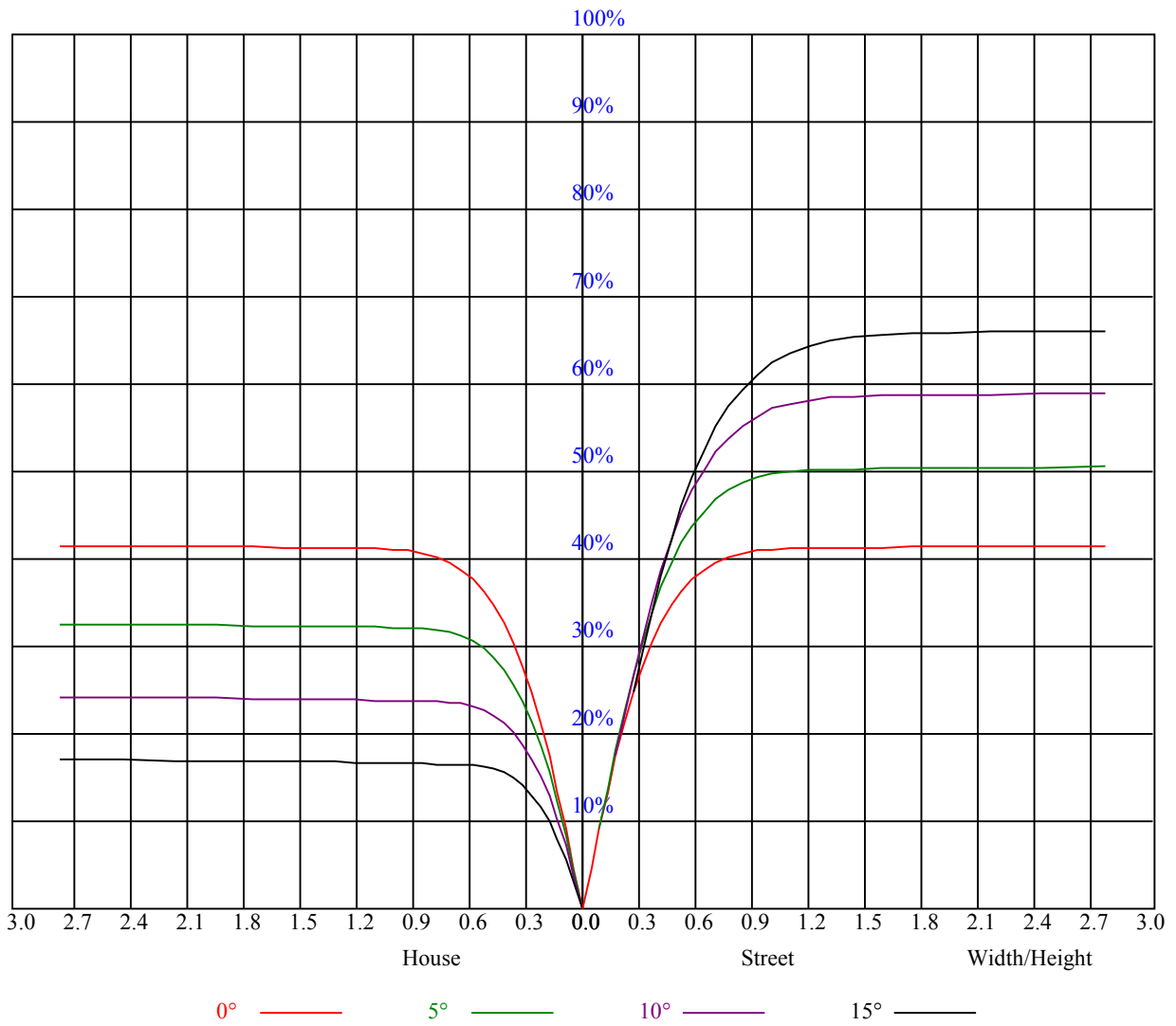
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	1.00	1.00	1.00	0.98	0.98	0.98	0.94	0.94	0.94	0.90	0.90	0.90	0.86	0.86	0.86	0.84
1	0.93	0.91	0.89	0.91	0.90	0.88	0.88	0.87	0.85	0.85	0.84	0.83	0.82	0.81	0.80	0.79
2	0.87	0.84	0.81	0.86	0.83	0.80	0.83	0.81	0.79	0.81	0.79	0.77	0.78	0.77	0.75	0.74
3	0.82	0.78	0.75	0.81	0.77	0.74	0.78	0.75	0.73	0.76	0.74	0.72	0.75	0.72	0.71	0.69
4	0.77	0.73	0.69	0.76	0.72	0.69	0.74	0.71	0.68	0.73	0.70	0.67	0.71	0.69	0.66	0.65
5	0.73	0.68	0.65	0.72	0.67	0.64	0.70	0.67	0.64	0.69	0.66	0.63	0.68	0.65	0.63	0.61
6	0.69	0.64	0.60	0.68	0.63	0.60	0.67	0.63	0.60	0.66	0.62	0.59	0.64	0.61	0.59	0.58
7	0.65	0.60	0.57	0.64	0.60	0.57	0.63	0.59	0.56	0.62	0.59	0.56	0.61	0.58	0.56	0.55
8	0.62	0.57	0.54	0.61	0.57	0.54	0.60	0.56	0.53	0.59	0.56	0.53	0.59	0.55	0.53	0.52
9	0.59	0.54	0.51	0.58	0.54	0.51	0.57	0.53	0.51	0.57	0.53	0.50	0.56	0.53	0.50	0.49
10	0.56	0.51	0.48	0.55	0.51	0.48	0.55	0.51	0.48	0.54	0.51	0.48	0.54	0.50	0.48	0.47



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	3148.88	3175.31	2954.25	2528.44	1859.63	1284.19	929.81	641.81	358.31
45.0	3150.56	3139.88	2921.63	2458.69	1872.00	1277.44	920.81	646.31	339.19
