
Nata

Client:

LumCAT: 2976-E

Luminaire: 92.76.233.00

Report No: nata-0100

Test No:

LampCAT: PL-CORE-AC-2000-840-G2

Lamp flux(lm): 1937.2

Number of Lamps: 1

Length(mm): 72

Phm Type: C

Voltage(V):

Current(A):

Power (W): 22.0000

PF:

Ballast type:

Width(mm): 72

Height(mm): 0

Photometric Results

Lumens(lm): 1662.79, Efficiency(%): 85.83% , Luminous Efficacy(lm/W): 75.58

Central intensity(cd): 7184.404, Maximum intensity(cd): 7184.404

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=19.4

[C90/270]Total=19.4

Field angle(10%Imax): [C0/180]Total=53.0

[C90/270]Total=53.0

Maximum s/h(1/2): C0_180=0.33 C90_270=0.33

Maximum s/h(1/4): C0_180=0.35 C90_270=0.35

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 87.97%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 96.086%

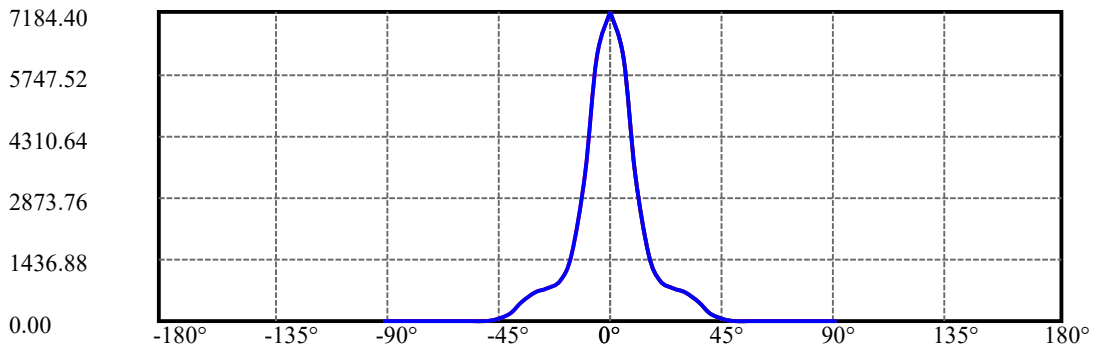
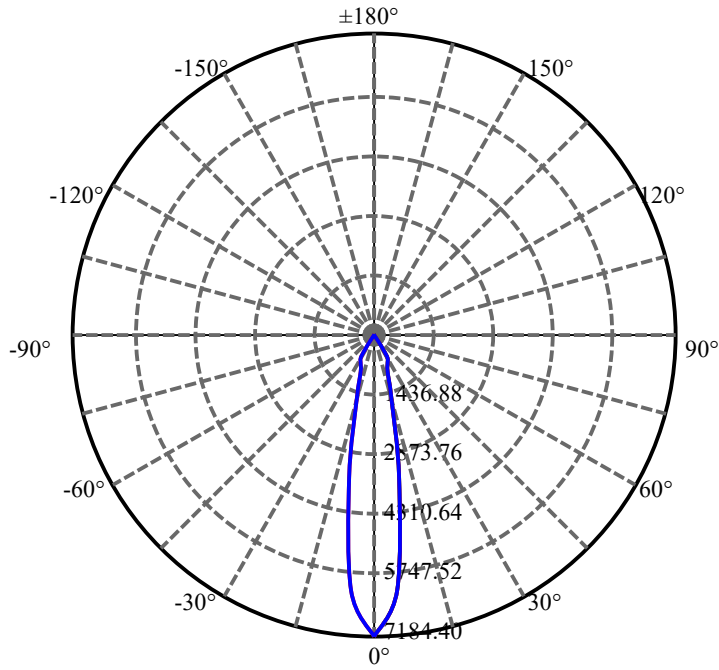
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	7184.404	42.964	42.964	2.218%	2.584%
5.0	6129.646	292.834	335.798	15.116%	20.195%
10.0	3446.451	328.044	663.842	16.934%	39.923%
15.0	1573.092	223.172	887.014	11.520%	53.345%
20.0	947.669	177.663	1064.677	9.171%	64.029%
25.0	747.577	173.178	1237.855	8.940%	74.444%
30.0	647.864	177.559	1415.414	9.166%	85.123%
35.0	427.405	134.376	1549.79	6.937%	93.204%
40.0	177.675	62.601	1612.391	3.232%	96.969%
45.0	29.048	11.259	1623.65	.581%	97.646%
50.0	11.013	4.624	1628.274	.239%	97.924%
55.0	10.104	4.537	1632.811	.234%	98.197%
60.0	9.829	4.666	1637.477	.241%	98.477%
65.0	9.279	4.609	1642.086	.238%	98.755%
70.0	8.938	4.604	1646.69	.238%	99.032%
75.0	8.714	4.614	1651.303	.238%	99.309%
80.0	8.574	4.628	1655.932	.239%	99.587%
85.0	8.440	4.608	1660.54	.238%	99.865%
90.0	8.220	2.253	1662.793	.116%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1415.41	73.06%	85.12%
0-40	1612.39	83.23%	96.97%
0-60	1637.48	84.53%	98.48%
0-90	1660.54	85.72%	99.86%
0-120	1660.54	85.72%	99.86%
0-180	1662.79	85.83%	100.00%
60-90	27.73	1.43%	1.67%
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%
0-27.60	1330.24	68.67%	80.00%

