
Nata

Client:

LumCAT: 3-1700-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): 77

Phm Type: C

Voltage(V): 35.2000

Current(A): 0.6000

Power (W): 21.1200

PF: 0.0000

Ballast type: DC

Width(mm): 77

Height(mm): 0

Photometric Results

Lumens(lm): 2146.31, Efficiency(%): 77.71% , Luminous Efficacy(lm/W): 101.62

Central intensity(cd): 4487.440, Maximum intensity(cd): 4487.440

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=37.4

[C90/270]Total=37.4

Field angle(10%Imax): [C0/180]Total=66.2

[C90/270]Total=66.2

Maximum s/h(1/2): C0_180=0.62 C90_270=0.62

Maximum s/h(1/4): C0_180=0.60 C90_270=0.60

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 78.61%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 97.043%

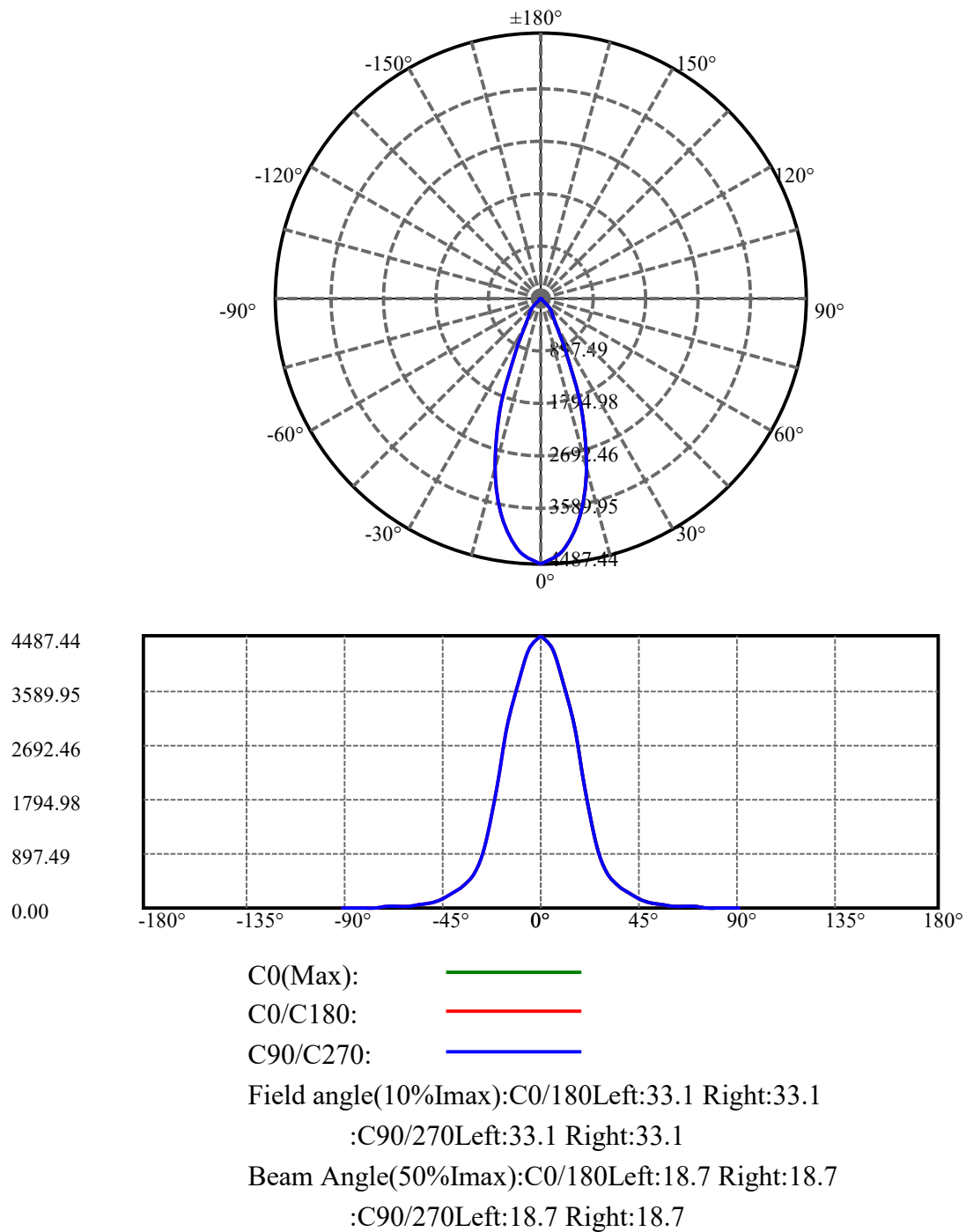
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	4487.441	26.836	26.836	.972%	1.250%
5.0	4273.891	204.178	231.014	7.393%	10.763%
10.0	3741.426	356.120	587.134	12.894%	27.355%
15.0	2978.551	422.562	1009.696	15.299%	47.043%
20.0	1986.504	372.418	1382.114	13.484%	64.395%
25.0	1022.487	236.862	1618.976	8.576%	75.431%
30.0	588.023	161.159	1780.135	5.835%	82.939%
35.0	365.217	114.824	1894.959	4.157%	88.289%
40.0	247.162	87.084	1982.043	3.153%	92.346%
45.0	141.681	54.914	2036.957	1.988%	94.905%
50.0	84.498	35.480	2072.437	1.285%	96.558%
55.0	47.816	21.470	2093.907	.777%	97.558%
60.0	27.384	12.999	2106.906	.471%	98.164%
65.0	19.717	9.795	2116.701	.355%	98.620%
70.0	16.345	8.419	2125.12	.305%	99.013%
75.0	13.764	7.288	2132.408	.264%	99.352%
80.0	11.720	6.327	2138.735	.229%	99.647%
85.0	9.711	5.302	2144.037	.192%	99.894%
90.0	8.300	2.275	2146.312	.082%	100.000%

