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Nata

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LumCAT: 2-1285-N  
Luminaire: 92.70.046.00  
Report No: NT2017092304  
Test No: nata-0100  
LampCAT: CREE CXA1520  
Lamp flux(lm): 1756.0  
Number of Lamps: 1  
Length(mm): 57  
Phm Type: C

Voltage(V): 36.1000  
Current(A): 0.5200  
Power (W): 18.7000  
PF: 0.0000  
Ballast type: DC  
Width(mm): 57  
Height(mm): 0

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Photometric Results

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Lumens(lm): 1427.00  
Efficiency(%): 81.26%  
Lumens(lm)/Power(W): 76.31  
Central intensity(cd): 3298.044  
Maximum intensity(cd): 3298.044  
Angle of maximum intensity: C=0.0  $\gamma$ =0.0  
Beam Angle(50%Imax): [C0/180]Total=34.1  
                                  [C90/270]Total=34.1  
Field angle(10%Imax): [C0/180]Total=66.5  
                                  [C90/270]Total=66.5  
Maximum s/h(1/2): C0\_180=0.56 C90\_270=0.56  
Maximum s/h(1/4): C0\_180=0.60 C90\_270=0.60  
Up flux rate of lamp(%): 0.00%  
Down flux rate of lamp(%): 82.31%  
Up flux rate of LUM(%): - -  
Down flux rate of LUM(%): 100.00%  
CIE Type : Direct lighting  
Output flux ratio in  $\pi$  solid angle : 97.053%

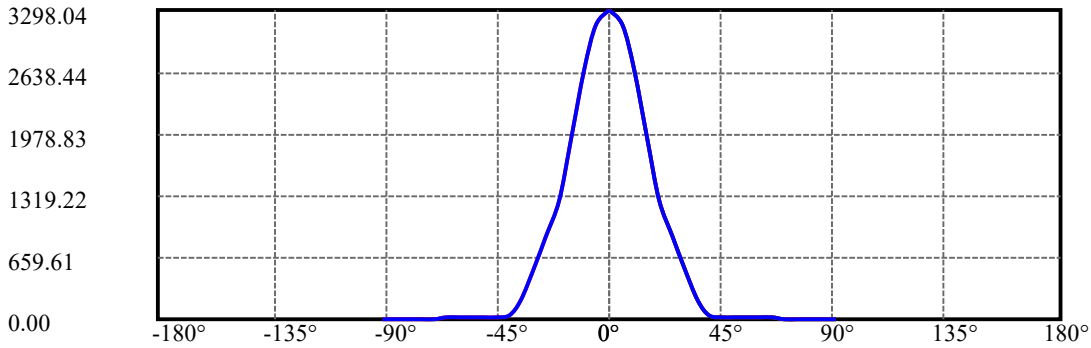
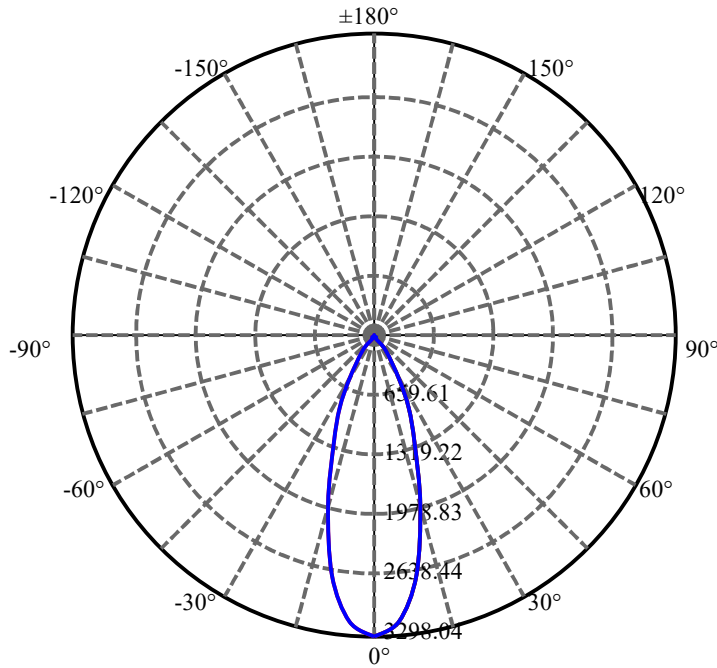
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	3298.044	19.723	19.723	1.123%	1.382%
5.0	3139.536	149.986	169.709	8.541%	11.893%
10.0	2657.517	252.951	422.66	14.405%	29.619%
15.0	1913.265	271.432	694.091	15.457%	48.640%
20.0	1262.113	236.613	930.705	13.475%	65.221%
25.0	879.966	203.847	1134.552	11.609%	79.506%
30.0	550.839	150.968	1285.519	8.597%	90.085%
35.0	211.857	66.608	1352.127	3.793%	94.753%
40.0	43.109	15.189	1367.316	.865%	95.817%
45.0	28.850	11.182	1378.498	.637%	96.601%
50.0	23.014	9.663	1388.161	.550%	97.278%
55.0	18.114	8.133	1396.294	.463%	97.848%
60.0	13.654	6.482	1402.776	.369%	98.302%
65.0	10.901	5.415	1408.191	.308%	98.682%
70.0	9.580	4.934	1413.126	.281%	99.027%
75.0	8.203	4.343	1417.469	.247%	99.332%
80.0	7.543	4.072	1421.541	.232%	99.617%
85.0	6.882	3.758	1425.299	.214%	99.881%
90.0	6.221	1.705	1427.004	.097%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1285.52	73.21%	90.09%
0-40	1367.32	77.87%	95.82%
0-60	1402.78	79.88%	98.30%
0-90	1425.30	81.17%	99.88%
0-120	1425.30	81.17%	99.88%
0-180	1427.00	81.26%	100.00%
60-90	29.00	1.65%	2.03%
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%
0-25.23	1141.60	65.01%	80.00%

