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LumCAT: CR01D05038BM(61.0032.03)

Luminaire:

Report No:

Voltage(V): 36.0800

Test No: GC2019051015

Current(A): 0.1560

LampCAT: CREE CXA1507

Power (W): 5.6280

Lamp flux(lm): 460.0

PF: 0.0000

Number of Lamps: 1

Ballast type: DC

Length(mm): 50

Width(mm): 50

Phm Type: C

Height(mm): 0

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### Photometric Results

Lumens(lm): 384.88

Efficiency(%): 83.67%

Lumens(lm)/Power(W): 68.39

Central intensity(cd): 600.778

Maximum intensity(cd): 600.778

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

Beam Angle(50%Imax): [C0/180]Total=38.1

[C90/270]Total=38.1

Field angle(10%Imax): [C0/180]Total=75.8

[C90/270]Total=75.8

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

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(%): 83.67%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in  $\pi$  solid angle : 89.416%

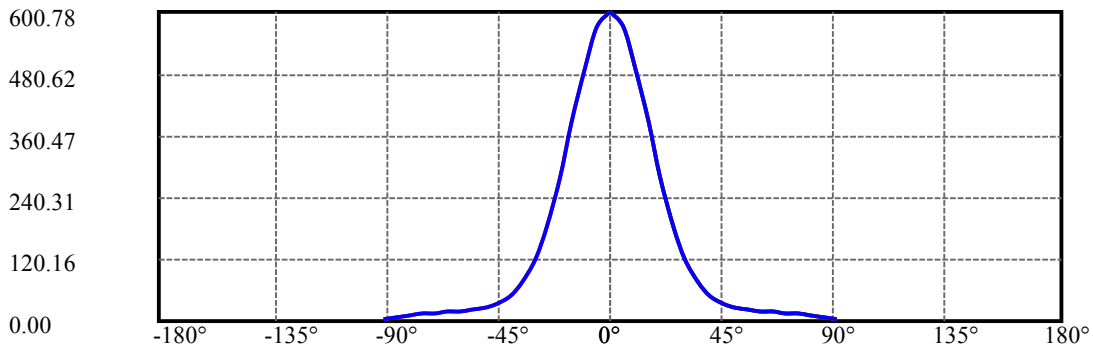
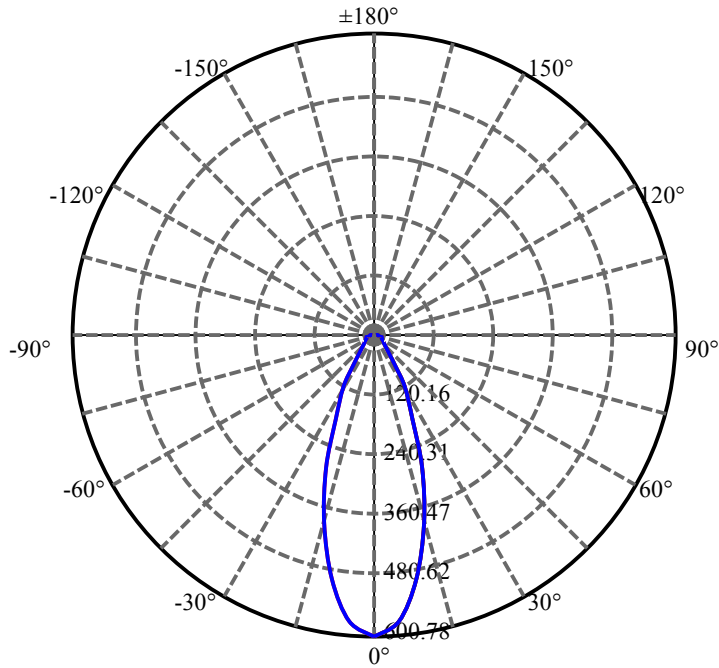
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	600.778	0.000	0	.000%	.000%
5.0	571.486	14.014	14.014	3.047%	3.641%
10.0	493.713	38.106	52.12	8.284%	13.542%
15.0	388.181	52.313	104.433	11.372%	27.134%
20.0	280.385	55.099	159.532	11.978%	41.450%
25.0	183.867	48.692	208.224	10.585%	54.102%
30.0	119.848	38.435	246.659	8.356%	64.088%
35.0	75.797	28.810	275.469	6.263%	71.574%
40.0	48.818	20.791	296.26	4.520%	76.976%
45.0	33.103	15.168	311.429	3.297%	80.917%
50.0	26.684	12.081	323.509	2.626%	84.056%
55.0	22.739	10.746	334.255	2.336%	86.848%
60.0	20.025	9.885	344.14	2.149%	89.416%
65.0	17.571	9.140	353.28	1.987%	91.791%
70.0	15.370	8.341	361.621	1.813%	93.958%
75.0	13.359	7.509	369.13	1.632%	95.909%
80.0	11.278	6.592	375.723	1.433%	97.622%
85.0	8.712	5.432	381.154	1.181%	99.033%
90.0	4.880	3.721	384.876	.809%	100.000%

## ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	246.66	53.62%	64.09%
0-40	296.26	64.40%	76.98%
0-60	344.14	74.81%	89.42%
0-90	381.15	82.86%	99.03%
0-120	381.15	82.86%	99.03%
0-180	384.88	83.67%	100.00%
60-90	46.90	10.20%	12.19%
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%
0-43.84	307.90	66.93%	80.00%

## ZONAL LUMEN SUMMARY

0-10	52.12
10-20	107.41
20-30	87.13
30-40	49.60
40-50	27.25
50-60	20.63
60-70	17.48
70-80	14.10
80-90	5.43
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: —————

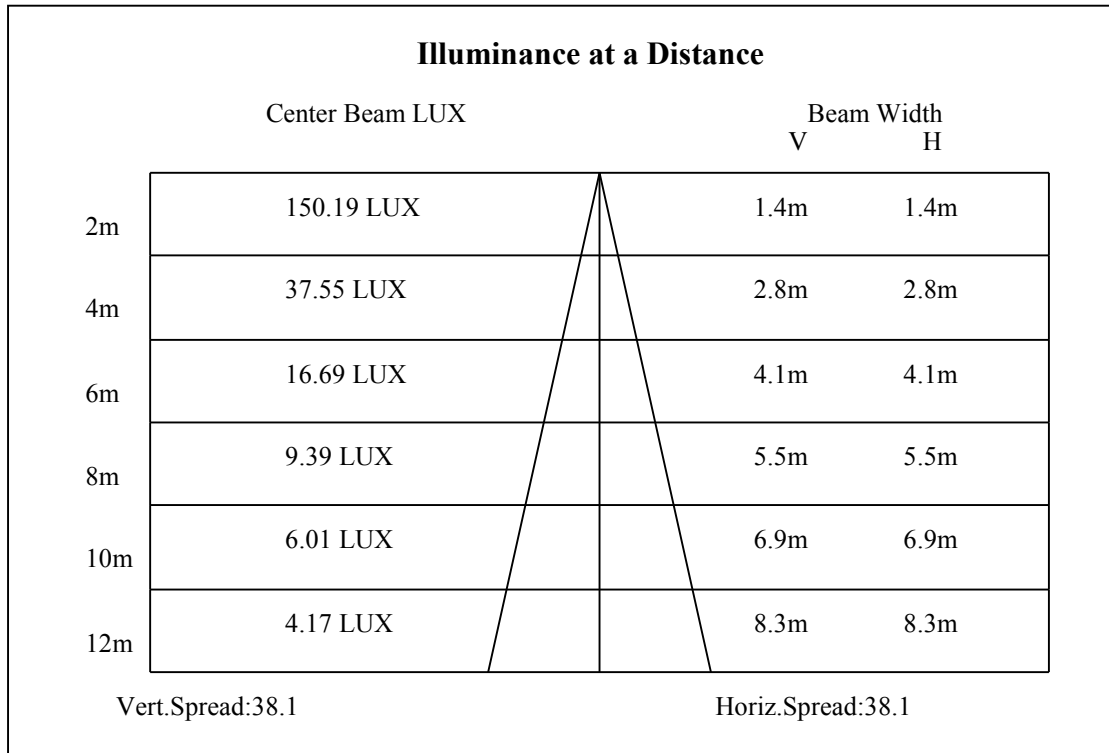
C90/C270: —————

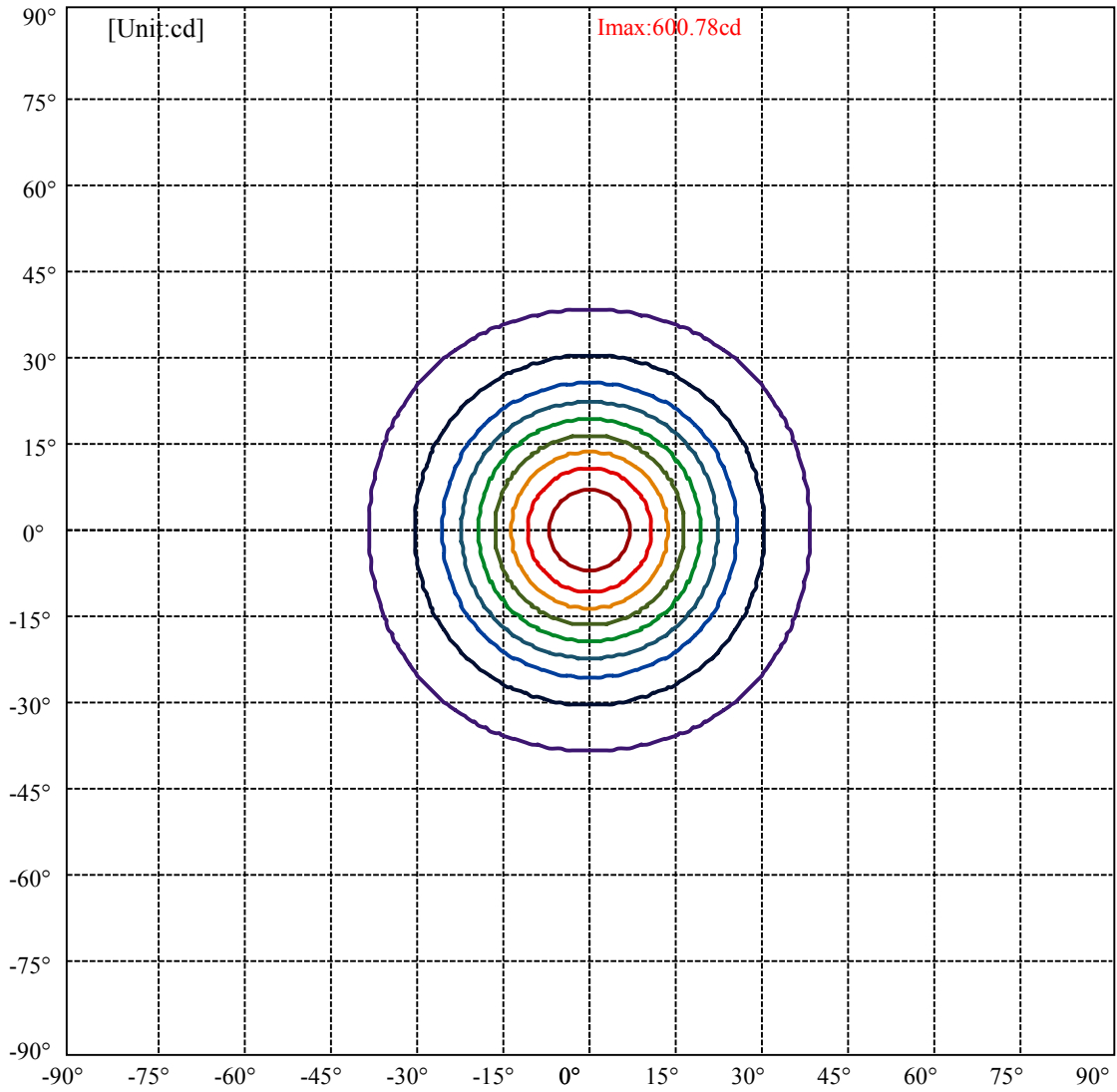
Field angle(10%Imax):C0/180Left:37.9 Right:37.9

:C90/270Left:37.9 Right:37.9

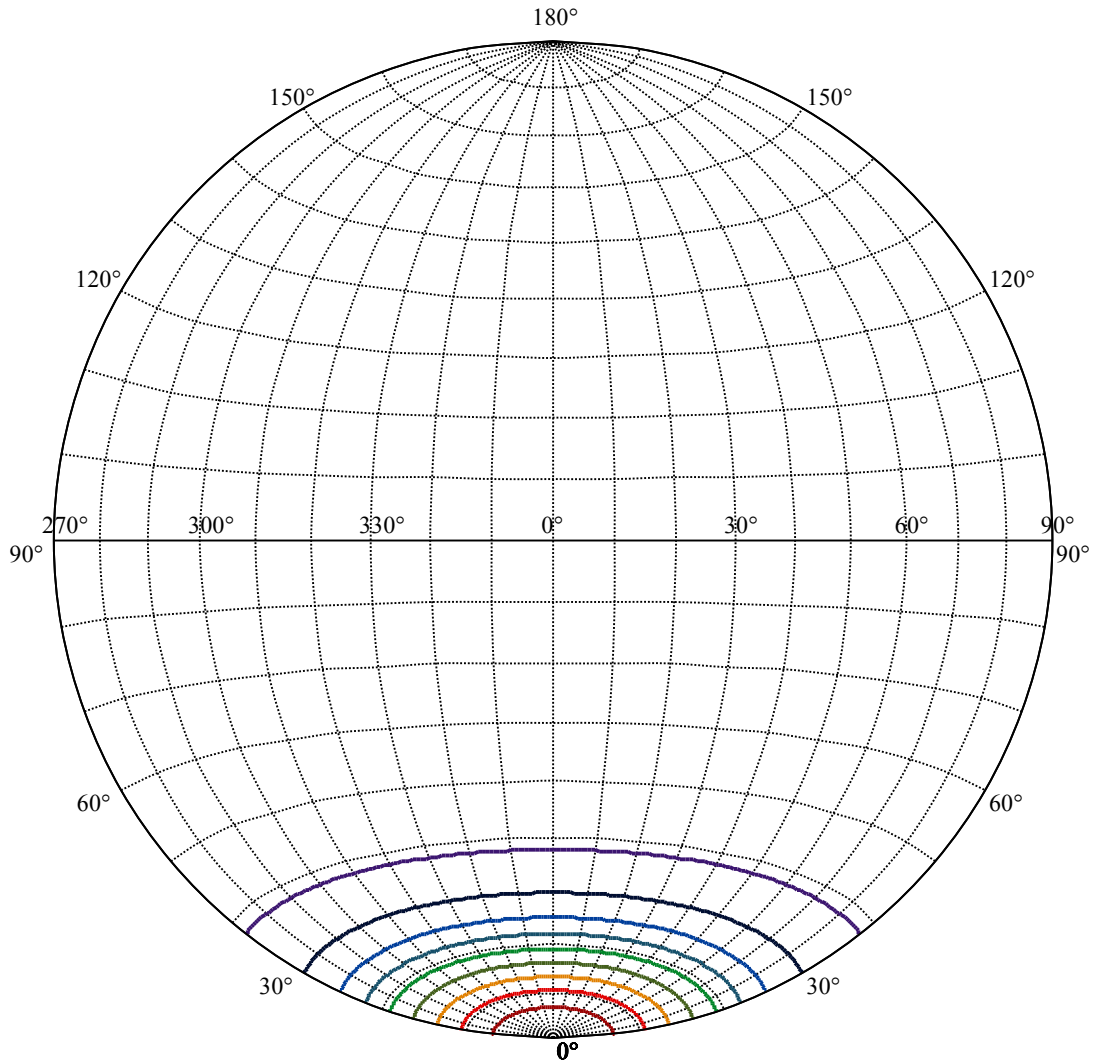
Beam Angle(50%Imax):C0/180Left:19.1 Right:19.1

