
Nata

Client:

LumCAT: 2-1740-M

Luminaire: 92.70.136.00

Report No: nata-0100

Test No:

LampCAT: CREE CMT2850

Lamp flux(lm): 3334.5

Number of Lamps: 1

Length(mm): 70

Phm Type: C

Voltage(V): 33.9000

Current(A): 0.6500

Power (W): 22.0350

PF: 0.0000

Ballast type: DC

Width(mm): 70

Height(mm): 0

Photometric Results

Lumens(lm): 2909.16, Efficiency(%): 87.25% , Luminous Efficacy(lm/W): 132.02

Central intensity(cd): 5982.841, Maximum intensity(cd): 5982.841

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=36.4

[C90/270]Total=36.4

Field angle(10%Imax): [C0/180]Total=72.8

[C90/270]Total=72.8

Maximum s/h(1/2): C0_180=0.61 C90_270=0.61

Maximum s/h(1/4): C0_180=0.59 C90_270=0.59

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 88.24%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 97.546%

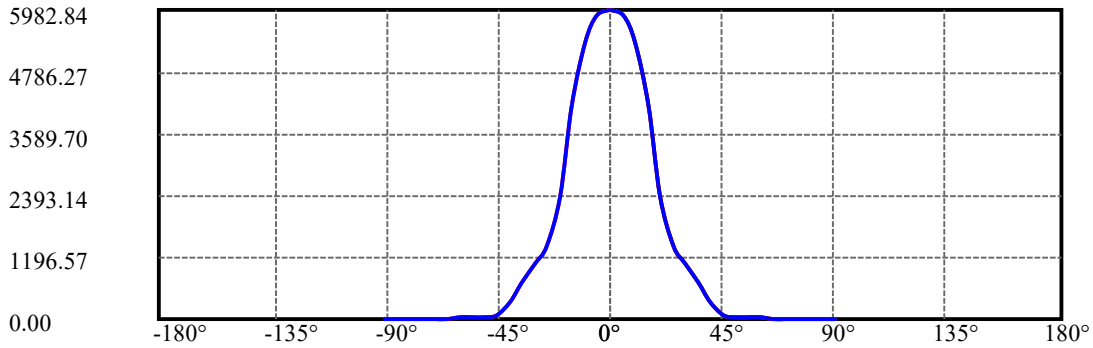
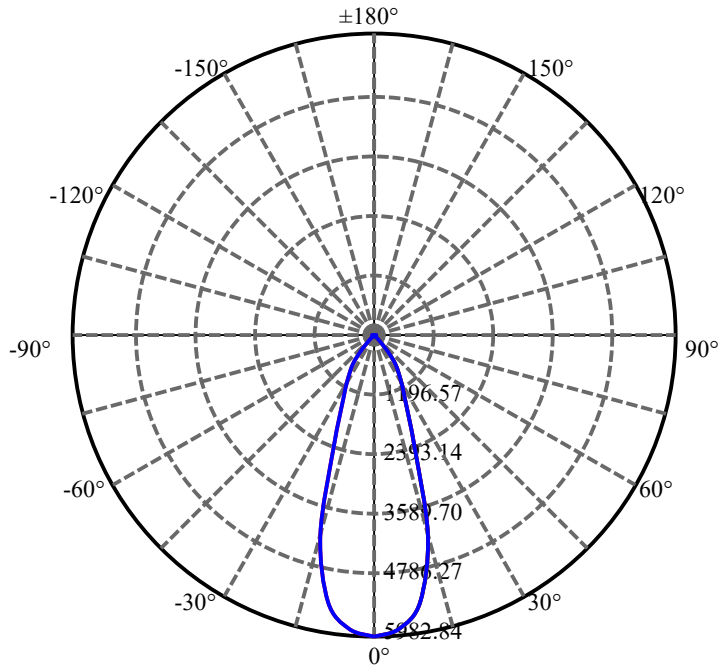
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	5982.841	35.779	35.779	1.073%	1.230%
5.0	5864.814	280.182	315.96	8.403%	10.861%
10.0	5362.906	510.458	826.418	15.309%	28.407%
15.0	4108.033	582.800	1409.218	17.478%	48.441%
20.0	2360.061	442.450	1851.668	13.269%	63.650%
25.0	1400.291	324.381	2176.05	9.728%	74.800%
30.0	1069.588	293.140	2469.19	8.791%	84.876%
35.0	699.622	219.960	2689.151	6.597%	92.437%
40.0	335.569	118.233	2807.383	3.546%	96.501%
45.0	77.595	30.075	2837.459	.902%	97.535%
50.0	30.715	12.897	2850.356	.387%	97.979%
55.0	23.337	10.479	2860.834	.314%	98.339%
60.0	19.235	9.131	2869.965	.274%	98.653%
65.0	16.331	8.113	2878.078	.243%	98.931%
70.0	14.445	7.441	2885.519	.223%	99.187%
75.0	13.227	7.003	2892.522	.210%	99.428%
80.0	12.553	6.776	2899.298	.203%	99.661%
85.0	12.126	6.622	2905.92	.199%	99.888%
90.0	11.837	3.244	2909.164	.097%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	2469.19	74.05%	84.88%
0-40	2807.38	84.19%	96.50%
0-60	2869.97	86.07%	98.65%
0-90	2905.92	87.15%	99.89%
0-120	2905.92	87.15%	99.89%
0-180	2909.16	87.25%	100.00%
60-90	45.09	1.35%	1.55%
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%
0-27.58	2327.33	69.80%	80.00%

