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## Nata

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LumCAT: 3-1816-E	
Luminaire: 92.76.263.00	
Report No: NATA0100	Voltage(V): 29.4000
Test No:	Current(A): 0.9500
LampCAT: BRIDGELUX VERO 18	Power (W): 27.9300
Lamp flux(lm): 3743.0	PF: 0.0000
Number of Lamps: 1	Ballast type:
Length(mm): 76	Width(mm): 76
Phm Type: C	Height(mm): 0

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## Photometric Results

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Lumens(lm): 3355.14  
Efficiency(%): 89.64%  
Lumens(lm)/Power(W): 120.87  
Central intensity(cd): 3990.488  
Maximum intensity(cd): 3990.488  
Angle of maximum intensity: C=0.0  $\gamma$ =0.0  
Beam Angle(50%Imax): [C0/180]Total=60.8  
                                  [C90/270]Total=60.8  
Field angle(10%Imax): [C0/180]Total=78.4  
                                  [C90/270]Total=78.4  
Maximum s/h(1/2): C0\_180=0.94 C90\_270=0.94  
Maximum s/h(1/4): C0\_180=0.89 C90\_270=0.89  
Up flux rate of lamp(%): 0.00%  
Down flux rate of lamp(%): 90.19%  
Up flux rate of LUM(%): - -  
Down flux rate of LUM(%): 100.00%  
CIE Type : Direct lighting  
Output flux ratio in  $\pi$  solid angle : 97.835%

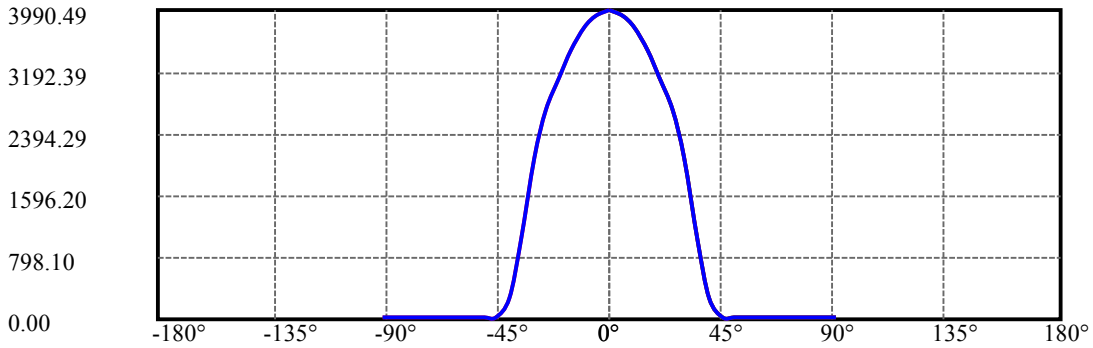
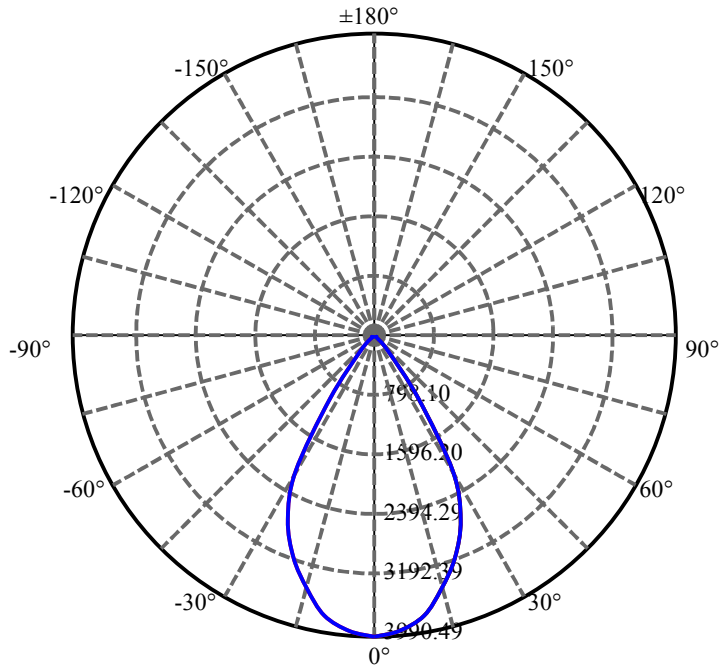
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	3990.488	23.864	23.864	.638%	.711%
5.0	3917.332	187.144	211.008	5.000%	6.289%
10.0	3762.210	358.099	569.107	9.567%	16.962%
15.0	3466.557	491.795	1060.901	13.139%	31.620%
20.0	3131.608	587.095	1647.997	15.685%	49.119%
25.0	2703.269	626.220	2274.217	16.730%	67.783%
30.0	2078.241	569.581	2843.798	15.217%	84.759%
35.0	1025.646	322.462	3166.259	8.615%	94.370%
40.0	275.516	97.074	3263.333	2.593%	97.264%
45.0	36.303	14.071	3277.404	.376%	97.683%
50.0	21.204	8.903	3286.307	.238%	97.948%
55.0	18.348	8.238	3294.546	.220%	98.194%
60.0	17.191	8.161	3302.706	.218%	98.437%
65.0	16.510	8.202	3310.908	.219%	98.682%
70.0	17.494	9.011	3319.919	.241%	98.950%
75.0	19.421	10.283	3330.202	.275%	99.257%
80.0	19.359	10.450	3340.652	.279%	99.568%
85.0	19.139	10.451	3351.103	.279%	99.880%
90.0	14.728	4.036	3355.139	.108%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	2843.80	75.98%	84.76%
0-40	3263.33	87.18%	97.26%
0-60	3302.71	88.24%	98.44%
0-90	3351.10	89.53%	99.88%
0-120	3351.10	89.53%	99.88%
0-180	3355.14	89.64%	100.00%
60-90	56.56	1.51%	1.69%
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%
0-28.60	2684.11	71.71%	80.00%