ZONAL LUMEN SUMMARY

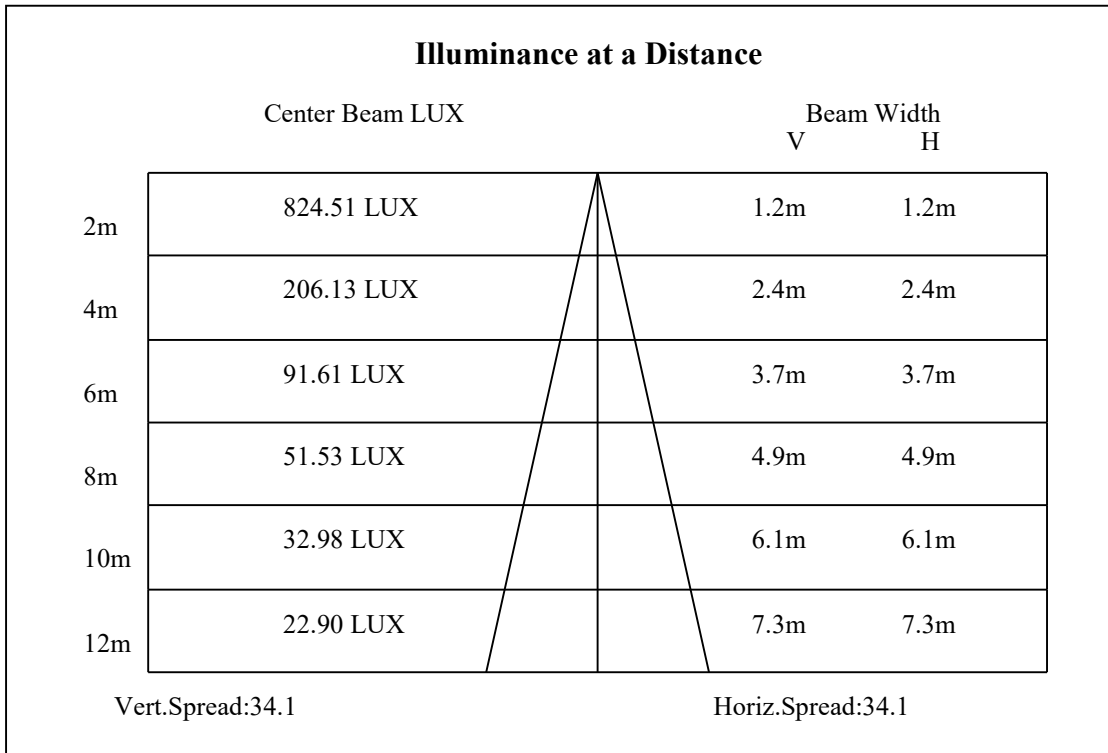
0-10	422.66
10-20	508.05
20-30	354.81
30-40	81.80
40-50	20.85
50-60	14.61
60-70	10.35
70-80	8.42
80-90	3.76
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

