
Nata

LumCAT: 2-1608-A
Luminaire: 92.70.046.00+92.70.147.00
Report No: NT2018020302
Test No: GC2018020302
LampCAT: CREE CXA1507
Lamp flux(lm): 1457.0
Number of Lamps: 1
Length(mm): 58
Phm Type: C

Voltage(V): 38.0000
Current(A): 0.3500
Power (W): 13.3000
PF: 0.0000
Ballast type: DC
Width(mm): 58
Height(mm): 0

Photometric Results

Lumens(lm): 1231.52
Efficiency(%): 84.52%
Lumens(lm)/Power(W): 92.60
Central intensity(cd): 2263.782
Maximum intensity(cd): 2263.782
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=38.9
 [C90/270]Total=38.9
Field angle(10%Imax): [C0/180]Total=72.5
 [C90/270]Total=72.5
Maximum s/h(1/2): C0_180=0.63 C90_270=0.63
Maximum s/h(1/4): C0_180=0.64 C90_270=0.64
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 84.52%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 97.739%

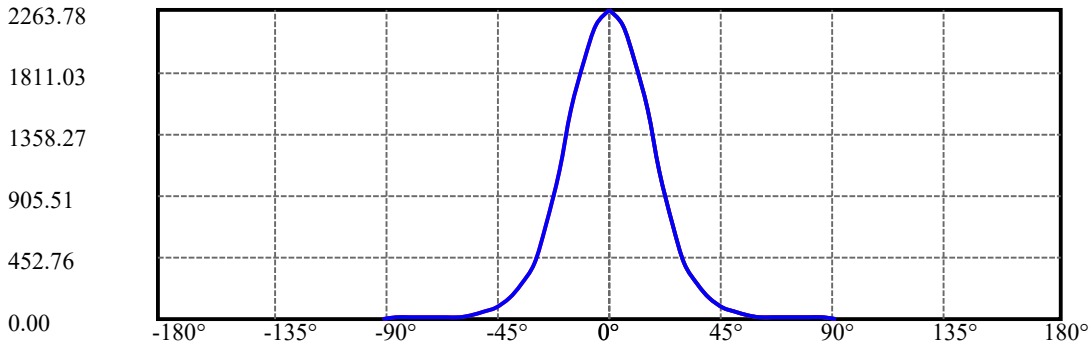
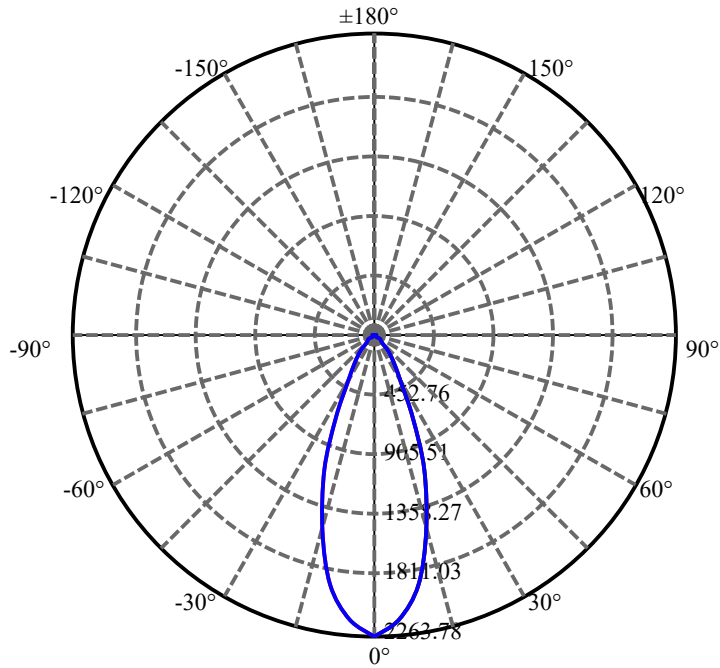
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	2263.782	0.000	0	.000%	.000%
5.0	2147.544	52.736	52.736	3.620%	4.282%
10.0	1902.061	144.867	197.603	9.943%	16.046%
15.0	1529.192	203.540	401.143	13.970%	32.573%
20.0	1080.551	215.079	616.222	14.762%	50.038%
25.0	688.577	185.549	801.771	12.735%	65.104%
30.0	411.388	139.201	940.973	9.554%	76.408%
35.0	250.314	97.440	1038.413	6.688%	84.320%
40.0	152.954	67.282	1105.695	4.618%	89.783%
45.0	90.843	45.141	1150.836	3.098%	93.449%
50.0	50.363	28.533	1179.369	1.958%	95.766%
55.0	24.245	16.222	1195.591	1.113%	97.083%
60.0	10.695	8.076	1203.667	.554%	97.739%
65.0	7.887	4.517	1208.184	.310%	98.105%
70.0	7.495	3.895	1212.079	.267%	98.422%
75.0	8.513	4.184	1216.263	.287%	98.761%
80.0	11.782	5.430	1221.694	.373%	99.202%
85.0	9.518	5.788	1227.481	.397%	99.672%
90.0	5.217	4.034	1231.516	.277%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	940.97	64.58%	76.41%
0-40	1105.69	75.89%	89.78%
0-60	1203.67	82.61%	97.74%
0-90	1227.48	84.25%	99.67%
0-120	1227.48	84.25%	99.67%
0-180	1231.52	84.52%	100.00%
60-90	31.89	2.19%	2.59%
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%
0-32.27	985.21	67.62%	80.00%