:C90/270Left:19.1 Right:19.1





(10%I <sub>max</sub> ) 60.0778	—
(20%I <sub>max</sub> ) 120.156	—
(30%I <sub>max</sub> ) 180.233	—
(40%I <sub>max</sub> ) 240.311	—
(50%I <sub>max</sub> ) 300.389	—
(60%I <sub>max</sub> ) 360.467	—
(70%I <sub>max</sub> ) 420.545	—
(80%I <sub>max</sub> ) 480.622	—
(90%I <sub>max</sub> ) 540.7	—



House

[Unit:cd]

Road

**Imax:600.78**

(10%Imax) 60.0778

(20%Imax) 120.156

(30%Imax) 180.233

(40%Imax) 240.311

(50%Imax) 300.389

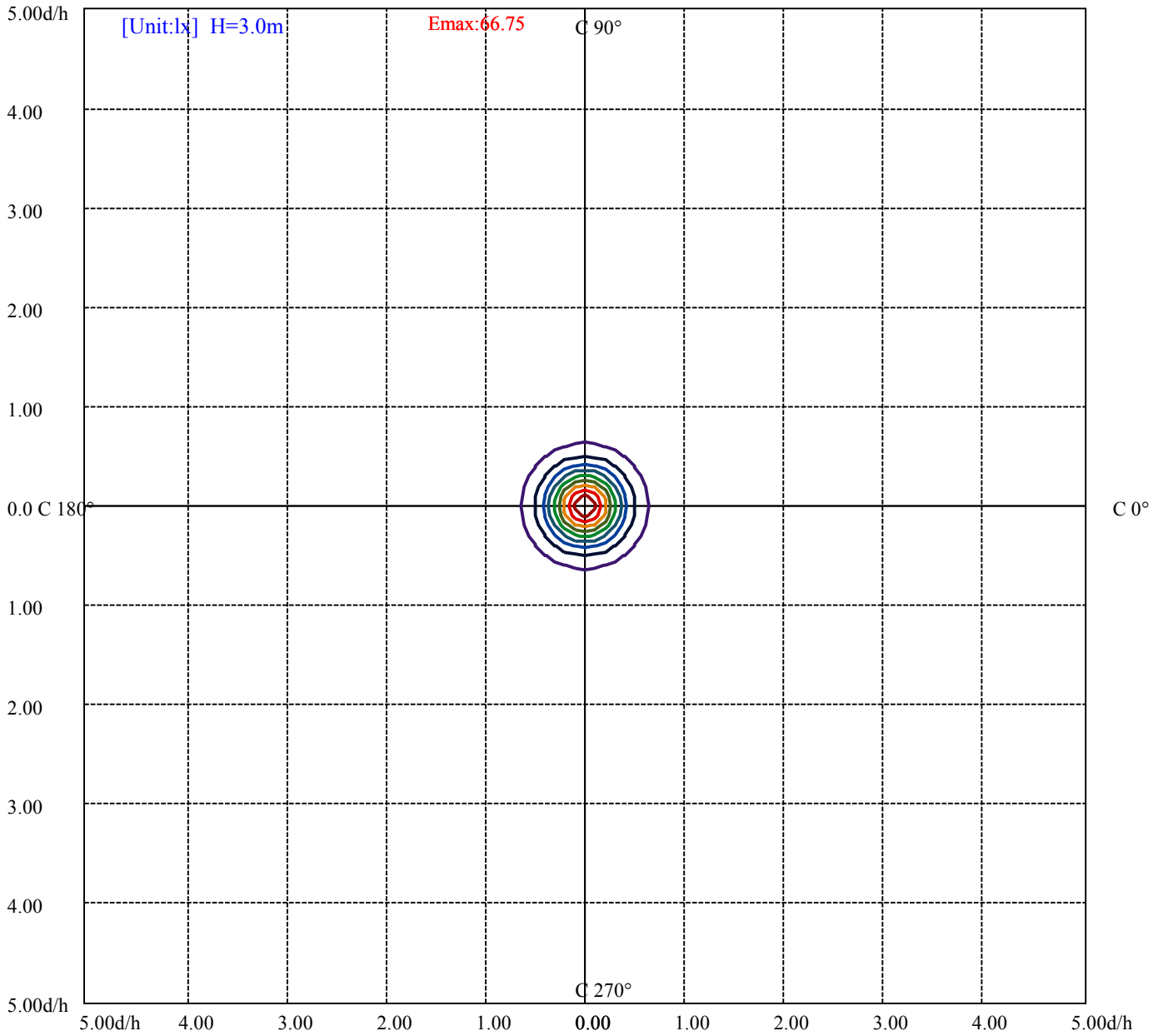
(60%Imax) 360.467

(70%Imax) 420.545

(80%Imax) 480.622

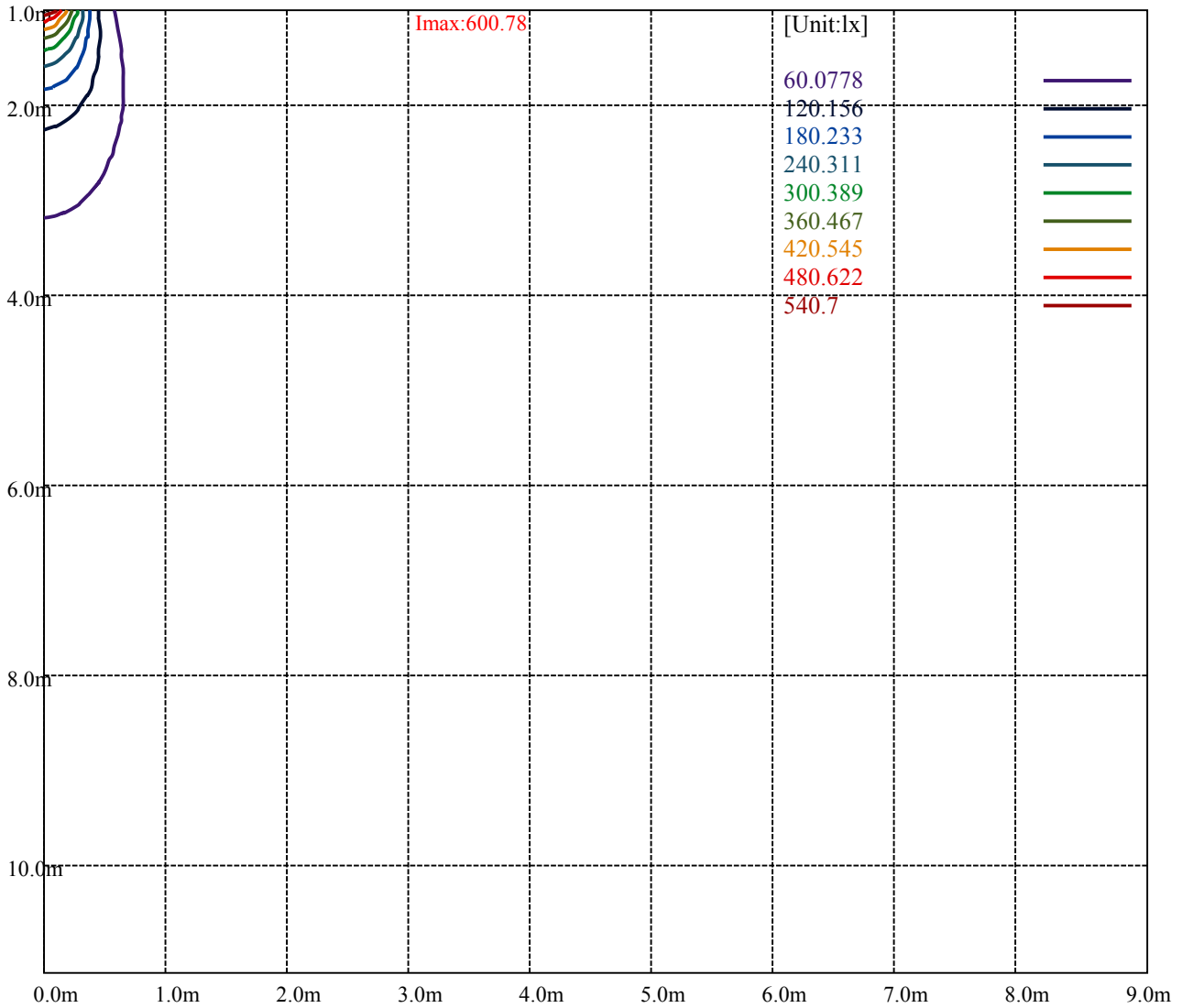
(90%Imax) 540.7





(10%Emax) 6.6753	—
(20%Emax) 13.35056	—
(30%Emax) 20.02589	—
(40%Emax) 26.70122	—
(50%Emax) 33.37656	—
(60%Emax) 40.05178	—
(70%Emax) 46.72711	—
(80%Emax) 53.40245	—
(90%Emax) 60.07778	—