ZONAL LUMEN SUMMARY

0-10	663.84
10-20	400.84
20-30	350.74
30-40	196.98
40-50	15.88
50-60	9.20
60-70	9.21
70-80	9.24
80-90	4.61
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



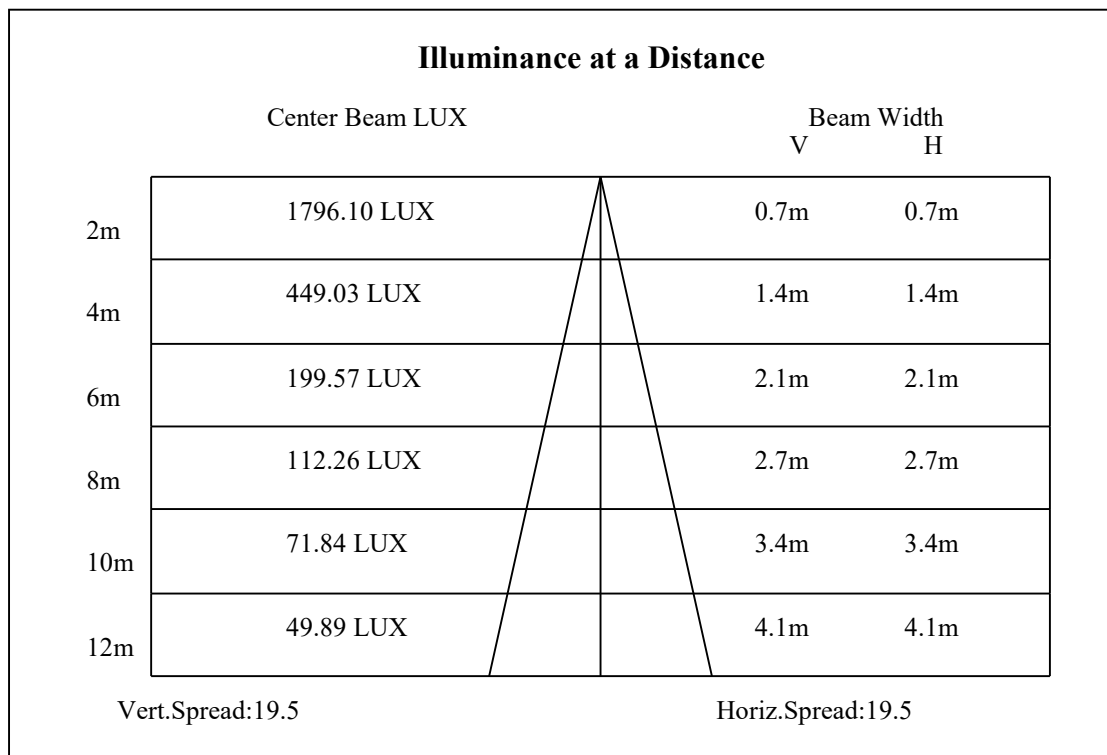
