
Nata

Client:

LumCAT: 2-1795-N

Luminaire: 92.70.135.00

Report No: nata-0100

Test No:

LampCAT: NICHIA NFCWD096B-V3

Lamp flux(lm): 2220.8

Number of Lamps: 1

Length(mm): 69

Phm Type: C

Voltage(V): 34.1000

Current(A): 0.5000

Power (W): 17.0500

PF: 0.0000

Ballast type: D

Width(mm): 69

Height(mm): 0

Photometric Results

Lumens(lm): 1838.84, Efficiency(%): 82.80% , Luminous Efficacy(lm/W): 107.85

Central intensity(cd): 3966.703, Maximum intensity(cd): 3966.703

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=39.2

[C90/270]Total=39.2

Field angle(10%Imax): [C0/180]Total=63.4

[C90/270]Total=63.4

Maximum s/h(1/2): C0_180=0.64 C90_270=0.64

Maximum s/h(1/4): C0_180=0.63 C90_270=0.63

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 83.79%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 96.749%

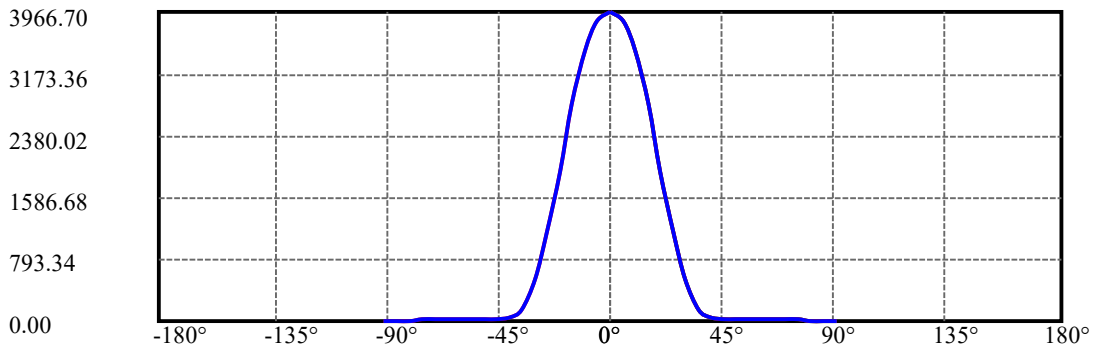
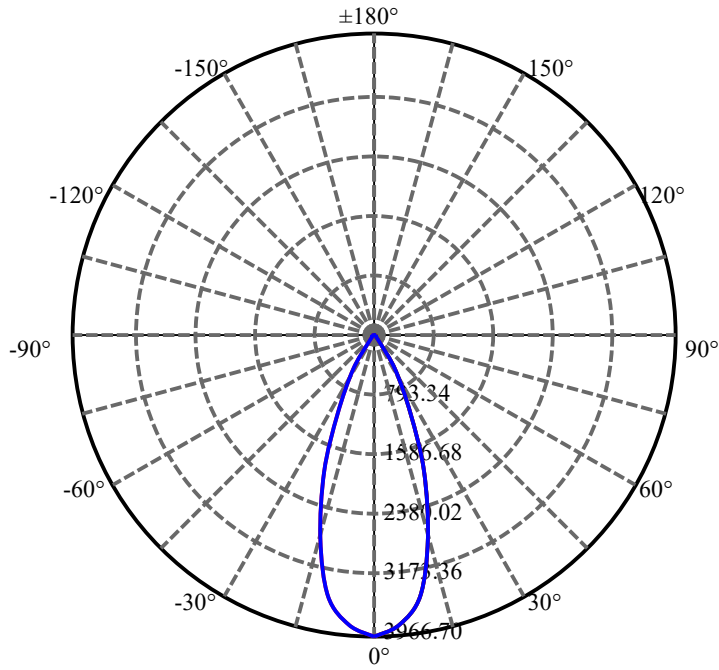
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	3966.704	23.722	23.722	1.068%	1.290%
5.0	3836.220	183.269	206.991	8.252%	11.257%
10.0	3485.841	331.793	538.784	14.940%	29.300%
15.0	2776.935	393.959	932.743	17.739%	50.724%
20.0	1915.853	359.173	1291.916	16.173%	70.257%
25.0	1135.979	263.153	1555.068	11.849%	84.568%
30.0	532.175	145.853	1700.921	6.567%	92.500%
35.0	138.137	43.430	1744.351	1.956%	94.861%
40.0	44.210	15.577	1759.928	.701%	95.709%
45.0	29.235	11.331	1771.259	.510%	96.325%
50.0	24.225	10.172	1781.431	.458%	96.878%
55.0	21.417	9.616	1791.047	.433%	97.401%
60.0	19.545	9.278	1800.325	.418%	97.905%
65.0	17.508	8.698	1809.023	.392%	98.378%
70.0	15.691	8.082	1817.105	.364%	98.818%
75.0	14.039	7.433	1824.538	.335%	99.222%
80.0	12.223	6.598	1831.136	.297%	99.581%
85.0	9.910	5.411	1836.548	.244%	99.875%
90.0	8.369	2.294	1838.841	.103%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1700.92	76.59%	92.50%
0-40	1759.93	79.25%	95.71%
0-60	1800.33	81.07%	97.91%
0-90	1836.55	82.70%	99.88%
0-120	1836.55	82.70%	99.88%
0-180	1838.84	82.80%	100.00%
60-90	45.50	2.05%	2.47%
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%
0-23.40	1471.07	66.24%	80.00%

