
THINKLUX

LumCAT: LED-CL3-Circular-AC180-265V-24W-4000K

Luminaire:

Report No:

Voltage(V): 230.1000

Test No:

Current(A): 0.1260

LampCAT:

Power (W): 24.0500

Lamp flux(lm): 1700.0

PF: 0.8250

Number of Lamps: 1

Ballast type:

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 1753.95

Efficiency(%): 103.17%

Lumens(lm)/Power(W): 72.93

Central intensity(cd): 544.616

Maximum intensity(cd): 550.076

Angle of maximum intensity: C=45.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=116.7

[C90/270]Total=111.9

Field angle(10%Imax): [C0/180]Total=167.2

[C90/270]Total=165.7

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

Maximum s/h(1/4): C0_180=1.82 C90_270=1.36

Up flux rate of lamp(%): 7.16%

Down flux rate of lamp(%): 96.02%

Up flux rate of LUM(%): 6.94%

Down flux rate of LUM(%): 93.06%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 71.090%

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Zonal flux distribution table

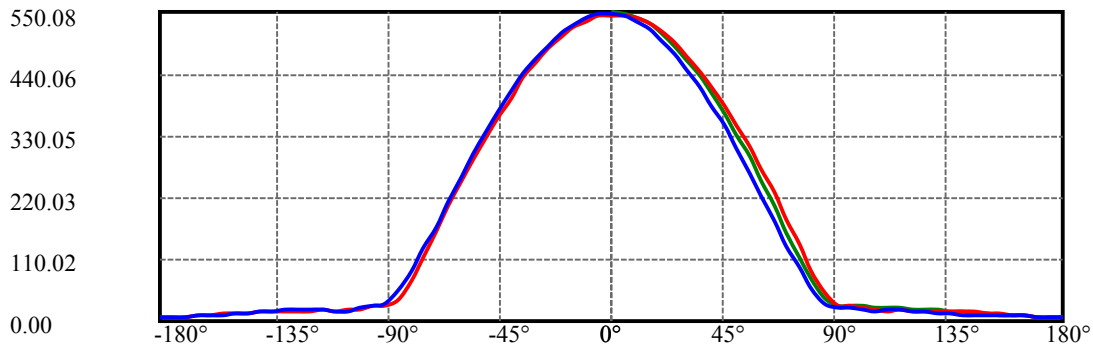
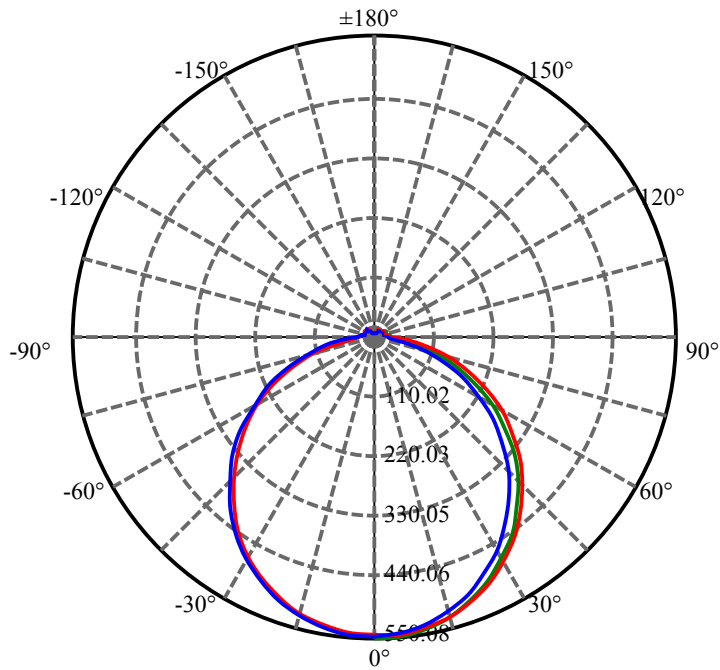
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	546.786	.000	.000	.000%	.000%
5.0	544.373	13.044	13.044	.767%	.767%
10.0	537.328	38.696	51.740	2.276%	3.044%
15.0	525.434	63.042	114.783	3.708%	6.752%
20.0	509.274	85.274	200.057	5.016%	11.768%
25.0	488.385	104.636	304.693	6.155%	17.923%
30.0	464.474	120.585	425.278	7.093%	25.016%
35.0	436.858	132.728	558.006	7.807%	32.824%
40.0	404.952	140.450	698.455	8.262%	41.086%
45.0	369.975	143.484	841.940	8.440%	49.526%
50.0	333.512	142.150	984.089	8.362%	57.888%
55.0	294.367	136.522	1120.611	8.031%	65.918%
60.0	251.907	126.270	1246.881	7.428%	73.346%
65.0	207.863	111.771	1358.652	6.575%	79.921%
70.0	162.283	93.723	1452.375	5.513%	85.434%
75.0	119.312	73.604	1525.979	4.330%	89.763%
80.0	78.558	52.944	1578.924	3.114%	92.878%
85.0	44.751	33.506	1612.430	1.971%	94.849%
90.0	27.762	19.855	1632.284	1.168%	96.017%
95.0	25.837	14.676	1646.960	.863%	96.880%
100.0	23.935	13.524	1660.484	.796%	97.676%
105.0	22.059	12.307	1672.791	.724%	98.399%
110.0	21.474	11.379	1684.170	.669%	99.069%
115.0	21.449	10.868	1695.038	.639%	99.708%
120.0	20.499	10.198	1705.236	.600%	100.308%
125.0	19.597	9.268	1714.504	.545%	100.853%
130.0	18.476	8.278	1722.782	.487%	101.340%
135.0	17.038	7.176	1729.958	.422%	101.762%
140.0	15.721	6.066	1736.023	.357%	102.119%
145.0	14.356	5.018	1741.042	.295%	102.414%
150.0	13.162	4.052	1745.094	.238%	102.653%
155.0	11.797	3.159	1748.252	.186%	102.838%
160.0	10.505	2.339	1750.592	.138%	102.976%
165.0	9.092	1.615	1752.207	.095%	103.071%
170.0	8.092	1.019	1753.226	.060%	103.131%
175.0	7.385	.554	1753.780	.033%	103.164%
180.0	7.215	.175	1753.954	.010%	103.174%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	425.28	25.02%	24.25%
0-40	698.46	41.09%	39.82%
0-60	1246.88	73.35%	71.09%
0-90	1632.28	96.02%	93.06%
0-120	1705.24	100.31%	97.22%
0-180	1753.95	103.17%	100.00%
60-90	511.67	30.10%	29.17%
90-120	92.81	5.46%	5.29%
90-130	110.35	6.49%	6.29%
90-150	132.66	7.80%	7.56%
90-180	141.35	8.31%	8.06%
0-67.37	1403.16	82.54%	80.00%

