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Nata

Client:

LumCAT: 3-1699-N

Luminaire: 92.70.065.00 +92.70.089.00

Report No: nata-0100

Test No:

LampCAT: CREE CMT1922

Lamp flux(lm): 2762.0

Number of Lamps: 1

Length(mm): 79

Phm Type: C

Voltage(V): 35.3000

Current(A): 0.6000

Power (W): 21.1800

PF: 0.0000

Ballast type: DC

Width(mm): 79

Height(mm): 0

Photometric Results

Lumens(lm): 2184.63, Efficiency(%): 79.10% , Luminous Efficacy(lm/W): 103.15

Central intensity(cd): 9217.542, Maximum intensity(cd): 9217.542

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=23.2

[C90/270]Total=23.2

Field angle(10%Imax): [C0/180]Total=45.6

[C90/270]Total=45.6

Maximum s/h(1/2): C0_180=0.39 C90_270=0.39

Maximum s/h(1/4): C0_180=0.40 C90_270=0.40

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 81.02%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 95.937%

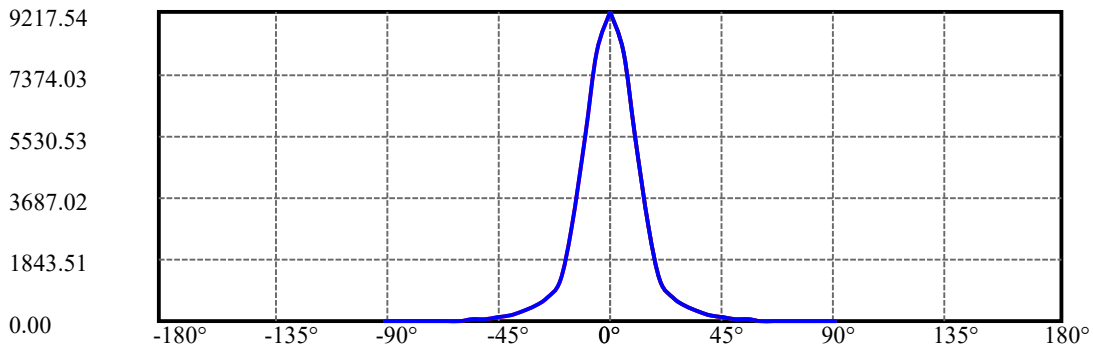
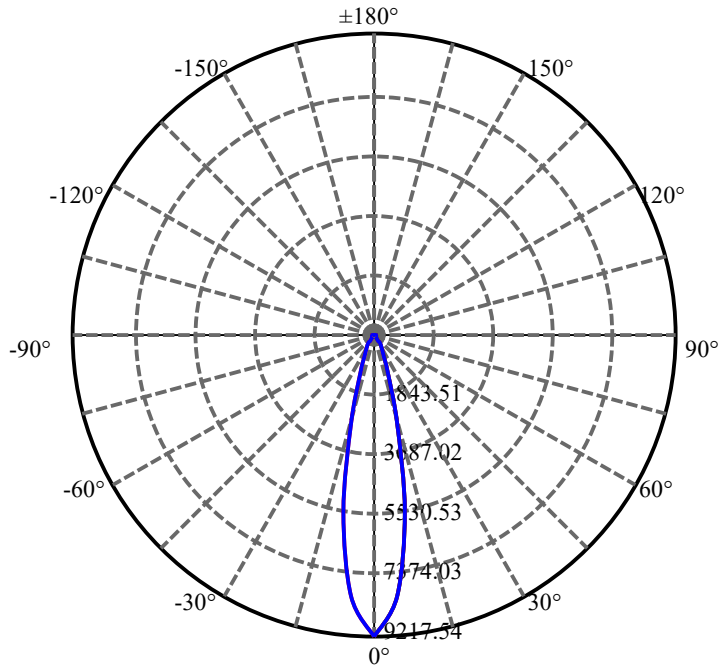
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	9217.542	55.123	55.123	1.996%	2.523%
5.0	8032.385	383.734	438.856	13.894%	20.088%
10.0	5469.234	520.578	959.435	18.848%	43.917%
15.0	2819.507	399.999	1359.434	14.482%	62.227%
20.0	1217.490	228.248	1587.681	8.264%	72.675%
25.0	694.041	160.777	1748.458	5.821%	80.035%
30.0	467.009	127.993	1876.451	4.634%	85.893%
35.0	301.220	94.703	1971.154	3.429%	90.228%
40.0	198.967	70.103	2041.257	2.538%	93.437%
45.0	120.567	46.731	2087.988	1.692%	95.576%
50.0	72.606	30.487	2118.475	1.104%	96.972%
55.0	39.764	17.855	2136.329	.646%	97.789%
60.0	21.968	10.428	2146.757	.378%	98.266%
65.0	16.971	8.431	2155.188	.305%	98.652%
70.0	15.196	7.827	2163.015	.283%	99.011%
75.0	13.709	7.258	2170.274	.263%	99.343%
80.0	12.037	6.498	2176.771	.235%	99.640%
85.0	10.096	5.513	2182.284	.200%	99.893%
90.0	8.561	2.346	2184.63	.085%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1876.45	67.94%	85.89%
0-40	2041.26	73.91%	93.44%
0-60	2146.76	77.73%	98.27%
0-90	2182.28	79.01%	99.89%
0-120	2182.28	79.01%	99.89%
0-180	2184.63	79.10%	100.00%
60-90	45.95	1.66%	2.10%
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%
0-24.98	1747.70	63.28%	80.00%

