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## Nata

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LumCAT: LN01D03536EE-N

Luminaire: 92.70.307.00

Report No: 210518-B007

Test No: 210518-C007

LampCAT: CREE CXA1304 LES6

Lamp flux(lm): 738.2

Number of Lamps: 1

Length(mm): 74

Phm Type: C

Voltage(V): 221.2000

Current(A): 0.0790

Power (W): 8.9000

PF: 0.5080

Ballast type: DC

Width(mm): 74

Height(mm): 56

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## Photometric Results

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Lumens(lm): 504.29

Efficiency(%): 68.31%

Lumens(lm)/Power(W): 56.66

Central intensity(cd): 916.791

Maximum intensity(cd): 916.791

Angle of maximum intensity: C=0.0  $\gamma$ =0.0

Beam Angle(50%Imax): [C0/180]Total=38.0

[C90/270]Total=38.0

Field angle(10%Imax): [C0/180]Total=68.1

[C90/270]Total=68.1

Maximum s/h(1/2): C0\_180=0.62 C90\_270=0.62

Maximum s/h(1/4): C0\_180=0.62 C90\_270=0.62

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 68.31%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in  $\pi$  solid angle : 93.009%

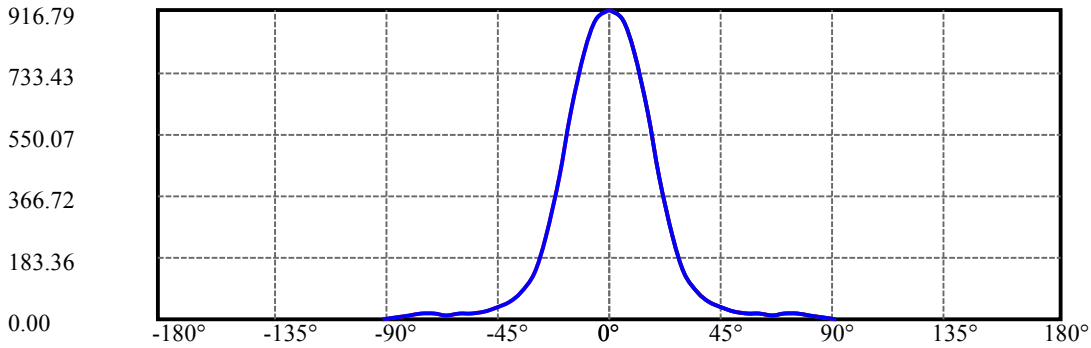
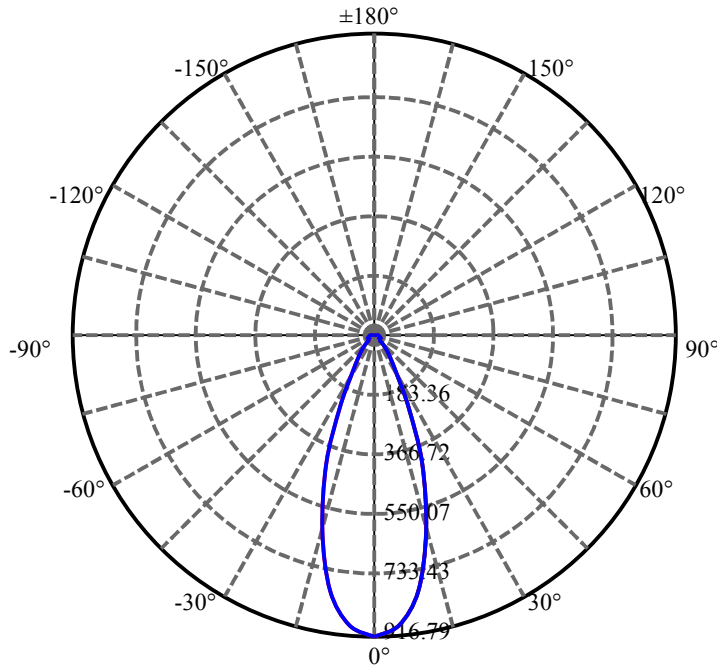
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	916.791	0.000	0	.000%	.000%
5.0	886.901	21.563	21.563	2.921%	4.276%
10.0	789.265	59.962	81.524	8.123%	16.166%
15.0	617.569	83.452	164.977	11.305%	32.715%
20.0	419.316	85.454	250.431	11.576%	49.660%
25.0	244.055	69.575	320.006	9.425%	63.457%
30.0	138.523	48.415	368.421	6.558%	73.058%
35.0	80.923	32.315	400.736	4.377%	79.466%
40.0	51.813	22.146	422.882	3.000%	83.858%
45.0	34.952	16.065	438.948	2.176%	87.043%
50.0	25.559	12.227	451.175	1.656%	89.468%
55.0	19.392	9.774	460.949	1.324%	91.406%
60.0	15.581	8.084	469.033	1.095%	93.009%
65.0	13.697	7.118	476.15	.964%	94.421%
70.0	14.625	7.171	483.321	.971%	95.843%
75.0	15.138	7.780	491.101	1.054%	97.386%
80.0	11.039	7.004	498.105	.949%	98.774%
85.0	4.605	4.251	502.356	.576%	99.617%
90.0	2.440	1.929	504.285	.261%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	368.42	49.91%	73.06%
0-40	422.88	57.28%	83.86%
0-60	469.03	63.54%	93.01%
0-90	502.36	68.05%	99.62%
0-120	502.36	68.05%	99.62%
0-180	504.29	68.31%	100.00%
60-90	41.41	5.61%	8.21%
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%
0-35.61	403.43	54.65%	80.00%

