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Nata

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LumCAT: 3-2046-M  
Luminaire: 92.70.131.00  
Report No: NT2017071919  
Test No: GC2017071919  
LampCAT: SAWx15 MTJ 24W  
Lamp flux(lm): 2894.0  
Number of Lamps: 1  
Length(mm): 85  
Phm Type: C

Voltage(V): 34.7600  
Current(A): 0.6000  
Power (W): 20.8560  
PF: 0.0000  
Ballast type: DC  
Width(mm): 85  
Height(mm): 0

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Photometric Results

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Lumens(lm): 2594.31  
Efficiency(%): 89.64%  
Lumens(lm)/Power(W): 124.39  
Central intensity(cd): 6082.512  
Maximum intensity(cd): 6082.512  
Angle of maximum intensity: C=0.0  $\gamma$ =0.0  
Beam Angle(50%Imax): [C0/180]Total=34.9  
                                  [C90/270]Total=34.9  
Field angle(10%Imax): [C0/180]Total=67.7  
                                  [C90/270]Total=67.7  
Maximum s/h(1/2): C0\_180=0.57 C90\_270=0.57  
Maximum s/h(1/4): C0\_180=0.58 C90\_270=0.58  
Up flux rate of lamp(%): 0.00%  
Down flux rate of lamp(%): 90.82%  
Up flux rate of LUM(%): - -  
Down flux rate of LUM(%): 100.00%  
CIE Type : Direct lighting  
Output flux ratio in  $\pi$  solid angle : 97.493%

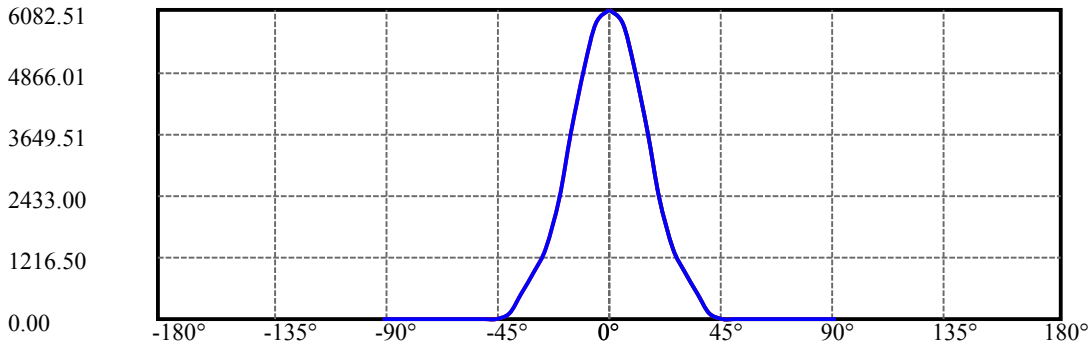
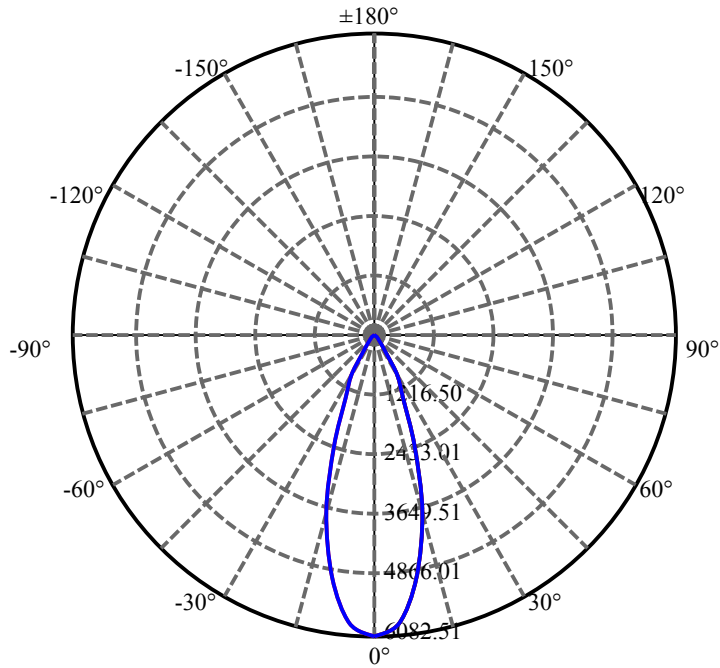
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	6082.511	36.375	36.375	1.257%	1.402%
5.0	5828.044	278.425	314.8	9.621%	12.134%
10.0	4945.479	470.726	785.526	16.266%	30.279%
15.0	3670.640	520.748	1306.273	17.994%	50.351%
20.0	2386.828	447.468	1753.742	15.462%	67.600%
25.0	1393.064	322.707	2076.449	11.151%	80.039%
30.0	961.583	263.540	2339.989	9.106%	90.197%
35.0	505.511	158.932	2498.921	5.492%	96.323%
40.0	113.397	39.954	2538.875	1.381%	97.863%
45.0	16.417	6.363	2545.238	.220%	98.109%
50.0	13.683	5.746	2550.983	.199%	98.330%
55.0	12.591	5.654	2556.637	.195%	98.548%
60.0	11.993	5.693	2562.33	.197%	98.767%
65.0	11.562	5.744	2568.074	.198%	98.989%
70.0	11.276	5.808	2573.882	.201%	99.213%
75.0	11.005	5.827	2579.709	.201%	99.437%
80.0	10.845	5.854	2585.563	.202%	99.663%
85.0	10.692	5.838	2591.401	.202%	99.888%
90.0	10.609	2.907	2594.309	.100%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	2339.99	80.86%	90.20%
0-40	2538.87	87.73%	97.86%
0-60	2562.33	88.54%	98.77%
0-90	2591.40	89.54%	99.89%
0-120	2591.40	89.54%	99.89%
0-180	2594.31	89.64%	100.00%
60-90	34.76	1.20%	1.34%
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%
0-24.98	2075.45	71.72%	80.00%

