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Nata

LumCAT: 1689-M	
Luminaire:92.70.123.00	
Report No: NATA0100	Voltage(V): 31.7300
Test No: GC20190903	Current(A): 0.1970
LampCAT: XICATO XOB LES 6MM	Power (W): 6.2500
Lamp flux(lm): 702.8	PF: 0.0000
Number of Lamps: 1	Ballast type: DC
Length(mm): 46	Width(mm): 46
Phm Type: C	Height(mm): 0

Photometric Results

Lumens(lm): 639.17
Efficiency(%): 90.95%
Lumens(lm)/Power(W): 102.27
Central intensity(cd): 607.402
Maximum intensity(cd): 607.402
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=65.4
 [C90/270]Total=65.4
Field angle(10%Imax): [C0/180]Total=93.1
 [C90/270]Total=93.1
Maximum s/h(1/2): C0_180=0.89 C90_270=0.89
Maximum s/h(1/4): C0_180=1.00 C90_270=1.00
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 90.95%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.560%

Equipment: GMS1980
Temperature(°C): 25.0

Date: 2019/9/2
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.50

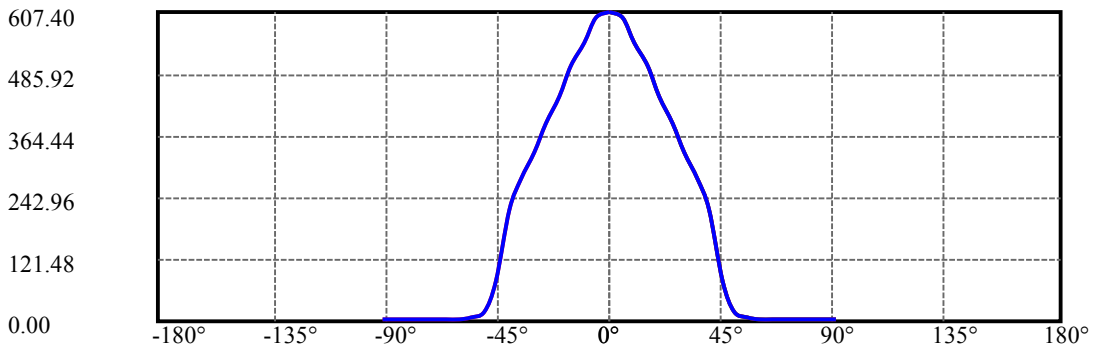
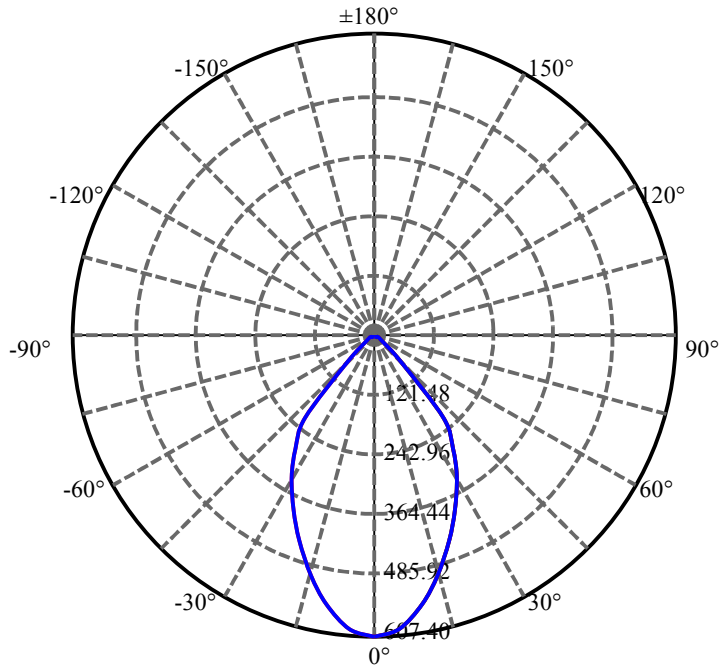
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	607.402	0.000	0	.000%	.000%
5.0	594.204	14.365	14.365	2.044%	2.247%
10.0	548.339	40.872	55.237	5.816%	8.642%
15.0	500.295	62.204	117.441	8.851%	18.374%
20.0	441.541	77.621	195.062	11.044%	30.518%
25.0	387.345	86.935	281.997	12.370%	44.119%
30.0	332.606	91.110	373.107	12.964%	58.373%
35.0	279.113	90.080	463.187	12.817%	72.466%
40.0	217.638	82.879	546.066	11.793%	85.433%
45.0	79.256	54.972	601.039	7.822%	94.034%
50.0	18.626	19.778	620.817	2.814%	97.128%
55.0	8.747	5.952	626.769	.847%	98.059%
60.0	5.112	3.203	629.972	.456%	98.560%
65.0	3.614	2.121	632.093	.302%	98.892%
70.0	2.953	1.663	633.756	.237%	99.152%
75.0	2.609	1.454	635.21	.207%	99.380%
80.0	2.447	1.353	636.563	.192%	99.591%
85.0	2.391	1.314	637.877	.187%	99.797%
90.0	2.348	1.298	639.175	.185%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	373.11	53.09%	58.37%
0-40	546.07	77.70%	85.43%
0-60	629.97	89.64%	98.56%
0-90	637.88	90.76%	99.80%
0-120	637.88	90.76%	99.80%
0-180	639.17	90.95%	100.00%
60-90	11.11	1.58%	1.74%
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%
0-37.91	511.34	72.76%	80.00%

