
LumCAT: LED-CL3-S-24W 4000K Ra80

Luminaire:

Report No:

Voltage(V): 230.1000

Test No:

Current(A): 0.1290

LampCAT:

Power (W): 24.7800

Lamp flux(lm): -1.0

PF: 0.8330

Number of Lamps: 1

Ballast type:

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 2138.09

Efficiency(%): 0.00%

Lumens(lm)/Power(W): 86.28

Central intensity(cd): 676.237

Maximum intensity(cd): 681.502

Angle of maximum intensity: C=45.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=117.7

[C90/270]Total=111.3

Field angle(10%Imax): [C0/180]Total=166.6

[C90/270]Total=163.7

Maximum s/h(1/2): C0_180=1.28 C90_270=1.24

Maximum s/h(1/4): C0_180=1.82 C90_270=1.34

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 0.00%

Up flux rate of LUM(%): 5.96%

Down flux rate of LUM(%): 94.04%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 72.197%

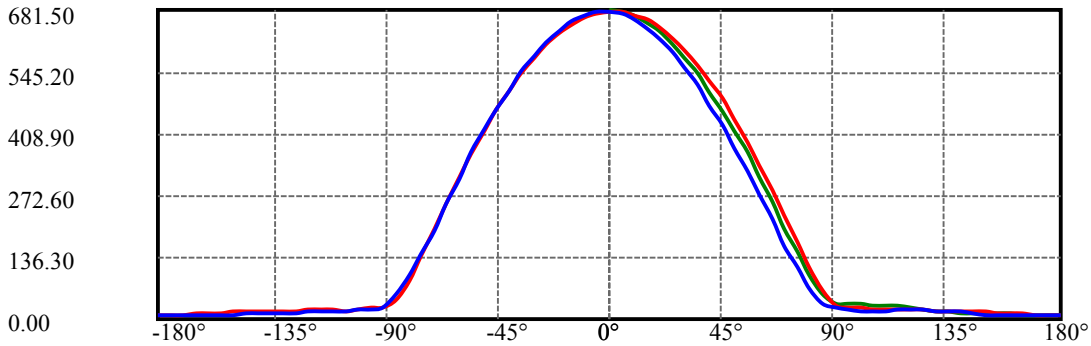
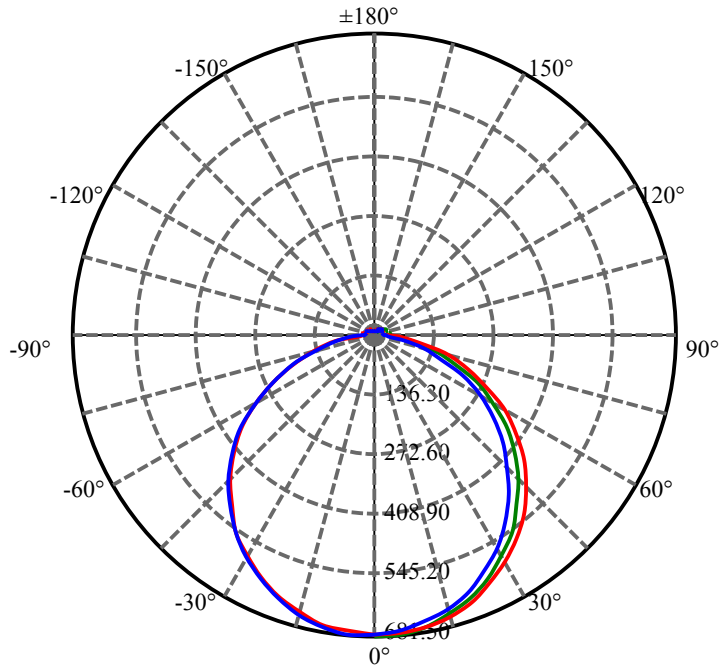
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	678.284	.000	.000	.000%	.000%
5.0	675.237	16.181	16.181	.000%	.000%
10.0	666.365	47.993	64.174	.000%	.000%
15.0	651.741	78.189	142.364	.000%	.000%
20.0	631.291	105.740	248.103	.000%	.000%
25.0	605.210	129.686	377.789	.000%	.000%
30.0	575.157	149.377	527.166	.000%	.000%
35.0	540.229	164.248	691.414	.000%	.000%
40.0	500.353	173.613	865.028	.000%	.000%
45.0	458.624	177.562	1042.590	.000%	.000%
50.0	412.996	176.124	1218.713	.000%	.000%
55.0	363.955	168.935	1387.648	.000%	.000%
60.0	310.917	155.995	1543.643	.000%	.000%
65.0	254.929	137.558	1681.201	.000%	.000%
70.0	198.089	114.707	1795.908	.000%	.000%
75.0	143.929	89.398	1885.307	.000%	.000%
80.0	93.962	63.653	1948.960	.000%	.000%
85.0	51.039	39.400	1988.360	.000%	.000%
90.0	30.321	22.277	2010.637	.000%	.000%
95.0	28.274	16.044	2026.681	.000%	.000%
100.0	26.519	14.889	2041.570	.000%	.000%
105.0	24.618	13.683	2055.253	.000%	.000%
110.0	23.058	12.462	2067.714	.000%	.000%
115.0	22.083	11.430	2079.144	.000%	.000%
120.0	21.011	10.476	2089.620	.000%	.000%
125.0	19.134	9.279	2098.900	.000%	.000%
130.0	17.866	8.045	2106.945	.000%	.000%
135.0	16.501	6.944	2113.889	.000%	.000%
140.0	15.404	5.908	2119.797	.000%	.000%
145.0	14.161	4.933	2124.730	.000%	.000%
150.0	13.016	4.002	2128.732	.000%	.000%
155.0	12.090	3.177	2131.909	.000%	.000%
160.0	11.139	2.436	2134.345	.000%	.000%
165.0	10.140	1.754	2136.099	.000%	.000%
170.0	9.262	1.151	2137.250	.000%	.000%
175.0	8.628	.640	2137.889	.000%	.000%
180.0	8.531	.205	2138.094	.000%	.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	527.17	N.A.	24.66%
0-40	865.03	N.A.	40.46%
0-60	1543.64	N.A.	72.20%
0-90	2010.64	N.A.	94.04%
0-120	2089.62	N.A.	97.73%
0-180	2138.09	N.A.	100.00%
60-90	622.99	N.A.	29.14%
90-120	101.26	N.A.	4.74%
90-130	118.58	N.A.	5.55%
90-150	140.37	N.A.	6.57%
90-180	149.53	N.A.	6.99%
0-66.28	1710.48	N.A.	80.00%

