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Nata

LumCAT: 3-2044-M	
Luminaire: 92.70.135.00	
Report No: NATA0100	Voltage(V): 33.7000
Test No: GC2018062009	Current(A): 0.4900
LampCAT: NICHIA NFCW108B-V3	Power (W): 16.5130
Lamp flux(lm): 2255.0	PF: 0.0000
Number of Lamps: 1	Ballast type: DC
Length(mm): 84	Width(mm): 84
Phm Type: C	Height(mm): 0

Photometric Results

Lumens(lm): 1993.14
Efficiency(%): 88.39%
Lumens(lm)/Power(W): 123.04
Central intensity(cd): 6776.204
Maximum intensity(cd): 6776.204
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=26.9
 [C90/270]Total=26.9
Field angle(10%Imax): [C0/180]Total=60.3
 [C90/270]Total=60.3
Maximum s/h(1/2): C0_180=0.46 C90_270=0.46
Maximum s/h(1/4): C0_180=0.45 C90_270=0.45
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 90.10%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 96.853%

Equipment: GMS1980
Temperature(°C): 25.0

Date: 2018/6/20
Humidity(%): 60.0%

Operator: NT07
Distance(m): 7.42

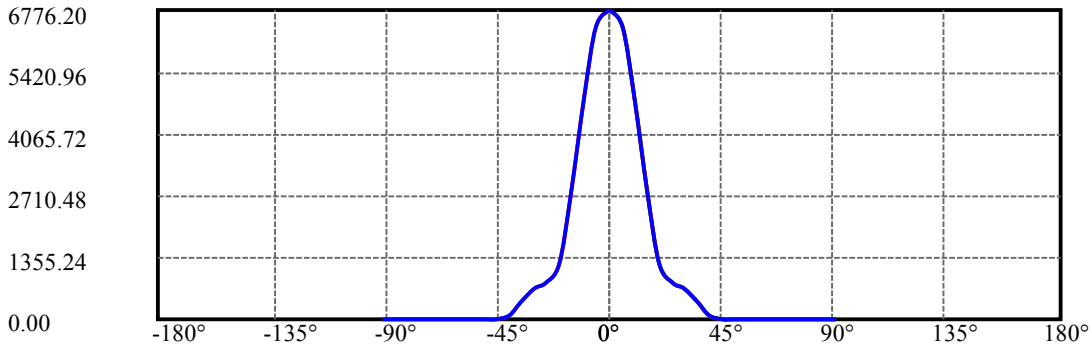
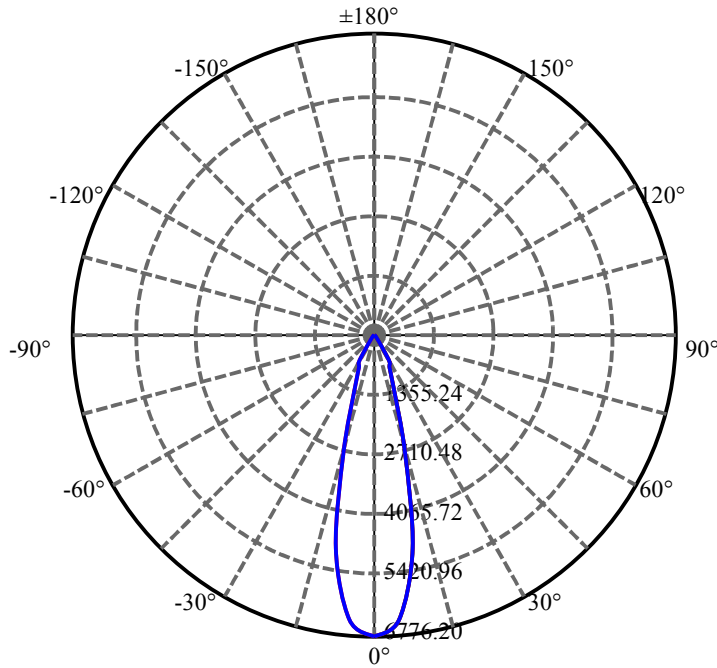
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	6776.204	40.523	40.523	1.797%	2.033%
5.0	6408.358	306.149	346.672	13.576%	17.393%
10.0	4883.365	464.814	811.485	20.613%	40.714%
15.0	2723.090	386.320	1197.806	17.132%	60.096%
20.0	1240.008	232.469	1430.275	10.309%	71.760%
25.0	787.073	182.328	1612.602	8.085%	80.907%
30.0	685.287	187.816	1800.418	8.329%	90.331%
35.0	399.744	125.679	1926.097	5.573%	96.636%
40.0	70.741	24.924	1951.022	1.105%	97.887%
45.0	10.894	4.223	1955.244	.187%	98.098%
50.0	9.745	4.092	1959.336	.181%	98.304%
55.0	9.305	4.178	1963.514	.185%	98.513%
60.0	9.077	4.309	1967.823	.191%	98.730%
65.0	8.912	4.427	1972.25	.196%	98.952%
70.0	8.802	4.534	1976.784	.201%	99.179%
75.0	8.713	4.613	1981.397	.205%	99.411%
80.0	8.671	4.681	1986.078	.208%	99.645%
85.0	8.630	4.712	1990.791	.209%	99.882%
90.0	8.589	2.354	1993.144	.104%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1800.42	79.84%	90.33%
0-40	1951.02	86.52%	97.89%
0-60	1967.82	87.26%	98.73%
0-90	1990.79	88.28%	99.88%
0-120	1990.79	88.28%	99.88%
0-180	1993.14	88.39%	100.00%
60-90	27.28	1.21%	1.37%
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%
0-24.50	1594.52	70.71%	80.00%

