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Nata

LumCAT: LN01D03536DA-N

Luminaire: 97.70.267.00

Report No: 200623-B016

Test No: 200623-C016

LampCAT: LUMINUS CXM-3-AC40

Lamp flux(lm): 332.9

Number of Lamps: 1

Length(mm): 0

Phm Type: C

Voltage(V): 36.1900

Current(A): 0.1000

Power (W): 3.6190

PF: 0.0000

Ballast type: DC

Width(mm): 0

Height(mm): 0

Photometric Results

Lumens(lm): 298.85

Efficiency(%): 89.78%

Lumens(lm)/Power(W): 82.58

Central intensity(cd): 695.672

Maximum intensity(cd): 695.672

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=36.7

[C90/270]Total=36.7

Field angle(10%Imax): [C0/180]Total=59.1

[C90/270]Total=59.1

Maximum s/h(1/2): C0_180=0.61 C90_270=0.61

Maximum s/h(1/4): C0_180=0.59 C90_270=0.59

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 89.78%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 97.234%

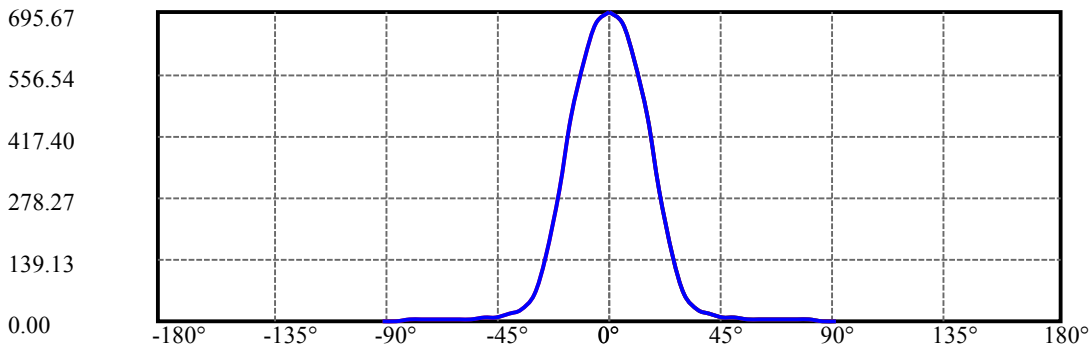
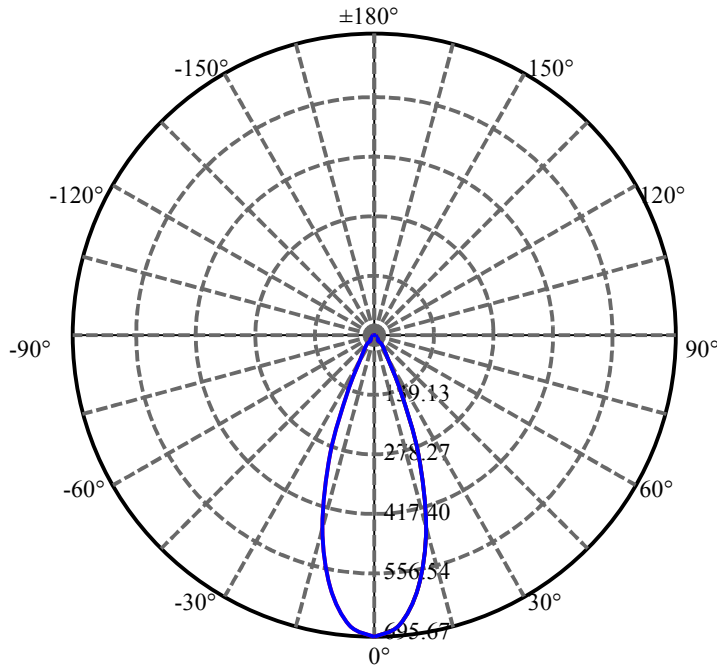
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	695.672	0.000	0	.000%	.000%
5.0	670.950	16.338	16.338	4.908%	5.467%
10.0	587.637	45.024	61.361	13.525%	20.532%
15.0	458.473	62.055	123.416	18.642%	41.296%
20.0	292.303	61.874	185.29	18.588%	62.000%
25.0	144.865	45.851	231.141	13.774%	77.342%
30.0	61.910	26.168	257.309	7.861%	86.098%
35.0	27.780	13.208	270.516	3.968%	90.518%
40.0	16.214	7.340	277.856	2.205%	92.974%
45.0	10.013	4.856	282.712	1.459%	94.599%
50.0	6.785	3.394	286.107	1.020%	95.734%
55.0	4.795	2.518	288.625	.756%	96.577%
60.0	3.698	1.963	290.588	.590%	97.234%
65.0	3.052	1.641	292.229	.493%	97.783%
70.0	2.827	1.488	293.717	.447%	98.281%
75.0	3.495	1.652	295.369	.496%	98.834%
80.0	2.440	1.588	296.957	.477%	99.365%
85.0	1.617	1.102	298.06	.331%	99.734%
90.0	1.287	0.795	298.855	.239%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	257.31	77.30%	86.10%
0-40	277.86	83.47%	92.97%
0-60	290.59	87.30%	97.23%
0-90	298.06	89.54%	99.73%
0-120	298.06	89.54%	99.73%
0-180	298.85	89.78%	100.00%
60-90	9.44	2.83%	3.16%
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%
0-26.52	239.08	71.82%	80.00%