ZONAL LUMEN SUMMARY

0-10	64.17
10-20	183.93
20-30	279.06
30-40	337.86
40-50	353.69
50-60	324.93
60-70	252.27
70-80	153.05
80-90	61.68
90-100	30.93
100-110	26.14
110-120	21.91
120-130	17.32
130-140	12.85
140-150	8.93
150-160	5.61
160-170	2.90
170-180	0.64



C45(Max): —

C0/C180: —

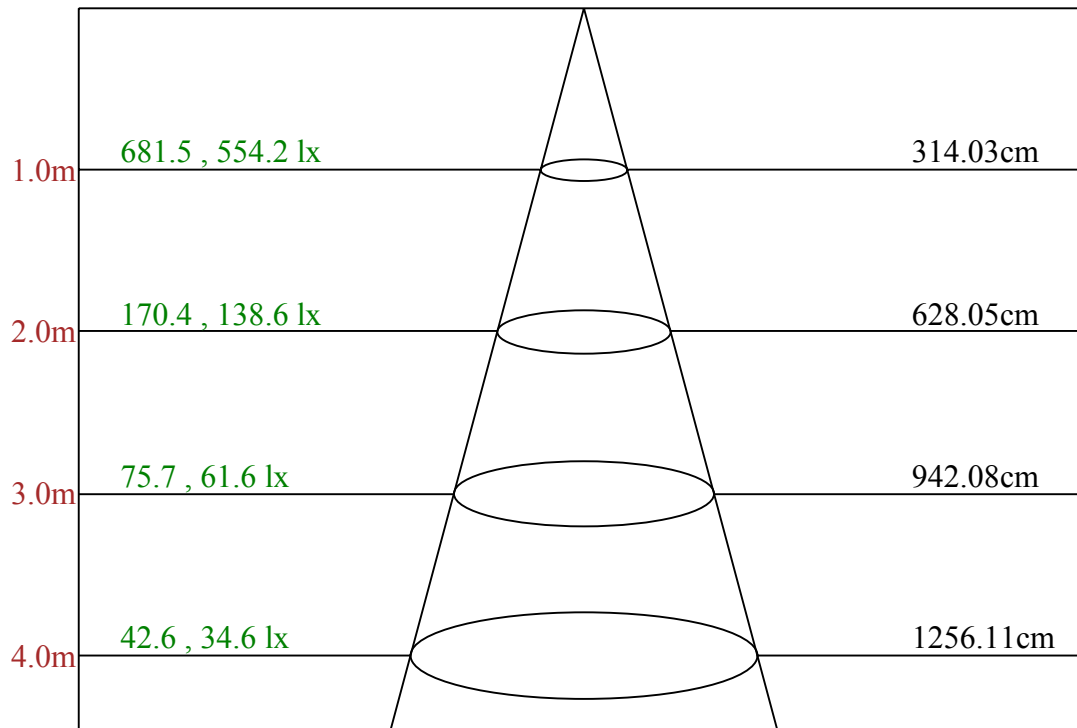
C90/C270: —

Field angle(10%Imax):C0/180Left:82.1 Right:84.5

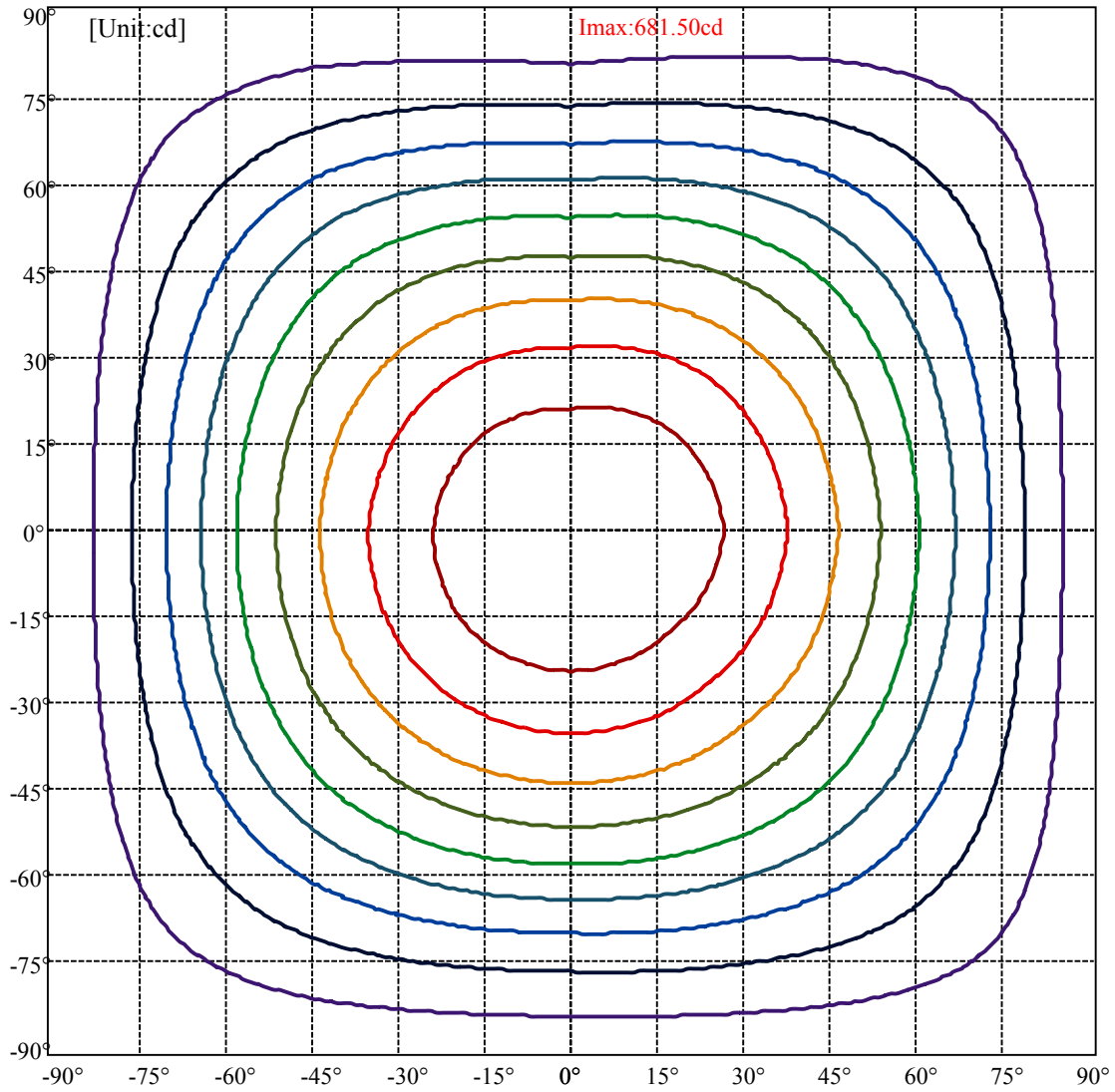
:C90/270Left:83.6 Right:80.1










Beam Angle(50%Imax):C0/180Left:57.6 Right:60.1

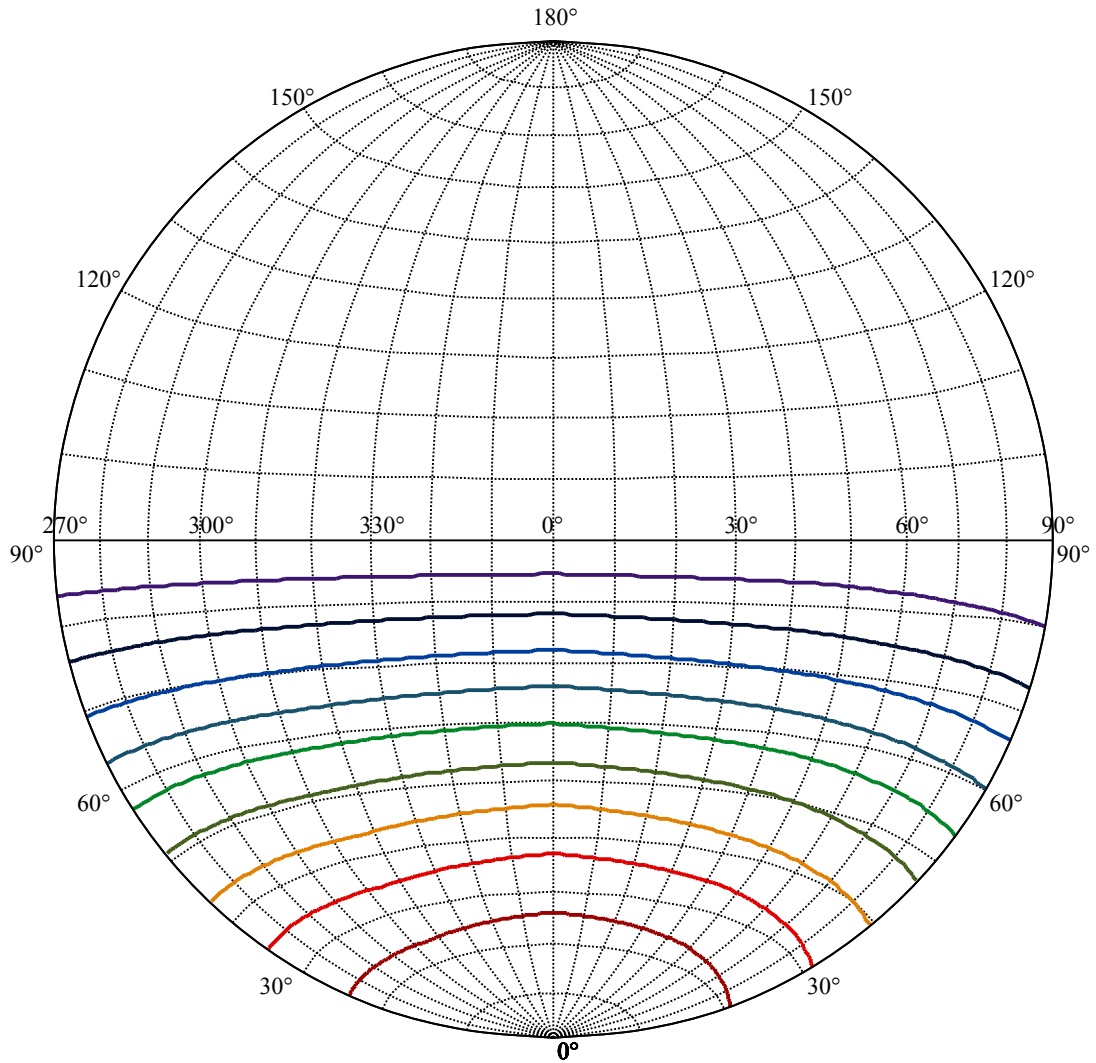
:C90/270Left:57.5 Right:53.8



Max , Ave Beam angle of C45plane115.01



(10%Imax)	68.0839	
(20%Imax)	136.168	
(30%Imax)	204.252	
(40%Imax)	272.336	
(50%Imax)	340.42	
(60%Imax)	408.504	
(70%Imax)	476.587	
(80%Imax)	544.671	
(90%Imax)	612.755	



House

[Unit:cd]

