
LumCAT: 2-1564-M
Luminaire: 92.70.278.00
Report No: 221220-B004
Test No: 221220-C004
LampCAT: CREE CXA 1830 LES12
Lamp flux(lm): 1970.8
Number of Lamps: 1
Length(mm): 0
Phm Type: C

Voltage(V): 34.6800
Current(A): 0.4320
Power (W): 14.9810
PF: 0.0000
Ballast type: DC
Width(mm): 0
Height(mm): 0

Photometric Results

Lumens(lm): 1827.72
Efficiency(%): 92.74%
Lumens(lm)/Power(W): 122.00
Central intensity(cd): 2723.836
Maximum intensity(cd): 2723.836
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=46.7
 [C90/270]Total=46.7
Field angle(10%Imax): [C0/180]Total=80.3
 [C90/270]Total=80.3
Maximum s/h(1/2): C0_180=0.70 C90_270=0.70
Maximum s/h(1/4): C0_180=0.78 C90_270=0.78
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 92.74%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.657%

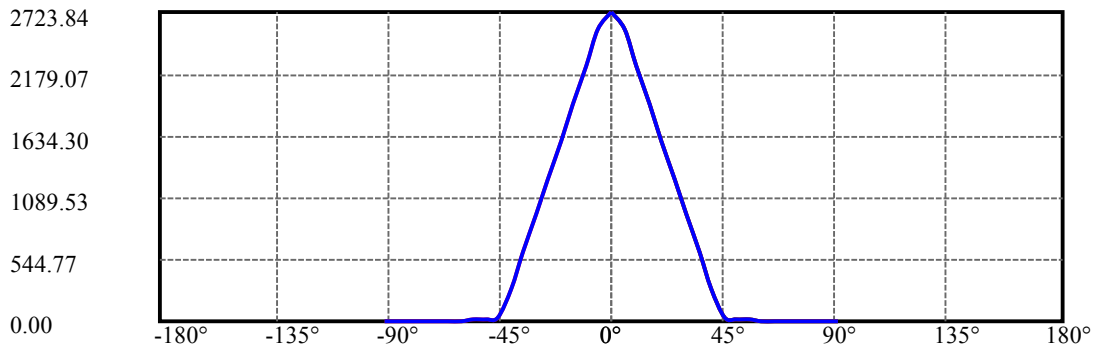
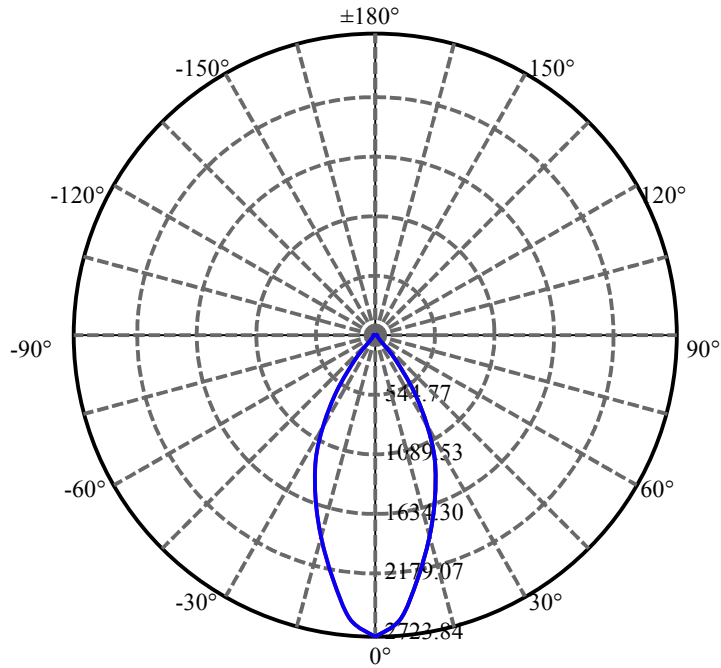
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	2723.836	0.000	0	.000%	.000%
5.0	2572.586	63.317	63.317	3.213%	3.464%
10.0	2244.095	172.308	235.625	8.743%	12.892%
15.0	1905.968	246.179	481.804	12.491%	26.361%
20.0	1582.406	287.491	769.295	14.588%	42.090%
25.0	1252.286	297.307	1066.602	15.086%	58.357%
30.0	947.718	278.412	1345.014	14.127%	73.590%
35.0	616.635	230.362	1575.376	11.689%	86.194%
40.0	280.637	149.703	1725.079	7.596%	94.384%
45.0	38.137	59.024	1784.103	2.995%	97.614%
50.0	13.004	10.334	1794.437	.524%	98.179%
55.0	8.911	4.765	1799.202	.242%	98.440%
60.0	8.246	3.966	1803.168	.201%	98.657%
65.0	7.970	3.942	1807.11	.200%	98.872%
70.0	7.790	3.990	1811.1	.202%	99.091%
75.0	7.745	4.061	1815.161	.206%	99.313%
80.0	7.745	4.145	1819.306	.210%	99.540%
85.0	7.708	4.199	1823.505	.213%	99.769%
90.0	7.678	4.213	1827.718	.214%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1345.01	68.25%	73.59%
0-40	1725.08	87.53%	94.38%
0-60	1803.17	91.49%	98.66%
0-90	1823.50	92.53%	99.77%
0-120	1823.50	92.53%	99.77%
0-180	1827.72	92.74%	100.00%
60-90	24.30	1.23%	1.33%
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%
0-32.54	1462.17	74.19%	80.00%