ZONAL LUMEN SUMMARY

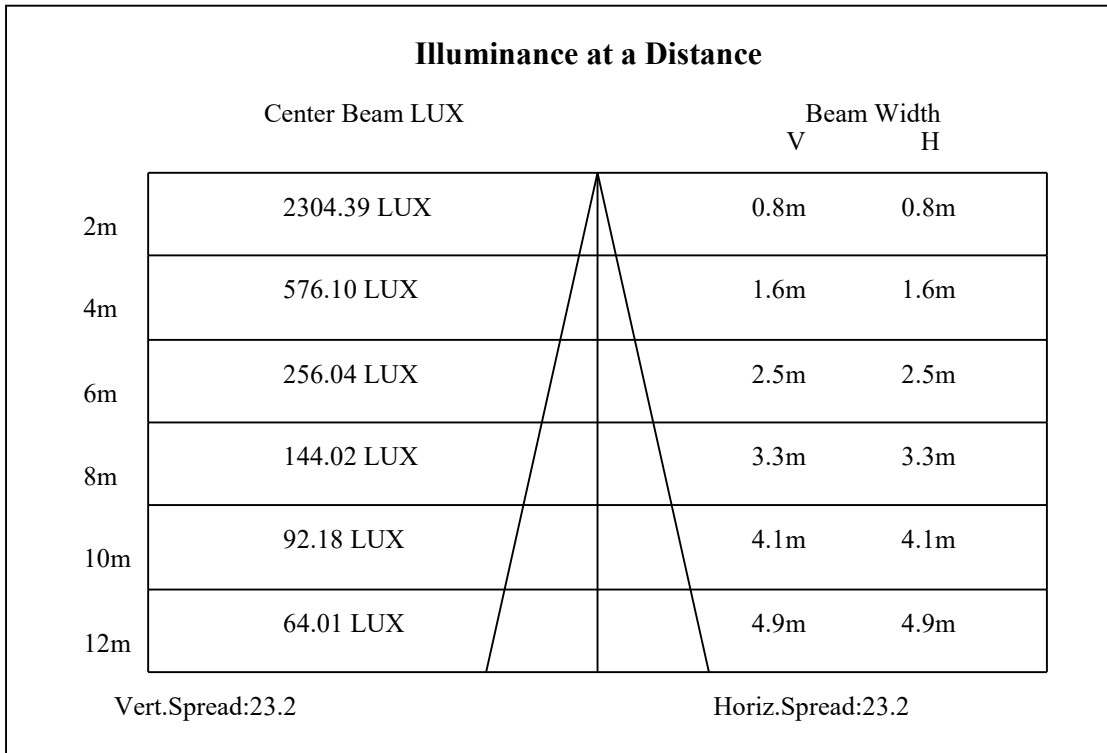
0-10	959.43
10-20	628.25
20-30	288.77
30-40	164.81
40-50	77.22
50-60	28.28
60-70	16.26
70-80	13.76
80-90	5.51
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

