
Nata

Client:

LumCAT: 3-1703-N

Luminaire: 92.70.065.00 +92.70.061.00

Report No: nata-0100

Test No:

LampCAT: CREE CMT1922

Lamp flux(lm): 2762.0

Number of Lamps: 1

Length(mm): 86

Phm Type: C

Voltage(V): 35.3000

Current(A): 0.6000

Power (W): 21.1800

PF: 0.0000

Ballast type: DC

Width(mm): 86

Height(mm): 0

Photometric Results

Lumens(lm): 2170.93, Efficiency(%): 78.60% , Luminous Efficacy(lm/W): 102.50

Central intensity(cd): 4974.759, Maximum intensity(cd): 4974.759

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=34.8

[C90/270]Total=34.8

Field angle(10%Imax): [C0/180]Total=63.2

[C90/270]Total=63.2

Maximum s/h(1/2): C0_180=0.57 C90_270=0.57

Maximum s/h(1/4): C0_180=0.58 C90_270=0.58

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 79.60%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 96.785%

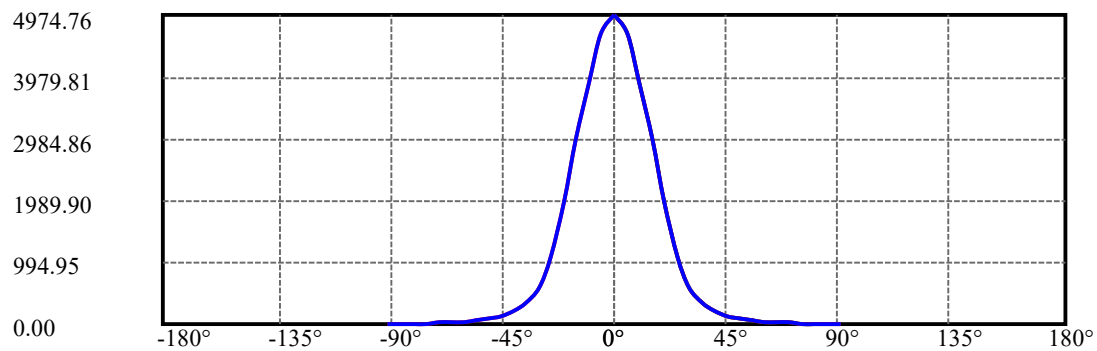
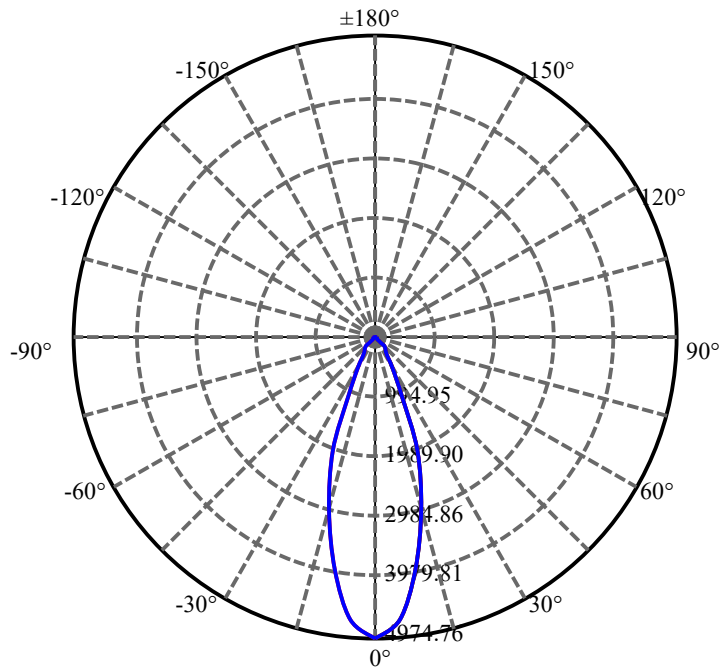
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	4974.759	29.750	29.75	1.077%	1.370%
5.0	4672.017	223.198	252.948	8.081%	11.652%
10.0	3885.055	369.791	622.739	13.389%	28.685%
15.0	2952.399	418.852	1041.591	15.165%	47.979%
20.0	1992.078	373.463	1415.054	13.522%	65.182%
25.0	1084.769	251.290	1666.344	9.098%	76.757%
30.0	573.096	157.068	1823.412	5.687%	83.992%
35.0	335.170	105.377	1928.789	3.815%	88.846%
40.0	223.866	78.876	2007.665	2.856%	92.479%
45.0	130.738	50.673	2058.338	1.835%	94.814%
50.0	81.181	34.088	2092.426	1.234%	96.384%
55.0	47.810	21.467	2113.892	.777%	97.373%
60.0	29.572	14.038	2127.93	.508%	98.019%
65.0	21.451	10.657	2138.587	.386%	98.510%
70.0	18.258	9.404	2147.991	.340%	98.943%
75.0	15.354	8.129	2156.121	.294%	99.318%
80.0	12.746	6.880	2163.001	.249%	99.635%
85.0	10.268	5.607	2168.608	.203%	99.893%
90.0	8.486	2.326	2170.933	.084%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1823.41	66.02%	83.99%
0-40	2007.66	72.69%	92.48%
0-60	2127.93	77.04%	98.02%
0-90	2168.61	78.52%	99.89%
0-120	2168.61	78.52%	99.89%
0-180	2170.93	78.60%	100.00%
60-90	54.72	1.98%	2.52%
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%
0-27.24	1736.75	62.88%	80.00%