ZONAL LUMEN SUMMARY

0-10	235.63
10-20	533.67
20-30	575.72
30-40	380.07
40-50	69.36
50-60	8.73
60-70	7.93
70-80	8.21
80-90	4.20
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



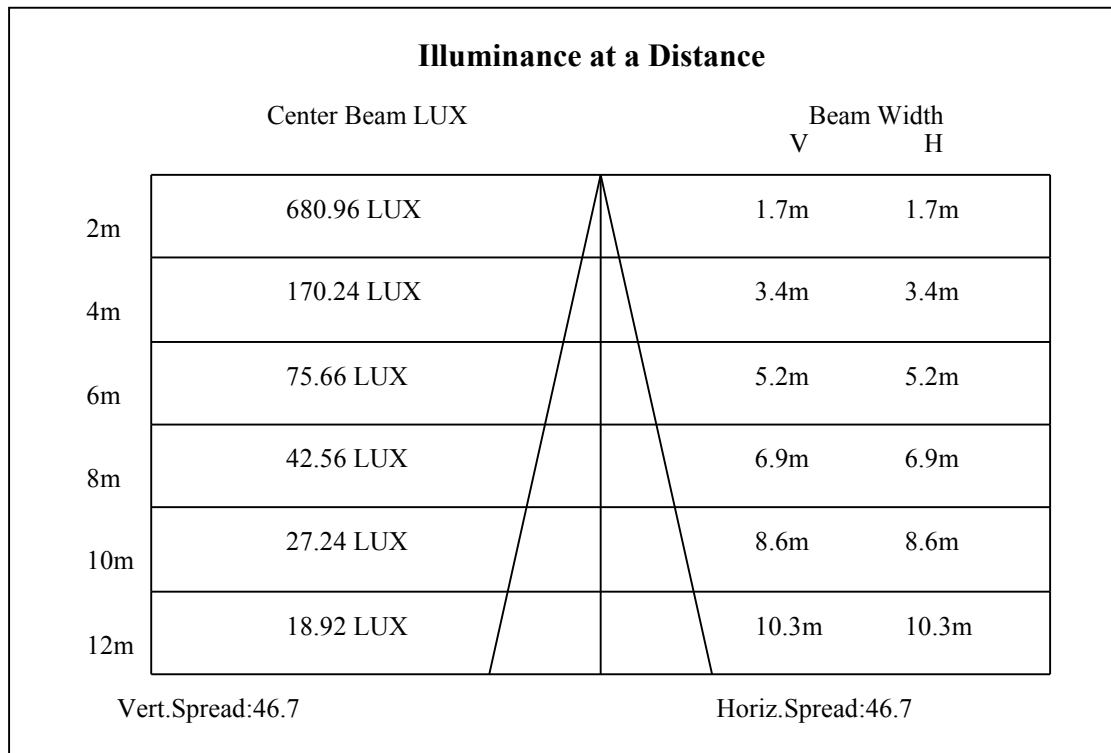
C0(Max): —————

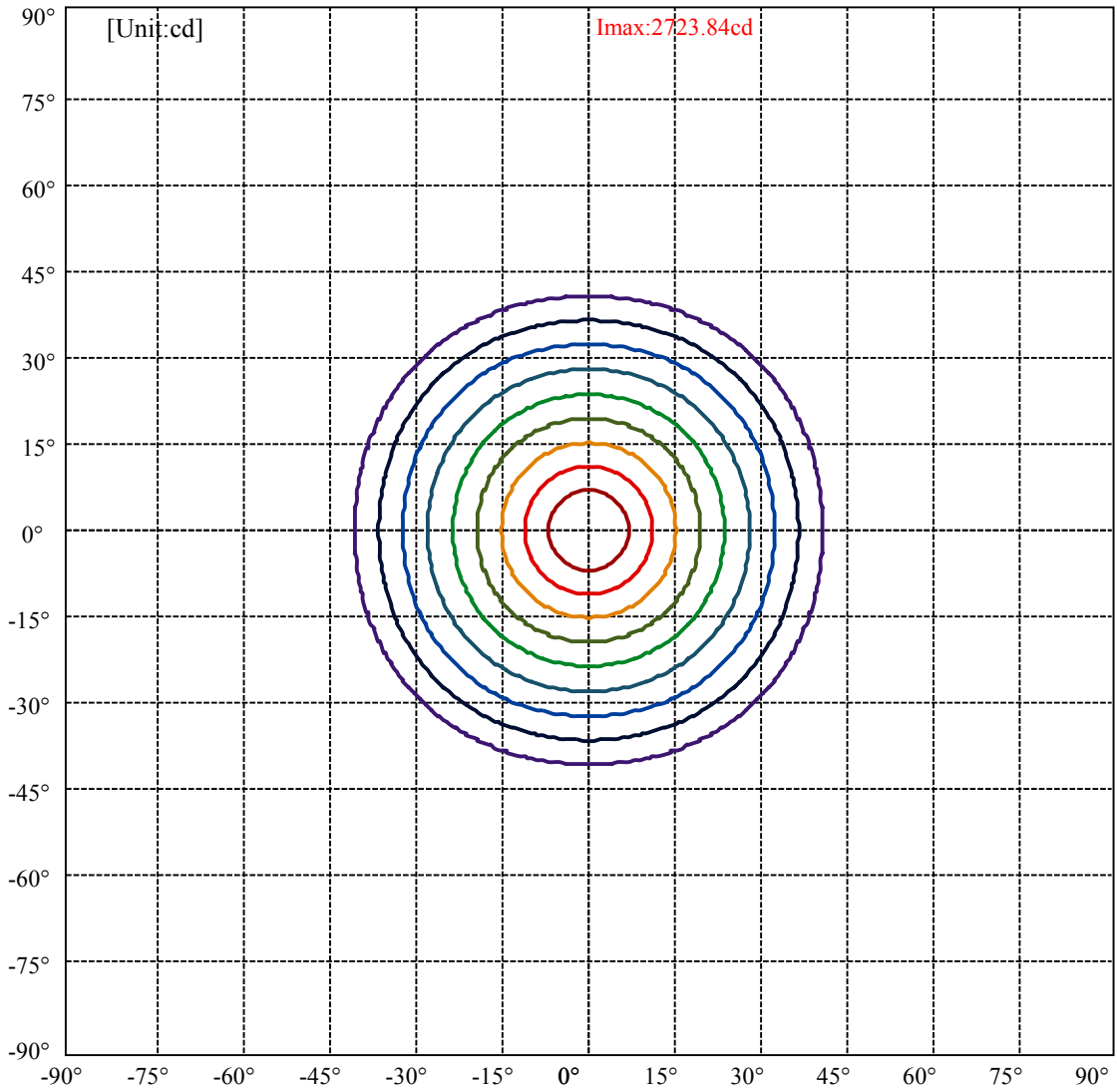
C0/C180: —————

C90/C270: —————

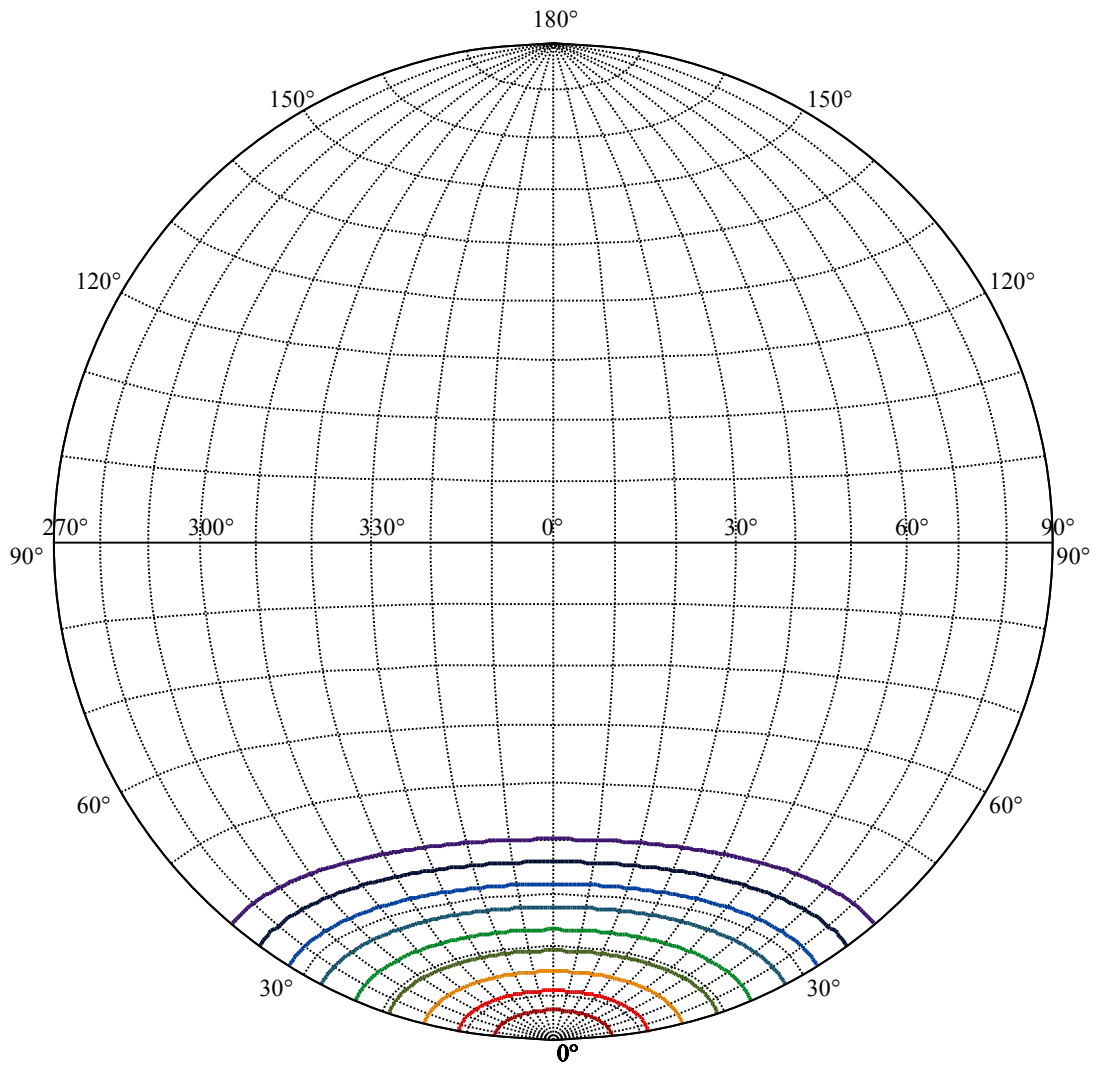
Field angle(10%Imax):C0/180Left:40.2 Right:40.2
:C90/270Left:40.2 Right:40.2

Beam Angle(50%Imax):C0/180Left:23.3 Right:23.3
:C90/270Left:23.3 Right:23.3





(10%Imax) 272.384	—
(20%Imax) 544.767	—
(30%Imax) 817.151	—
(40%Imax) 1089.53	—
(50%Imax) 1361.92	—
(60%Imax) 1634.3	—
(70%Imax) 1906.69	—
(80%Imax) 2179.07	—
(90%Imax) 2451.45	—