ZONAL LUMEN SUMMARY

0-10	81.52
10-20	168.91
20-30	117.99
30-40	54.46
40-50	28.29
50-60	17.86
60-70	14.29
70-80	14.78
80-90	4.25
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



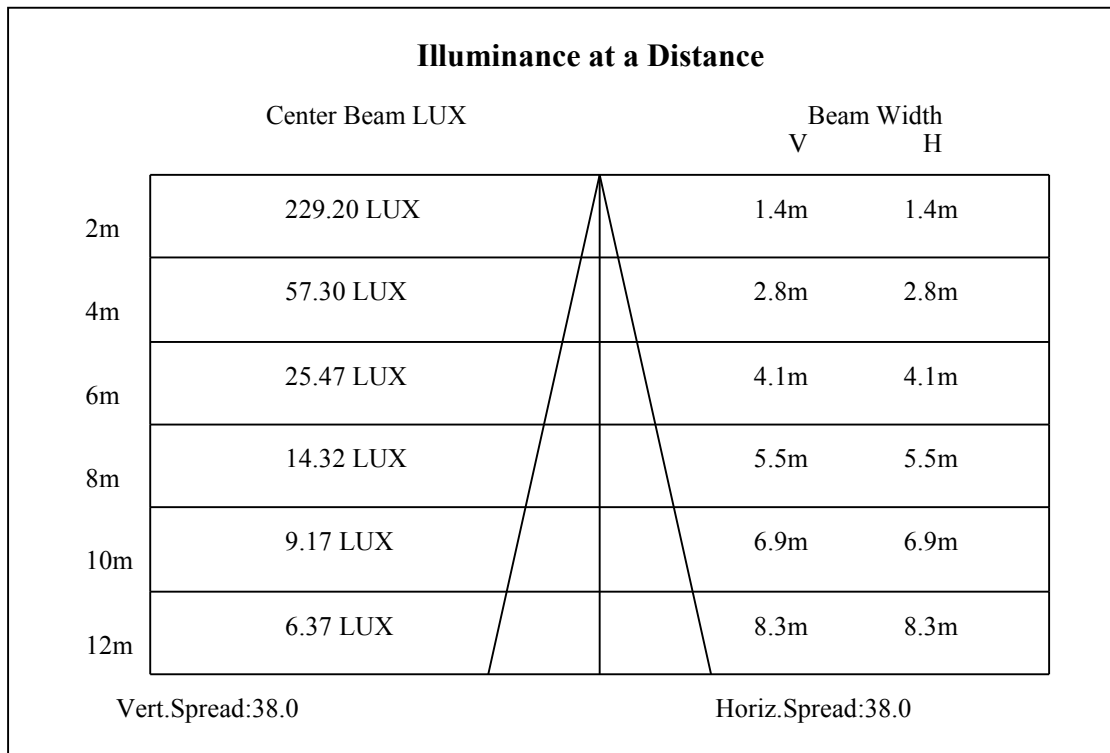
C0(Max): —————

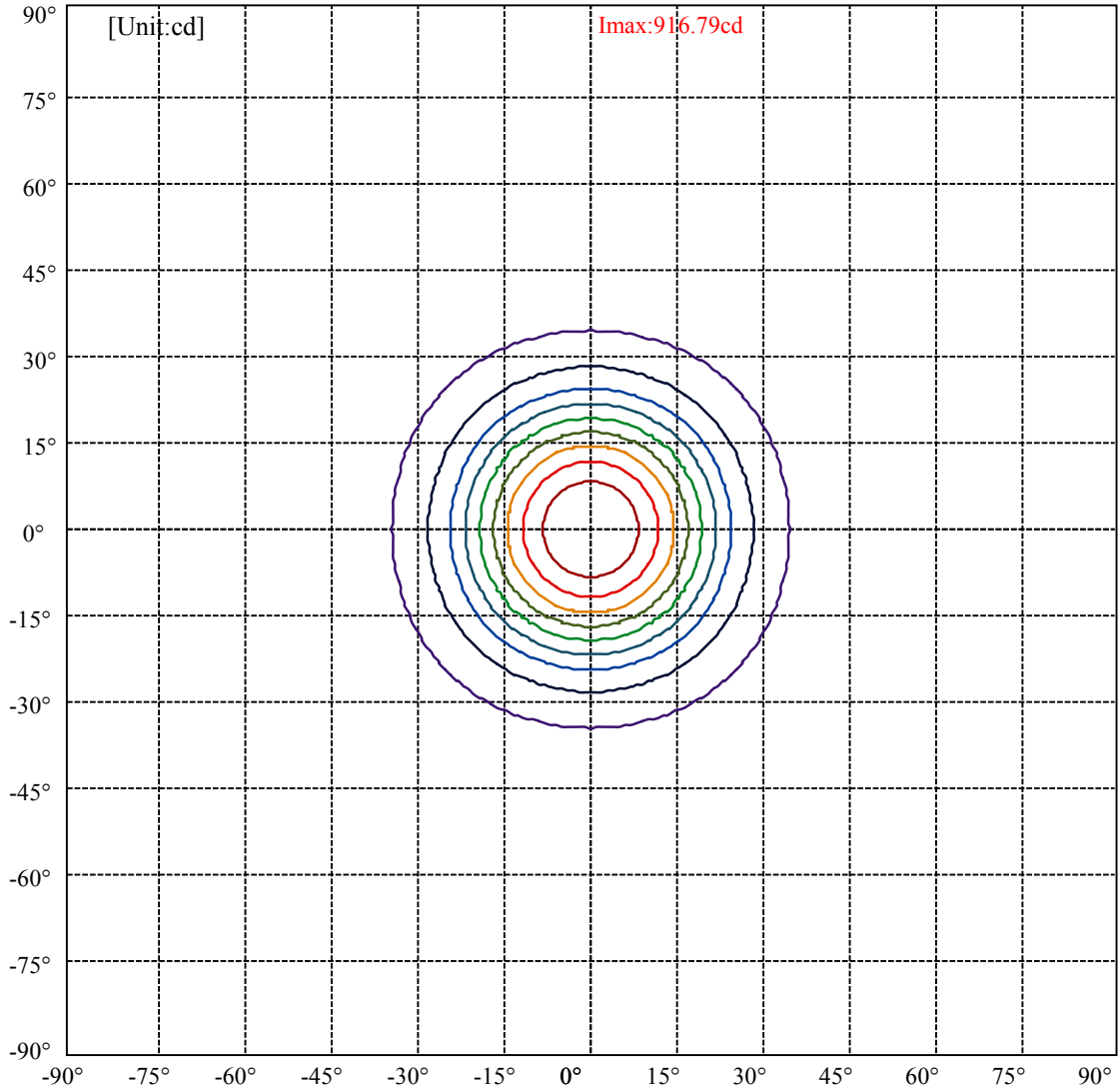
C0/C180: —————

C90/C270: —————

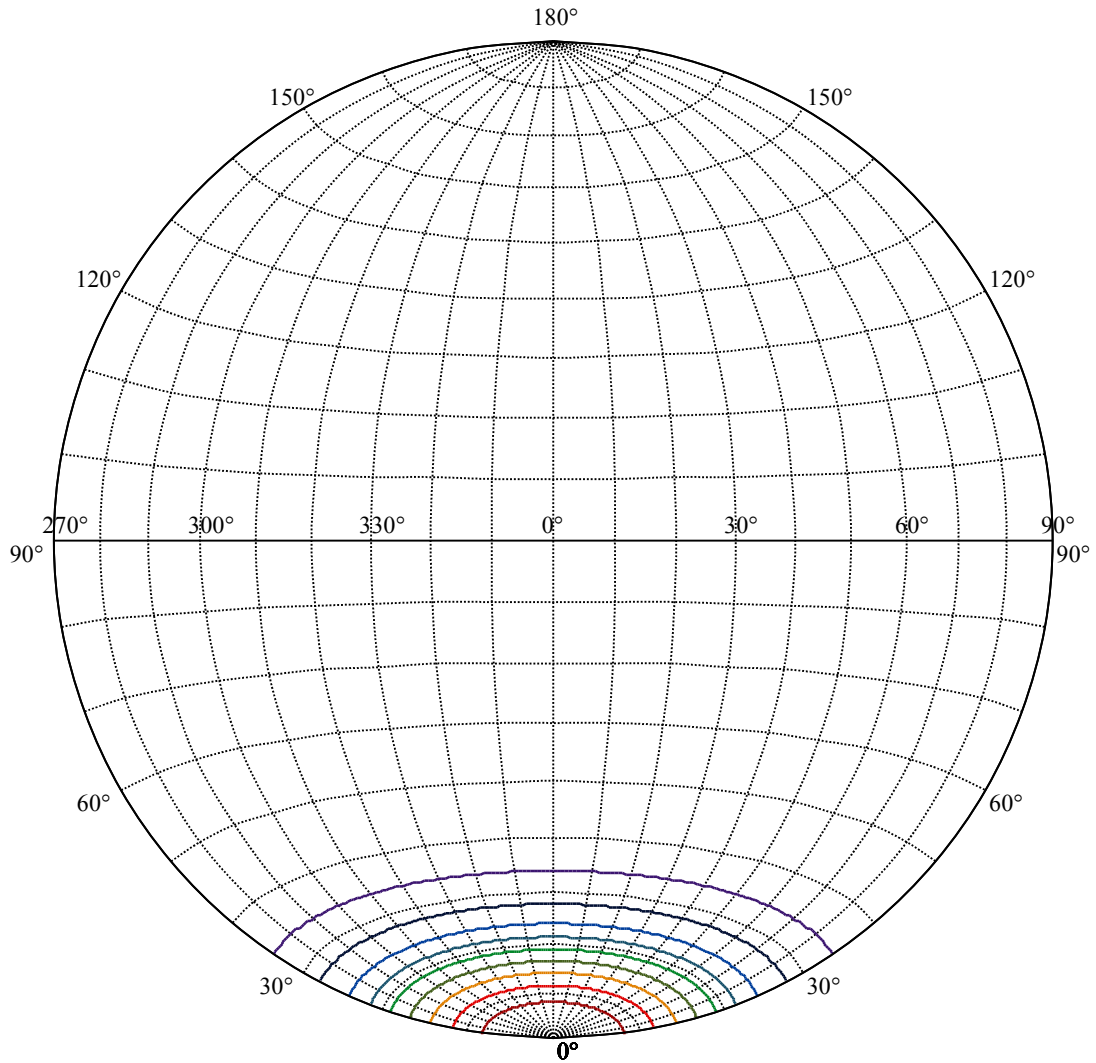
Field angle(10%Imax):C0/180Left:34.1 Right:34.1  
:C90/270Left:34.1 Right:34.1

Beam Angle(50%Imax):C0/180Left:19.0 Right:19.0  
:C90/270Left:19.0 Right:19.0





(10%Imax) 91.6791	—
(20%Imax) 183.358	—
(30%Imax) 275.037	—
(40%Imax) 366.716	—
(50%Imax) 458.395	—
(60%Imax) 550.074	—
(70%Imax) 641.753	—
(80%Imax) 733.432	—
(90%Imax) 825.112	—



House

[Unit:cd]