ZONAL LUMEN SUMMARY

0-10	538.78
10-20	753.13
20-30	409.01
30-40	59.01
40-50	21.50
50-60	18.89
60-70	16.78
70-80	14.03
80-90	5.41
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



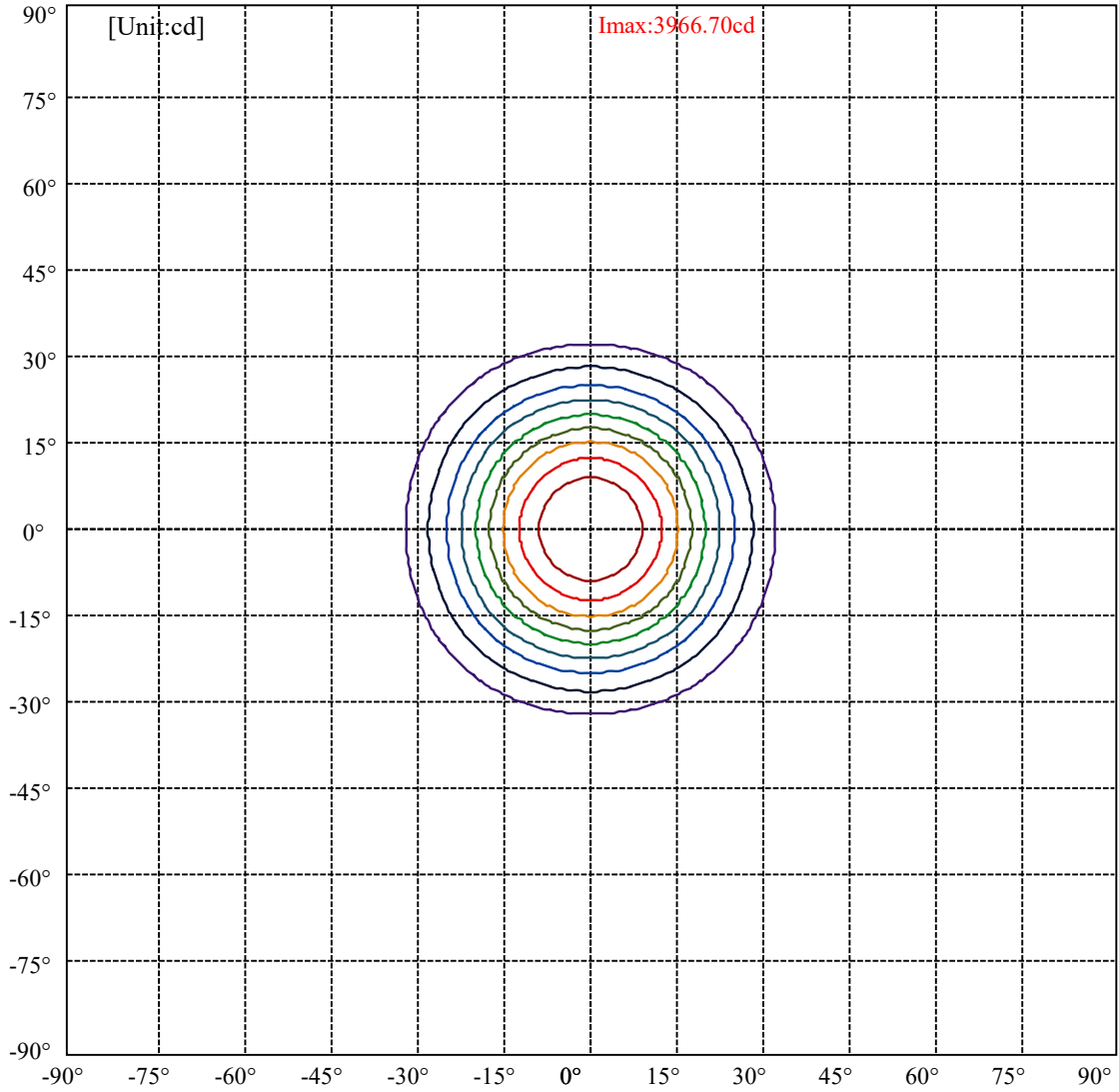
C0(Max): —————

C0/C180: —————

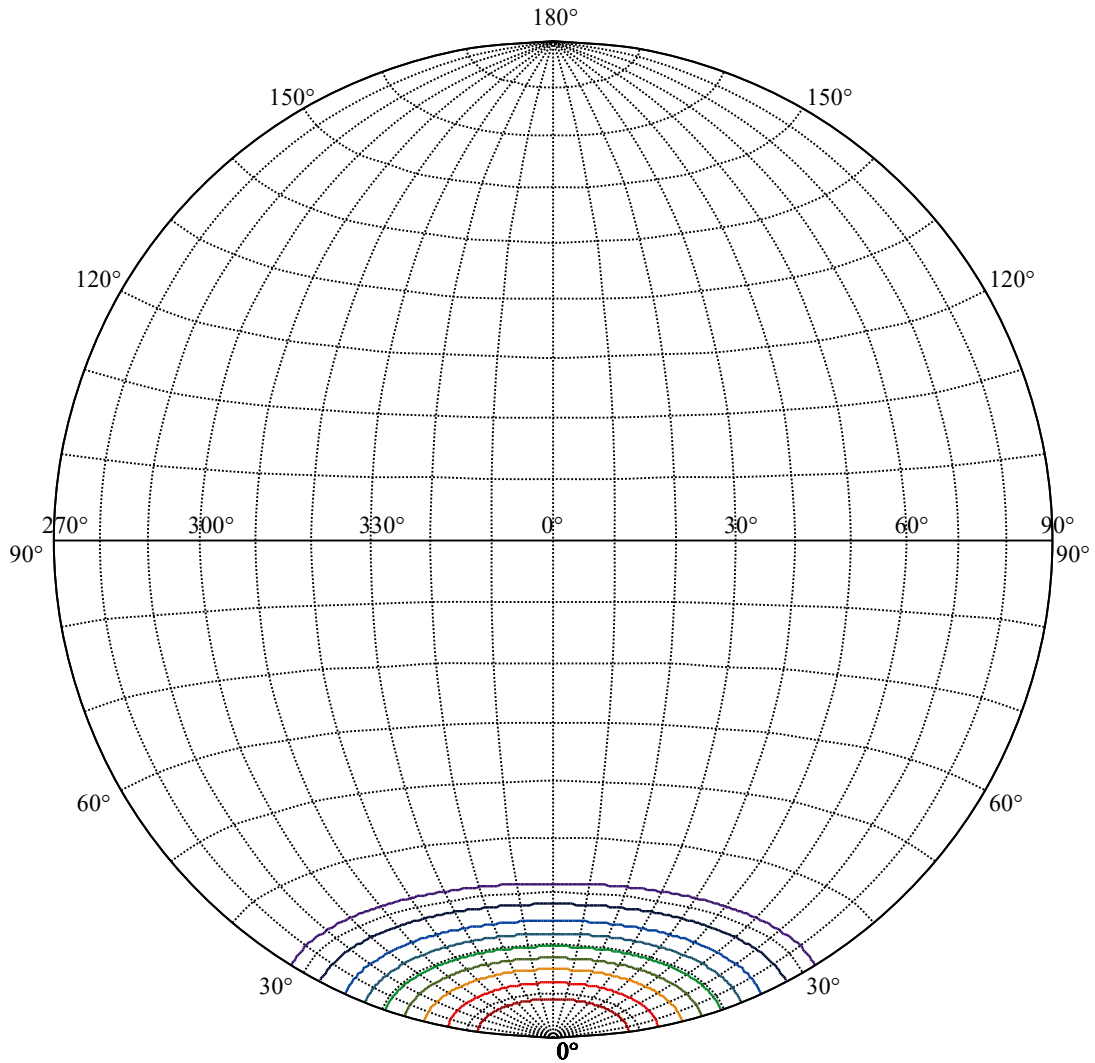
C90/C270: —————

Field angle(10%Imax):C0/180Left:31.7 Right:31.7
:C90/270Left:31.7 Right:31.7

Beam Angle(50%Imax):C0/180Left:19.6 Right:19.6
:C90/270Left:19.6 Right:19.6



(10%Imax) 396.67	—
(20%Imax) 793.341	—
(30%Imax) 1190.01	—
(40%Imax) 1586.68	—
(50%Imax) 1983.35	—
(60%Imax) 2380.02	—
(70%Imax) 2776.69	—
(80%Imax) 3173.36	—
(90%Imax) 3570.03	—