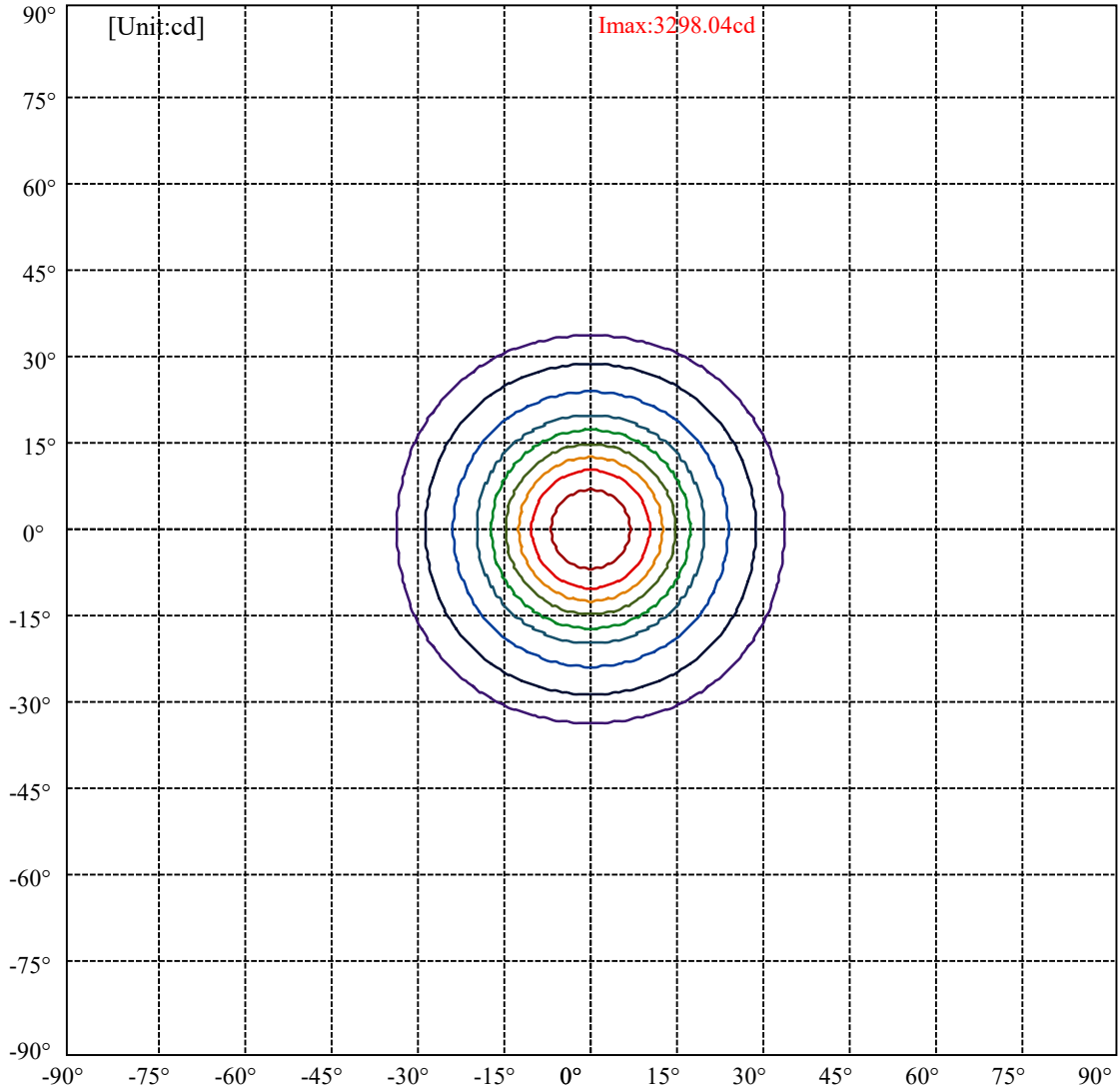


C0(Max): —————  
 C0/C180: —————  
 C90/C270: —————

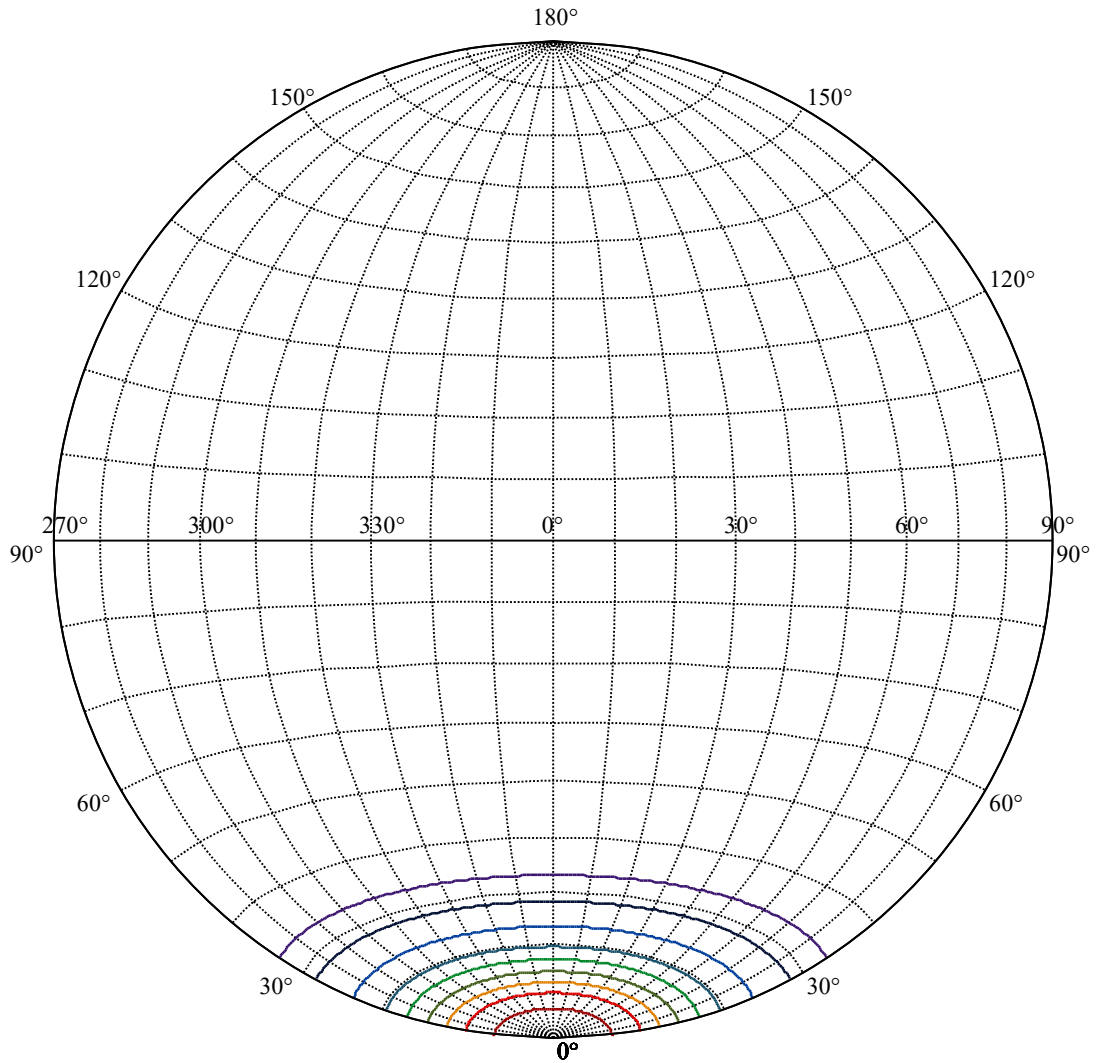
Field angle(10%Imax):C0/180Left:33.3 Right:33.3  
 :C90/270Left:33.3 Right:33.3

