
Nata

LumCAT: 2-1607-A
Luminaire: 92.70.046.00+92.70.147.00
Report No: NT2018020201
Test No: GC2018020201
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): 1235.87
Efficiency(%): 84.82%
Lumens(lm)/Power(W): 92.92
Central intensity(cd): 4231.910
Maximum intensity(cd): 4231.910
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=26.8
 [C90/270]Total=26.8
Field angle(10%Imax): [C0/180]Total=49.7
 [C90/270]Total=49.7
Maximum s/h(1/2): C0_180=0.46 C90_270=0.46
Maximum s/h(1/4): C0_180=0.44 C90_270=0.44
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 84.82%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.269%

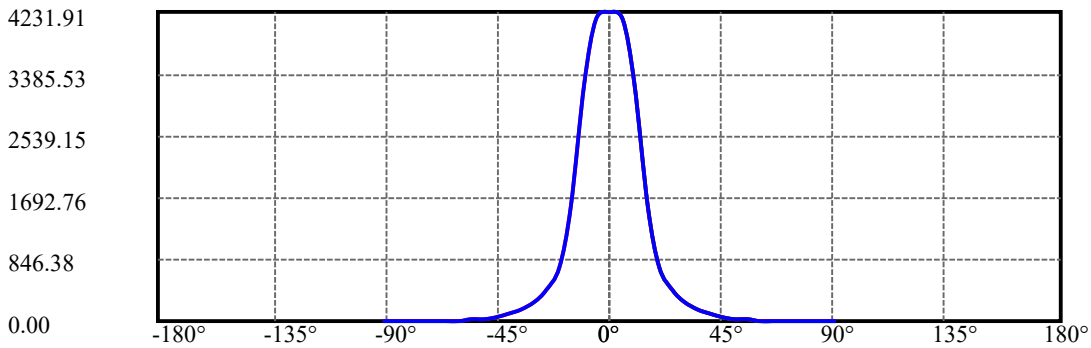
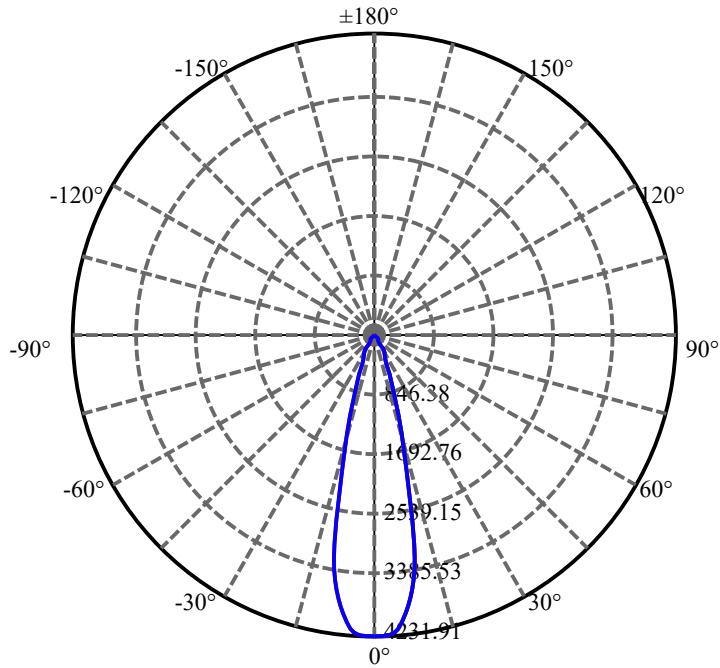
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	4231.910	0.000	0	.000%	.000%
5.0	4119.457	99.838	99.838	6.852%	8.078%
10.0	3248.328	263.569	363.407	18.090%	29.405%
15.0	1585.507	286.740	650.147	19.680%	52.606%
20.0	728.988	190.747	840.894	13.092%	68.041%
25.0	414.334	119.913	960.807	8.230%	77.743%
30.0	257.967	85.080	1045.887	5.839%	84.628%
35.0	149.045	59.935	1105.823	4.114%	89.477%
40.0	101.084	41.732	1147.555	2.864%	92.854%
45.0	63.391	30.454	1178.008	2.090%	95.318%
50.0	38.044	20.496	1198.505	1.407%	96.977%
55.0	14.026	11.322	1209.826	.777%	97.893%
60.0	6.084	4.648	1214.475	.319%	98.269%
65.0	5.974	2.931	1217.406	.201%	98.506%
70.0	6.166	3.074	1220.48	.211%	98.755%
75.0	6.689	3.360	1223.84	.231%	99.027%
80.0	7.460	3.786	1227.626	.260%	99.333%
85.0	8.795	4.417	1232.043	.303%	99.690%
90.0	5.182	3.827	1235.87	.263%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1045.89	71.78%	84.63%
0-40	1147.55	78.76%	92.85%
0-60	1214.47	83.35%	98.27%
0-90	1232.04	84.56%	99.69%
0-120	1232.04	84.56%	99.69%
0-180	1235.87	84.82%	100.00%
60-90	22.22	1.52%	1.80%
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%
0-26.64	988.70	67.86%	80.00%

