
Nata

LumCAT: 1426-N
Luminaire: 92.70.046.00+92.70.147.00
Report No: NT2018011801
Test No: nata-0100
LampCAT: CREE CXA1520
Lamp flux(lm): 1457.0
Number of Lamps: 1
Length(mm): 46
Phm Type: C

Voltage(V): 37.9000
Current(A): 0.3500
Power (W): 13.2650
PF: 0.0000
Ballast type: DC
Width(mm): 46
Height(mm): 0

Photometric Results

Lumens(lm): 1139.00
Efficiency(%): 78.17%
Lumens(lm)/Power(W): 85.87
Central intensity(cd): 5104.829
Maximum intensity(cd): 5104.829
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=19.7
 [C90/270]Total=19.7
Field angle(10%Imax): [C0/180]Total=45.7
 [C90/270]Total=45.7
Maximum s/h(1/2): C0_180=0.34 C90_270=0.34
Maximum s/h(1/4): C0_180=0.36 C90_270=0.36
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 80.20%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 94.487%

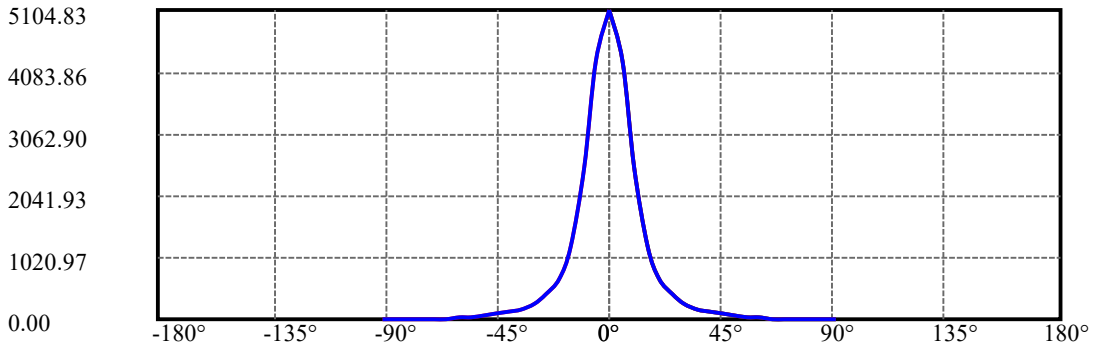
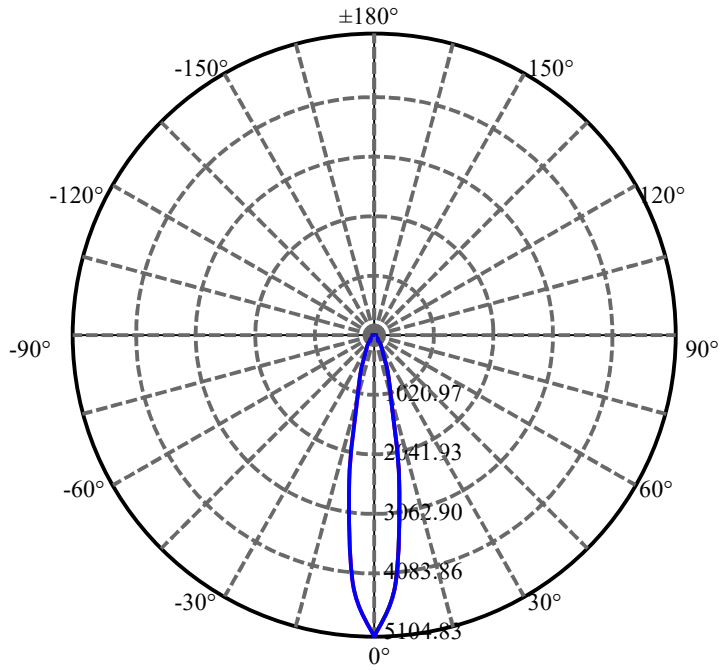
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	5104.829	30.528	30.528	2.095%	2.680%
5.0	4239.893	202.554	233.082	13.902%	20.464%
10.0	2503.827	238.322	471.404	16.357%	41.388%
15.0	1189.872	168.805	640.209	11.586%	56.208%
20.0	655.440	122.878	763.087	8.434%	66.996%
25.0	400.577	92.795	855.881	6.369%	75.143%
30.0	261.559	71.685	927.567	4.920%	81.437%
35.0	166.497	52.347	979.913	3.593%	86.033%
40.0	117.738	41.483	1021.397	2.847%	89.675%
45.0	83.032	32.182	1053.579	2.209%	92.500%
50.0	58.380	24.514	1078.093	1.682%	94.653%
55.0	35.326	15.861	1093.954	1.089%	96.045%
60.0	21.231	10.078	1104.033	.692%	96.930%
65.0	14.755	7.330	1111.363	.503%	97.574%
70.0	13.041	6.717	1118.08	.461%	98.163%
75.0	12.732	6.741	1124.821	.463%	98.755%
80.0	12.973	7.003	1131.824	.481%	99.370%
85.0	10.523	5.746	1137.57	.394%	99.874%
90.0	5.217	1.430	1139	.098%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	927.57	63.66%	81.44%
0-40	1021.40	70.10%	89.67%
0-60	1104.03	75.77%	96.93%
0-90	1137.57	78.08%	99.87%
0-120	1137.57	78.08%	99.87%
0-180	1139.00	78.17%	100.00%
60-90	43.62	2.99%	3.83%
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%
0-28.86	911.20	62.54%	80.00%

