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## NATA

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LumCAT: 2-1537-A	
Luminaire: 92.76.323.00	
Report No: NATA0100	Voltage(V): 35.3000
Test No: GC2018111209	Current(A): 0.7000
LampCAT: Philips SLM 1208 G7	Power (W): 24.7100
Lamp flux(lm): 3443.0	PF: 0.0000
Number of Lamps: 1	Ballast type: DC
Length(mm): 70	Width(mm): 70
Phm Type: C	Height(mm): 0

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## Photometric Results

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Lumens(lm): 3074.38  
Efficiency(%): 89.29%  
Lumens(lm)/Power(W): 125.94  
Central intensity(cd): 6794.156  
Maximum intensity(cd): 6794.156  
Angle of maximum intensity: C=0.0  $\gamma$ =0.0  
Beam Angle(50%Imax): [C0/180]Total=35.0  
                                  [C90/270]Total=35.0  
Field angle(10%Imax): [C0/180]Total=71.0  
                                  [C90/270]Total=71.0  
Maximum s/h(1/2): C0\_180=0.58 C90\_270=0.58  
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(%): 90.39%  
Up flux rate of LUM(%): - -  
Down flux rate of LUM(%): 100.00%  
CIE Type : Direct lighting  
Output flux ratio in  $\pi$  solid angle : 97.446%

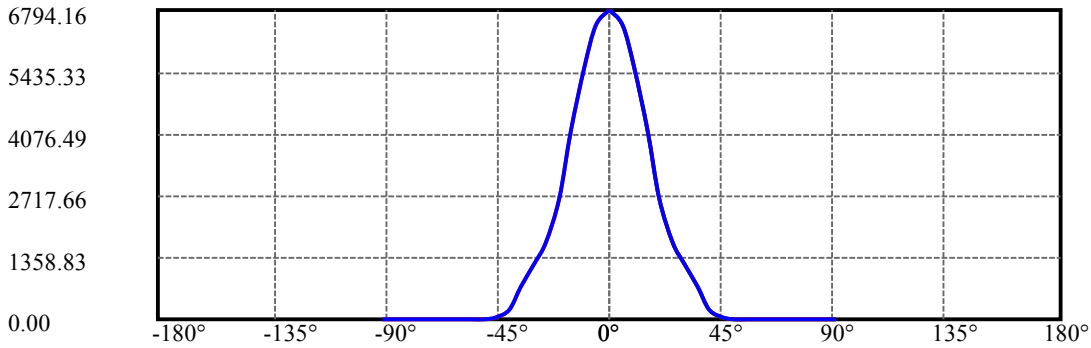
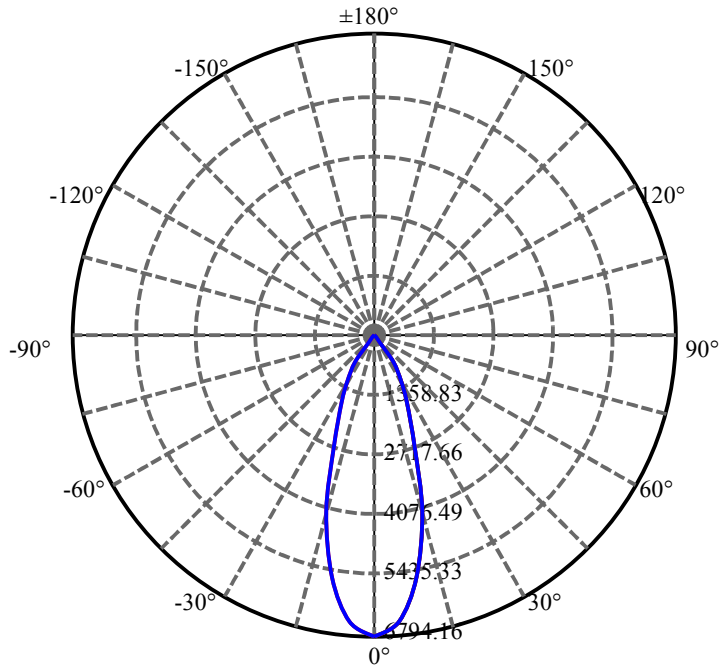
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	6794.156	40.630	40.63	1.180%	1.322%
5.0	6462.703	308.745	349.375	8.967%	11.364%
10.0	5542.805	527.581	876.956	15.323%	28.525%
15.0	4140.422	587.395	1464.351	17.061%	47.631%
20.0	2652.539	497.282	1961.633	14.443%	63.806%
25.0	1692.141	391.989	2353.623	11.385%	76.556%
30.0	1220.864	334.601	2688.223	9.718%	87.440%
35.0	727.938	228.863	2917.086	6.647%	94.884%
40.0	229.261	80.777	2997.863	2.346%	97.511%
45.0	33.694	13.059	3010.922	.379%	97.936%
50.0	17.480	7.340	3018.262	.213%	98.175%
55.0	15.863	7.122	3025.385	.207%	98.406%
60.0	15.195	7.213	3032.597	.209%	98.641%
65.0	15.356	7.629	3040.226	.222%	98.889%
70.0	15.152	7.805	3048.031	.227%	99.143%
75.0	14.266	7.553	3055.584	.219%	99.389%
80.0	14.456	7.804	3063.388	.227%	99.643%
85.0	13.641	7.448	3070.836	.216%	99.885%
90.0	12.923	3.542	3074.378	.103%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	2688.22	78.08%	87.44%
0-40	2997.86	87.07%	97.51%
0-60	3032.60	88.08%	98.64%
0-90	3070.84	89.19%	99.88%
0-120	3070.84	89.19%	99.88%
0-180	3074.38	89.29%	100.00%
60-90	45.45	1.32%	1.48%
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%
0-26.58	2459.50	71.43%	80.00%