Beam Angle(50%Imax):C0/180Left:17.0 Right:17.0  
 :C90/270Left:17.0 Right:17.0





(10%Imax) 329.804	—
(20%Imax) 659.609	—
(30%Imax) 989.413	—
(40%Imax) 1319.22	—
(50%Imax) 1649.02	—
(60%Imax) 1978.83	—
(70%Imax) 2308.63	—
(80%Imax) 2638.44	—
(90%Imax) 2968.24	—



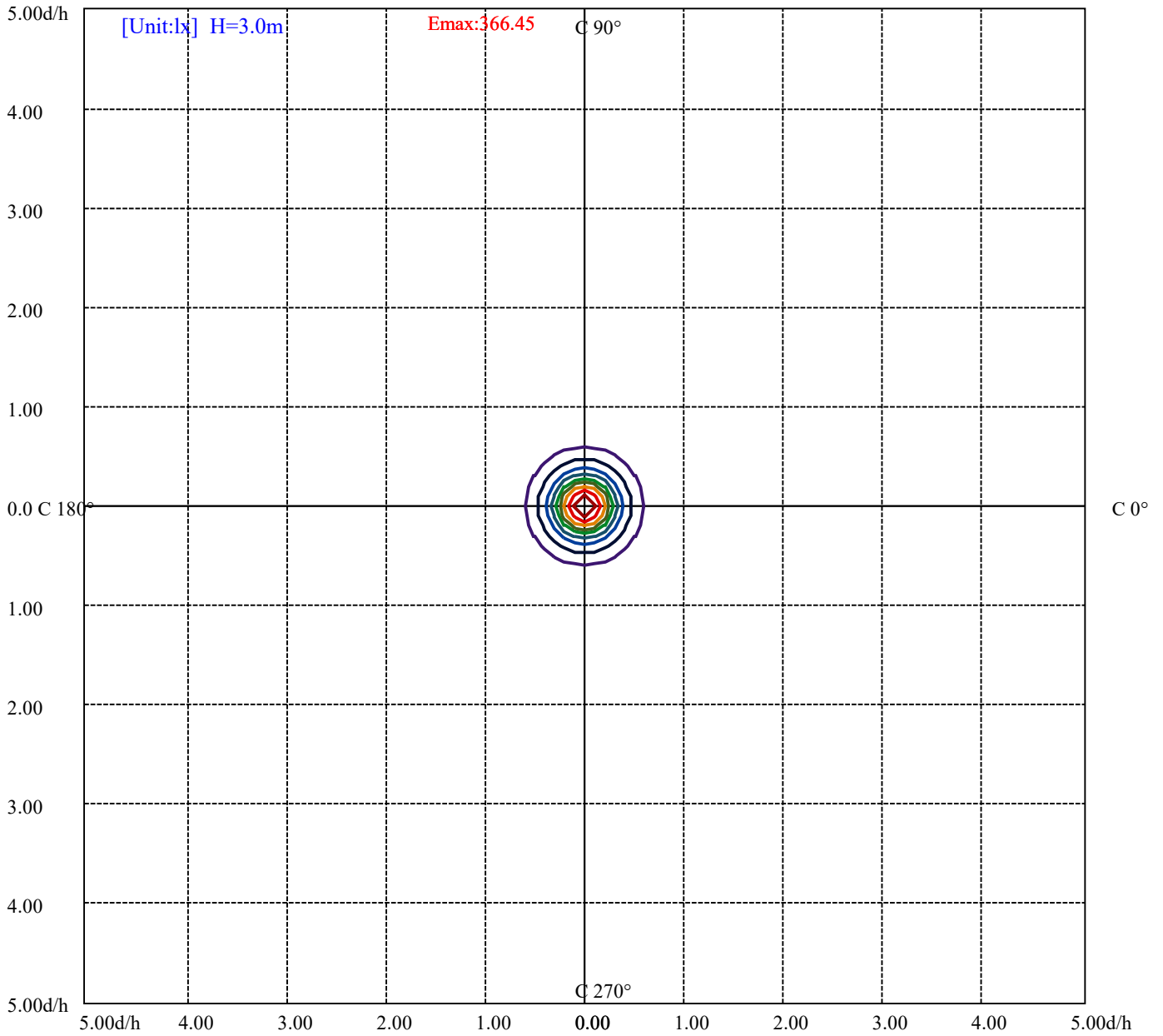
House

[Unit:cd]

Road

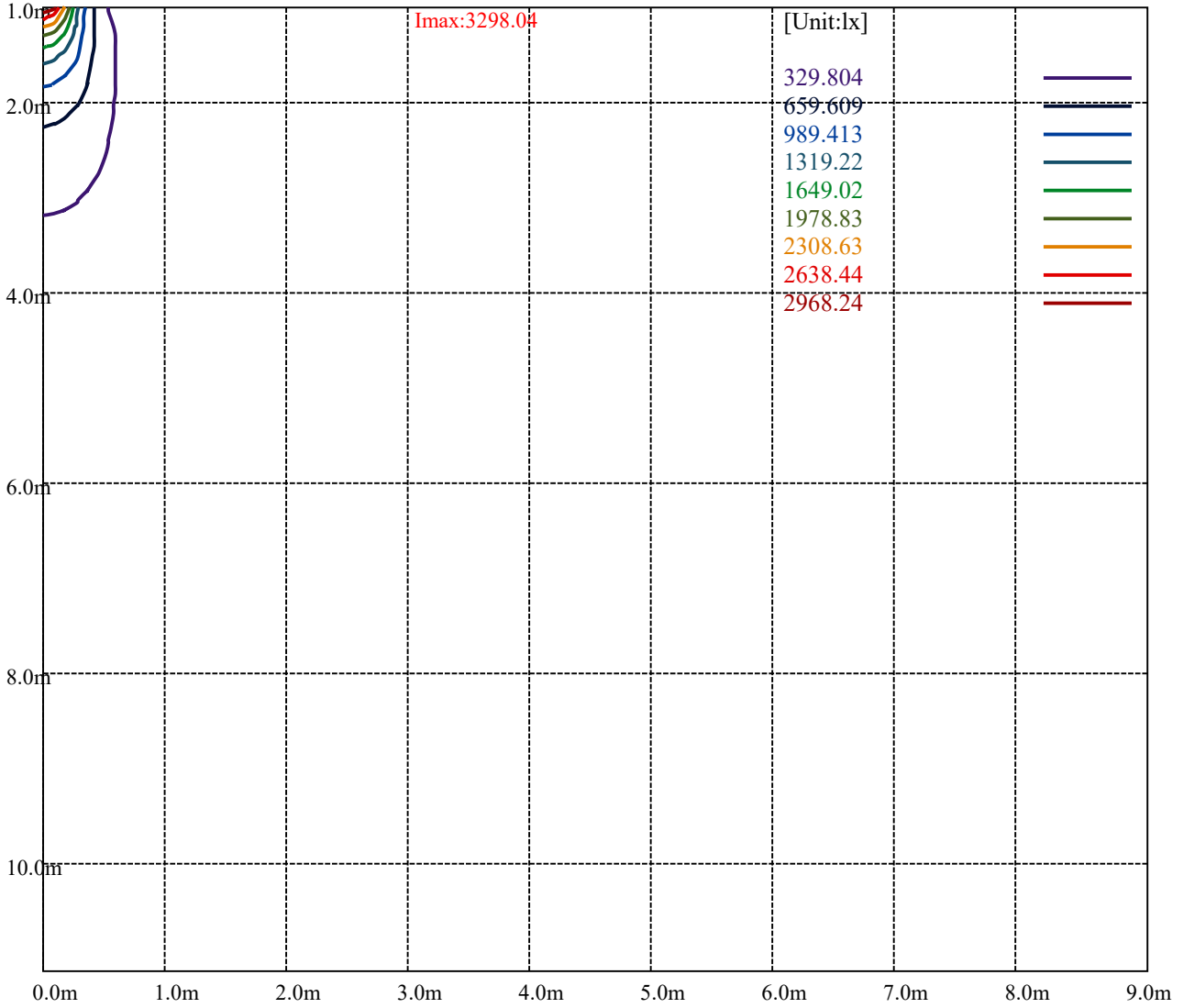
**Imax:3298.04**

(10%Imax) 329.804	—
(20%Imax) 659.609	—
(30%Imax) 989.413	—
(40%Imax) 1319.22	—
(50%Imax) 1649.02	—
(60%Imax) 1978.83	—
(70%Imax) 2308.63	—
(80%Imax) 2638.44	—
(90%Imax) 2968.24	—