ZONAL LUMEN SUMMARY

0-10	61.36
10-20	123.93
20-30	72.02
30-40	20.55
40-50	8.25
50-60	4.48
60-70	3.13
70-80	3.24
80-90	1.10
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: —————

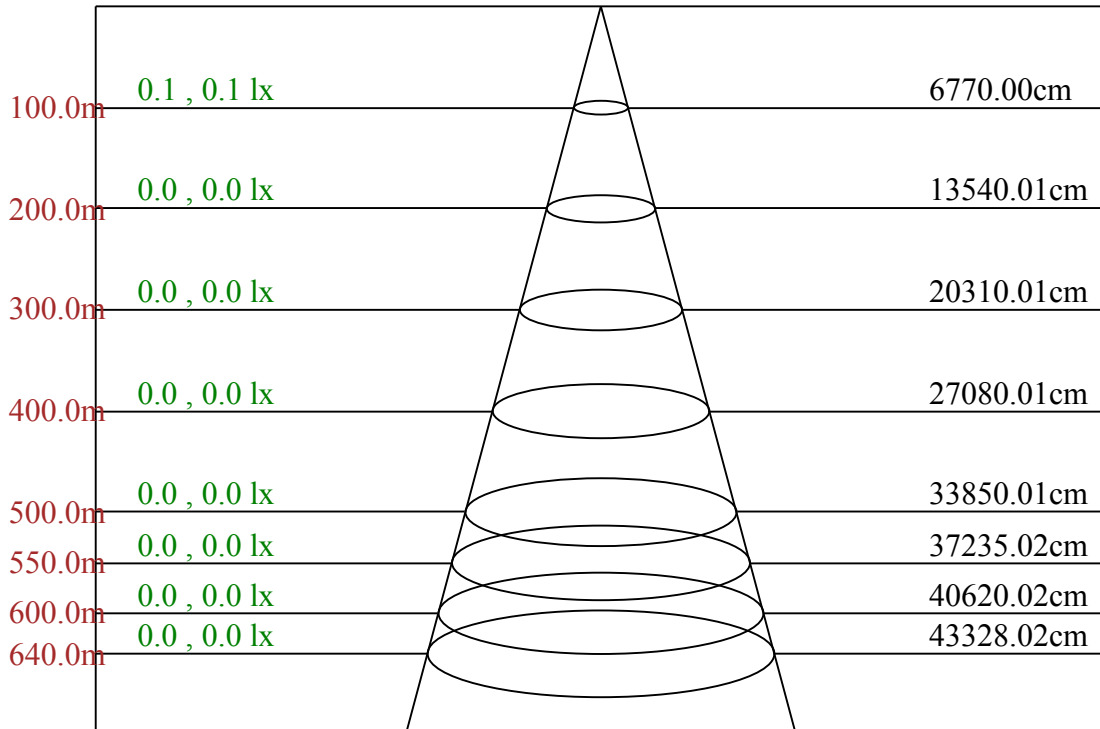
C90/C270: —————

Field angle(10%Imax):C0/180Left:29.5 Right:29.5

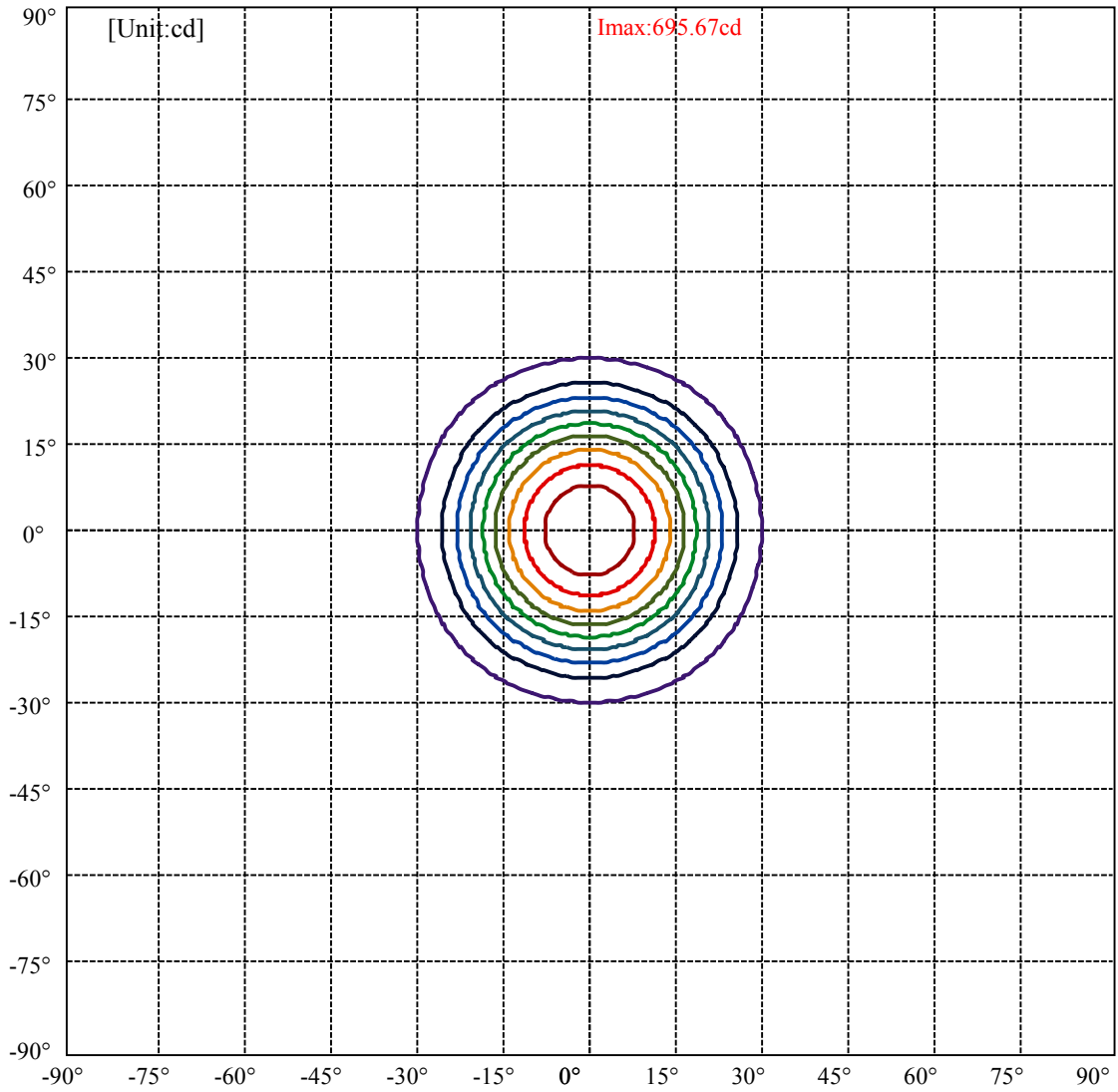
:C90/270Left:29.5 Right:29.5