ZONAL LUMEN SUMMARY

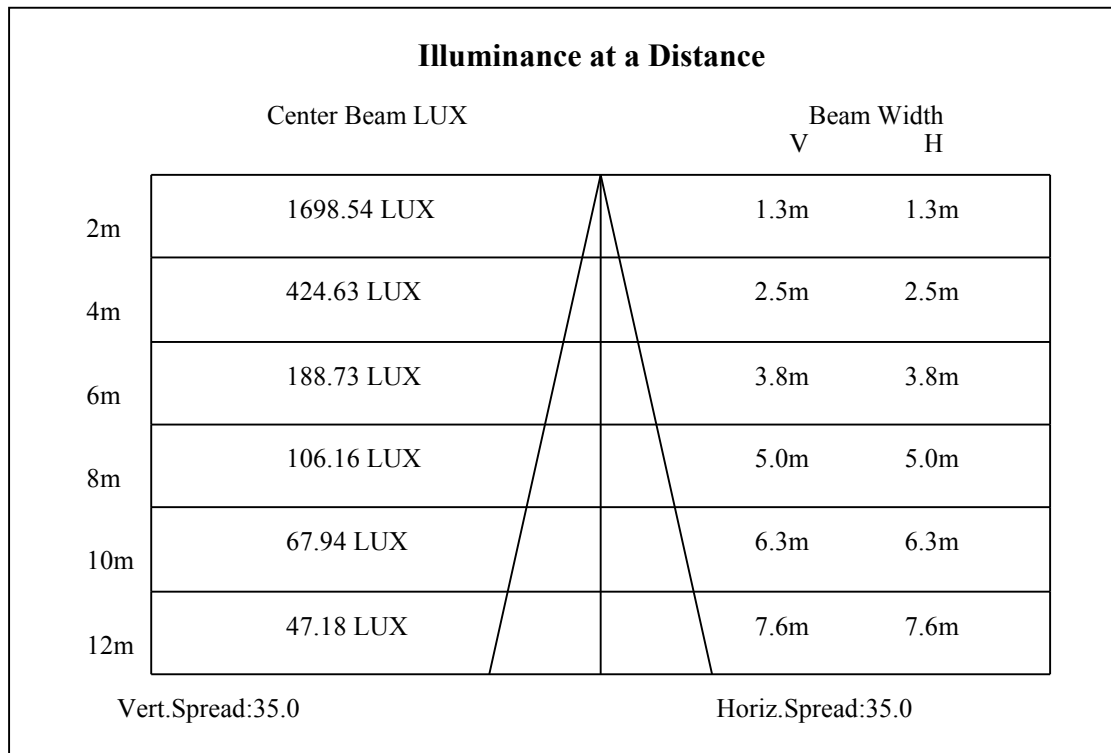
0-10	876.96
10-20	1084.68
20-30	726.59
30-40	309.64
40-50	20.40
50-60	14.34
60-70	15.43
70-80	15.36
80-90	7.45
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