ZONAL LUMEN SUMMARY

0-10	622.74
10-20	792.32
20-30	408.36
30-40	184.25
40-50	84.76
50-60	35.50
60-70	20.06
70-80	15.01
80-90	5.61
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: —————

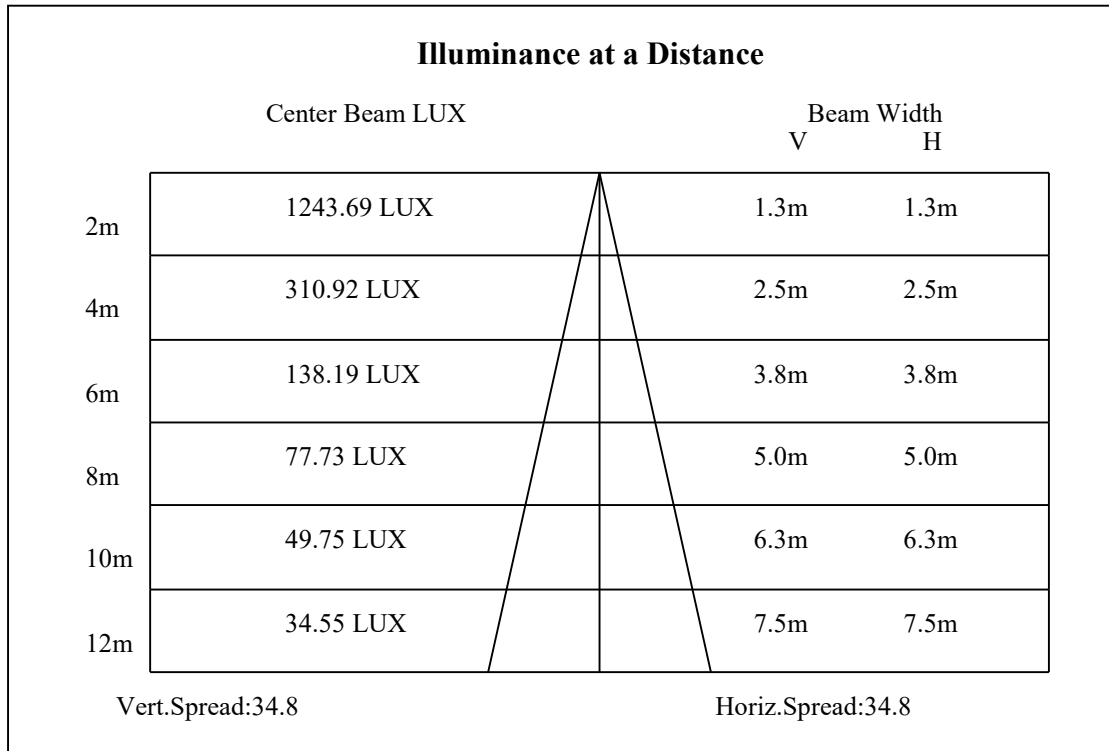
C90/C270: —————

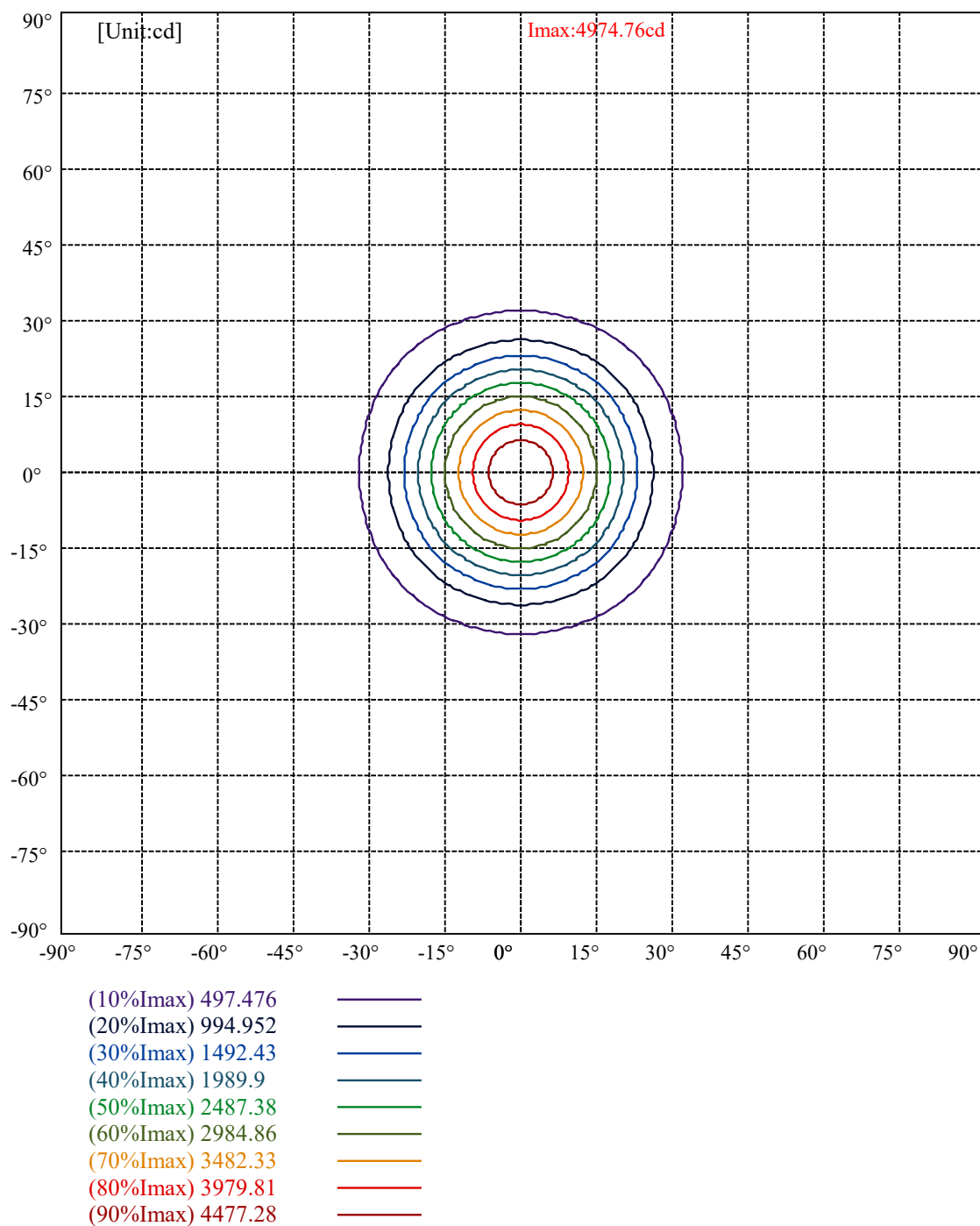
Field angle(10%Imax):C0/180Left:31.6 Right:31.6