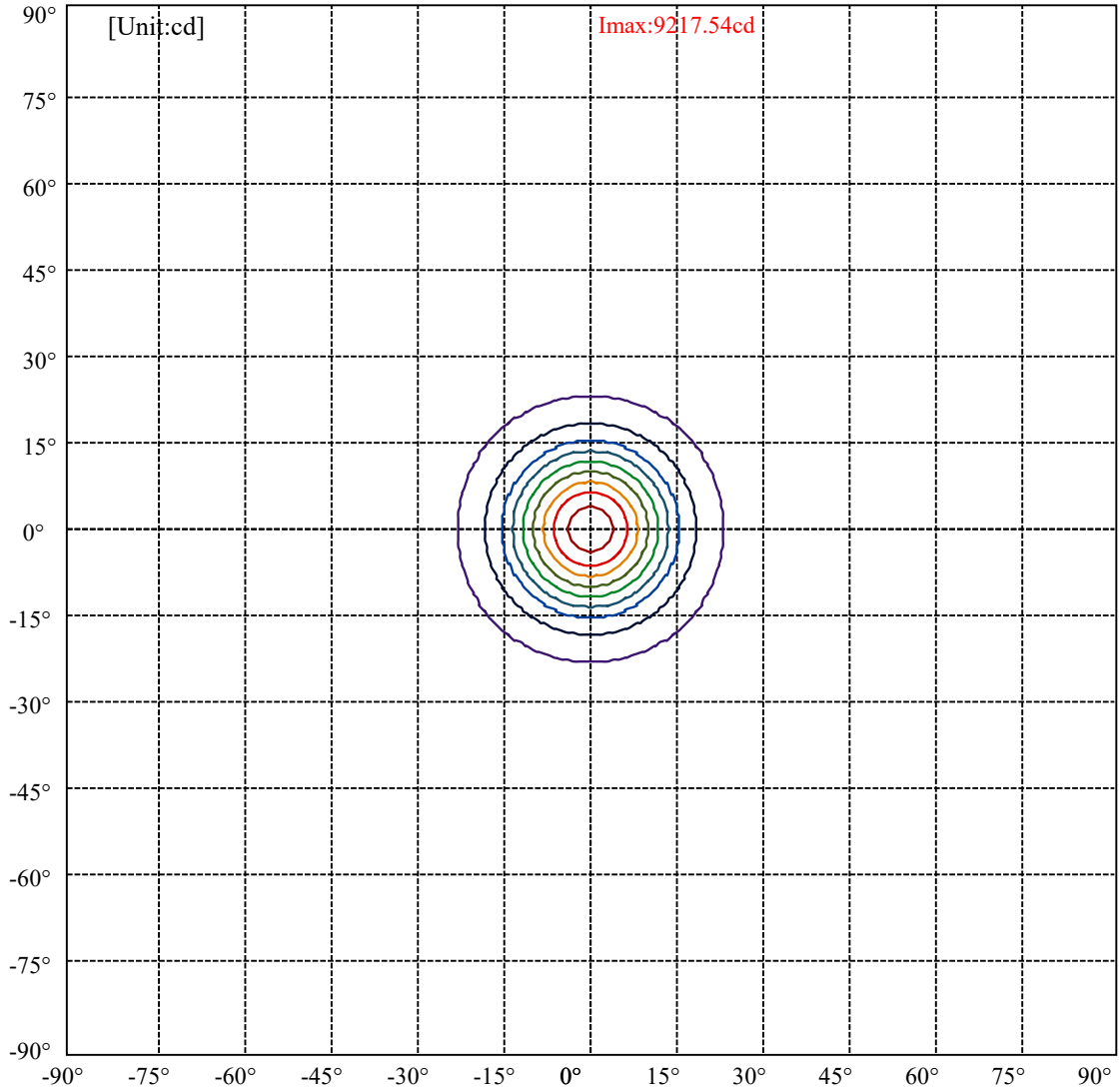


C0(Max): ———
C0/C180: ———
C90/C270: ———

