
Nata

Client:

LumCAT: 3-2116-N

Luminaire: 92.70.135.00

Report No: nata-0100

Test No: GC2018052808

LampCAT: NICHIA NFDWJ130B-V3

Lamp flux(lm): 2340.9

Number of Lamps: 1

Length(mm): 80

Phm Type: C

Voltage(V): 36.3000

Current(A): 0.4900

Power (W): 17.7870

PF: 0.0000

Ballast type: DC

Width(mm): 80

Height(mm): 0

Photometric Results

Lumens(lm): 1999.66, Efficiency(%): 85.42% , Luminous Efficacy(lm/W): 112.42

Central intensity(cd): 7225.602, Maximum intensity(cd): 7225.602

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=26.4

[C90/270]Total=26.4

Field angle(10%Imax): [C0/180]Total=54.6

[C90/270]Total=54.6

Maximum s/h(1/2): C0_180=0.45 C90_270=0.45

Maximum s/h(1/4): C0_180=0.46 C90_270=0.46

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 87.19%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 96.338%

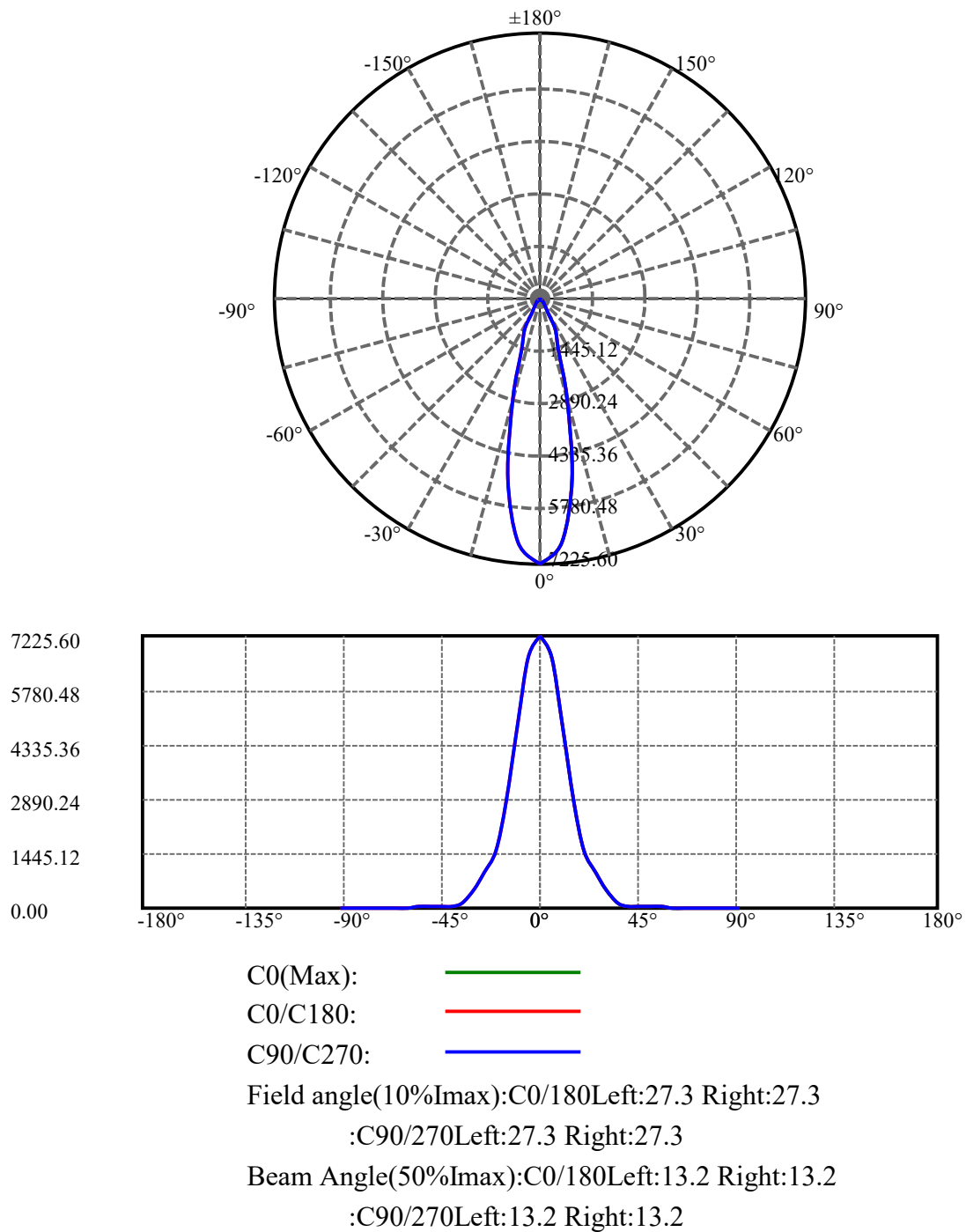
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	7225.602	43.211	43.211	1.846%	2.161%
5.0	6661.756	318.254	361.465	13.595%	18.076%
10.0	4952.943	471.436	832.901	20.139%	41.652%
15.0	2829.692	401.444	1234.345	17.149%	61.728%
20.0	1518.979	284.769	1519.114	12.165%	75.969%
25.0	928.168	215.013	1734.127	9.185%	86.721%
30.0	474.703	130.101	1864.228	5.558%	93.227%
35.0	124.496	39.141	1903.37	1.672%	95.185%
40.0	47.851	16.860	1920.229	.720%	96.028%
45.0	37.301	14.457	1934.687	.618%	96.751%
50.0	29.414	12.351	1947.037	.528%	97.369%
55.0	22.745	10.213	1957.25	.436%	97.879%
60.0	18.926	8.984	1966.234	.384%	98.329%
65.0	15.374	7.638	1973.872	.326%	98.710%
70.0	12.119	6.242	1980.114	.267%	99.023%
75.0	11.197	5.928	1986.043	.253%	99.319%
80.0	10.729	5.792	1991.834	.247%	99.609%
85.0	10.041	5.483	1997.317	.234%	99.883%
90.0	8.541	2.341	1999.658	.100%	100.000%