ZONAL LUMEN SUMMARY

0-10	785.53
10-20	968.22
20-30	586.25
30-40	198.89
40-50	12.11
50-60	11.35
60-70	11.55
70-80	11.68
80-90	5.84
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



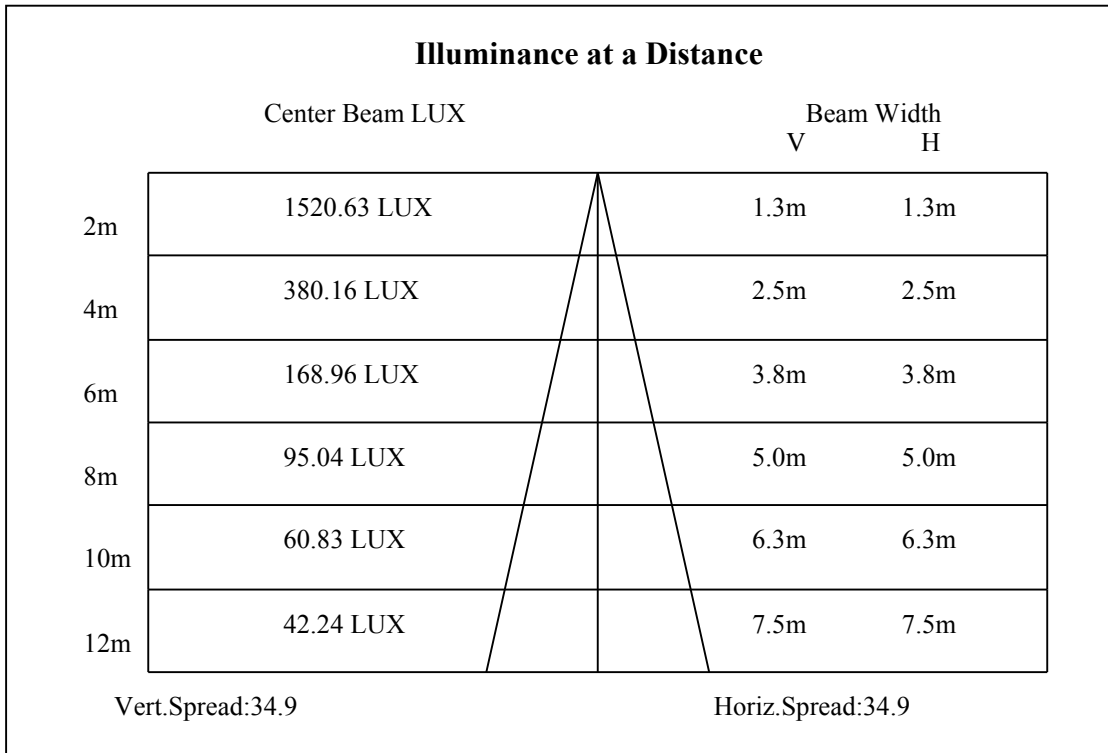