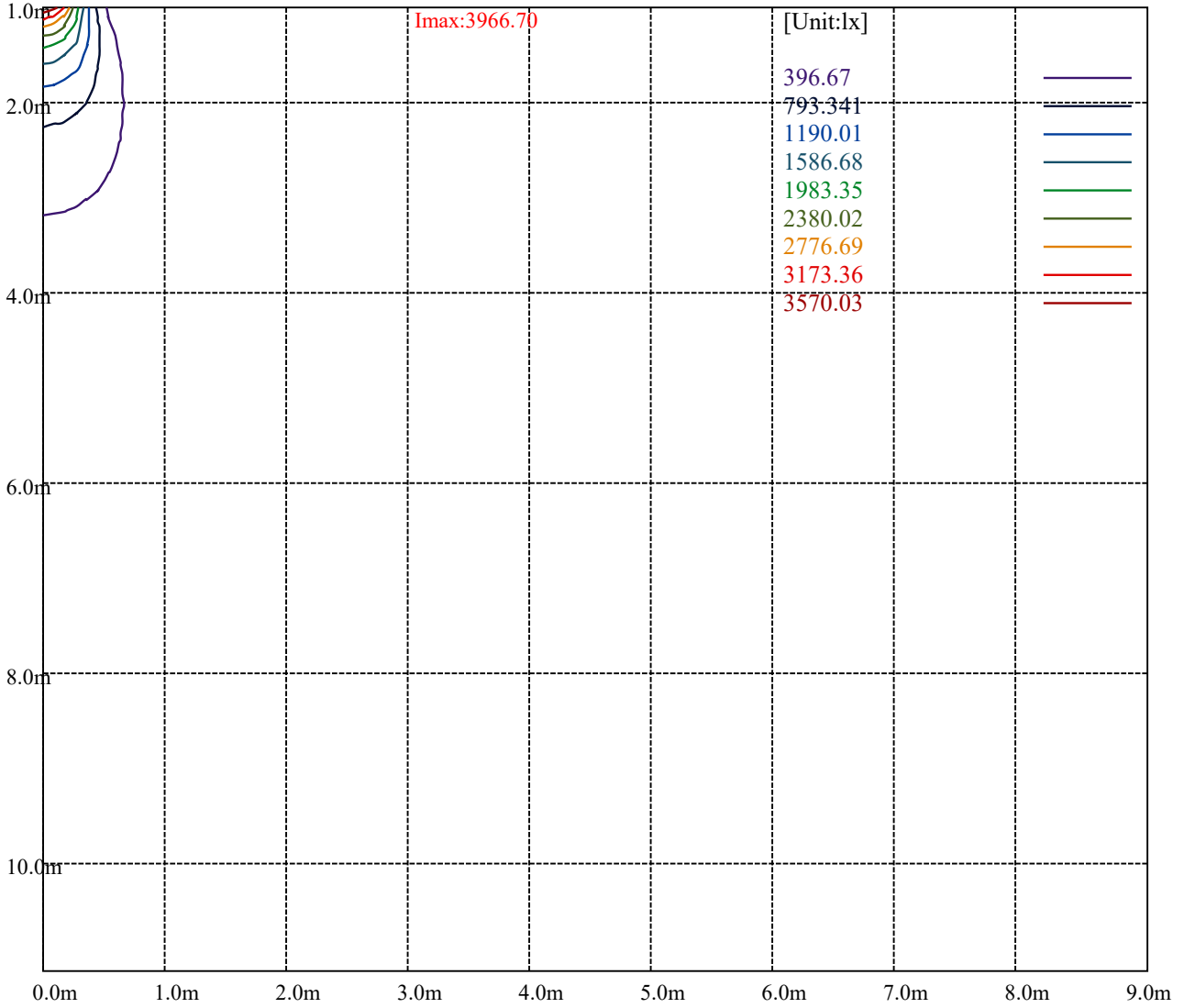
House

[Unit:cd]

Road

Imax:3966.70

(10%Imax) 396.67	—
(20%Imax) 793.341	—
(30%Imax) 1190.01	—
(40%Imax) 1586.68	—
(50%Imax) 1983.35	—
(60%Imax) 2380.02	—
(70%Imax) 2776.69	—
(80%Imax) 3173.36	—
(90%Imax) 3570.03	—