- (10%Emax) 36.64489
- (20%Emax) 73.28977
- (30%Emax) 109.9347
- (40%Emax) 146.58
- (50%Emax) 183.2244
- (60%Emax) 219.8689
- (70%Emax) 256.5144
- (80%Emax) 293.1589
- (90%Emax) 329.8044





Luminance Table

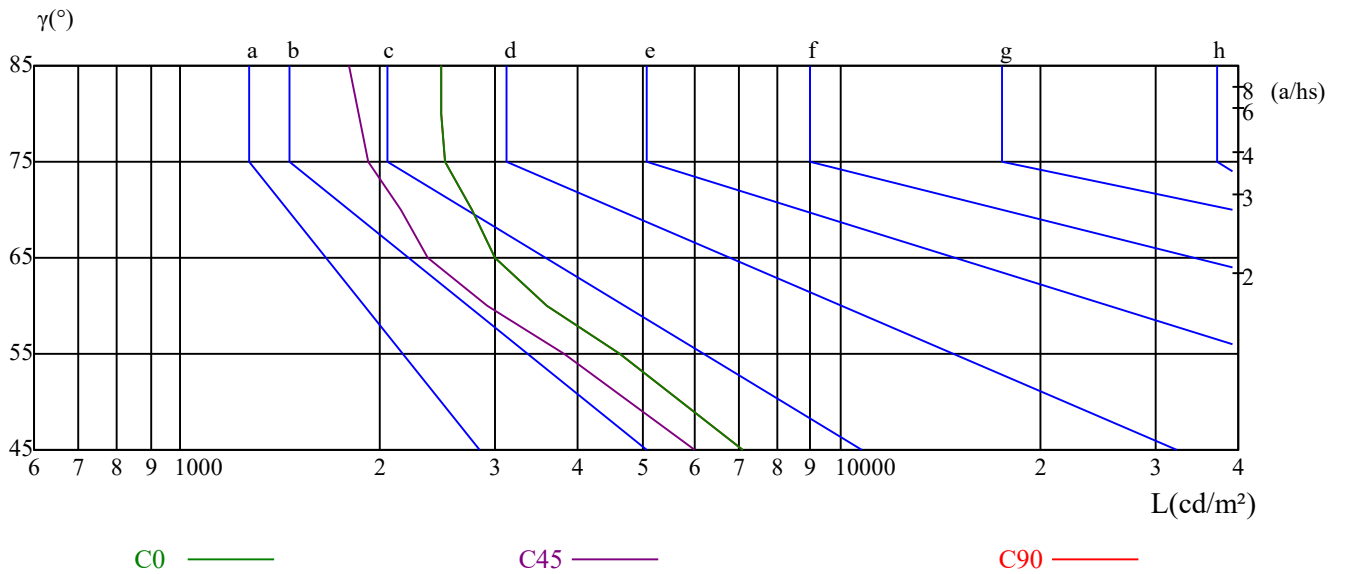
$\gamma$	45	50	55	60	65	70	75	80	85
C0	7087	5740	4623	3596	2990	2762	2514	2486	2474
C45	6004	4789	3798	2907	2376	2156	1923	1859	1803
C90	7087	5740	4623	3596	2990	2762	2514	2486	2474