ZONAL LUMEN SUMMARY

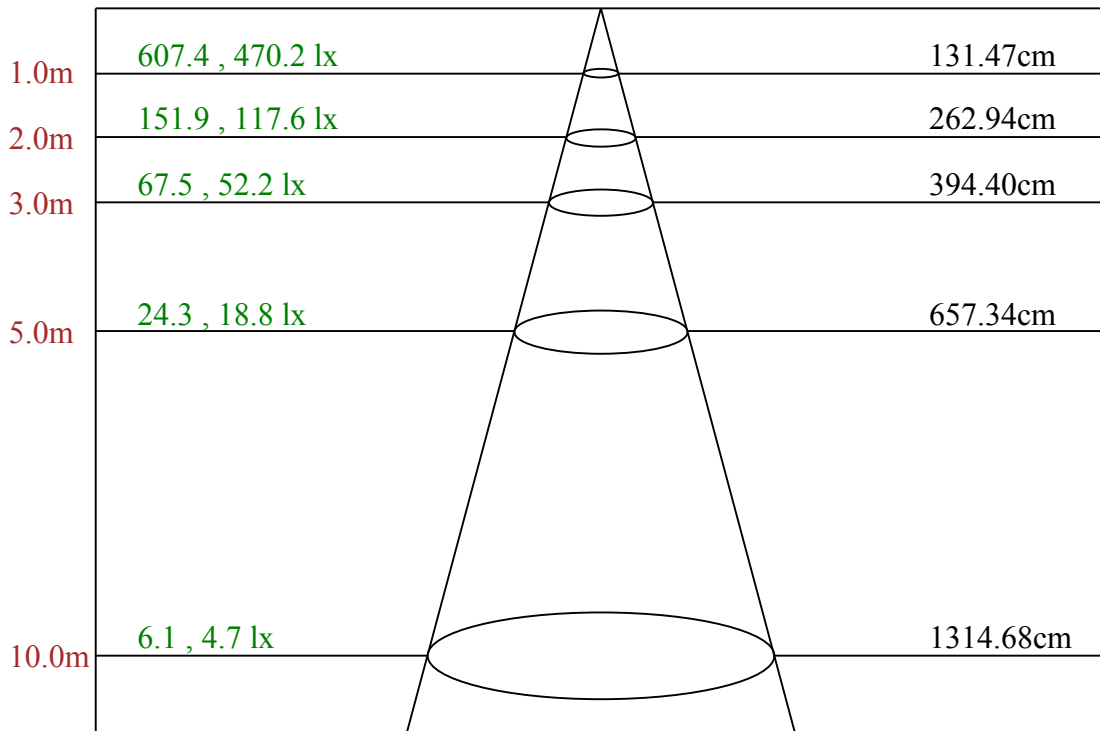
0-10	55.24
10-20	139.82
20-30	178.05
30-40	172.96
40-50	74.75
50-60	9.16
60-70	3.78
70-80	2.81
80-90	1.31
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00