ZONAL LUMEN SUMMARY

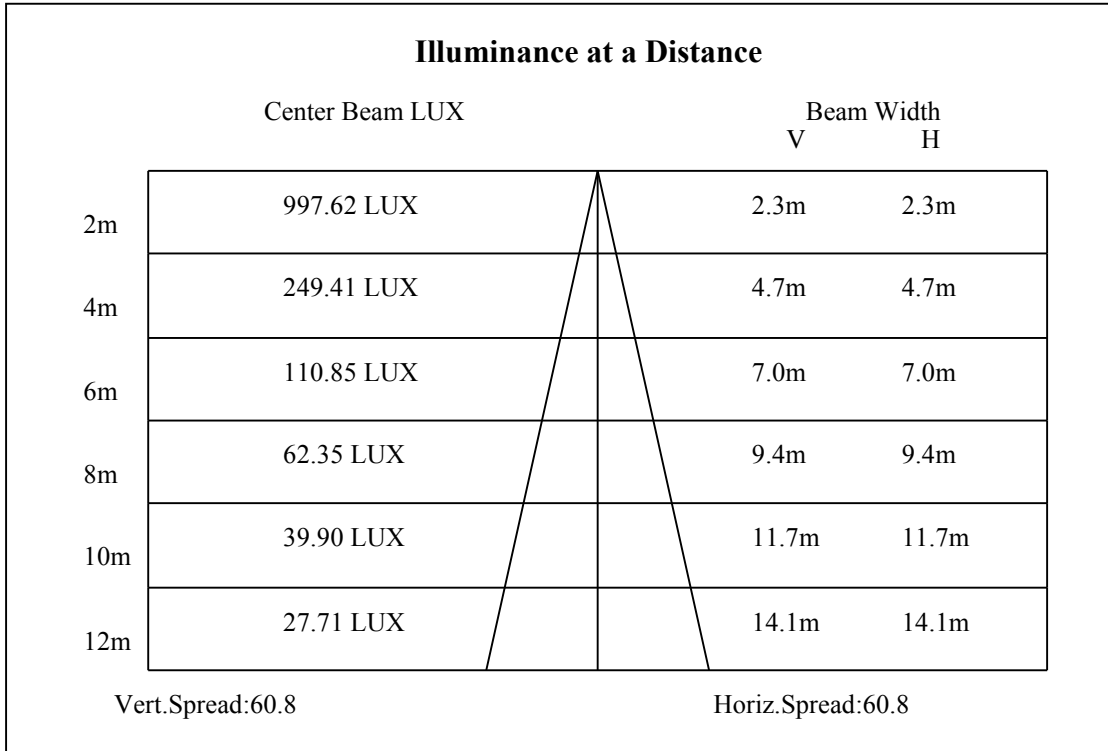
0-10	569.11
10-20	1078.89
20-30	1195.80
30-40	419.54
40-50	22.97
50-60	16.40
60-70	17.21
70-80	20.73
80-90	10.45
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