ZONAL LUMEN SUMMARY

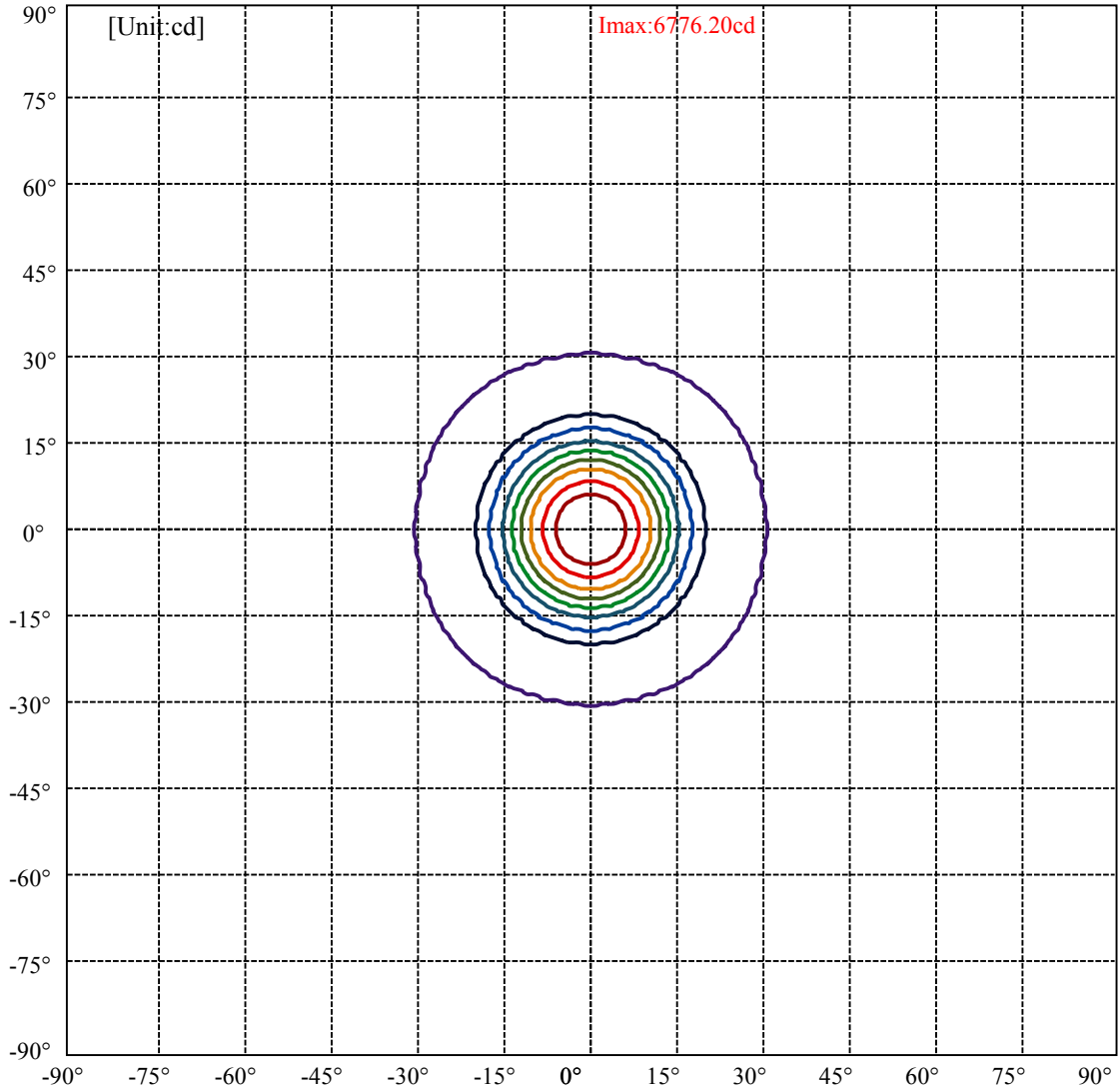
0-10	811.49
10-20	618.79
20-30	370.14
30-40	150.60
40-50	8.31
50-60	8.49
60-70	8.96
70-80	9.29
80-90	4.71
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00