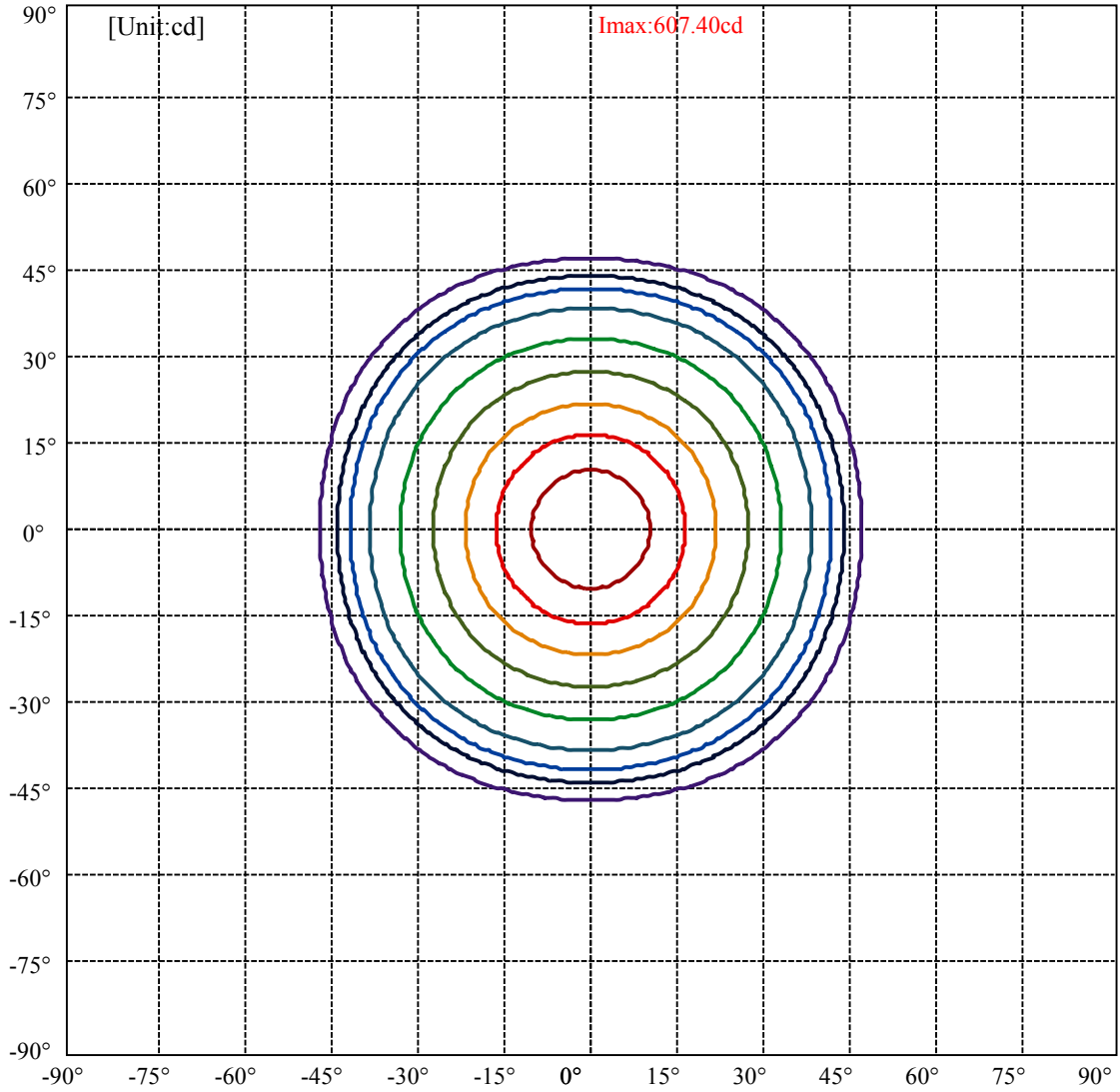
C0(Max): —————
C0/C180: —————
C90/C270: —————

Field angle(10%Imax):C0/180Left:46.5 Right:46.5
:C90/270Left:46.5 Right:46.5

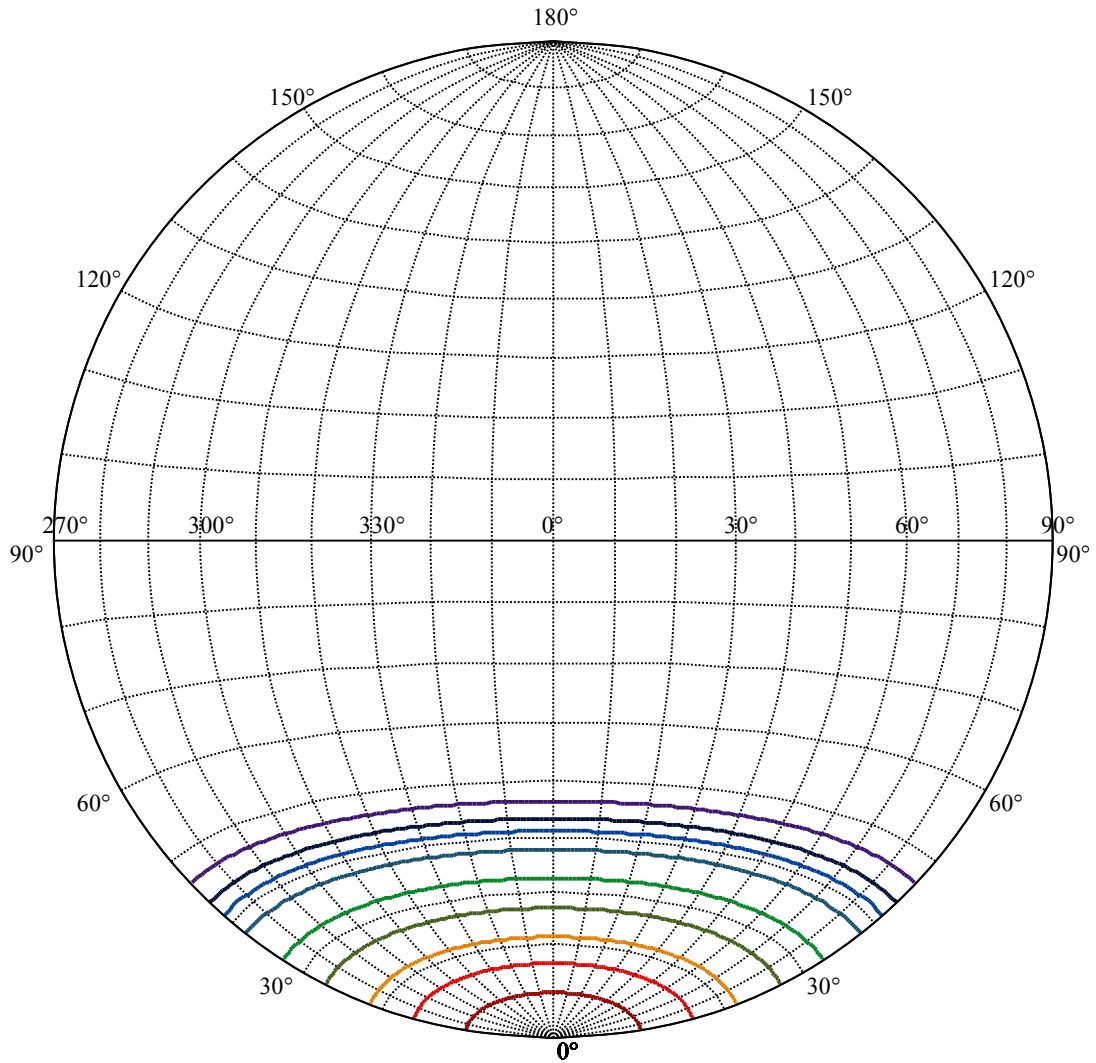
Beam Angle(50%Imax):C0/180Left:32.7 Right:32.7
:C90/270Left:32.7 Right:32.7