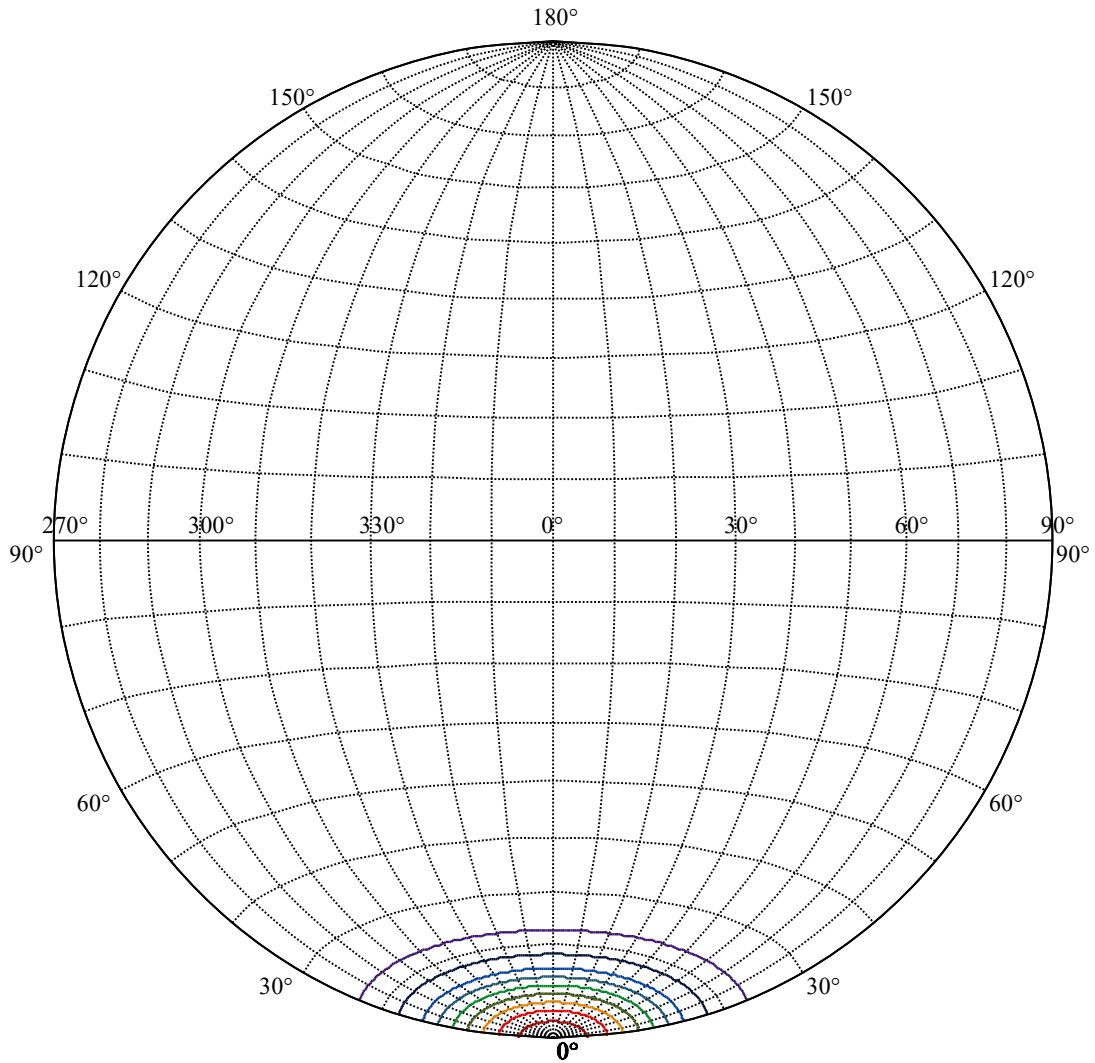
Field angle(10%Imax):C0/180Left:22.8 Right:22.8
:C90/270Left:22.8 Right:22.8

