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Nata

LumCAT: 1-1062-N	
Luminaire: 92.361.000	
Report No: 220518-B004	Voltage(V):
Test No: 220518-C004	Current(A):
LampCAT: CREE CXA1520	Power (W): 13.0930
Lamp flux(lm): 1029.7	PF:
Number of Lamps: 1	Ballast type:
Length(mm): 43	Width(mm): 43
Phm Type: C	Height(mm): 0

Photometric Results

Lumens(lm): 865.17
Efficiency(%): 84.02%
Lumens(lm)/Power(W): 66.08
Central intensity(cd): 2260.004
Maximum intensity(cd): 2260.004
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=33.9
 [C90/270]Total=33.9
Field angle(10%Imax): [C0/180]Total=58.6
 [C90/270]Total=58.6
Maximum s/h(1/2): C0_180=0.56 C90_270=0.56
Maximum s/h(1/4): C0_180=0.57 C90_270=0.57
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 84.02%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.099%

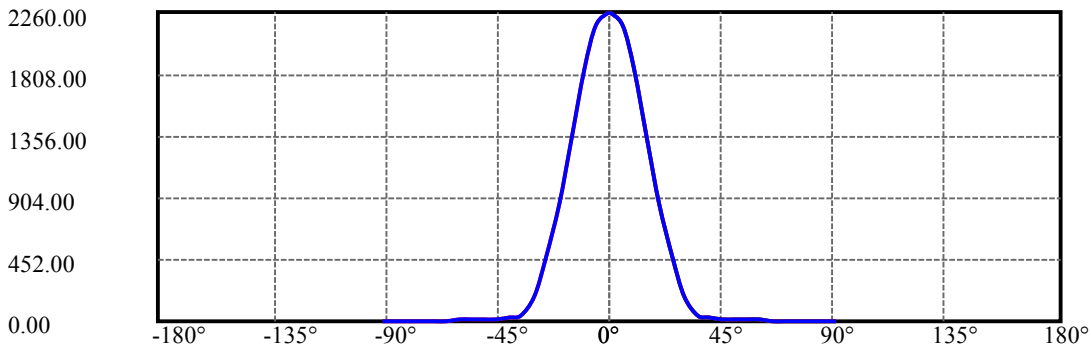
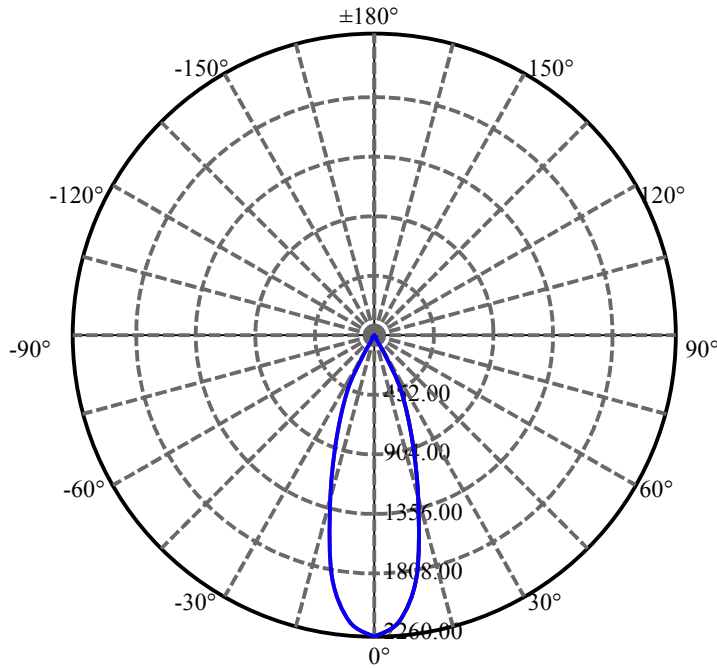
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	2260.004	0.000	0	.000%	.000%
5.0	2157.005	52.804	52.804	5.128%	6.103%
10.0	1840.464	143.002	195.806	13.887%	22.632%
15.0	1306.796	186.693	382.499	18.130%	44.211%
20.0	858.007	178.410	560.91	17.326%	64.832%
25.0	466.073	138.872	699.781	13.486%	80.883%
30.0	185.779	82.492	782.274	8.011%	90.418%
35.0	36.935	32.796	815.07	3.185%	94.209%
40.0	24.043	10.174	825.243	.988%	95.385%
45.0	17.299	7.655	832.898	.743%	96.269%
50.0	13.467	6.217	839.115	.604%	96.988%
55.0	10.591	5.231	844.346	.508%	97.593%
60.0	8.380	4.385	848.731	.426%	98.099%
65.0	6.722	3.671	852.402	.357%	98.524%
70.0	5.669	3.138	855.54	.305%	98.886%
75.0	4.900	2.763	858.303	.268%	99.206%
80.0	4.399	2.488	860.791	.242%	99.493%
85.0	4.011	2.285	863.076	.222%	99.757%
90.0	3.652	2.098	865.174	.204%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	782.27	75.97%	90.42%
0-40	825.24	80.14%	95.38%
0-60	848.73	82.42%	98.10%
0-90	863.08	83.82%	99.76%
0-120	863.08	83.82%	99.76%
0-180	865.17	84.02%	100.00%
60-90	18.73	1.82%	2.16%
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%
0-24.72	692.14	67.22%	80.00%