ZONAL LUMEN SUMMARY

0-10	197.60
10-20	418.62
20-30	324.75
30-40	164.72
40-50	73.67
50-60	24.30
60-70	8.41
70-80	9.61
80-90	5.79
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: —————

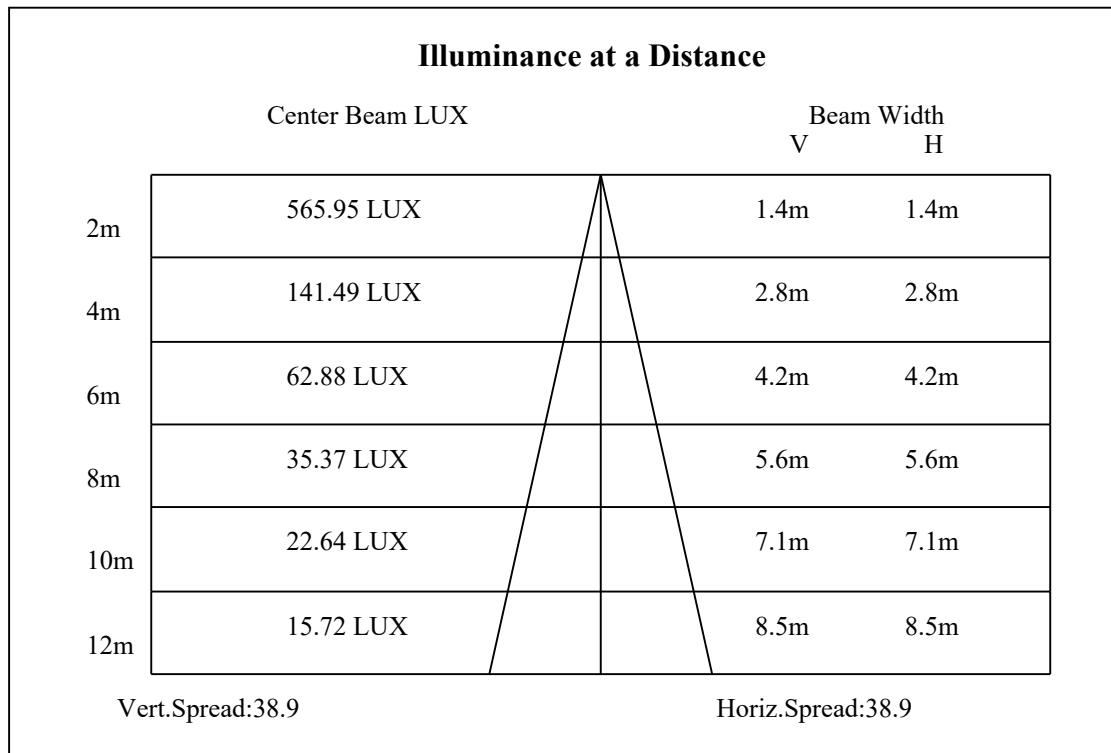