C0(Max): —————

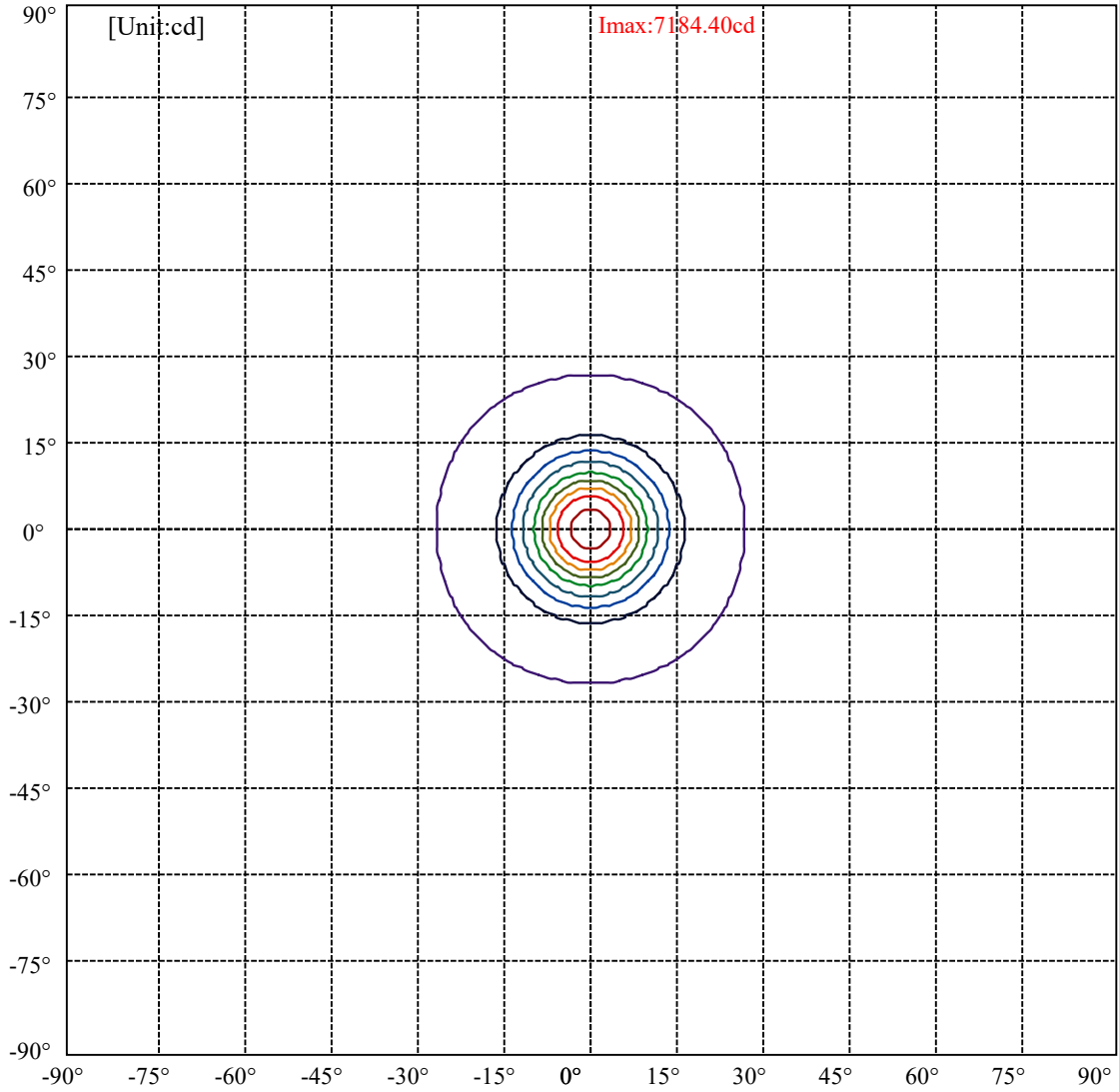
C0/C180: —————

C90/C270: —————

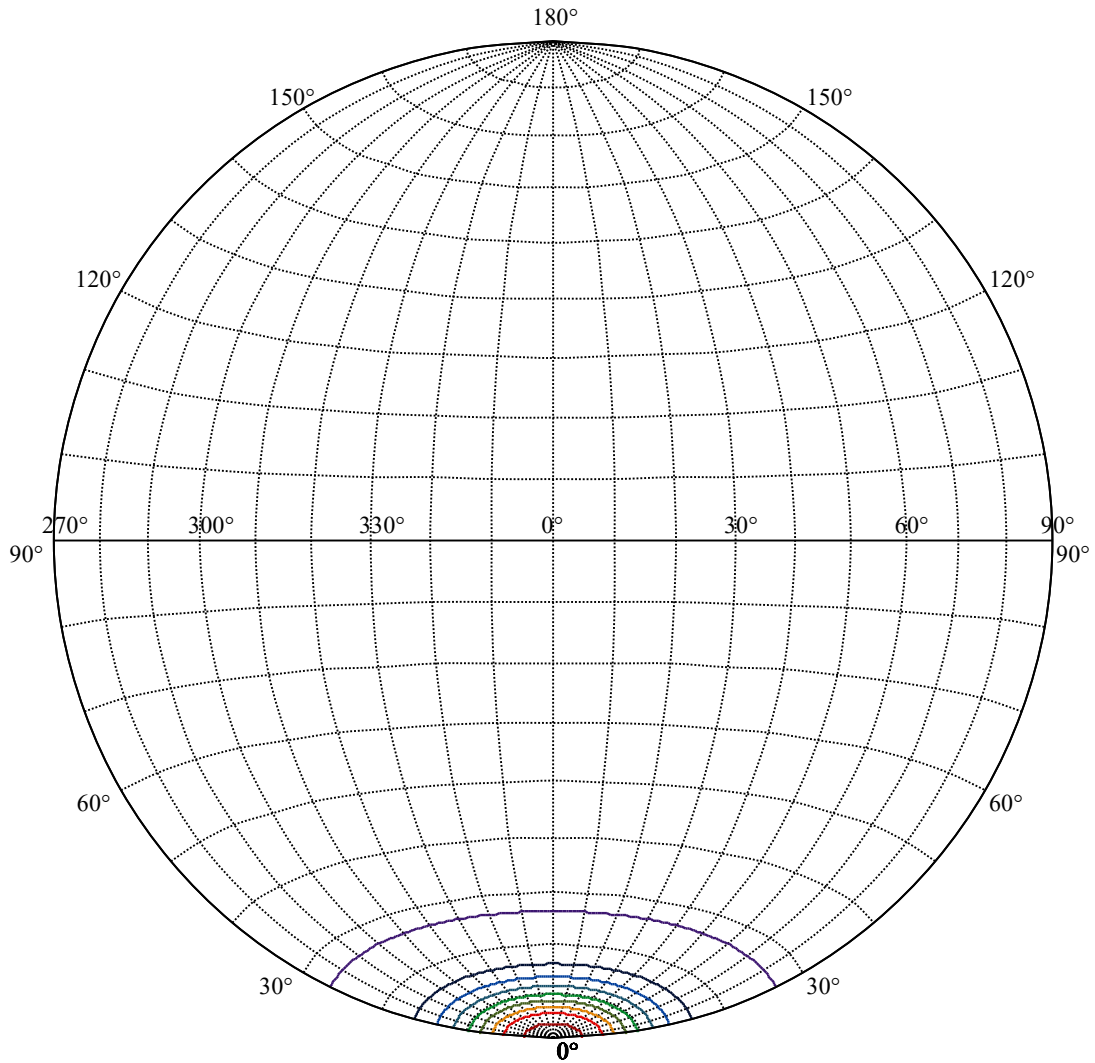
Field angle(10%Imax):C0/180Left:26.5 Right:26.5
:C90/270Left:26.5 Right:26.5