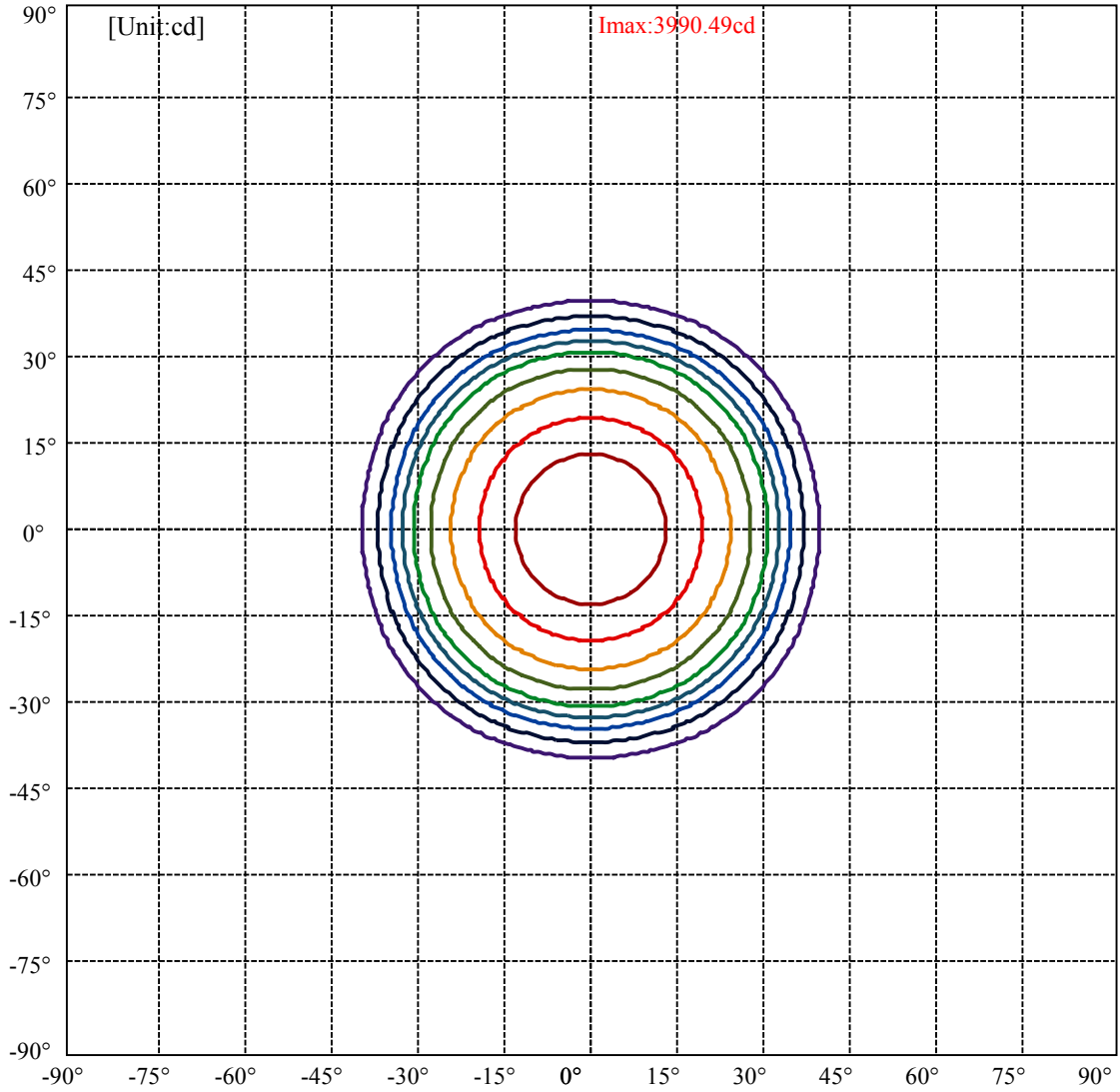


C0(Max): —————  
C0/C180: —————  
C90/C270: —————

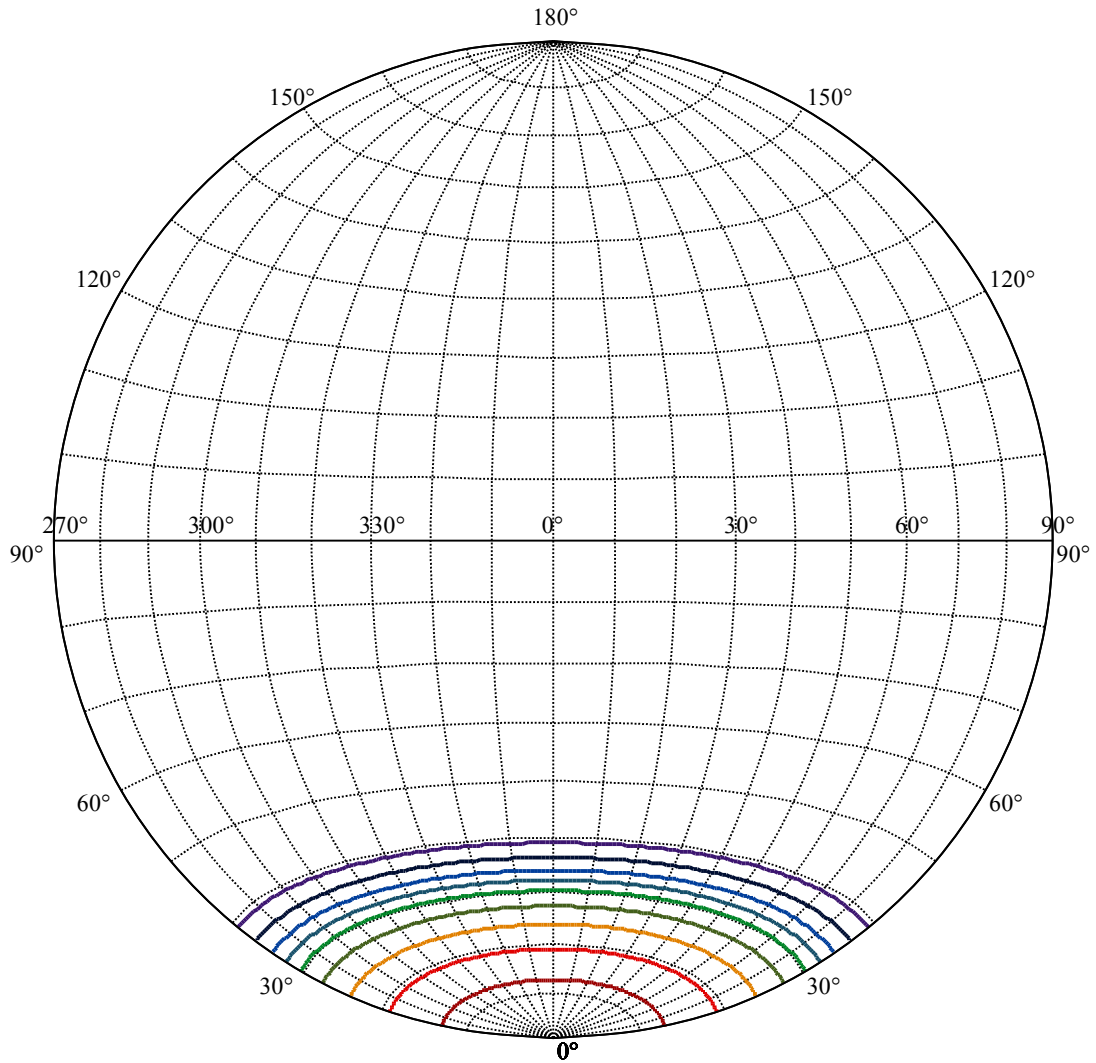
Field angle(10%Imax):C0/180Left:39.2 Right:39.2  
:C90/270Left:39.2 Right:39.2