ZONAL LUMEN SUMMARY

0-10	471.40
10-20	291.68
20-30	164.48
30-40	93.83
40-50	56.70
50-60	25.94
60-70	14.05
70-80	13.74
80-90	5.75
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



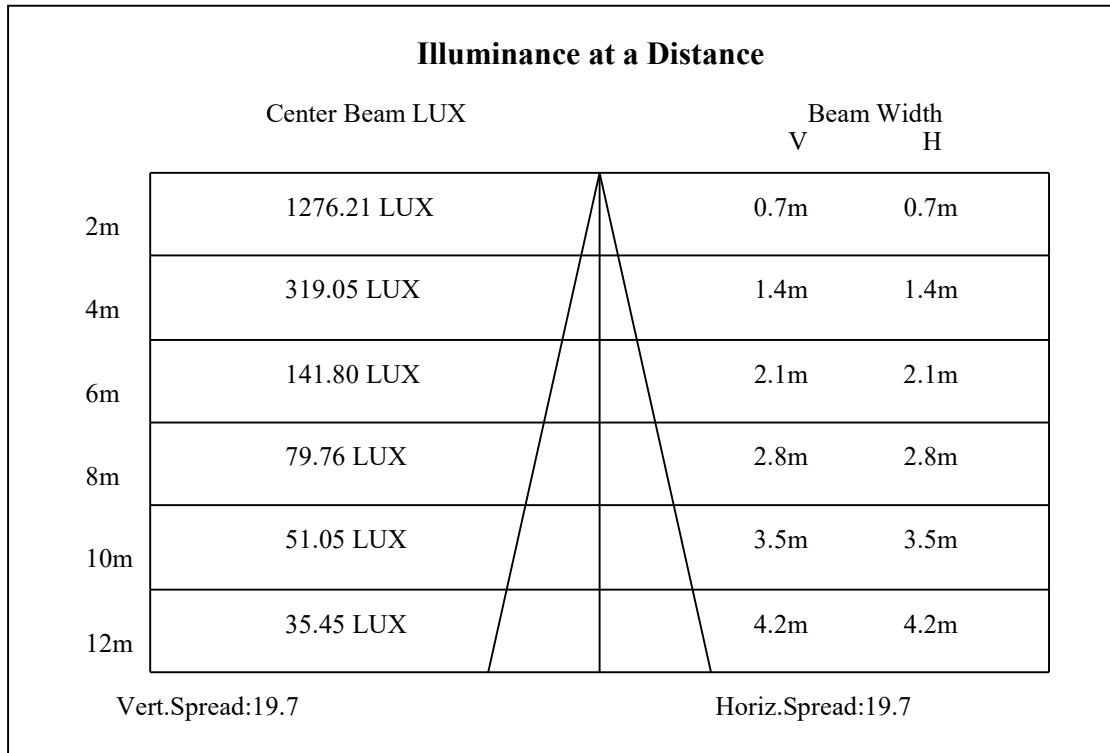