ZONAL LUMEN SUMMARY

0-10	195.81
10-20	365.10
20-30	221.36
30-40	42.97
40-50	13.87
50-60	9.62
60-70	6.81
70-80	5.25
80-90	2.29
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: —————

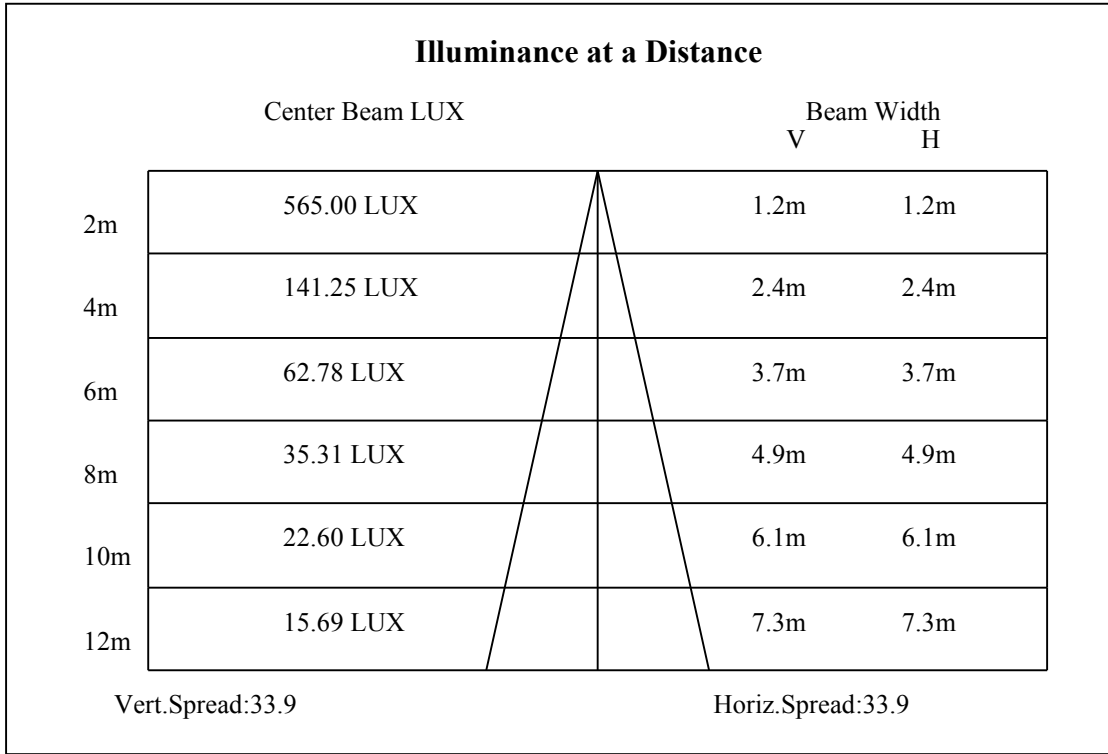
C90/C270: —————

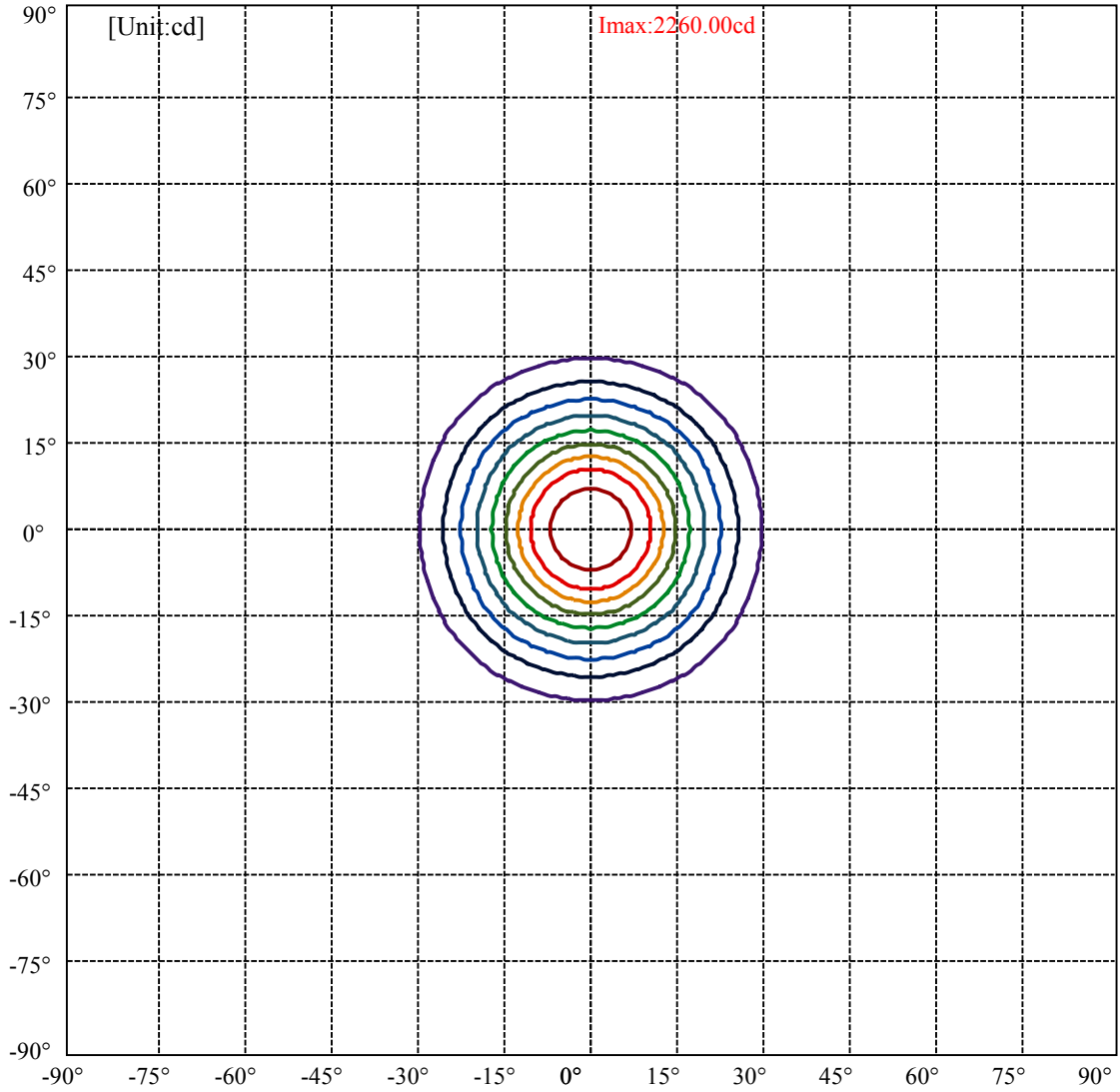
Field angle(10%Imax):C0/180Left:29.3 Right:29.3