Beam Angle(50%Imax):C0/180Left:18.3 Right:18.3

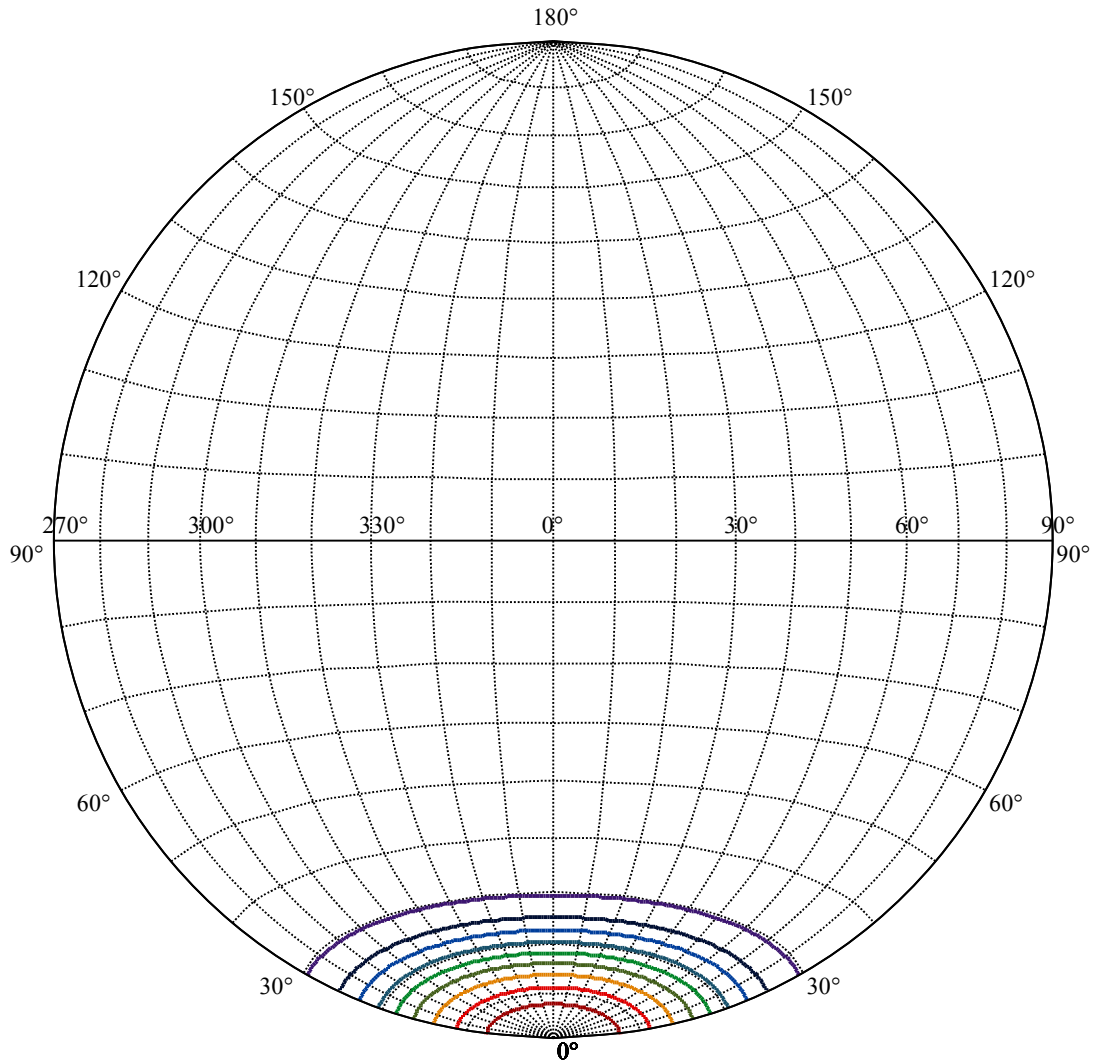
:C90/270Left:18.3 Right:18.3



Max , Ave Beam angle of C0 plane 37.40



(10%Imax) 69.5672	—
(20%Imax) 139.134	—
(30%Imax) 208.702	—
(40%Imax) 278.269	—
(50%Imax) 347.836	—
(60%Imax) 417.403	—
(70%Imax) 486.97	—
(80%Imax) 556.537	—
(90%Imax) 626.105	—



House

[Unit:cd]