ZONAL LUMEN SUMMARY

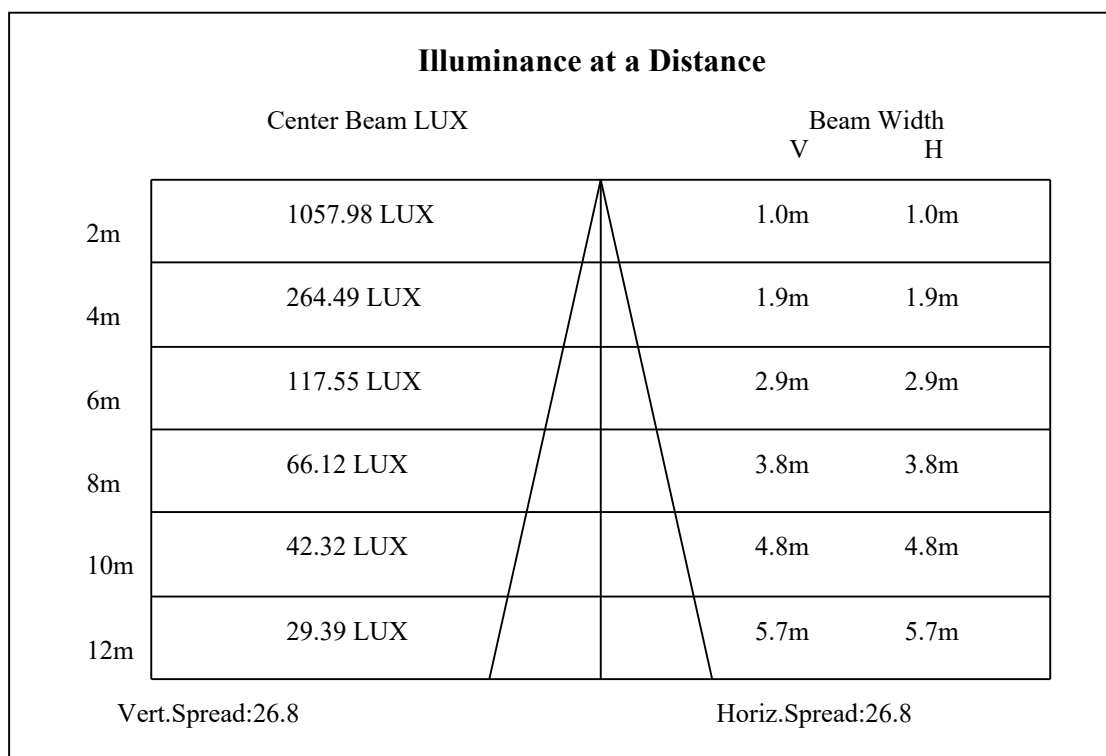
0-10	363.41
10-20	477.49
20-30	204.99
30-40	101.67
40-50	50.95
50-60	15.97
60-70	6.01
70-80	7.15
80-90	4.42
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