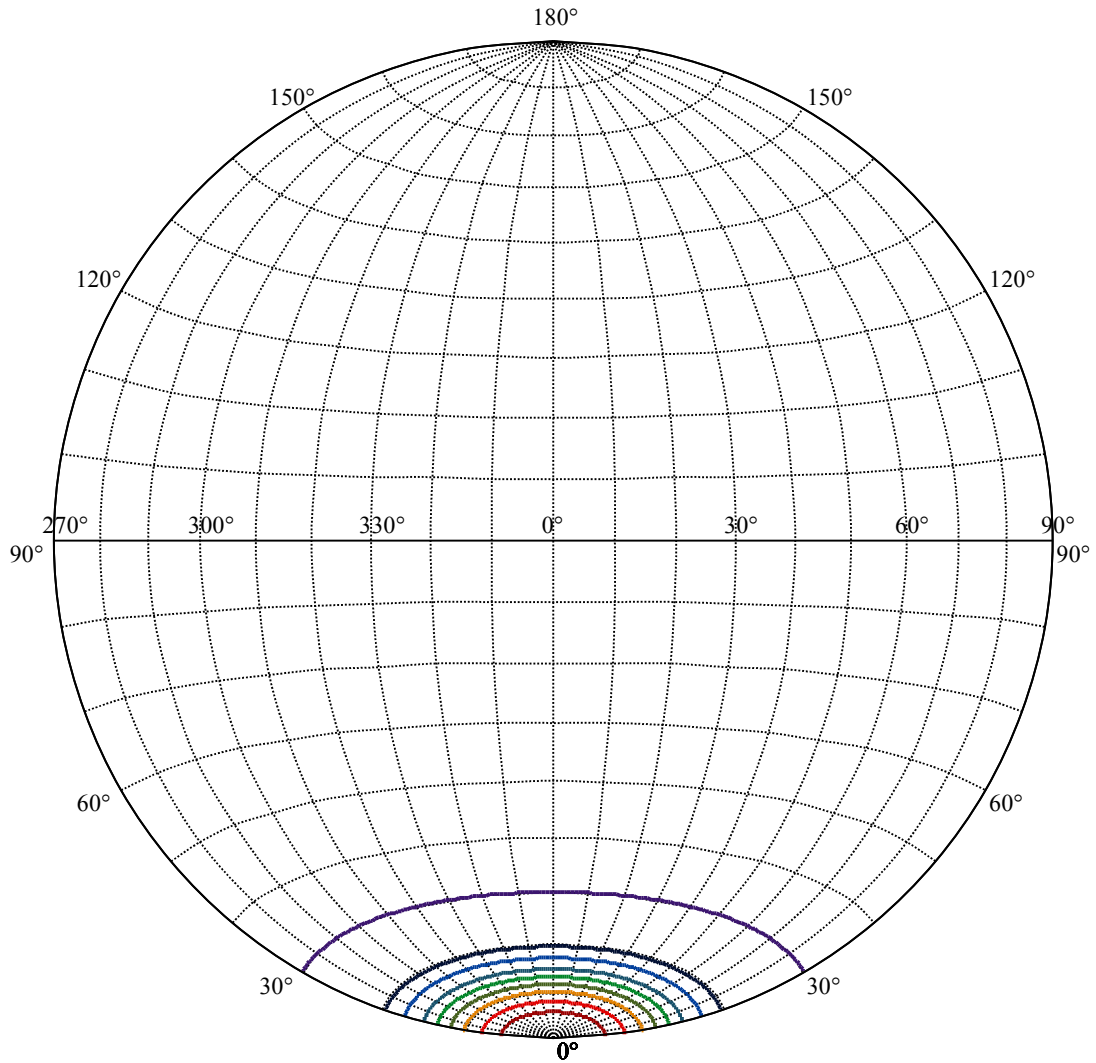
C0(Max): —————
C0/C180: —————
C90/C270: —————

Field angle(10%Imax):C0/180Left:30.1 Right:30.1
:C90/270Left:30.1 Right:30.1

Beam Angle(50%Imax):C0/180Left:13.5 Right:13.5
:C90/270Left:13.5 Right:13.5



(10%Imax) 677.62	—
(20%Imax) 1355.24	—
(30%Imax) 2032.86	—
(40%Imax) 2710.48	—
(50%Imax) 3388.1	—
(60%Imax) 4065.72	—
(70%Imax) 4743.34	—
(80%Imax) 5420.96	—
(90%Imax) 6098.58	—