C0(Max): —————

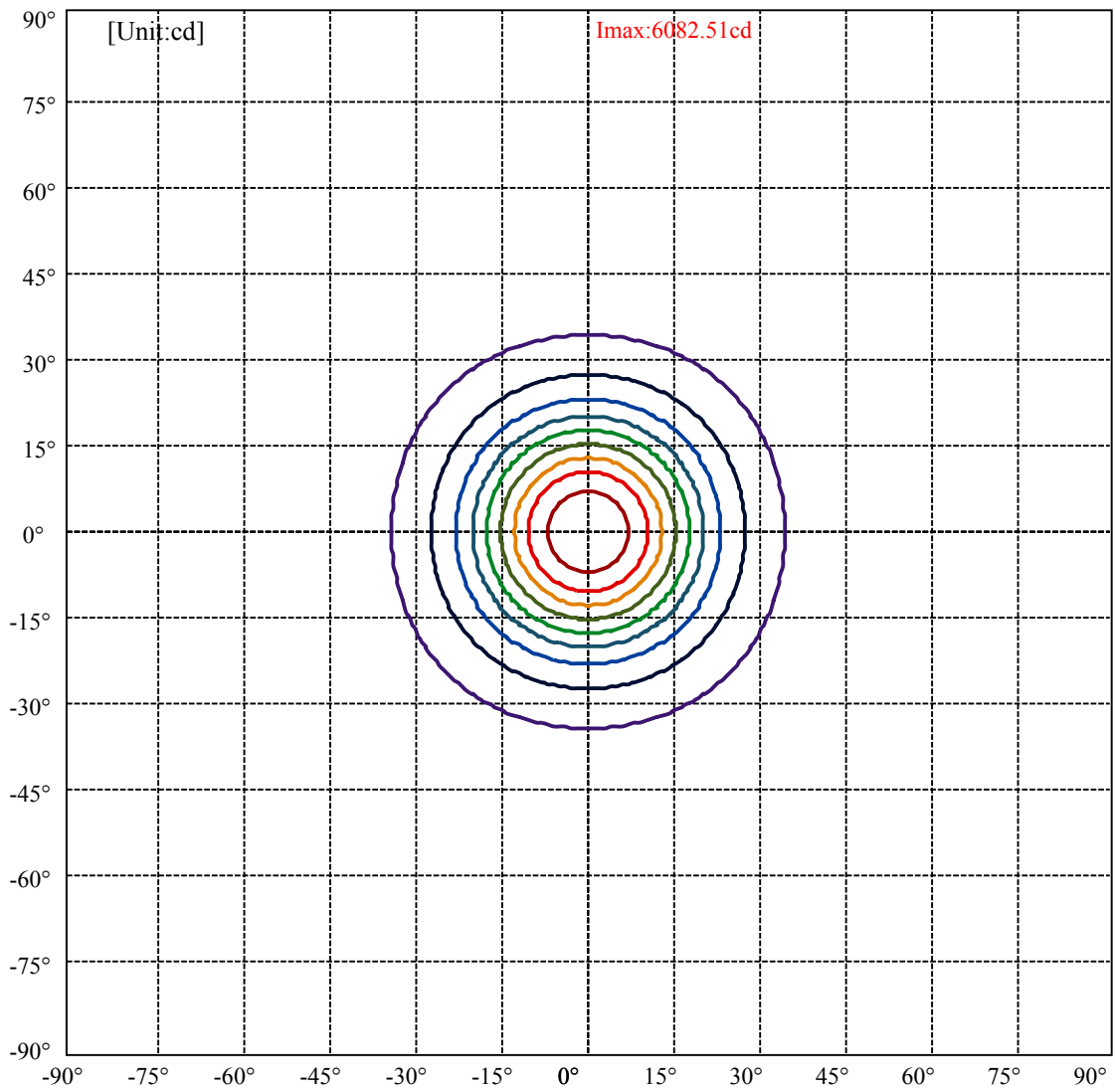
C0/C180: —————

C90/C270: —————

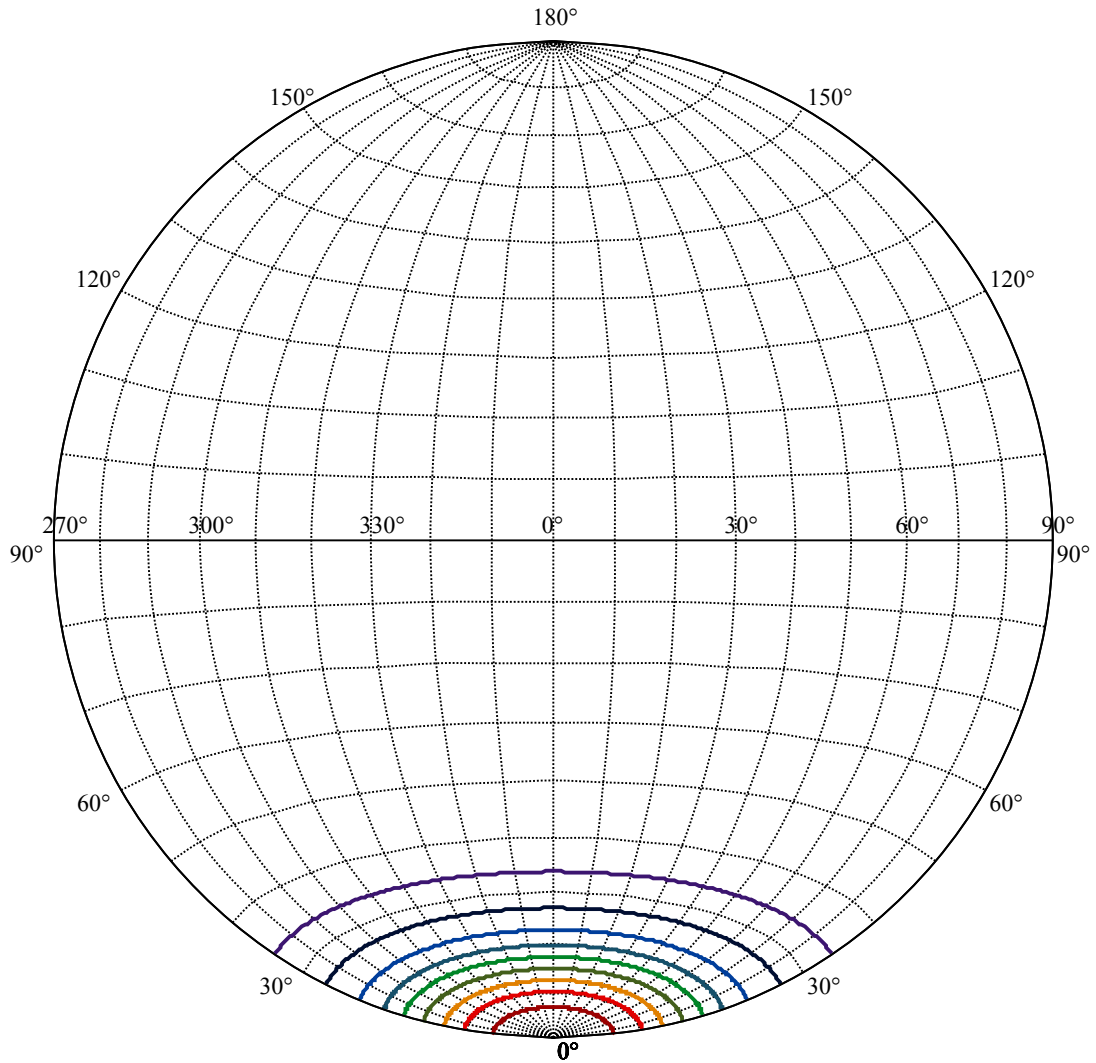
Field angle(10%Imax):C0/180Left:33.9 Right:33.9  
:C90/270Left:33.9 Right:33.9