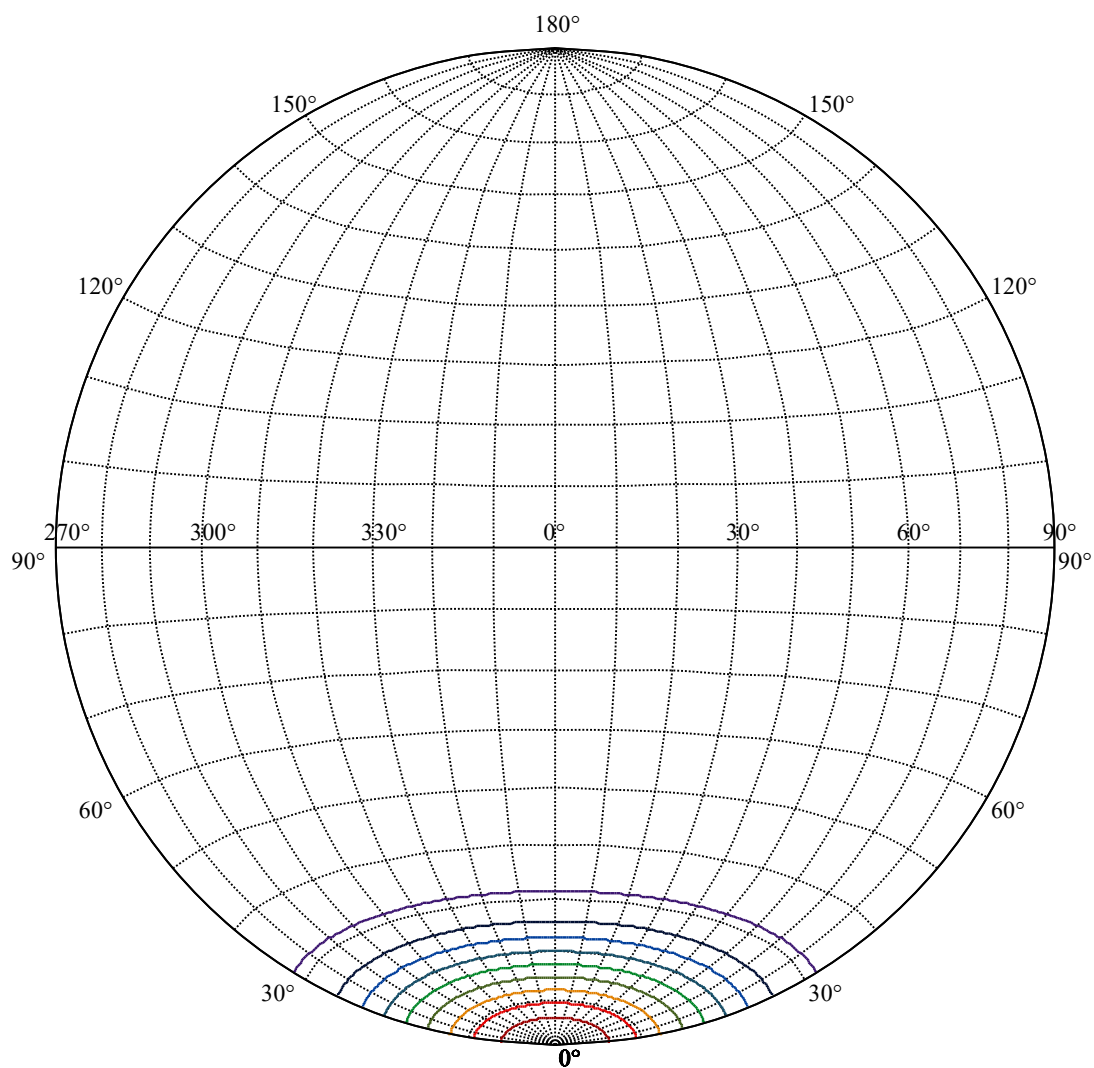
:C90/270Left:31.6 Right:31.6

Beam Angle(50%Imax):C0/180Left:17.4 Right:17.4

:C90/270Left:17.4 Right:17.4







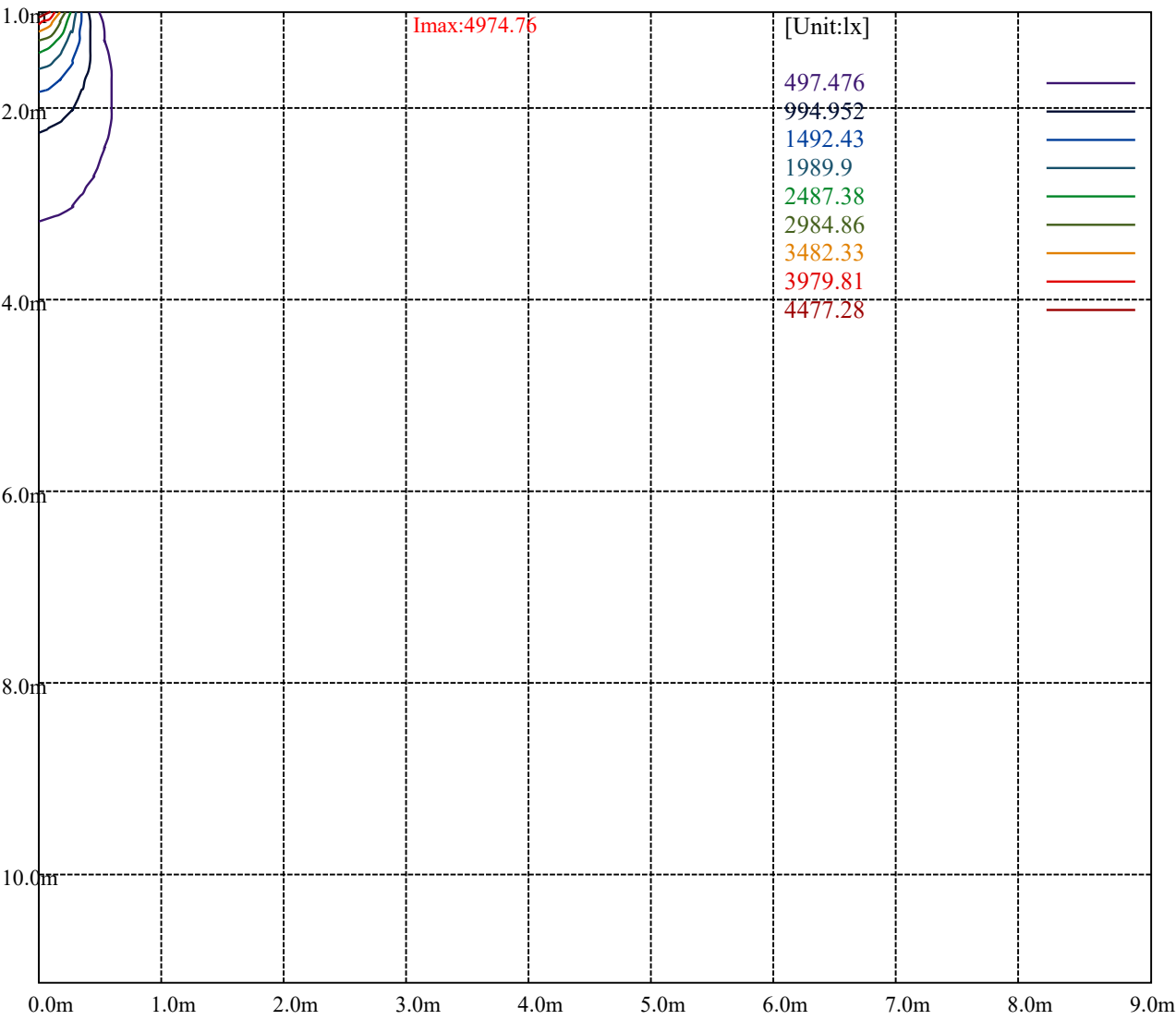
House

[Unit:cd]