C90/C270: —————

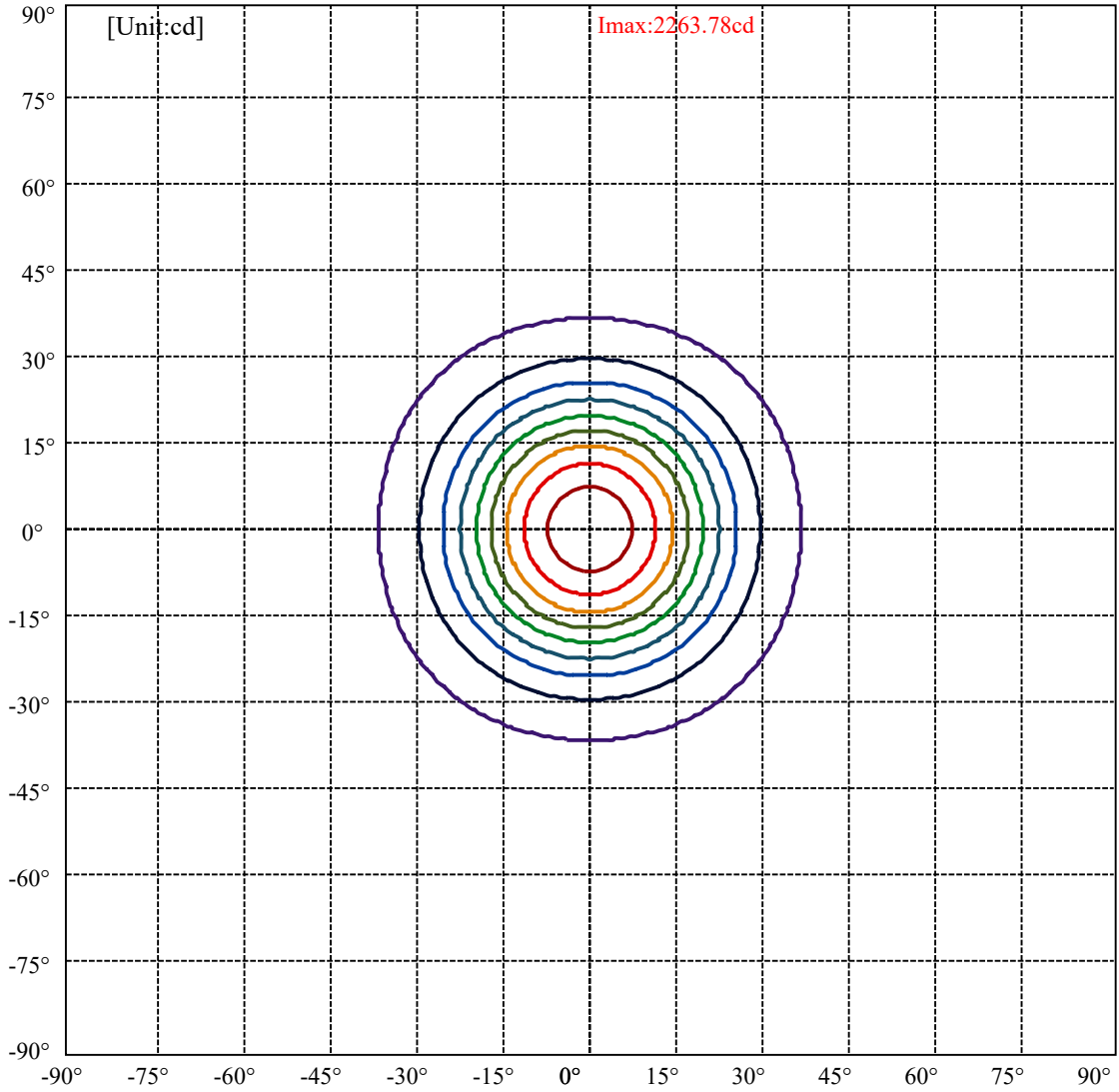
Field angle(10%Imax):C0/180Left:36.2 Right:36.2

:C90/270Left:36.2 Right:36.2

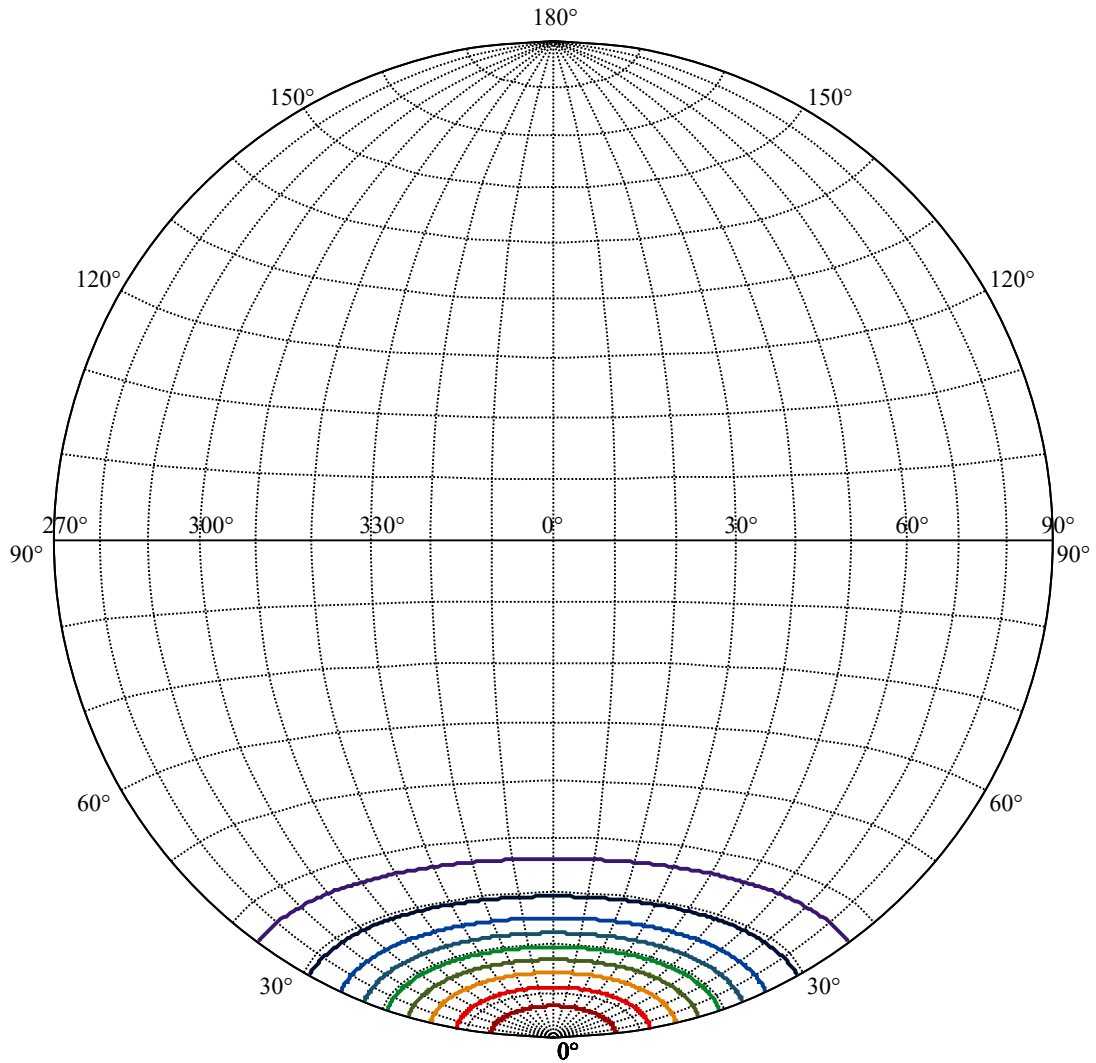
Beam Angle(50%Imax):C0/180Left:19.4 Right:19.4