Beam Angle(50%Imax):C0/180Left:9.7 Right:9.7
:C90/270Left:9.7 Right:9.7





(10%Imax) 718.44	—
(20%Imax) 1436.88	—
(30%Imax) 2155.32	—
(40%Imax) 2873.76	—
(50%Imax) 3592.2	—
(60%Imax) 4310.64	—
(70%Imax) 5029.08	—
(80%Imax) 5747.52	—
(90%Imax) 6465.96	—



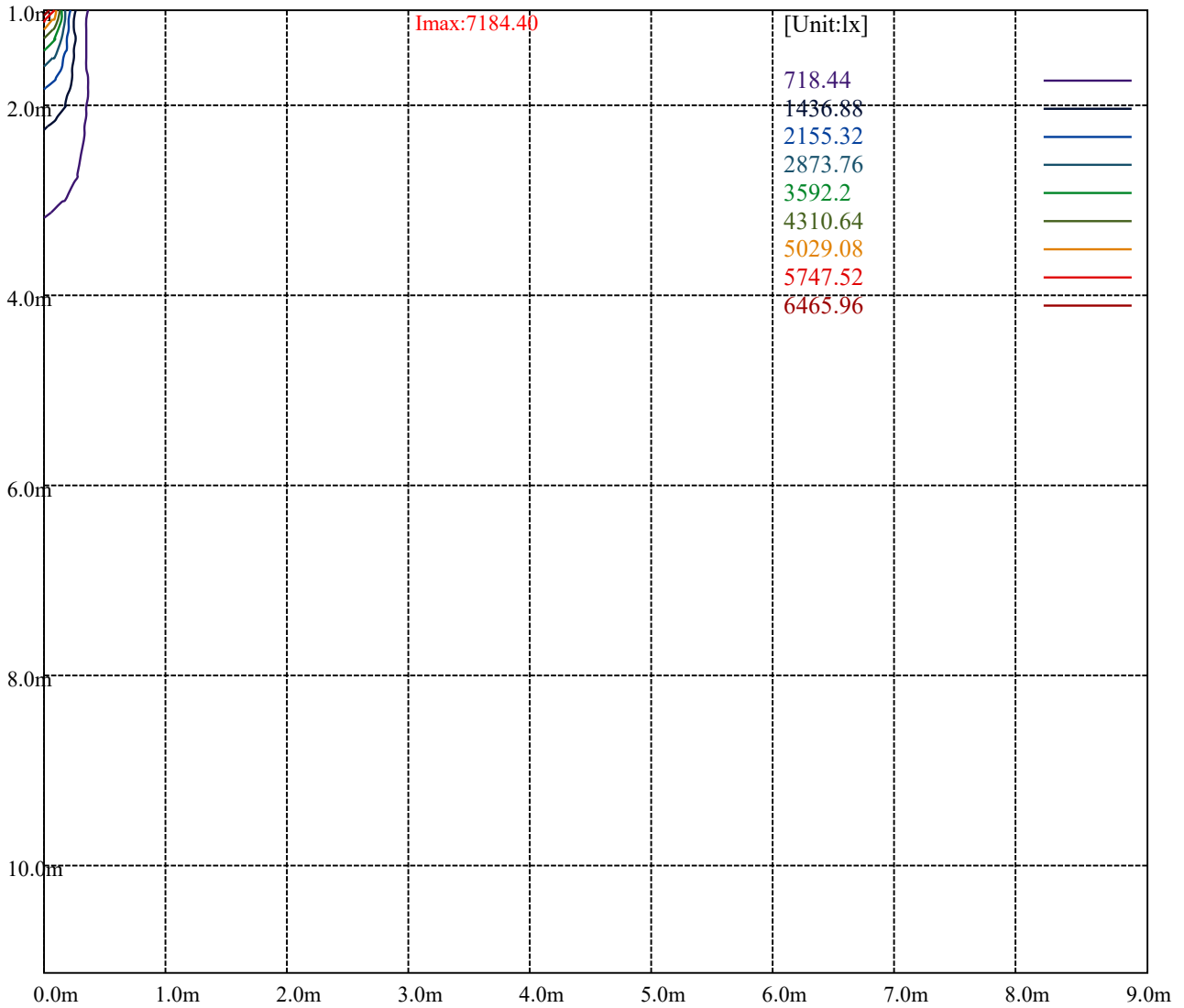
House

[Unit:cd]