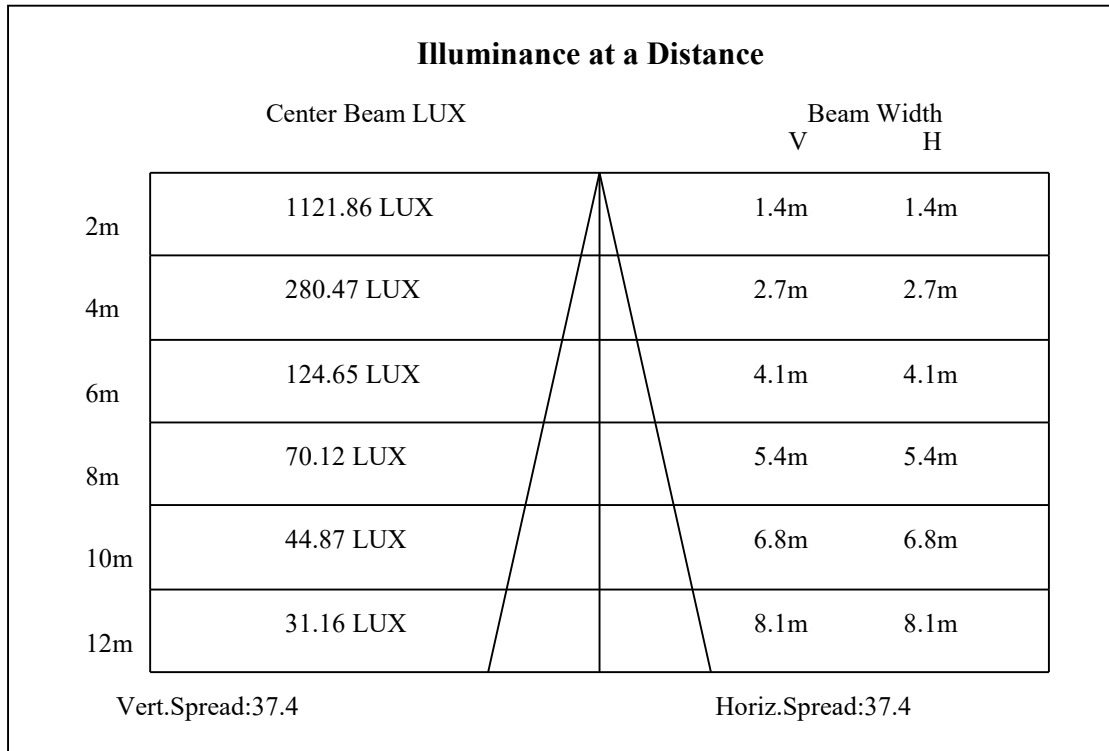
ZONAL LUMEN SUMMARY

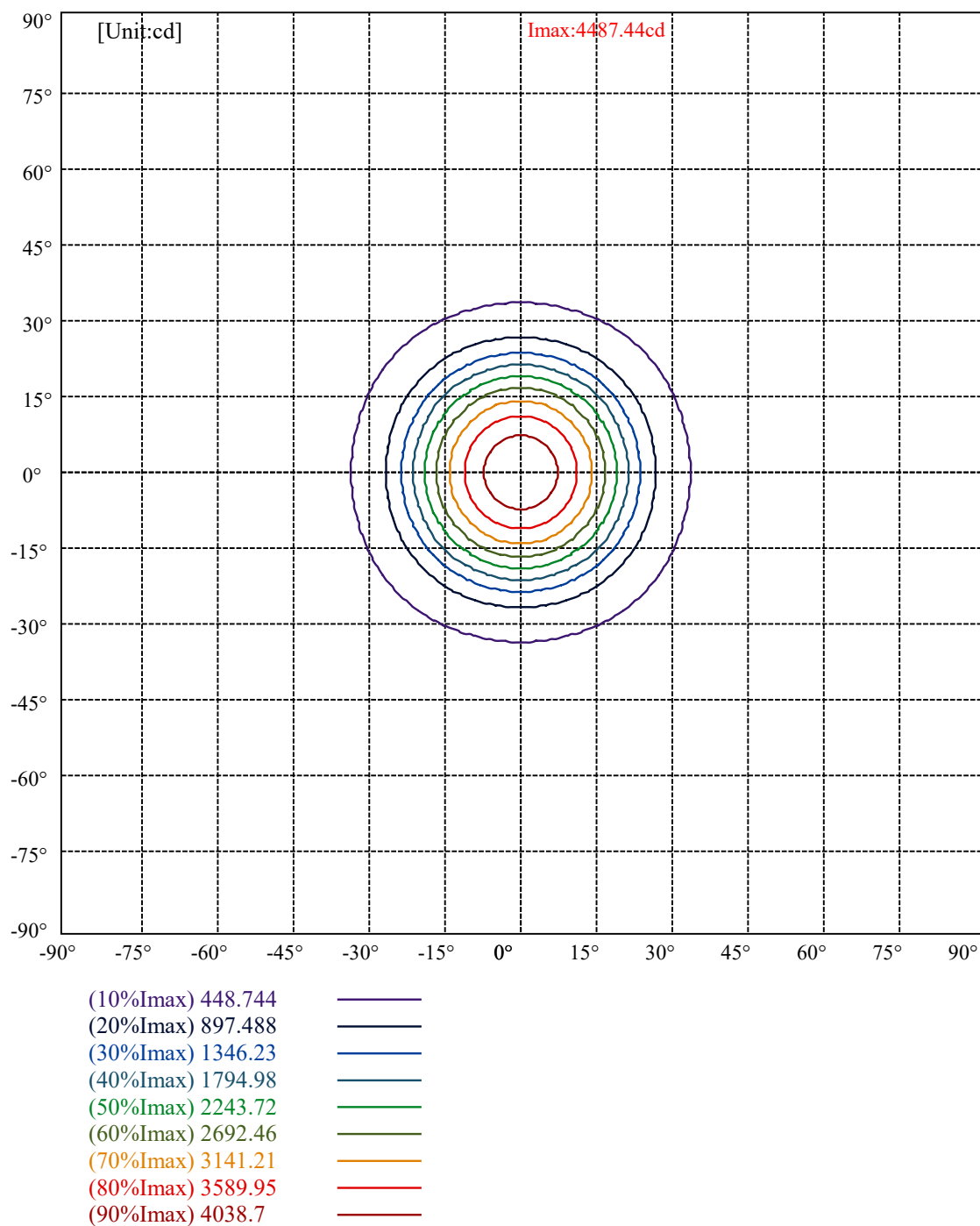
Zone	Lumens	%Lamp	%Fixt
0-30	1780.14	64.45%	82.94%
0-40	1982.04	71.76%	92.35%
0-60	2106.91	76.28%	98.16%
0-90	2144.04	77.63%	99.89%
0-120	2144.04	77.63%	99.89%
0-180	2146.31	77.71%	100.00%
60-90	50.13	1.82%	2.34%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-28.04	1717.05	62.17%	80.00%