Beam Angle(50%Imax):C0/180Left:11.6 Right:11.6
:C90/270Left:11.6 Right:11.6





(10%Imax) 921.754	—
(20%Imax) 1843.51	—
(30%Imax) 2765.26	—
(40%Imax) 3687.02	—
(50%Imax) 4608.77	—
(60%Imax) 5530.53	—
(70%Imax) 6452.28	—
(80%Imax) 7374.03	—
(90%Imax) 8295.79	—



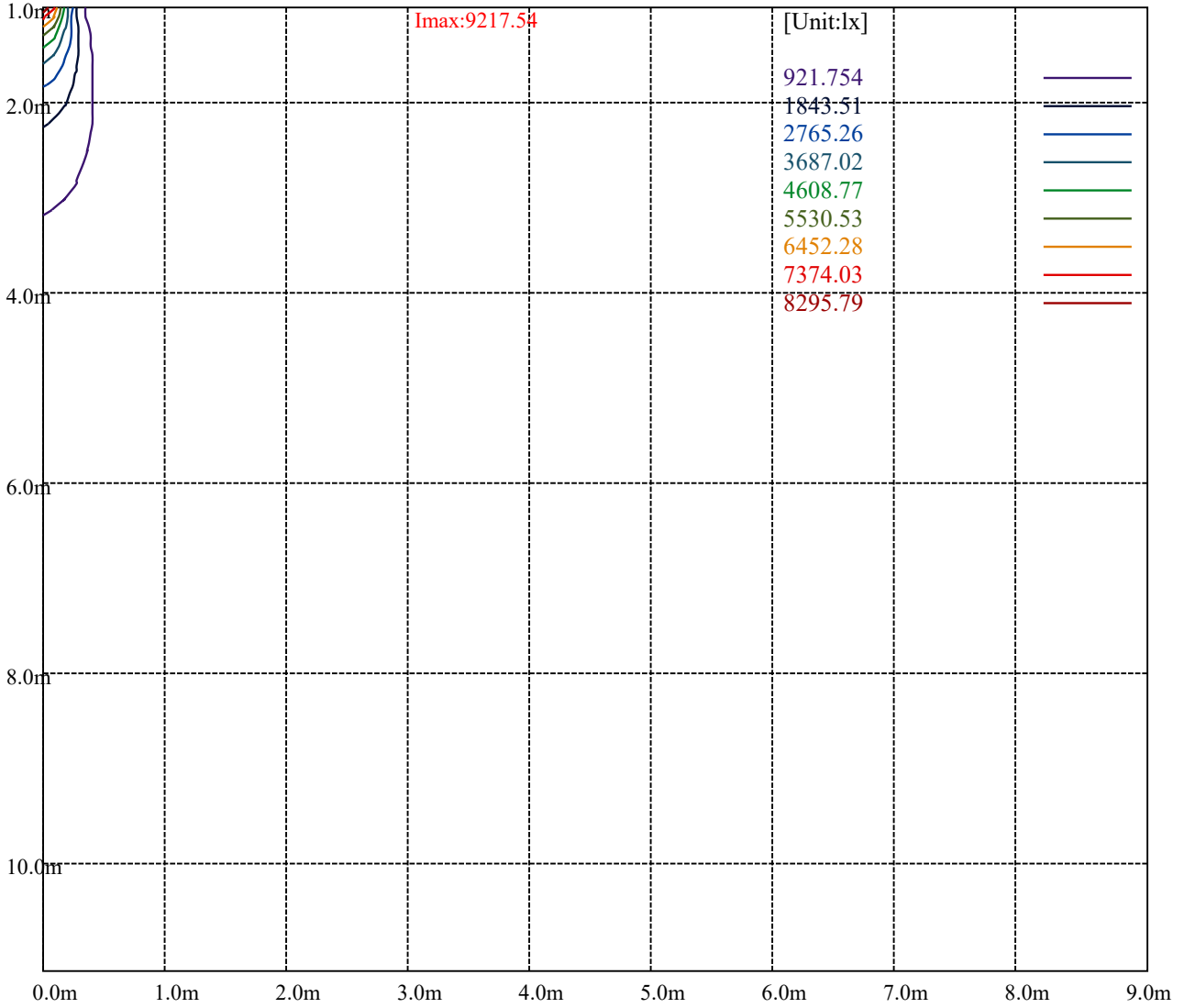
House

[Unit:cd]

Road

Imax:9217.54

(10%Imax) 921.754	—
(20%Imax) 1843.51	—
(30%Imax) 2765.26	—
(40%Imax) 3687.02	—
(50%Imax) 4608.77	—
(60%Imax) 5530.53	—
(70%Imax) 6452.28	—
(80%Imax) 7374.03	—
(90%Imax) 8295.79	—



Luminance Table

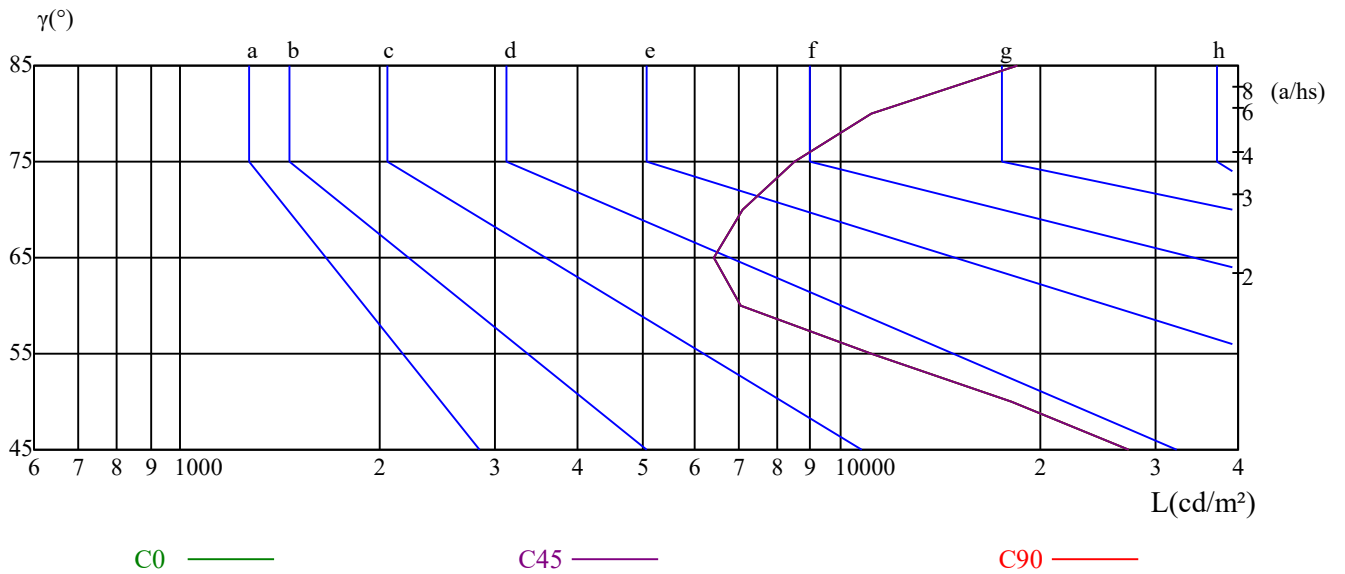
γ	45	50	55	60	65	70	75	80	85
C0	27320	18099	11108	7040	6434	7119	8487	11107	18561
C45	27320	18099	11108	7040	6434	7119	8487	11107	18561
C90	27320	18099	11108	7040	6434	7119	8487	11107	18561