:C90/270Left:29.3 Right:29.3

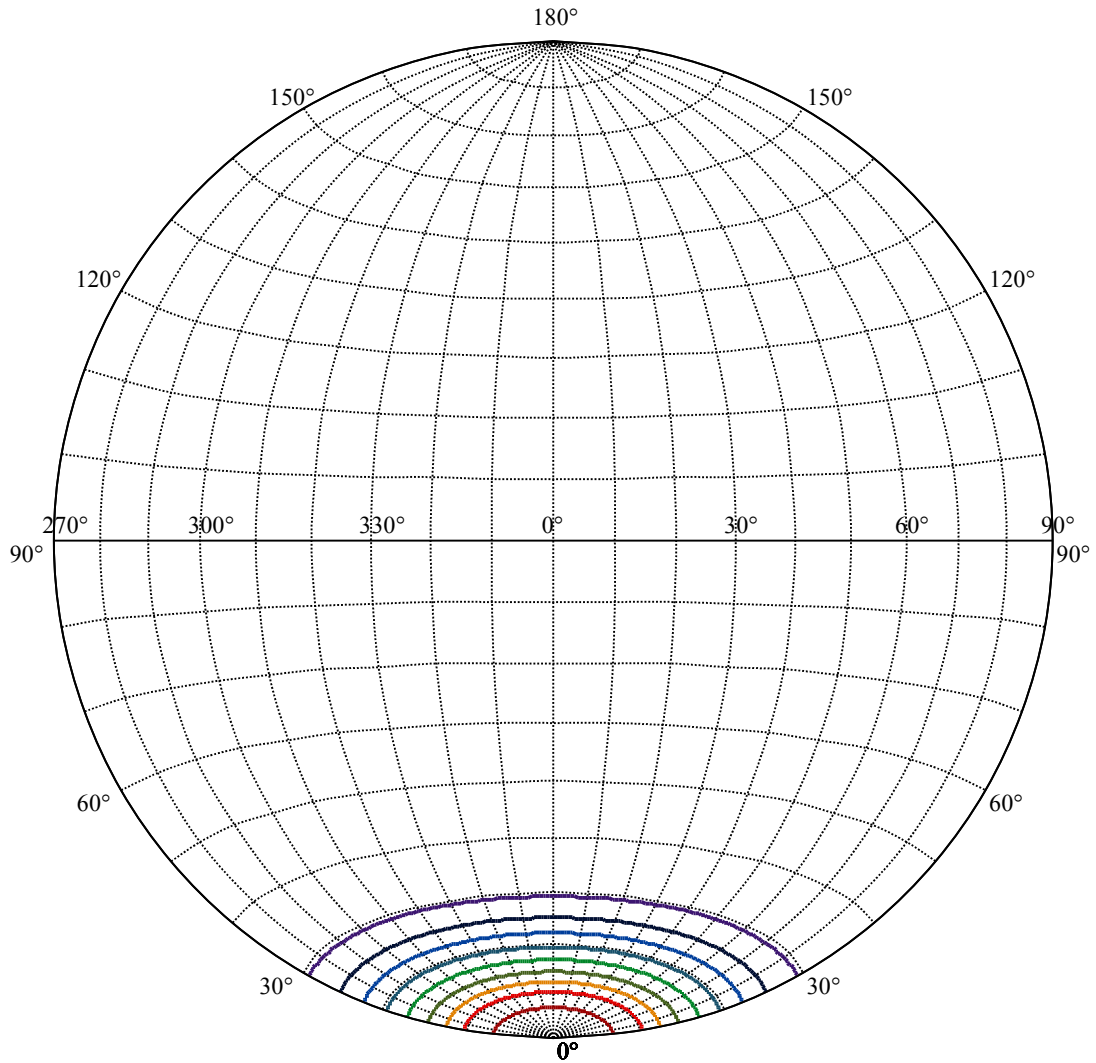
Beam Angle(50%Imax):C0/180Left:17.0 Right:17.0

:C90/270Left:17.0 Right:17.0





(10%Imax) 226	—
(20%Imax) 452.001	—
(30%Imax) 678.001	—
(40%Imax) 904.002	—
(50%Imax) 1130	—
(60%Imax) 1356	—
(70%Imax) 1582	—
(80%Imax) 1808	—
(90%Imax) 2034	—