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





(10%Imax) 608.251	—
(20%Imax) 1216.5	—
(30%Imax) 1824.75	—
(40%Imax) 2433	—
(50%Imax) 3041.26	—
(60%Imax) 3649.51	—
(70%Imax) 4257.76	—
(80%Imax) 4866.01	—
(90%Imax) 5474.26	—



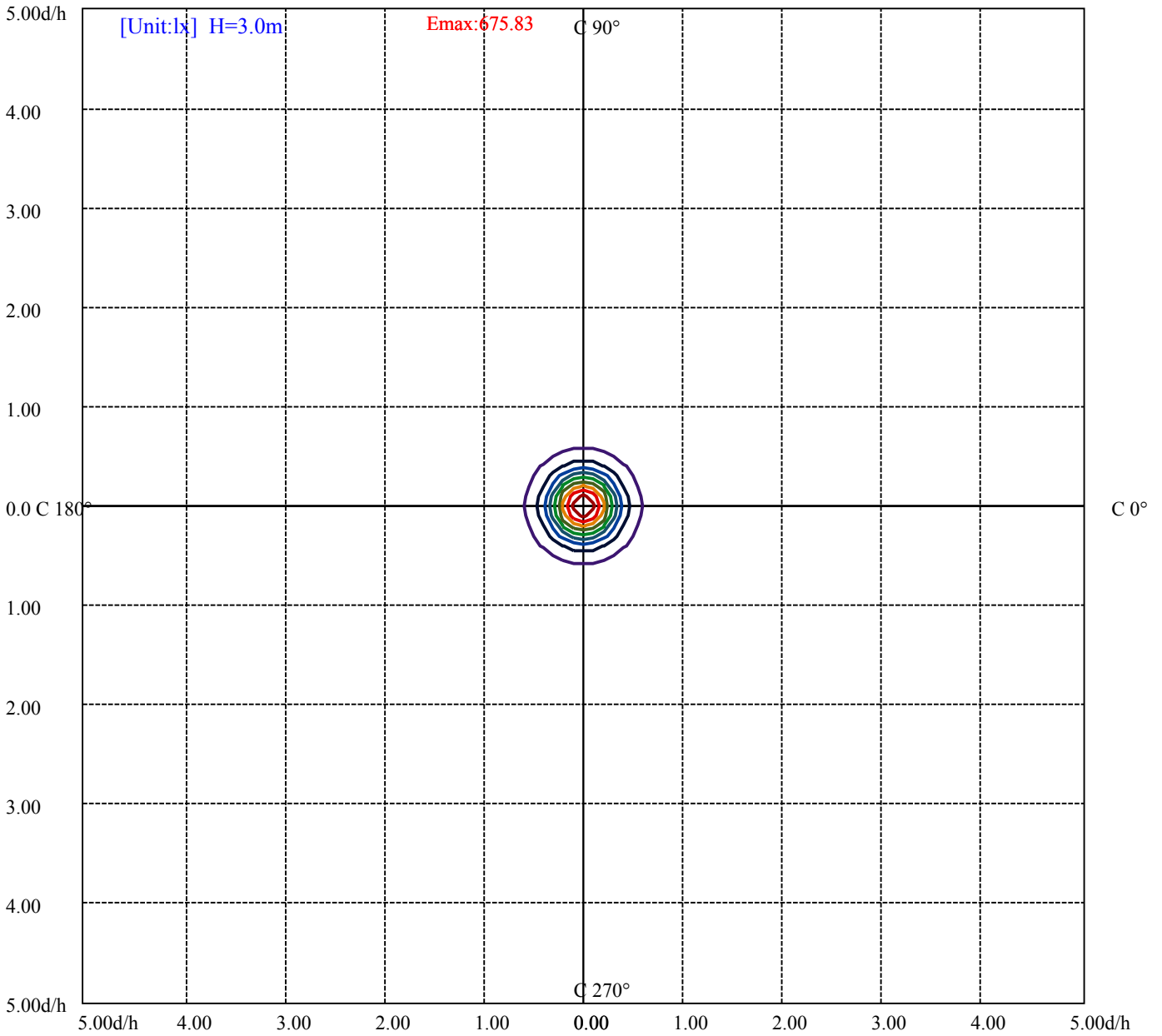
House

[Unit:cd]