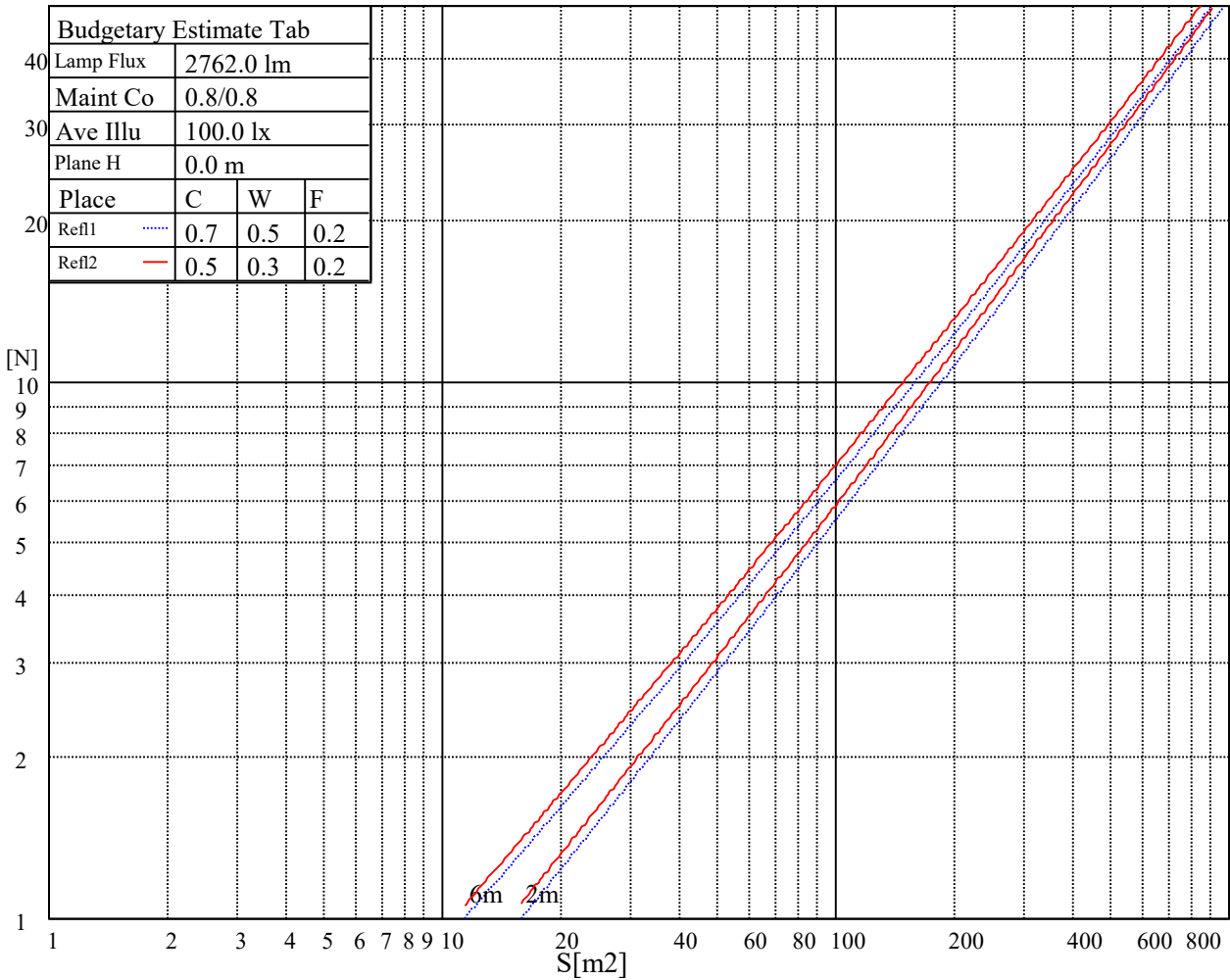
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
6434	6434	6434	8487	8487	8487	18561	18561	18561

Glare Table

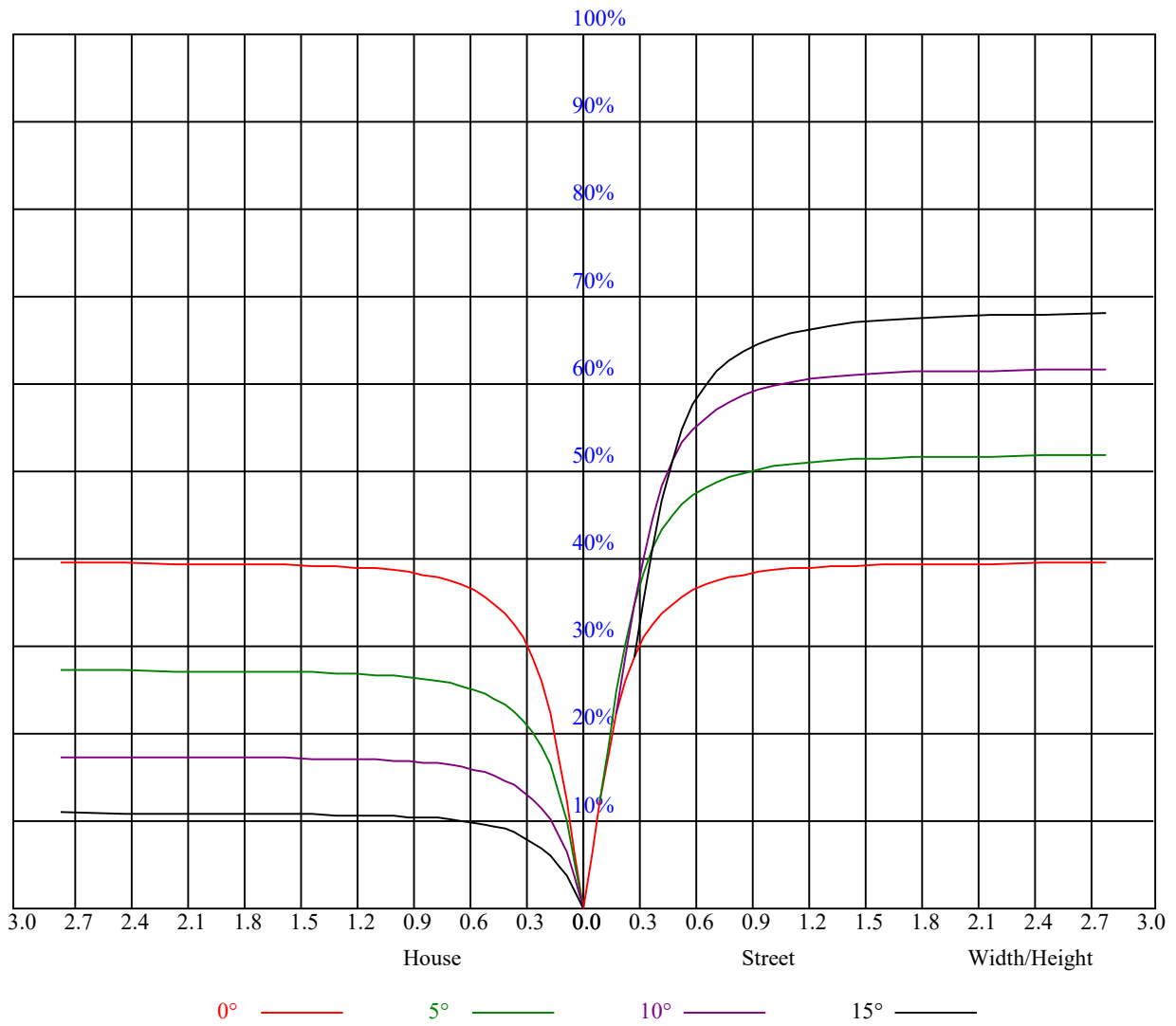
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