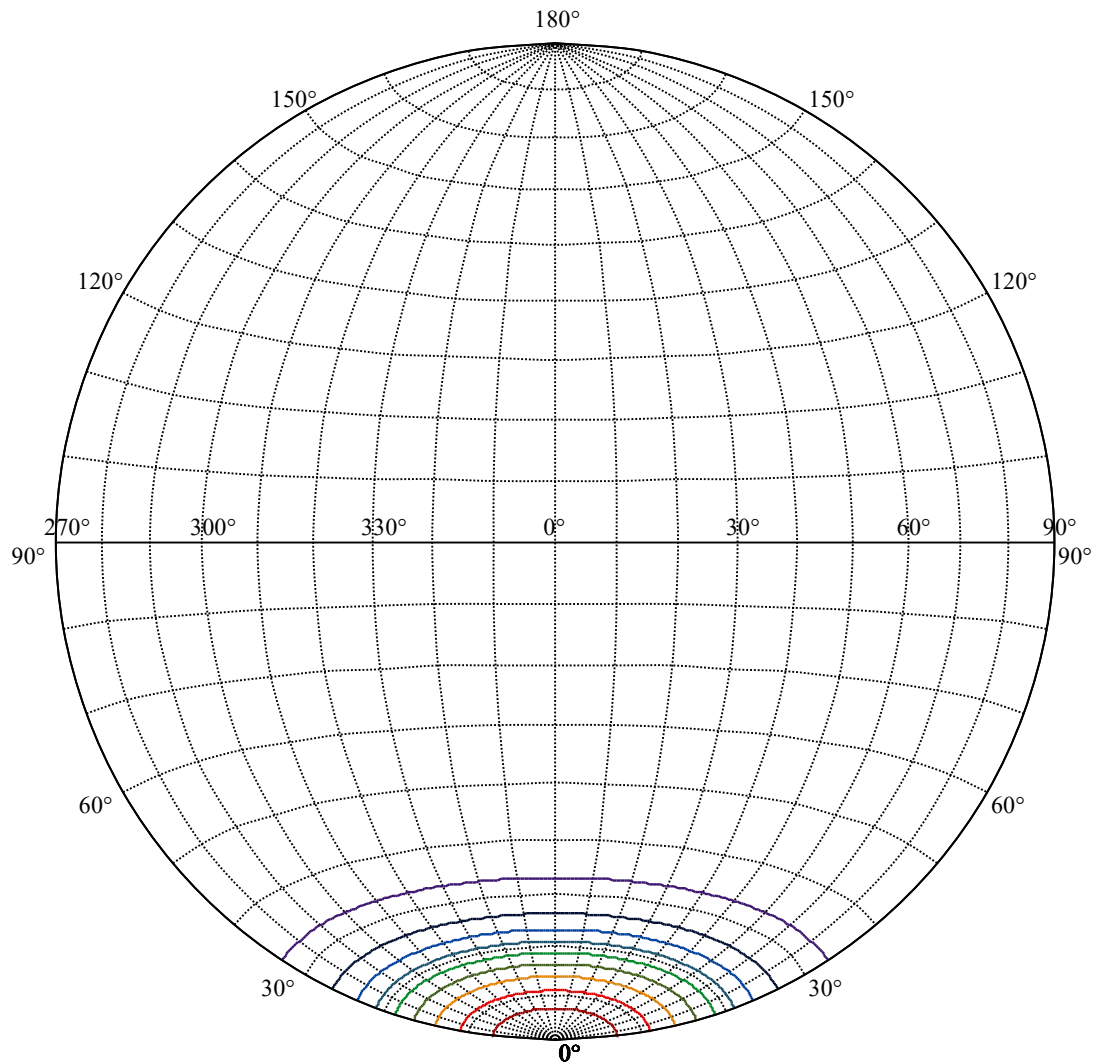
ZONAL LUMEN SUMMARY

0-10	587.13
10-20	794.98
20-30	398.02
30-40	201.91
40-50	90.39
50-60	34.47
60-70	18.21
70-80	13.61
80-90	5.30
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









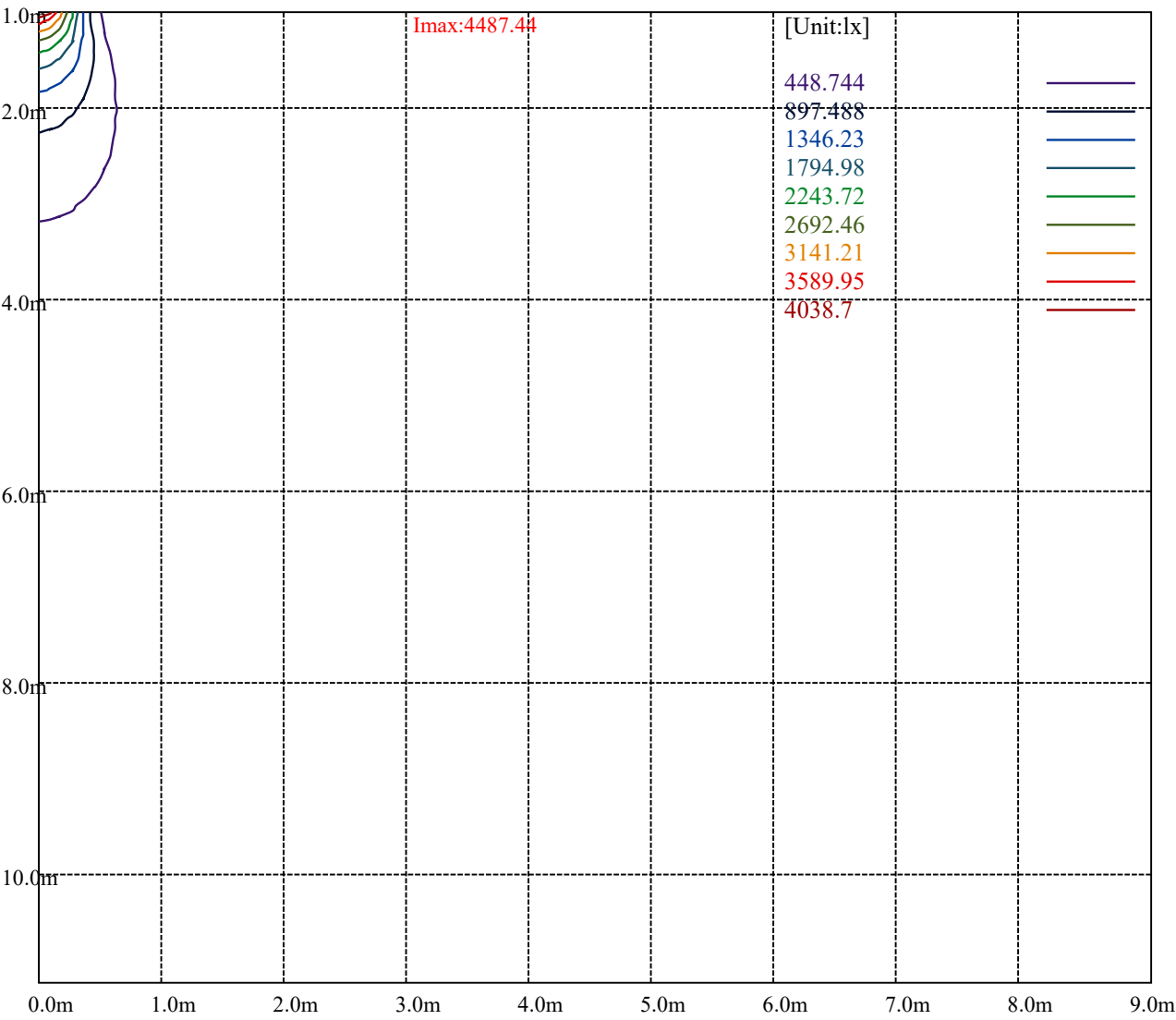
House

[Unit:cd]