C0(Max): —————

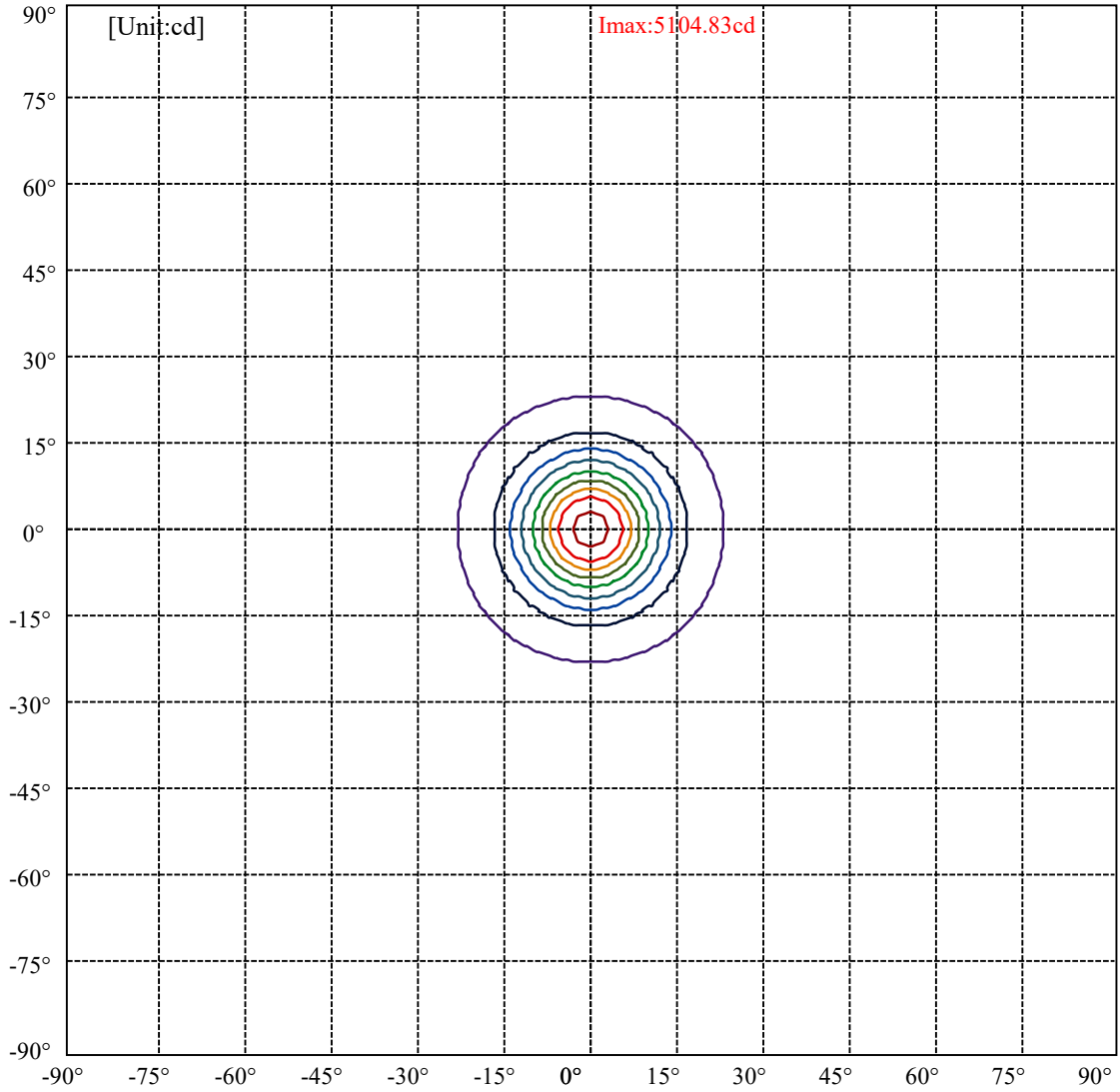
C0/C180: —————

C90/C270: —————

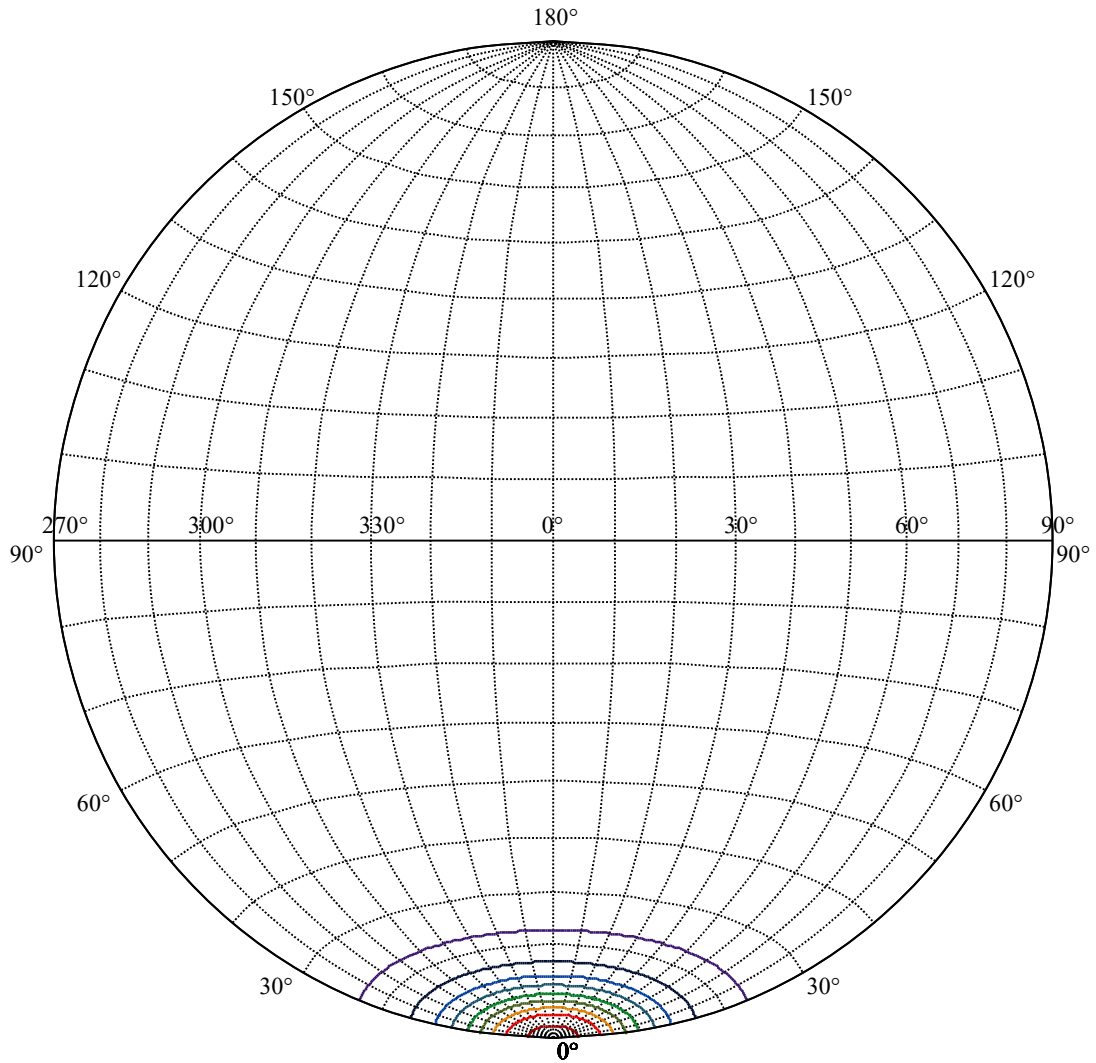
Field angle(10%Imax):C0/180Left:22.8 Right:22.8
:C90/270Left:22.8 Right:22.8

