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Nata

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LumCAT: 3-2116-N  
Luminaire: 92.70.131.00  
Report No: NT2018041202  
Test No: nata-0100  
LampCAT: SAMSUNG LC0026D  
Lamp flux(lm): 2667.6  
Number of Lamps: 1  
Length(mm): 80  
Phm Type: C

Voltage(V): 34.5000  
Current(A): 0.5400  
Power (W): 18.6300  
PF: 0.0000  
Ballast type: DC  
Width(mm): 80  
Height(mm): 0

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Photometric Results

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Lumens(lm): 2256.62  
Efficiency(%): 84.59%  
Lumens(lm)/Power(W): 123.34  
Central intensity(cd): 7237.302  
Maximum intensity(cd): 7237.302  
Angle of maximum intensity: C=0.0  $\gamma$ =0.0  
Beam Angle(50%Imax): [C0/180]Total=28.3  
                                  [C90/270]Total=28.3  
Field angle(10%Imax): [C0/180]Total=56.6  
                                  [C90/270]Total=56.6  
Maximum s/h(1/2): C0\_180=0.48 C90\_270=0.48  
Maximum s/h(1/4): C0\_180=0.49 C90\_270=0.49  
Up flux rate of lamp(%): 0.00%  
Down flux rate of lamp(%): 86.13%  
Up flux rate of LUM(%): - -  
Down flux rate of LUM(%): 100.00%  
CIE Type : Direct lighting  
Output flux ratio in  $\pi$  solid angle : 96.398%

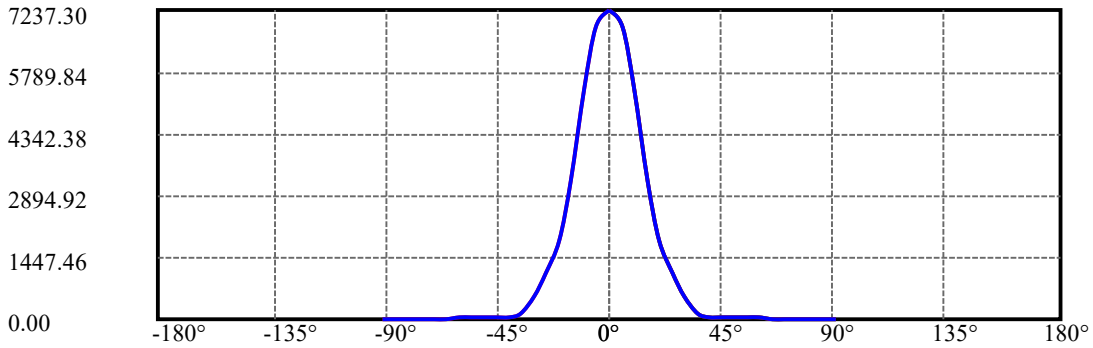
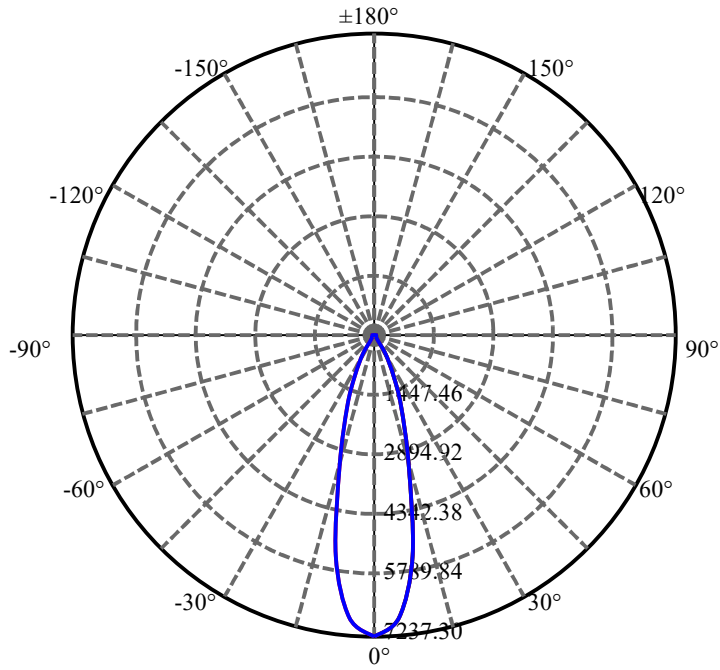
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	7237.301	43.281	43.281	1.622%	1.918%
5.0	6818.804	325.757	369.037	12.211%	16.354%
10.0	5403.166	514.290	883.327	19.279%	39.144%
15.0	3258.926	462.339	1345.666	17.331%	59.632%
20.0	1820.784	341.350	1687.016	12.796%	74.758%
25.0	1073.029	248.570	1935.586	9.318%	85.774%
30.0	546.834	149.870	2085.456	5.618%	92.415%
35.0	154.068	48.439	2133.895	1.816%	94.561%
40.0	60.190	21.207	2155.102	.795%	95.501%
45.0	48.477	18.789	2173.891	.704%	96.334%
50.0	38.436	16.139	2190.031	.605%	97.049%
55.0	29.510	13.250	2203.281	.497%	97.636%
60.0	24.652	11.702	2214.983	.439%	98.155%
65.0	19.841	9.857	2224.84	.369%	98.592%
70.0	15.416	7.940	2232.78	.298%	98.943%
75.0	14.136	7.484	2240.264	.281%	99.275%
80.0	13.406	7.237	2247.501	.271%	99.596%
85.0	11.899	6.498	2253.999	.244%	99.884%
90.0	9.573	2.624	2256.622	.098%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	2085.46	78.18%	92.41%
0-40	2155.10	80.79%	95.50%
0-60	2214.98	83.03%	98.15%
0-90	2254.00	84.49%	99.88%
0-120	2254.00	84.49%	99.88%
0-180	2256.62	84.59%	100.00%
60-90	50.72	1.90%	2.25%
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%
0-22.38	1805.30	67.67%	80.00%