Road

Imax:695.67

(10%Imax) 69.5672

(20%Imax) 139.134

(30%Imax) 208.702

(40%Imax) 278.269

(50%Imax) 347.836

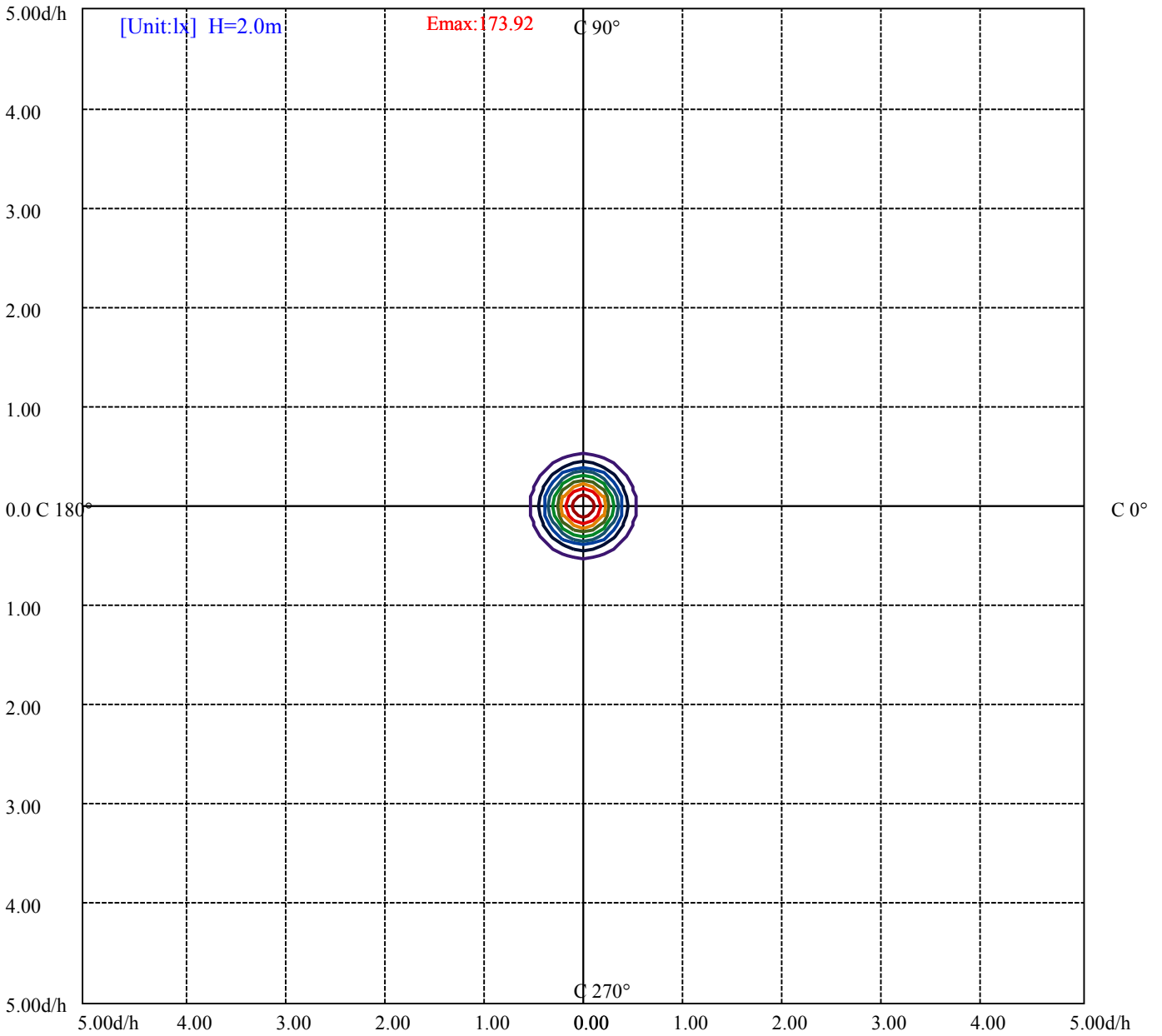
(60%Imax) 417.403

(70%Imax) 486.97

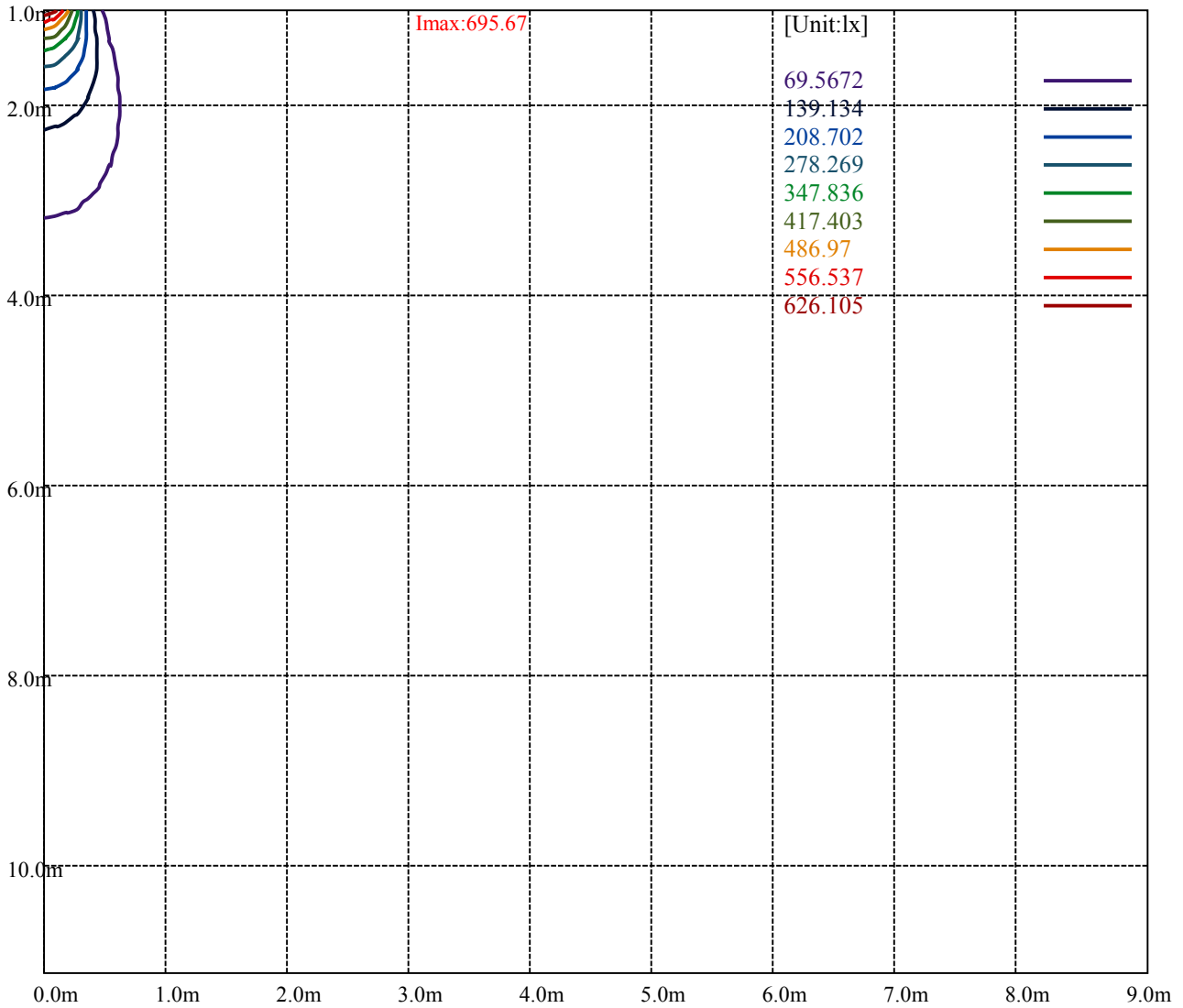
(80%Imax) 556.537

(90%Imax) 626.105





- (10%Emax) 17.39178
- (20%Emax) 34.7835
- (30%Emax) 52.17525
- (40%Emax) 69.567
- (50%Emax) 86.959
- (60%Emax) 104.3508
- (70%Emax) 121.7425
- (80%Emax) 139.1342
- (90%Emax) 156.526