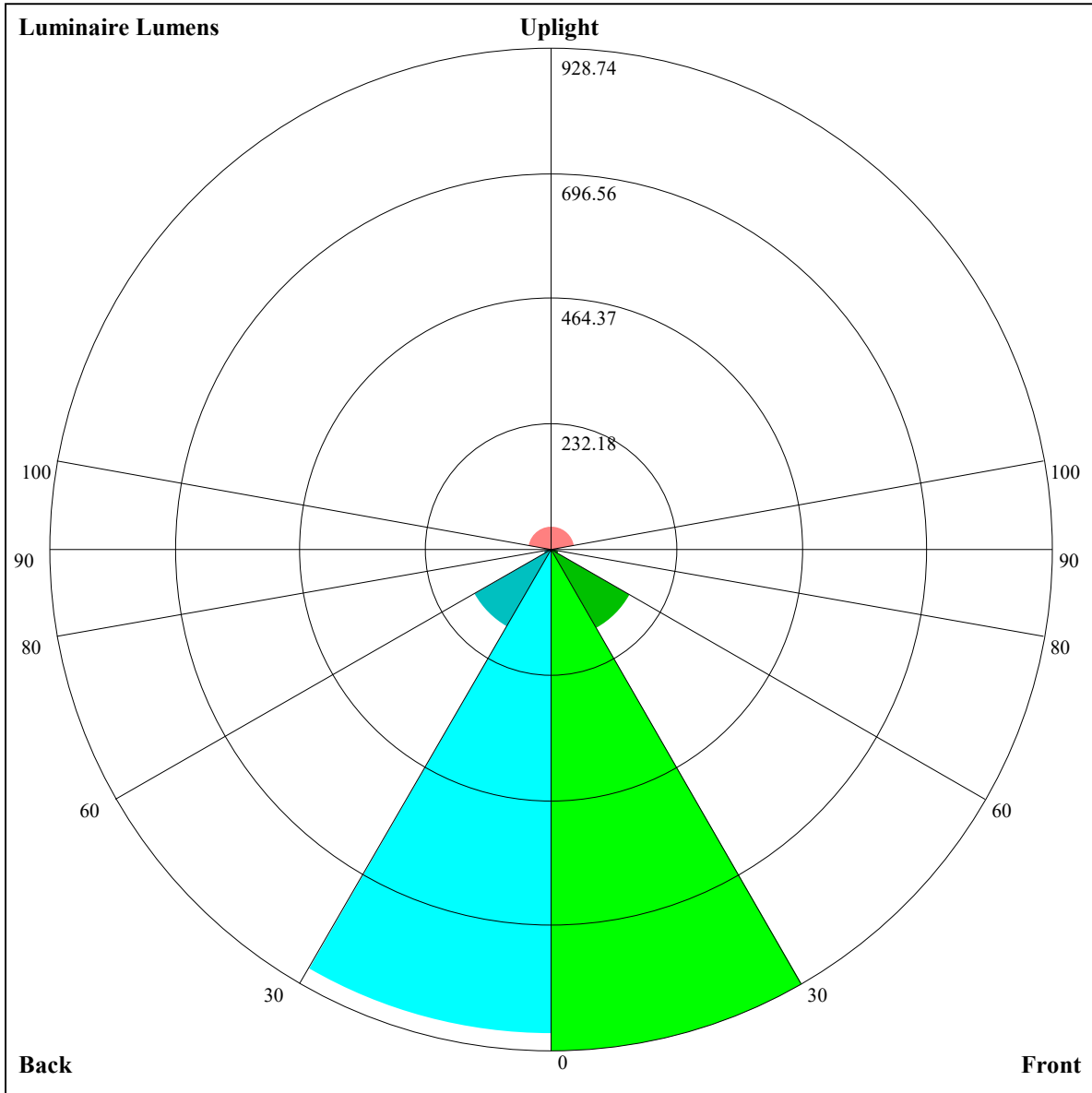
Luminance Limiting Curve





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	0.96	0.96	0.96	0.94	0.94	0.94	0.90	0.90	0.90	0.86	0.86	0.86	0.83	0.83	0.83	0.81
1	0.88	0.86	0.84	0.87	0.84	0.82	0.83	0.81	0.80	0.80	0.79	0.78	0.77	0.76	0.75	0.74
2	0.84	0.80	0.78	0.82	0.79	0.77	0.80	0.77	0.75	0.77	0.75	0.74	0.75	0.73	0.72	0.71
3	0.80	0.76	0.73	0.79	0.75	0.72	0.76	0.74	0.71	0.75	0.72	0.70	0.73	0.71	0.69	0.68
4	0.76	0.72	0.69	0.75	0.72	0.69	0.74	0.71	0.68	0.72	0.69	0.67	0.71	0.68	0.67	0.65
5	0.73	0.69	0.66	0.72	0.69	0.66	0.71	0.68	0.65	0.70	0.67	0.65	0.69	0.66	0.64	0.63
6	0.70	0.66	0.64	0.70	0.66	0.63	0.69	0.65	0.63	0.68	0.65	0.63	0.67	0.64	0.62	0.61
7	0.68	0.64	0.61	0.68	0.64	0.61	0.67	0.63	0.61	0.66	0.63	0.61	0.65	0.62	0.60	0.59
8	0.66	0.62	0.59	0.65	0.62	0.59	0.65	0.61	0.59	0.64	0.61	0.59	0.63	0.61	0.59	0.58
9	0.64	0.60	0.58	0.64	0.60	0.58	0.63	0.60	0.57	0.62	0.59	0.57	0.62	0.59	0.57	0.56
10	0.62	0.59	0.56	0.62	0.58	0.56	0.61	0.58	0.56	0.61	0.58	0.56	0.60	0.58	0.56	0.55





Luminaire Lumens:

FL=928.74,FM=167.46,FH=16.13,FVH=5.57

BL=898.37,BM=165.02,BH=16,BVH=5.56

UL=9.34,UH=44.45

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	9218.64	8320.12	5904.80	3122.25	1430.92	733.35	486.70	310.52	206.08