Beam Angle(50%Imax):C0/180Left:9.9 Right:9.9
:C90/270Left:9.9 Right:9.9





(10%Imax) 510.483	—
(20%Imax) 1020.97	—
(30%Imax) 1531.45	—
(40%Imax) 2041.93	—
(50%Imax) 2552.41	—
(60%Imax) 3062.9	—
(70%Imax) 3573.38	—
(80%Imax) 4083.86	—
(90%Imax) 4594.35	—



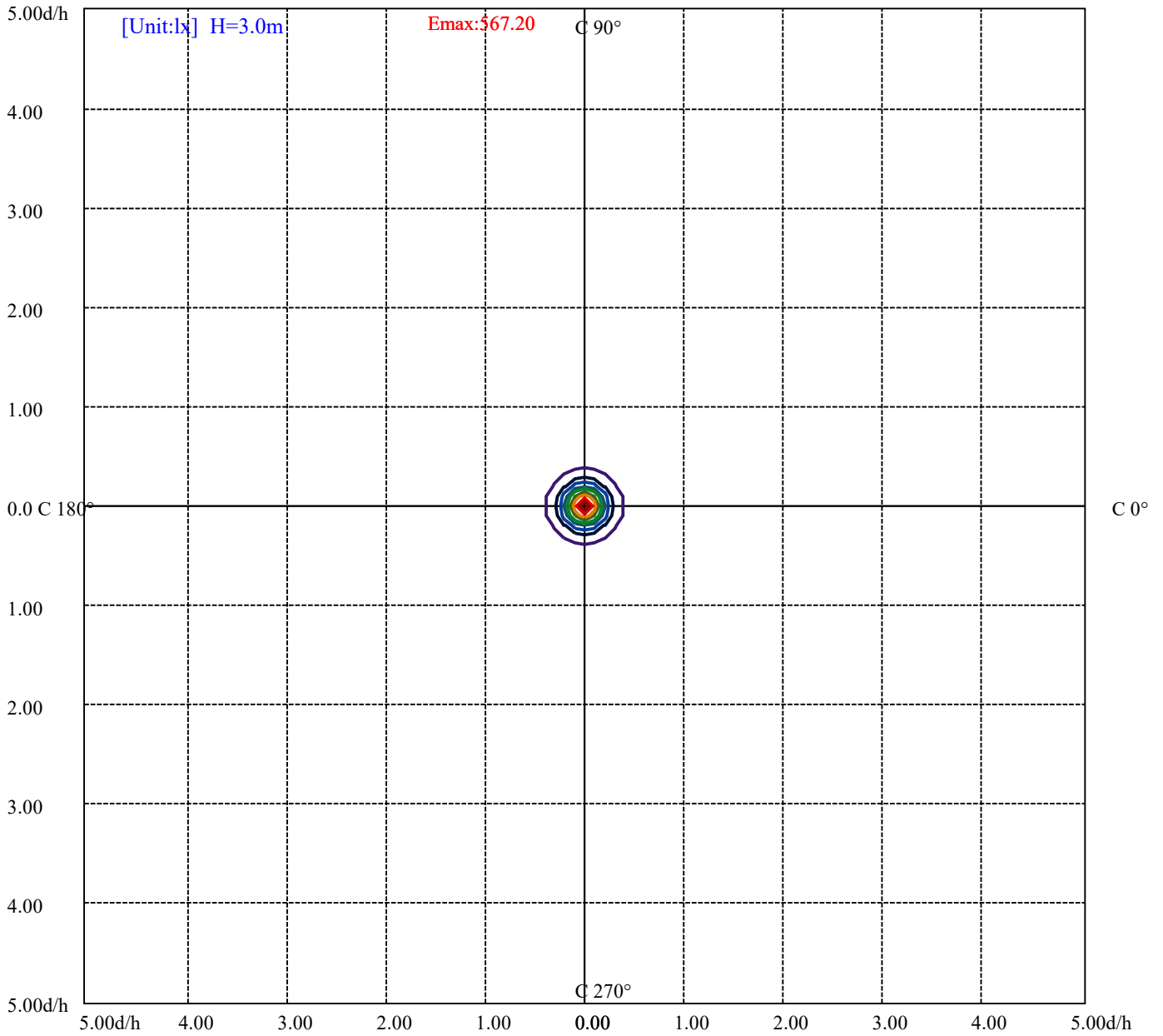