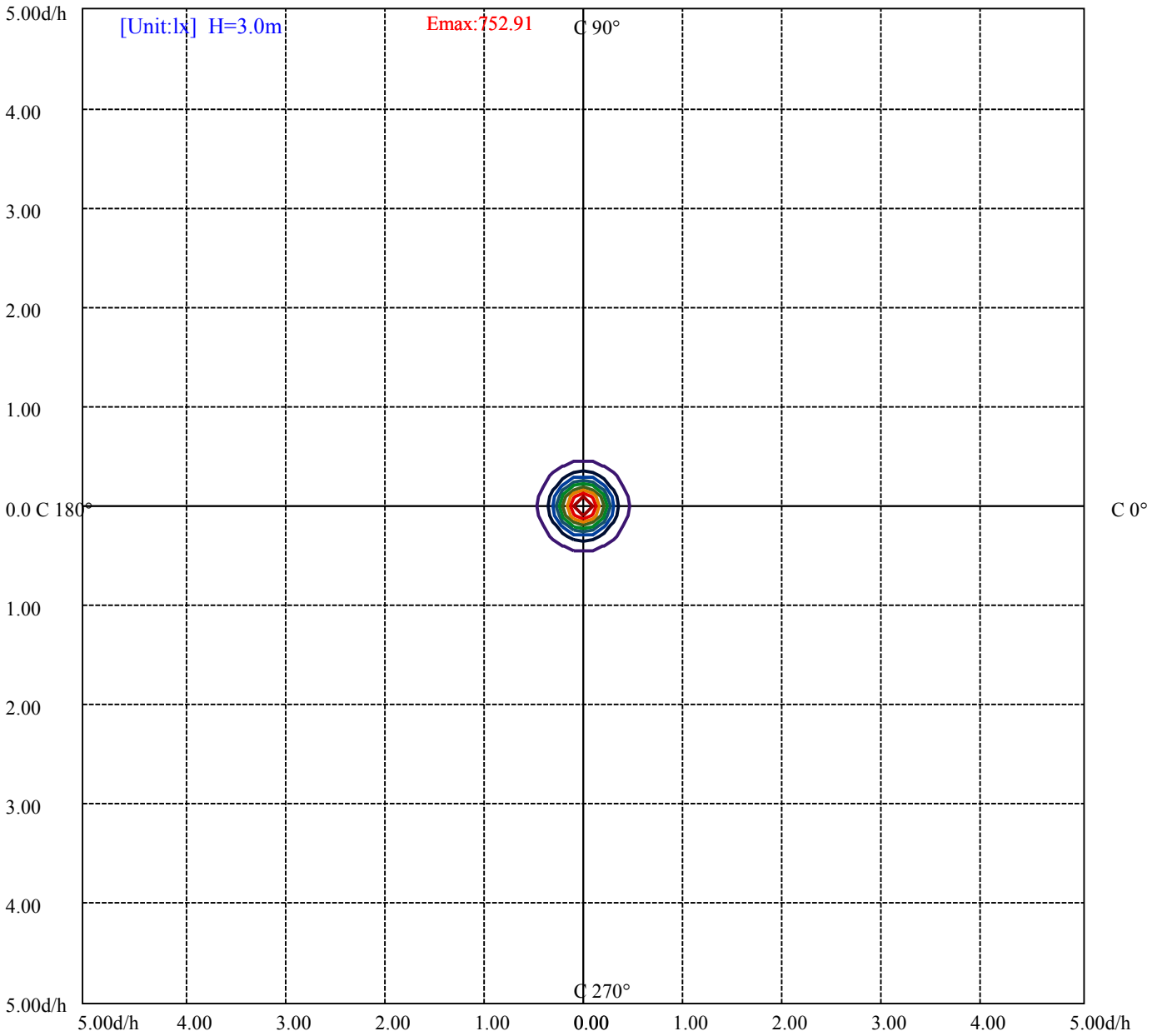
House

[Unit:cd]