Road

**Imax:916.79**

(10%Imax) 91.6791

(20%Imax) 183.358

(30%Imax) 275.037

(40%Imax) 366.716

(50%Imax) 458.395

(60%Imax) 550.074

(70%Imax) 641.753

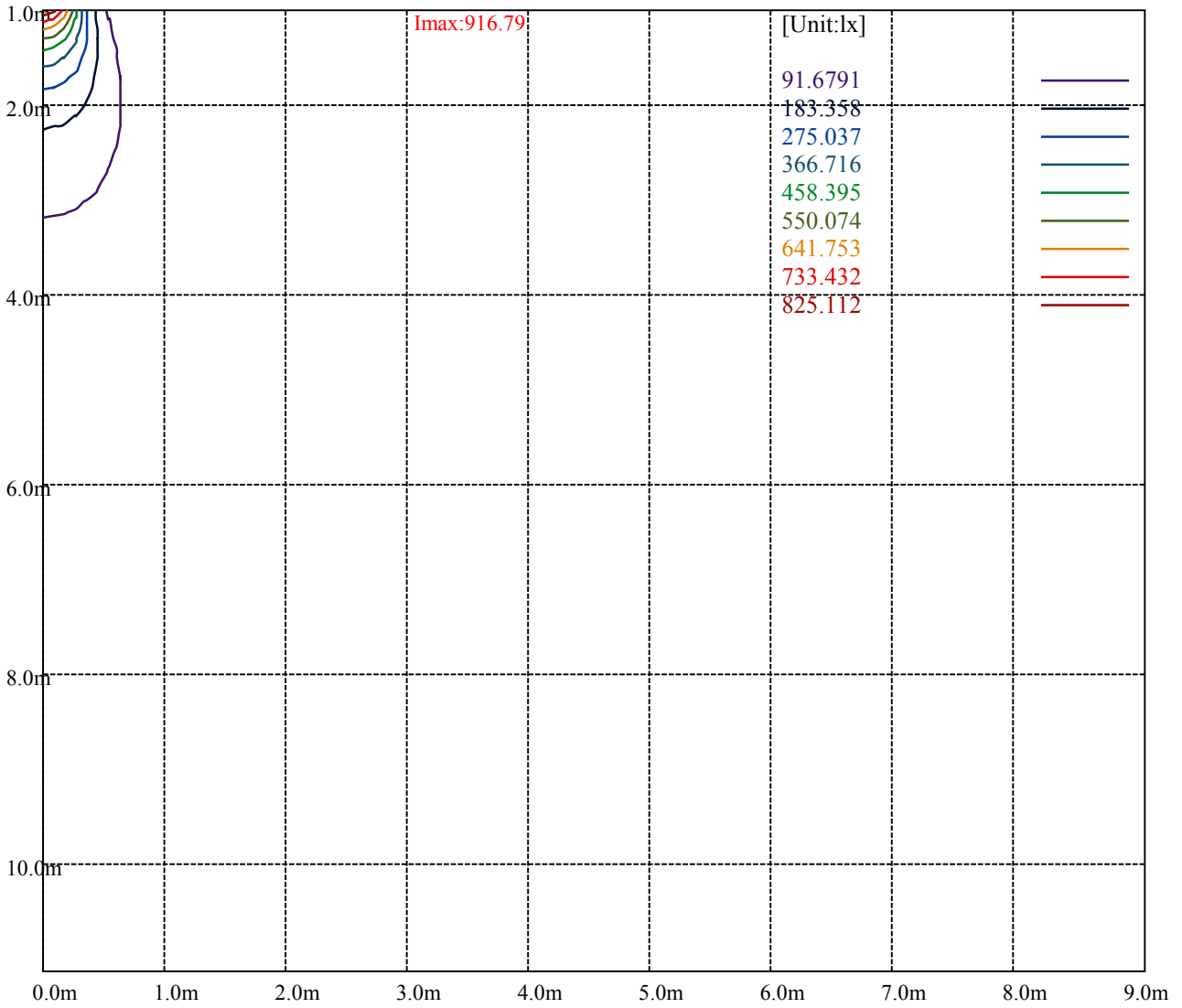
(80%Imax) 733.432

(90%Imax) 825.112