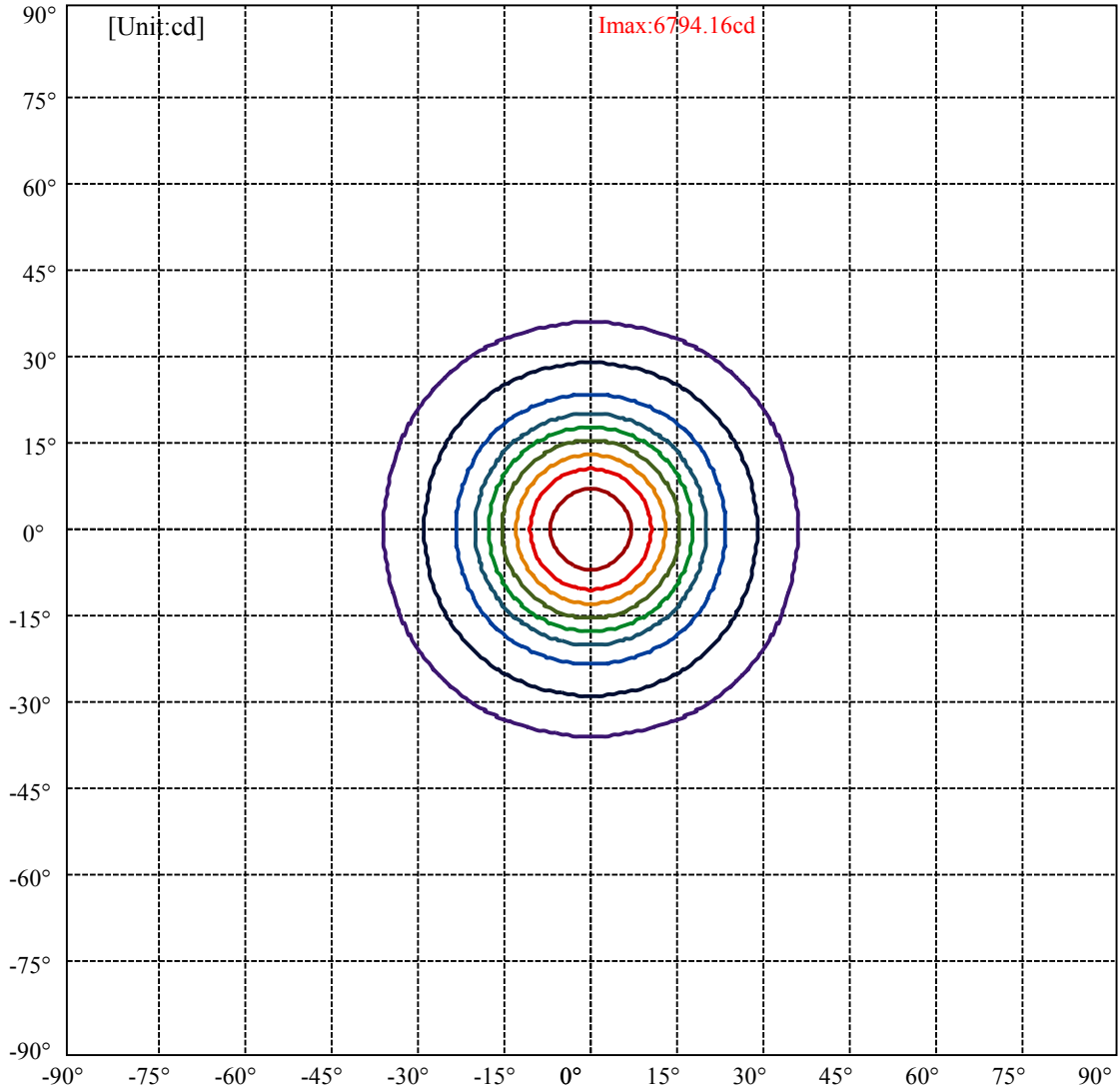


C0(Max): ———  
C0/C180: ———  
C90/C270: ———

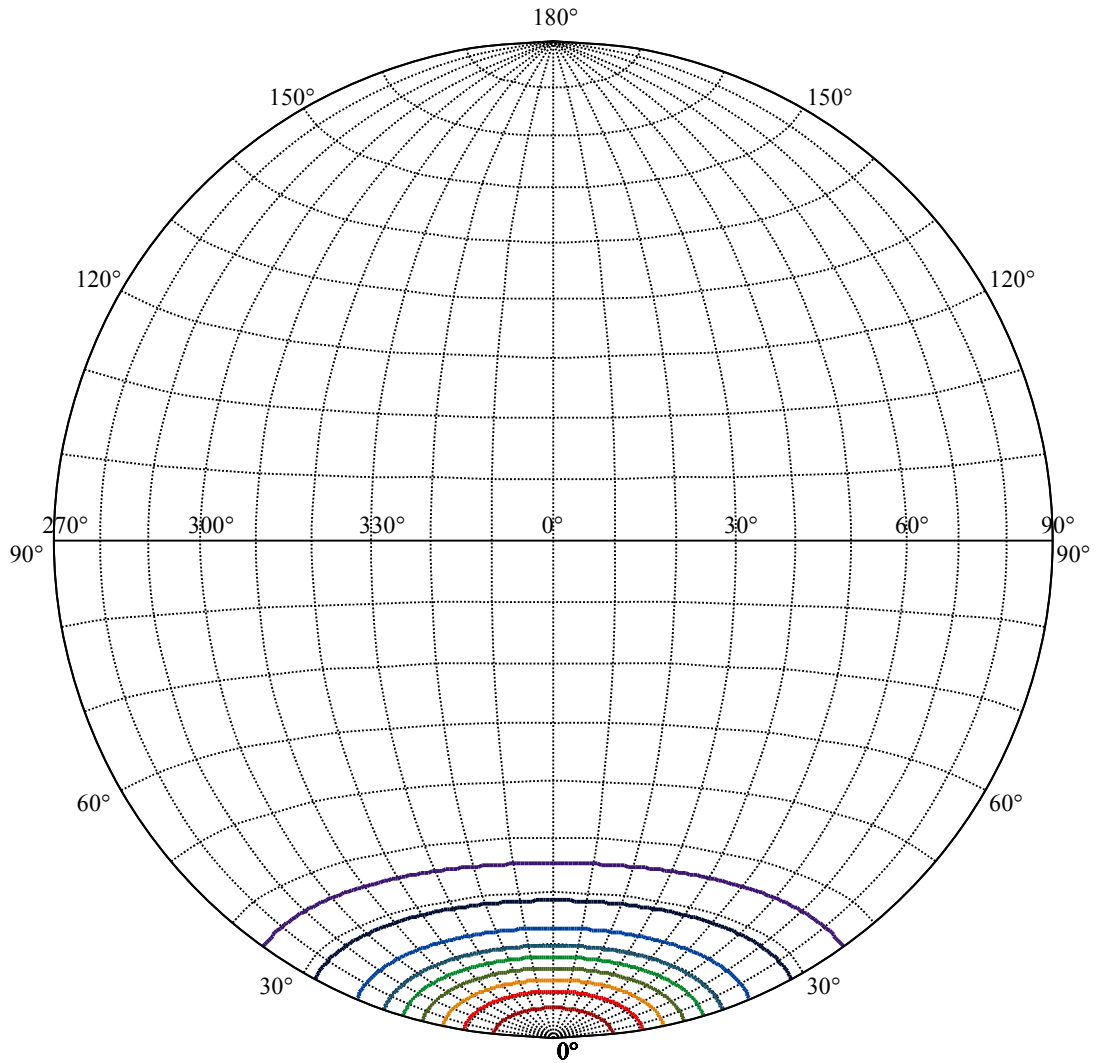
Field angle(10%Imax):C0/180Left:35.5 Right:35.5  
:C90/270Left:35.5 Right:35.5