Road

I_{max}:681.50

(10%I_{max}) 68.1502

(20%I_{max}) 136.3

(30%I_{max}) 204.45

(40%I_{max}) 272.601

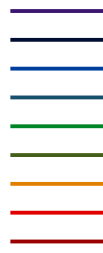
(50%I_{max}) 340.751

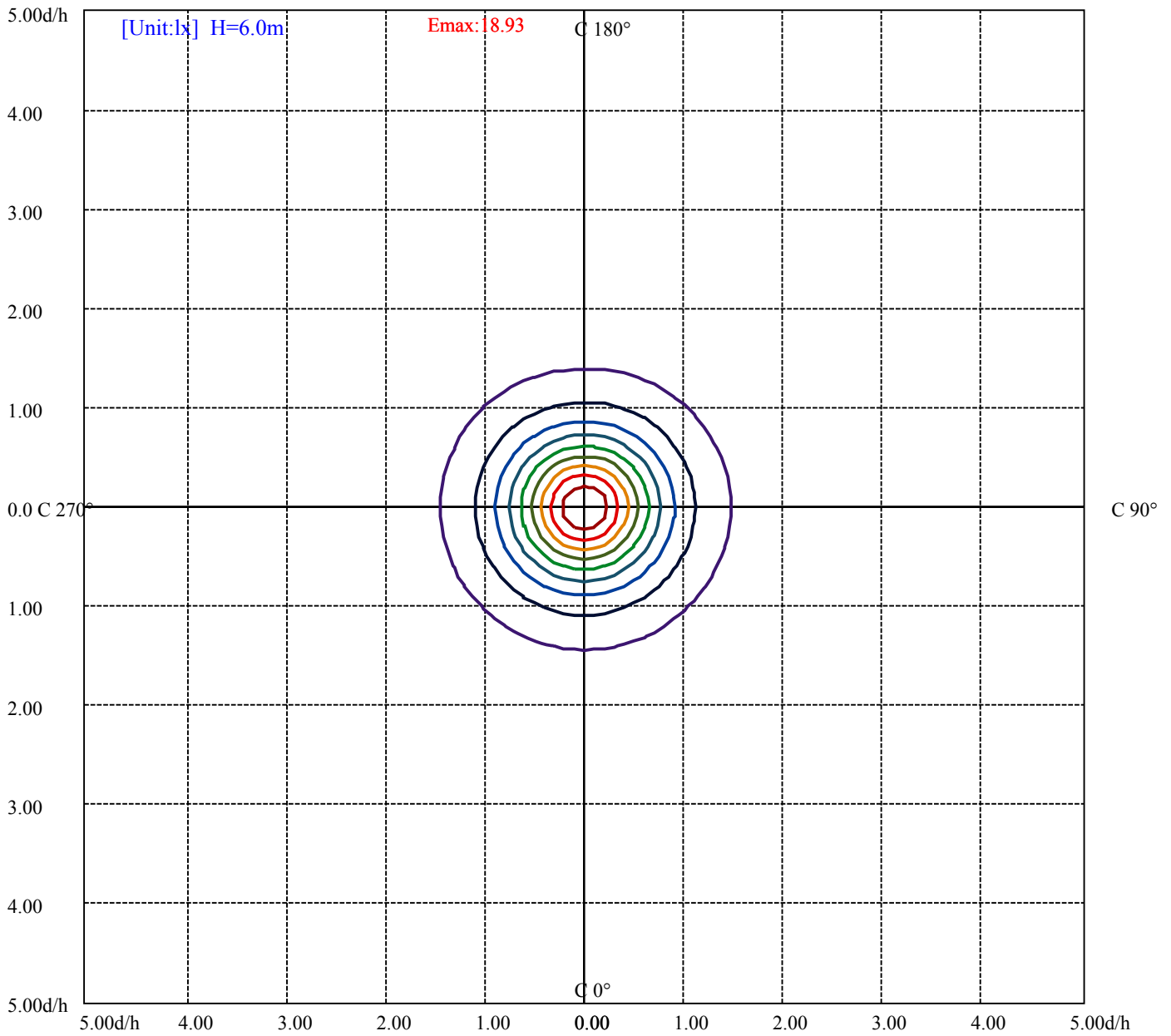
(60%I_{max}) 408.901

(70%I_{max}) 477.051