ZONAL LUMEN SUMMARY

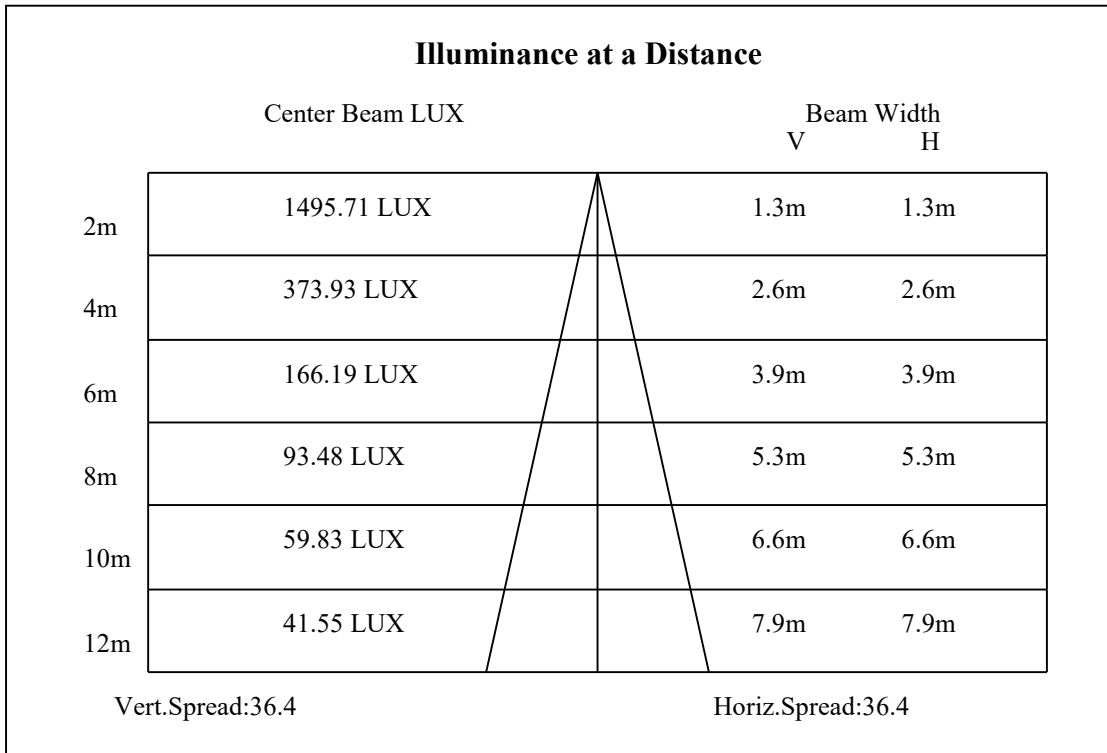
0-10	826.42
10-20	1025.25
20-30	617.52
30-40	338.19
40-50	42.97
50-60	19.61
60-70	15.55
70-80	13.78
80-90	6.62
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