Road

Imax:4487.44

(10%Imax)	448.744	—
(20%Imax)	897.488	—
(30%Imax)	1346.23	—
(40%Imax)	1794.98	—
(50%Imax)	2243.72	—
(60%Imax)	2692.46	—
(70%Imax)	3141.21	—
(80%Imax)	3589.95	—
(90%Imax)	4038.7	—



Luminance Table

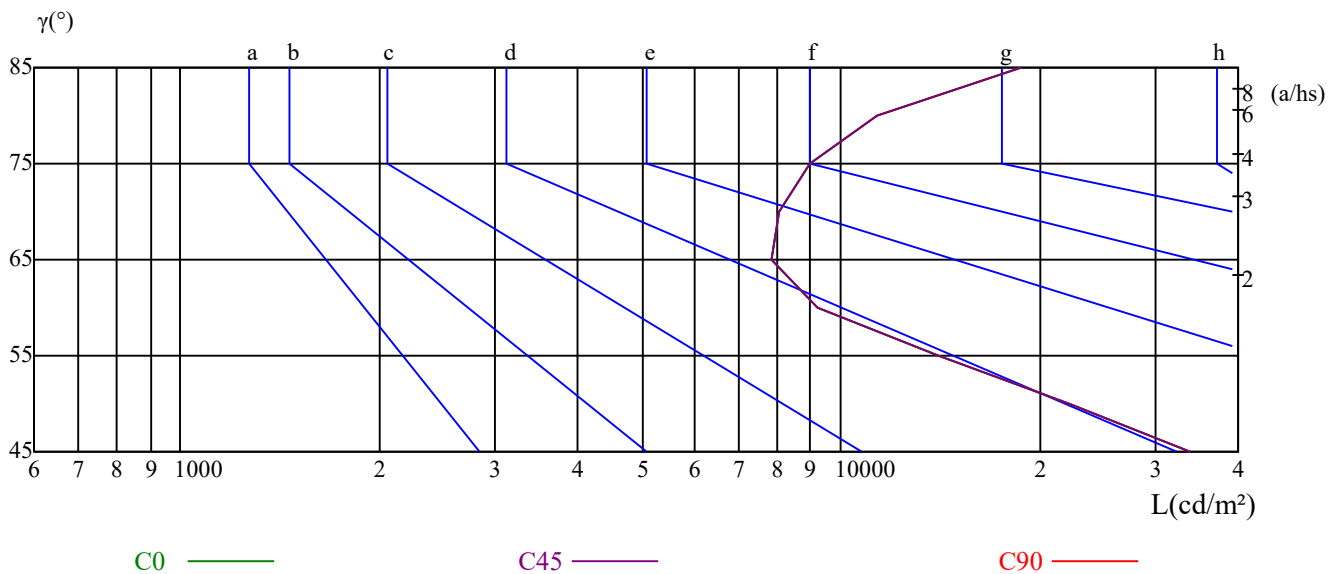
γ	45	50	55	60	65	70	75	80	85
C0	33794	22172	14061	9237	7869	8060	8970	11384	18792
C45	33794	22172	14061	9237	7869	8060	8970	11384	18792
C90	33794	22172	14061	9237	7869	8060	8970	11384	18792