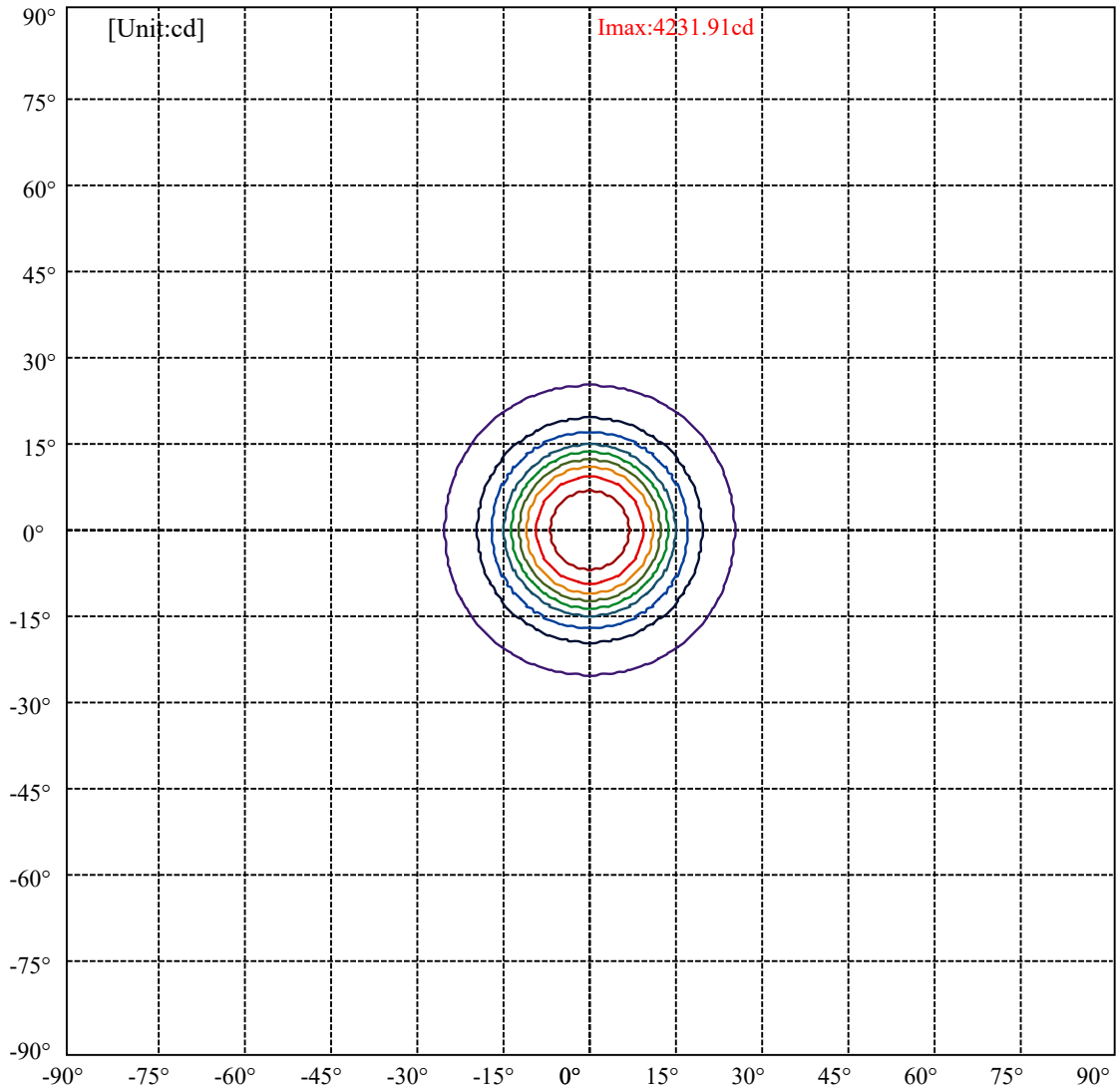


C0(Max): ———
C0/C180: ———
C90/C270: ———

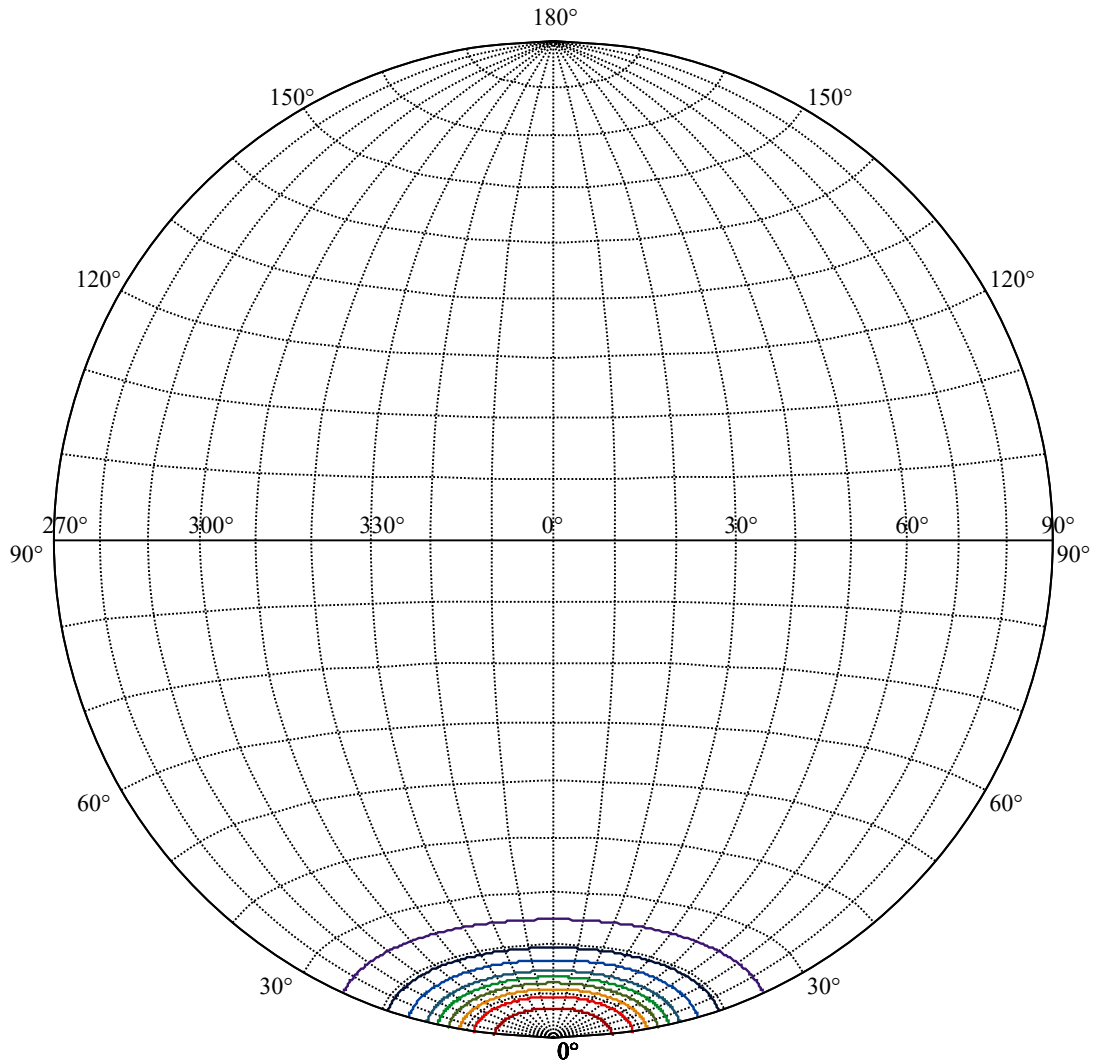
Field angle(10%Imax):C0/180Left:24.9 Right:24.9
:C90/270Left:24.9 Right:24.9