Luminance Table

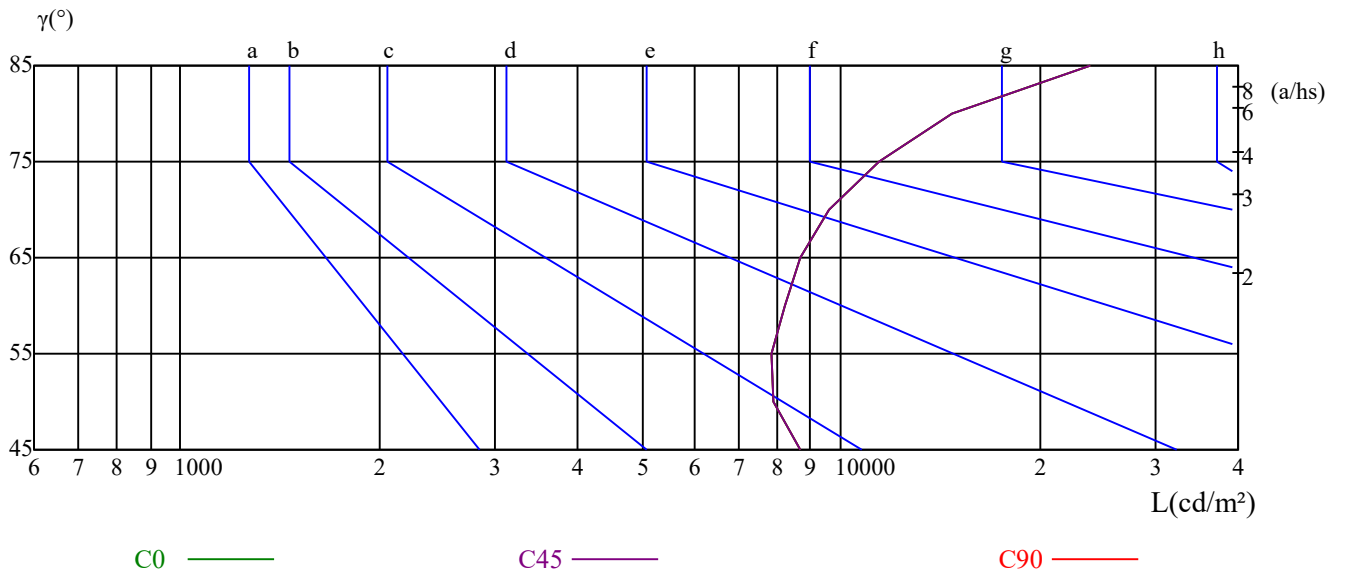
γ	45	50	55	60	65	70	75	80	85
C0	8684	7916	7843	8210	8701	9636	11393	14784	23883
C45	8684	7916	7843	8210	8701	9636	11393	14784	23883
C90	8684	7916	7843	8210	8701	9636	11393	14784	23883

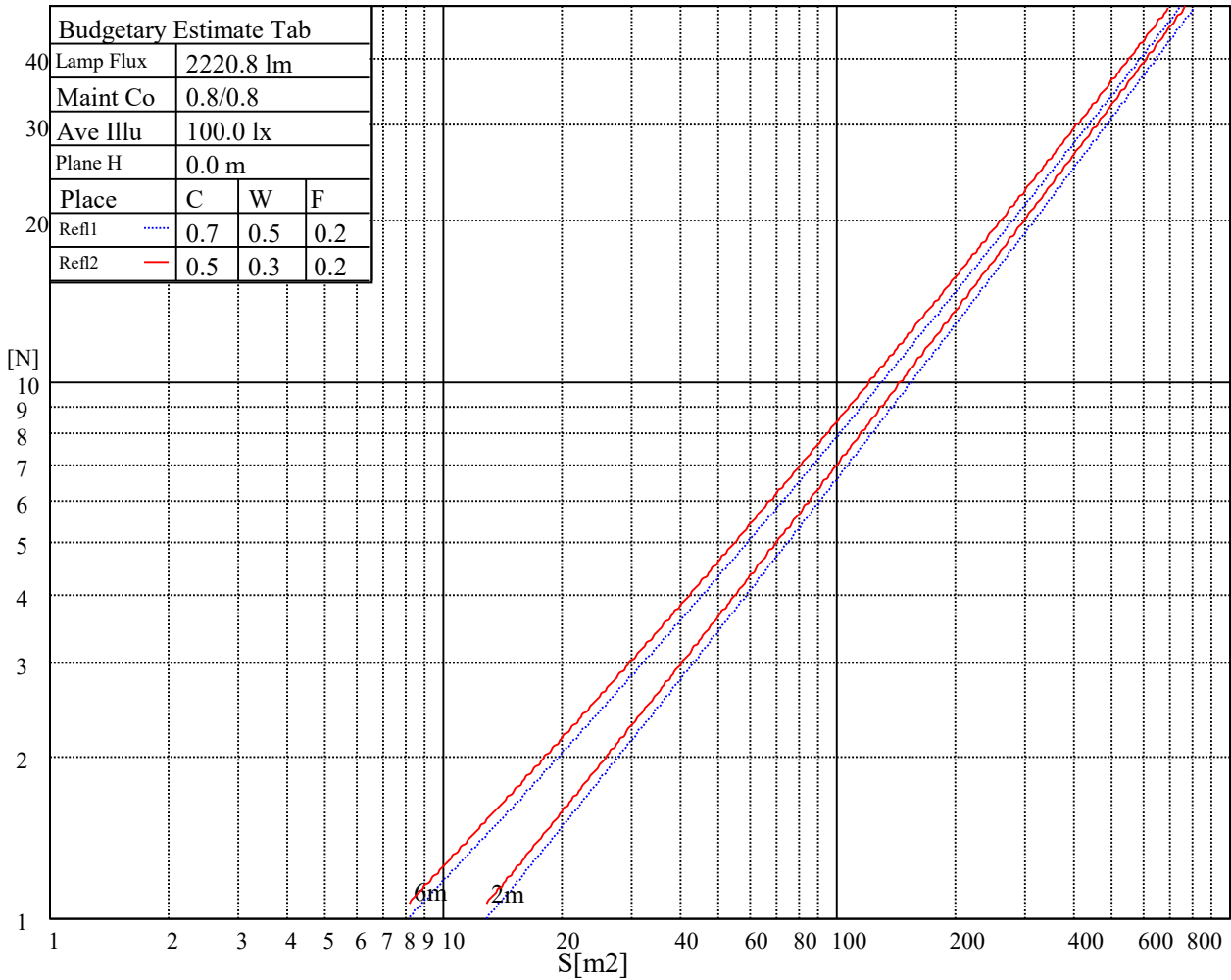
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
8701	8701	8701	11393	11393	11393	23883	23883	23883