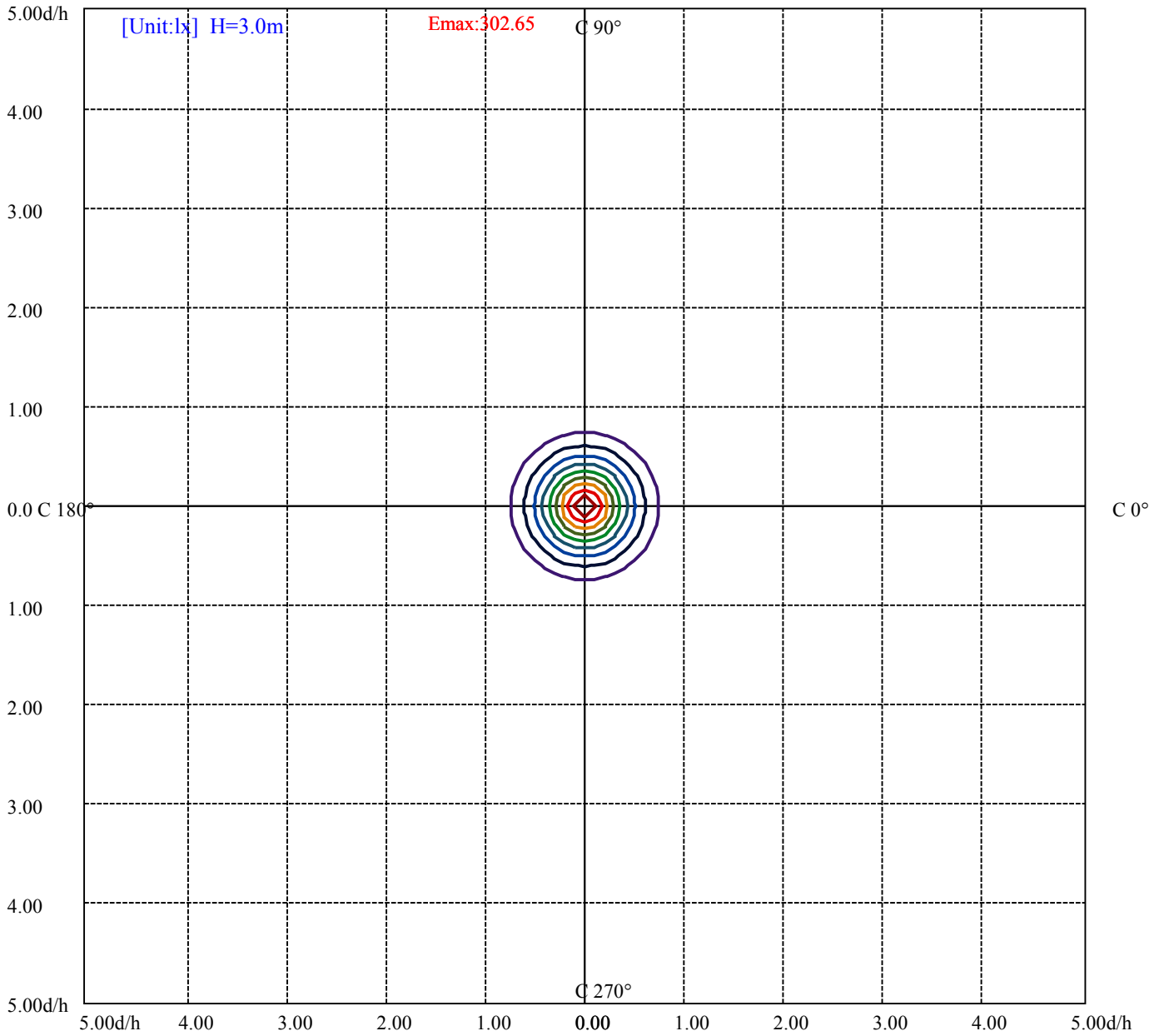
House

[Unit:cd]