House

[Unit:cd]

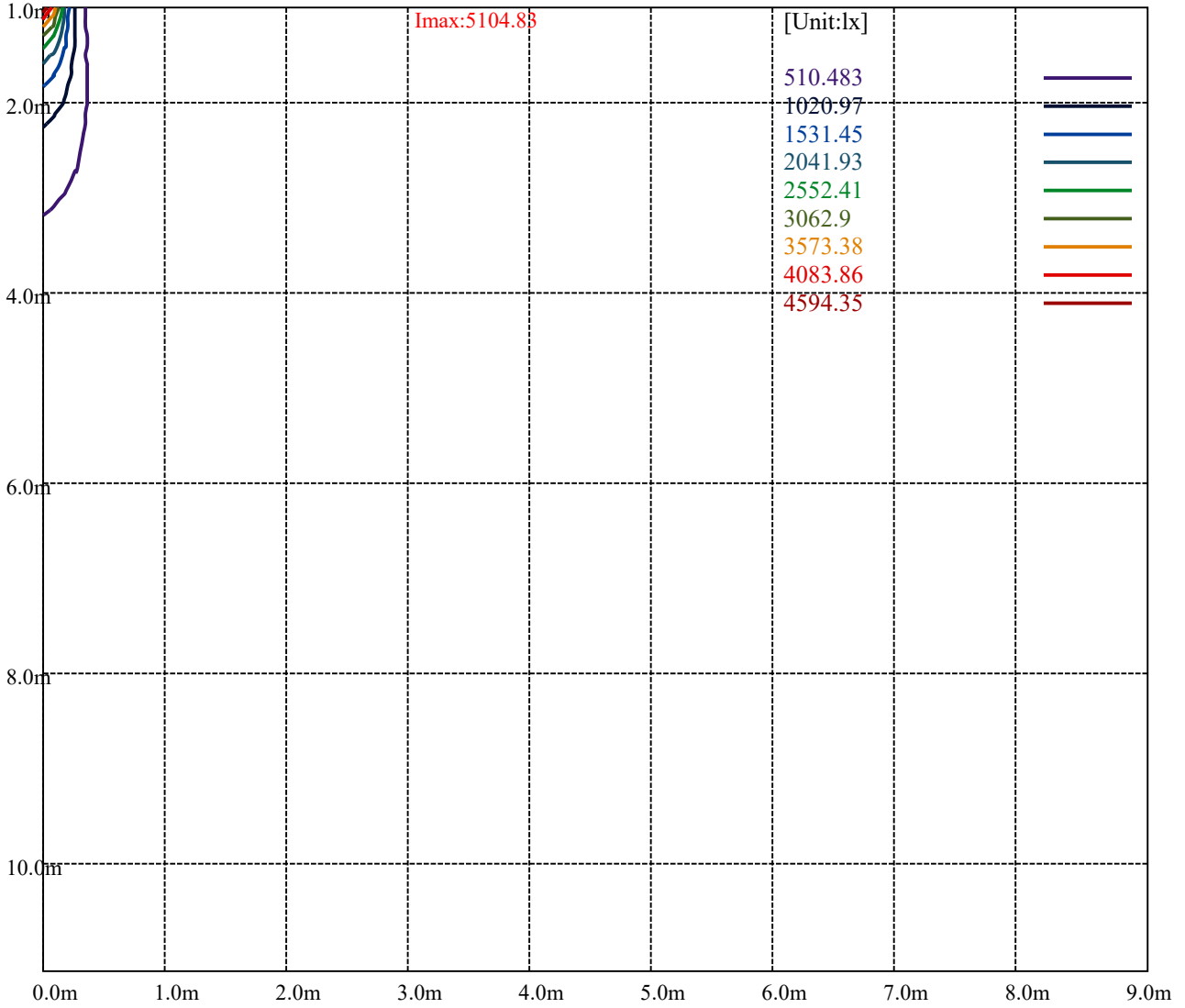
Road

Imax:5104.83

(10%Imax) 510.483	—
(20%Imax) 1020.97	—
(30%Imax) 1531.45	—
(40%Imax) 2041.93	—
(50%Imax) 2552.41	—
(60%Imax) 3062.9	—
(70%Imax) 3573.38	—
(80%Imax) 4083.86	—
(90%Imax) 4594.35	—