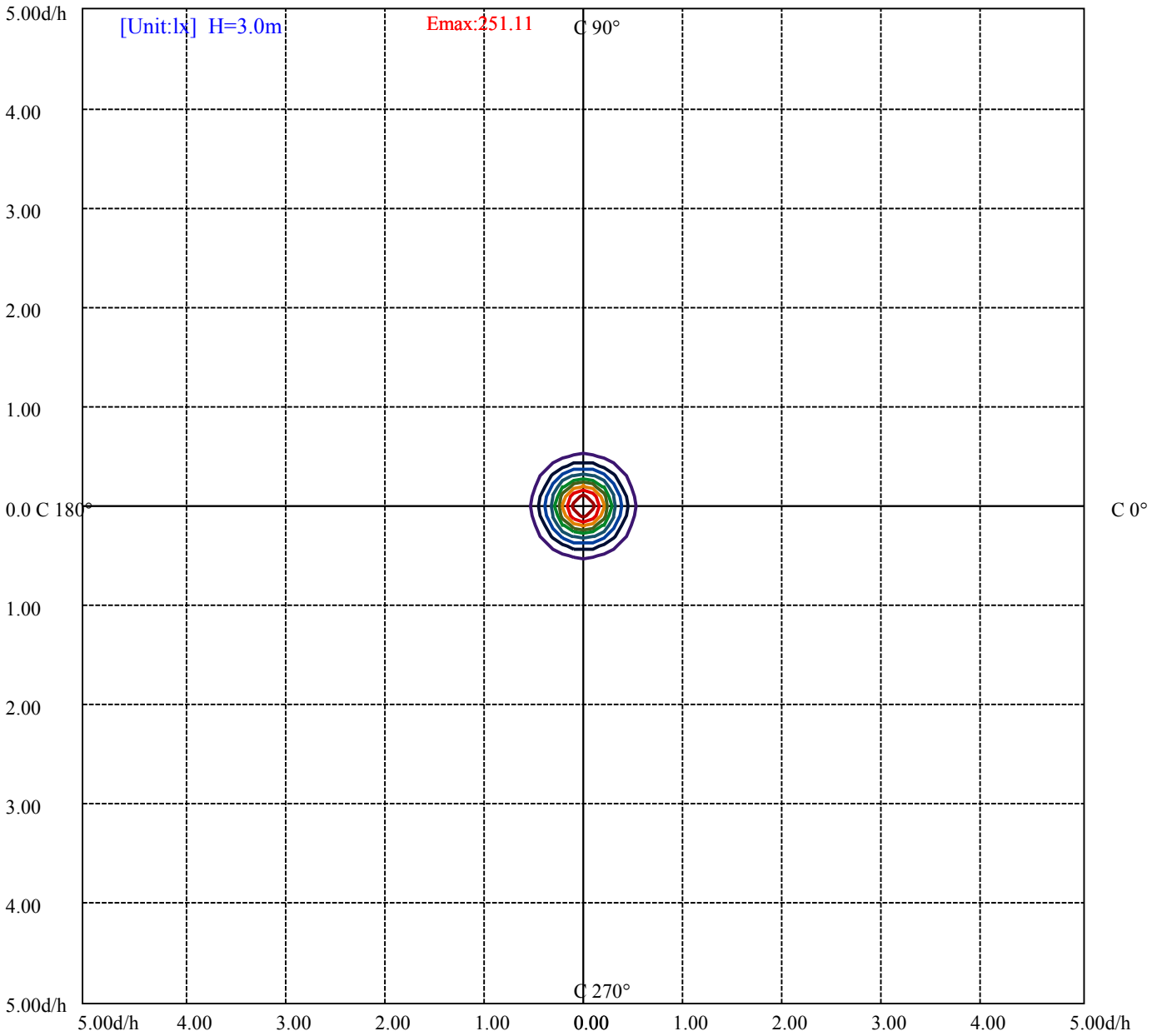
House

[Unit:cd]