Beam Angle(50%Imax):C0/180Left:13.4 Right:13.4
:C90/270Left:13.4 Right:13.4





(10%Imax) 423.191	—
(20%Imax) 846.382	—
(30%Imax) 1269.57	—
(40%Imax) 1692.76	—
(50%Imax) 2115.96	—
(60%Imax) 2539.15	—
(70%Imax) 2962.34	—
(80%Imax) 3385.53	—
(90%Imax) 3808.72	—



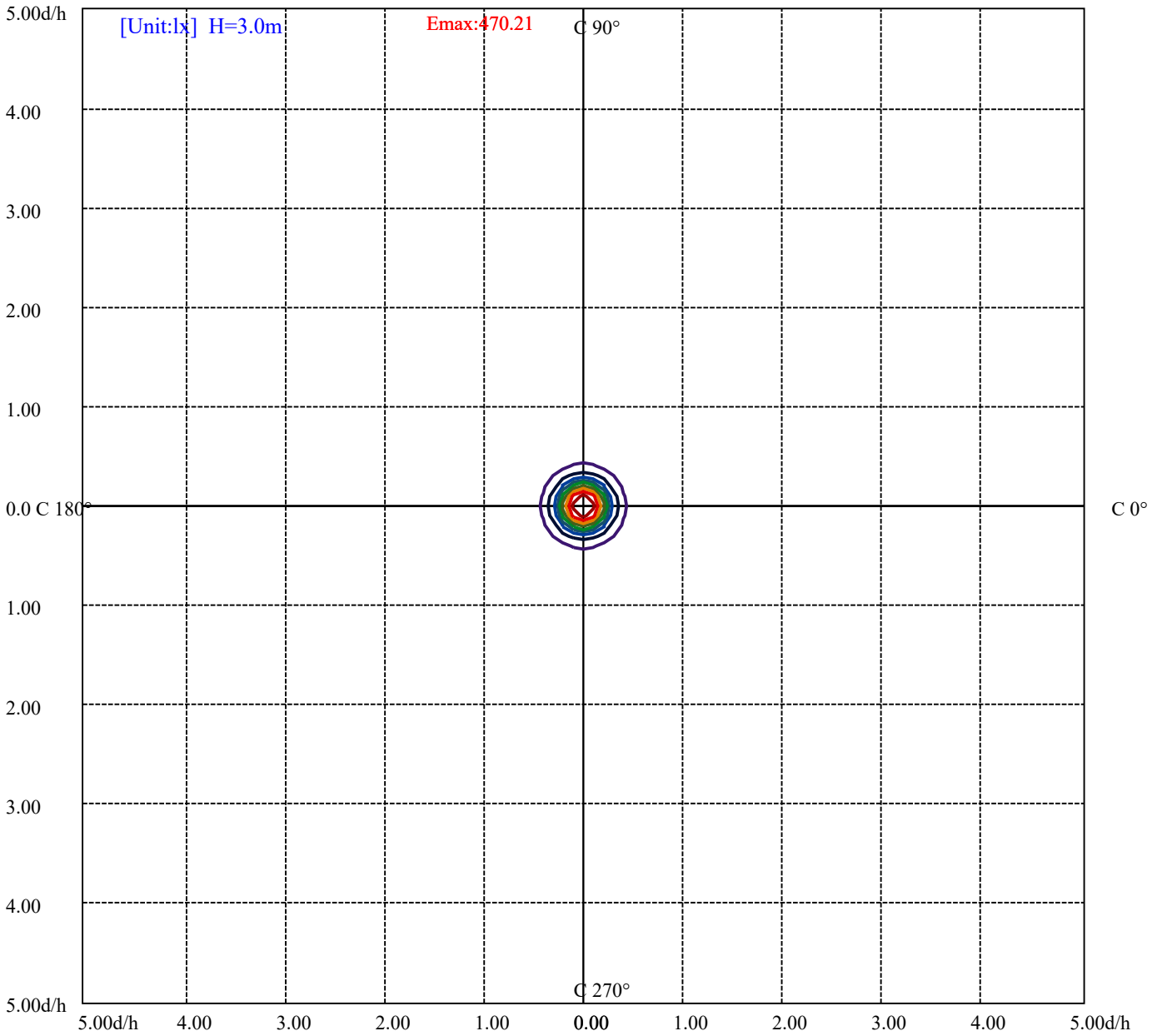
House

[Unit:cd]