Road

Imax:4974.76

(10%Imax)	497.476	—
(20%Imax)	994.952	—
(30%Imax)	1492.43	—
(40%Imax)	1989.9	—
(50%Imax)	2487.38	—
(60%Imax)	2984.86	—
(70%Imax)	3482.33	—
(80%Imax)	3979.81	—
(90%Imax)	4477.28	—



Luminance Table

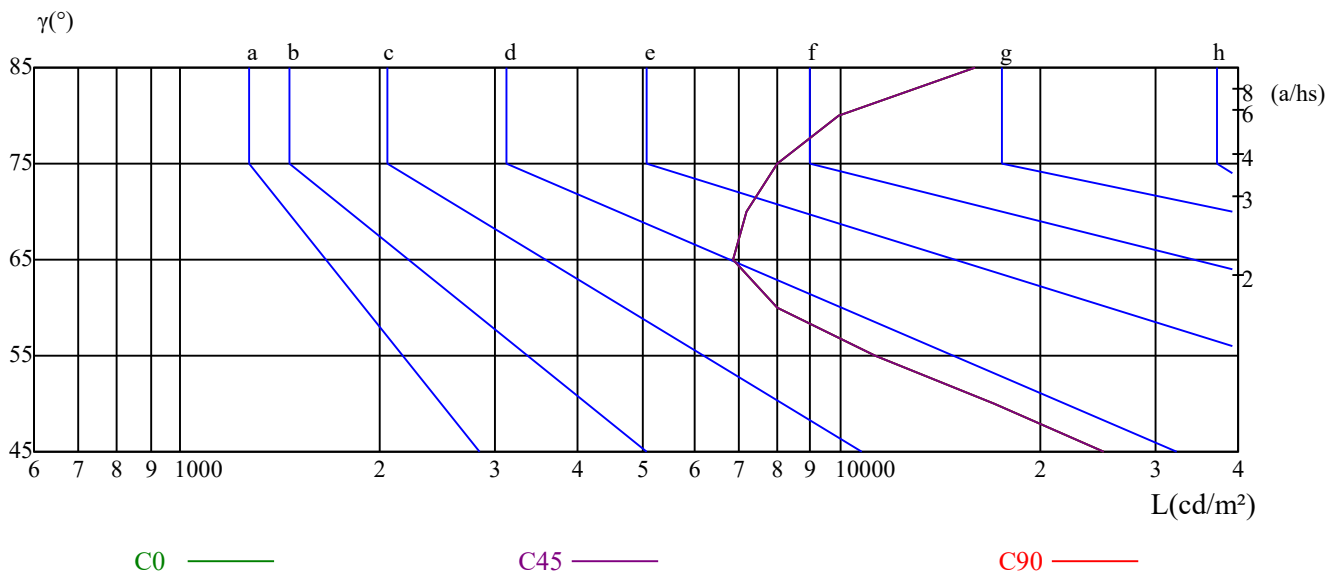
γ	45	50	55	60	65	70	75	80	85
C0	24999	17076	11270	7997	6863	7218	8021	9924	15929
C45	24999	17076	11270	7997	6863	7218	8021	9924	15929
C90	24999	17076	11270	7997	6863	7218	8021	9924	15929