Road

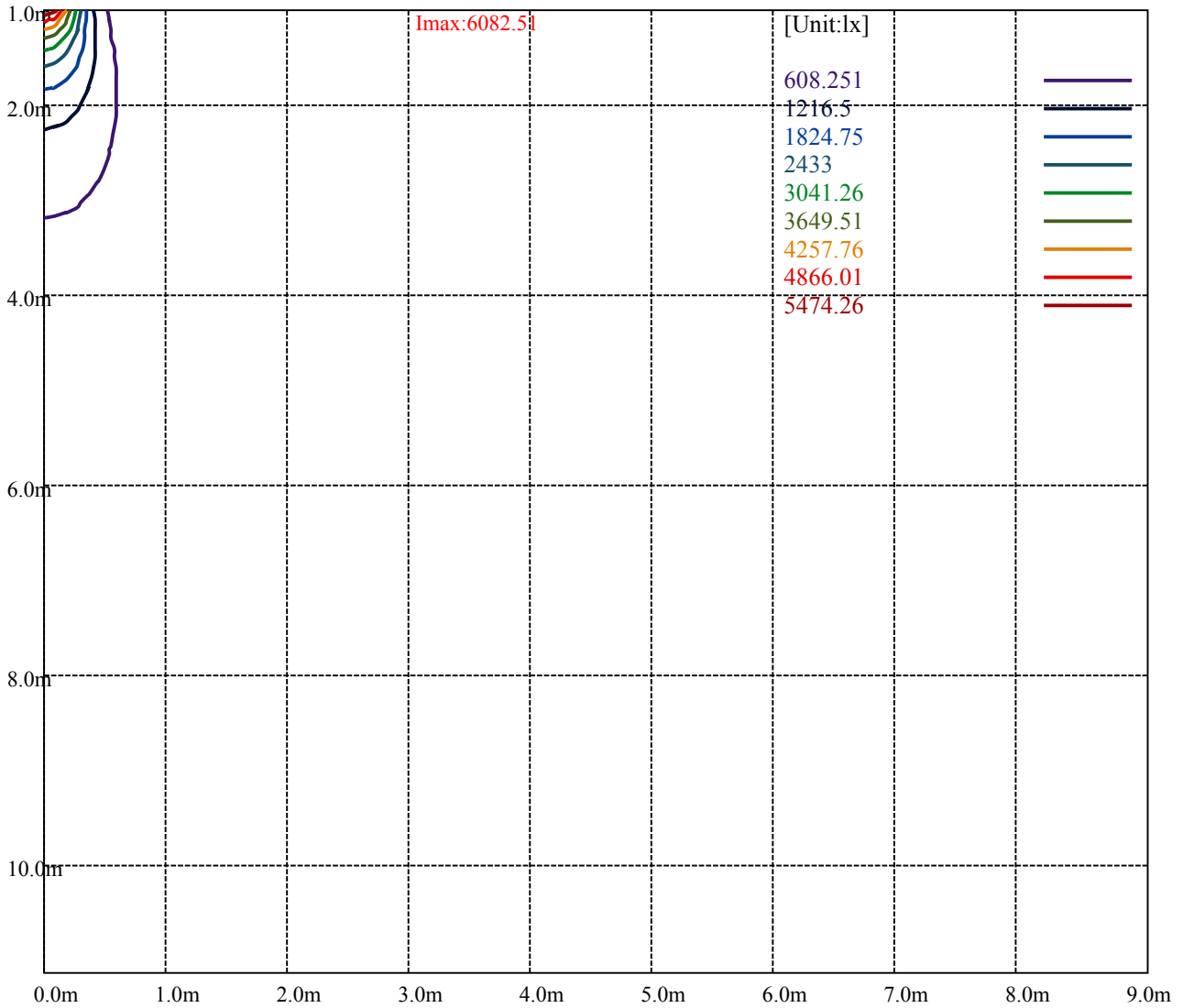
**Imax:6082.51**

(10%Imax) 608.251	—
(20%Imax) 1216.5	—
(30%Imax) 1824.75	—
(40%Imax) 2433	—
(50%Imax) 3041.26	—
(60%Imax) 3649.51	—
(70%Imax) 4257.76	—
(80%Imax) 4866.01	—
(90%Imax) 5474.26	—



(10%Emax) 67.58334	—
(20%Emax) 135.1667	—
(30%Emax) 202.75	—
(40%Emax) 270.3333	—
(50%Emax) 337.9167	—
(60%Emax) 405.5	—
(70%Emax) 473.0833	—
(80%Emax) 540.6667	—
(90%Emax) 608.25	—