Luminance Table

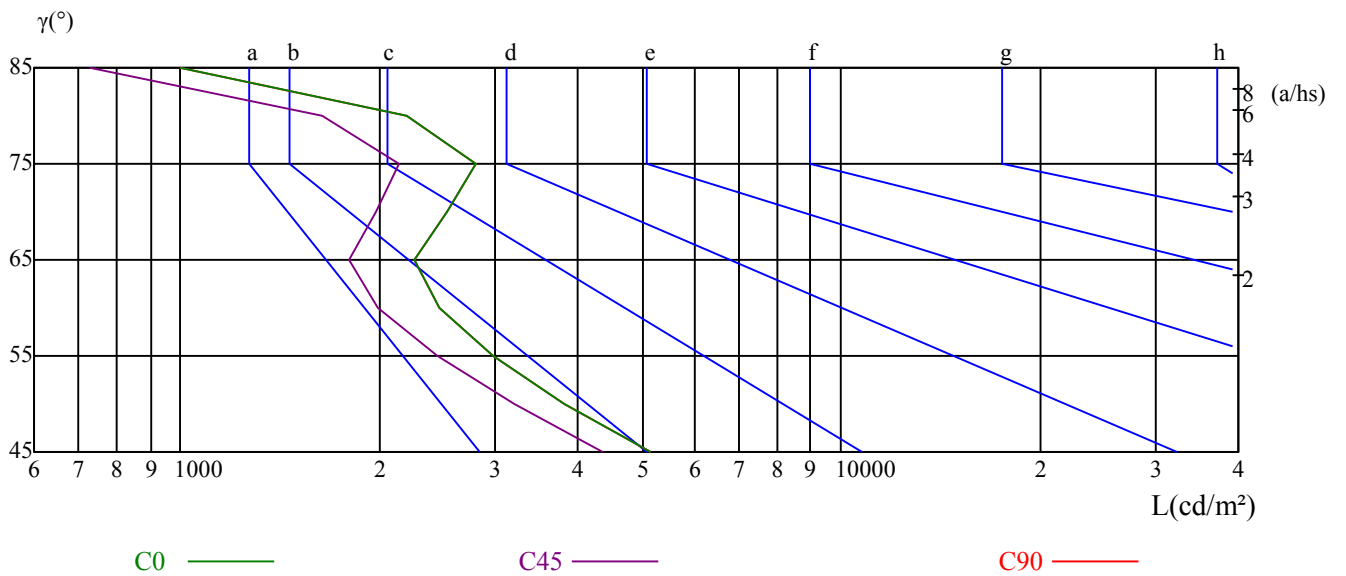
$\gamma$	45	50	55	60	65	70	75	80	85
C0	5138	3818	2967	2463	2256	2536	2793	2194	1000
C45	4360	3191	2442	1994	1796	1982	2139	1642	729
C90	5138	3818	2967	2463	2256	2536	2793	2194	1000