ZONAL LUMEN SUMMARY

0-10	883.33
10-20	803.69
20-30	398.44
30-40	69.65
40-50	34.93
50-60	24.95
60-70	17.80
70-80	14.72
80-90	6.50
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: —————

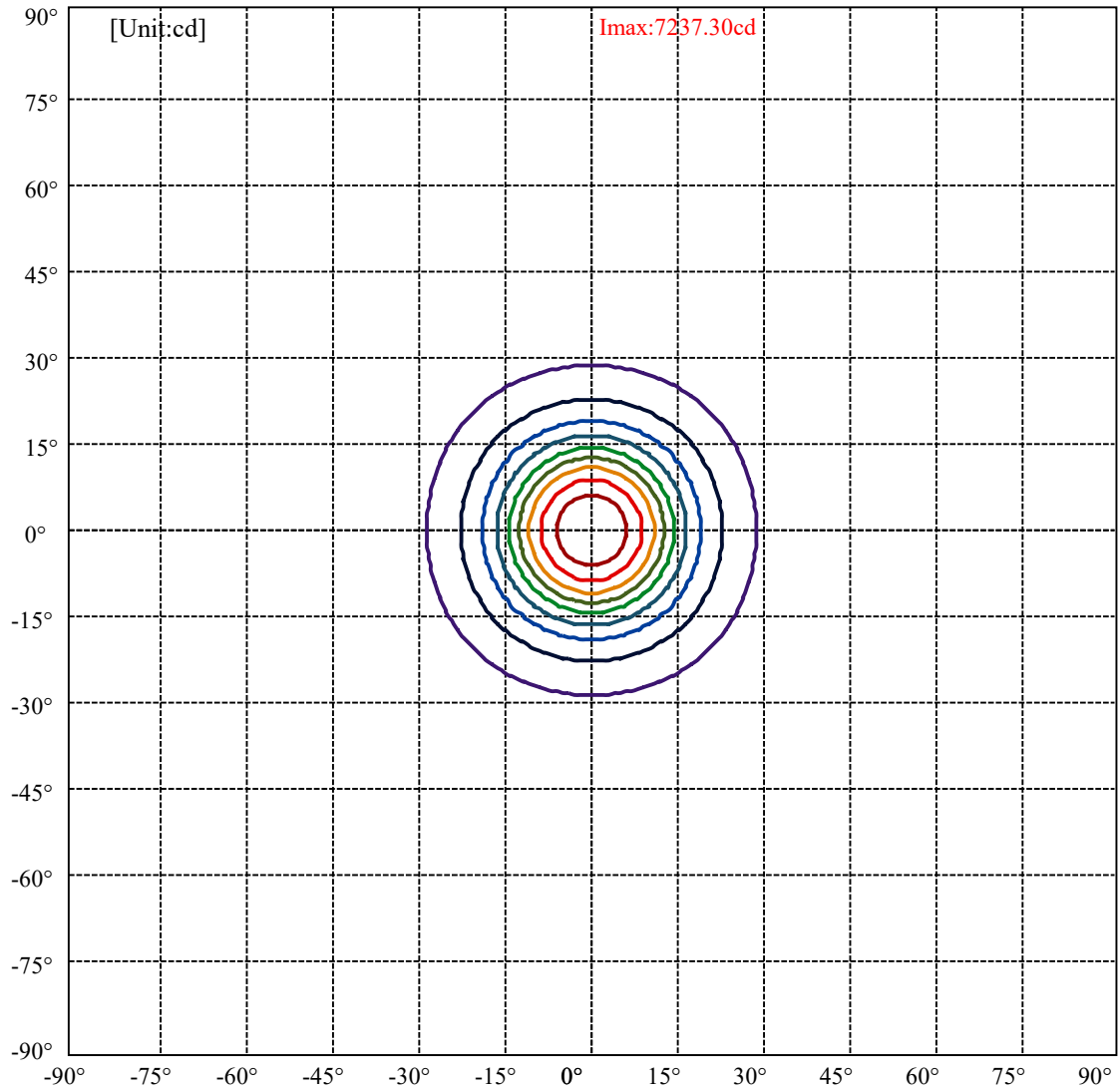
Field angle(10%Imax):C0/180Left:28.3 Right:28.3