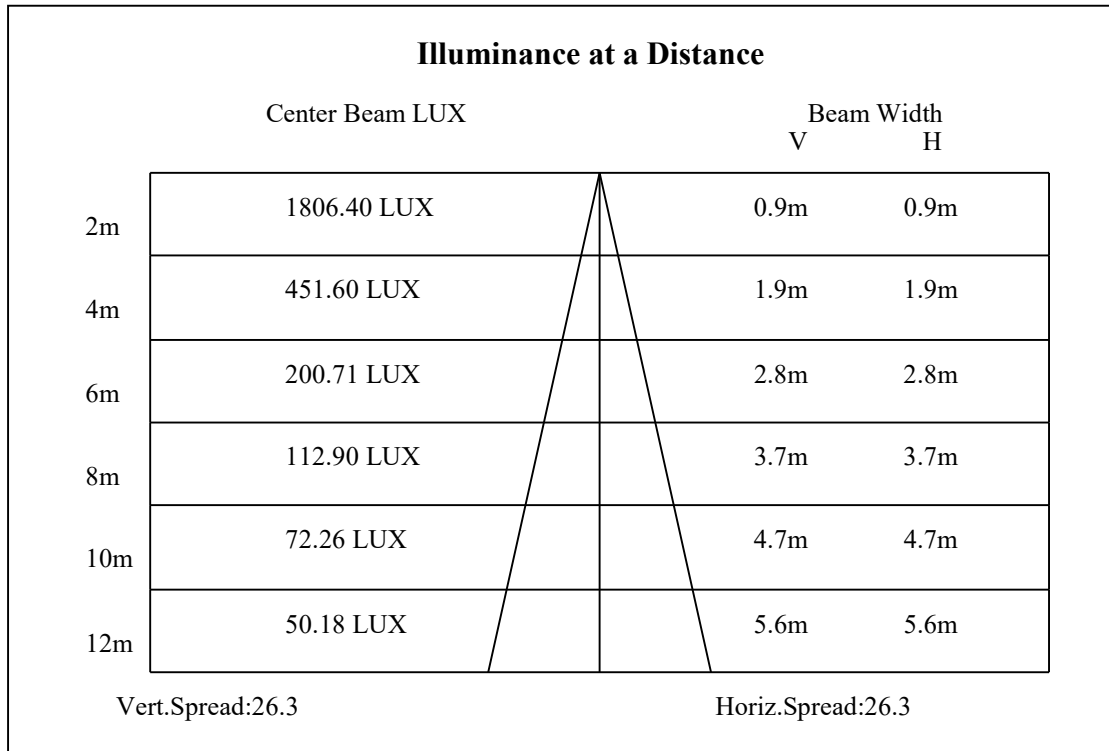
ZONAL LUMEN SUMMARY

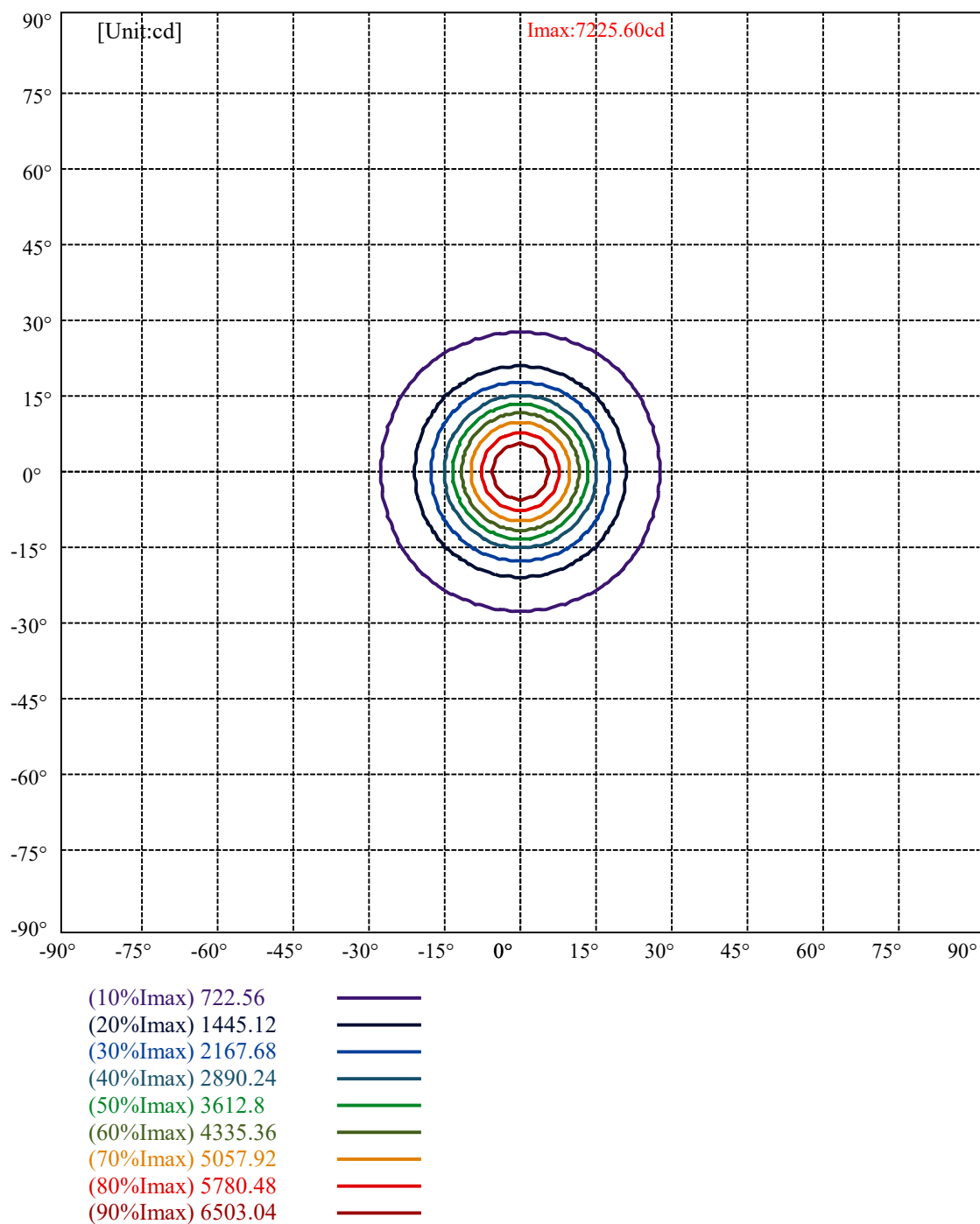
Zone	Lumens	%Lamp	%Fixt
0-30	1864.23	79.64%	93.23%
0-40	1920.23	82.03%	96.03%
0-60	1966.23	84.00%	98.33%
0-90	1997.32	85.32%	99.88%
0-120	1997.32	85.32%	99.88%
0-180	1999.66	85.42%	100.00%
60-90	40.07	1.71%	2.00%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-21.87	1599.73	68.34%	80.00%