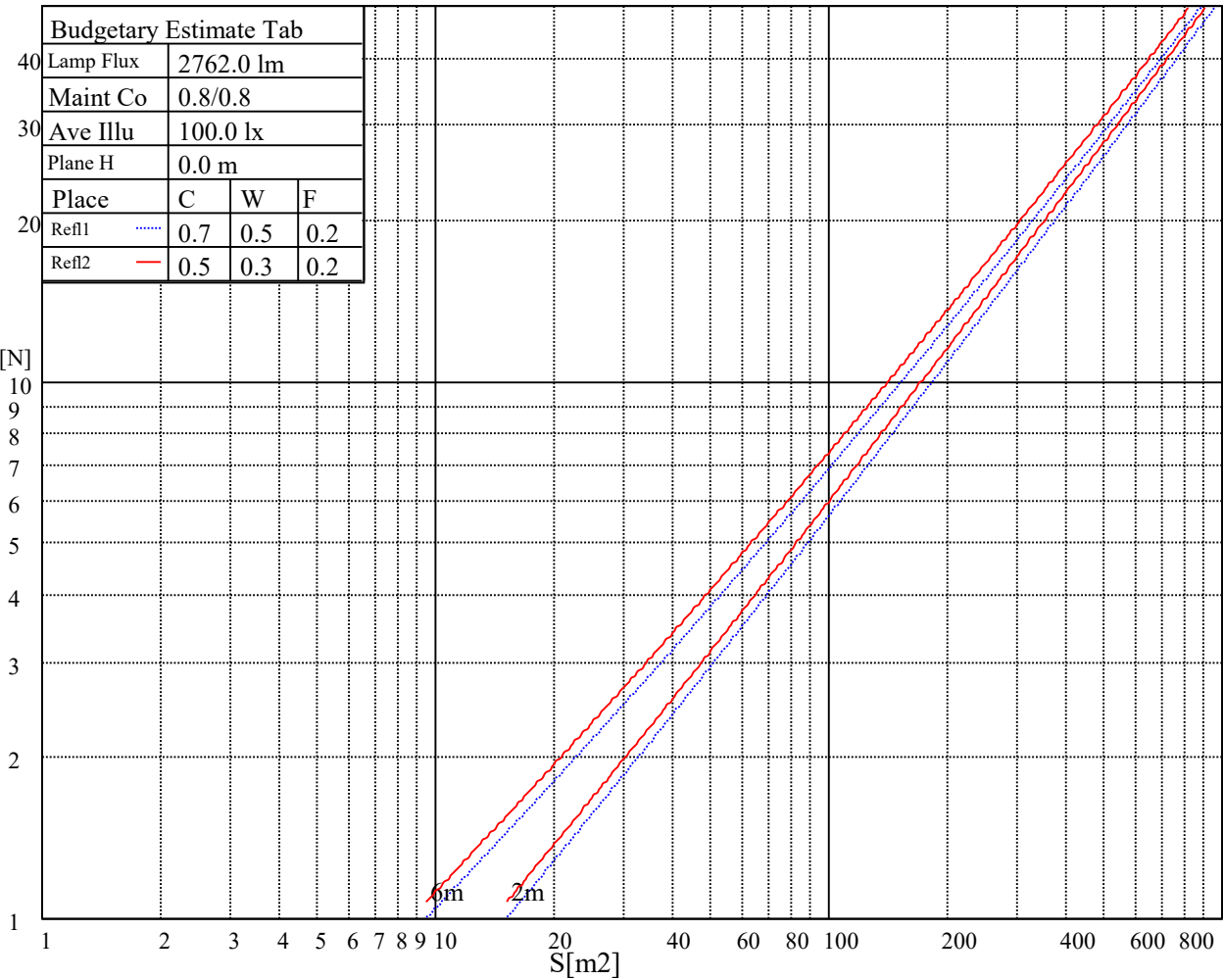
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
6863	6863	6863	8021	8021	8021	15929	15929	15929

Glare Table

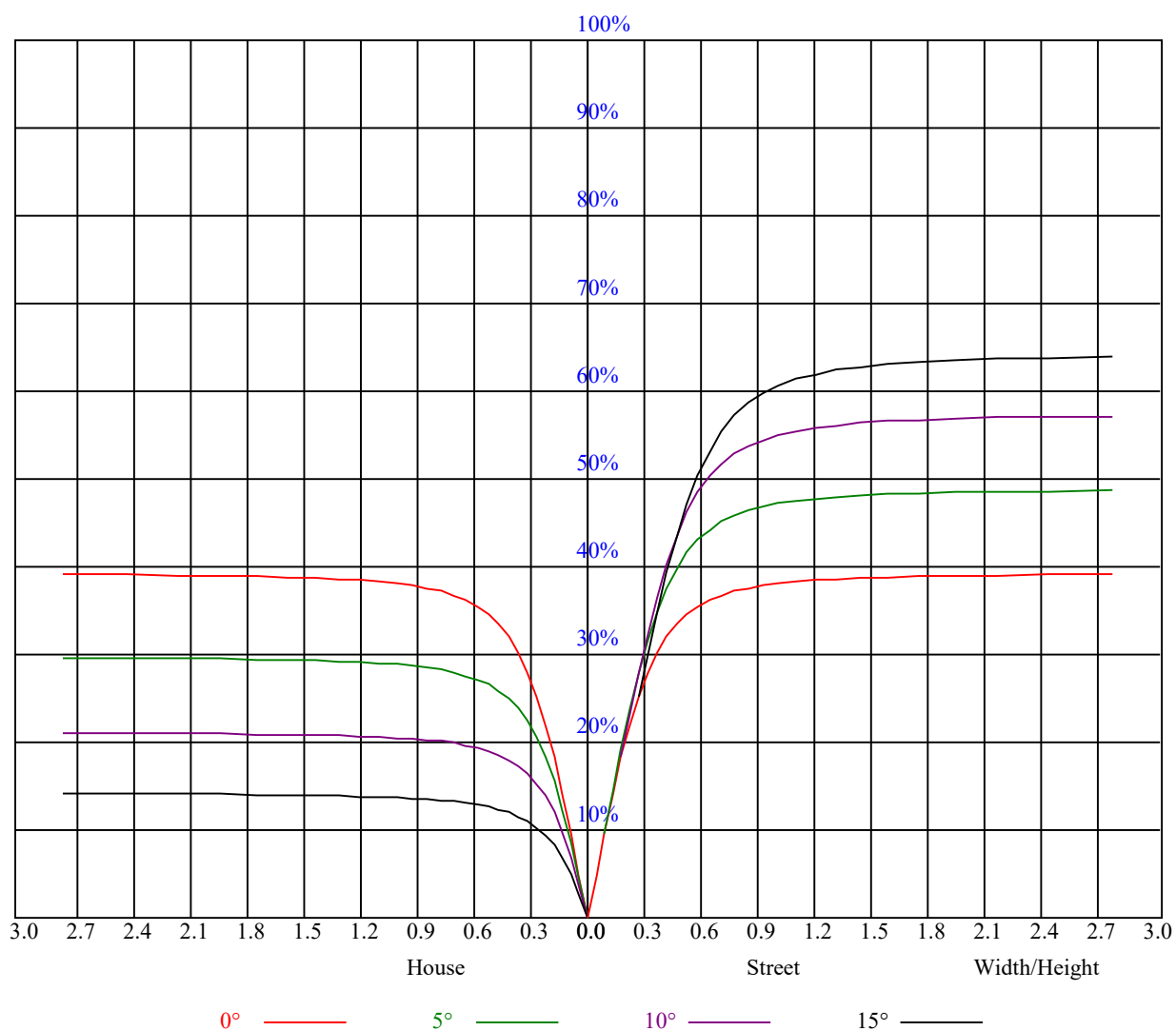
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	≤ 300				
1.5	B		2000	1000	500	≤ 300			
1.85	C			2000	1000	500	≤ 300		
2.2	D				2000	1000	500	≤ 300	
2.55	E					2000	1000	500	≤ 300
		a	b	c	d	e	f	g	h