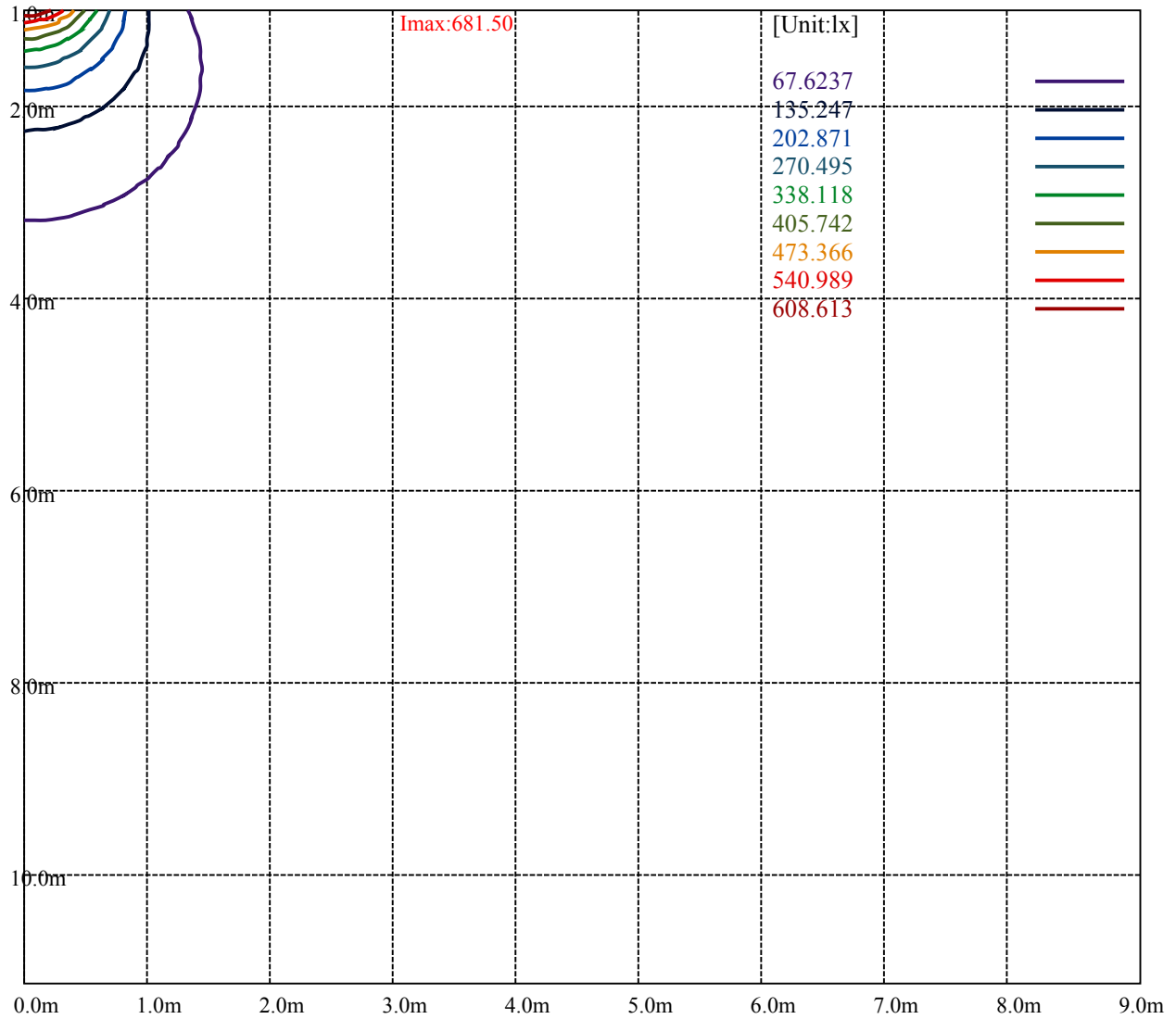
(80%I_{max}) 545.201

(90%I_{max}) 613.351





(10%Emax) 1.893058	—
(20%Emax) 3.786111	—
(30%Emax) 5.679167	—
(40%Emax) 7.572222	—
(50%Emax) 9.465305	—
(60%Emax) 11.35836	—
(70%Emax) 13.25142	—
(80%Emax) 15.14447	—
(90%Emax) 17.03753	—