Max , Ave Beam angle of C0 plane 66.64



(10%Imax) 60.7402	—
(20%Imax) 121.48	—
(30%Imax) 182.22	—
(40%Imax) 242.961	—
(50%Imax) 303.701	—
(60%Imax) 364.441	—
(70%Imax) 425.181	—
(80%Imax) 485.921	—
(90%Imax) 546.661	—



House

[Unit:cd]

Road

Imax:607.40

(10%Imax) 60.7402

(20%Imax) 121.48

(30%Imax) 182.22

(40%Imax) 242.961

(50%Imax) 303.701

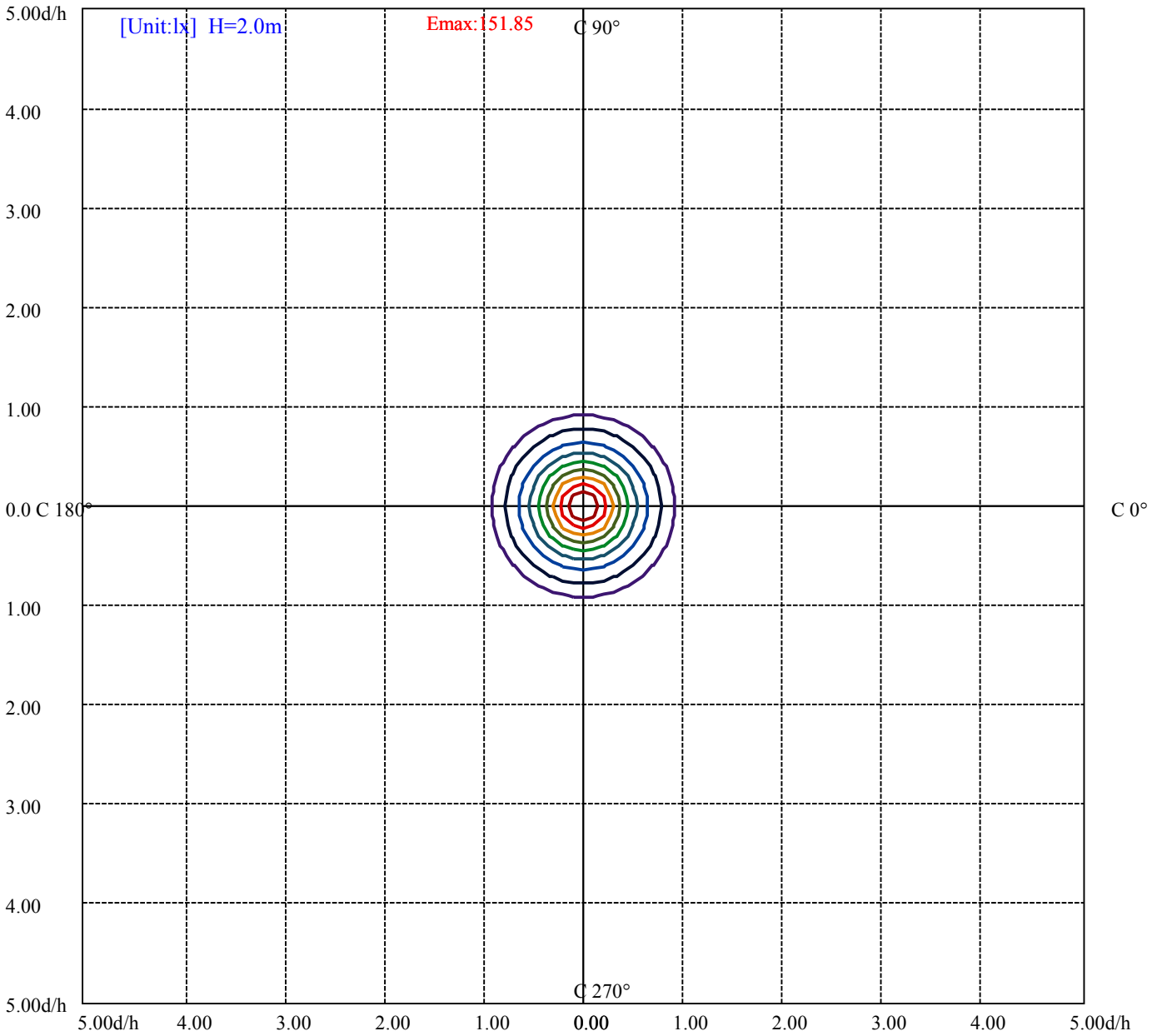
(60%Imax) 364.441

(70%Imax) 425.181

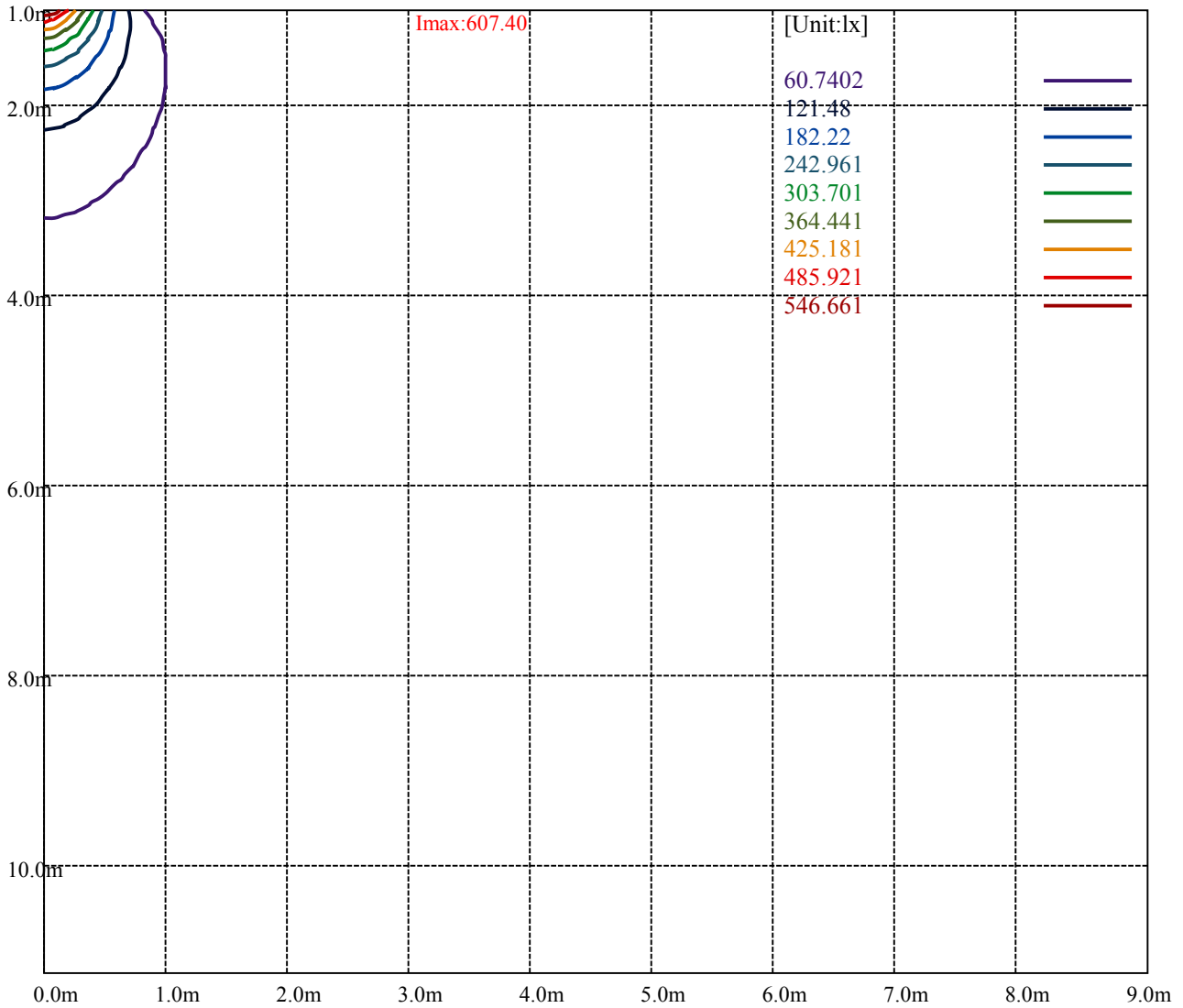
(80%Imax) 485.921

(90%Imax) 546.661





- (10%Emax) 15.18503
- (20%Emax) 30.37
- (30%Emax) 45.555
- (40%Emax) 60.74
- (50%Emax) 75.92525
- (60%Emax) 91.11025
- (70%Emax) 106.2952
- (80%Emax) 121.4802
- (90%Emax) 136.6653