:C90/270Left:19.4 Right:19.4





(10%Imax) 226.378	—
(20%Imax) 452.756	—
(30%Imax) 679.135	—
(40%Imax) 905.513	—
(50%Imax) 1131.89	—
(60%Imax) 1358.27	—
(70%Imax) 1584.65	—
(80%Imax) 1811.03	—
(90%Imax) 2037.4	—



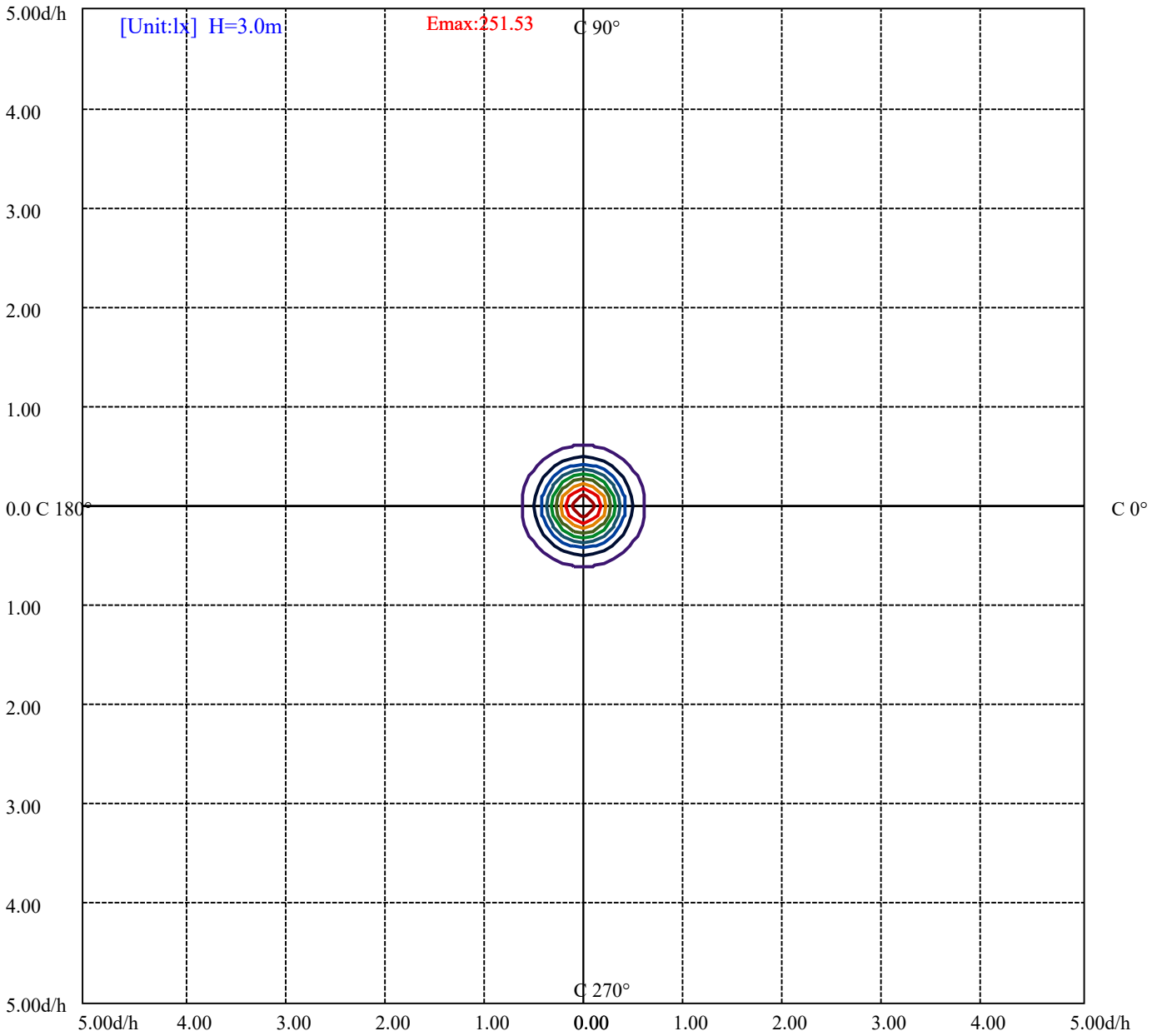
House

[Unit:cd]