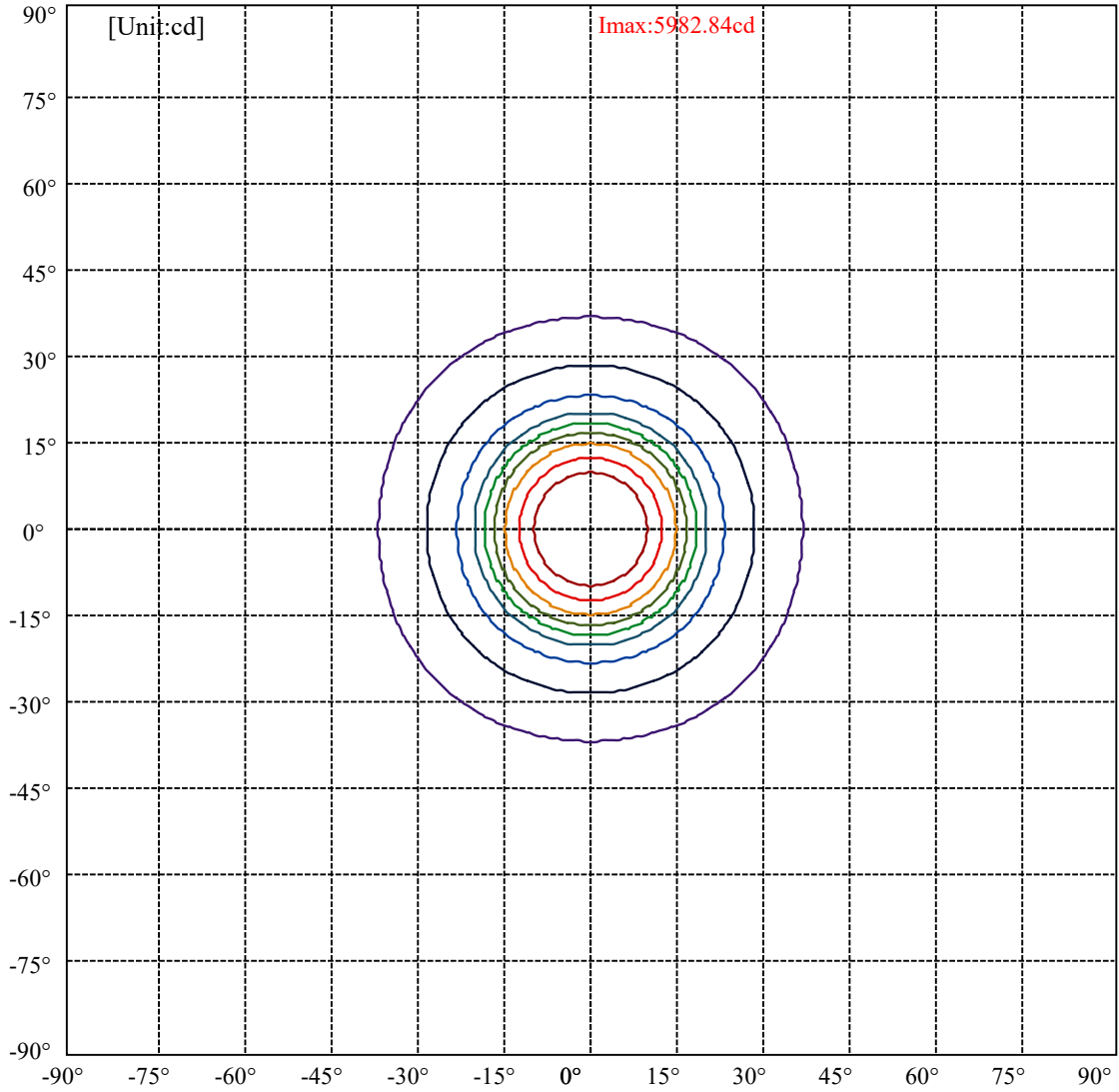


C0(Max): —————
 C0/C180: —————
 C90/C270: —————

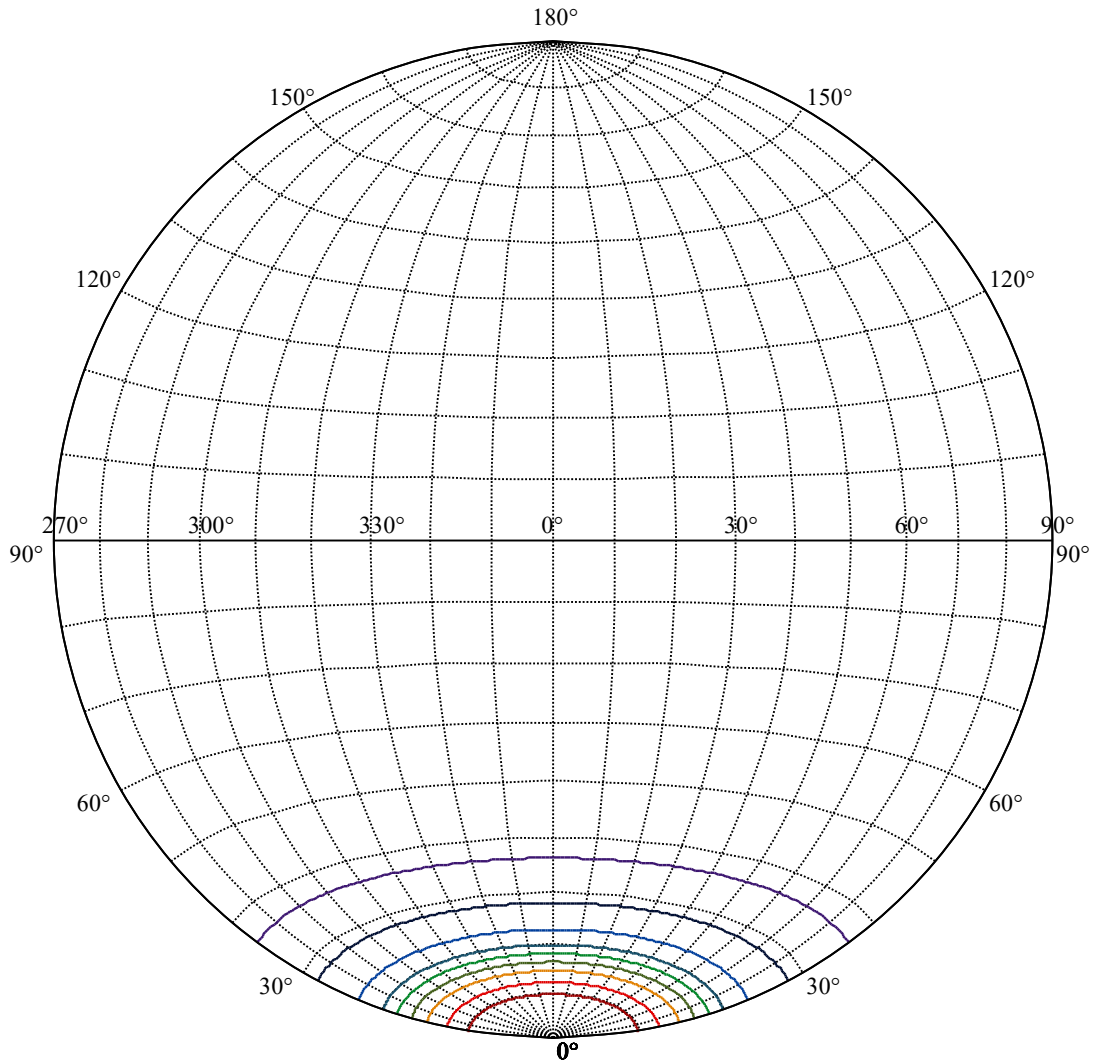
Field angle(10%Imax):C0/180Left:36.4 Right:36.4
 :C90/270Left:36.4 Right:36.4