Luminance Table

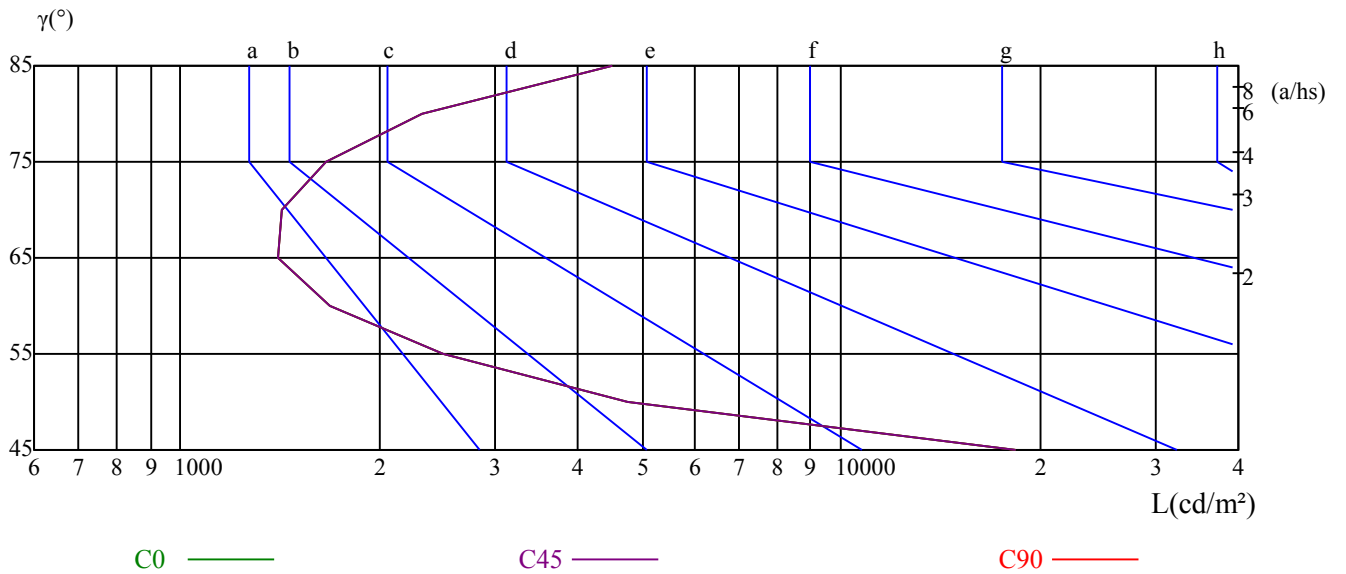
γ	45	50	55	60	65	70	75	80	85
C0	18423	4763	2507	1680	1406	1419	1657	2316	4508
C45	18423	4763	2507	1680	1406	1419	1657	2316	4508
C90	18423	4763	2507	1680	1406	1419	1657	2316	4508