Luminance Table

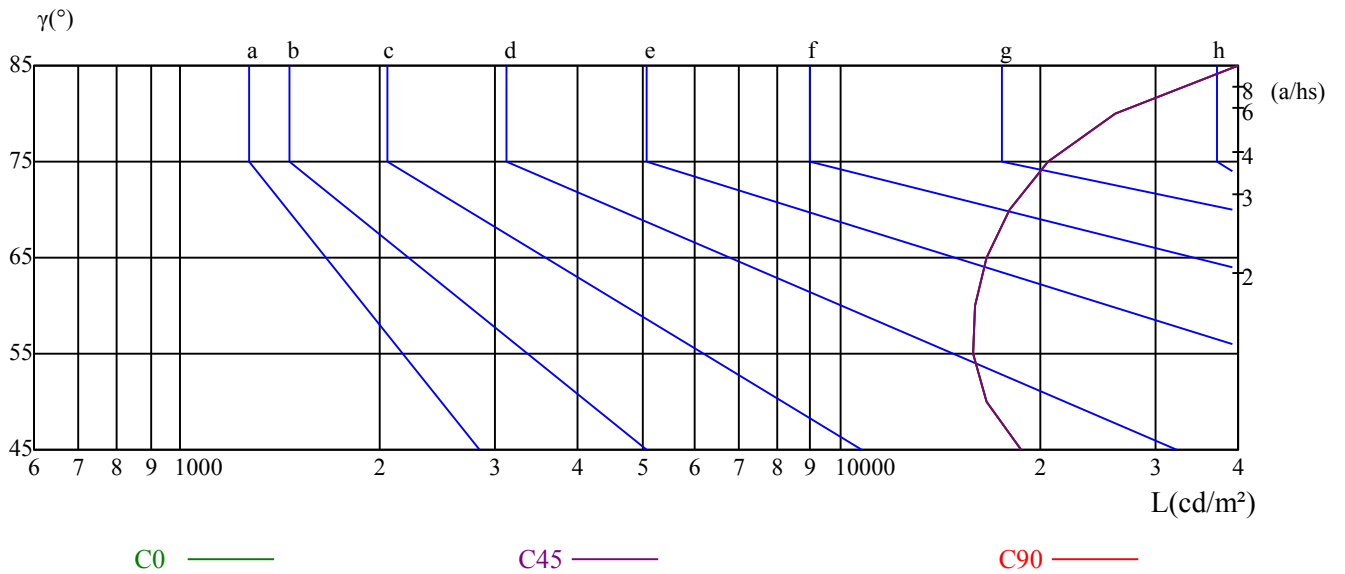
$\gamma$	45	50	55	60	65	70	75	80	85
C0	18726	16605	15858	16020	16631	17976	20647	25979	39982
C45	18726	16605	15858	16020	16631	17976	20647	25979	39982
C90	18726	16605	15858	16020	16631	17976	20647	25979	39982