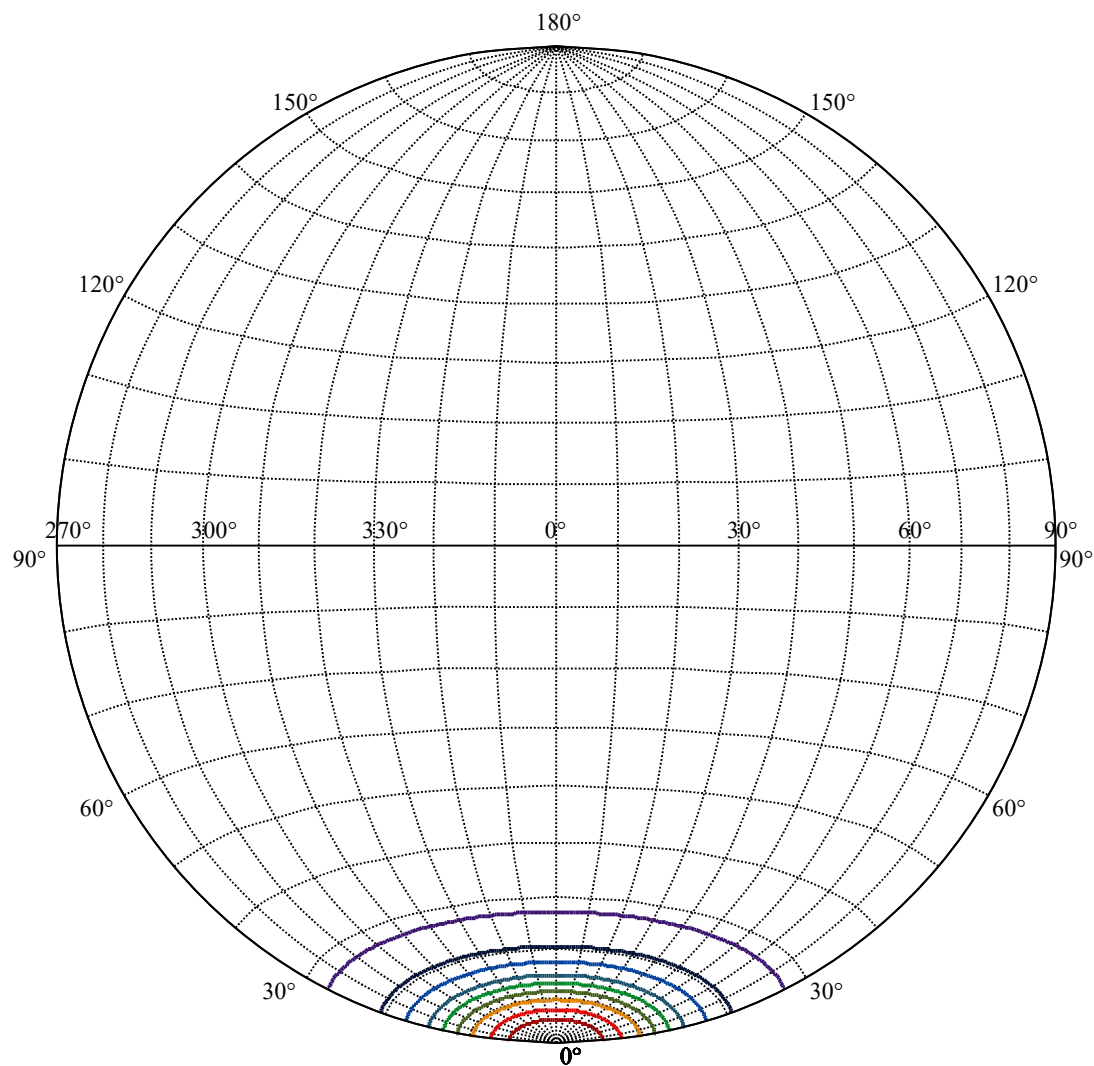
ZONAL LUMEN SUMMARY

0-10	832.90
10-20	686.21
20-30	345.11
30-40	56.00
40-50	26.81
50-60	19.20
60-70	13.88
70-80	11.72
80-90	5.48
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