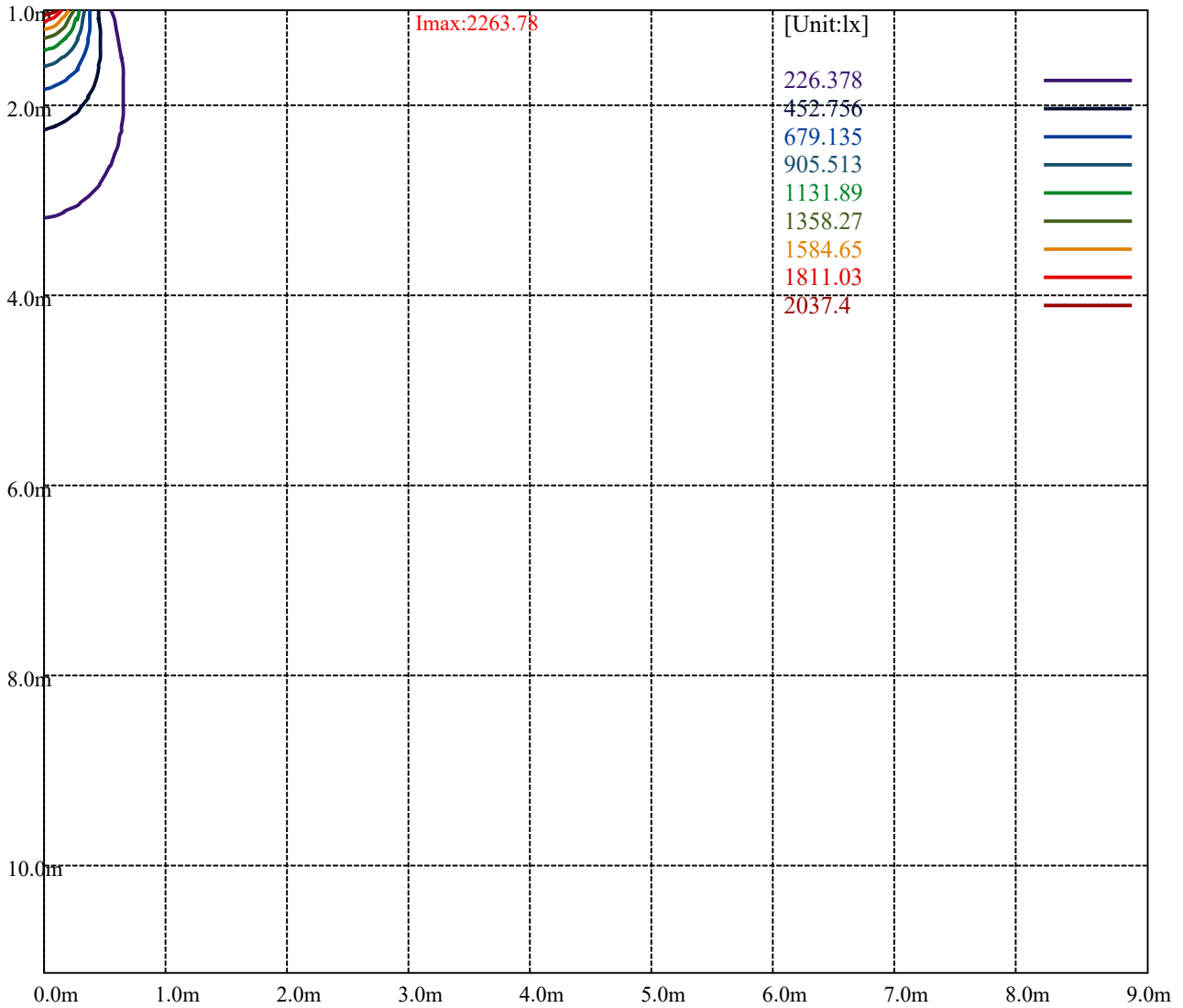
Road

Imax:2263.78

(10%Imax)	226.378	—
(20%Imax)	452.756	—
(30%Imax)	679.135	—
(40%Imax)	905.513	—
(50%Imax)	1131.89	—
(60%Imax)	1358.27	—
(70%Imax)	1584.65	—
(80%Imax)	1811.03	—
(90%Imax)	2037.4	—