Luminance Table

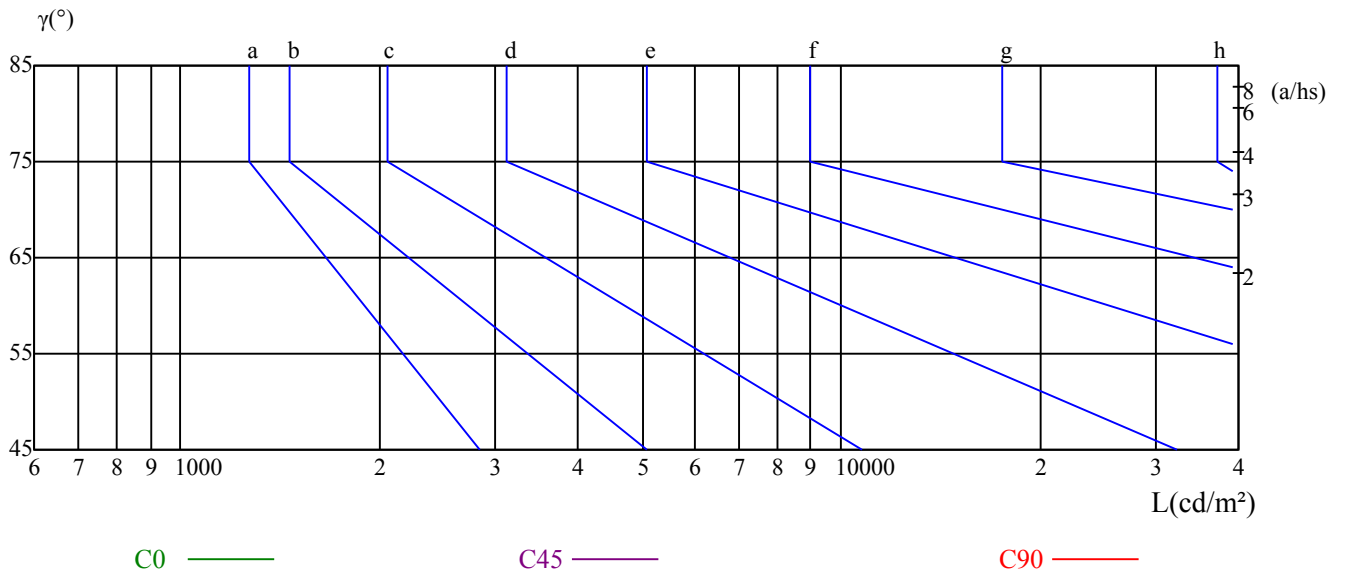
γ	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

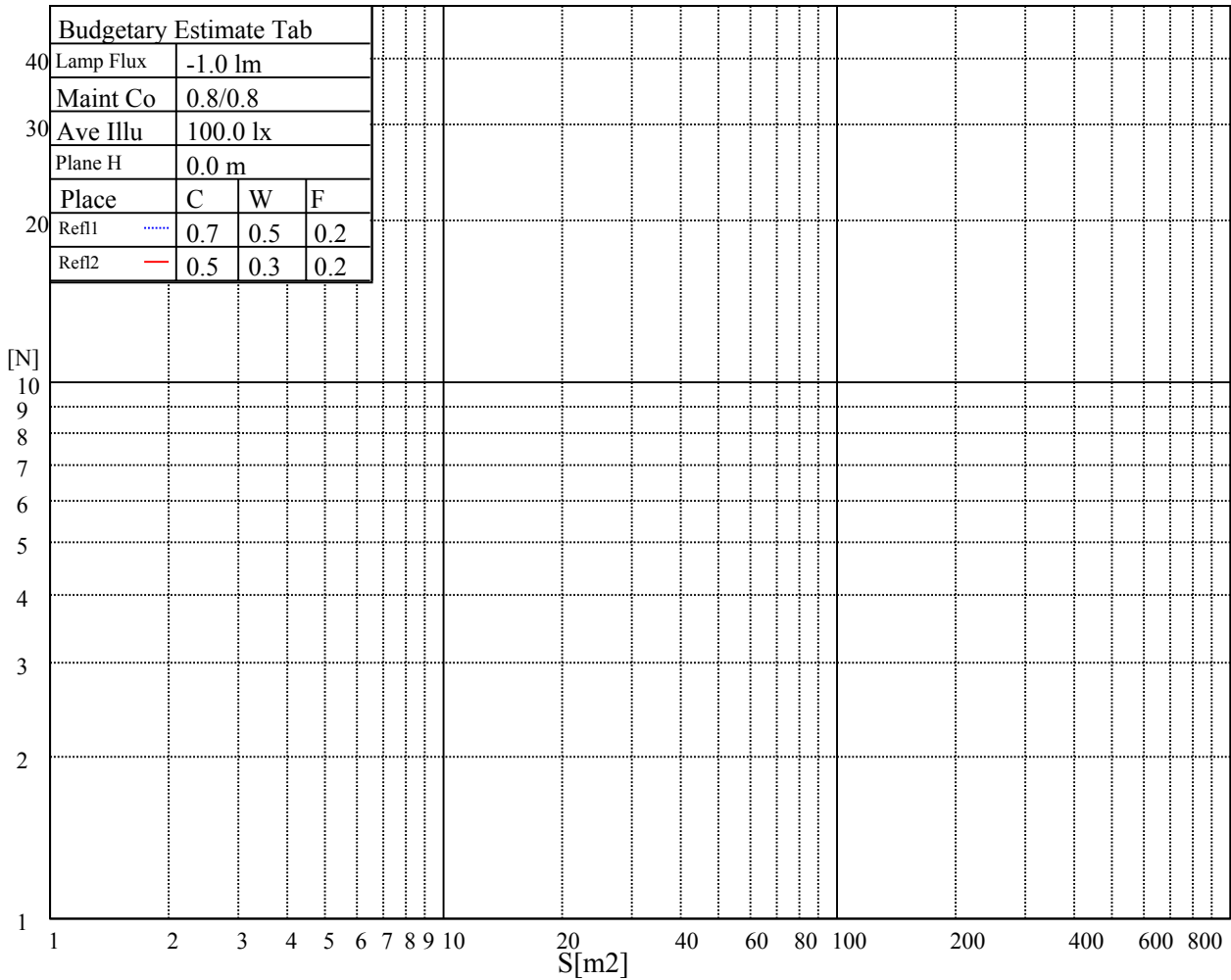
L横(65)	L纵(65)	L45(65)	L横(75)	L纵(75)	L45(75)	L横(85)	L纵(85)	L45(85)
0	0	0	0	0	0	0	0	0