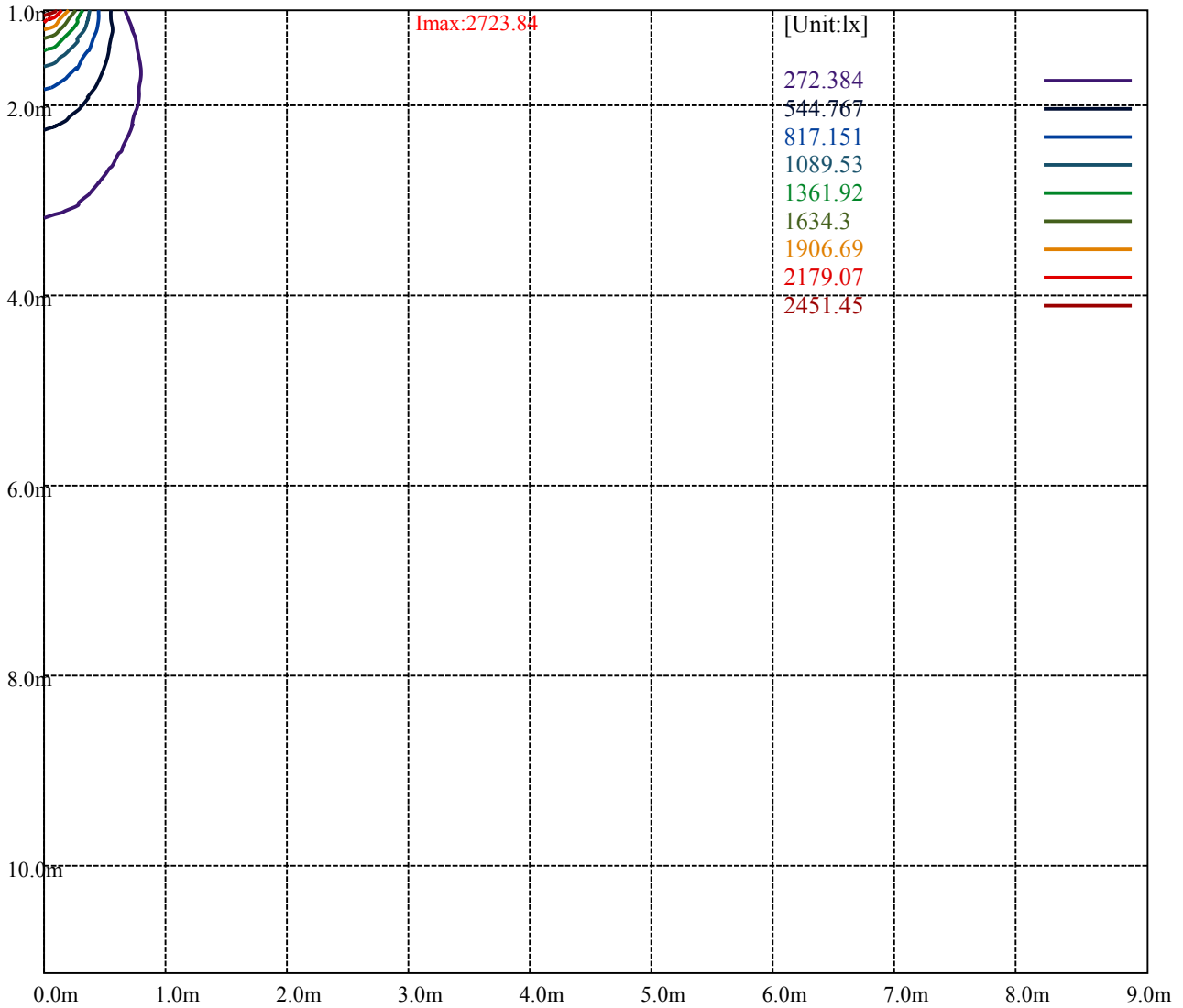
Road

I_{max}:2723.84

(10%I _{max}) 272.384	—
(20%I _{max}) 544.767	—
(30%I _{max}) 817.151	—
(40%I _{max}) 1089.53	—
(50%I _{max}) 1361.92	—
(60%I _{max}) 1634.3	—
(70%I _{max}) 1906.69	—
(80%I _{max}) 2179.07	—
(90%I _{max}) 2451.45	—



- (10%Emax) 30.26478
- (20%Emax) 60.52956