Road

Imax:7184.40

- (10%Imax) 718.44
- (20%Imax) 1436.88
- (30%Imax) 2155.32
- (40%Imax) 2873.76
- (50%Imax) 3592.2
- (60%Imax) 4310.64
- (70%Imax) 5029.08
- (80%Imax) 5747.52
- (90%Imax) 6465.96



Luminance Table

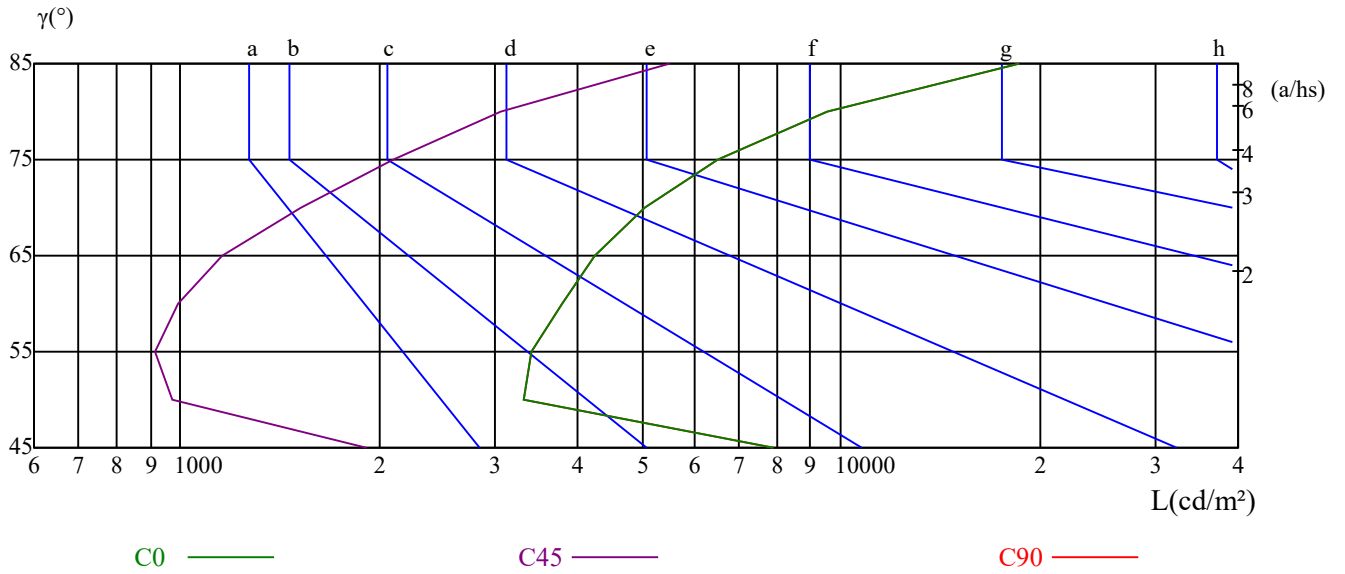
γ	45	50	55	60	65	70	75	80	85
C0	7924	3305	3398	3792	4235	5041	6495	9525	18679
C45	1915	975	916	992	1158	1524	2099	3065	5492
C90	7924	3305	3398	3792	4235	5041	6495	9525	18679