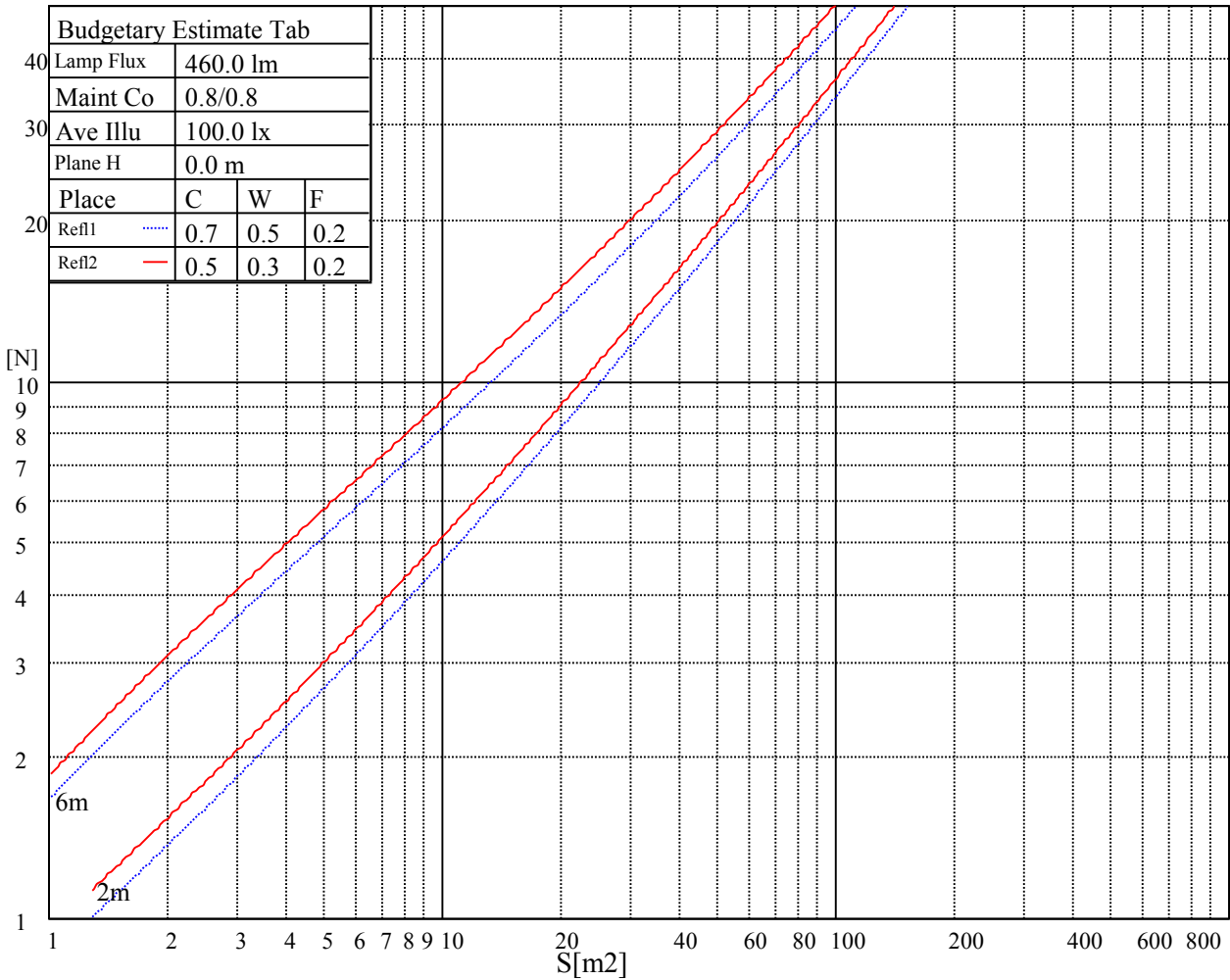
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
16631	16631	16631	20647	20647	20647	39982	39982	39982