Glare Table

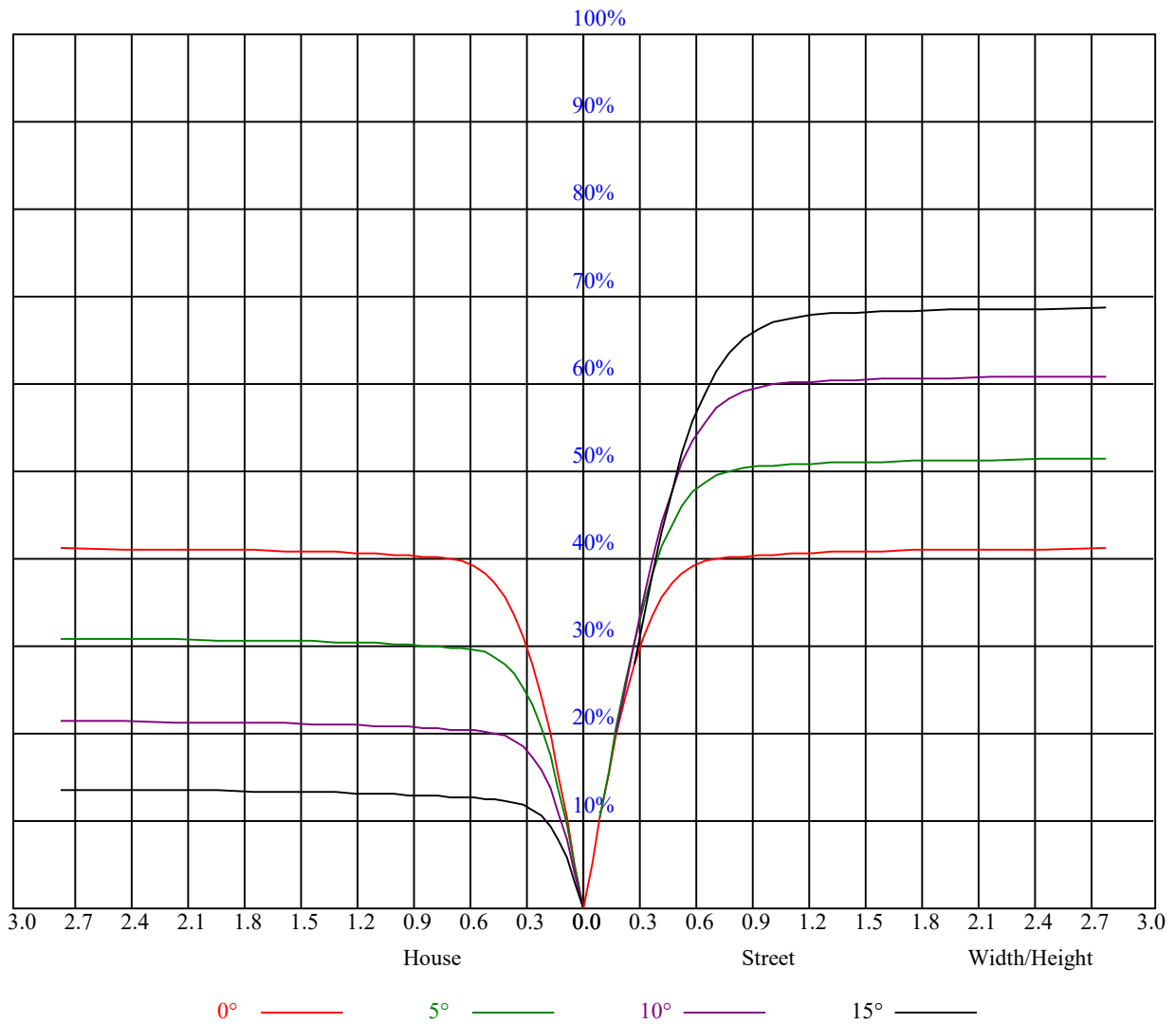
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