(10%Emax) 25.15311	—
(20%Emax) 50.30622	—
(30%Emax) 75.45922	—
(40%Emax) 100.6123	—
(50%Emax) 125.7656	—
(60%Emax) 150.9189	—
(70%Emax) 176.0711	—
(80%Emax) 201.2244	—
(90%Emax) 226.3778	—



Luminance Table

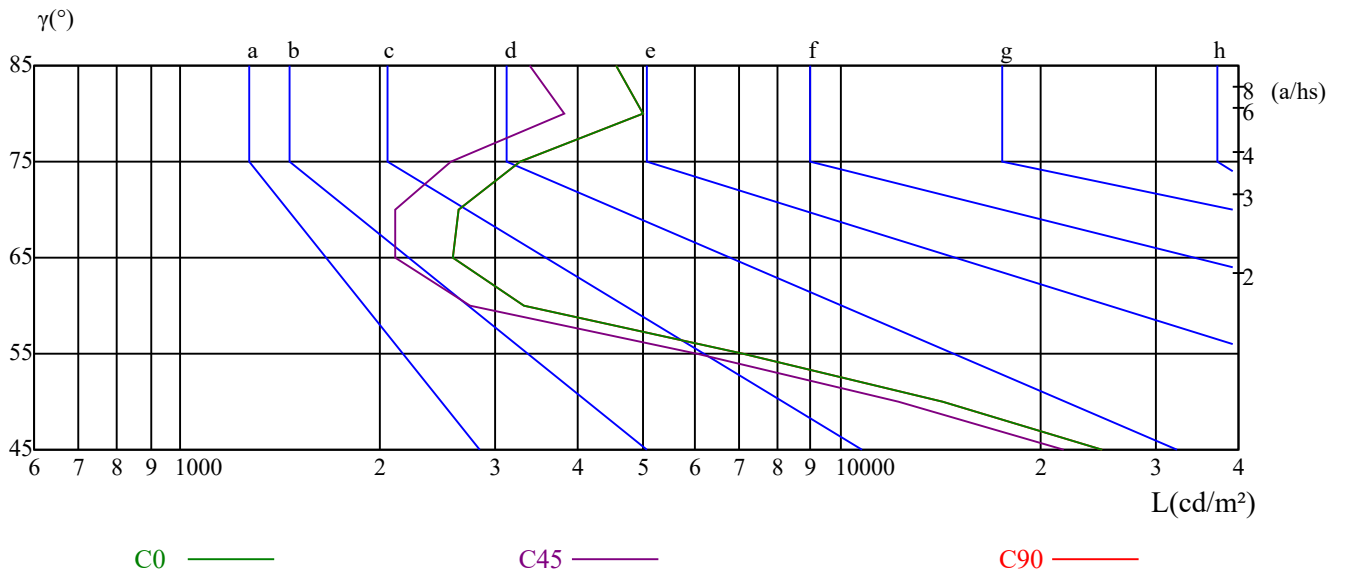
γ	45	50	55	60	65	70	75	80	85
C0	24888	14228	7126	3302	2585	2639	3265	5003	4566
C45	21750	12253	6043	2753	2117	2117	2559	3815	3368
C90	24888	14228	7126	3302	2585	2639	3265	5003	4566