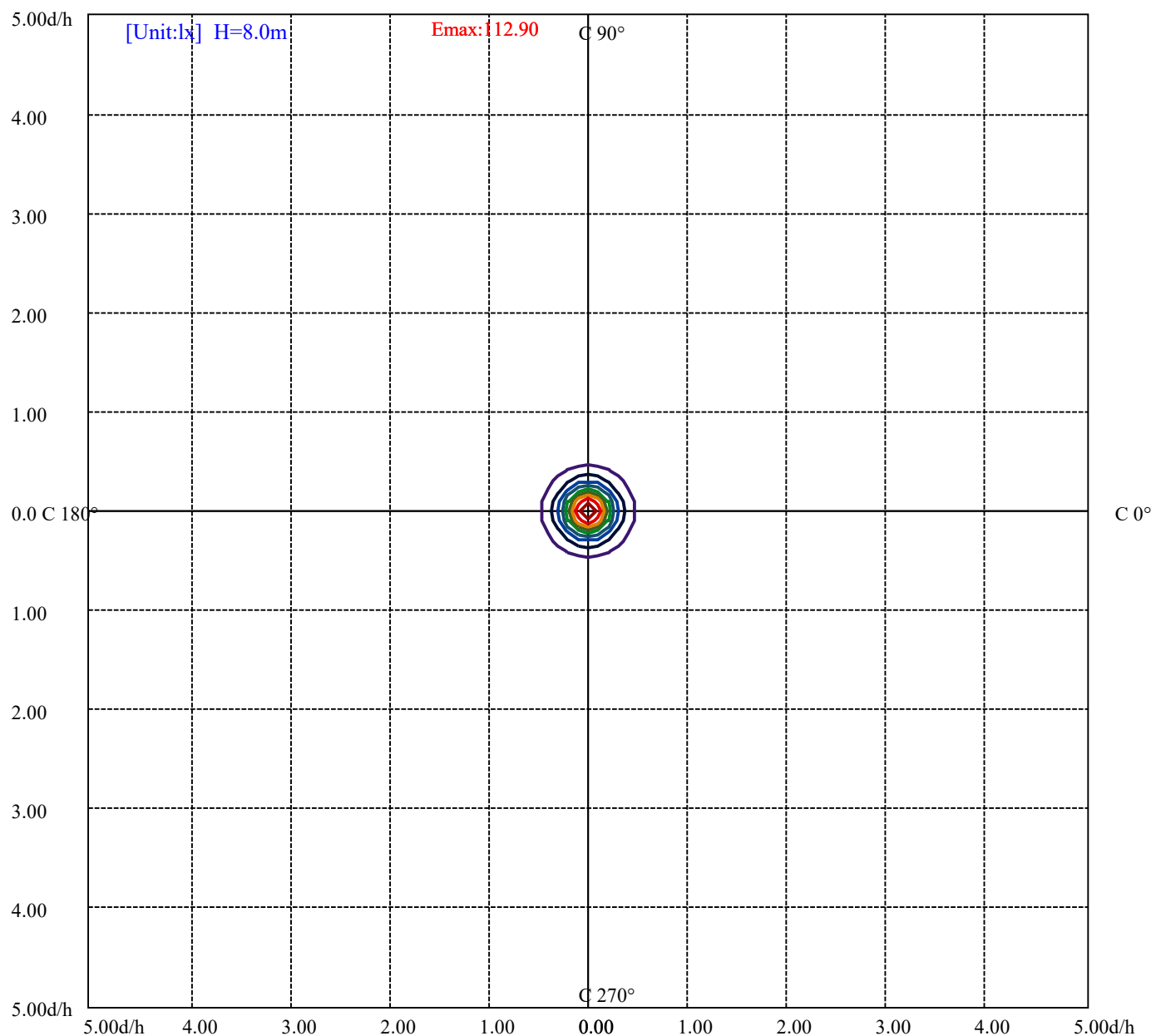


House

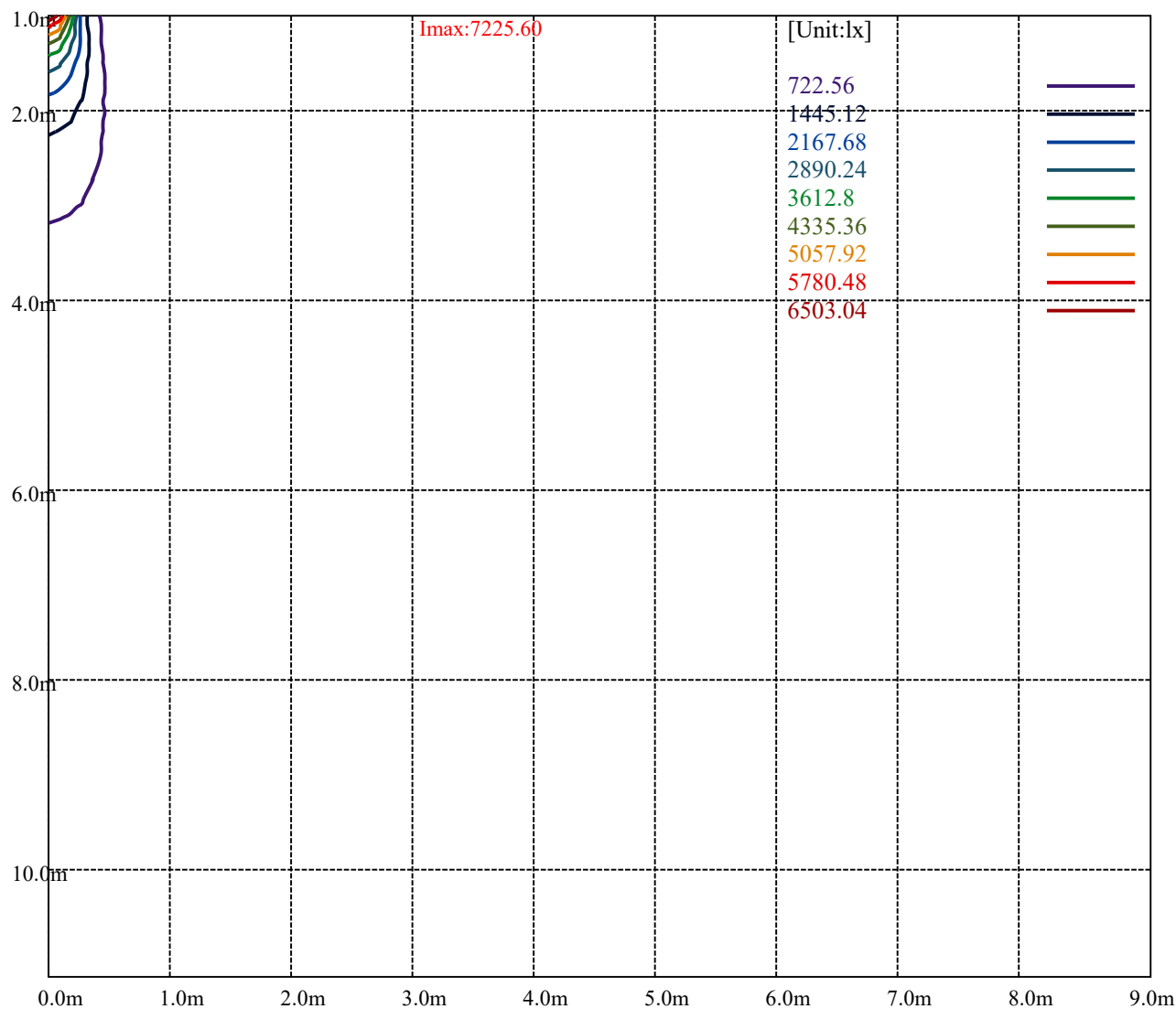
[Unit:cd]

Road

Imax:7225.60	
(10%Imax) 722.56	
(20%Imax) 1445.12	
(30%Imax) 2167.68	
(40%Imax) 2890.24	
(50%Imax) 3612.8	
(60%Imax) 4335.36	
(70%Imax) 5057.92	
(80%Imax) 5780.48	
(90%Imax) 6503.04	



(10%Emax) 11.28997	—
(20%Emax) 22.58	—
(30%Emax) 33.87	—