Luminance Table

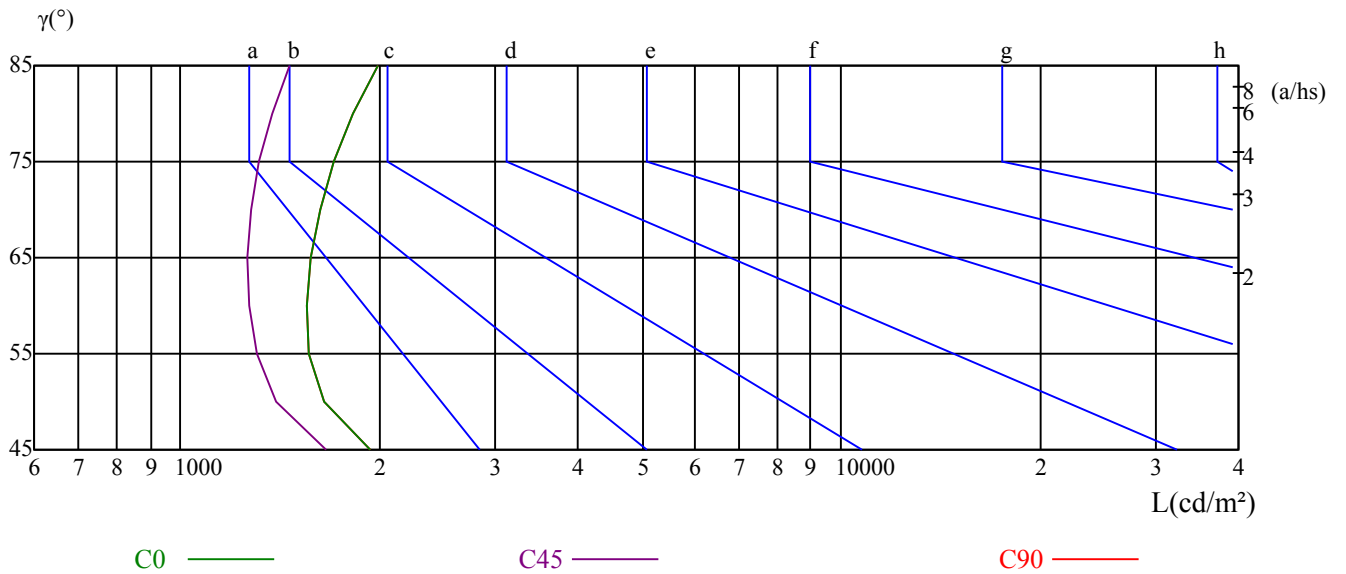
$\gamma$	45	50	55	60	65	70	75	80	85
C0	1937	1650	1565	1551	1569	1624	1702	1825	1990
C45	1664	1396	1304	1270	1263	1282	1314	1376	1458
C90	1937	1650	1565	1551	1569	1624	1702	1825	1990

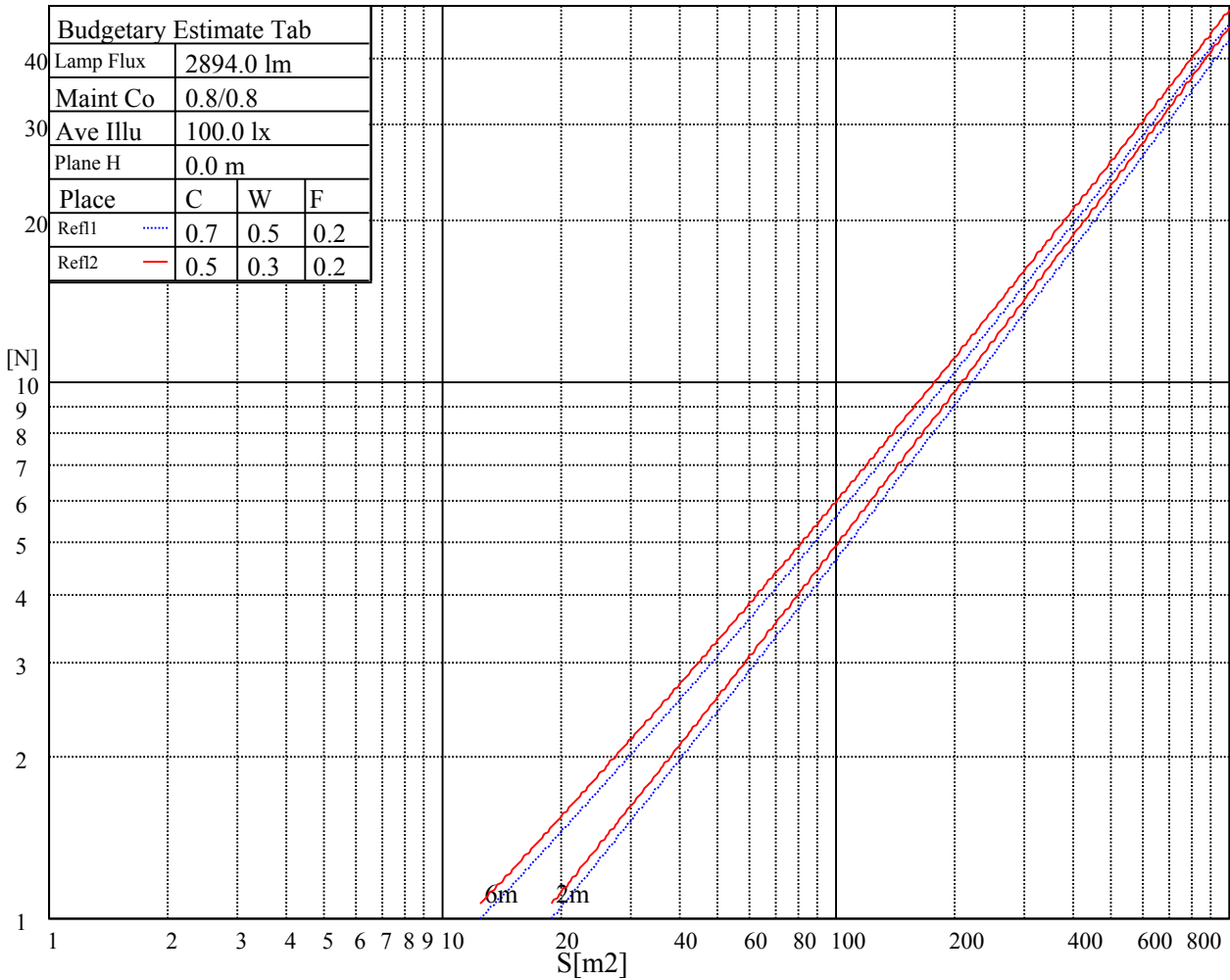
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
3786	3786	3786	5885	5885	5885	16980	16980	16980