Beam Angle(50%Imax):C0/180Left:18.2 Right:18.2
 :C90/270Left:18.2 Right:18.2





(10%Imax) 598.284	—
(20%Imax) 1196.57	—
(30%Imax) 1794.85	—
(40%Imax) 2393.14	—
(50%Imax) 2991.42	—
(60%Imax) 3589.7	—
(70%Imax) 4187.99	—
(80%Imax) 4786.27	—
(90%Imax) 5384.56	—



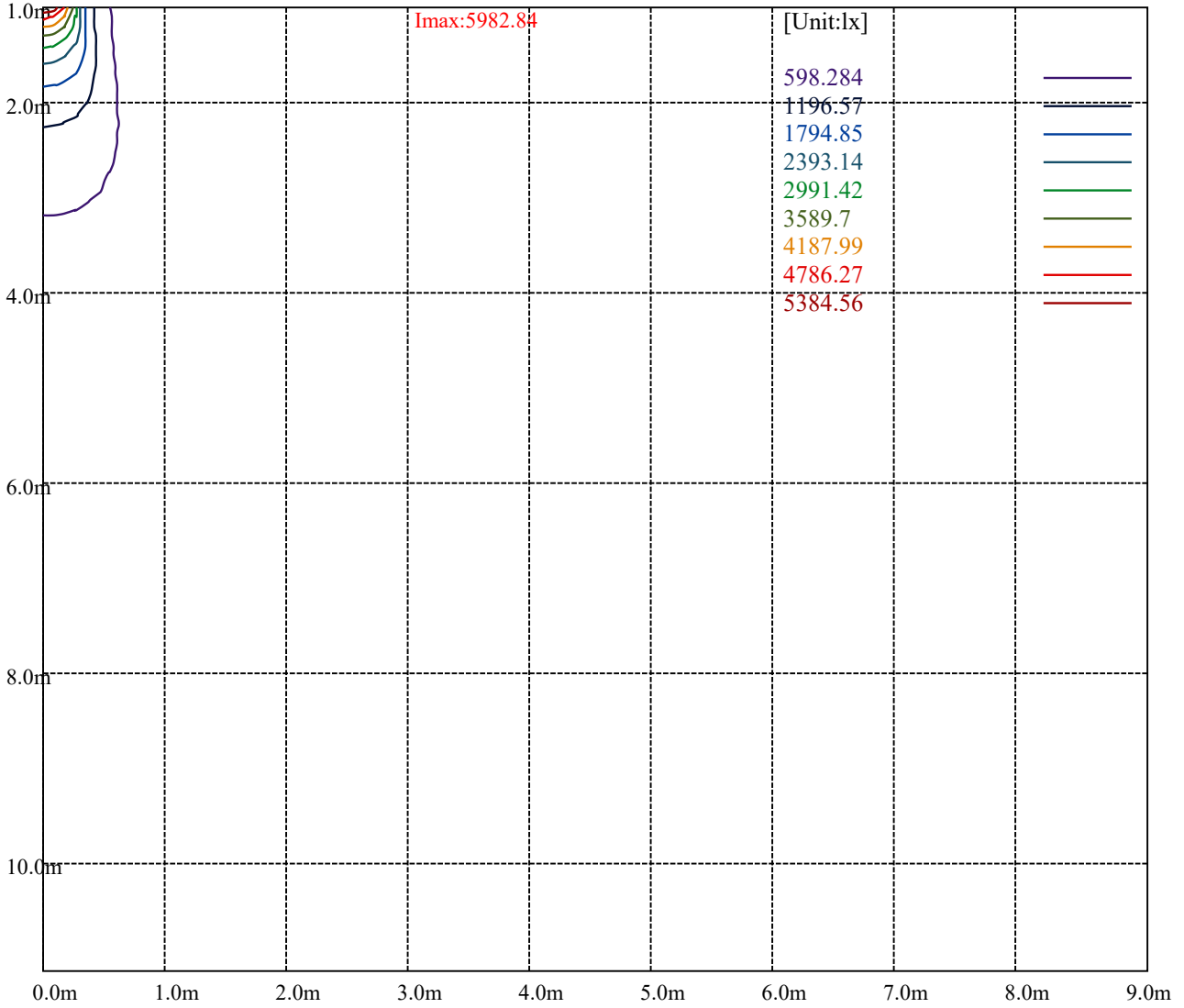
House

[Unit:cd]