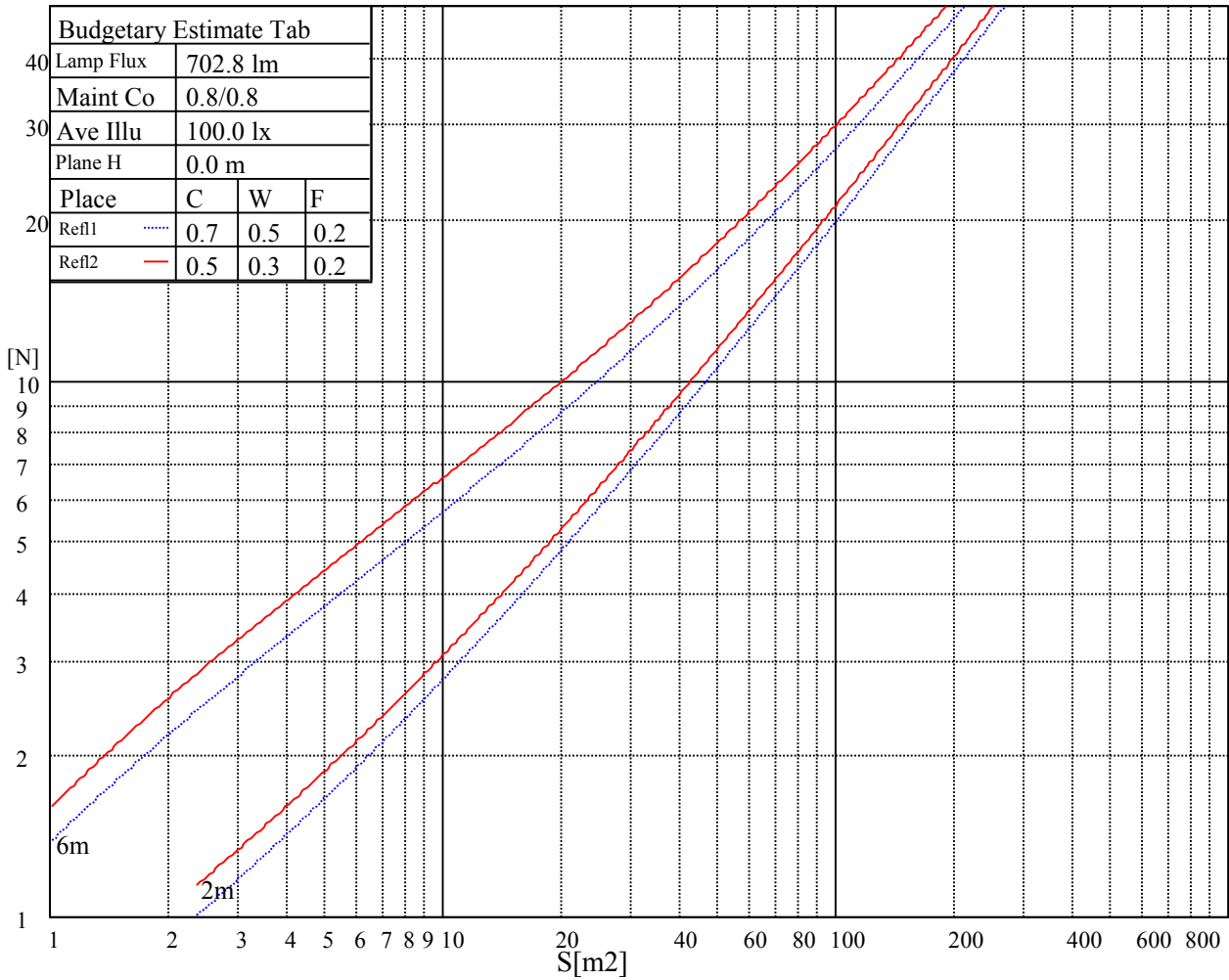
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
1406	1406	1406	1657	1657	1657	4508	4508	4508