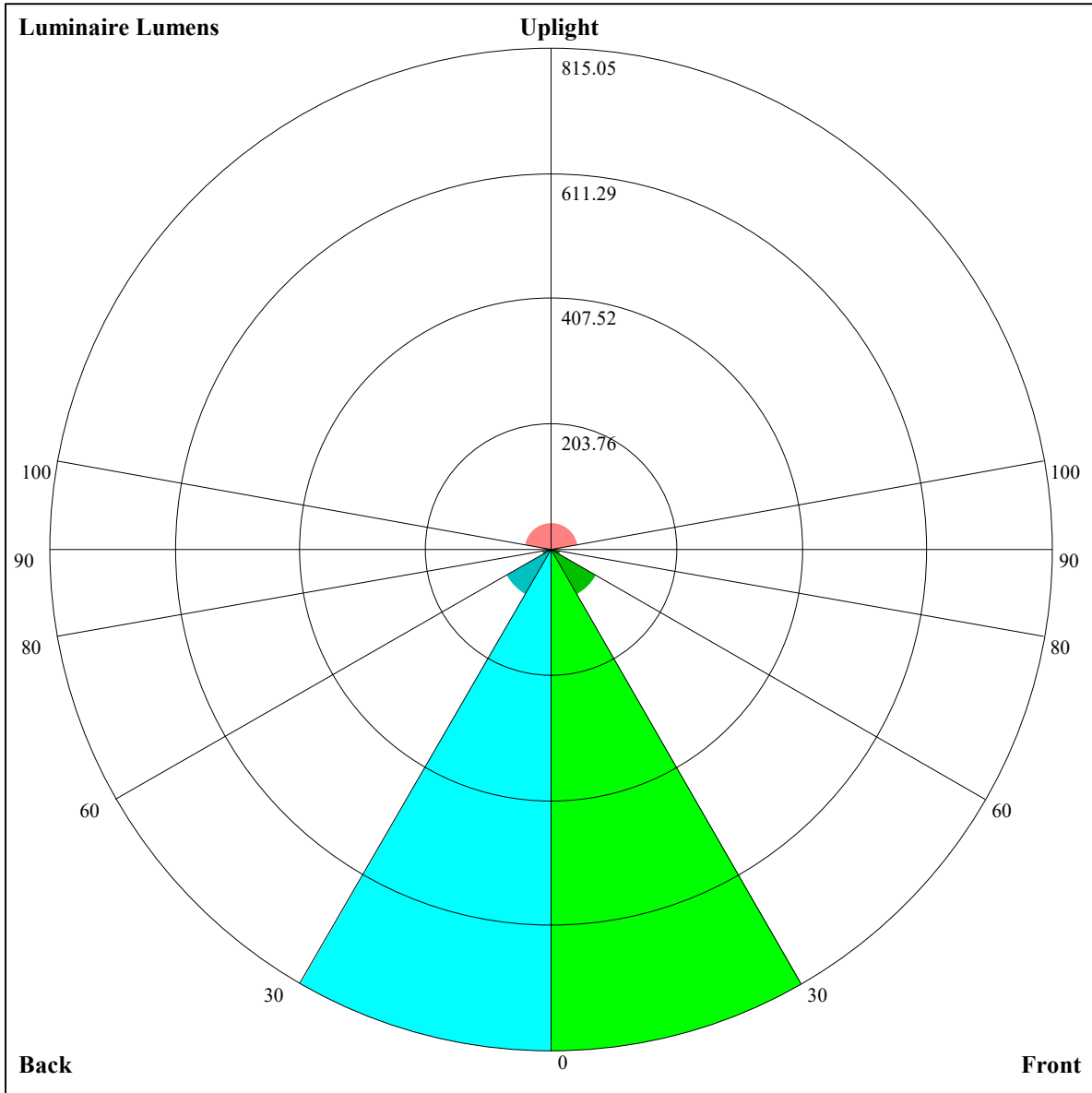
Luminance Limiting Curve





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	0.97	0.97	0.97	0.93	0.93	0.93	0.89	0.89	0.89	0.85	0.85	0.85	0.84
1	0.92	0.90	0.88	0.91	0.89	0.87	0.87	0.86	0.84	0.84	0.83	0.82	0.81	0.80	0.79	0.78
2	0.87	0.84	0.82	0.86	0.83	0.81	0.83	0.81	0.79	0.81	0.79	0.77	0.79	0.77	0.76	0.74
3	0.83	0.79	0.76	0.82	0.79	0.76	0.80	0.77	0.75	0.78	0.75	0.73	0.76	0.74	0.72	0.71
4	0.79	0.75	0.72	0.78	0.75	0.72	0.77	0.73	0.71	0.75	0.72	0.70	0.74	0.71	0.69	0.68
5	0.76	0.72	0.69	0.75	0.71	0.69	0.74	0.70	0.68	0.72	0.70	0.67	0.71	0.69	0.67	0.66
6	0.73	0.69	0.66	0.72	0.68	0.66	0.71	0.68	0.65	0.70	0.67	0.65	0.69	0.66	0.64	0.63
7	0.70	0.66	0.63	0.70	0.66	0.63	0.69	0.65	0.63	0.68	0.65	0.62	0.67	0.64	0.62	0.61
8	0.68	0.64	0.61	0.67	0.63	0.61	0.66	0.63	0.60	0.66	0.62	0.60	0.65	0.62	0.60	0.59
9	0.65	0.61	0.59	0.65	0.61	0.59	0.64	0.61	0.58	0.64	0.60	0.58	0.63	0.60	0.58	0.57
10	0.63	0.59	0.57	0.63	0.59	0.57	0.62	0.59	0.57	0.62	0.59	0.56	0.61	0.58	0.56	0.55





Luminaire Lumens:

FL=815.05,FM=85.51,FH=16.1,FVH=5.51

BL=815.05,BM=85.51,BH=16.1,BVH=5.51

UL=9.13,UH=43.45

BUG Rating:B2-U2-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	3966.70	3836.22	3485.84	2776.93	1915.85	1135.98	532.18	138.14	44.21
45.0	3966.70	3836.22	3485.84	2776.93	1915.85	1135.98	532.18	138.14	44.21