Beam Angle(50%Imax):C0/180Left:30.4 Right:30.4  
:C90/270Left:30.4 Right:30.4





(10%Imax) 399.049	—
(20%Imax) 798.098	—
(30%Imax) 1197.15	—
(40%Imax) 1596.2	—
(50%Imax) 1995.24	—
(60%Imax) 2394.29	—
(70%Imax) 2793.34	—
(80%Imax) 3192.39	—
(90%Imax) 3591.44	—



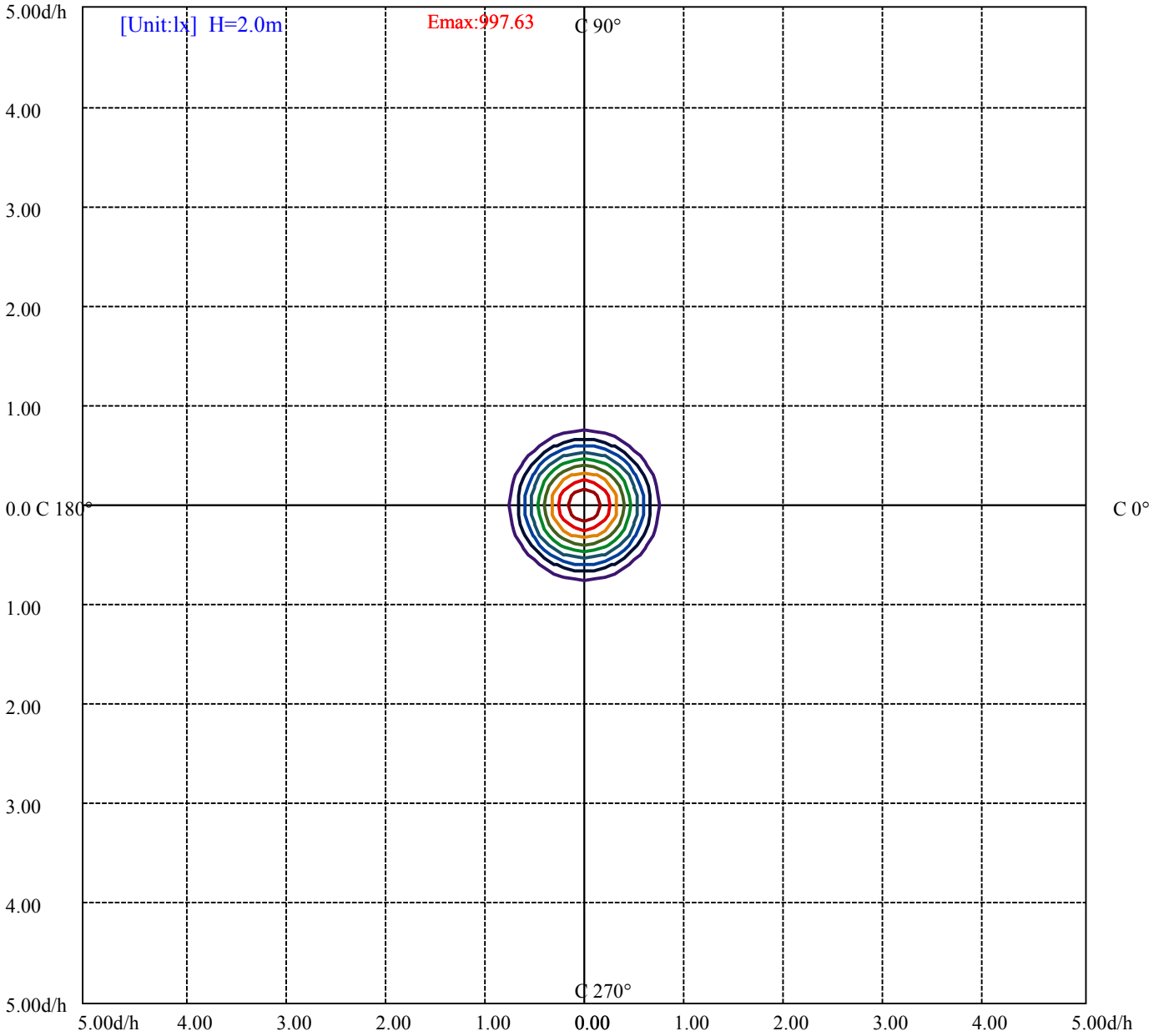
House

[Unit:cd]

Road

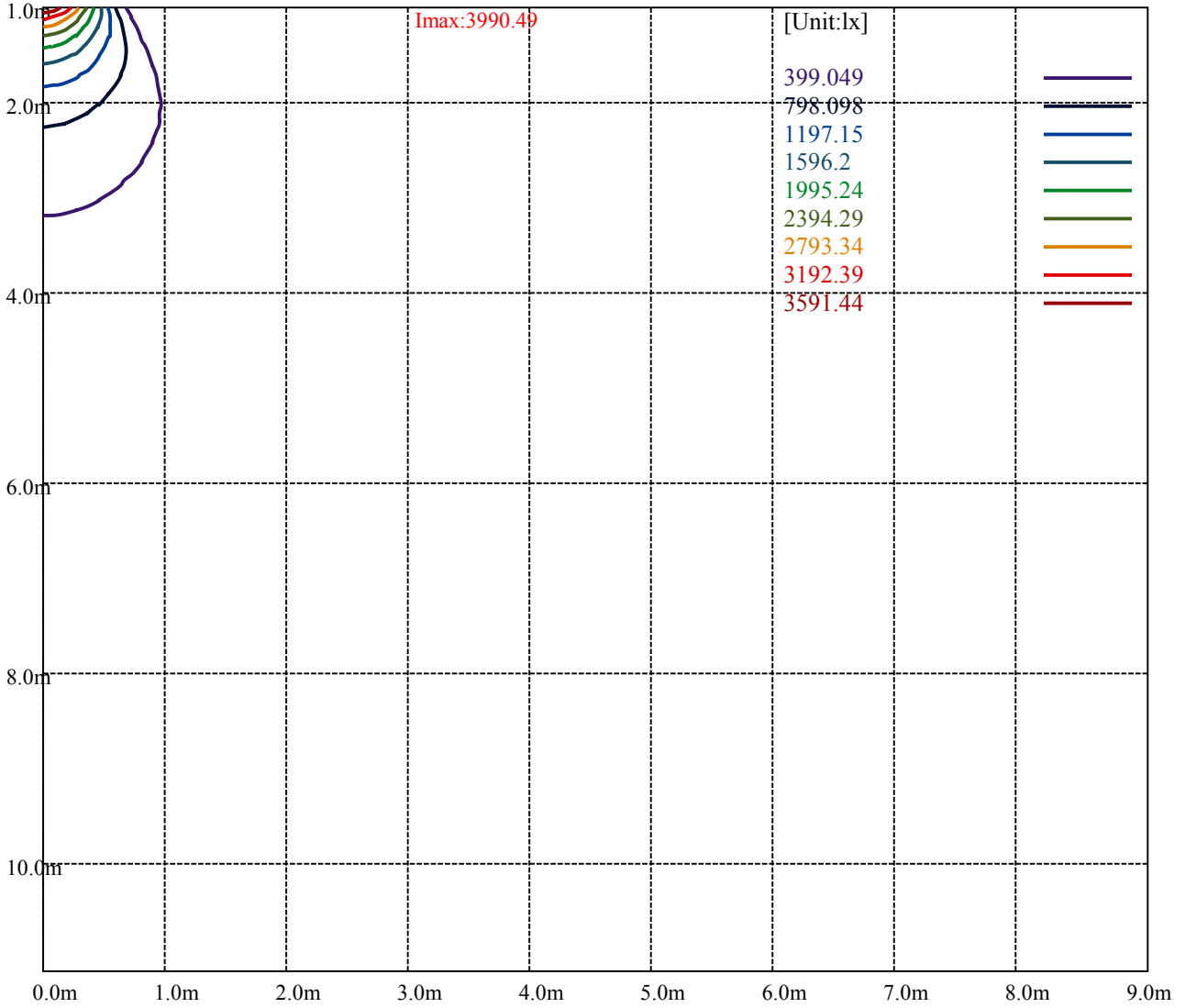
**Imax:3990.49**

(10%Imax) 399.049	—
(20%Imax) 798.098	—
(30%Imax) 1197.15	—
(40%Imax) 1596.2	—
(50%Imax) 1995.24	—
(60%Imax) 2394.29	—
(70%Imax) 2793.34	—
(80%Imax) 3192.39	—
(90%Imax) 3591.44	—