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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	676.24	675.26	669.61	658.69	641.33	619.69	593.17	560.61	525.12
45.0	681.50	677.80	668.24	653.42	632.95	607.40	577.18	542.86	499.77
90.0	678.38	671.56	658.88	640.75	617.74	587.32	554.56	517.51	471.30
135.0	677.02	672.14	661.81	645.23	623.78	597.26	566.46	528.24	489.24
180.0	676.24	672.14	663.37	649.33	630.02	605.84	576.79	543.25	502.11
225.0	681.50	679.16	670.19	655.57	634.90	607.79	576.99	542.28	504.45
270.0	678.38	677.80	670.19	655.76	633.92	608.77	578.74	544.23	505.81
315.0	677.02	676.04	668.63	655.18	635.68	607.60	577.38	542.86	505.03
360.0	676.24	675.26	669.61	658.69	641.33	619.69	593.17	560.61	525.12

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	485.14	441.66	389.99	338.90	284.50	227.95	170.03	113.29	62.98
45.0	458.62	413.97	366.39	311.21	257.78	199.67	146.25	97.11	54.79
90.0	426.26	378.29	327.20	273.38	218.20	162.82	115.44	68.64	33.73
135.0	447.70	403.05	355.28	304.38	250.37	194.99	135.72	87.55	48.16
180.0	460.38	414.56	365.42	312.77	255.25	197.92	140.40	86.38	40.75
225.0	463.11	414.56	366.20	314.72	253.69	197.53	144.49	95.16	52.84
270.0	463.50	417.68	368.54	309.84	255.44	194.99	143.91	98.08	55.77
315.0	464.28	420.21	372.63	322.13	264.22	208.84	155.21	105.49	59.28
360.0	485.14	441.66	389.99	338.90	284.50	227.95	170.03	113.29	62.98

C/γ(°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	30.81	27.49	24.57	21.45	19.30	19.89	19.89	19.30	18.91
45.0	33.34	32.76	32.17	31.39	30.03	27.88	26.71	23.01	18.72
90.0	24.57	20.86	18.72	17.35	18.52	19.30	20.08	19.50	18.52
135.0	32.76	32.37	31.78	31.00	28.86	27.10	25.74	22.81	21.25
180.0	27.30	26.71	21.84	18.91	19.30	20.08	19.50	18.91	18.91
225.0	32.76	32.37	31.98	28.86	24.96	22.42	20.08	17.94	17.16
270.0	27.30	21.25	19.11	18.13	17.55	17.16	15.21	13.26	12.09
315.0	33.73	32.37	31.98	29.83	25.93	22.81	20.86	18.33	17.35
360.0	30.81	27.49	24.57	21.45	19.30	19.89	19.89	19.30	18.91

C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	18.33	17.94	17.35	15.79	14.43	12.87	11.31	9.94	8.77
45.0	15.79	14.04	13.26	12.48	11.70	10.92	9.94	9.16	8.19
90.0	17.55	15.99	12.09	9.94	9.75	9.36	9.16	8.58	8.38
135.0	17.94	15.21	14.43	13.45	12.28	11.31	10.14	9.16	8.77
180.0	18.13	18.13	16.57	15.40	13.84	12.28	10.92	9.55	8.77
225.0	16.38	15.40	14.43	13.45	12.48	11.50	10.14	9.36	8.77
270.0	11.70	11.31	10.72	10.14	9.75	9.55	9.36	8.97	8.77
315.0	16.18	15.21	14.43	13.45	12.48	11.31	10.14	9.36	8.58
360.0	18.33	17.94	17.35	15.79	14.43	12.87	11.31	9.94	8.77

C/γ(°)	180.0
0.0	8.58
45.0	8.58
90.0	8.58
135.0	8.38
180.0	8.58
225.0	8.58
270.0	8.58
315.0	8.38
360.0	8.58