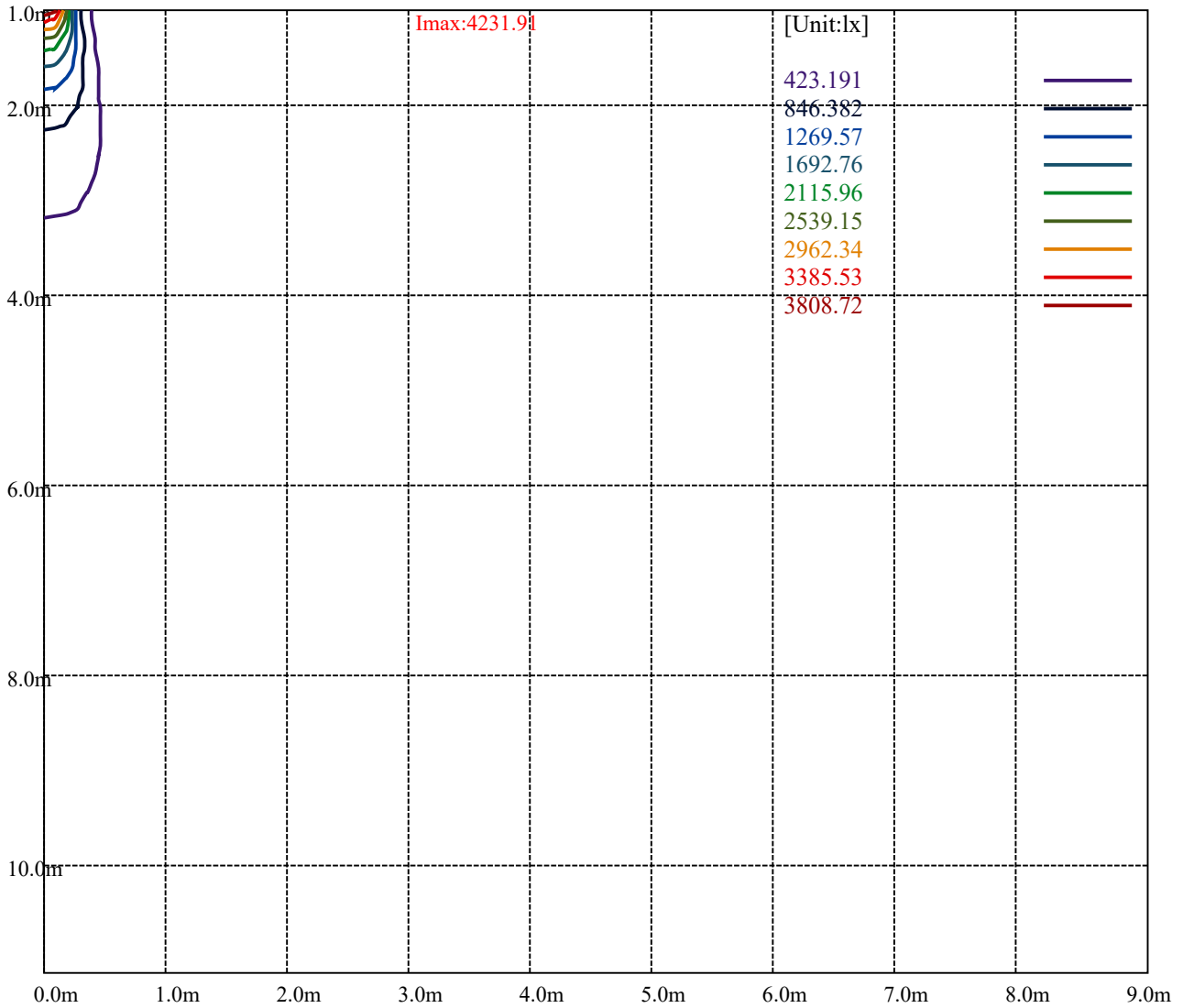
Road

Imax:4231.91

(10%Imax) 423.191	—
(20%Imax) 846.382	—
(30%Imax) 1269.57	—
(40%Imax) 1692.76	—
(50%Imax) 2115.96	—
(60%Imax) 2539.15	—
(70%Imax) 2962.34	—
(80%Imax) 3385.53	—
(90%Imax) 3808.72	—