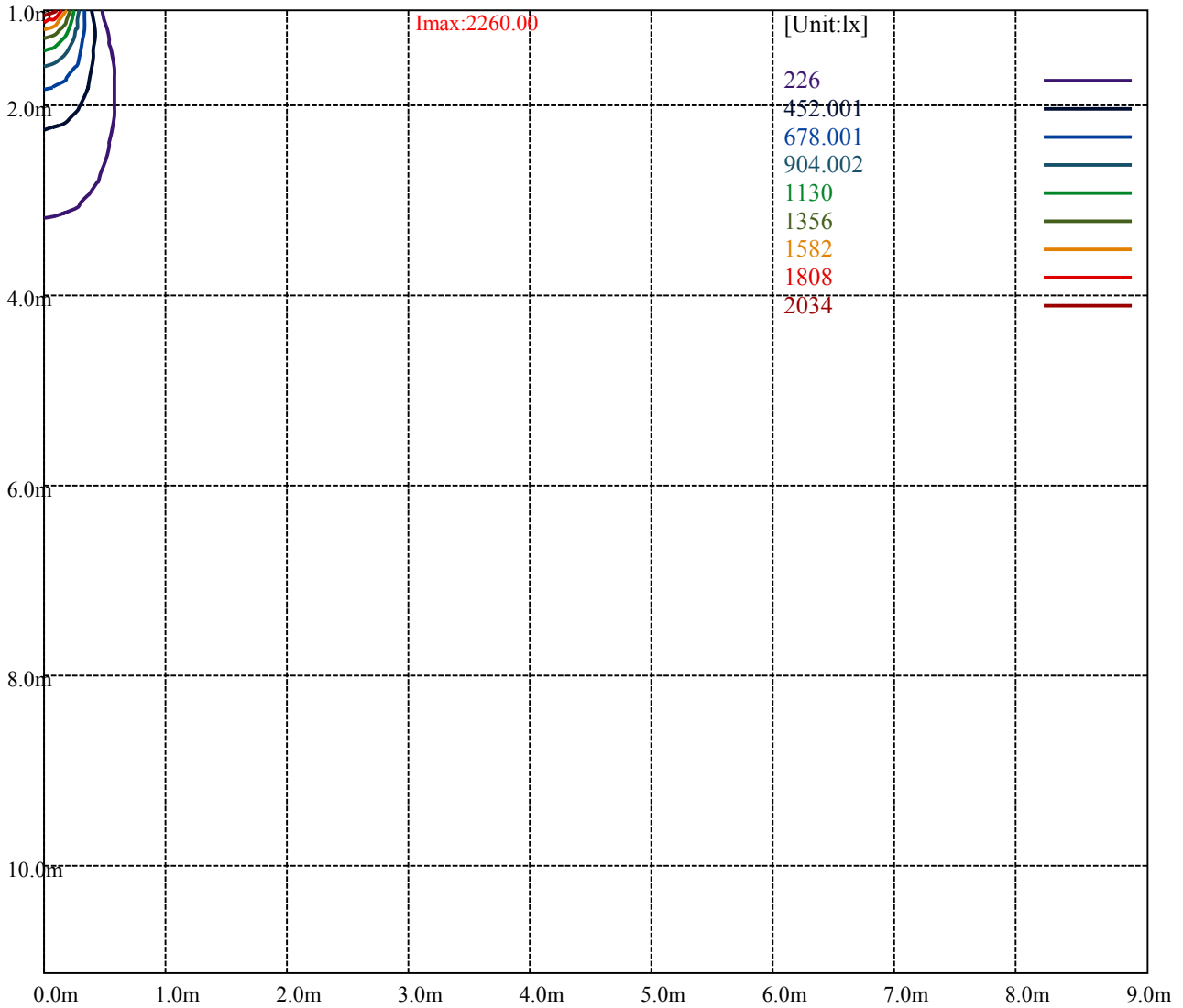
Road

I_{max}:2260.00

(10%I _{max}) 226	—
(20%I _{max}) 452.001	—
(30%I _{max}) 678.001	—
(40%I _{max}) 904.002	—
(50%I _{max}) 1130	—
(60%I _{max}) 1356	—
(70%I _{max}) 1582	—
(80%I _{max}) 1808	—
(90%I _{max}) 2034	—



- (10%Emax) 25.11111
- (20%Emax) 50.22222
- (30%Emax) 75.33334
- (40%Emax) 100.4444