- (30%Emax) 90.79433
- (40%Emax) 121.0589
- (50%Emax) 151.3244
- (60%Emax) 181.5889
- (70%Emax) 211.8533
- (80%Emax) 242.1189
- (90%Emax) 272.3833



Luminance Table

γ	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

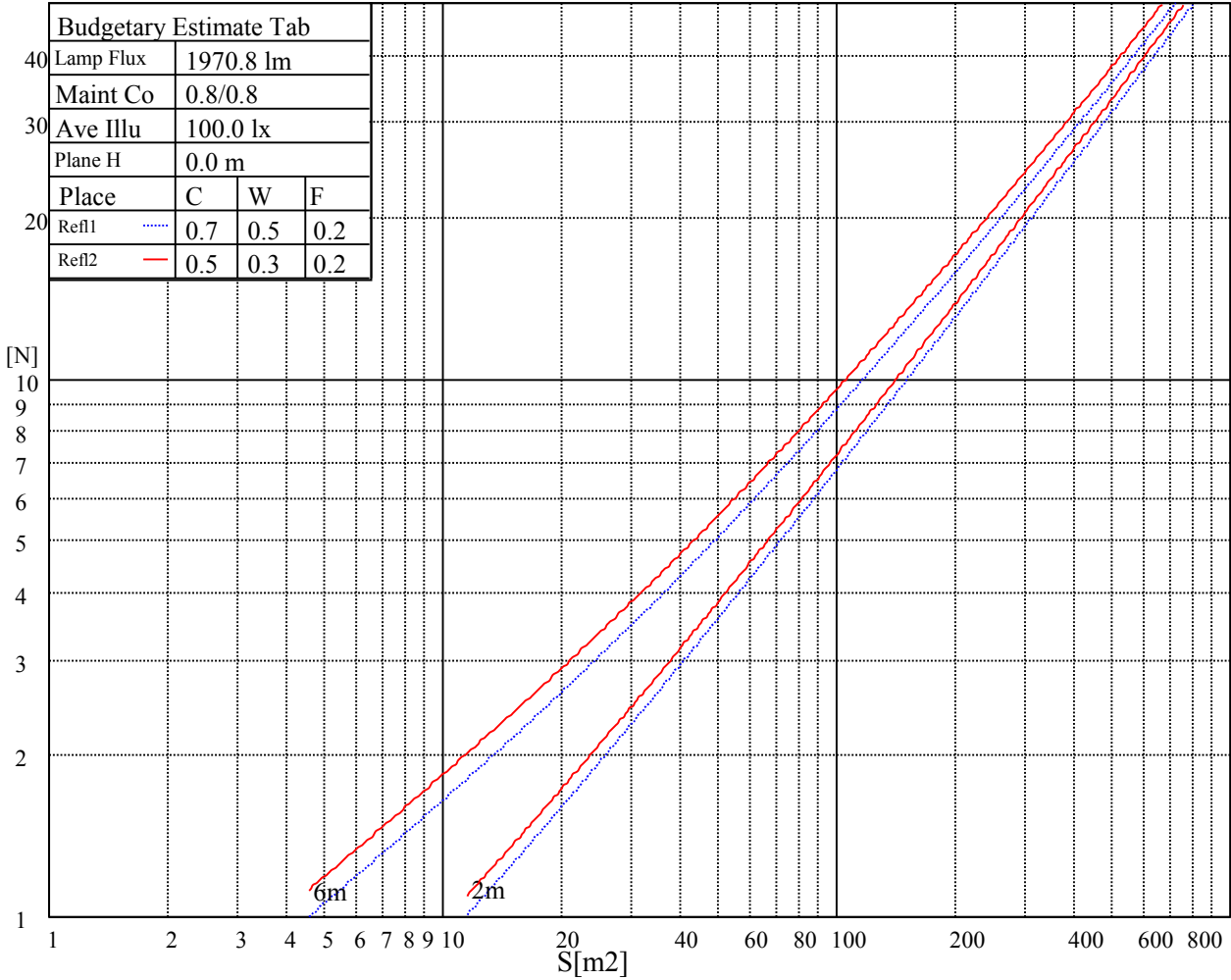
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
0	0	0	0	0	0	0	0	0