:C90/270Left:28.3 Right:28.3

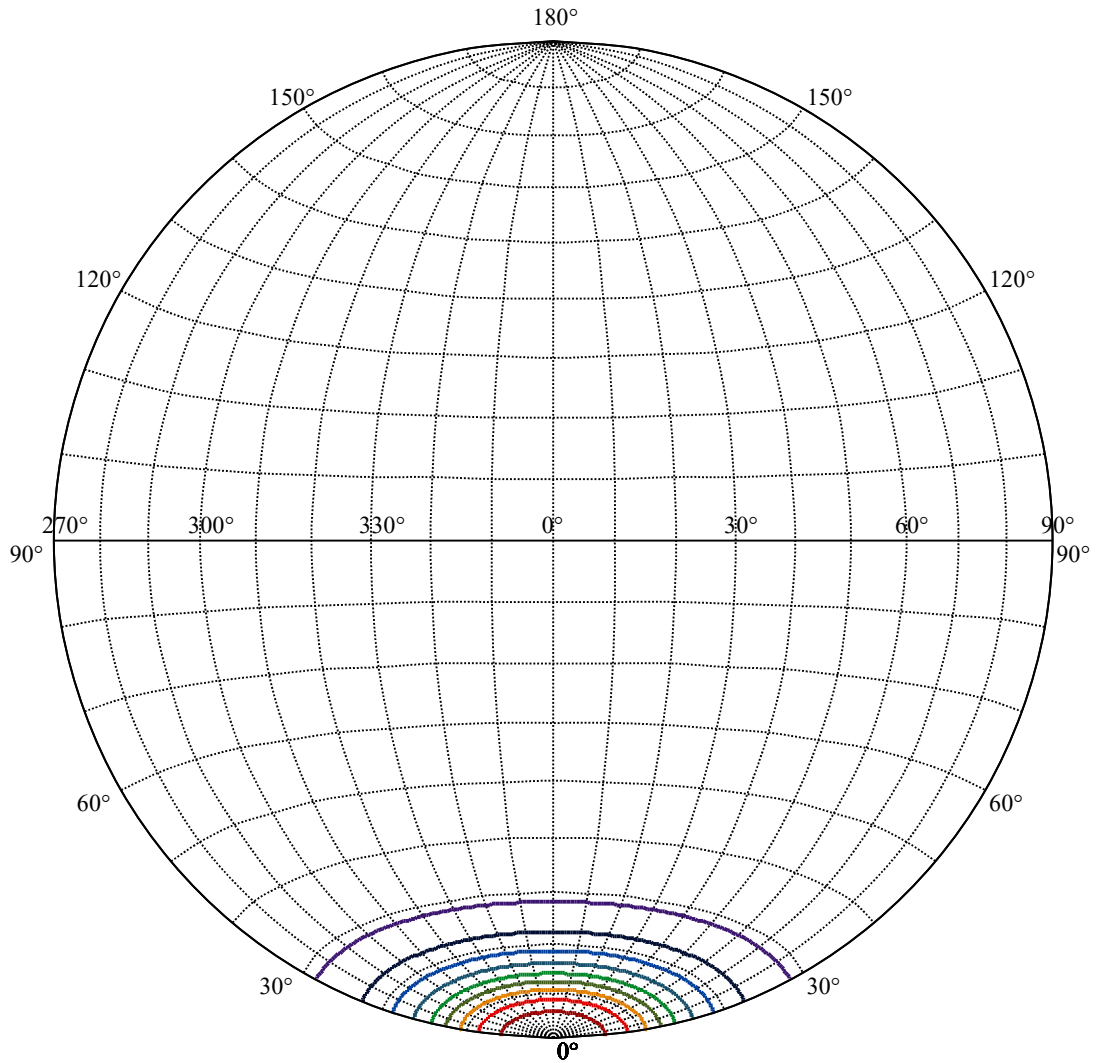
Beam Angle(50%Imax):C0/180Left:14.2 Right:14.2