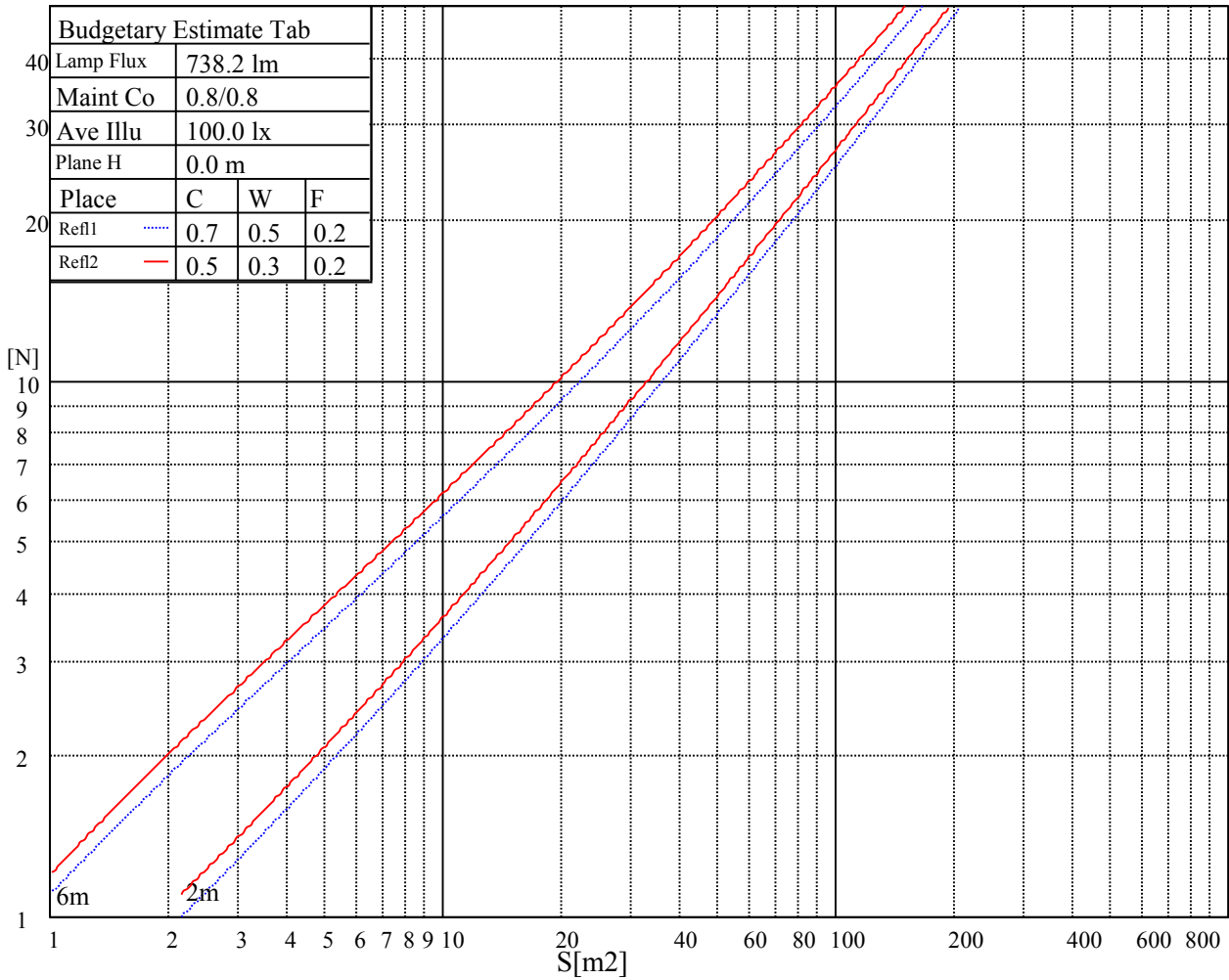
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
5918	5918	5918	10681	10681	10681	9650	9650	9650