Glare Table

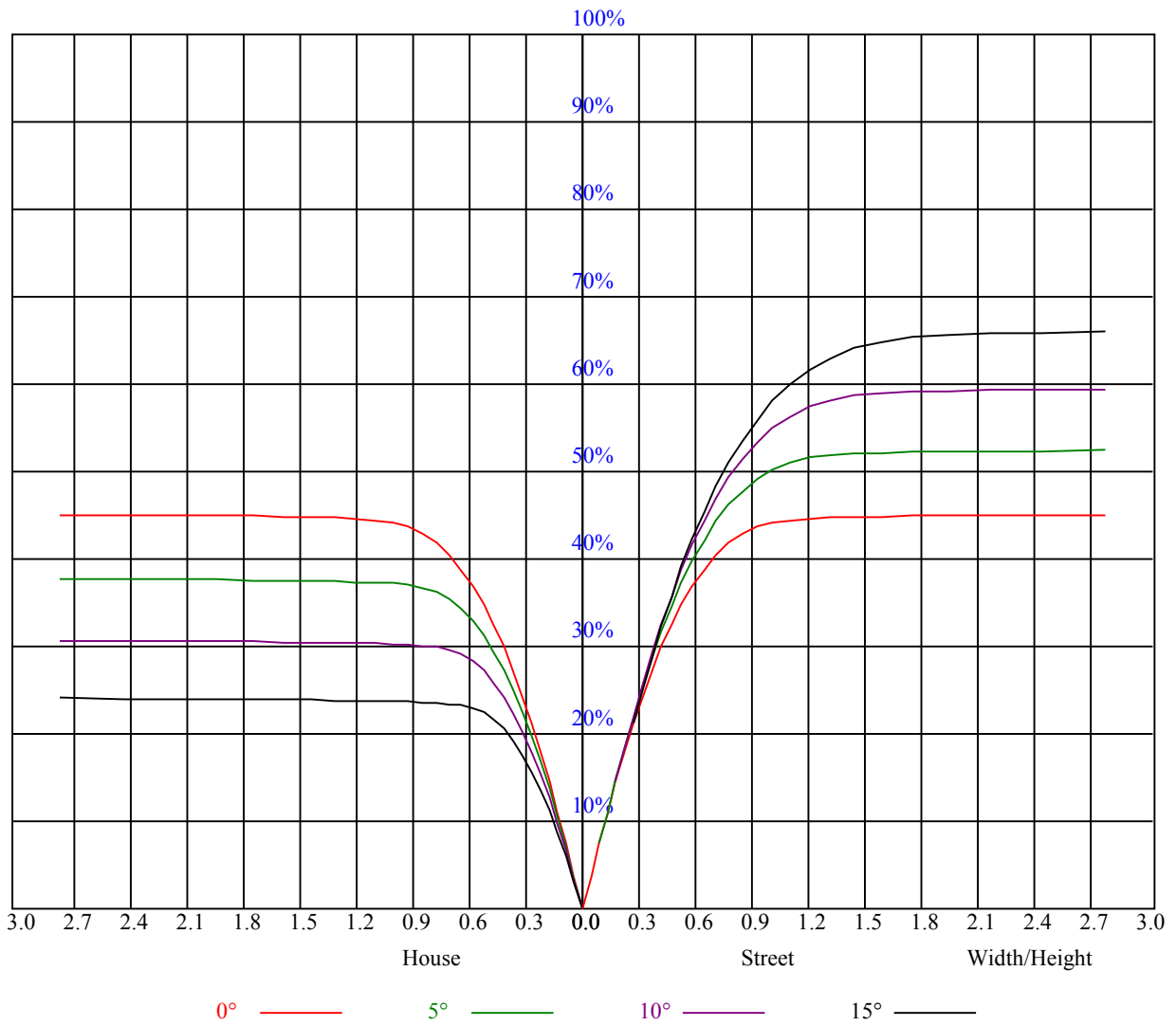
Glare	Quality	Service Values Illuminance(lx)							
		a	b	c	d	e	f	g	h
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	1.08	1.08	1.08	1.06	1.06	1.06	1.01	1.01	1.01	0.97	0.97	0.97	0.93	0.93	0.93	0.91
1	1.00	0.97	0.95	0.98	0.96	0.94	0.94	0.92	0.91	0.91	0.89	0.88	0.88	0.87	0.86	0.84
2	0.92	0.88	0.85	0.91	0.87	0.84	0.88	0.85	0.82	0.85	0.82	0.80	0.82	0.80	0.79	0.77
3	0.85	0.80	0.76	0.84	0.79	0.76	0.81	0.78	0.74	0.79	0.76	0.73	0.77	0.74	0.72	0.71
4	0.79	0.73	0.69	0.78	0.73	0.69	0.76	0.71	0.68	0.74	0.70	0.67	0.72	0.69	0.66	0.65
5	0.73	0.67	0.63	0.72	0.67	0.63	0.71	0.66	0.62	0.69	0.65	0.62	0.68	0.64	0.61	0.60
6	0.68	0.62	0.58	0.67	0.62	0.58	0.66	0.61	0.57	0.65	0.60	0.57	0.63	0.60	0.56	0.55
7	0.63	0.58	0.53	0.63	0.57	0.53	0.62	0.57	0.53	0.60	0.56	0.53	0.59	0.55	0.52	0.51
8	0.59	0.53	0.49	0.59	0.53	0.49	0.58	0.53	0.49	0.57	0.52	0.49	0.56	0.52	0.49	0.47
9	0.56	0.50	0.46	0.55	0.50	0.46	0.54	0.49	0.46	0.53	0.49	0.45	0.53	0.48	0.45	0.44
10	0.52	0.46	0.43	0.52	0.46	0.43	0.51	0.46	0.43	0.50	0.46	0.42	0.50	0.45	0.42	0.41



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	603.17	582.69	526.44	475.20	419.18	368.38	312.13	260.78	181.91
45.0	609.92	591.24	532.07	488.81	424.18	368.94	318.54	268.20	202.78
90.0	609.69	590.57	541.46	496.52	432.73	380.25	328.84	276.19	218.93
135.0	606.83	604.63	580.28	524.93	467.21	415.24	358.76	300.99	252.28
180.0	603.17	606.83	571.22	518.57	461.59	404.89	349.43	296.21	244.91
225.0	609.92	602.66	560.59	513.11	456.47	402.47	347.01	285.75	238.11
270.0	609.69	597.83	552.38	507.94	453.88	395.89	337.39	282.71	231.53
315.0	606.83	577.18	522.28	477.28	417.09	362.70	308.76	262.07	170.66
360.0	603.17	582.69	526.44	475.20	419.18	368.38	312.13	260.78	181.91
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	32.68	14.91	8.10	4.95	3.49	2.87	2.53	2.36	2.36
45.0	53.72	16.76	7.88	5.01	3.60	2.87	2.59	2.42	2.36
90.0	68.23	17.83	7.76	4.56	3.32	2.81	2.59	2.53	2.48
135.0	133.37	22.78	10.24	5.29	3.66	3.04	2.64	2.48	2.36
180.0	129.99	22.89	9.62	5.01	3.60	2.98	2.70	2.48	2.36
225.0	102.88	19.80	9.23	5.63	3.88	3.15	2.70	2.48	2.36
270.0	81.90	19.58	9.62	5.68	3.94	3.09	2.64	2.48	2.48
315.0	31.28	14.46	7.54	4.78	3.43	2.81	2.48	2.36	2.36
360.0	32.68	14.91	8.10	4.95	3.49	2.87	2.53	2.36	2.36
C/γ(°)	90.0								
0.0	2.36								
45.0	2.36								
90.0	2.31								
135.0	2.36								
180.0	2.31								
225.0	2.36								
270.0	2.36								
315.0	2.36								
360.0	2.36								