:C90/270Left:14.2 Right:14.2





(10%Imax) 723.73	—
(20%Imax) 1447.46	—
(30%Imax) 2171.19	—
(40%Imax) 2894.92	—
(50%Imax) 3618.65	—
(60%Imax) 4342.38	—
(70%Imax) 5066.11	—
(80%Imax) 5789.84	—
(90%Imax) 6513.57	—



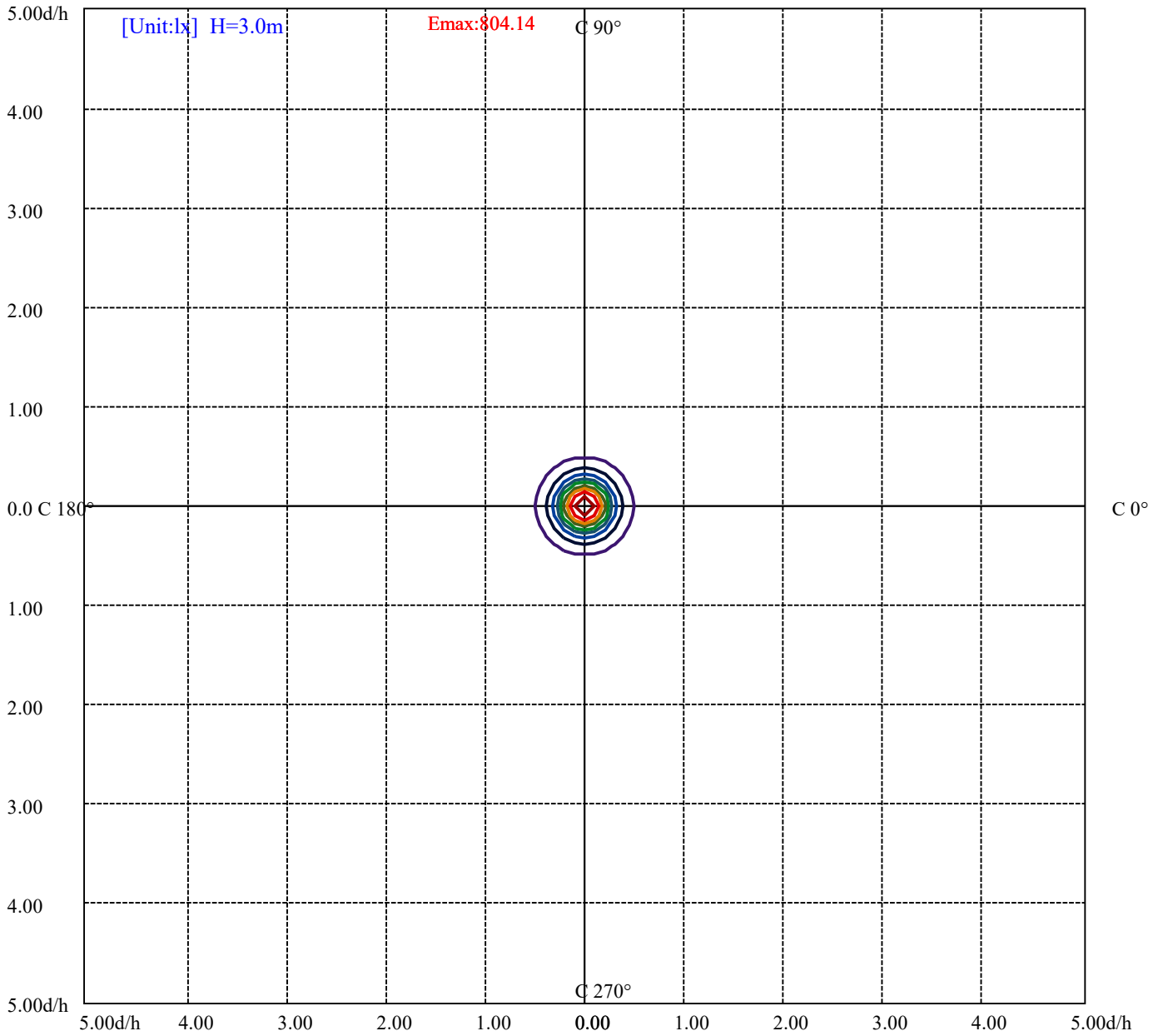
House

[Unit:cd]