Road

Imax:5982.84

(10%Imax) 598.284	—
(20%Imax) 1196.57	—
(30%Imax) 1794.85	—
(40%Imax) 2393.14	—
(50%Imax) 2991.42	—
(60%Imax) 3589.7	—
(70%Imax) 4187.99	—
(80%Imax) 4786.27	—
(90%Imax) 5384.56	—



Luminance Table

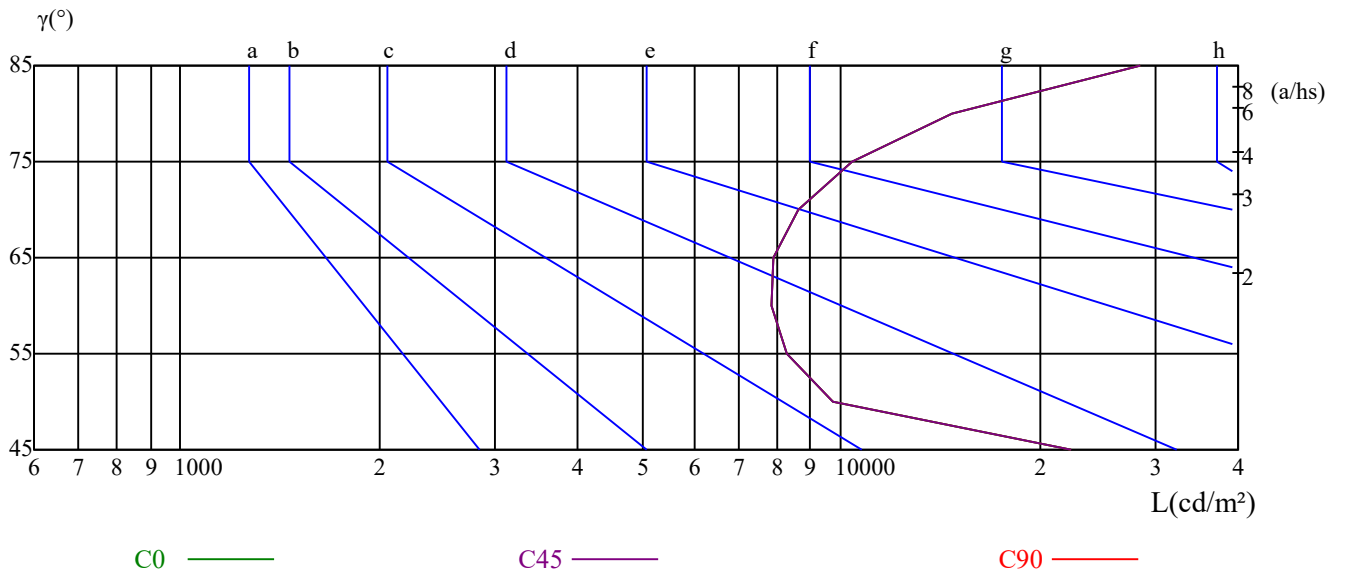
γ	45	50	55	60	65	70	75	80	85
C0	22395	9752	8303	7851	7886	8620	10430	14753	28394
C45	22395	9752	8303	7851	7886	8620	10430	14753	28394
C90	22395	9752	8303	7851	7886	8620	10430	14753	28394