- (50%Emax) 125.5556
- (60%Emax) 150.6667
- (70%Emax) 175.7778
- (80%Emax) 200.8889
- (90%Emax) 226



Luminance Table

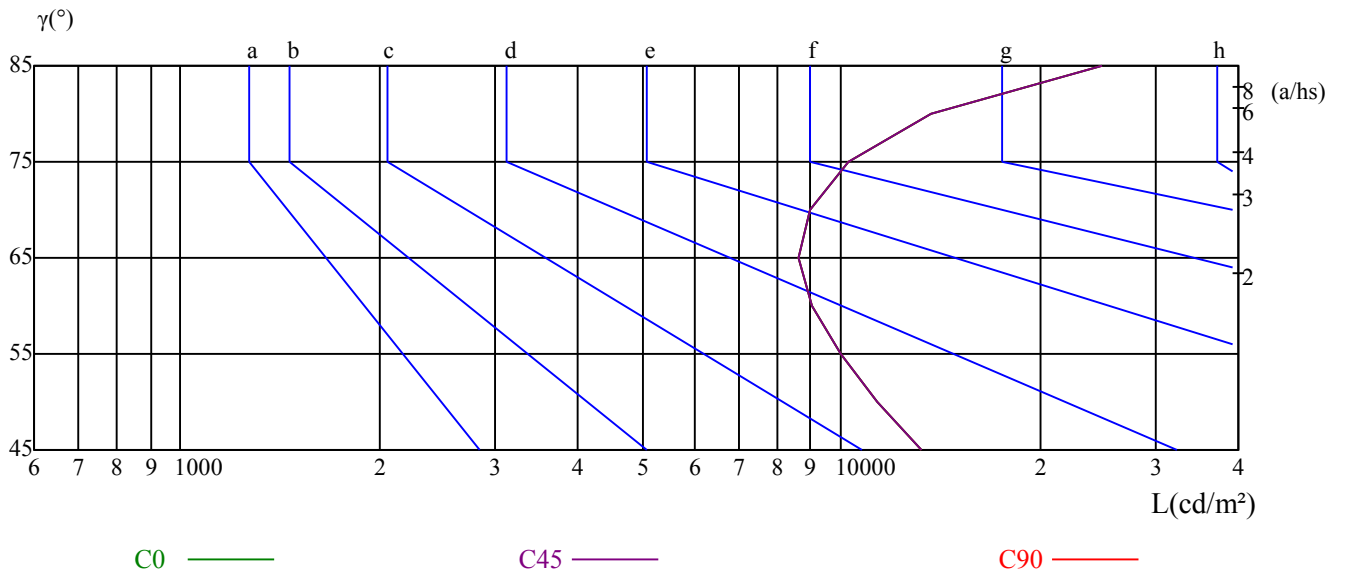
γ	45	50	55	60	65	70	75	80	85
C0	13231	11331	9987	9065	8603	8965	10238	13701	24888
C45	13231	11331	9987	9065	8603	8965	10238	13701	24888
C90	13231	11331	9987	9065	8603	8965	10238	13701	24888