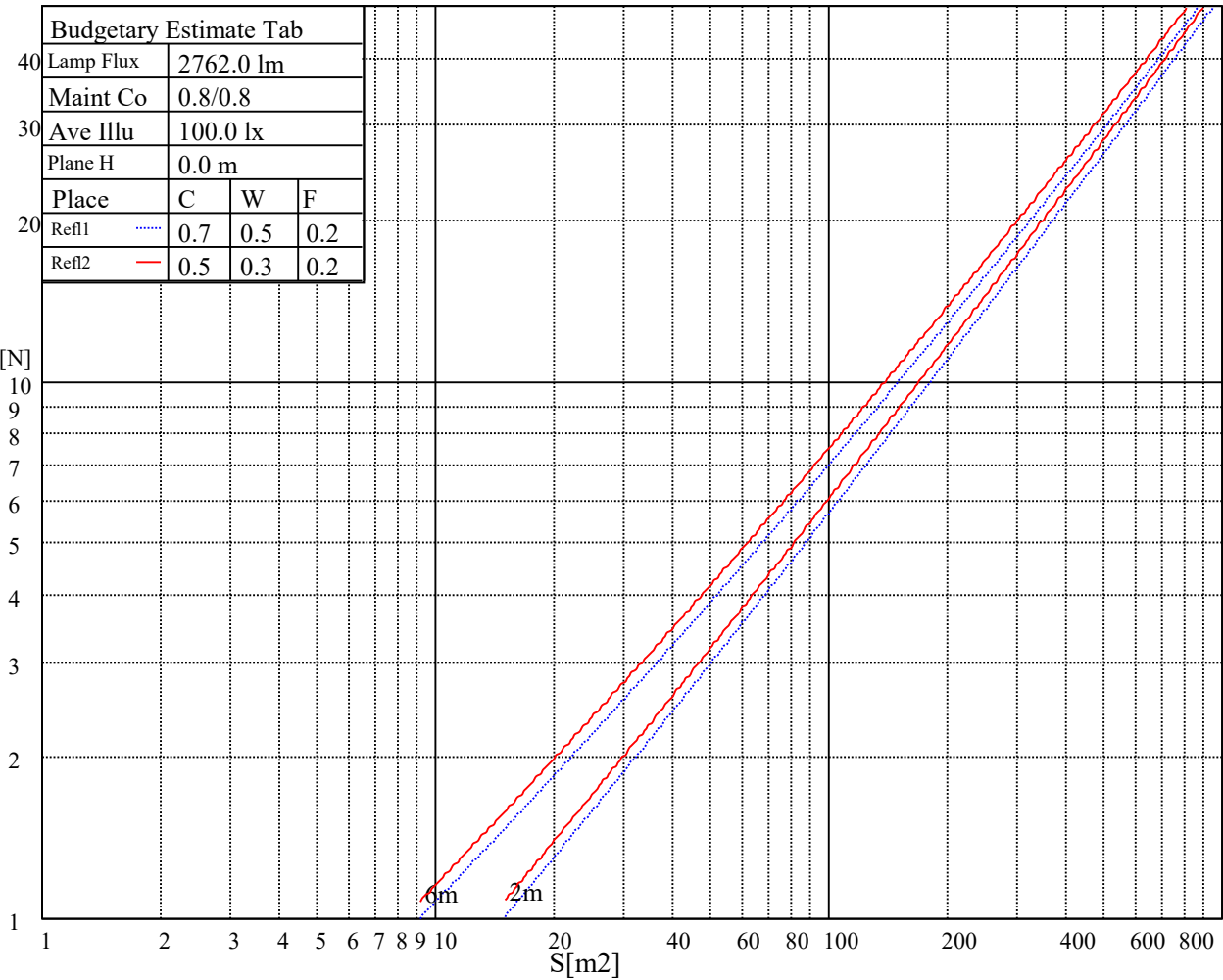
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
7869	7869	7869	8970	8970	8970	18792	18792	18792

Glare Table

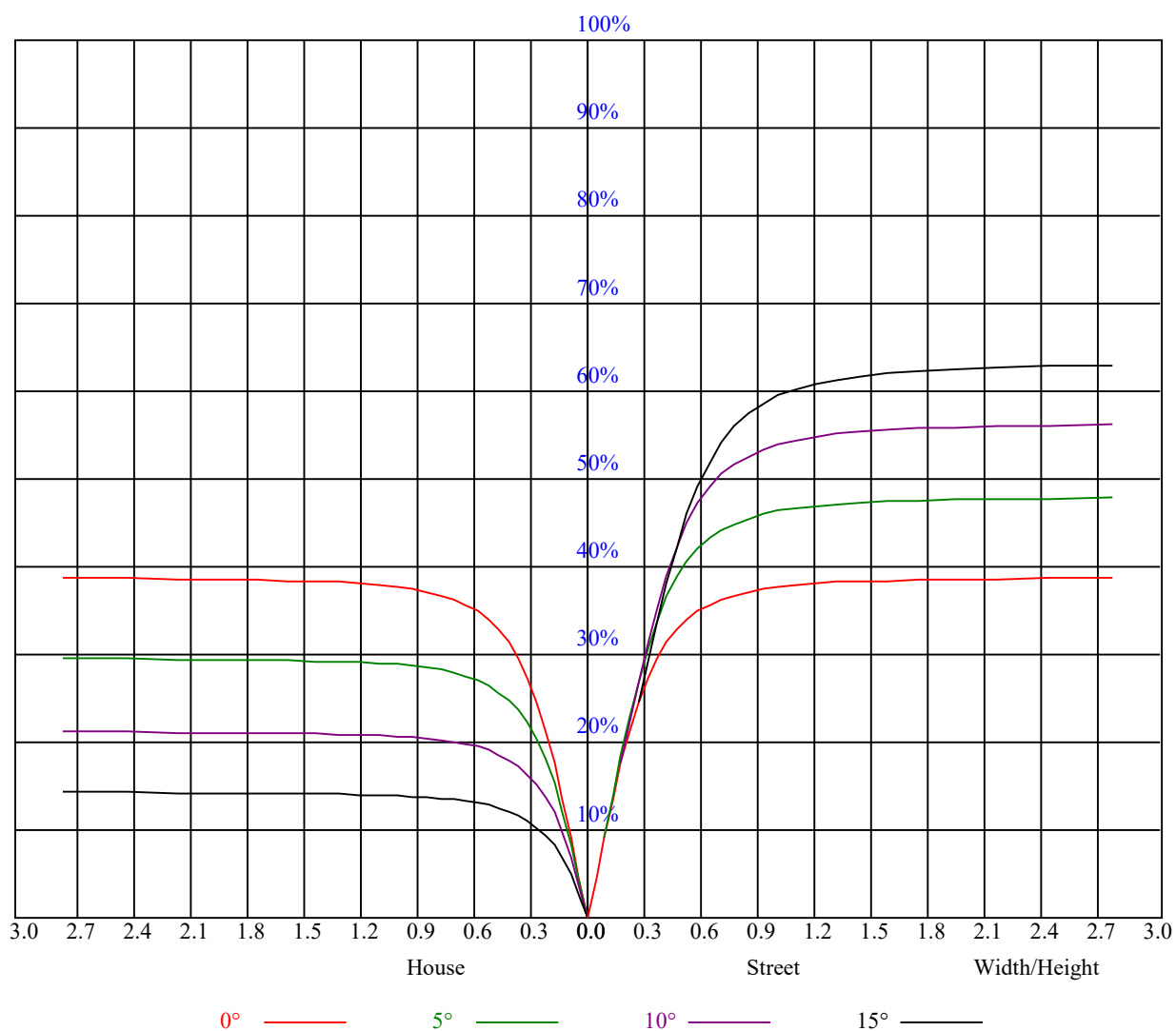
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	≤ 300				
1.5	B		2000	1000	500	≤ 300			
1.85	C			2000	1000	500	≤ 300		
2.2	D				2000	1000	500	≤ 300	
2.55	E					2000	1000	500	≤ 300
		a	b	c	d	e	f	g	h