(10%Emax) 47.02122	—
(20%Emax) 94.04233	—
(30%Emax) 141.0633	—
(40%Emax) 188.0844	—
(50%Emax) 235.1055	—
(60%Emax) 282.1266	—
(70%Emax) 329.1478	—
(80%Emax) 376.17	—
(90%Emax) 423.1911	—



Luminance Table

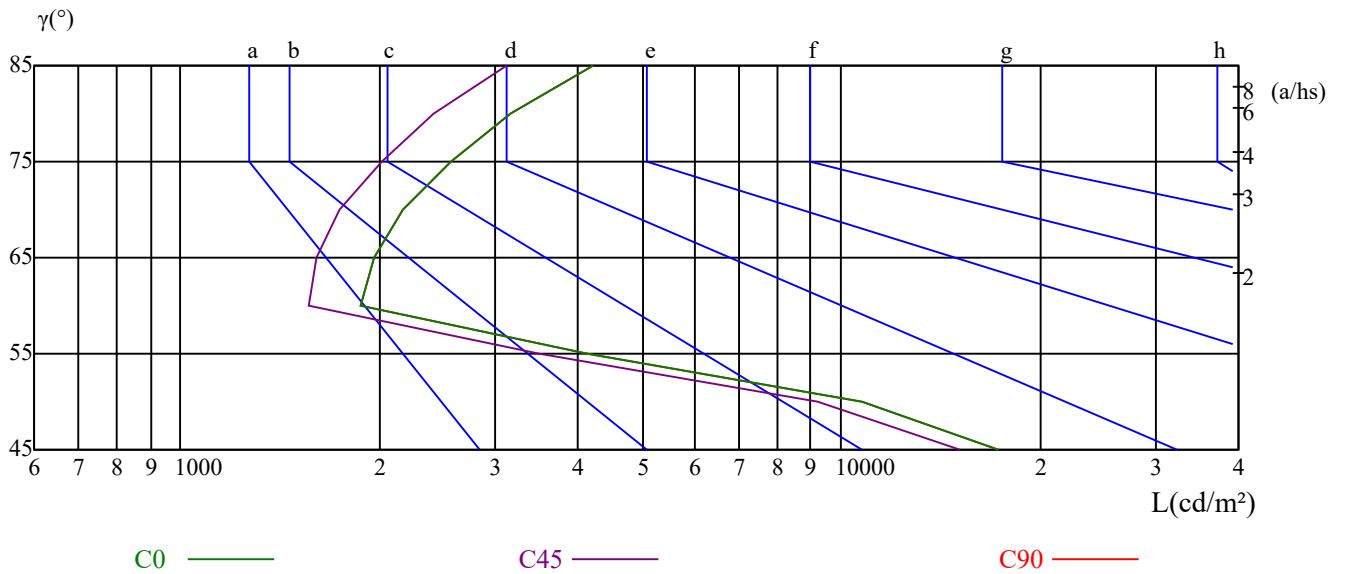
γ	45	50	55	60	65	70	75	80	85
C0	17367	10748	4122	1878	1958	2171	2566	3168	4220
C45	15177	9256	3496	1566	1603	1742	2011	2416	3112
C90	17367	10748	4122	1878	1958	2171	2566	3168	4220