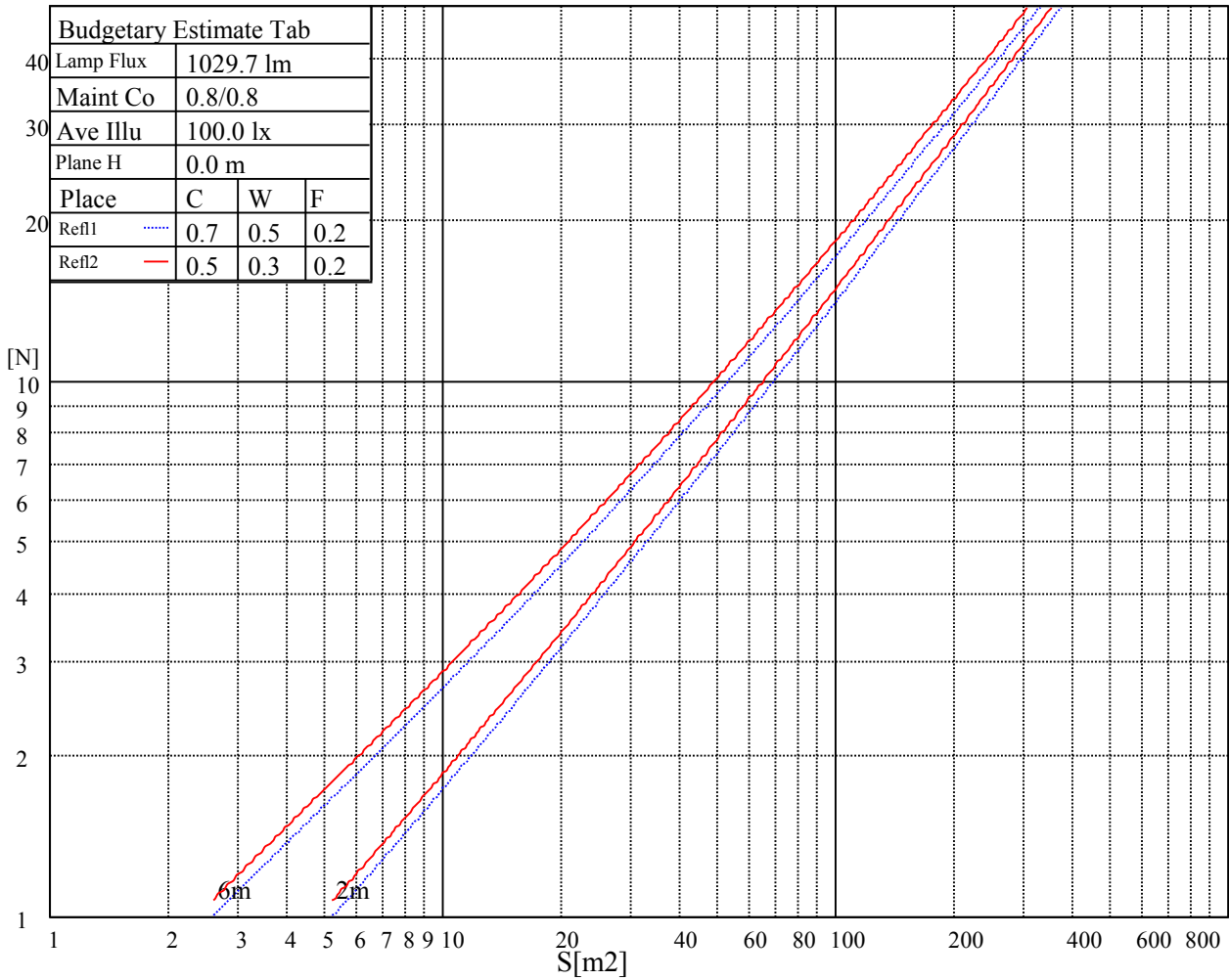
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
8603	8603	8603	10238	10238	10238	24888	24888	24888