Glare Table

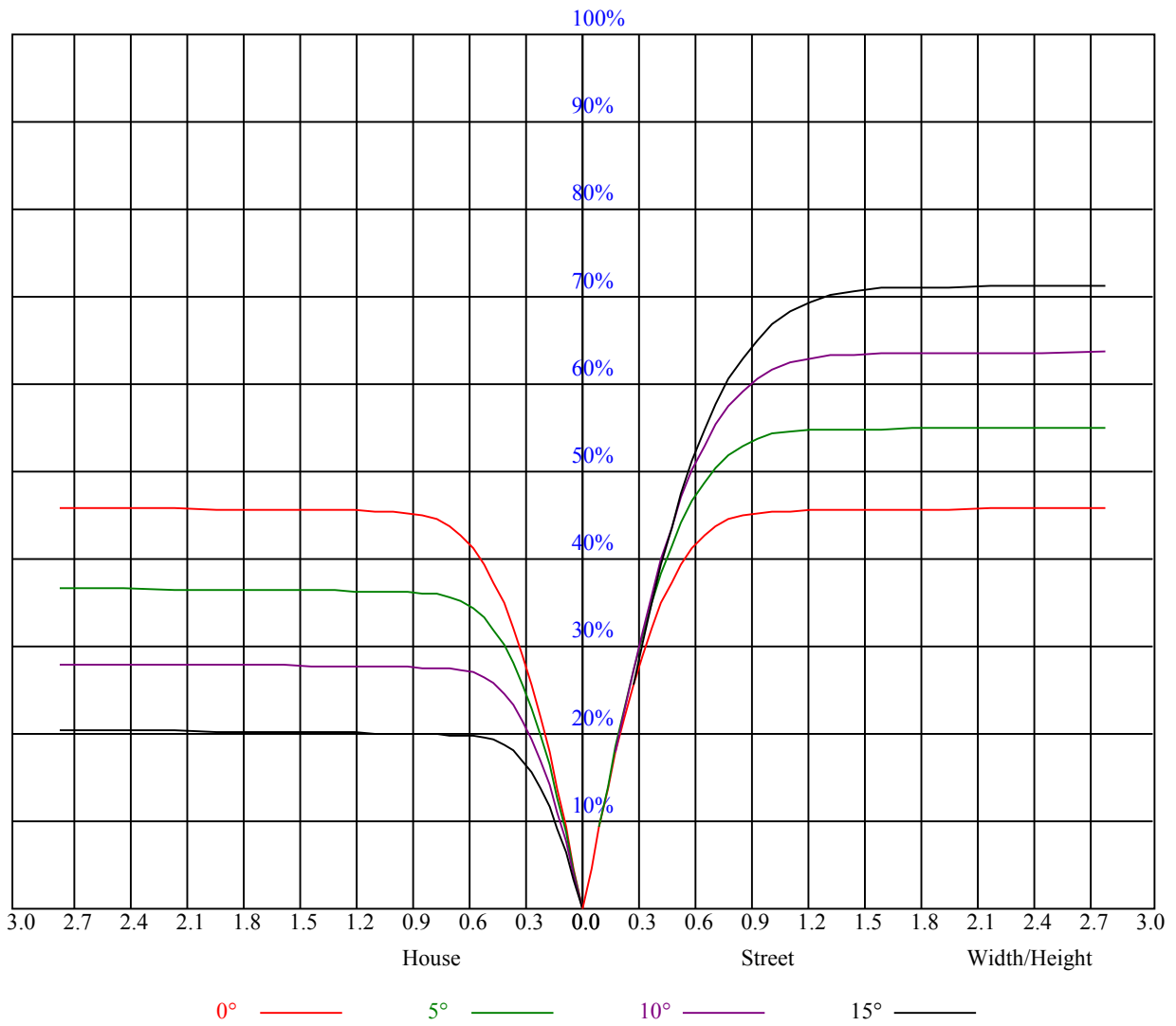
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	1.10	1.10	1.10	1.08	1.08	1.08	1.03	1.03	1.03	0.99	0.99	0.99	0.95	0.95	0.95	0.93
1	1.03	1.00	0.98	1.01	0.99	0.97	0.97	0.95	0.94	0.93	0.92	0.91	0.90	0.89	0.88	0.87
2	0.96	0.92	0.89	0.94	0.91	0.88	0.91	0.88	0.86	0.88	0.86	0.84	0.86	0.84	0.82	0.81
3	0.90	0.85	0.81	0.88	0.84	0.81	0.86	0.82	0.79	0.84	0.81	0.78	0.82	0.79	0.77	0.76
4	0.84	0.79	0.75	0.83	0.78	0.75	0.81	0.77	0.74	0.79	0.76	0.73	0.77	0.74	0.72	0.71
5	0.79	0.74	0.70	0.78	0.73	0.69	0.76	0.72	0.69	0.75	0.71	0.68	0.73	0.70	0.68	0.66
6	0.74	0.69	0.65	0.74	0.68	0.65	0.72	0.68	0.64	0.71	0.67	0.64	0.70	0.66	0.64	0.62
7	0.70	0.65	0.61	0.69	0.64	0.61	0.68	0.64	0.60	0.67	0.63	0.60	0.66	0.63	0.60	0.59
8	0.66	0.61	0.57	0.66	0.61	0.57	0.65	0.60	0.57	0.64	0.60	0.57	0.63	0.59	0.56	0.55
9	0.63	0.57	0.54	0.62	0.57	0.54	0.61	0.57	0.54	0.61	0.56	0.53	0.60	0.56	0.53	0.52
10	0.60	0.54	0.51	0.59	0.54	0.51	0.58	0.54	0.51	0.58	0.54	0.51	0.57	0.53	0.50	0.49