Luminance Table

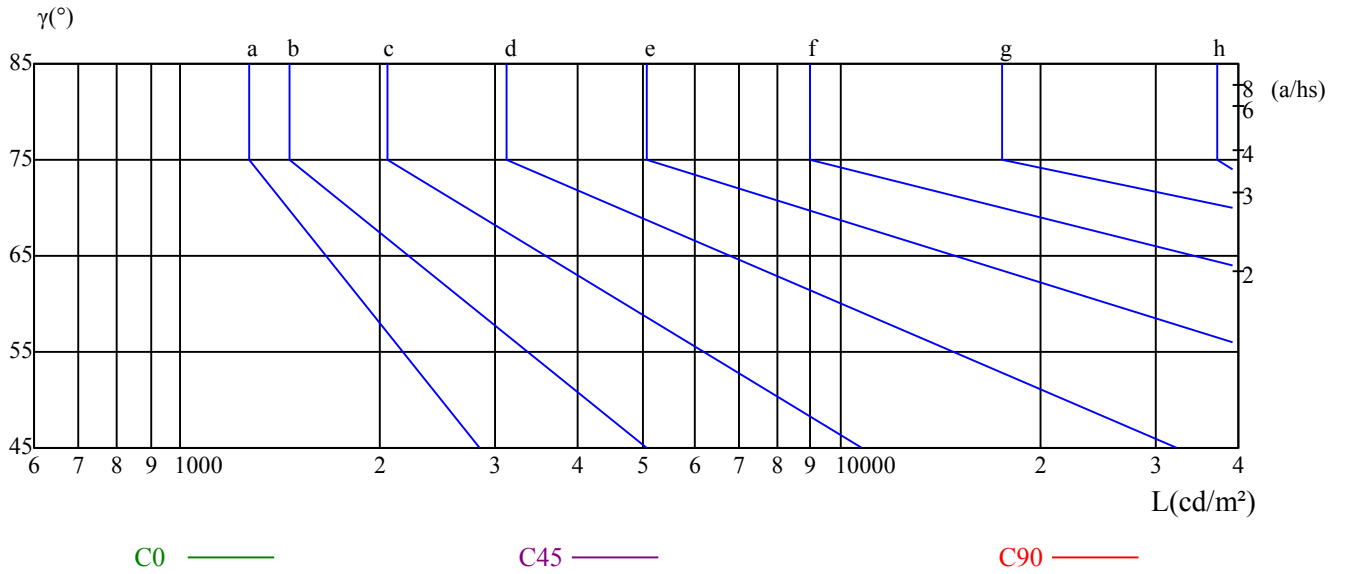
γ	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