(10%Emax) 99.76225	—
(20%Emax) 199.5242	—
(30%Emax) 299.2875	—
(40%Emax) 399.0475	—
(50%Emax) 498.81	—
(60%Emax) 598.5725	—
(70%Emax) 698.335	—
(80%Emax) 798.0975	—
(90%Emax) 897.86	—





Luminance Table

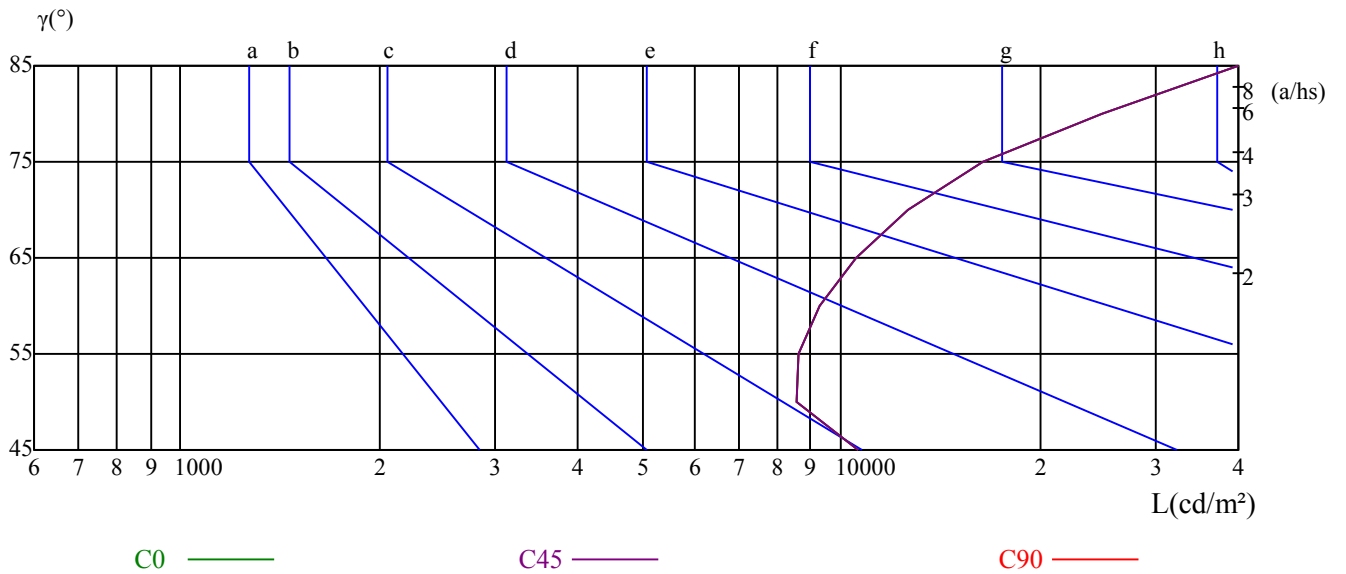
$\gamma$	45	50	55	60	65	70	75	80	85
C0	10597	8593	8644	9300	10553	12656	16461	24848	51066
C45	10597	8593	8644	9300	10553	12656	16461	24848	51066
C90	10597	8593	8644	9300	10553	12656	16461	24848	51066