(40%Emax) 45.15984	—
(50%Emax) 56.44984	—
(60%Emax) 67.73985	—
(70%Emax) 79.02985	—
(80%Emax) 90.31985	—
(90%Emax) 101.6098	—



Luminance Table

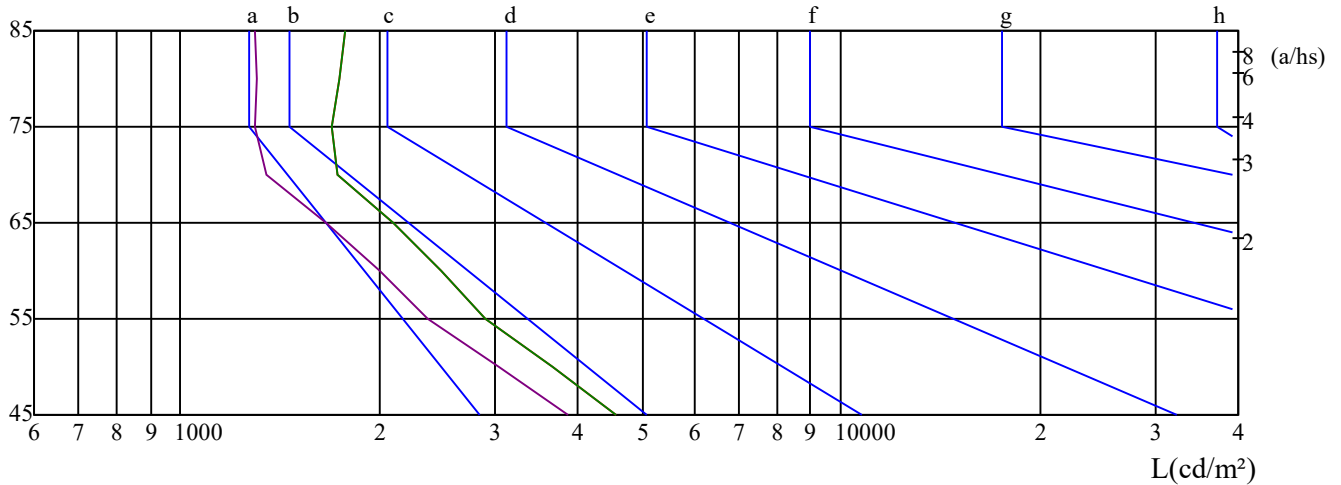
γ	45	50	55	60	65	70	75	80	85
C0	4579	3660	2892	2479	2093	1731	1696	1744	1775
C45	3867	3045	2369	1998	1659	1348	1294	1302	1292
C90	4579	3660	2892	2479	2093	1731	1696	1744	1775