90.0	3966.70	3836.22	3485.84	2776.93	1915.85	1135.98	532.18	138.14	44.21
135.0	3966.70	3836.22	3485.84	2776.93	1915.85	1135.98	532.18	138.14	44.21
180.0	3966.70	3836.22	3485.84	2776.93	1915.85	1135.98	532.18	138.14	44.21
225.0	3966.70	3836.22	3485.84	2776.93	1915.85	1135.98	532.18	138.14	44.21
270.0	3966.70	3836.22	3485.84	2776.93	1915.85	1135.98	532.18	138.14	44.21
315.0	3966.70	3836.22	3485.84	2776.93	1915.85	1135.98	532.18	138.14	44.21
360.0	3966.70	3836.22	3485.84	2776.93	1915.85	1135.98	532.18	138.14	44.21
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	29.23	24.22	21.42	19.55	17.51	15.69	14.04	12.22	9.91
45.0	29.23	24.22	21.42	19.55	17.51	15.69	14.04	12.22	9.91
90.0	29.23	24.22	21.42	19.55	17.51	15.69	14.04	12.22	9.91
135.0	29.23	24.22	21.42	19.55	17.51	15.69	14.04	12.22	9.91
180.0	29.23	24.22	21.42	19.55	17.51	15.69	14.04	12.22	9.91
225.0	29.23	24.22	21.42	19.55	17.51	15.69	14.04	12.22	9.91
270.0	29.23	24.22	21.42	19.55	17.51	15.69	14.04	12.22	9.91
315.0	29.23	24.22	21.42	19.55	17.51	15.69	14.04	12.22	9.91
360.0	29.23	24.22	21.42	19.55	17.51	15.69	14.04	12.22	9.91
C/γ(°)	90.0								
0.0	8.37								
45.0	8.37								
90.0	8.37								
135.0	8.37								
180.0	8.37								
225.0	8.37								
270.0	8.37								
315.0	8.37								
360.0	8.37								