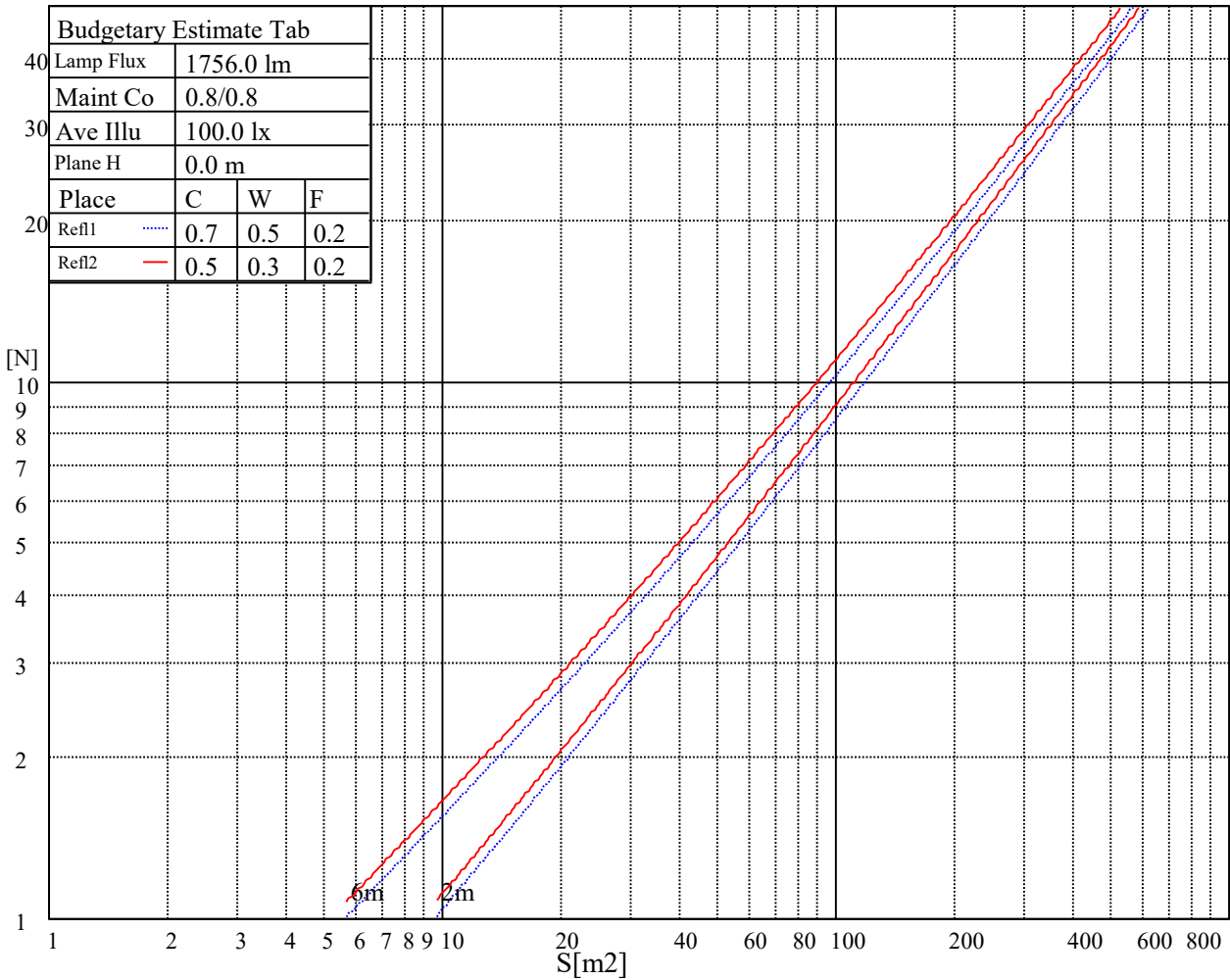
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
7939	7939	7939	9755	9755	9755	24304	24304	24304

Glare Table

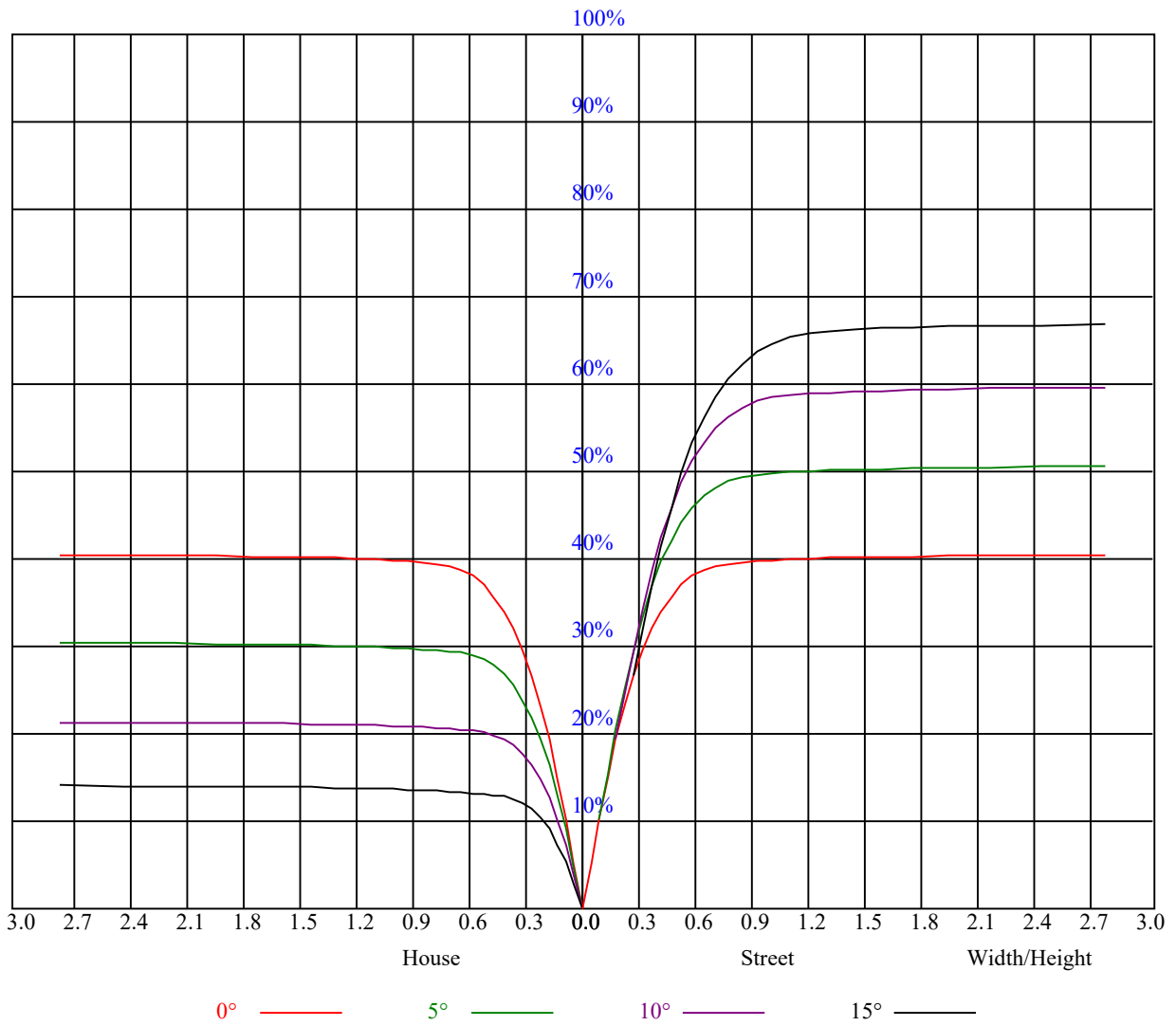
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	0.98	0.98	0.98	0.96	0.96	0.96	0.91	0.91	0.91	0.88	0.88	0.88	0.84	0.84	0.84	0.82
1	0.91	0.88	0.86	0.89	0.87	0.85	0.86	0.84	0.82	0.82	0.81	0.80	0.80	0.79	0.78	0.76
2	0.86	0.82	0.80	0.84	0.81	0.79	0.82	0.79	0.77	0.79	0.77	0.76	0.77	0.75	0.74	0.73
3	0.81	0.78	0.75	0.80	0.77	0.74	0.78	0.75	0.73	0.76	0.74	0.72	0.74	0.72	0.71	0.69
4	0.77	0.73	0.70	0.76	0.73	0.70	0.75	0.72	0.69	0.73	0.71	0.68	0.72	0.69	0.68	0.66
5	0.74	0.70	0.67	0.73	0.69	0.67	0.72	0.68	0.66	0.70	0.68	0.65	0.69	0.67	0.65	0.64
6	0.71	0.67	0.64	0.70	0.66	0.64	0.69	0.66	0.63	0.68	0.65	0.63	0.67	0.64	0.62	0.61
7	0.68	0.64	0.61	0.68	0.64	0.61	0.67	0.63	0.61	0.66	0.63	0.60	0.65	0.62	0.60	0.59
8	0.65	0.61	0.59	0.65	0.61	0.59	0.64	0.61	0.58	0.63	0.60	0.58	0.63	0.60	0.58	0.57
9	0.63	0.59	0.56	0.63	0.59	0.56	0.62	0.59	0.56	0.61	0.58	0.56	0.61	0.58	0.56	0.55
10	0.61	0.57	0.54	0.61	0.57	0.54	0.60	0.57	0.54	0.59	0.56	0.54	0.59	0.56	0.54	0.53