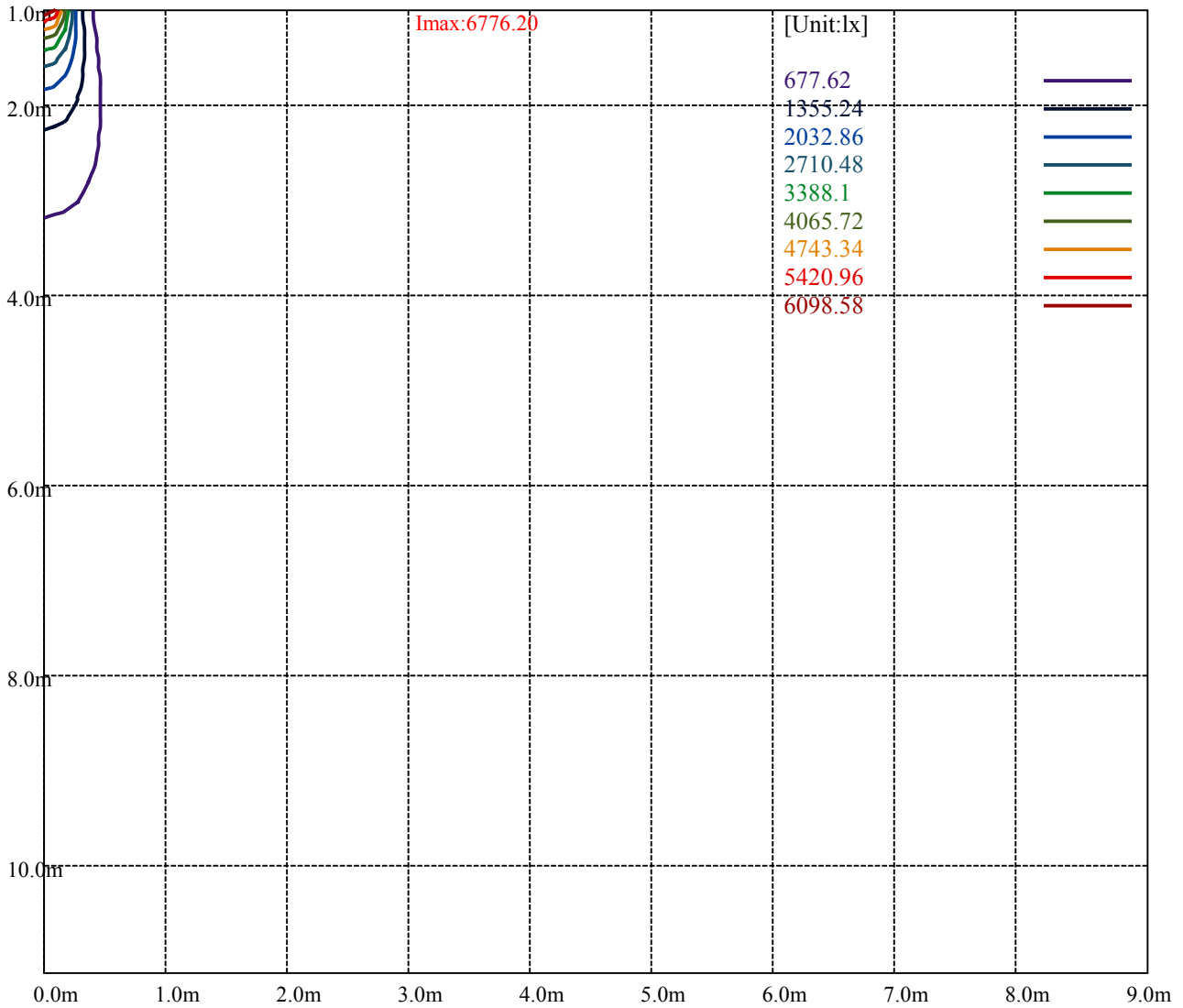
Road

Imax:6776.20

(10%Imax) 677.62	—
(20%Imax) 1355.24	—
(30%Imax) 2032.86	—
(40%Imax) 2710.48	—
(50%Imax) 3388.1	—
(60%Imax) 4065.72	—
(70%Imax) 4743.34	—
(80%Imax) 5420.96	—
(90%Imax) 6098.58	—



- (10%Emax) 75.291
- (20%Emax) 150.5822
- (30%Emax) 225.8733
- (40%Emax) 301.1644
- (50%Emax) 376.4556
- (60%Emax) 451.7467
- (70%Emax) 527.0367
- (80%Emax) 602.3278
- (90%Emax) 677.6189