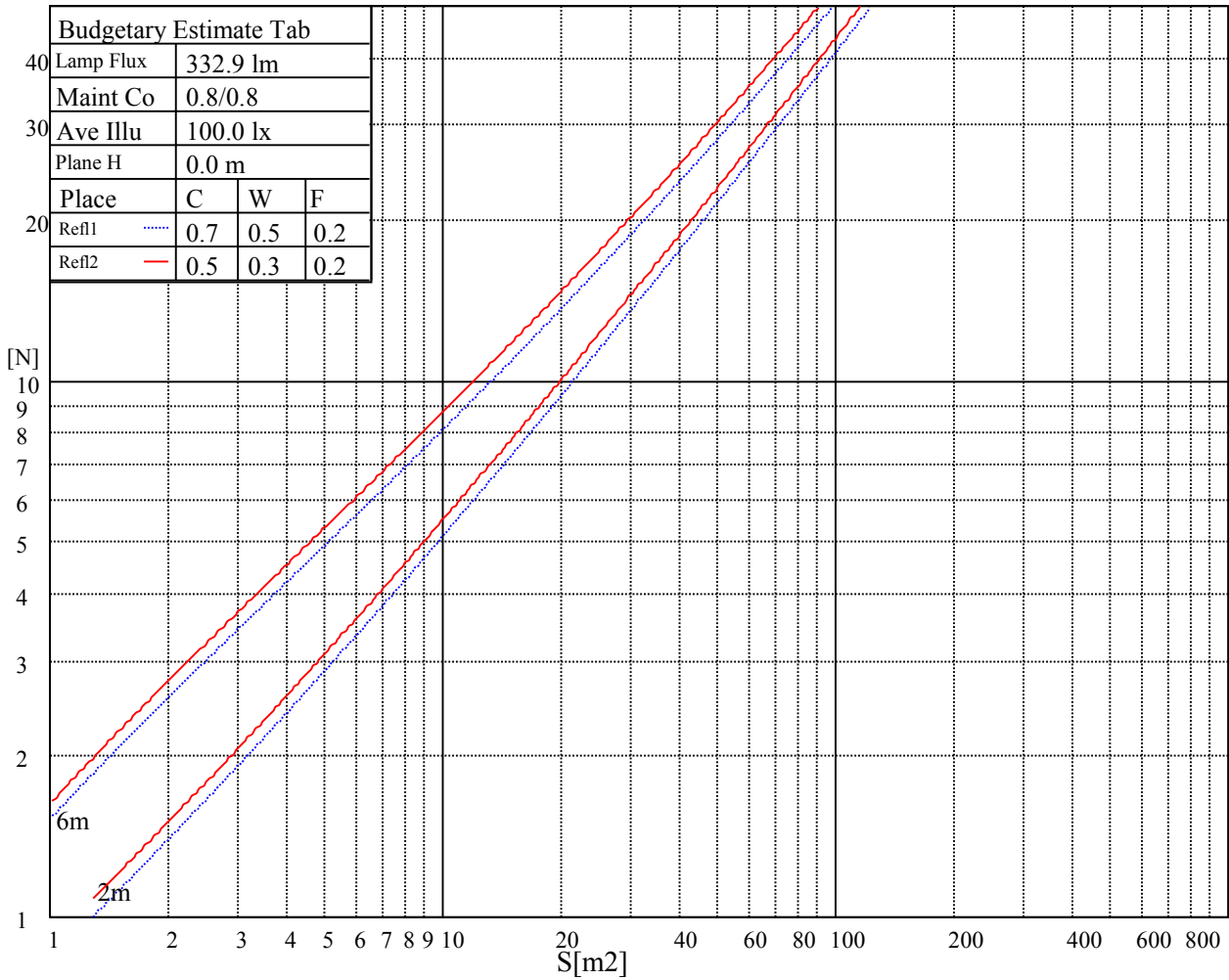
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
0	0	0	0	0	0	0	0	0