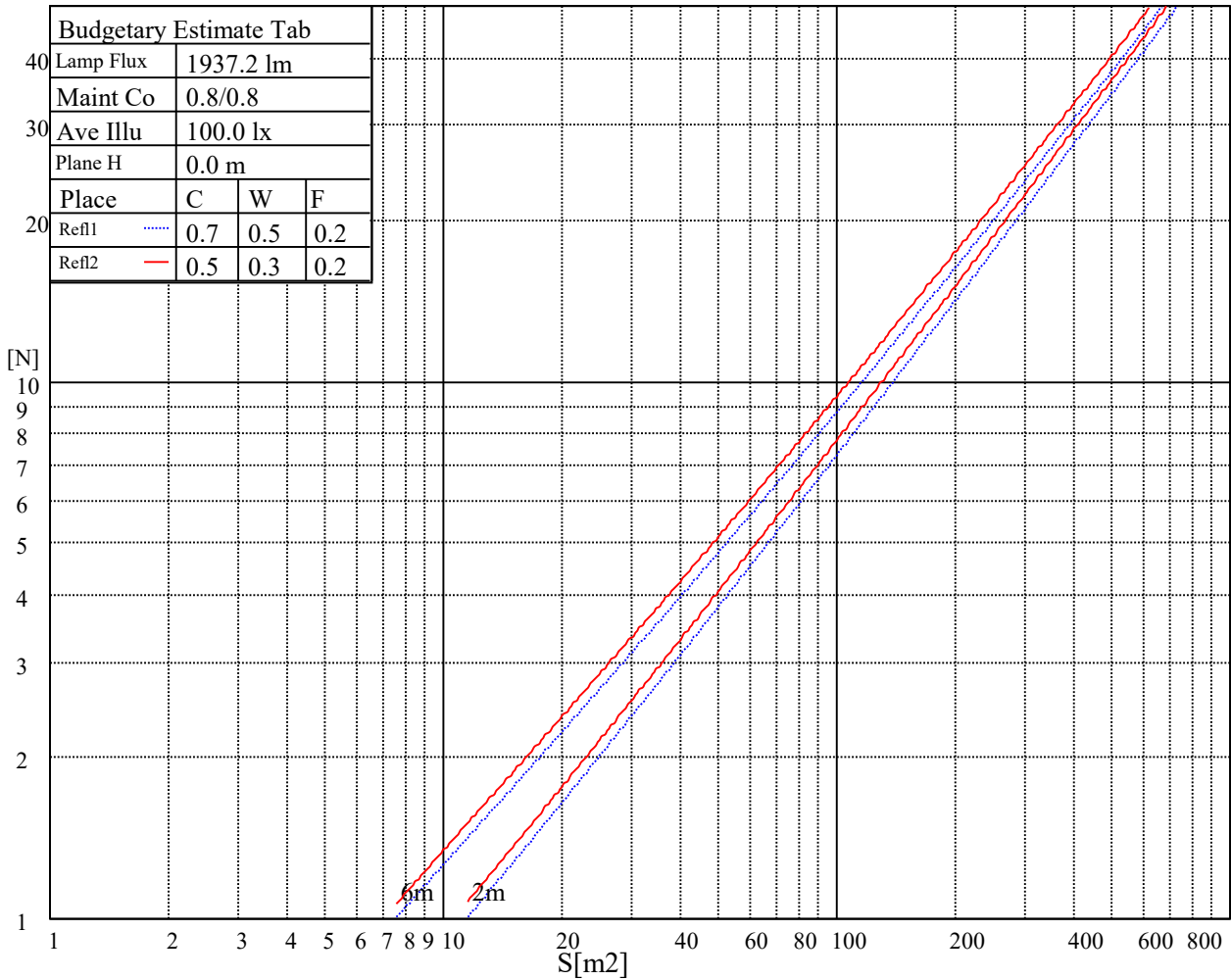
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
4235	4235	1158	6495	6495	2099	18679	18679	5492

Glare Table

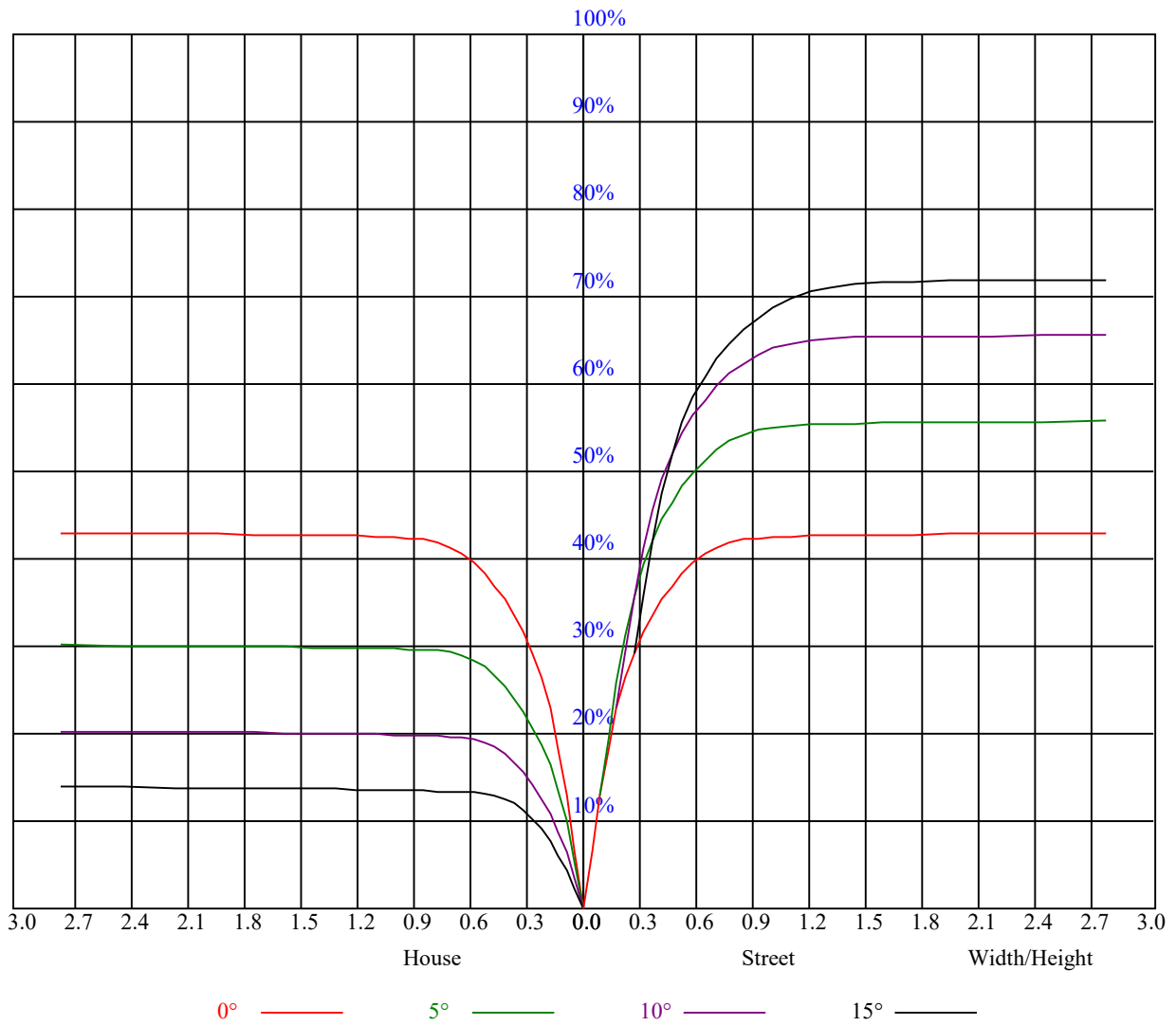
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