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	2708.00	2689.48	2408.04	2051.91	1715.51	1401.21	1079.14	760.06	439.18
45.0	2737.88	2571.17	2205.48	1892.97	1569.11	1251.82	920.79	580.80	305.93
90.0	2718.76	2450.47	2114.06	1777.65	1463.95	1135.96	818.26	467.81	116.52
135.0	2730.71	2517.39	2164.25	1839.79	1507.57	1171.75	868.81	525.83	214.99
180.0	2708.00	2436.72	2065.66	1762.71	1447.22	1111.11	815.33	471.09	117.41
225.0	2737.88	2607.62	2274.20	1915.68	1587.63	1182.27	970.81	655.97	300.08
270.0	2718.76	2678.72	2382.95	2036.38	1707.74	1419.13	1080.33	760.65	393.77
315.0	2730.71	2629.13	2338.13	1970.65	1660.53	1345.04	1028.29	710.88	357.20
360.0	2708.00	2689.48	2408.04	2051.91	1715.51	1401.21	1079.14	760.06	439.18
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	65.13	16.01	9.44	8.48	8.13	7.89	7.77	7.77	7.77
45.0	25.51	11.11	8.66	8.25	7.95	7.83	7.77	7.77	7.71
90.0	21.09	10.28	8.43	8.07	7.89	7.77	7.77	7.77	7.65
135.0	23.48	10.58	8.54	8.07	7.89	7.71	7.71	7.71	7.71
180.0	21.09	10.28	8.48	8.07	7.89	7.71	7.71	7.71	7.65
225.0	34.84	13.56	9.08	8.31	8.01	7.83	7.77	7.77	7.71
270.0	67.76	17.51	9.44	8.43	8.01	7.83	7.77	7.77	7.71
315.0	46.19	14.70	9.20	8.31	8.01	7.77	7.71	7.71	7.77
360.0	65.13	16.01	9.44	8.48	8.13	7.89	7.77	7.77	7.77
C/ γ (°)	90.0								
0.0	7.65								
45.0	7.71								
90.0	7.71								
135.0	7.65								
180.0	7.71								
225.0	7.71								
270.0	7.65								
315.0	7.65								
360.0	7.65								