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
5684	5684	5684	6760	6760	6760	18001	18001	18001

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

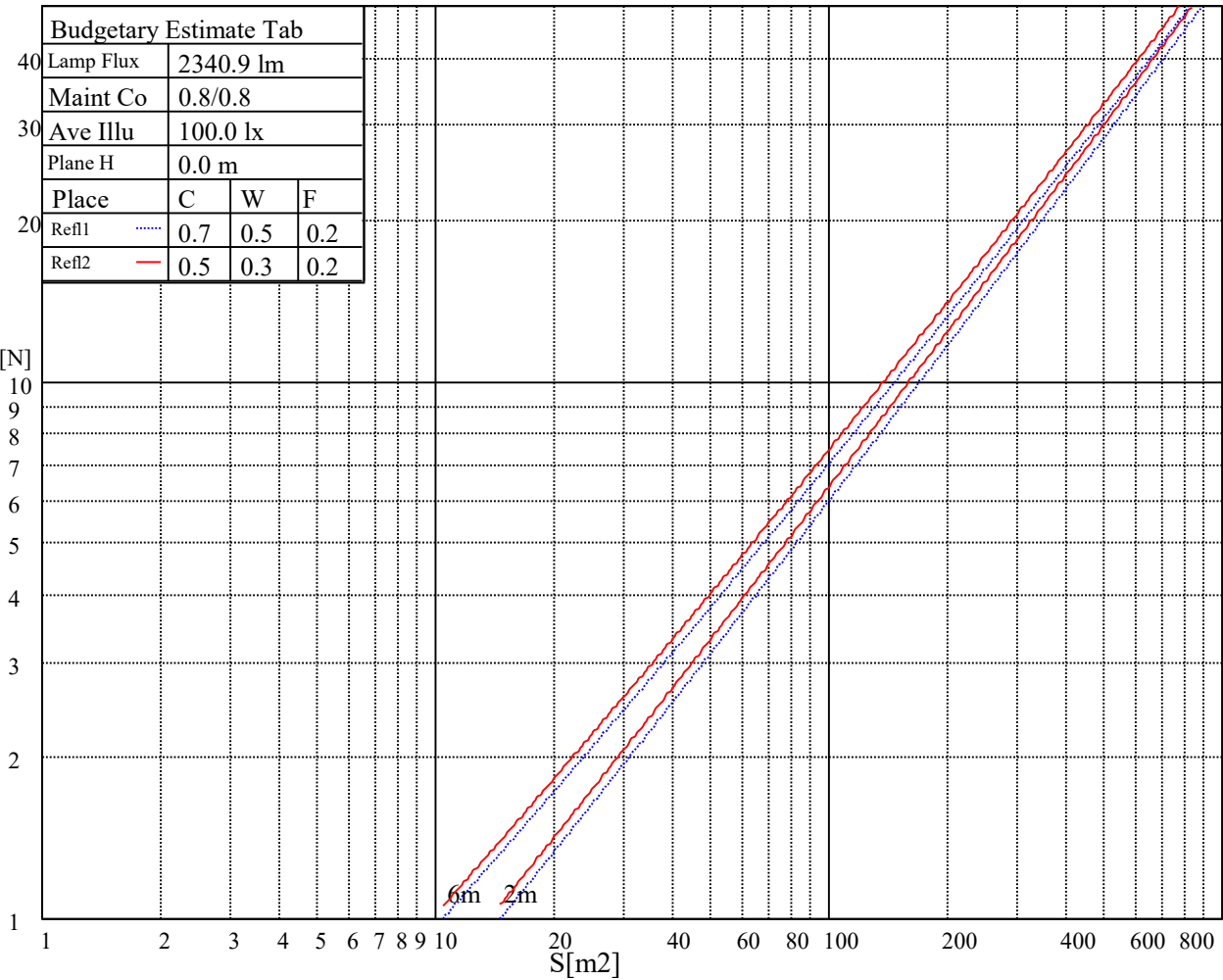
Luminance Limiting Curve

 $\gamma(^{\circ})$ 

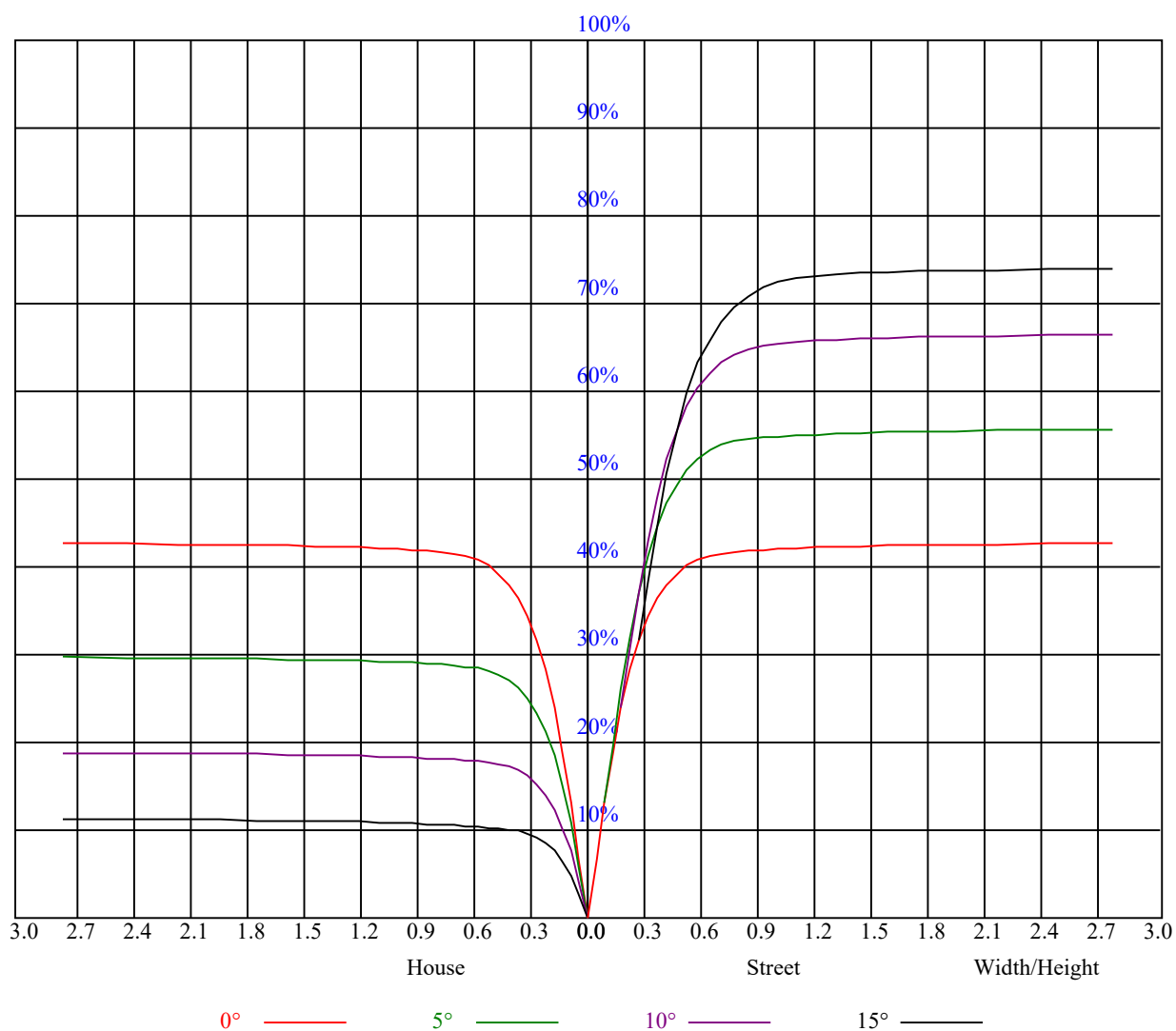
C0 ———

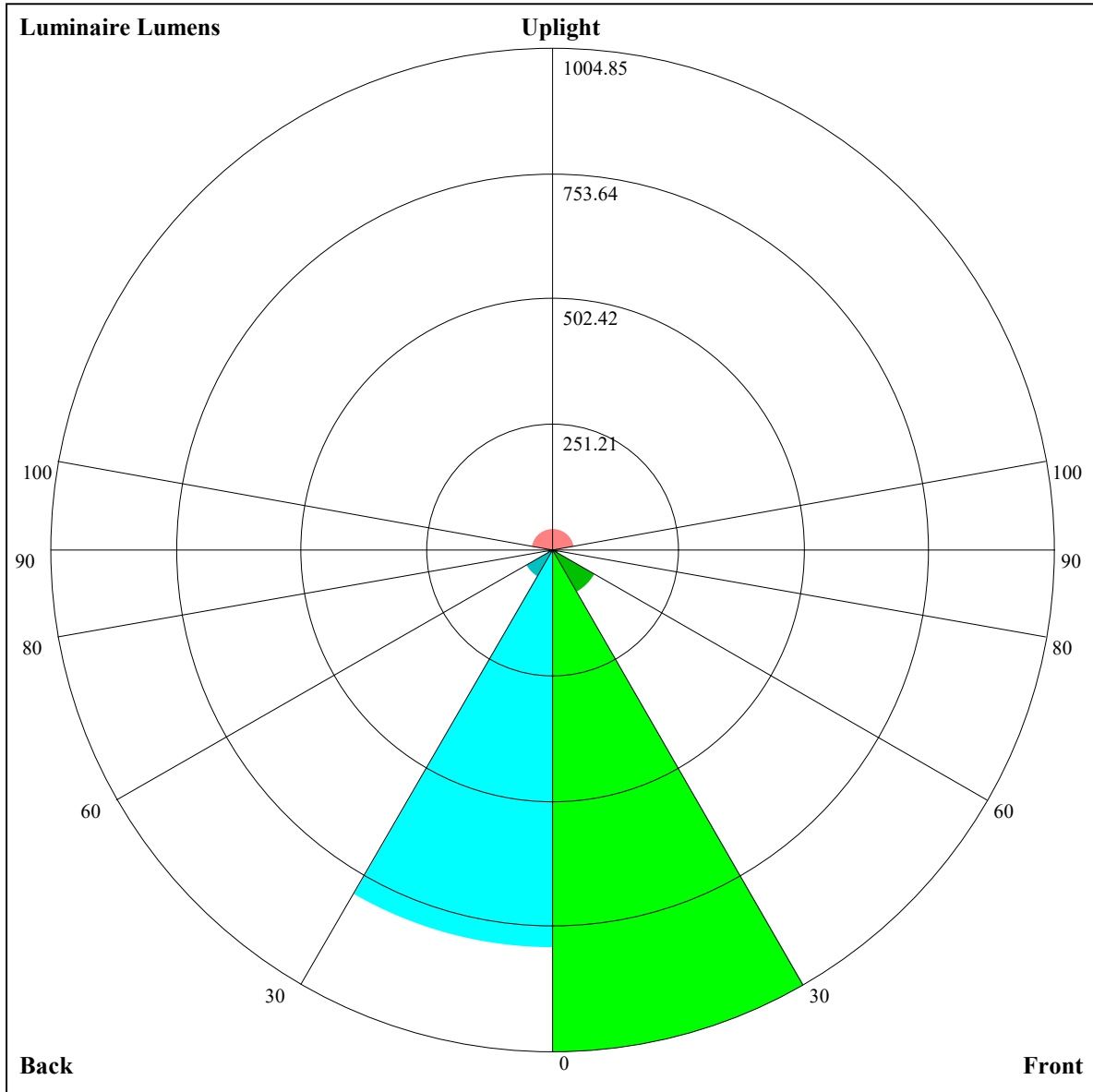
C45 ———

C90 ———



RHOC	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	1.04	1.04	1.04	1.01	1.01	1.01	0.97	0.97	0.97	0.93	0.93	0.93	0.89	0.89	0.89	0.87
1	0.96	0.93	0.91	0.94	0.92	0.90	0.90	0.88	0.87	0.87	0.86	0.84	0.84	0.83	0.82	0.80
2	0.91	0.88	0.85	0.89	0.86	0.84	0.87	0.84	0.82	0.84	0.82	0.80	0.82	0.80	0.79	0.77
3	0.87	0.83	0.80	0.86	0.82	0.79	0.83	0.81	0.78	0.81	0.79	0.77	0.79	0.77	0.76	0.75
4	0.83	0.79	0.76	0.82	0.79	0.76	0.81	0.77	0.75	0.79	0.76	0.74	0.77	0.75	0.73	0.72
5	0.80	0.76	0.73	0.79	0.76	0.73	0.78	0.75	0.72	0.77	0.74	0.72	0.75	0.73	0.71	0.70
6	0.77	0.73	0.70	0.77	0.73	0.70	0.76	0.72	0.70	0.74	0.72	0.69	0.73	0.71	0.69	0.68