(10%Emax) 56.72	—
(20%Emax) 113.44	—
(30%Emax) 170.16	—
(40%Emax) 226.88	—
(50%Emax) 283.6	—
(60%Emax) 340.32	—
(70%Emax) 397.04	—
(80%Emax) 453.76	—
(90%Emax) 510.48	—



Luminance Table

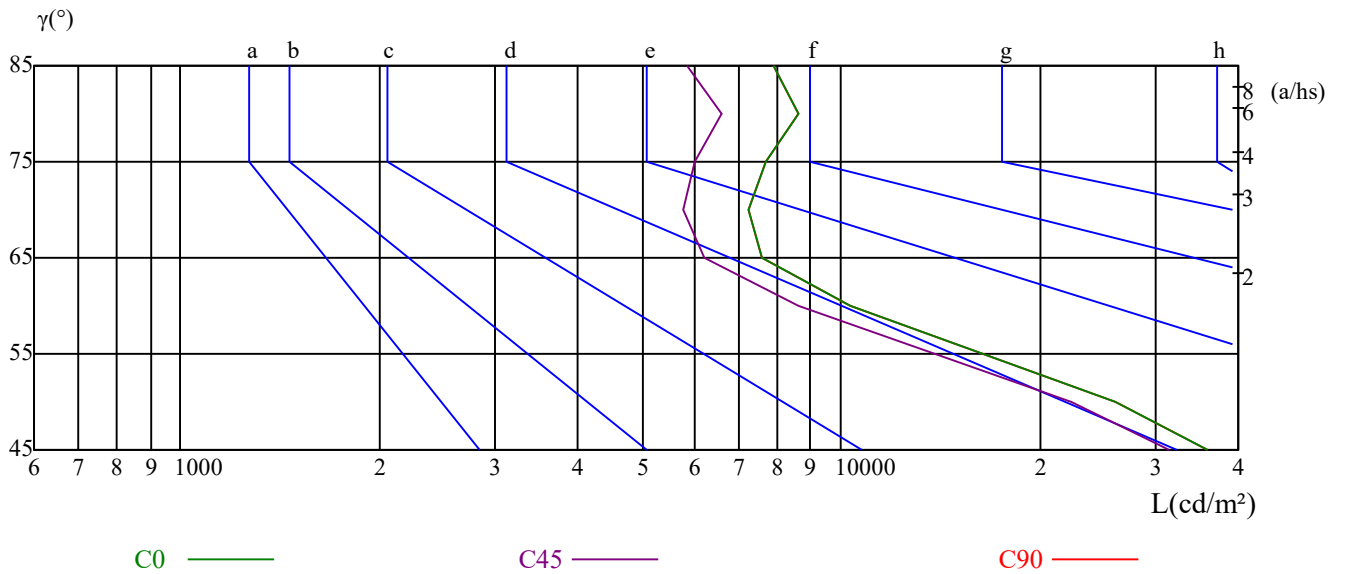
γ	45	50	55	60	65	70	75	80	85
C0	35954	26050	16387	10337	7619	7228	7677	8649	7911
C45	31377	22402	13875	8608	6230	5791	6010	6588	5831
C90	35954	26050	16387	10337	7619	7228	7677	8649	7911