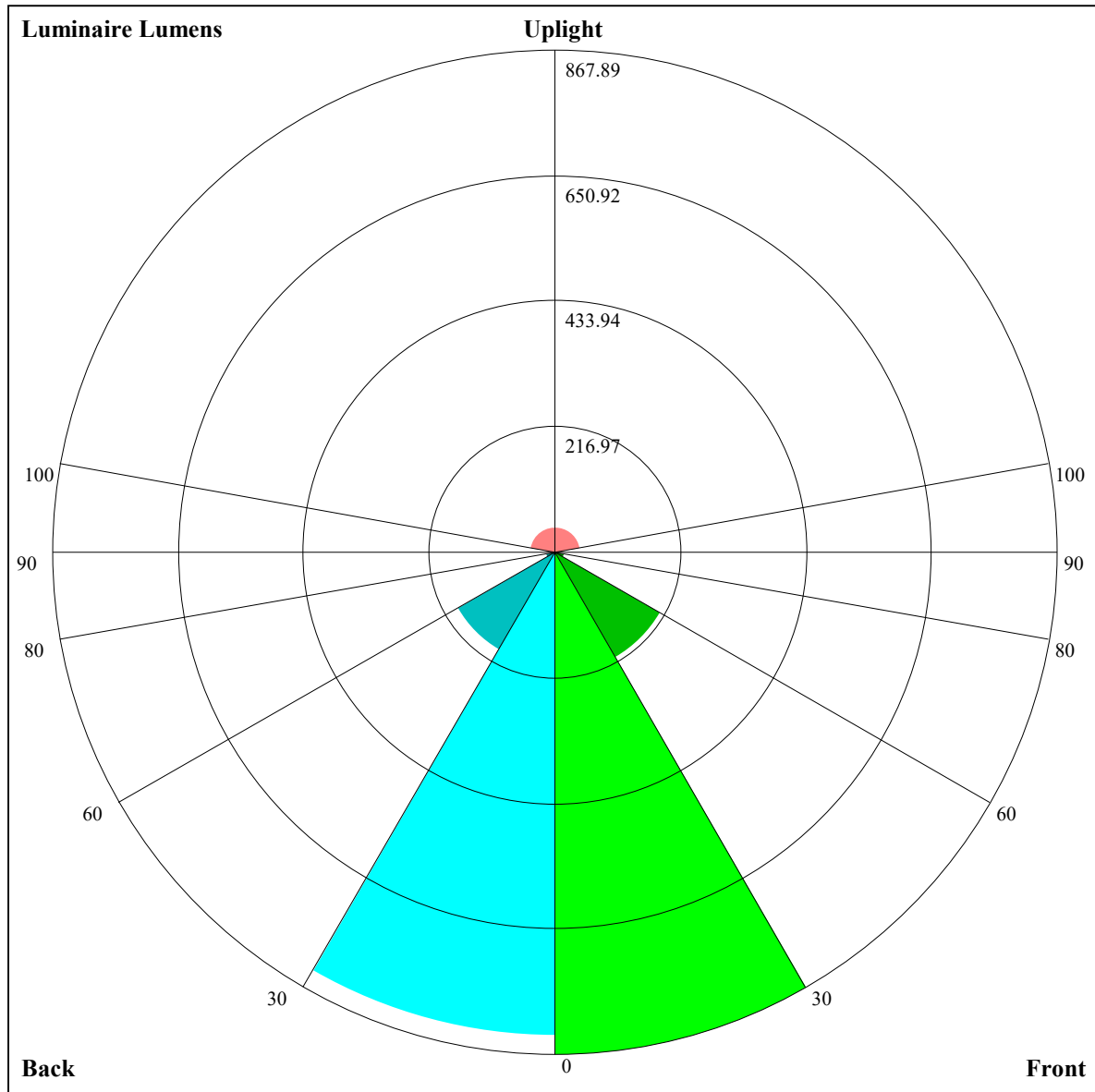
Luminance Limiting Curve





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	0.94	0.94	0.94	0.91	0.91	0.91	0.87	0.87	0.87	0.84	0.84	0.84	0.80	0.80	0.80	0.79
1	0.86	0.84	0.82	0.85	0.83	0.81	0.82	0.80	0.79	0.79	0.77	0.76	0.76	0.75	0.74	0.73
2	0.81	0.78	0.76	0.80	0.77	0.75	0.77	0.75	0.73	0.75	0.73	0.72	0.73	0.71	0.70	0.69
3	0.77	0.73	0.70	0.76	0.72	0.70	0.74	0.71	0.69	0.72	0.70	0.68	0.70	0.68	0.67	0.65
4	0.73	0.69	0.66	0.72	0.68	0.66	0.70	0.67	0.65	0.69	0.66	0.64	0.67	0.65	0.63	0.62
5	0.69	0.65	0.62	0.69	0.65	0.62	0.67	0.64	0.62	0.66	0.63	0.61	0.65	0.62	0.61	0.59
6	0.66	0.62	0.59	0.66	0.62	0.59	0.65	0.61	0.59	0.64	0.61	0.58	0.63	0.60	0.58	0.57
7	0.63	0.59	0.57	0.63	0.59	0.56	0.62	0.59	0.56	0.61	0.58	0.56	0.60	0.58	0.56	0.55
8	0.61	0.57	0.54	0.61	0.57	0.54	0.60	0.56	0.54	0.59	0.56	0.54	0.58	0.55	0.53	0.52
9	0.59	0.55	0.52	0.58	0.55	0.52	0.58	0.54	0.52	0.57	0.54	0.52	0.56	0.54	0.51	0.51
10	0.56	0.53	0.50	0.56	0.52	0.50	0.56	0.52	0.50	0.55	0.52	0.50	0.55	0.52	0.50	0.49





Luminaire Lumens:

FL=867.89,FM=209.07,FH=17.77,FVH=5.38

BL=834.36,BM=195.04,BH=17.4,BVH=5.36

UL=9.06,UH=43.09

BUG Rating:B2-U2-G0

Nata 3-1700-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	4488.20	4285.59	3819.26	3136.56	2199.50	1202.98	650.22	399.71	284.64		
45.0	4488.20	4292.75	3805.50	3119.50	2206.11	1217.30	665.08	407.42	283.54		