7	0.75	0.71	0.68	0.74	0.71	0.68	0.73	0.70	0.68	0.72	0.69	0.67	0.72	0.69	0.67	0.66
8	0.73	0.69	0.66	0.72	0.68	0.66	0.71	0.68	0.66	0.71	0.68	0.65	0.70	0.67	0.65	0.64
9	0.71	0.67	0.64	0.70	0.67	0.64	0.69	0.66	0.64	0.69	0.66	0.64	0.68	0.65	0.63	0.63
10	0.69	0.65	0.62	0.68	0.65	0.62	0.68	0.64	0.62	0.67	0.64	0.62	0.67	0.64	0.62	0.61





Luminaire Lumens:

FL=1004.85,FM=98.74,FH=14.04,FVH=5.4

BL=796.09,BM=63.24,BH=13.18,BVH=5.3

UL=9.32,UH=44.34

BUG Rating:B2-U2-G0

Nata 3-2116-N

Intensity data(cd)										Appendix Page: 15 Total:15	
C/γ(°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0		
0.0	7144.67	7279.01	6325.98	4128.68	2294.75	1207.94	789.51	298.41	60.12		
45.0	7223.40	7218.44	6003.35	3894.69	1913.76	1081.31	665.63	289.60	53.02		
90.0	7283.41	6780.20	5091.62	2773.74	1450.74	940.64	480.70	74.60	46.69		
135.0	7250.93	6489.50	4718.33	2470.93	1356.04	890.81	413.47	63.59	44.65		
180.0	7144.67	5866.26	3472.96	1810.80	1076.24	653.24	190.99	52.58	41.18		
225.0	7223.40	6165.22	4027.38	1991.94	1071.84	763.85	264.05	53.96	42.78		