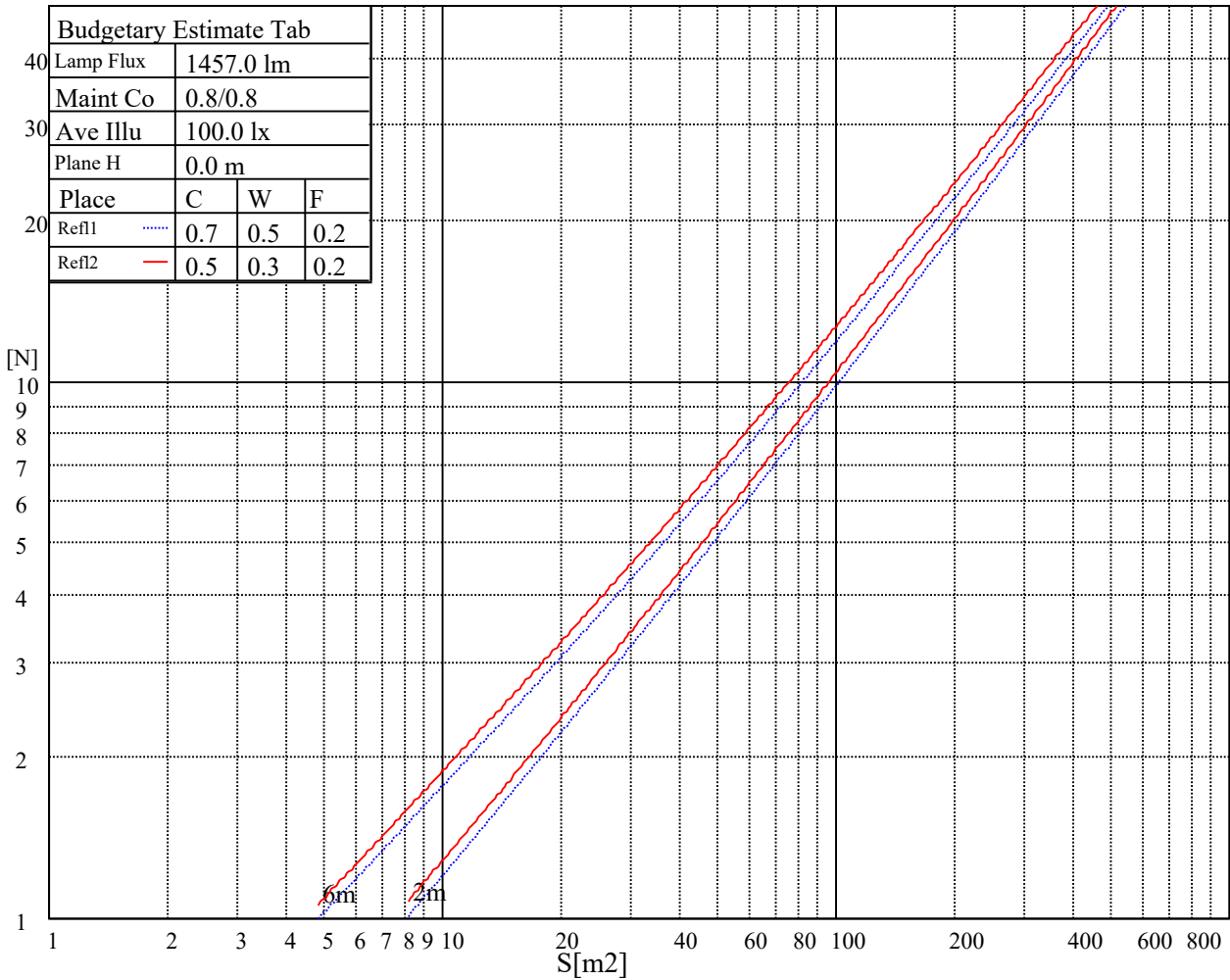
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
4202	4202	4202	7683	7683	7683	29998	29998	29998

Glare Table

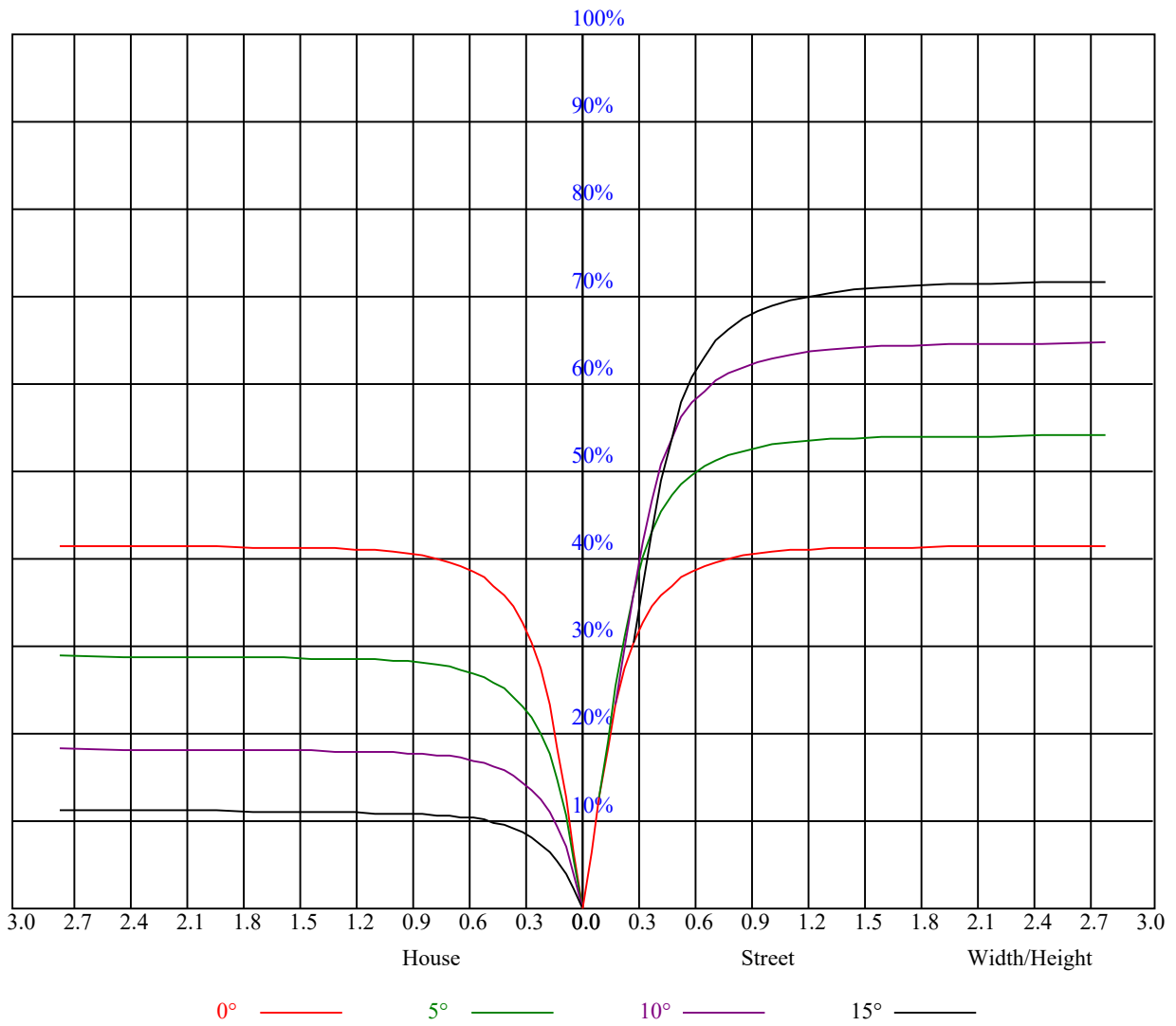
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	1.01	1.01	1.01	0.99	0.99	0.99	0.94	0.94	0.94	0.90	0.90	0.90	0.87	0.87	0.87	0.85
1	0.95	0.93	0.91	0.93	0.91	0.90	0.89	0.88	0.87	0.86	0.85	0.84	0.83	0.83	0.82	0.80
2	0.89	0.86	0.84	0.88	0.85	0.83	0.85	0.83	0.81	0.83	0.81	0.80	0.81	0.79	0.78	0.77
3	0.85	0.81	0.78	0.84	0.80	0.78	0.82	0.79	0.77	0.80	0.77	0.75	0.78	0.76	0.74	0.73
4	0.81	0.77	0.74	0.80	0.76	0.73	0.78	0.75	0.73	0.76	0.74	0.72	0.75	0.73	0.71	0.70
5	0.77	0.73	0.70	0.76	0.73	0.70	0.75	0.72	0.69	0.74	0.71	0.69	0.72	0.70	0.68	0.67
6	0.74	0.70	0.67	0.73	0.69	0.67	0.72	0.69	0.66	0.71	0.68	0.66	0.70	0.67	0.65	0.64
7	0.71	0.67	0.64	0.71	0.67	0.64	0.70	0.66	0.64	0.69	0.66	0.63	0.68	0.65	0.63	0.62
8	0.68	0.64	0.62	0.68	0.64	0.61	0.67	0.64	0.61	0.66	0.63	0.61	0.66	0.63	0.61	0.60
9	0.66	0.62	0.59	0.66	0.62	0.59	0.65	0.61	0.59	0.64	0.61	0.59	0.64	0.61	0.59	0.58
10	0.64	0.60	0.57	0.63	0.60	0.57	0.63	0.59	0.57	0.62	0.59	0.57	0.62	0.59	0.57	0.56