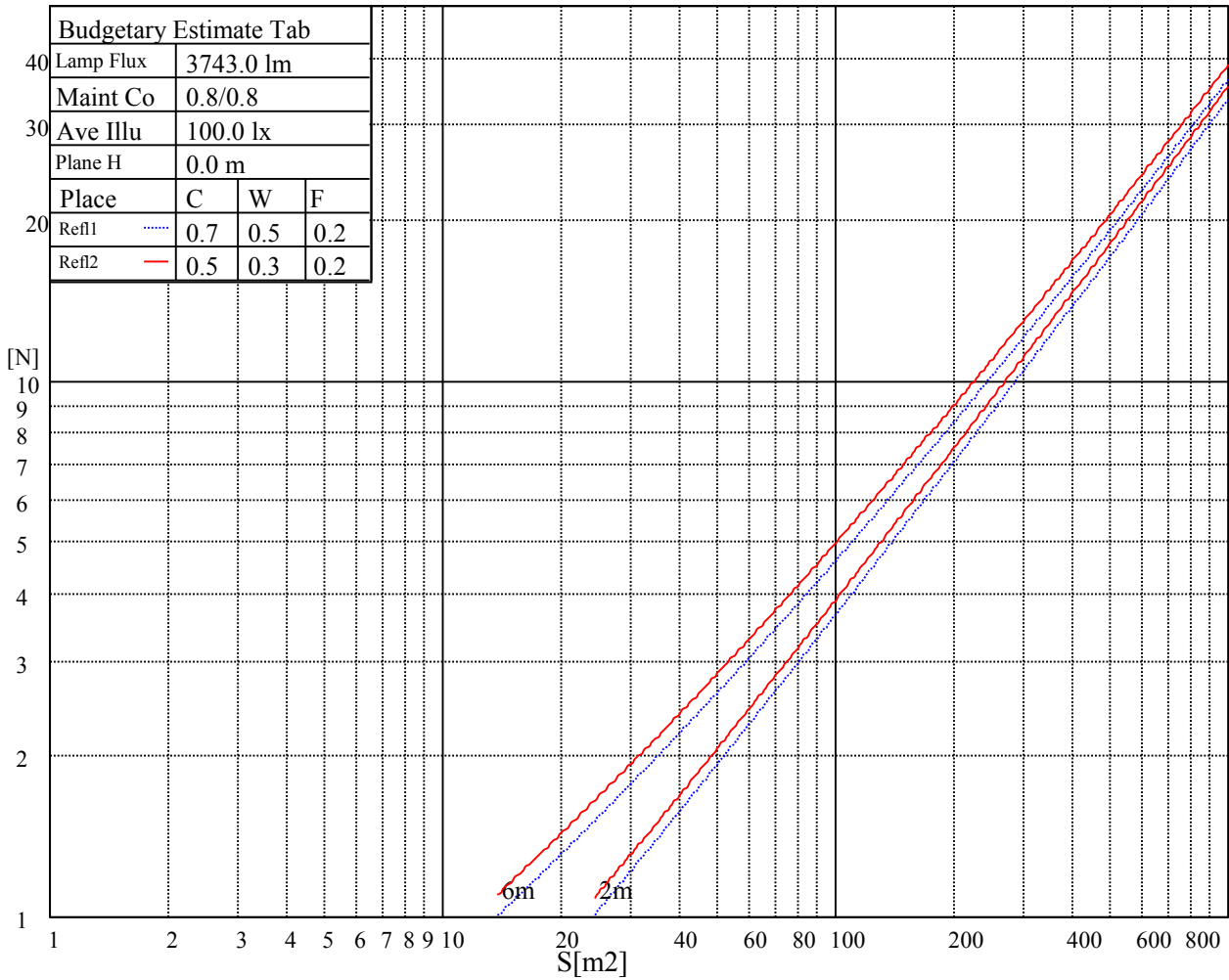
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
10553	10553	10553	16461	16461	16461	51066	51066	51066