Beam Angle(50%Imax):C0/180Left:17.5 Right:17.5  
:C90/270Left:17.5 Right:17.5





(10%Imax) 679.416	—
(20%Imax) 1358.83	—
(30%Imax) 2038.25	—
(40%Imax) 2717.66	—
(50%Imax) 3397.08	—
(60%Imax) 4076.49	—
(70%Imax) 4755.91	—
(80%Imax) 5435.33	—
(90%Imax) 6114.74	—



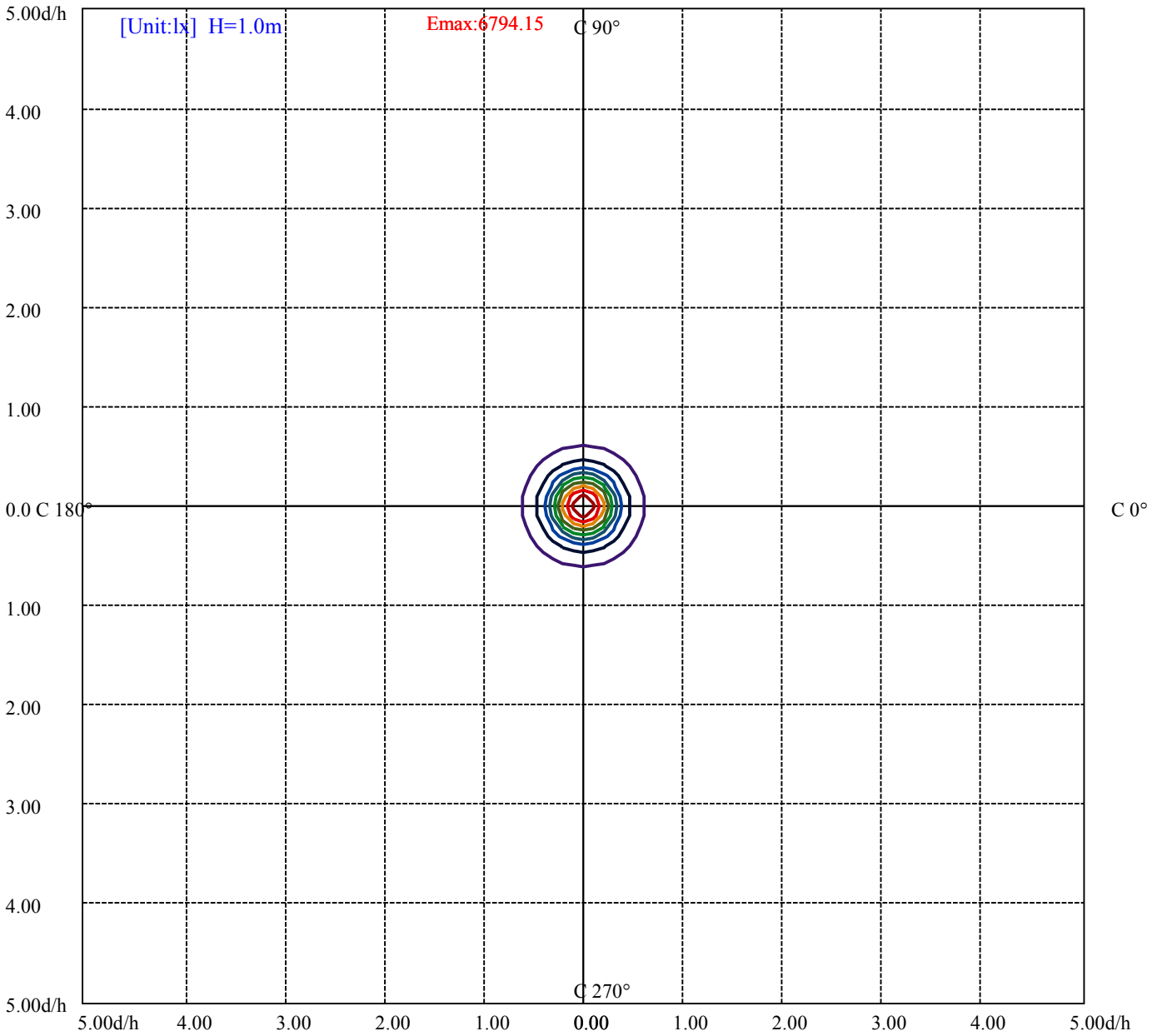
House

[Unit:cd]

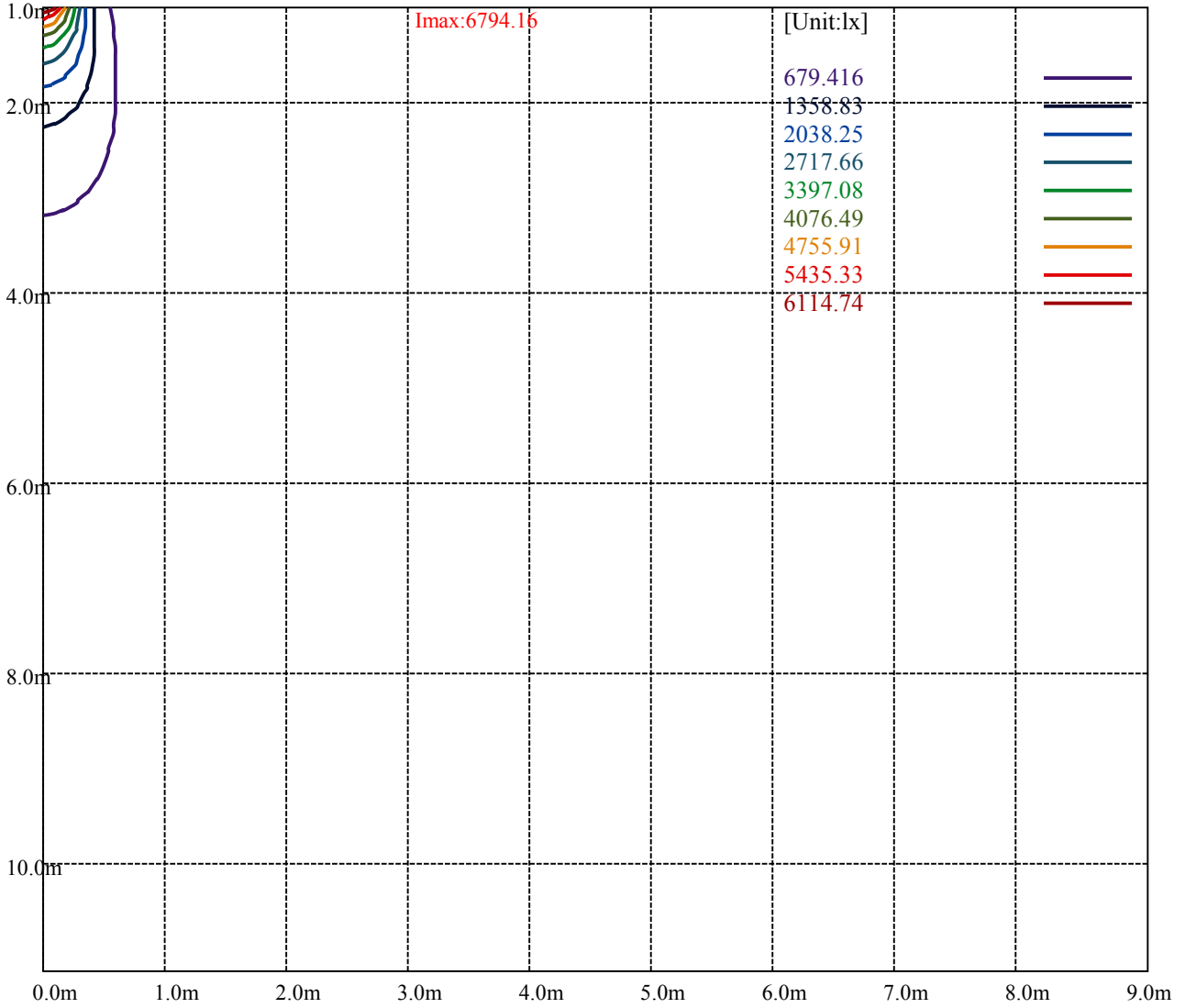
Road

Imax:6794.16

(10%Imax) 679.416	—
(20%Imax) 1358.83	—
(30%Imax) 2038.25	—
(40%Imax) 2717.66	—
(50%Imax) 3397.08	—
(60%Imax) 4076.49	—
(70%Imax) 4755.91	—
(80%Imax) 5435.33	—
(90%Imax) 6114.74	—