Luminance Table

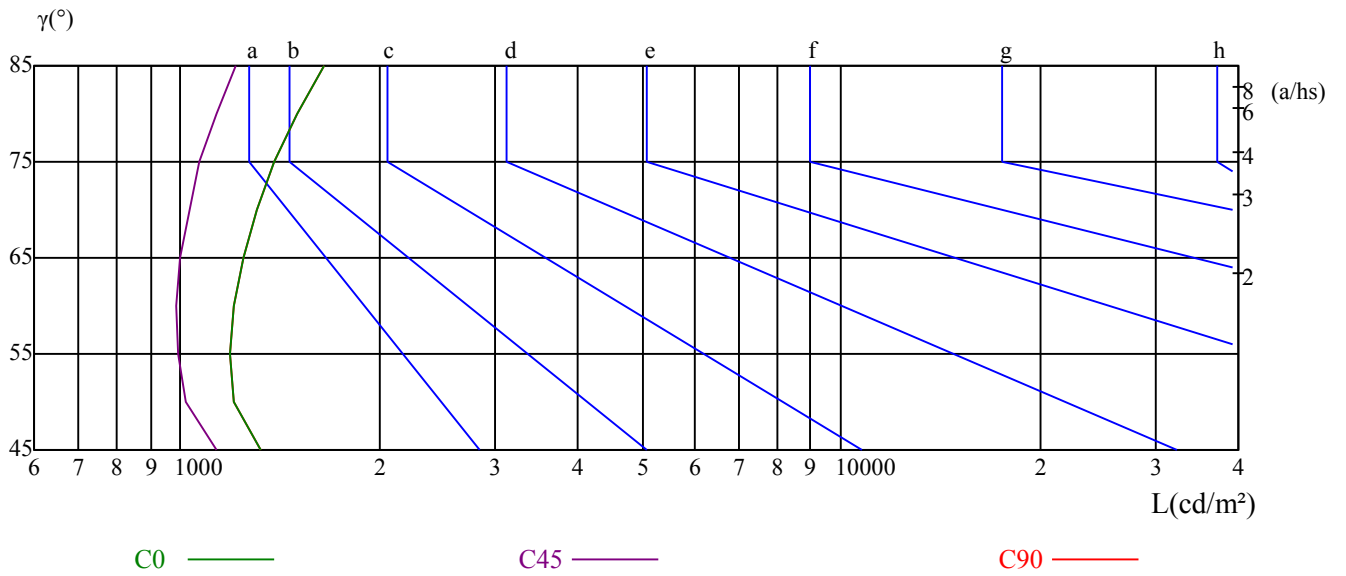
γ	45	50	55	60	65	70	75	80	85
C0	1320	1207	1188	1206	1243	1303	1385	1502	1654
C45	1134	1021	990	988	1001	1029	1071	1132	1211
C90	1320	1207	1188	1206	1243	1303	1385	1502	1654

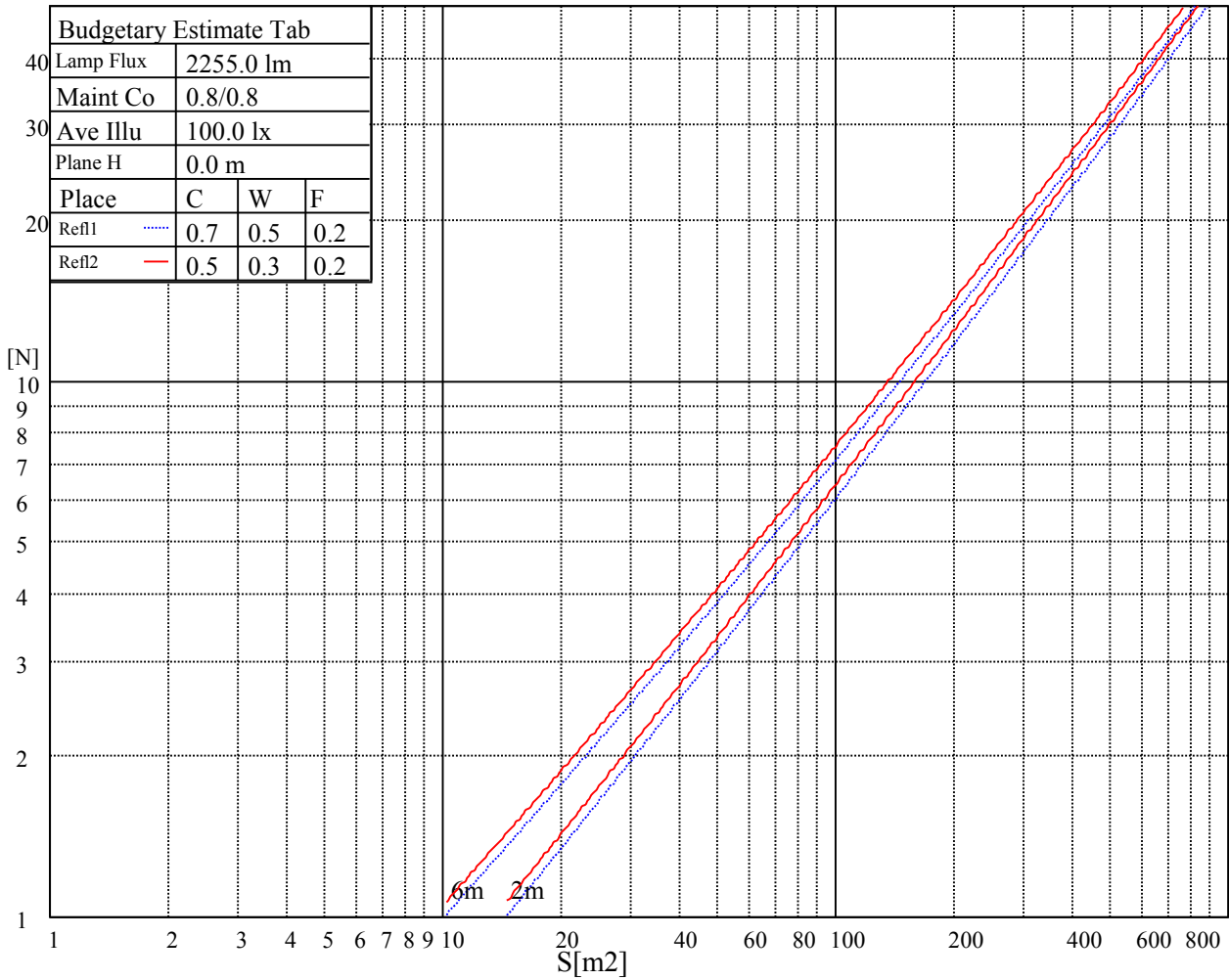
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
2989	2989	2989	4771	4771	4771	14033	14033	14033