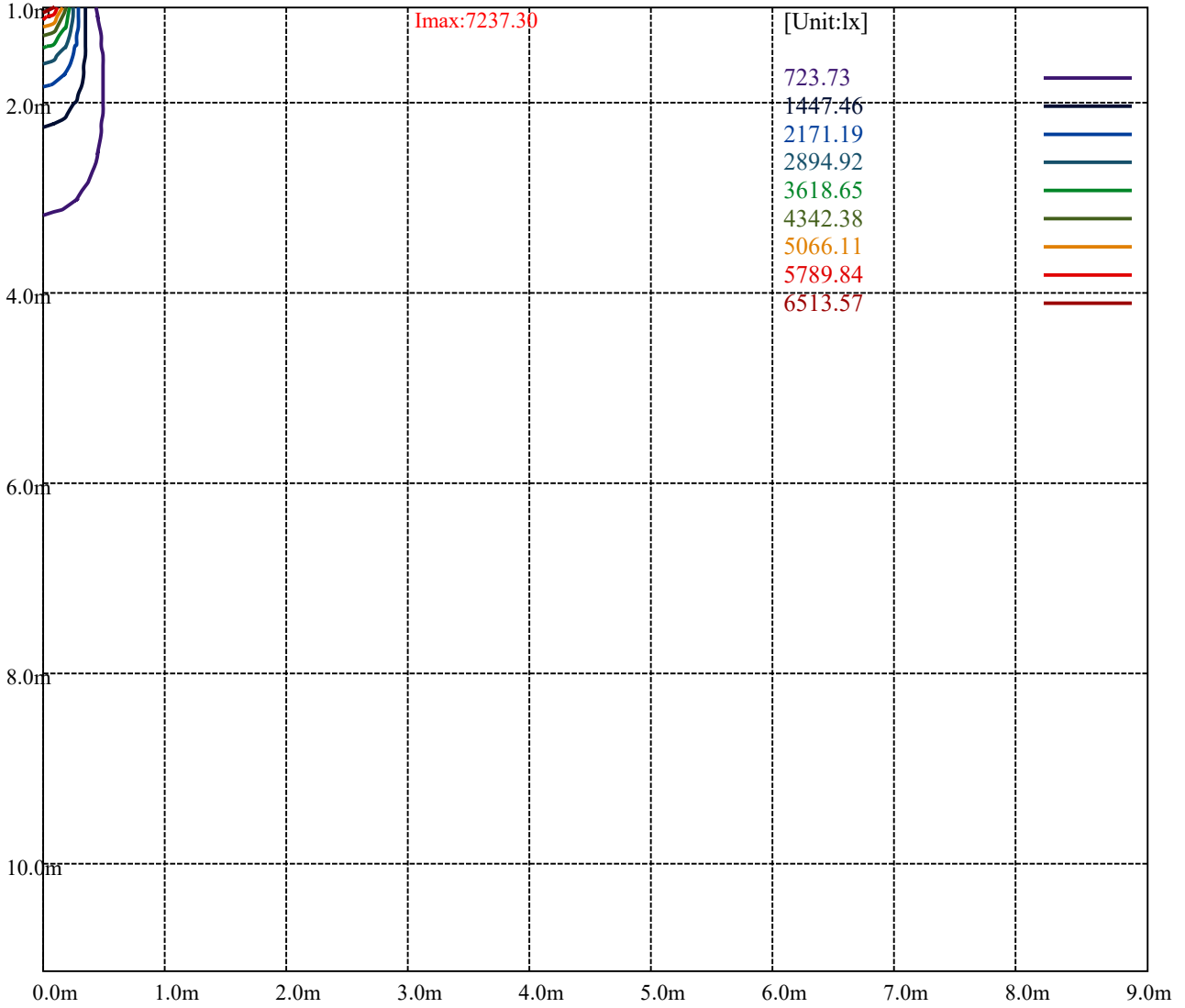
Road

Imax:7237.30

(10%Imax) 723.73	—
(20%Imax) 1447.46	—
(30%Imax) 2171.19	—
(40%Imax) 2894.92	—
(50%Imax) 3618.65	—
(60%Imax) 4342.38	—
(70%Imax) 5066.11	—
(80%Imax) 5789.84	—
(90%Imax) 6513.57	—