Luminance Table

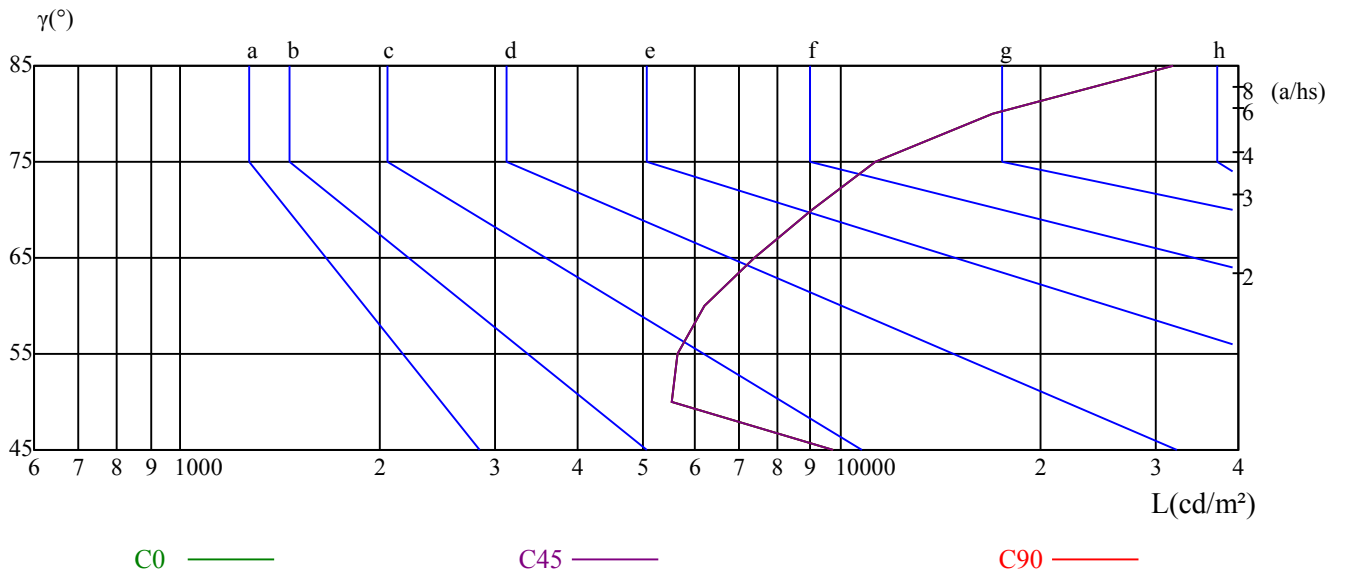
$\gamma$	45	50	55	60	65	70	75	80	85
C0	9725	5550	5644	6202	7416	9041	11249	16990	31941
C45	9725	5550	5644	6202	7416	9041	11249	16990	31941
C90	9725	5550	5644	6202	7416	9041	11249	16990	31941