Glare Table

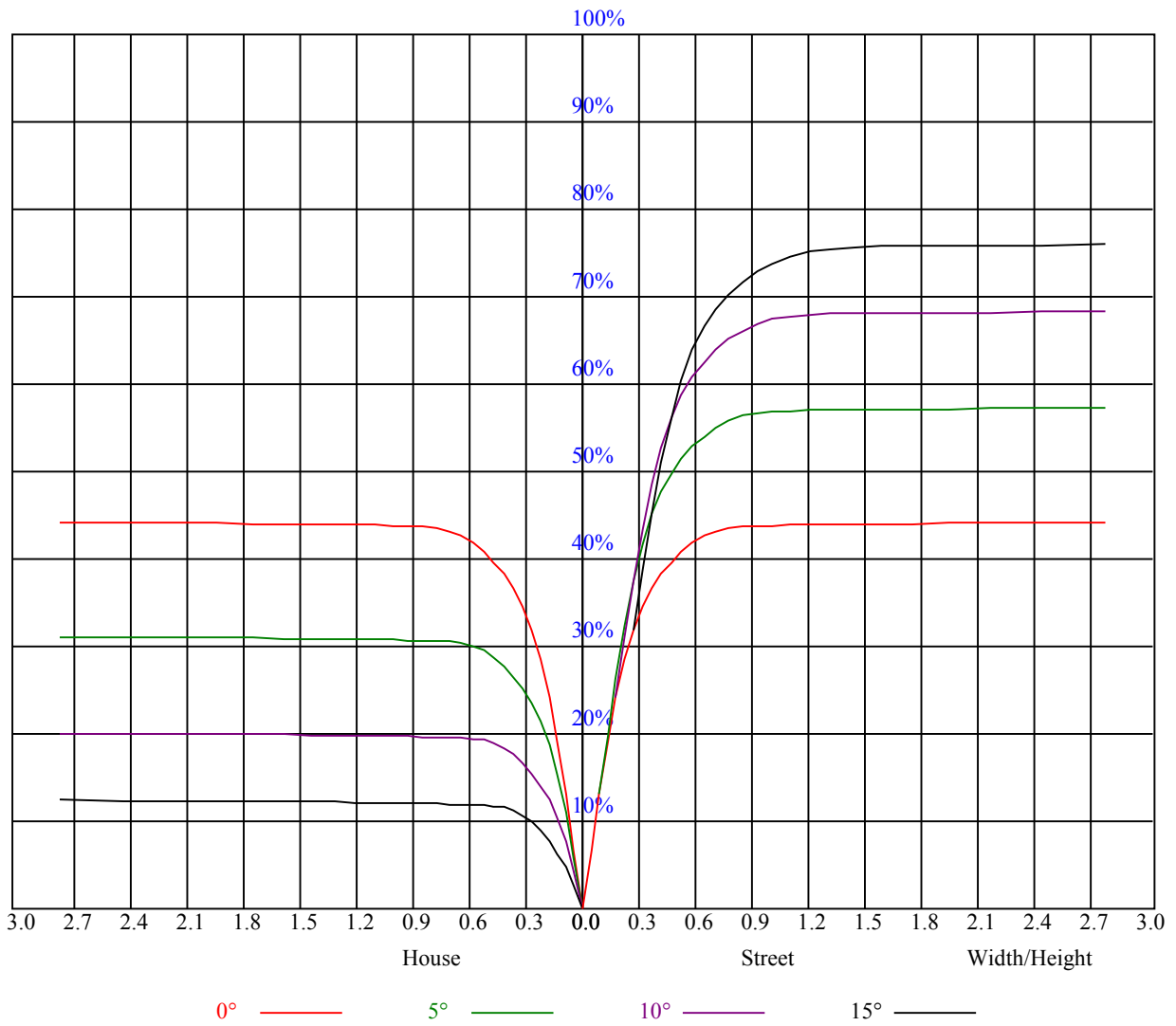
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	1.07	1.07	1.07	1.05	1.05	1.05	1.00	1.00	1.00	0.96	0.96	0.96	0.92	0.92	0.92	0.90
1	0.99	0.96	0.94	0.97	0.95	0.93	0.93	0.92	0.90	0.90	0.89	0.87	0.87	0.86	0.85	0.83
2	0.94	0.91	0.88	0.92	0.89	0.87	0.90	0.87	0.85	0.87	0.85	0.83	0.84	0.83	0.81	0.80
3	0.90	0.86	0.83	0.88	0.85	0.82	0.86	0.83	0.81	0.84	0.82	0.79	0.82	0.80	0.78	0.77
4	0.86	0.82	0.79	0.85	0.81	0.78	0.83	0.80	0.77	0.81	0.79	0.76	0.80	0.77	0.75	0.74
5	0.82	0.78	0.75	0.82	0.78	0.75	0.80	0.77	0.74	0.79	0.76	0.74	0.77	0.75	0.73	0.72
6	0.79	0.75	0.72	0.79	0.75	0.72	0.78	0.74	0.72	0.76	0.73	0.71	0.75	0.73	0.71	0.70
7	0.77	0.73	0.70	0.76	0.72	0.70	0.75	0.72	0.69	0.74	0.71	0.69	0.73	0.71	0.68	0.67
8	0.74	0.70	0.67	0.74	0.70	0.67	0.73	0.70	0.67	0.72	0.69	0.67	0.71	0.69	0.67	0.66
9	0.72	0.68	0.65	0.72	0.68	0.65	0.71	0.67	0.65	0.70	0.67	0.65	0.70	0.67	0.65	0.64
10	0.70	0.66	0.63	0.70	0.66	0.63	0.69	0.66	0.63	0.68	0.65	0.63	0.68	0.65	0.63	0.62