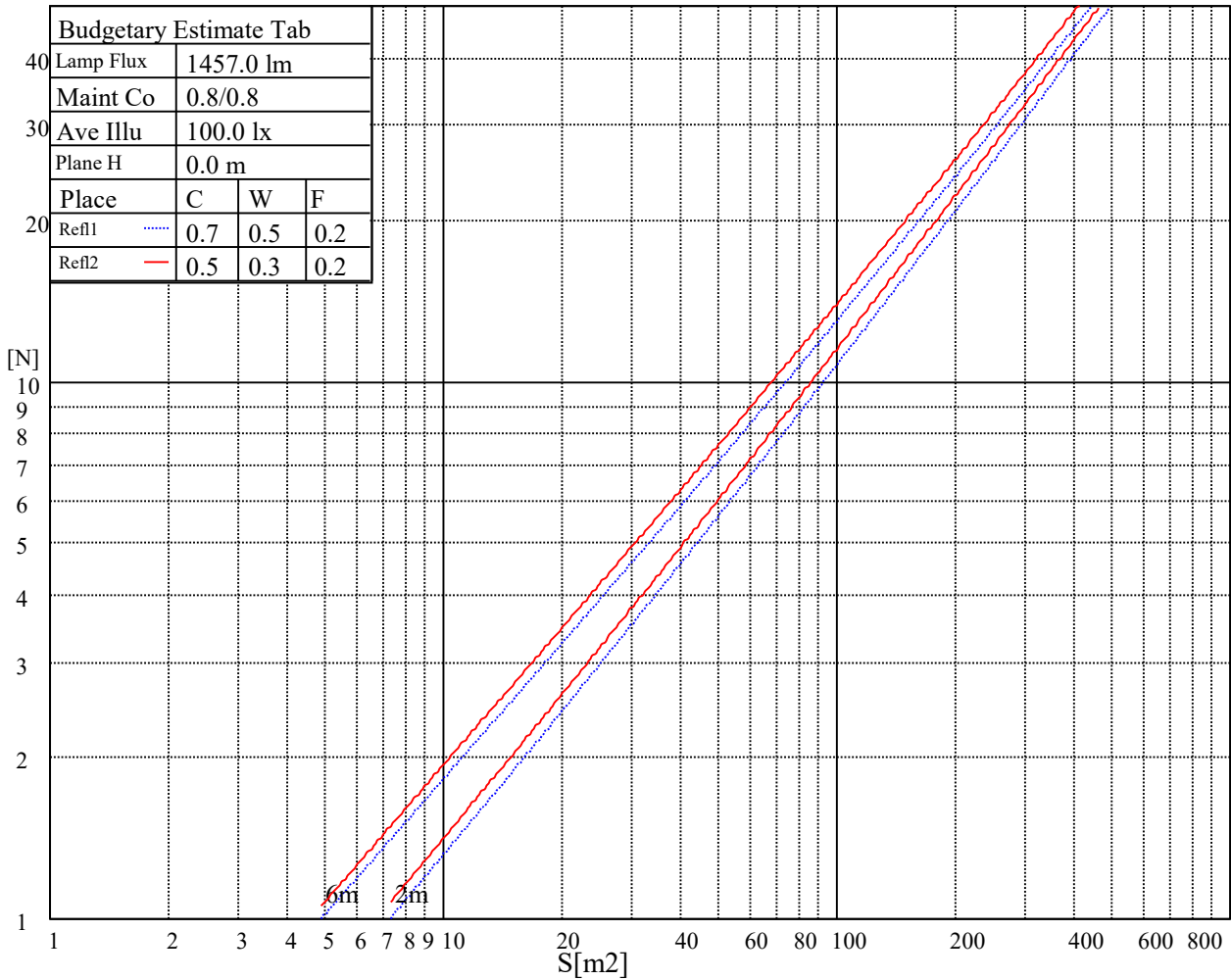
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
16500	16500	16500	23248	23248	23248	57058	57058	57058