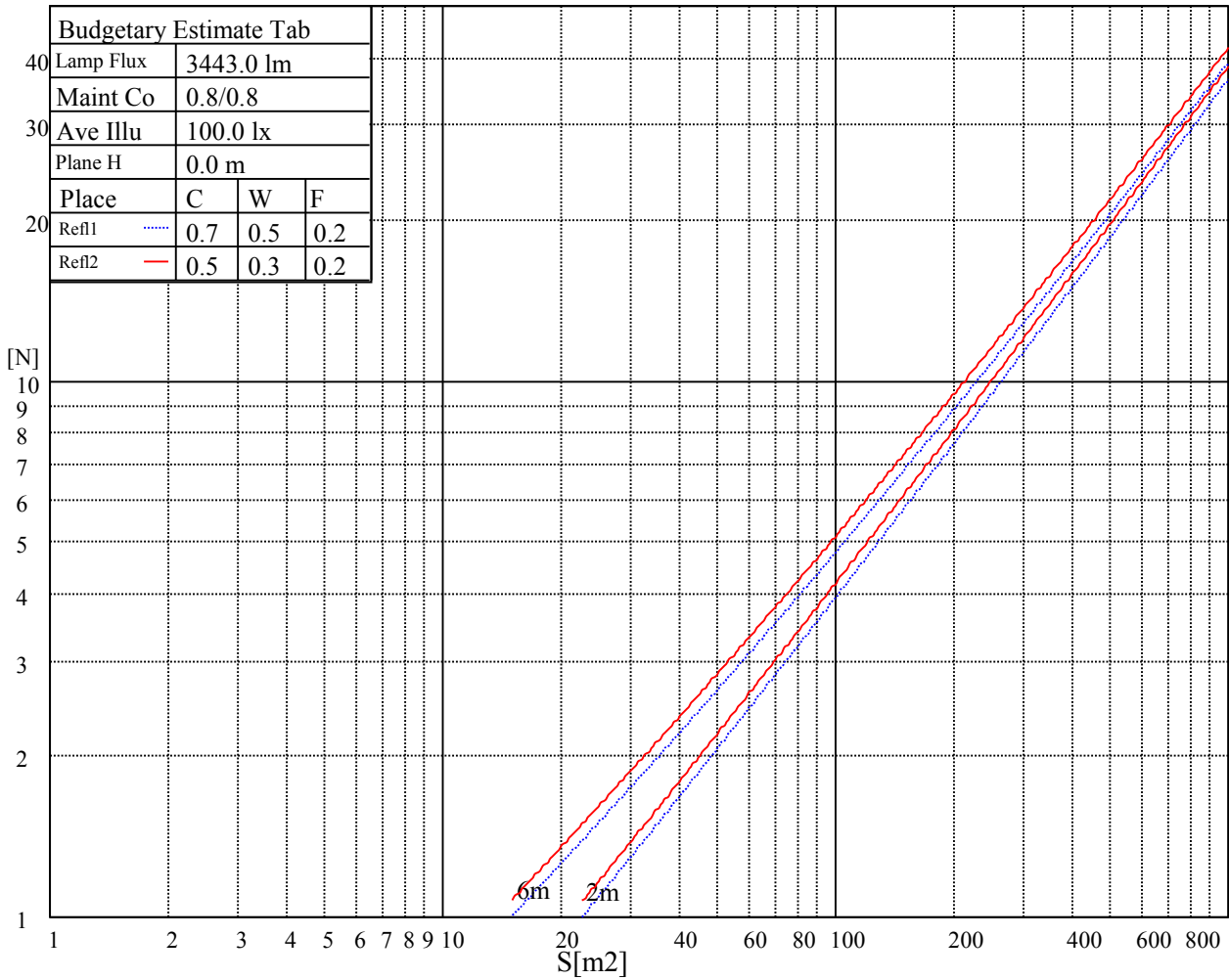
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
7416	7416	7416	11249	11249	11249	31941	31941	31941