Glare Table

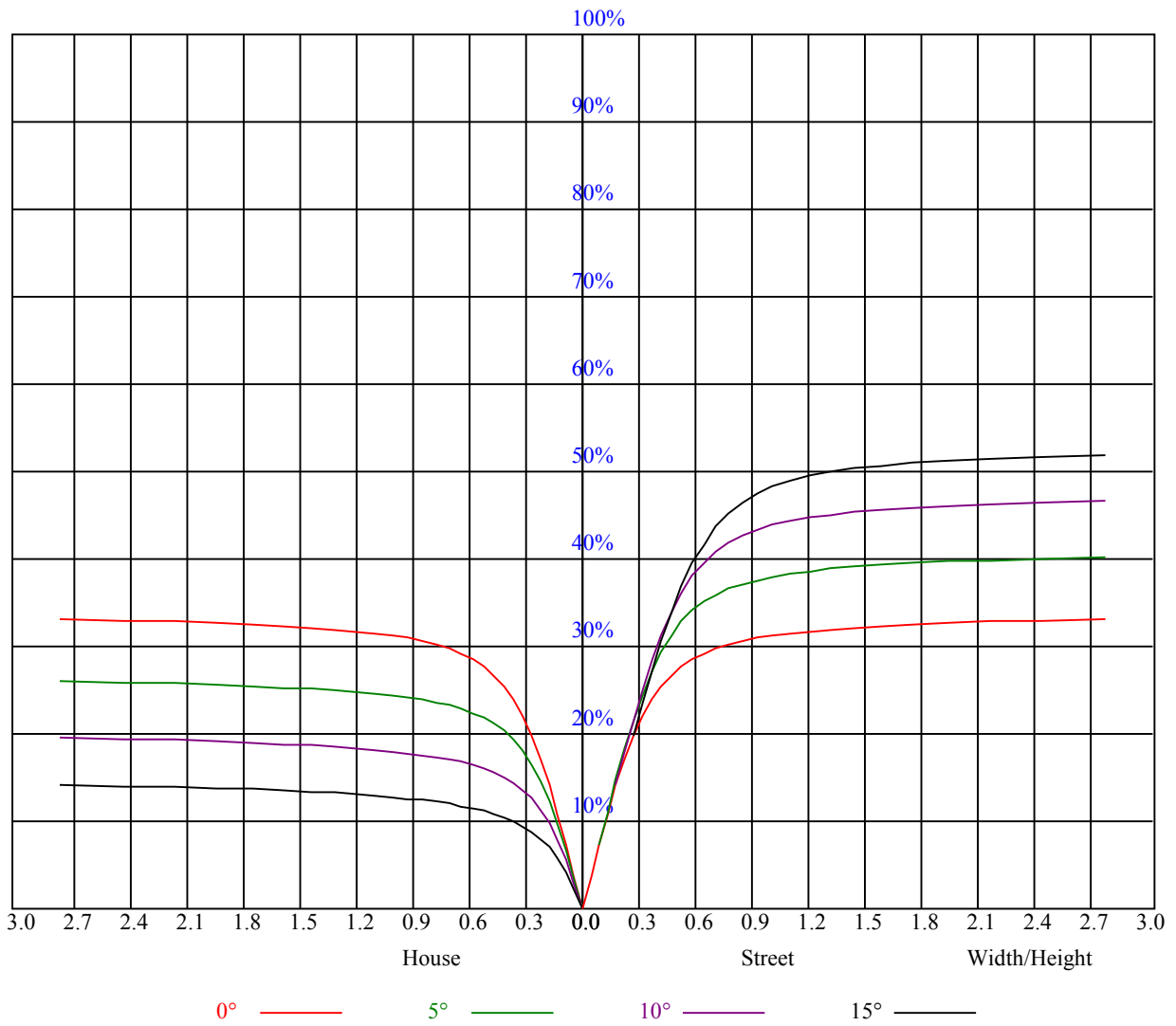
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	0.81	0.81	0.81	0.79	0.79	0.79	0.76	0.76	0.76	0.73	0.73	0.73	0.70	0.70	0.70	0.68
1	0.75	0.73	0.71	0.73	0.71	0.70	0.70	0.69	0.68	0.68	0.67	0.66	0.65	0.65	0.64	0.62
2	0.69	0.66	0.64	0.68	0.65	0.63	0.66	0.63	0.61	0.64	0.62	0.60	0.62	0.60	0.59	0.58
3	0.64	0.61	0.58	0.63	0.60	0.57	0.62	0.59	0.56	0.60	0.58	0.56	0.58	0.56	0.55	0.54
4	0.60	0.56	0.53	0.60	0.56	0.53	0.58	0.55	0.52	0.57	0.54	0.52	0.55	0.53	0.51	0.50
5	0.57	0.53	0.50	0.56	0.52	0.49	0.55	0.52	0.49	0.54	0.51	0.49	0.53	0.50	0.48	0.47
6	0.54	0.50	0.47	0.53	0.49	0.46	0.52	0.49	0.46	0.51	0.48	0.46	0.50	0.48	0.45	0.44
7	0.51	0.47	0.44	0.50	0.47	0.44	0.50	0.46	0.44	0.49	0.46	0.43	0.48	0.45	0.43	0.42
8	0.48	0.44	0.42	0.48	0.44	0.41	0.47	0.44	0.41	0.47	0.43	0.41	0.46	0.43	0.41	0.40
9	0.46	0.42	0.39	0.46	0.42	0.39	0.45	0.42	0.39	0.44	0.41	0.39	0.44	0.41	0.39	0.38
10	0.44	0.40	0.38	0.44	0.40	0.38	0.43	0.40	0.37	0.43	0.40	0.37	0.42	0.39	0.37	0.36