Glare Table

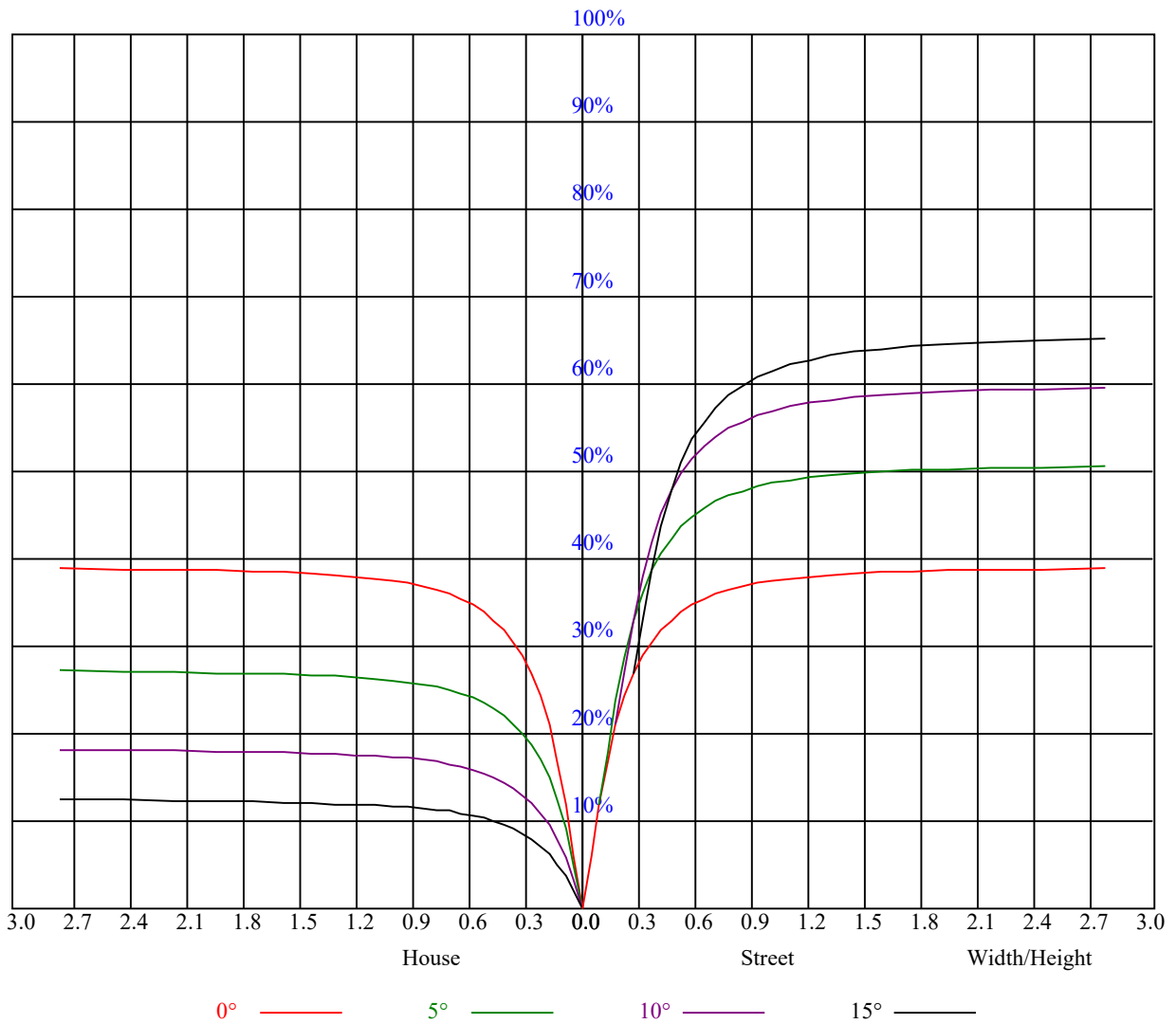
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	0.95	0.95	0.95	0.93	0.93	0.93	0.89	0.89	0.89	0.85	0.85	0.85	0.82	0.82	0.82	0.80
1	0.87	0.84	0.82	0.85	0.83	0.81	0.82	0.80	0.78	0.79	0.77	0.76	0.76	0.75	0.73	0.72
2	0.82	0.78	0.75	0.80	0.77	0.74	0.78	0.75	0.73	0.75	0.73	0.71	0.73	0.71	0.70	0.68
3	0.77	0.73	0.70	0.76	0.73	0.70	0.74	0.71	0.69	0.72	0.70	0.67	0.70	0.68	0.66	0.65
4	0.74	0.69	0.66	0.73	0.69	0.66	0.71	0.68	0.65	0.69	0.67	0.64	0.68	0.66	0.64	0.62
5	0.70	0.66	0.63	0.70	0.66	0.63	0.68	0.65	0.62	0.67	0.64	0.62	0.66	0.63	0.61	0.60
6	0.68	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
7	0.65	0.61	0.58	0.65	0.61	0.58	0.64	0.60	0.58	0.63	0.60	0.57	0.62	0.59	0.57	0.56
8	0.63	0.59	0.56	0.62	0.59	0.56	0.62	0.58	0.56	0.61	0.58	0.55	0.60	0.57	0.55	0.54
9	0.61	0.57	0.54	0.60	0.57	0.54	0.60	0.56	0.54	0.59	0.56	0.54	0.58	0.56	0.54	0.53
10	0.59	0.55	0.53	0.59	0.55	0.53	0.58	0.55	0.52	0.57	0.54	0.52	0.57	0.54	0.52	0.51



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	5067.94	4885.70	3187.21	1565.80	786.76	477.34	302.81	189.28	133.79
45.0	5160.44	4190.89	2433.49	1184.81	640.86	395.30	286.84	161.65	110.61
90.0	5025.55	3436.62	1841.64	867.08	510.26	328.19	213.95	146.51	106.37
135.0	5165.39	3715.21	2060.76	945.87	548.91	350.16	225.24	151.35	109.34
180.0	5067.94	3664.55	1853.20	905.57	530.47	331.60	217.03	145.13	102.18
225.0	5160.44	4338.99	2498.46	1074.59	656.27	401.53	253.42	160.98	112.87
270.0	5025.55	4868.64	3237.32	1650.59	813.18	474.59	305.01	191.65	135.16
315.0	5165.39	4818.54	2918.54	1324.66	756.81	445.90	288.17	185.43	131.58
360.0	5067.94	4885.70	3187.21	1565.80	786.76	477.34	302.81	189.28	133.79
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	94.26	67.83	44.76	25.22	16.02	13.54	12.55	13.49	12.39
45.0	74.27	52.25	31.27	19.16	13.71	12.28	11.67	13.05	10.30
90.0	74.77	49.77	27.14	17.23	13.43	12.55	13.60	12.11	9.14
135.0	77.30	51.59	28.79	18.33	14.48	13.43	13.60	13.49	9.25
180.0	72.29	50.32	27.36	16.79	13.54	12.44	12.50	12.33	9.30
225.0	76.58	53.24	32.87	19.55	13.65	12.33	11.51	11.29	10.08
270.0	99.05	72.62	46.69	27.97	16.52	13.38	12.39	13.27	11.07
315.0	95.74	69.43	43.71	25.60	16.68	14.37	14.04	14.76	12.66
360.0	94.26	67.83	44.76	25.22	16.02	13.54	12.55	13.49	12.39
C/γ(°)	90.0								
0.0	5.56								
45.0	5.01								
90.0	5.01								
135.0	5.01								
180.0	5.07								
225.0	5.12								
270.0	5.45								
315.0	5.51								
360.0	5.56								