Luminance Table

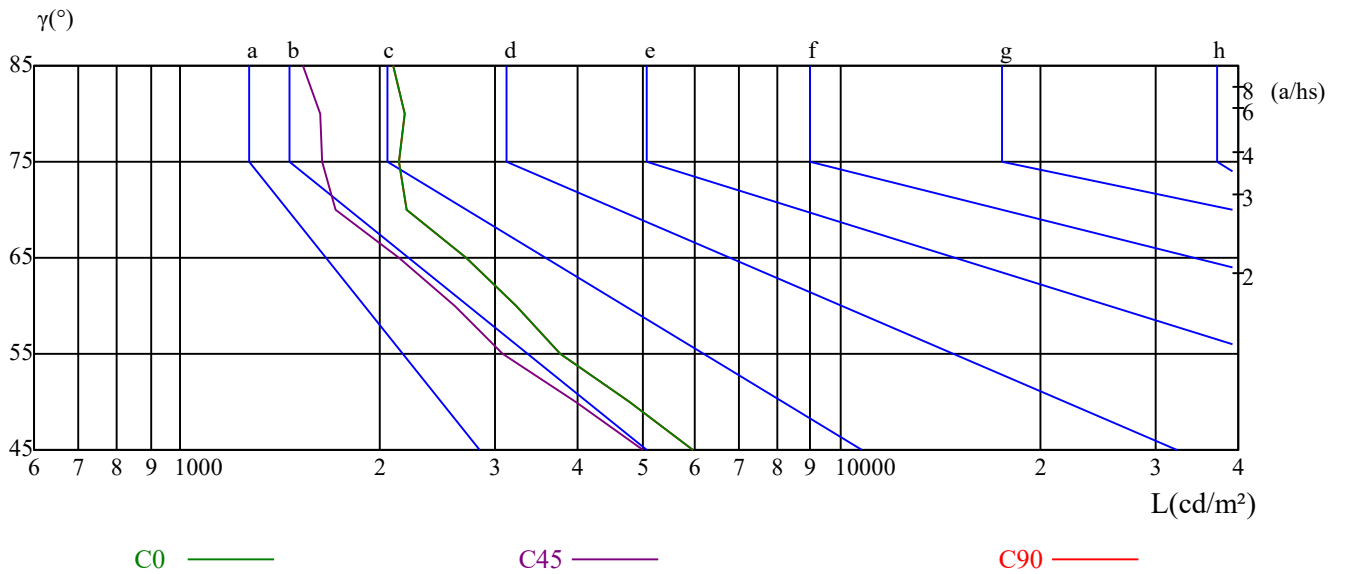
$\gamma$	45	50	55	60	65	70	75	80	85
C0	5951	4783	3752	3229	2701	2202	2141	2179	2103
C45	5026	3979	3073	2603	2141	1714	1634	1627	1531
C90	5951	4783	3752	3229	2701	2202	2141	2179	2103

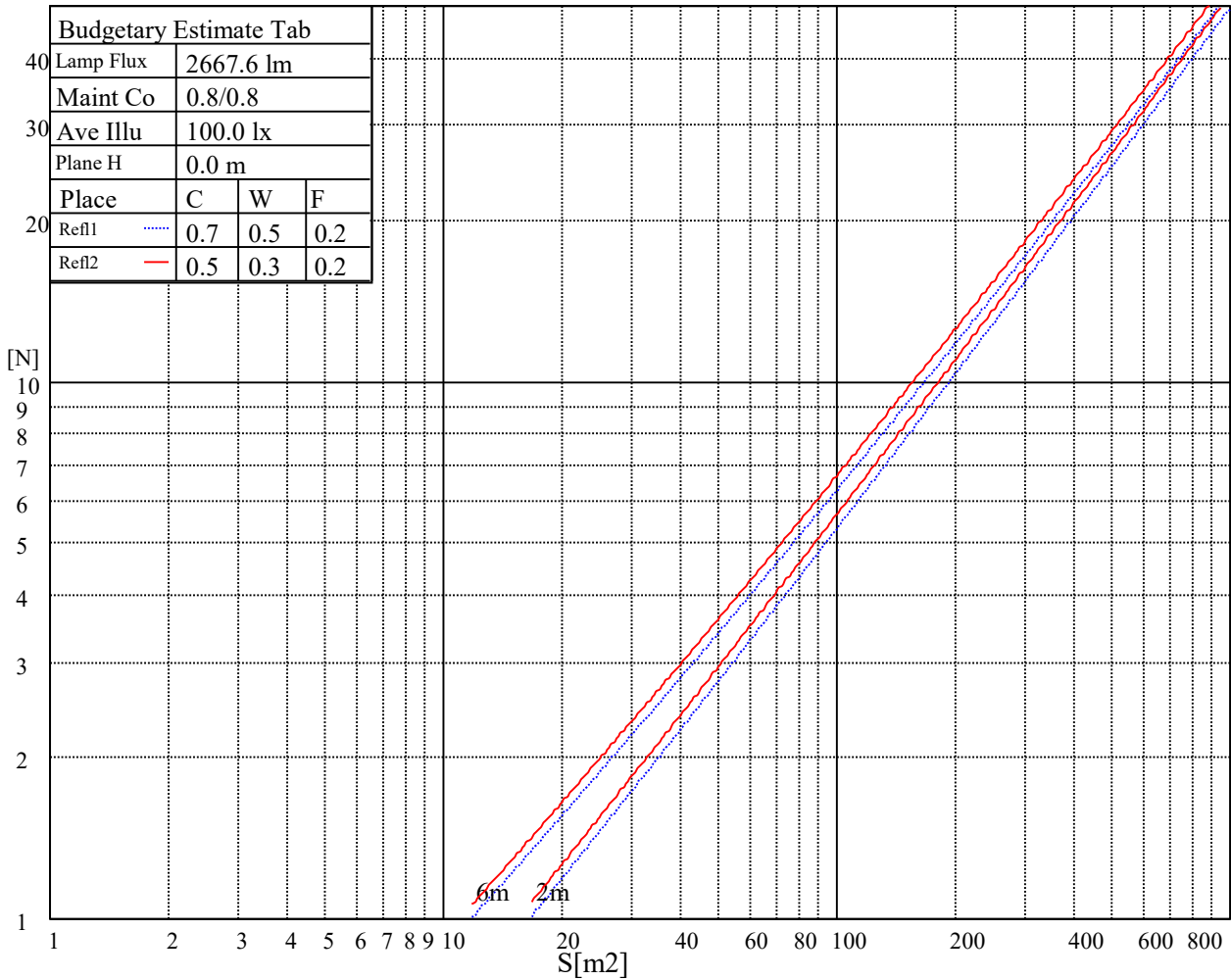
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
7336	7336	7336	8534	8534	8534	21332	21332	21332