Intensity data(cd)

C/ $\gamma$ (°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	3298.04	3139.54	2657.52	1913.26	1262.11	879.97	550.84	211.86	43.11
45.0	3298.04	3139.54	2657.52	1913.26	1262.11	879.97	550.84	211.86	43.11
90.0	3298.04	3139.54	2657.52	1913.26	1262.11	879.97	550.84	211.86	43.11
135.0	3298.04	3139.54	2657.52	1913.26	1262.11	879.97	550.84	211.86	43.11
180.0	3298.04	3139.54	2657.52	1913.26	1262.11	879.97	550.84	211.86	43.11
225.0	3298.04	3139.54	2657.52	1913.26	1262.11	879.97	550.84	211.86	43.11
270.0	3298.04	3139.54	2657.52	1913.26	1262.11	879.97	550.84	211.86	43.11
315.0	3298.04	3139.54	2657.52	1913.26	1262.11	879.97	550.84	211.86	43.11
360.0	3298.04	3139.54	2657.52	1913.26	1262.11	879.97	550.84	211.86	43.11
C/ $\gamma$ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	28.85	23.01	18.11	13.65	10.90	9.58	8.20	7.54	6.88
45.0	28.85	23.01	18.11	13.65	10.90	9.58	8.20	7.54	6.88
90.0	28.85	23.01	18.11	13.65	10.90	9.58	8.20	7.54	6.88
135.0	28.85	23.01	18.11	13.65	10.90	9.58	8.20	7.54	6.88
180.0	28.85	23.01	18.11	13.65	10.90	9.58	8.20	7.54	6.88
225.0	28.85	23.01	18.11	13.65	10.90	9.58	8.20	7.54	6.88
270.0	28.85	23.01	18.11	13.65	10.90	9.58	8.20	7.54	6.88
315.0	28.85	23.01	18.11	13.65	10.90	9.58	8.20	7.54	6.88
360.0	28.85	23.01	18.11	13.65	10.90	9.58	8.20	7.54	6.88
C/ $\gamma$ (°)	90.0								
0.0	6.22								
45.0	6.22								
90.0	6.22								
135.0	6.22								
180.0	6.22								
225.0	6.22								
270.0	6.22								
315.0	6.22								
360.0	6.22								