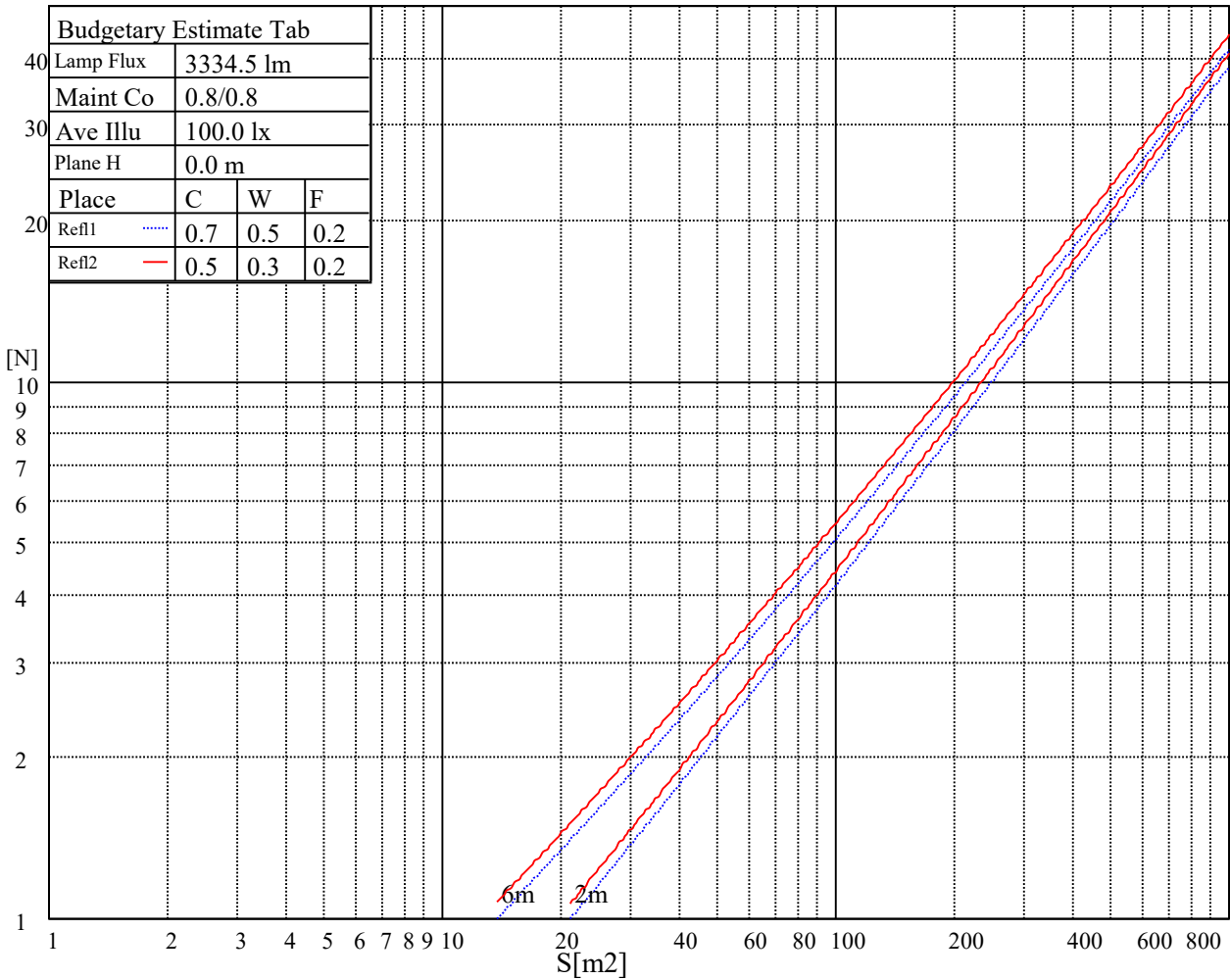
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
7886	7886	7886	10430	10430	10430	28394	28394	28394

Glare Table

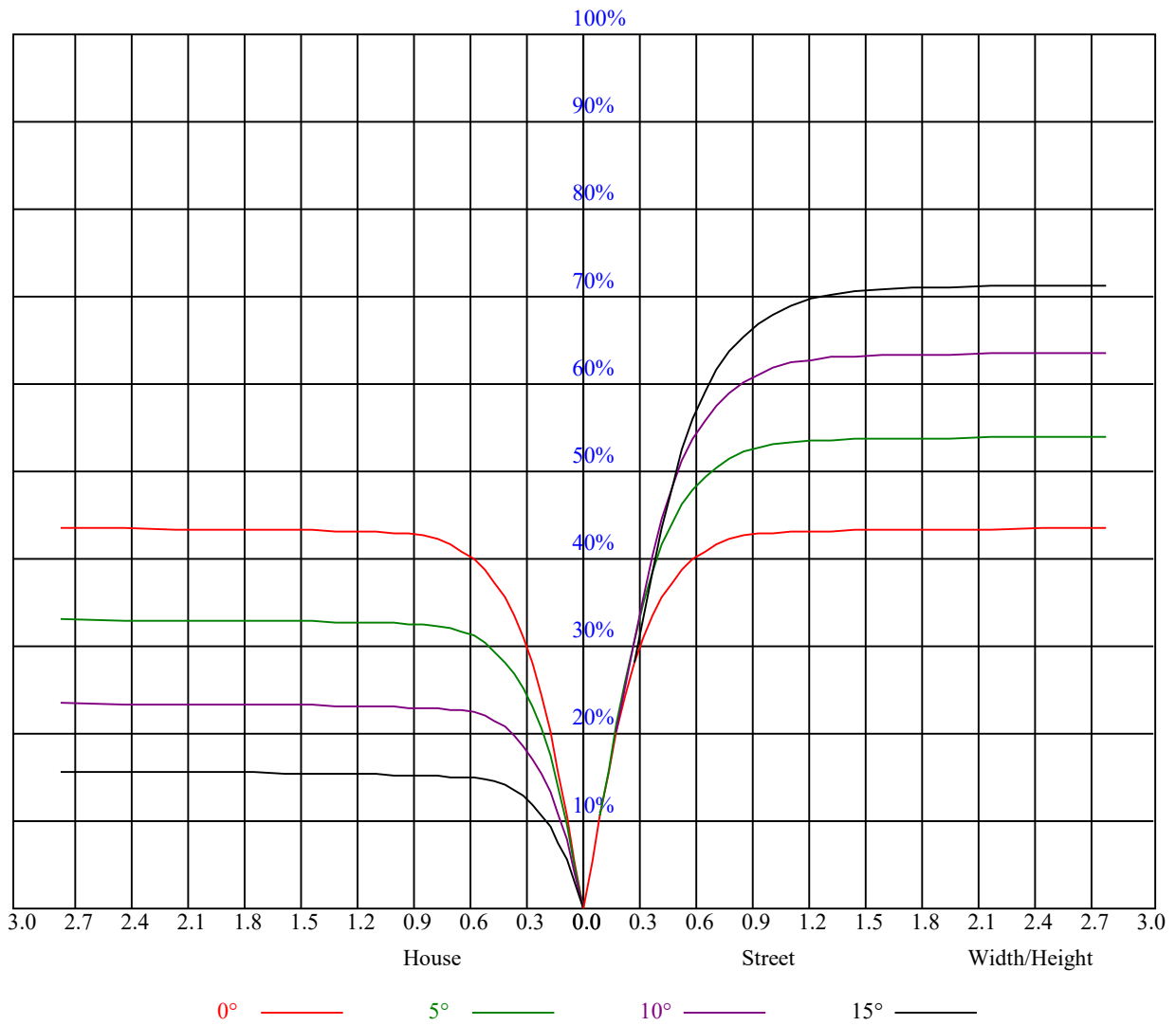
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