45.0	9248.92	7952.35	5395.53	2689.51	1234.92	671.14	451.46	291.80	190.77
90.0	9142.67	7544.38	4716.13	2221.53	1051.96	614.87	408.74	261.52	176.35
135.0	9259.94	7980.43	5437.37	2853.02	1226.11	696.46	467.43	301.16	200.24
180.0	9218.64	7738.73	4953.97	2495.71	1072.66	646.14	440.56	284.53	189.01
225.0	9248.92	8134.58	5473.16	2754.47	1096.83	699.16	471.28	309.58	206.02
270.0	9142.67	8532.64	6192.19	3490.03	1568.56	778.50	527.99	342.45	223.25
315.0	9259.94	8055.85	5680.72	2929.55	1057.96	712.71	481.91	308.21	200.02
360.0	9218.64	8320.12	5904.80	3122.25	1430.92	733.35	486.70	310.52	206.08

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	127.18	76.25	43.49	23.67	17.23	15.36	13.98	12.22	10.13
45.0	114.24	70.31	37.82	20.98	16.74	15.09	13.65	12.06	10.08
90.0	105.98	62.71	34.74	20.04	16.74	15.14	13.60	12.00	9.97
135.0	120.08	71.19	38.10	21.25	16.90	15.14	13.65	12.11	10.13
180.0	111.49	67.33	36.06	20.37	16.96	15.20	13.49	11.78	9.97
225.0	122.45	73.56	39.70	21.42	16.79	15.14	13.65	11.95	10.13
270.0	138.25	85.23	47.24	25.44	17.62	15.58	13.98	12.39	10.24
315.0	124.87	74.27	40.96	22.57	16.79	14.92	13.65	11.78	10.13
360.0	127.18	76.25	43.49	23.67	17.23	15.36	13.98	12.22	10.13

C/γ(°)	90.0
0.0	8.59
45.0	8.48
90.0	8.48
135.0	8.53
180.0	8.53
225.0	8.53
270.0	8.75
315.0	8.59
360.0	8.59