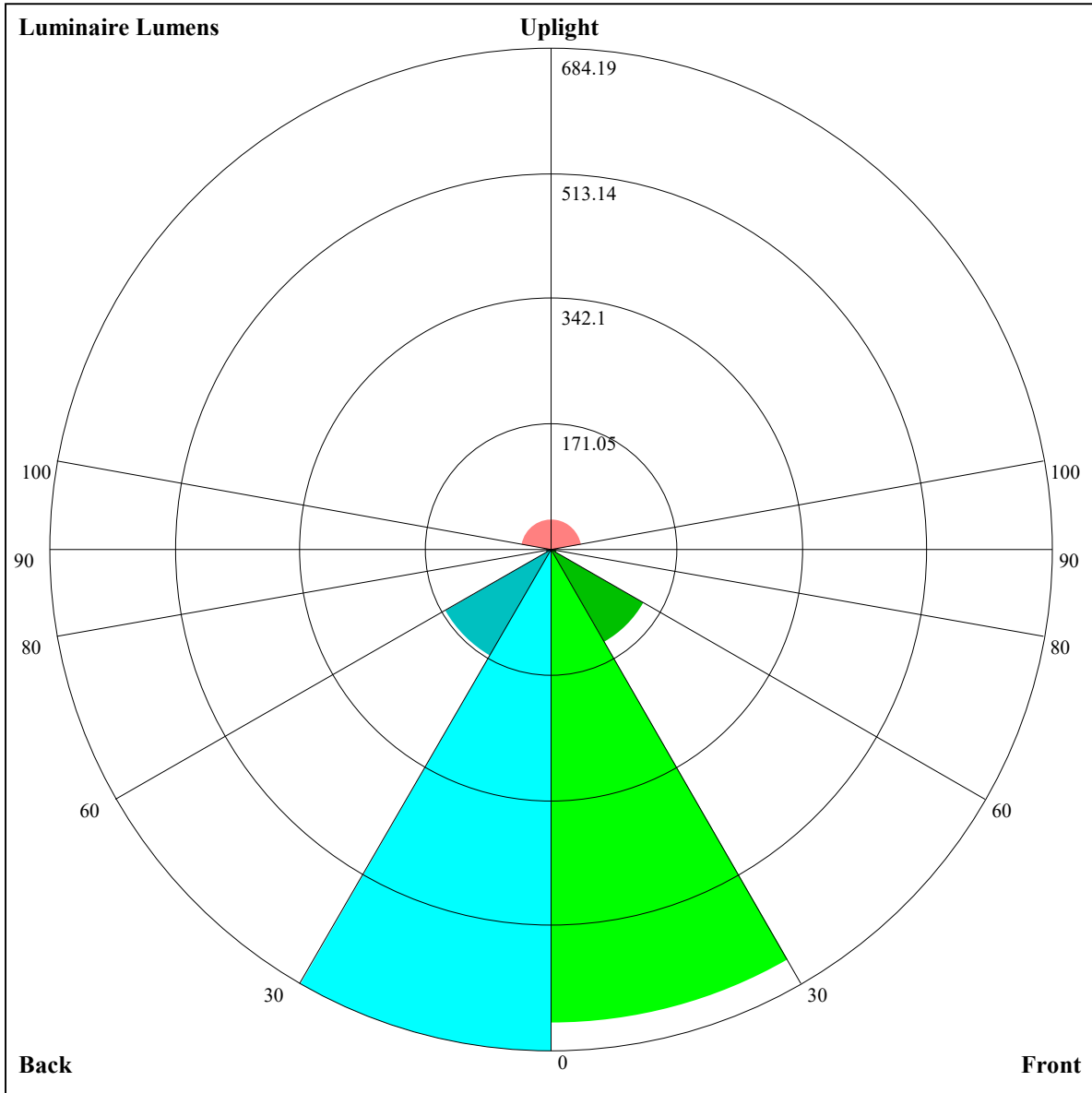
Luminance Limiting Curve





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	1.02	1.02	1.02	0.98	0.98	0.98	0.94	0.94	0.94	0.90	0.90	0.90	0.88
1	0.96	0.93	0.91	0.94	0.91	0.89	0.90	0.88	0.86	0.87	0.85	0.84	0.84	0.83	0.81	0.80
2	0.90	0.87	0.84	0.89	0.86	0.83	0.86	0.83	0.81	0.83	0.81	0.79	0.81	0.79	0.78	0.76
3	0.86	0.82	0.79	0.85	0.81	0.78	0.82	0.79	0.77	0.80	0.78	0.75	0.78	0.76	0.74	0.73
4	0.82	0.78	0.74	0.81	0.77	0.74	0.79	0.76	0.73	0.77	0.75	0.72	0.76	0.73	0.71	0.70
5	0.78	0.74	0.71	0.78	0.73	0.70	0.76	0.73	0.70	0.75	0.72	0.69	0.73	0.71	0.69	0.67
6	0.75	0.71	0.68	0.75	0.70	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	0.68	0.65	0.71	0.67	0.64	0.70	0.67	0.64	0.69	0.66	0.64	0.63
8	0.70	0.66	0.63	0.69	0.65	0.62	0.69	0.65	0.62	0.68	0.64	0.62	0.67	0.64	0.62	0.61
9	0.68	0.63	0.60	0.67	0.63	0.60	0.66	0.63	0.60	0.66	0.62	0.60	0.65	0.62	0.60	0.59
10	0.65	0.61	0.59	0.65	0.61	0.58	0.64	0.61	0.58	0.64	0.61	0.58	0.63	0.60	0.58	0.57





Luminaire Lumens:

FL=646.13,FM=146.35,FH=9.19,FVH=4.61

BL=684.19,BM=167.27,BH=9.3,BVH=4.59

UL=8.97,UH=42.68

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	7190.75	5779.12	2996.70	1435.69	891.74	730.88	624.18	367.59	92.15
30.0	7179.56	6184.76	3631.18	1586.19	943.88	748.06	655.18	430.26	145.81
60.0	7186.27	6052.16	3203.72	1451.35	901.19	733.68	640.58	418.51	117.10
90.0	7135.91	6402.96	3970.80	1787.06	1016.62	761.49	669.73	471.66	283.11
120.0	7177.88	6562.98	3980.31	1756.28	1044.03	773.24	669.73	469.98	284.79