Glare Table

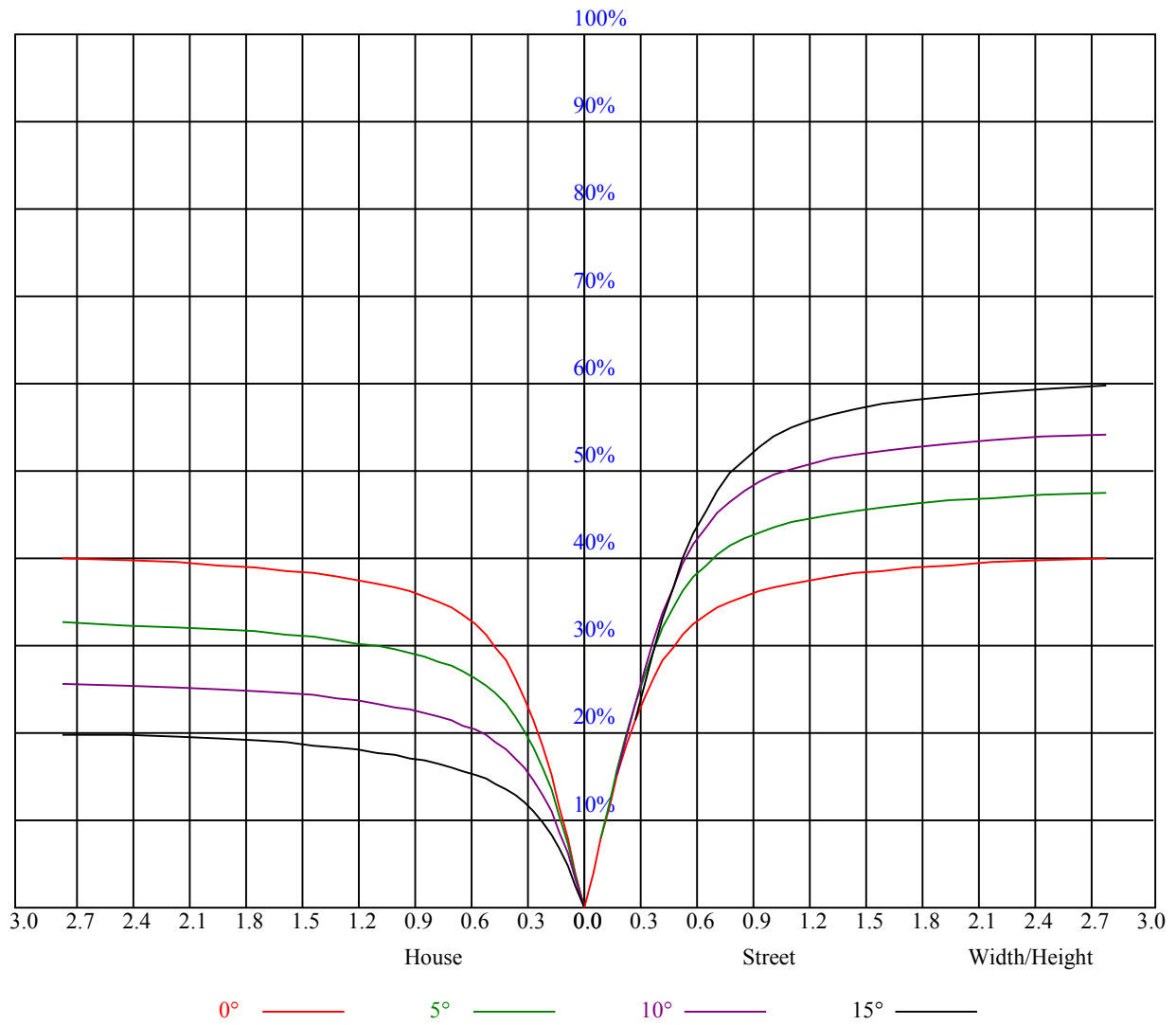
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	1.00	1.00	1.00	0.97	0.97	0.97	0.93	0.93	0.93	0.89	0.89	0.89	0.85	0.85	0.85	0.84
1	0.90	0.87	0.85	0.88	0.86	0.84	0.85	0.83	0.81	0.82	0.80	0.79	0.79	0.77	0.76	0.75
2	0.83	0.78	0.75	0.81	0.77	0.74	0.78	0.75	0.72	0.76	0.73	0.71	0.73	0.71	0.69	0.68
3	0.76	0.71	0.67	0.75	0.70	0.67	0.73	0.69	0.66	0.71	0.67	0.64	0.69	0.66	0.63	0.62
4	0.71	0.65	0.61	0.70	0.65	0.61	0.68	0.64	0.60	0.66	0.62	0.59	0.64	0.61	0.59	0.57
5	0.66	0.60	0.56	0.65	0.60	0.56	0.64	0.59	0.56	0.62	0.58	0.55	0.61	0.57	0.55	0.53
6	0.62	0.56	0.52	0.61	0.56	0.52	0.60	0.55	0.52	0.59	0.55	0.51	0.58	0.54	0.51	0.50
7	0.58	0.53	0.49	0.58	0.53	0.49	0.57	0.52	0.49	0.56	0.51	0.48	0.55	0.51	0.48	0.47
8	0.55	0.50	0.46	0.55	0.50	0.46	0.54	0.49	0.46	0.53	0.49	0.46	0.52	0.48	0.45	0.44
9	0.52	0.47	0.43	0.52	0.47	0.43	0.51	0.46	0.43	0.50	0.46	0.43	0.50	0.46	0.43	0.42
10	0.50	0.45	0.41	0.49	0.44	0.41	0.49	0.44	0.41	0.48	0.44	0.41	0.47	0.43	0.41	0.40



## 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	601.43	574.99	499.39	389.14	284.12	184.22	118.35	77.01	47.70
45.0	596.53	608.12	560.93	470.03	351.73	229.73	146.81	95.40	60.86
90.0	606.71	618.53	571.33	474.24	344.03	232.59	147.49	94.05	61.03
135.0	598.44	606.54	558.68	466.26	348.08	228.54	150.24	96.36	60.75
180.0	601.43	570.09	485.27	374.68	270.96	176.96	114.98	74.53	45.79
225.0	596.53	532.46	424.46	309.09	217.41	141.69	93.83	55.13	38.42
270.0	606.71	530.78	423.17	311.74	213.86	137.76	94.84	57.26	37.74
315.0	598.44	530.38	426.49	310.28	212.91	139.44	92.25	56.64	38.25
360.0	601.43	574.99	499.39	389.14	284.12	184.22	118.35	77.01	47.70
C/ $\gamma$ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	32.85	26.61	22.33	19.74	17.49	15.53	13.56	11.76	8.72
45.0	37.91	29.08	23.85	20.31	17.55	14.96	12.83	11.08	9.34
90.0	38.19	29.19	24.13	20.42	17.38	14.68	12.49	10.58	8.55
135.0	38.76	29.87	24.69	21.32	18.39	15.86	13.56	11.59	9.28
180.0	32.01	25.82	22.22	19.63	17.27	15.36	13.44	11.48	8.72
225.0	28.63	24.30	21.60	19.58	17.44	15.69	13.95	11.42	8.49
270.0	28.07	24.36	21.83	19.91	18.00	16.09	14.23	11.87	8.44
315.0	28.41	24.24	21.26	19.29	17.04	14.79	12.83	10.46	8.16
360.0	32.85	26.61	22.33	19.74	17.49	15.53	13.56	11.76	8.72
C/ $\gamma$ (°)	90.0								
0.0	4.73								
45.0	5.29								
90.0	5.01								
135.0	5.68								
180.0	5.01								
225.0	4.56								
270.0	4.50								
315.0	4.28								
360.0	4.73								