Glare Table

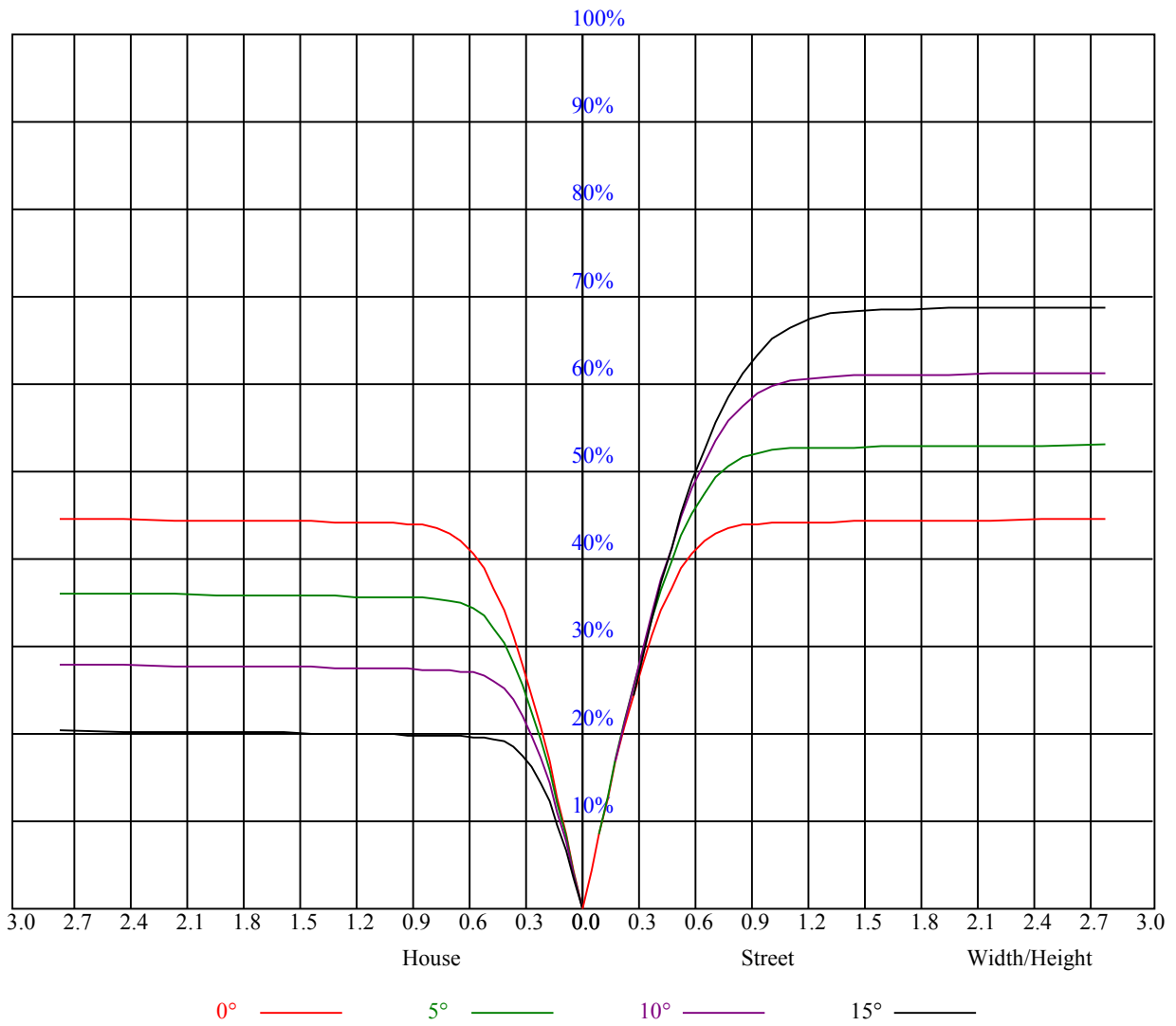
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	1.07	1.07	1.07	1.05	1.05	1.05	1.00	1.00	1.00	0.96	0.96	0.96	0.92	0.92	0.92	0.90
1	0.99	0.97	0.95	0.98	0.95	0.93	0.94	0.92	0.91	0.90	0.89	0.88	0.87	0.86	0.85	0.84
2	0.93	0.90	0.87	0.92	0.88	0.86	0.89	0.86	0.84	0.86	0.84	0.82	0.84	0.82	0.80	0.79
3	0.88	0.83	0.80	0.87	0.83	0.79	0.84	0.81	0.78	0.82	0.79	0.77	0.80	0.78	0.76	0.74
4	0.83	0.78	0.75	0.82	0.78	0.74	0.80	0.76	0.73	0.78	0.75	0.72	0.77	0.74	0.72	0.70
5	0.78	0.74	0.70	0.78	0.73	0.70	0.76	0.72	0.69	0.75	0.71	0.68	0.73	0.70	0.68	0.67
6	0.74	0.69	0.66	0.74	0.69	0.66	0.72	0.68	0.65	0.71	0.67	0.65	0.70	0.67	0.64	0.63
7	0.71	0.66	0.62	0.70	0.65	0.62	0.69	0.65	0.62	0.68	0.64	0.61	0.67	0.64	0.61	0.60
8	0.67	0.62	0.59	0.67	0.62	0.59	0.66	0.62	0.59	0.65	0.61	0.58	0.64	0.61	0.58	0.57
9	0.64	0.59	0.56	0.64	0.59	0.56	0.63	0.59	0.56	0.62	0.58	0.56	0.61	0.58	0.55	0.54
10	0.61	0.56	0.53	0.61	0.56	0.53	0.60	0.56	0.53	0.59	0.56	0.53	0.59	0.55	0.53	0.52



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	3987.18	3918.36	3779.62	3498.83	3161.34	2768.79	2197.30	1164.99	332.54
45.0	3991.59	3961.86	3838.53	3594.08	3276.41	2868.99	2377.34	1432.57	546.71
90.0	3995.99	3920.57	3768.61	3482.87	3131.06	2713.73	2185.74	1063.30	312.50
135.0	3987.18	3927.72	3787.33	3486.72	3139.32	2755.02	2214.37	1209.59	331.44
180.0	3987.18	3907.90	3722.36	3404.14	3084.26	2653.17	1993.59	919.00	168.31
225.0	3991.59	3893.04	3693.73	3375.51	3028.10	2511.12	1721.61	674.06	82.58
270.0	3995.99	3915.61	3768.06	3462.50	3134.91	2719.24	1986.43	891.36	294.00
315.0	3987.18	3893.59	3739.43	3427.81	3097.47	2636.10	1949.55	850.29	136.04
360.0	3987.18	3918.36	3779.62	3498.83	3161.34	2768.79	2197.30	1164.99	332.54

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	36.83	20.92	18.28	17.07	16.35	16.08	16.41	17.67	17.84
45.0	56.65	22.63	18.77	17.34	16.57	16.08	16.74	16.90	17.01
90.0	42.28	22.13	18.72	17.40	16.63	17.12	19.93	18.77	18.50
135.0	45.86	23.84	19.27	17.78	16.85	18.22	20.26	20.04	20.70
180.0	32.92	21.25	18.39	17.34	16.68	19.16	22.24	21.47	21.64
225.0	24.11	19.38	17.62	16.79	16.35	16.85	19.10	18.00	16.90
270.0	25.77	19.66	17.89	16.96	16.41	19.32	22.74	23.95	22.30
315.0	25.99	19.82	17.84	16.85	16.24	17.12	17.95	18.06	18.22
360.0	36.83	20.92	18.28	17.07	16.35	16.08	16.41	17.67	17.84

C/γ(°)	90.0
0.0	14.76
45.0	14.70
90.0	14.76
135.0	14.76
180.0	14.76
225.0	14.70
270.0	14.70
315.0	14.70
360.0	14.76