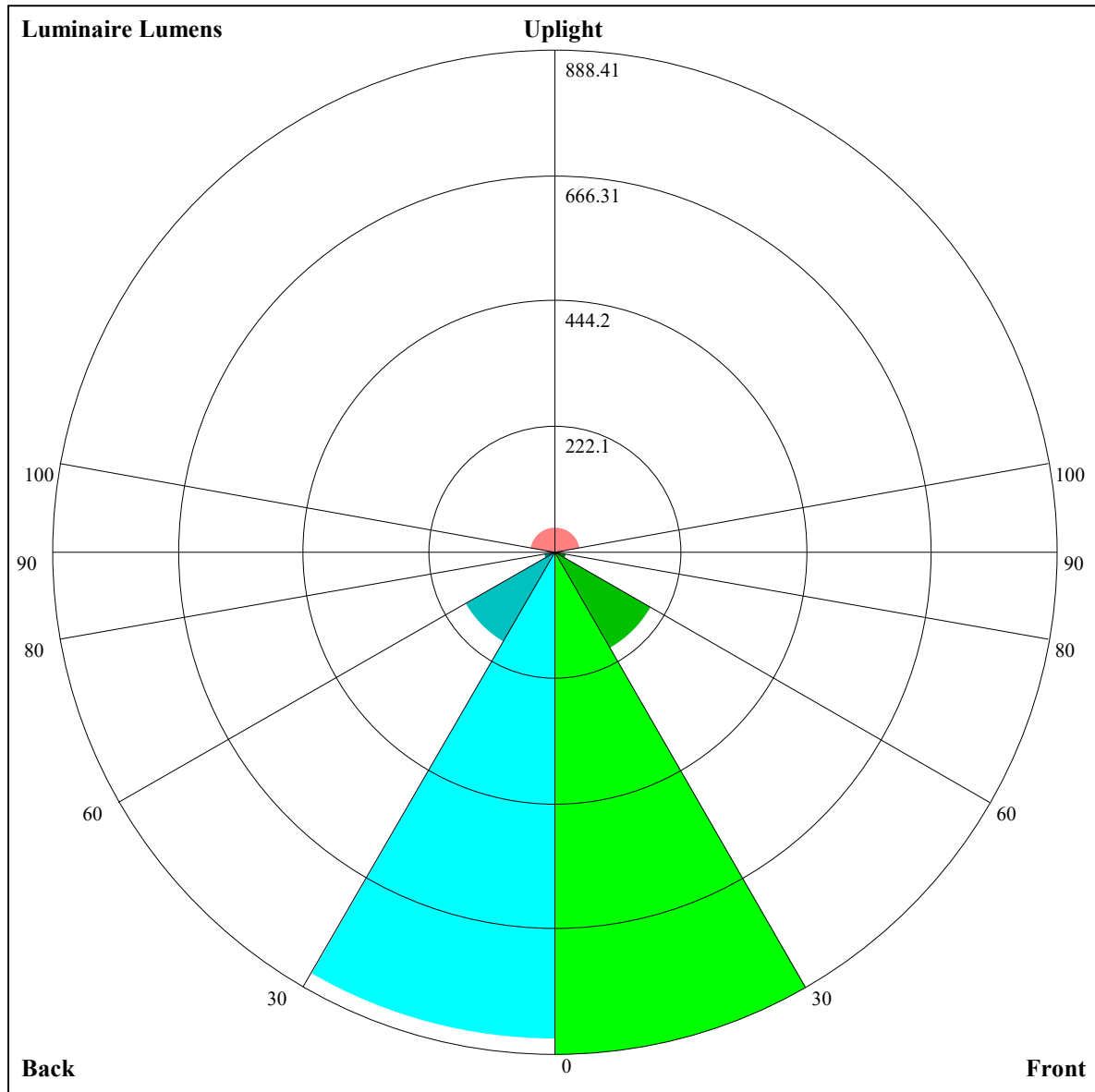
Luminance Limiting Curve





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	0.95	0.95	0.95	0.93	0.93	0.93	0.88	0.88	0.88	0.85	0.85	0.85	0.81	0.81	0.81	0.80
1	0.87	0.85	0.83	0.86	0.84	0.82	0.82	0.81	0.79	0.79	0.78	0.77	0.77	0.76	0.75	0.73
2	0.82	0.79	0.77	0.81	0.78	0.76	0.78	0.76	0.74	0.76	0.74	0.72	0.74	0.72	0.71	0.70
3	0.78	0.74	0.71	0.77	0.73	0.71	0.75	0.72	0.70	0.73	0.70	0.68	0.71	0.69	0.67	0.66
4	0.74	0.70	0.67	0.73	0.69	0.67	0.71	0.68	0.66	0.70	0.67	0.65	0.68	0.66	0.64	0.63
5	0.70	0.66	0.63	0.70	0.66	0.63	0.68	0.65	0.63	0.67	0.64	0.62	0.66	0.63	0.61	0.60
6	0.67	0.63	0.60	0.67	0.63	0.60	0.66	0.62	0.60	0.65	0.62	0.59	0.64	0.61	0.59	0.58
7	0.65	0.60	0.58	0.64	0.60	0.57	0.63	0.60	0.57	0.62	0.59	0.57	0.61	0.59	0.57	0.56
8	0.62	0.58	0.55	0.62	0.58	0.55	0.61	0.57	0.55	0.60	0.57	0.55	0.59	0.57	0.54	0.54
9	0.60	0.56	0.53	0.59	0.56	0.53	0.59	0.55	0.53	0.58	0.55	0.53	0.57	0.55	0.53	0.52
10	0.58	0.54	0.51	0.57	0.54	0.51	0.57	0.53	0.51	0.56	0.53	0.51	0.56	0.53	0.51	0.50





Luminaire Lumens:

FL=888.41,FM=196.16,FH=19.51,FVH=5.72

BL=862.7,BM=182.08,BH=19.25,BVH=5.67

UL=9.26,UH=44.06

BUG Rating:B2-U2-G0

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	4964.44	4685.30	3945.34	3056.18	2181.89	1229.96	629.29	389.25	279.69		
45.0	4977.10	4674.29	3936.53	3121.15	2208.86	1240.97	649.67	378.24	284.09		