270.0	7283.41	6645.31	4828.45	2640.50	1438.07	920.54	461.37	70.91	45.70		
315.0	7250.93	6850.12	5155.48	2926.25	1550.39	967.01	531.90	92.33	48.67		
360.0	7144.67	7279.01	6325.98	4128.68	2294.75	1207.94	789.51	298.41	60.12		
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0		
0.0	43.11	34.08	26.32	20.92	17.51	13.38	11.62	10.90	10.57		
45.0	41.07	33.53	25.22	20.37	17.56	12.55	11.56	10.79	10.68		
90.0	37.11	29.18	22.52	18.72	15.97	11.78	11.07	10.46	10.13		
135.0	35.51	27.91	21.64	18.28	14.65	11.84	11.01	10.46	9.74		
180.0	32.32	25.16	20.26	17.34	12.66	11.89	11.18	11.73	9.80		
225.0	34.02	26.21	20.98	17.73	12.77	11.89	11.07	10.74	9.63		
270.0	37.00	29.18	22.24	18.99	15.69	11.78	11.01	10.35	9.74		
315.0	38.26	30.06	22.79	19.05	16.19	11.84	11.07	10.41	10.02		
360.0	43.11	34.08	26.32	20.92	17.51	13.38	11.62	10.90	10.57		
C/γ(°)	90.0										
0.0	8.92										
45.0	8.64										
90.0	8.37										
135.0	8.48										
180.0	8.53										
225.0	8.59										
270.0	8.42										
315.0	8.37										
360.0	8.92										