150.0	7236.07	6245.18	3518.72	1640.47	941.20	759.30	656.63	430.59	147.77
180.0	7190.75	6468.99	4103.96	1813.91	1023.33	764.28	672.52	477.26	288.70
210.0	7179.56	6058.31	3223.30	1595.15	917.81	737.31	642.03	435.57	131.37
240.0	7186.27	6221.68	3616.07	1597.94	976.33	751.97	652.38	448.72	283.67
270.0	7135.91	5694.63	2828.85	1271.19	865.89	723.22	617.92	393.33	104.29
300.0	7177.88	5803.18	2937.40	1286.86	892.69	738.32	622.78	367.99	111.40
330.0	7236.07	6081.81	3346.39	1655.01	957.31	749.18	650.70	417.39	141.95
360.0	7190.75	5779.12	2996.70	1435.69	891.74	730.88	624.18	367.59	92.15

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	22.72	11.13	10.18	9.46	9.18	8.95	8.67	8.45	8.34
30.0	26.97	10.91	10.02	9.51	9.12	8.95	8.73	8.62	8.45
60.0	26.30	10.58	9.85	10.13	8.95	8.84	8.67	8.62	8.45
90.0	33.63	11.25	10.18	10.52	9.18	9.01	8.95	8.84	8.73
120.0	32.84	11.13	10.24	9.57	9.29	8.90	8.84	8.73	8.56
150.0	33.07	11.25	10.24	9.57	9.29	9.01	8.73	8.56	8.45
180.0	36.20	11.30	10.35	10.41	10.07	9.18	8.62	8.50	8.34
210.0	26.80	10.63	9.90	10.58	10.02	8.95	8.56	8.39	8.28
240.0	28.54	10.74	9.96	9.46	9.06	8.84	8.67	8.56	8.39
270.0	27.25	10.69	9.90	9.34	9.01	8.84	8.62	8.50	8.39
300.0	27.75	10.91	10.02	9.46	9.01	8.84	8.73	8.56	8.45
330.0	26.52	11.64	10.41	9.96	9.18	8.95	8.78	8.56	8.45
360.0	22.72	11.13	10.18	9.46	9.18	8.95	8.67	8.45	8.34

C/γ(°)	90.0
0.0	8.17
30.0	8.28
60.0	8.28
90.0	8.56
120.0	8.45
150.0	8.17
180.0	8.11
210.0	8.00
240.0	8.11
270.0	8.06
300.0	8.17
330.0	8.28
360.0	8.17