Glare Table

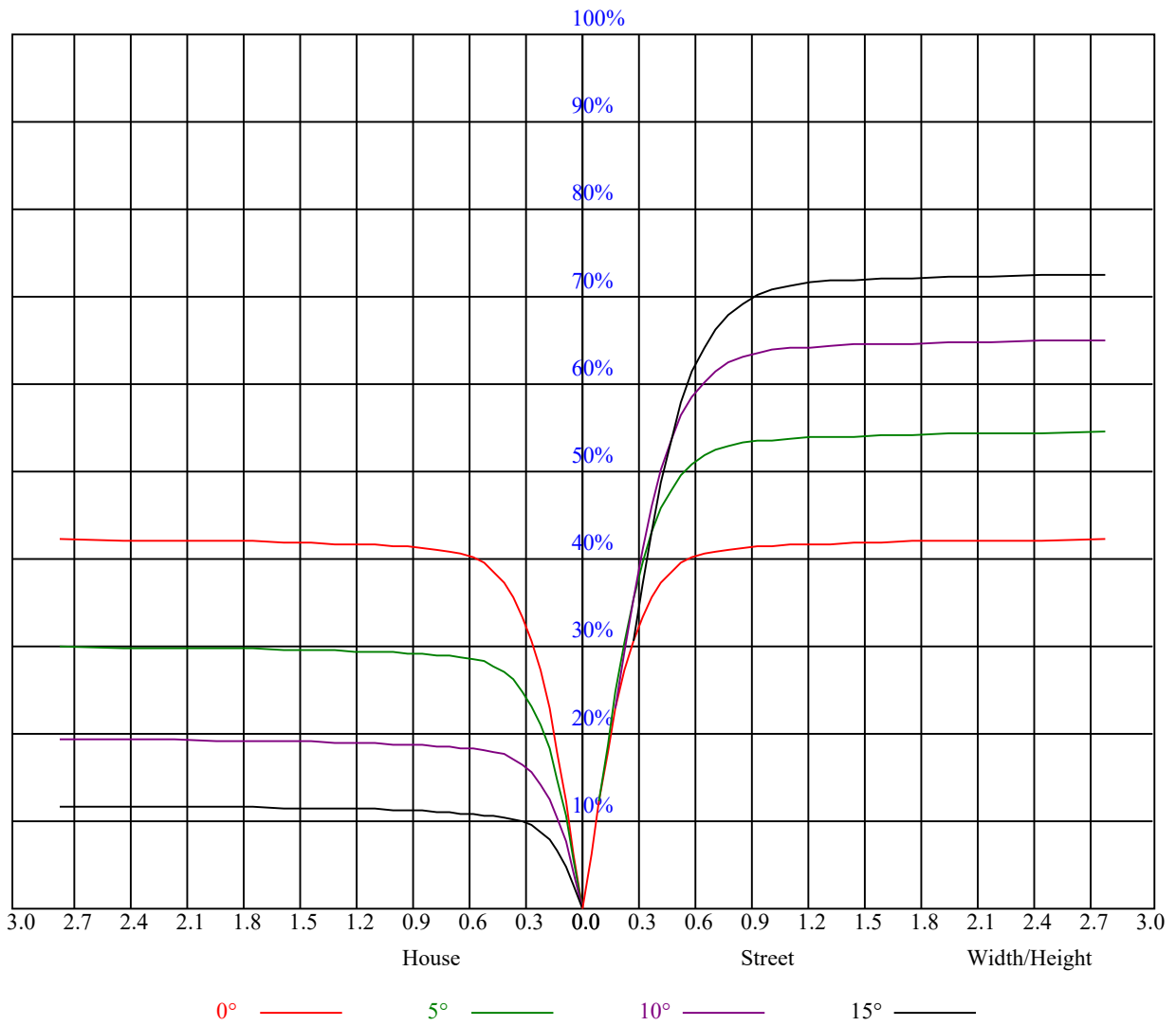
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	1.03	1.03	1.03	1.00	1.00	1.00	0.96	0.96	0.96	0.92	0.92	0.92	0.88	0.88	0.88	0.86
1	0.95	0.92	0.90	0.93	0.91	0.89	0.89	0.88	0.86	0.86	0.85	0.83	0.83	0.82	0.81	0.79
2	0.90	0.87	0.84	0.88	0.85	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	0.84	0.81	0.78	0.82	0.79	0.77	0.80	0.78	0.76	0.78	0.76	0.75	0.74
4	0.82	0.78	0.75	0.81	0.77	0.75	0.79	0.76	0.74	0.78	0.75	0.73	0.76	0.74	0.72	0.71
5	0.79	0.75	0.72	0.78	0.74	0.72	0.77	0.73	0.71	0.75	0.73	0.70	0.74	0.72	0.70	0.69
6	0.76	0.72	0.69	0.75	0.72	0.69	0.74	0.71	0.68	0.73	0.70	0.68	0.72	0.70	0.68	0.67
7	0.73	0.70	0.67	0.73	0.69	0.67	0.72	0.69	0.66	0.71	0.68	0.66	0.70	0.68	0.66	0.65
8	0.71	0.67	0.65	0.71	0.67	0.64	0.70	0.67	0.64	0.69	0.66	0.64	0.68	0.66	0.64	0.63
9	0.69	0.65	0.63	0.69	0.65	0.63	0.68	0.65	0.62	0.67	0.64	0.62	0.67	0.64	0.62	0.61
10	0.67	0.63	0.61	0.67	0.63	0.61	0.66	0.63	0.61	0.66	0.63	0.61	0.65	0.62	0.60	0.60