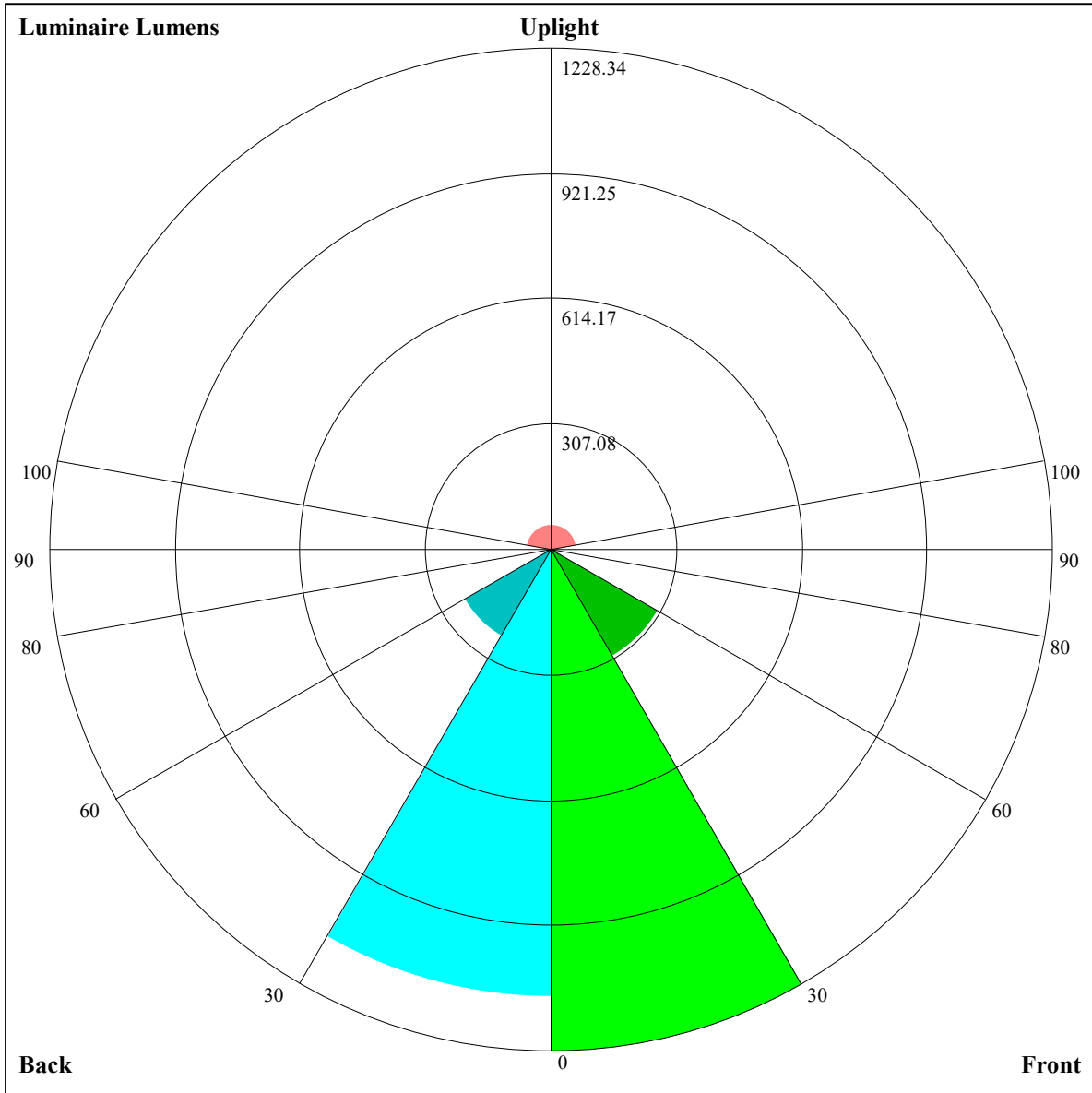
Luminance Limiting Curve





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	1.05	1.05	1.05	1.03	1.03	1.03	0.98	0.98	0.98	0.94	0.94	0.94	0.90	0.90	0.90	0.88
1	0.97	0.95	0.93	0.95	0.93	0.91	0.92	0.90	0.89	0.88	0.87	0.86	0.85	0.84	0.83	0.82
2	0.92	0.88	0.86	0.90	0.87	0.85	0.87	0.85	0.83	0.85	0.83	0.81	0.82	0.81	0.79	0.78
3	0.87	0.83	0.80	0.86	0.82	0.79	0.83	0.80	0.78	0.81	0.79	0.77	0.79	0.77	0.76	0.74
4	0.83	0.78	0.75	0.82	0.78	0.75	0.80	0.76	0.74	0.78	0.75	0.73	0.77	0.74	0.72	0.71
5	0.79	0.74	0.71	0.78	0.74	0.71	0.77	0.73	0.70	0.75	0.72	0.70	0.74	0.71	0.69	0.68
6	0.75	0.71	0.68	0.75	0.71	0.67	0.73	0.70	0.67	0.72	0.69	0.67	0.71	0.68	0.66	0.65
7	0.72	0.68	0.65	0.72	0.67	0.64	0.71	0.67	0.64	0.70	0.66	0.64	0.69	0.66	0.64	0.62
8	0.69	0.65	0.62	0.69	0.65	0.62	0.68	0.64	0.62	0.67	0.64	0.61	0.66	0.63	0.61	0.60
9	0.67	0.62	0.60	0.66	0.62	0.59	0.66	0.62	0.59	0.65	0.61	0.59	0.64	0.61	0.59	0.58
10	0.64	0.60	0.57	0.64	0.60	0.57	0.63	0.60	0.57	0.63	0.59	0.57	0.62	0.59	0.57	0.56





Luminaire Lumens:

FL=1228.34,FM=301.71,FH=15.56,FVH=6.65

BL=1097.44,BM=244.23,BH=14.95,BVH=6.61

UL=12.92,UH=61.46

BUG Rating:B3-U2-G0

Nata 2-1740-M

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	5982.98	5980.78	5675.76	4777.24	3012.14	1629.67	1202.98	866.59	503.77