90.0	4982.05	4651.16	3930.48	3058.93	2095.45	1078.06	600.78	347.79	211.36		
135.0	4975.45	4779.45	4100.60	3172.90	2176.93	1234.92	628.19	354.01	245.66		
180.0	4964.44	4646.76	3753.19	2761.63	1825.67	947.08	506.46	301.38	188.95		
225.0	4977.10	4642.36	3717.96	2685.65	1671.51	921.42	488.96	287.89	188.24		
270.0	4982.05	4694.11	3946.44	2944.97	1935.23	1069.75	553.87	318.78	200.35		
315.0	4975.45	4602.72	3749.89	2817.79	1841.09	956.00	527.55	304.02	192.59		
360.0	4964.44	4685.30	3945.34	3056.18	2181.89	1229.96	629.29	389.25	279.69		
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0		
0.0	141.88	88.86	51.26	31.05	22.19	18.61	15.64	12.99	10.41		
45.0	152.23	89.63	51.04	30.78	22.13	18.72	15.75	13.16	10.68		
90.0	136.87	83.14	47.29	29.57	21.47	18.17	15.36	12.77	10.46		
135.0	140.17	87.43	52.91	31.99	21.86	18.66	15.64	12.99	10.46		
180.0	117.60	73.45	43.82	27.53	20.70	17.78	14.87	12.28	9.97		
225.0	115.29	72.18	43.99	27.64	20.81	17.95	15.14	12.55	10.08		
270.0	125.58	78.73	46.96	29.90	21.47	18.33	15.47	12.83	10.13		
315.0	116.28	76.03	45.20	28.13	20.98	17.84	14.98	12.39	9.97		
360.0	141.88	88.86	51.26	31.05	22.19	18.61	15.64	12.99	10.41		
C/ γ (°)	90.0										
0.0	8.48										
45.0	8.53										
90.0	8.48										
135.0	8.42										
180.0	8.48										
225.0	8.53										
270.0	8.48										
315.0	8.48										
360.0	8.48										