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	4247.05	4182.63	3725.67	2288.14	965.14	519.18	312.17	181.69	115.84
45.0	4231.63	4079.68	3351.83	1828.97	769.69	442.10	280.24	156.75	105.82
90.0	4213.47	3960.76	2992.32	1072.50	659.91	379.56	216.98	138.25	92.88
135.0	4235.49	4108.31	3158.59	1692.98	667.28	387.60	278.03	138.96	95.14
180.0	4247.05	3985.53	2807.88	1089.51	550.45	338.60	202.83	122.83	83.08
225.0	4231.63	4180.43	3051.78	1070.52	652.80	375.54	230.69	141.05	96.95
270.0	4213.47	4252.01	3481.22	1860.36	797.77	441.00	282.99	161.21	110.44
315.0	4235.49	4206.31	3417.35	1781.07	768.86	431.09	259.81	151.63	108.52
360.0	4247.05	4182.63	3725.67	2288.14	965.14	519.18	312.17	181.69	115.84
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	72.29	45.97	19.05	6.77	6.06	6.22	6.83	8.15	10.30
45.0	63.59	36.61	14.98	6.22	6.11	6.28	6.55	6.99	9.36
90.0	55.11	31.11	10.68	6.06	6.11	6.44	7.32	8.81	9.36
135.0	58.86	35.73	12.17	5.84	5.84	6.00	6.55	7.27	8.81
180.0	53.35	28.96	8.97	5.78	5.84	6.17	6.94	7.54	8.42
225.0	62.76	37.71	13.16	5.95	5.95	6.11	6.33	6.50	8.09
270.0	70.69	44.71	17.29	6.06	6.00	6.11	6.55	7.05	8.37
315.0	70.47	43.55	15.91	6.00	5.89	6.00	6.44	7.38	7.65
360.0	72.29	45.97	19.05	6.77	6.06	6.22	6.83	8.15	10.30
C/γ(°)	90.0								
0.0	5.18								
45.0	5.23								
90.0	5.18								
135.0	5.12								
180.0	5.18								
225.0	5.23								
270.0	5.18								
315.0	5.18								
360.0	5.18								