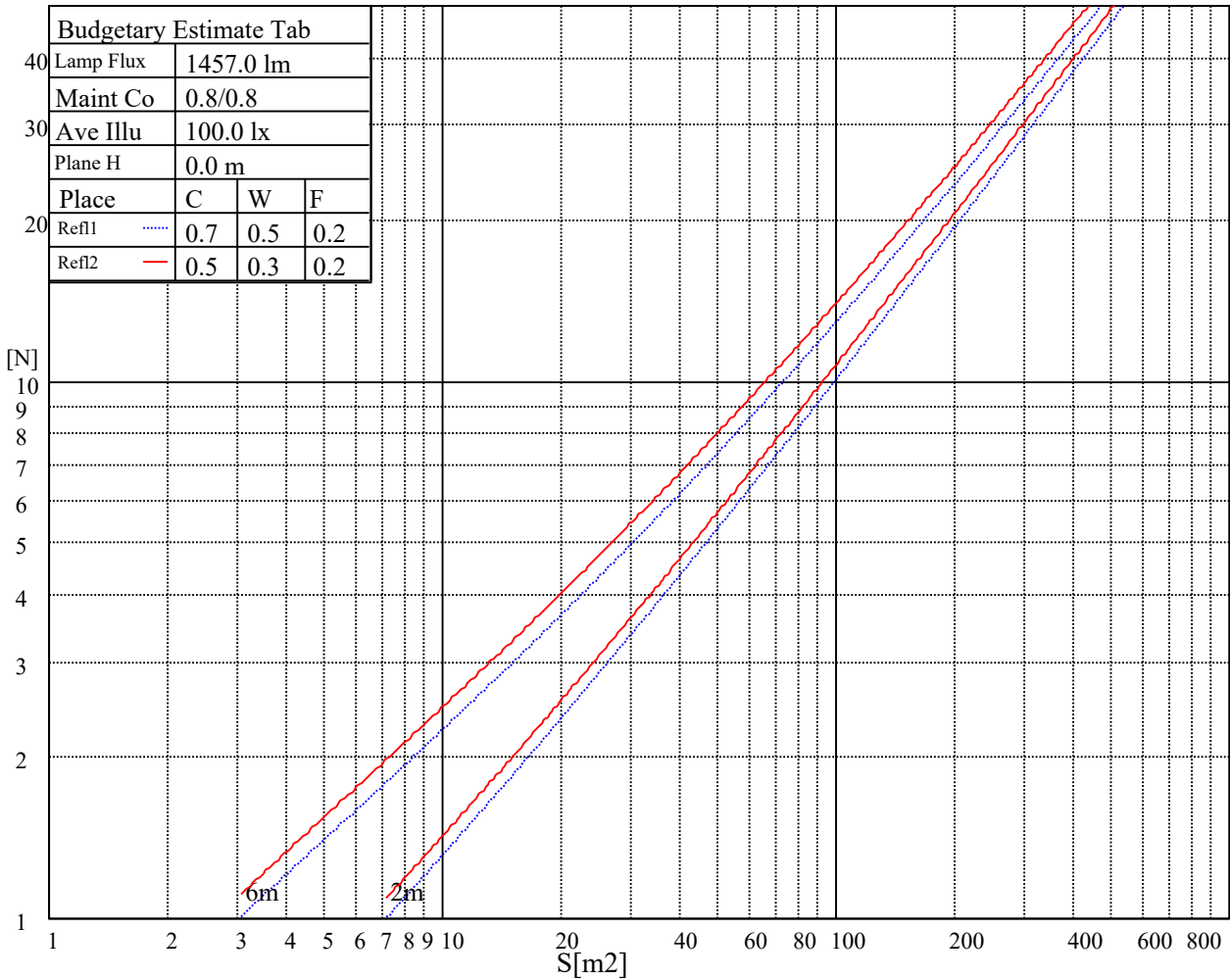
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
5548	5548	5548	9778	9778	9778	32463	32463	32463