Glare Table

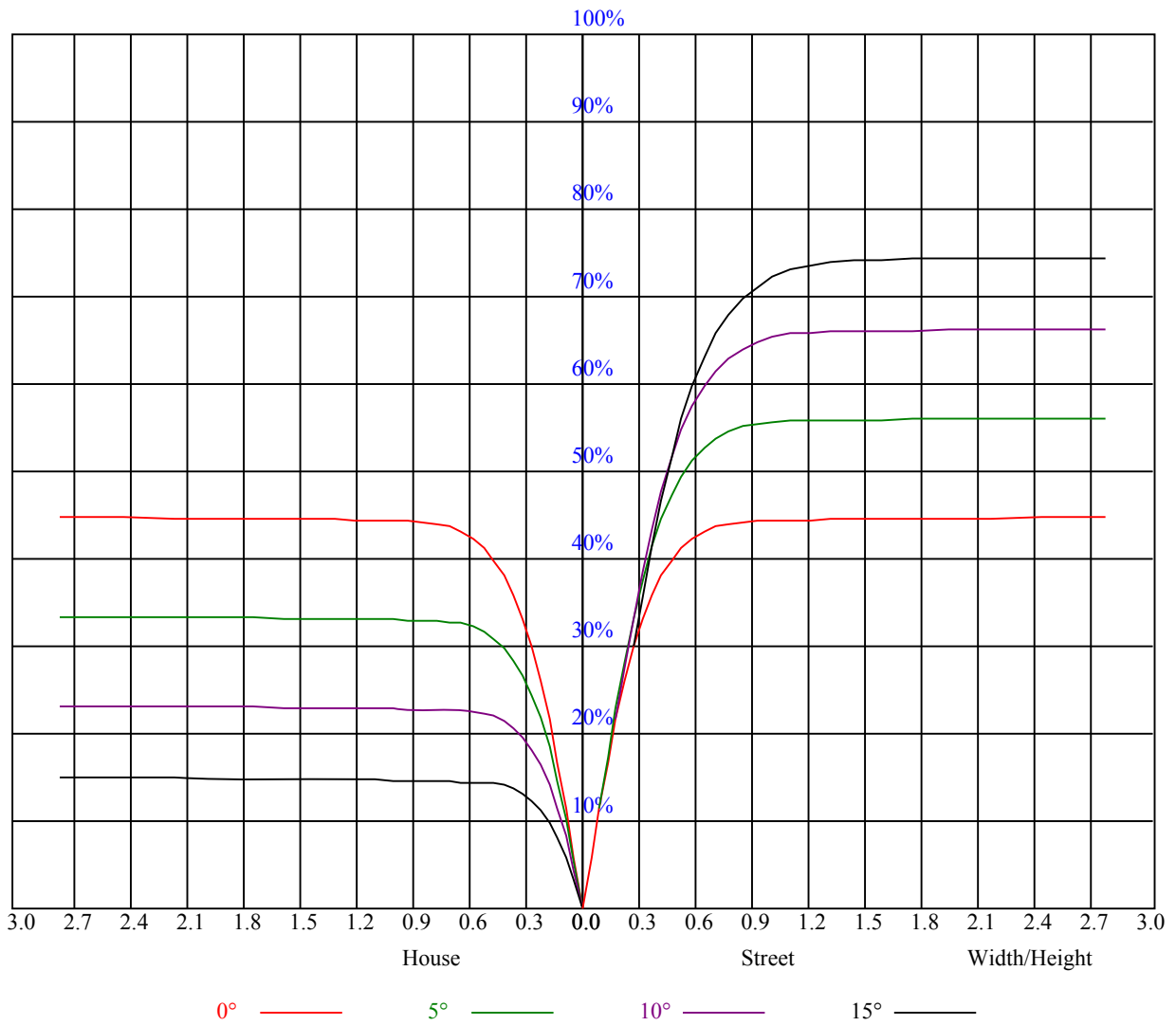
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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 RHOF=20 CU															
0	1.08	1.08	1.08	1.06	1.06	1.06	1.01	1.01	1.01	0.97	0.97	0.97	0.93	0.93	0.93	0.91
1	1.00	0.98	0.96	0.98	0.96	0.94	0.95	0.93	0.91	0.91	0.90	0.89	0.88	0.87	0.86	0.84
2	0.95	0.91	0.89	0.93	0.90	0.88	0.90	0.88	0.86	0.88	0.86	0.84	0.85	0.84	0.82	0.81
3	0.90	0.86	0.83	0.89	0.85	0.82	0.87	0.84	0.81	0.84	0.82	0.80	0.82	0.80	0.79	0.77
4	0.86	0.82	0.78	0.85	0.81	0.78	0.83	0.80	0.77	0.81	0.78	0.76	0.80	0.77	0.75	0.74
5	0.82	0.78	0.75	0.81	0.77	0.74	0.80	0.76	0.74	0.78	0.75	0.73	0.77	0.75	0.72	0.71
6	0.79	0.74	0.71	0.78	0.74	0.71	0.77	0.73	0.71	0.76	0.73	0.70	0.75	0.72	0.70	0.69
7	0.76	0.71	0.68	0.75	0.71	0.68	0.74	0.70	0.68	0.73	0.70	0.67	0.72	0.69	0.67	0.66
8	0.73	0.69	0.66	0.73	0.68	0.66	0.72	0.68	0.65	0.71	0.67	0.65	0.70	0.67	0.65	0.64
9	0.70	0.66	0.63	0.70	0.66	0.63	0.69	0.66	0.63	0.69	0.65	0.63	0.68	0.65	0.63	0.62
10	0.68	0.64	0.61	0.68	0.64	0.61	0.67	0.63	0.61	0.66	0.63	0.61	0.66	0.63	0.61	0.60