Intensity data(cd)

<b>C/γ(°)</b>	<b>0.0</b>	<b>5.0</b>	<b>10.0</b>	<b>15.0</b>	<b>20.0</b>	<b>25.0</b>	<b>30.0</b>	<b>35.0</b>	<b>40.0</b>
<b>0.0</b>	922.11	889.93	781.43	604.86	402.53	231.02	135.51	79.14	50.96
<b>45.0</b>	916.76	868.33	739.58	551.48	354.71	198.73	114.53	69.58	46.01
<b>90.0</b>	911.31	853.76	729.62	535.78	350.10	196.54	111.83	67.73	44.44
<b>135.0</b>	916.99	884.70	780.41	628.82	419.01	241.03	139.84	79.99	51.41
<b>180.0</b>	922.11	883.63	794.03	618.19	416.36	246.77	138.99	79.76	52.31
<b>225.0</b>	916.76	911.53	845.78	690.69	499.28	297.56	163.80	97.20	59.91
<b>270.0</b>	911.31	913.89	852.02	702.45	510.81	306.96	172.41	99.00	60.02
<b>315.0</b>	916.99	889.43	791.27	608.29	401.74	233.83	131.29	74.98	49.44
<b>360.0</b>	922.11	889.93	781.43	604.86	402.53	231.02	135.51	79.14	50.96
<b>C/γ(°)</b>	<b>45.0</b>	<b>50.0</b>	<b>55.0</b>	<b>60.0</b>	<b>65.0</b>	<b>70.0</b>	<b>75.0</b>	<b>80.0</b>	<b>85.0</b>
<b>0.0</b>	35.94	25.71	19.69	16.14	13.33	10.91	8.89	6.53	4.16
<b>45.0</b>	31.78	23.79	18.51	14.96	12.09	9.96	7.48	5.46	3.32
<b>90.0</b>	30.49	22.78	17.72	14.51	11.13	31.16	34.59	18.17	3.15
<b>135.0</b>	34.59	25.71	19.35	15.24	12.49	10.24	7.93	5.96	3.66
<b>180.0</b>	35.10	25.43	19.35	15.92	13.16	10.97	9.84	6.53	4.22
<b>225.0</b>	39.21	28.35	20.87	16.31	13.33	11.03	8.83	6.69	5.06
<b>270.0</b>	39.04	28.24	20.87	16.59	13.78	22.61	35.49	33.08	9.11
<b>315.0</b>	33.47	24.47	18.79	14.96	12.26	10.13	8.04	5.91	4.16
<b>360.0</b>	35.94	25.71	19.69	16.14	13.33	10.91	8.89	6.53	4.16
<b>C/γ(°)</b>	<b>90.0</b>								
<b>0.0</b>	2.53								
<b>45.0</b>	2.31								
<b>90.0</b>	2.08								
<b>135.0</b>	2.19								
<b>180.0</b>	2.42								
<b>225.0</b>	3.09								
<b>270.0</b>	2.59								
<b>315.0</b>	2.31								
<b>360.0</b>	2.53								