Glare Table

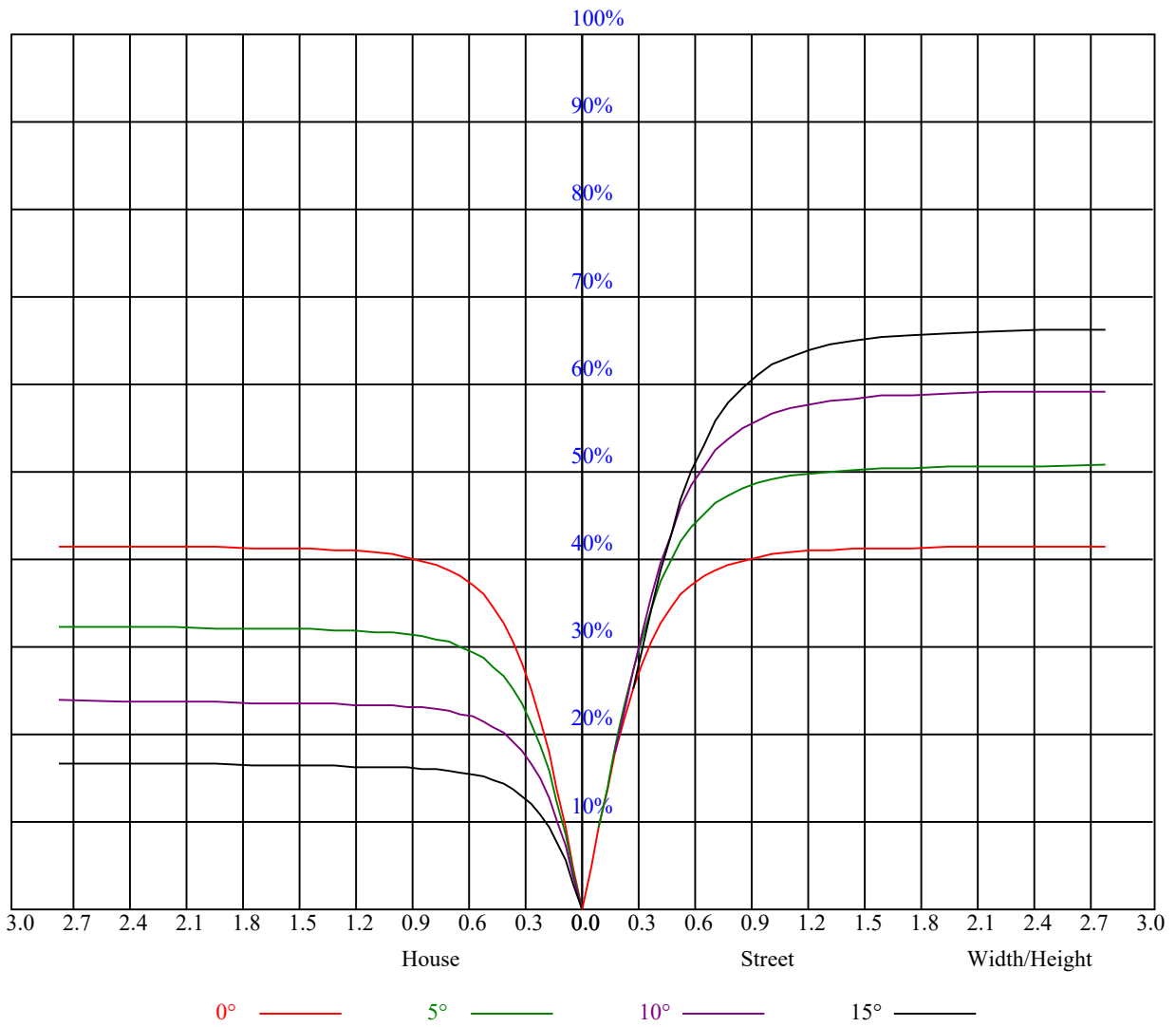
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	1.01	1.01	1.01	0.98	0.98	0.98	0.94	0.94	0.94	0.90	0.90	0.90	0.86	0.86	0.86	0.85
1	0.93	0.91	0.89	0.92	0.90	0.88	0.88	0.87	0.85	0.85	0.84	0.83	0.82	0.81	0.80	0.79
2	0.87	0.84	0.81	0.86	0.83	0.80	0.83	0.81	0.78	0.81	0.78	0.77	0.78	0.77	0.75	0.74
3	0.82	0.78	0.74	0.81	0.77	0.74	0.78	0.75	0.73	0.76	0.74	0.71	0.74	0.72	0.70	0.69
4	0.77	0.72	0.69	0.76	0.72	0.68	0.74	0.70	0.68	0.72	0.69	0.67	0.71	0.68	0.66	0.65
5	0.72	0.68	0.64	0.72	0.67	0.64	0.70	0.66	0.63	0.69	0.65	0.63	0.67	0.65	0.62	0.61
6	0.68	0.64	0.60	0.68	0.63	0.60	0.67	0.63	0.60	0.65	0.62	0.59	0.64	0.61	0.59	0.58
7	0.65	0.60	0.57	0.64	0.60	0.57	0.63	0.59	0.56	0.62	0.59	0.56	0.61	0.58	0.56	0.55
8	0.62	0.57	0.54	0.61	0.57	0.54	0.60	0.56	0.53	0.59	0.56	0.53	0.59	0.55	0.53	0.52
9	0.59	0.54	0.51	0.58	0.54	0.51	0.58	0.53	0.51	0.57	0.53	0.50	0.56	0.53	0.50	0.49
10	0.56	0.51	0.48	0.56	0.51	0.48	0.55	0.51	0.48	0.54	0.51	0.48	0.54	0.50	0.48	0.47



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	2272.18	2171.97	1915.96	1559.20	1139.67	705.82	432.74	280.24	157.13
45.0	2265.57	2094.90	1813.56	1402.29	969.54	586.35	345.75	199.69	130.37
90.0	2247.40	2055.26	1756.85	1373.11	932.82	540.76	326.26	195.62	121.84
135.0	2269.98	2141.69	1880.73	1517.90	1087.36	656.82	387.60	278.59	144.08
180.0	2272.18	2113.06	1885.13	1505.24	1045.08	666.18	393.76	227.16	148.93
225.0	2265.57	2205.56	2009.01	1655.00	1089.35	801.95	477.61	277.87	177.23
270.0	2247.40	2237.49	2033.78	1688.03	1294.93	850.07	505.42	295.10	185.93
315.0	2269.98	2160.41	1921.47	1532.77	1085.66	700.65	421.95	248.25	158.12
360.0	2272.18	2171.97	1915.96	1559.20	1139.67	705.82	432.74	280.24	157.13

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	95.25	53.74	26.81	10.52	7.65	7.05	7.93	9.80	9.80
45.0	75.43	40.08	18.55	9.19	7.76	7.65	8.04	9.47	8.09
90.0	67.72	36.34	15.58	8.92	7.93	8.20	9.91	10.85	5.29
135.0	83.25	45.31	20.92	9.25	7.49	7.38	9.36	14.15	9.80
180.0	85.78	45.81	21.75	9.30	7.38	7.32	8.42	16.74	10.46
225.0	111.54	64.20	29.68	12.22	8.37	7.49	8.15	10.85	10.90
270.0	114.13	65.02	33.58	15.64	8.75	7.93	8.92	13.21	11.62
315.0	93.65	52.41	27.09	10.52	7.76	6.94	7.38	9.19	10.19
360.0	95.25	53.74	26.81	10.52	7.65	7.05	7.93	9.80	9.80

C/γ(°)	90.0
0.0	5.23
45.0	5.18
90.0	5.23
135.0	5.23
180.0	5.18
225.0	5.23
270.0	5.23
315.0	5.23
360.0	5.23