Glare Table

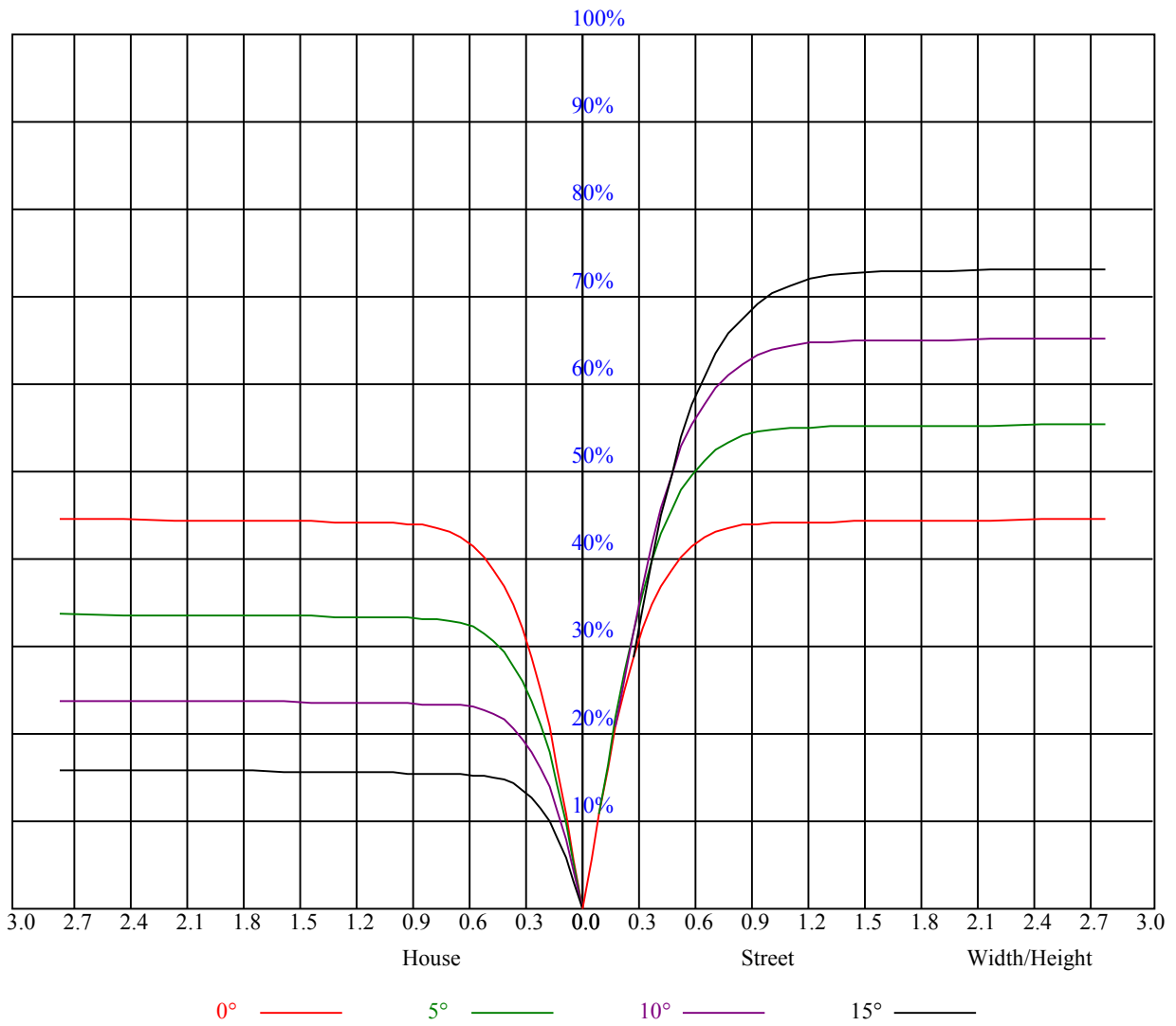
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	1.08	1.08	1.08	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	1.00	0.97	0.95	0.98	0.96	0.94	0.94	0.92	0.91	0.91	0.89	0.88	0.87	0.86	0.85	0.84
2	0.94	0.91	0.88	0.92	0.89	0.87	0.90	0.87	0.85	0.87	0.85	0.83	0.84	0.83	0.81	0.80
3	0.89	0.85	0.82	0.88	0.84	0.81	0.86	0.83	0.80	0.83	0.81	0.79	0.82	0.79	0.78	0.76
4	0.85	0.81	0.77	0.84	0.80	0.77	0.82	0.79	0.76	0.80	0.77	0.75	0.79	0.76	0.74	0.73
5	0.81	0.77	0.73	0.80	0.76	0.73	0.79	0.75	0.72	0.77	0.74	0.72	0.76	0.73	0.71	0.70
6	0.78	0.73	0.70	0.77	0.73	0.69	0.76	0.72	0.69	0.74	0.71	0.69	0.73	0.70	0.68	0.67
7	0.74	0.70	0.67	0.74	0.70	0.66	0.73	0.69	0.66	0.72	0.68	0.66	0.71	0.68	0.66	0.64
8	0.71	0.67	0.64	0.71	0.67	0.64	0.70	0.66	0.64	0.69	0.66	0.63	0.68	0.65	0.63	0.62
9	0.69	0.64	0.61	0.68	0.64	0.61	0.68	0.64	0.61	0.67	0.63	0.61	0.66	0.63	0.61	0.60
10	0.66	0.62	0.59	0.66	0.62	0.59	0.65	0.62	0.59	0.65	0.61	0.59	0.64	0.61	0.59	0.58



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	6769.13	6595.88	5824.69	4398.75	2869.88	1828.69	1296.00	850.50	304.88
45.0	6811.88	6514.31	5468.63	4012.88	2437.31	1586.25	1190.25	653.63	289.69
90.0	6794.44	6348.38	5268.94	3751.31	2383.31	1541.81	1099.69	606.94	114.13
135.0	6805.13	6438.94	5546.81	4242.38	2717.44	1686.38	1284.19	734.63	287.44
180.0	6769.13	6258.94	5289.75	3866.06	2429.44	1568.81	1102.28	607.50	103.44
225.0	6811.88	6457.50	5595.75	4325.06	2841.19	1778.06	1342.69	788.12	235.91
270.0	6786.56	6581.25	5794.31	4476.38	3030.75	1865.25	1347.19	871.88	304.31
315.0	6805.13	6506.44	5553.56	4050.56	2511.00	1681.88	1104.64	710.33	194.29
360.0	6769.13	6595.88	5824.69	4398.75	2869.88	1828.69	1296.00	850.50	304.88

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	34.43	17.78	16.03	15.24	14.63	14.29	14.01	13.67	13.39
45.0	26.94	16.93	15.69	14.96	14.46	14.06	13.61	13.44	13.28
90.0	38.03	16.71	15.47	14.79	14.34	14.12	13.67	13.50	13.33
135.0	39.71	17.44	15.86	15.02	15.08	13.95	13.56	13.33	13.11
180.0	30.77	17.04	15.69	14.96	14.29	13.95	13.56	13.28	13.11
225.0	34.76	17.78	15.92	15.19	14.57	14.40	13.78	13.50	13.33
270.0	35.44	18.96	16.20	15.53	18.39	19.18	13.89	13.61	13.50
315.0	29.48	17.21	16.03	15.86	17.10	17.27	18.06	21.32	16.09
360.0	34.43	17.78	16.03	15.24	14.63	14.29	14.01	13.67	13.39

C/γ(°)	90.0
0.0	12.83
45.0	12.99
90.0	12.94
135.0	12.88
180.0	12.83
225.0	12.99
270.0	12.99
315.0	12.94
360.0	12.83