90.0	3156.75	3053.81	2697.75	2185.88	1551.38	1087.76	802.24	467.55	196.71
135.0	3163.50	3005.44	2652.19	2073.94	1497.94	1052.44	807.19	474.19	212.79
180.0	3148.88	2907.56	2466.56	1939.50	1383.75	985.33	724.50	375.36	135.90
225.0	3150.56	2953.13	2532.94	1963.13	1463.63	1027.24	755.21	419.01	158.74
270.0	3156.75	3067.31	2768.63	2280.94	1690.88	1167.75	878.63	579.94	291.94
315.0	3163.50	3118.50	2832.75	2305.13	1699.31	1122.30	876.83	582.53	250.93
360.0	3148.88	3175.31	2954.25	2528.44	1859.63	1284.19	929.81	641.81	358.31
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	98.33	20.19	12.60	10.91	9.90	9.45	9.11	9.00	8.78
45.0	81.51	17.38	11.59	10.29	9.51	9.06	8.66	8.38	8.21
90.0	40.44	12.99	11.08	10.01	9.34	8.94	8.61	8.38	8.16
135.0	40.28	13.56	11.31	10.29	9.68	9.23	8.94	8.89	8.49
180.0	30.04	12.66	10.91	10.01	9.51	9.17	8.94	8.89	8.21
225.0	33.69	12.43	10.63	9.79	9.23	8.83	8.49	8.33	8.10
270.0	61.26	15.08	11.08	10.01	9.45	8.94	8.66	8.44	8.21
315.0	65.70	15.58	11.48	10.35	9.68	9.34	9.11	9.17	8.78
360.0	98.33	20.19	12.60	10.91	9.90	9.45	9.11	9.00	8.78
C/ γ (°)	90.0								
0.0	8.16								
45.0	7.99								
90.0	7.93								
135.0	7.93								
180.0	7.93								
225.0	7.93								
270.0	7.93								
315.0	7.99								
360.0	8.16								