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	6794.51	6490.60	5131.26	3049.57	1417.15	812.08	702.52	454.77	54.29
45.0	6770.84	6131.08	4480.49	2296.40	1110.49	754.82	670.59	296.20	19.71
90.0	6761.48	6085.38	4075.27	2072.87	1012.98	726.41	638.32	243.18	17.12
135.0	6777.99	6422.33	4825.14	2637.20	1212.34	761.98	678.29	379.34	27.31
180.0	6794.51	6340.30	4737.05	2453.86	1089.07	752.79	672.57	348.34	27.80
225.0	6770.84	6648.06	5264.49	3121.15	1291.07	802.17	703.62	504.81	83.36
270.0	6761.48	6682.75	5575.01	3403.59	1724.92	885.31	720.14	559.92	287.94
315.0	6777.99	6466.37	4978.20	2750.07	1062.04	801.02	696.24	411.38	48.39
360.0	6794.51	6490.60	5131.26	3049.57	1417.15	812.08	702.52	454.77	54.29
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	11.45	9.80	9.36	9.08	8.92	8.86	8.81	8.75	8.64
45.0	10.19	9.63	9.25	9.08	8.92	8.81	8.70	8.64	8.59
90.0	10.08	9.58	9.19	9.03	8.86	8.81	8.64	8.64	8.64
135.0	10.30	9.74	9.30	9.08	8.92	8.81	8.70	8.70	8.64
180.0	10.30	9.69	9.30	9.08	8.86	8.81	8.70	8.70	8.64
225.0	11.73	9.80	9.36	9.08	8.92	8.75	8.70	8.64	8.59
270.0	12.66	9.97	9.41	9.14	8.97	8.81	8.75	8.64	8.64
315.0	10.46	9.74	9.25	9.03	8.92	8.75	8.70	8.64	8.64
360.0	11.45	9.80	9.36	9.08	8.92	8.86	8.81	8.75	8.64
C/γ(°)	90.0								
0.0	8.59								
45.0	8.59								
90.0	8.59								
135.0	8.64								
180.0	8.59								
225.0	8.53								
270.0	8.59								
315.0	8.59								
360.0	8.59								