Glare Table

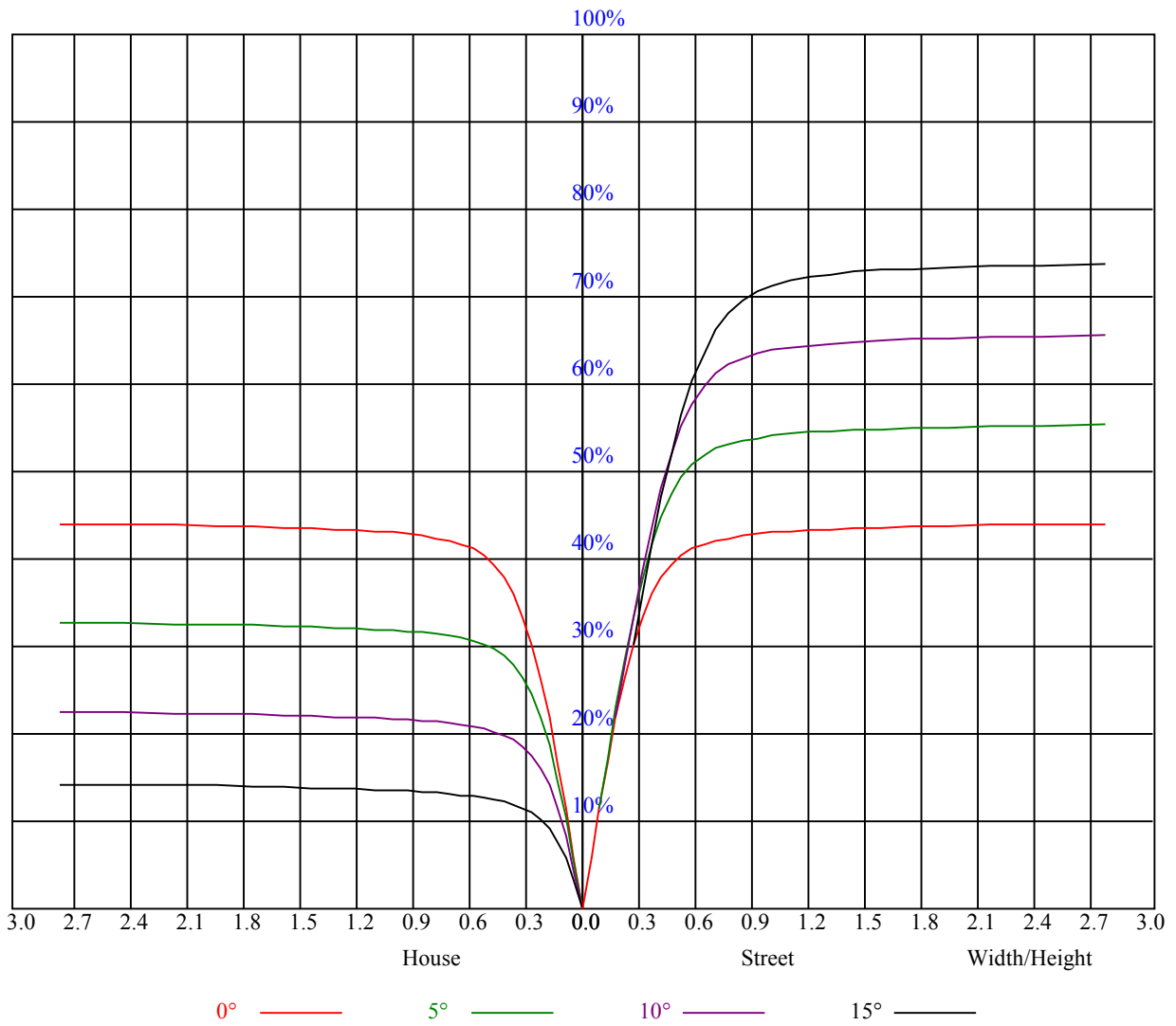
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	1.07	1.07	1.07	1.04	1.04	1.04	1.00	1.00	1.00	0.96	0.96	0.96	0.92	0.92	0.92	0.90
1	1.00	0.98	0.96	0.98	0.96	0.94	0.94	0.93	0.91	0.91	0.90	0.89	0.88	0.87	0.86	0.84
2	0.94	0.90	0.88	0.92	0.89	0.87	0.89	0.87	0.85	0.87	0.85	0.83	0.84	0.83	0.81	0.80
3	0.89	0.85	0.81	0.87	0.84	0.81	0.85	0.82	0.79	0.83	0.80	0.78	0.81	0.79	0.77	0.76
4	0.84	0.80	0.76	0.83	0.79	0.76	0.81	0.78	0.75	0.79	0.76	0.74	0.78	0.75	0.73	0.72
5	0.80	0.75	0.72	0.79	0.75	0.72	0.77	0.74	0.71	0.76	0.73	0.70	0.75	0.72	0.70	0.69
6	0.76	0.72	0.68	0.75	0.71	0.68	0.74	0.70	0.68	0.73	0.70	0.67	0.72	0.69	0.67	0.66
7	0.73	0.68	0.65	0.72	0.68	0.65	0.71	0.67	0.64	0.70	0.67	0.64	0.69	0.66	0.64	0.63
8	0.70	0.65	0.62	0.69	0.65	0.62	0.68	0.64	0.62	0.67	0.64	0.61	0.67	0.64	0.61	0.60
9	0.67	0.62	0.59	0.67	0.62	0.59	0.66	0.62	0.59	0.65	0.61	0.59	0.64	0.61	0.59	0.58
10	0.64	0.60	0.57	0.64	0.60	0.57	0.63	0.59	0.57	0.63	0.59	0.57	0.62	0.59	0.57	0.56



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	693.79	673.03	595.46	481.33	306.90	148.22	61.93	28.63	16.65
45.0	694.24	700.93	634.28	480.49	273.15	127.13	51.24	24.24	15.08
90.0	699.47	703.69	617.06	449.61	249.53	109.63	42.64	22.78	13.89
135.0	695.19	698.68	630.28	500.40	310.61	156.60	62.49	27.45	16.31
180.0	693.79	667.52	584.44	460.46	297.90	146.25	61.31	27.45	16.26
225.0	694.24	644.40	555.13	441.56	297.79	155.64	71.33	29.70	16.88
270.0	699.47	645.19	549.23	435.26	324.39	176.23	82.52	33.64	18.28
315.0	695.19	634.16	535.22	418.67	278.16	139.22	61.82	28.35	16.37
360.0	693.79	673.03	595.46	481.33	306.90	148.22	61.93	28.63	16.65
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	10.35	7.20	4.89	3.77	3.09	2.70	2.70	2.03	1.63
45.0	9.17	6.19	4.61	3.54	2.98	2.59	2.59	1.97	1.52
90.0	8.61	5.96	4.28	3.38	2.87	3.71	5.91	2.19	1.52
135.0	10.13	6.75	4.78	3.71	2.98	2.64	2.36	1.97	1.52
180.0	10.24	6.86	4.89	3.83	3.15	2.76	2.48	2.03	1.63
225.0	10.29	7.14	4.95	3.77	3.15	2.70	2.81	2.31	1.74
270.0	11.19	7.31	5.12	3.88	3.15	2.87	6.75	5.12	1.86
315.0	10.13	6.86	4.84	3.71	3.04	2.64	2.36	1.91	1.52
360.0	10.35	7.20	4.89	3.77	3.09	2.70	2.70	2.03	1.63
C/ γ (°)	90.0								
0.0	1.35								
45.0	1.24								
90.0	1.24								
135.0	1.29								
180.0	1.35								
225.0	1.29								
270.0	1.29								
315.0	1.24								
360.0	1.35								