45.0	5985.73	6015.46	5703.84	4861.48	3064.44	1580.67	1174.90	830.80	445.41
90.0	5989.59	5919.66	5412.04	4176.03	2364.67	1378.06	1067.05	680.11	335.07
135.0	5973.07	5827.72	5349.28	3960.76	2141.14	1337.87	1070.85	698.12	323.73
180.0	5982.98	5680.72	4927.55	3286.32	1744.74	1228.86	941.68	547.43	193.41
225.0	5985.73	5757.25	5098.22	3503.24	1924.22	1264.09	948.73	560.91	203.21
270.0	5989.59	5877.27	5361.39	4192.54	2345.40	1383.57	1059.29	694.81	316.02
315.0	5973.07	5859.65	5375.16	4106.66	2283.74	1399.53	1091.22	718.21	363.92
360.0	5982.98	5980.78	5675.76	4777.24	3012.14	1629.67	1202.98	866.59	503.77

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	198.20	36.89	26.37	21.14	17.56	15.42	13.76	12.88	12.28
45.0	103.34	33.97	24.50	20.10	16.85	14.81	13.38	12.61	12.17
90.0	55.66	28.35	22.41	18.50	15.80	14.09	12.94	12.33	12.06
135.0	57.75	28.85	22.46	18.77	15.91	14.04	12.99	12.39	12.00
180.0	41.62	26.87	21.36	17.84	15.42	13.82	12.99	12.44	12.11
225.0	42.34	28.02	22.13	18.22	15.75	14.04	12.99	12.50	12.17
270.0	52.96	31.38	23.84	19.49	16.63	14.65	13.32	12.66	12.11
315.0	68.88	31.38	23.62	19.82	16.74	14.70	13.43	12.61	12.11
360.0	198.20	36.89	26.37	21.14	17.56	15.42	13.76	12.88	12.28

C/γ(°)	90.0
0.0	11.89
45.0	11.84
90.0	11.84
135.0	11.78
180.0	11.84
225.0	11.89
270.0	11.84
315.0	11.78
360.0	11.89