Glare Table

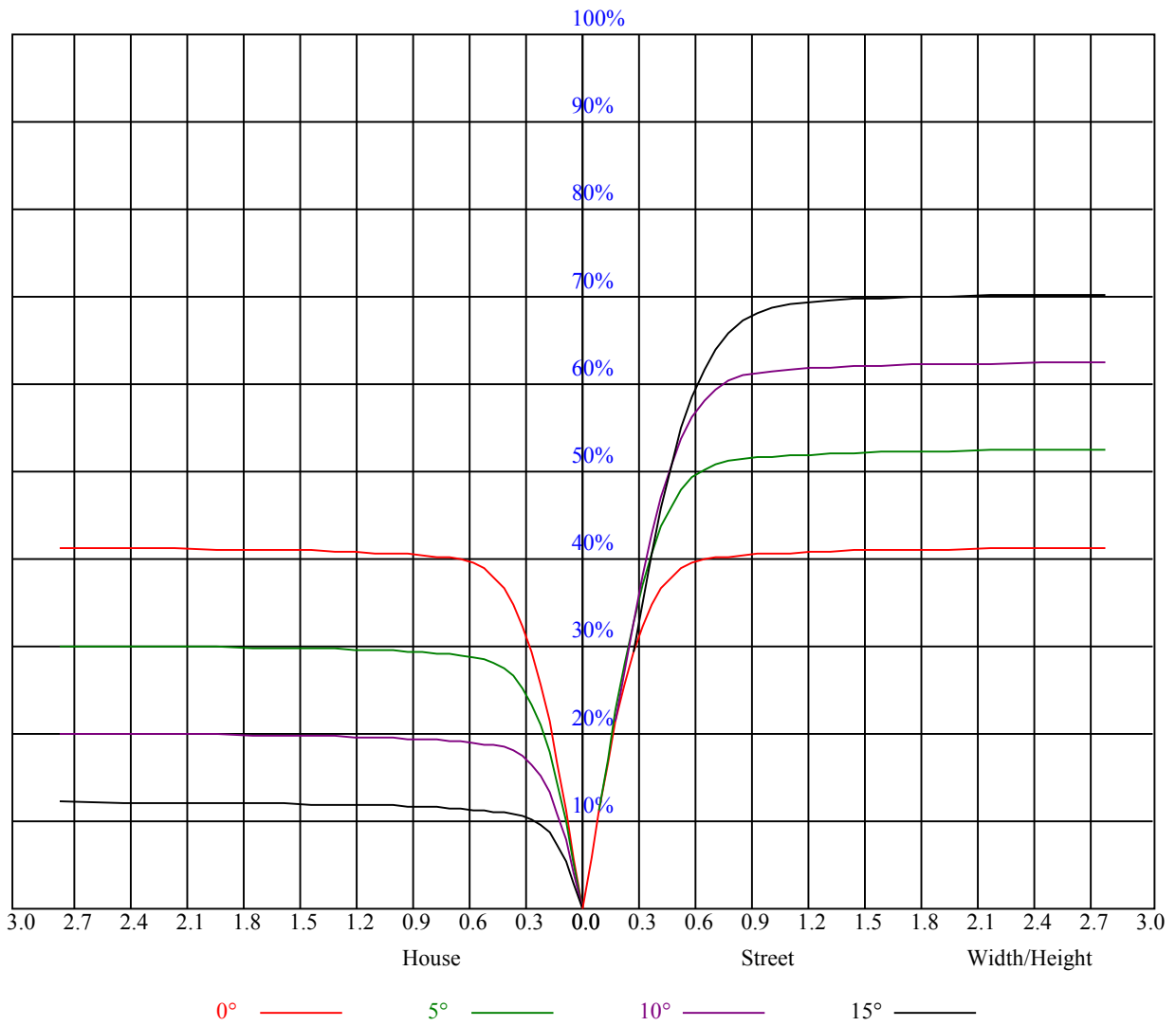
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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



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	2264.04	2156.48	1849.35	1395.23	880.76	479.22	221.62	37.64	24.38
45.0	2258.66	2112.86	1802.75	1312.17	803.68	442.17	131.40	33.94	23.36
90.0	2258.66	2133.78	1799.16	1185.50	816.17	432.61	146.99	34.60	23.18
135.0	2258.66	2199.50	1936.59	1475.30	987.72	537.78	307.73	41.59	25.87
180.0	2264.04	2163.06	1829.63	1190.52	823.46	455.97	152.43	35.25	23.78
225.0	2258.66	2185.76	1890.58	1328.31	902.93	489.62	193.06	40.81	24.80
270.0	2258.66	2189.35	1875.64	1396.43	888.53	502.52	228.44	37.82	24.56
315.0	2258.66	2115.25	1740.00	1170.92	760.83	388.69	104.57	33.82	22.41
360.0	2264.04	2156.48	1849.35	1395.23	880.76	479.22	221.62	37.64	24.38
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	17.93	13.62	10.64	8.37	6.75	5.68	4.84	4.36	3.94
45.0	16.79	13.15	10.28	8.25	6.63	5.56	4.90	4.42	4.06
90.0	16.67	13.21	10.40	8.07	6.69	5.62	4.90	4.42	4.00
135.0	18.23	14.22	11.11	8.90	7.05	5.86	5.02	4.48	4.00
180.0	16.91	13.21	10.52	8.25	6.57	5.56	4.78	4.24	3.82
225.0	18.05	13.80	10.88	8.72	6.93	5.80	5.08	4.54	4.12
270.0	17.63	13.74	10.94	8.60	6.87	5.86	4.96	4.48	4.06
315.0	16.19	12.79	9.98	7.89	6.27	5.44	4.72	4.24	4.06
360.0	17.93	13.62	10.64	8.37	6.75	5.68	4.84	4.36	3.94
C/γ(°)	90.0								
0.0	3.53								
45.0	3.71								
90.0	3.71								
135.0	3.65								
180.0	3.53								
225.0	3.82								
270.0	3.65								
315.0	3.65								
360.0	3.53								