Intensity data(cd)

C/ $\gamma$ (°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	7256.43	7070.34	5918.01	3754.30	2120.22	1221.70	687.65	280.79	64.20
45.0	7189.82	6838.56	5494.63	3455.89	1930.83	1147.38	618.28	175.24	61.50
90.0	7217.89	6498.86	4752.47	2686.75	1522.31	927.92	365.68	72.84	55.94
135.0	7285.06	6699.81	5083.91	2856.88	1602.69	995.97	433.84	74.49	55.06
180.0	7256.43	6627.14	4836.15	2653.17	1475.51	866.53	353.24	78.73	55.55
225.0	7189.82	6716.33	5176.95	3002.78	1686.38	1062.42	489.56	87.26	60.18
270.0	7217.89	7044.47	6149.25	3969.57	2213.27	1270.70	750.97	301.71	65.52
315.0	7285.06	7054.93	5813.96	3692.08	2015.06	1091.60	675.43	161.48	63.59
360.0	7256.43	7070.34	5918.01	3754.30	2120.22	1221.70	687.65	280.79	64.20
C/ $\gamma$ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	51.15	41.18	31.38	25.49	21.25	15.91	14.59	13.43	12.22
45.0	50.16	39.26	30.01	24.94	21.64	15.58	14.42	13.43	12.11
90.0	45.48	35.18	27.69	24.45	17.84	15.58	14.48	15.69	12.39
135.0	45.59	36.34	28.85	25.11	18.77	15.42	13.54	12.33	10.74
180.0	44.93	36.39	28.30	23.89	17.62	15.47	14.37	13.54	11.67
225.0	47.84	37.55	28.63	24.11	19.71	15.03	13.82	12.94	11.40
270.0	52.14	41.57	31.33	25.11	21.25	15.31	14.15	13.16	12.39
315.0	50.54	40.03	29.90	24.11	20.65	15.03	13.71	12.72	12.28
360.0	51.15	41.18	31.38	25.49	21.25	15.91	14.59	13.43	12.22
C/ $\gamma$ (°)	90.0								
0.0	9.74								
45.0	9.25								
90.0	9.30								
135.0	9.58								
180.0	9.63								
225.0	9.30								
270.0	9.91								
315.0	9.86								
360.0	9.74								