90.0	4495.91	4280.64	3705.85	2968.09	2033.78	1042.88	588.88	373.61	240.65		
135.0	4478.29	4332.39	3869.91	3136.56	2154.91	1099.48	633.70	388.70	281.34		
180.0	4488.20	4250.90	3677.22	2814.48	1721.61	839.56	517.14	320.48	204.75		
225.0	4488.20	4247.05	3648.59	2816.69	1739.78	839.50	527.00	326.54	208.00		
270.0	4494.25	4283.39	3758.70	2973.05	1996.35	989.36	567.08	361.17	249.30		
315.0	4478.29	4218.42	3646.39	2863.48	1839.98	948.84	555.08	344.10	225.07		
360.0	4488.20	4285.59	3819.26	3136.56	2199.50	1202.98	650.22	399.71	284.64		
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0		
0.0	158.29	92.99	53.85	30.12	20.37	16.63	14.15	11.89	9.80		
45.0	158.89	93.93	53.90	30.17	20.54	17.01	14.26	12.00	9.86		
90.0	142.16	86.05	48.06	26.70	19.21	16.08	13.54	11.51	9.58		
135.0	149.75	89.74	49.72	29.01	20.15	16.57	13.98	11.95	9.69		
180.0	124.59	74.05	41.24	25.16	18.99	15.75	13.21	11.29	9.52		
225.0	127.07	74.99	42.34	25.16	19.55	16.19	13.65	11.84	9.86		
270.0	138.30	85.01	47.79	27.09	19.66	16.41	13.76	11.78	9.74		
315.0	134.39	79.23	45.64	25.66	19.27	16.13	13.54	11.51	9.63		
360.0	158.29	92.99	53.85	30.12	20.37	16.63	14.15	11.89	9.80		
C/γ(°)	90.0										
0.0	8.31										
45.0	8.31										
90.0	8.31										
135.0	8.26										
180.0	8.31										
225.0	8.37										
270.0	8.26										
315.0	8.26										
360.0	8.31										