Intensity data(cd)

<b>C/γ(°)</b>	<b>0.0</b>	<b>5.0</b>	<b>10.0</b>	<b>15.0</b>	<b>20.0</b>	<b>25.0</b>	<b>30.0</b>	<b>35.0</b>	<b>40.0</b>
<b>0.0</b>	6024.29	6162.30	5636.95	4420.41	3083.66	1825.37	1118.04	847.02	311.65
<b>45.0</b>	6107.76	5999.24	5152.78	3967.96	2497.64	1452.51	1006.18	570.99	63.28
<b>90.0</b>	6066.58	5611.35	4552.86	3196.07	1955.04	1091.49	866.88	291.39	25.71
<b>135.0</b>	6119.45	5634.72	4496.09	3242.26	1982.87	1195.95	867.61	306.08	25.54
<b>180.0</b>	6048.22	5377.61	4202.25	2878.86	1829.27	1105.35	770.22	200.90	21.87
<b>225.0</b>	6107.76	5743.80	4725.38	3417.56	2177.65	1225.45	947.02	409.99	33.45
<b>270.0</b>	6066.58	6024.84	5436.05	4111.54	2773.68	1624.47	1064.62	705.66	289.94
<b>315.0</b>	6119.45	6070.48	5361.48	4130.46	2794.82	1623.91	1052.09	712.06	135.73
<b>360.0</b>	6024.29	6162.30	5636.95	4420.41	3083.66	1825.37	1118.04	847.02	311.65
<b>C/γ(°)</b>	<b>45.0</b>	<b>50.0</b>	<b>55.0</b>	<b>60.0</b>	<b>65.0</b>	<b>70.0</b>	<b>75.0</b>	<b>80.0</b>	<b>85.0</b>
<b>0.0</b>	20.26	14.64	13.25	12.30	11.85	11.46	11.24	11.02	10.85
<b>45.0</b>	15.14	13.63	12.58	11.97	11.58	11.19	10.96	10.80	10.63
<b>90.0</b>	14.19	12.97	12.13	11.63	11.30	11.07	10.80	10.69	10.57
<b>135.0</b>	14.25	13.19	12.30	11.85	11.46	11.24	10.96	10.80	10.74
<b>180.0</b>	14.53	13.47	12.52	12.08	11.63	11.35	11.07	10.91	10.80
<b>225.0</b>	15.30	13.63	12.58	12.02	11.52	11.24	11.02	10.85	10.63
<b>270.0</b>	18.92	14.08	12.74	12.08	11.58	11.35	11.02	10.85	10.63
<b>315.0</b>	18.75	13.86	12.63	12.02	11.58	11.30	10.96	10.85	10.69
<b>360.0</b>	20.26	14.64	13.25	12.30	11.85	11.46	11.24	11.02	10.85
<b>C/γ(°)</b>	<b>90.0</b>								
<b>0.0</b>	10.85								
<b>45.0</b>	10.52								
<b>90.0</b>	10.46								
<b>135.0</b>	10.63								
<b>180.0</b>	10.74								
<b>225.0</b>	10.52								
<b>270.0</b>	10.52								
<b>315.0</b>	10.63								
<b>360.0</b>	10.85								