ZONAL LUMEN SUMMARY

0-10	51.74
10-20	148.32
20-30	225.22
30-40	273.18
40-50	285.63
50-60	262.79
60-70	205.49
70-80	126.55
80-90	53.36
90-100	28.20
100-110	23.69
110-120	21.07
120-130	17.55
130-140	13.24
140-150	9.07
150-160	5.50
160-170	2.63
170-180	0.55



C45(Max): —————

C0/C180: —————

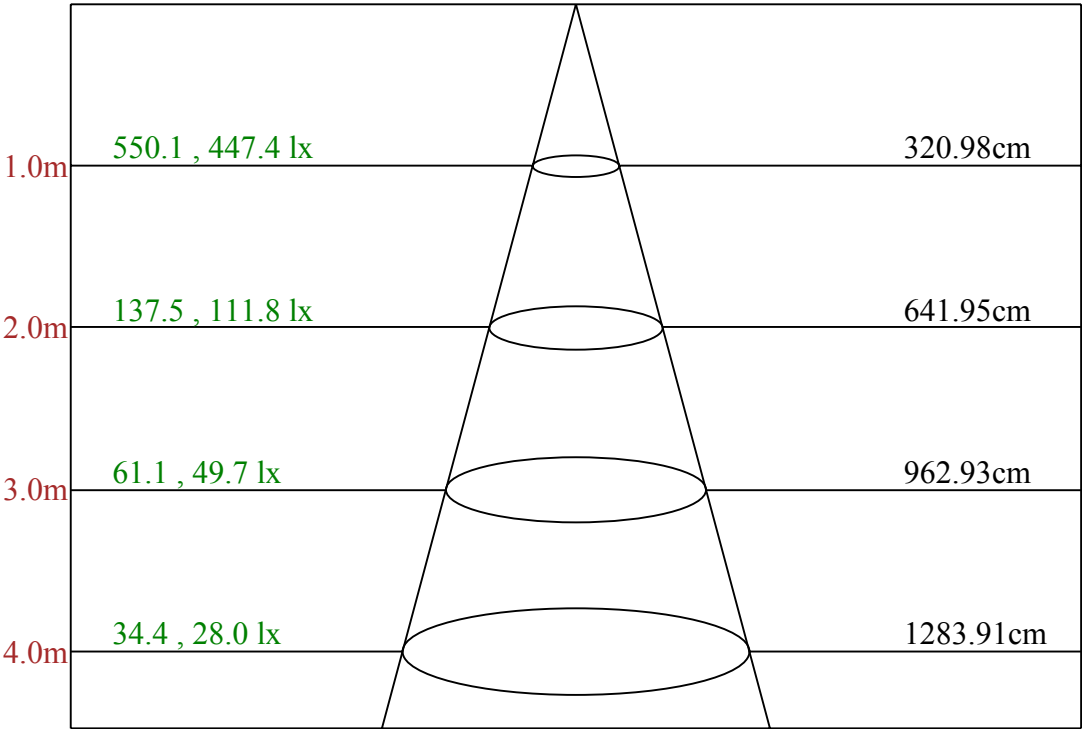
C90/C270: —————

Field angle(10%Imax):C0/180Left:82.6 Right:84.6

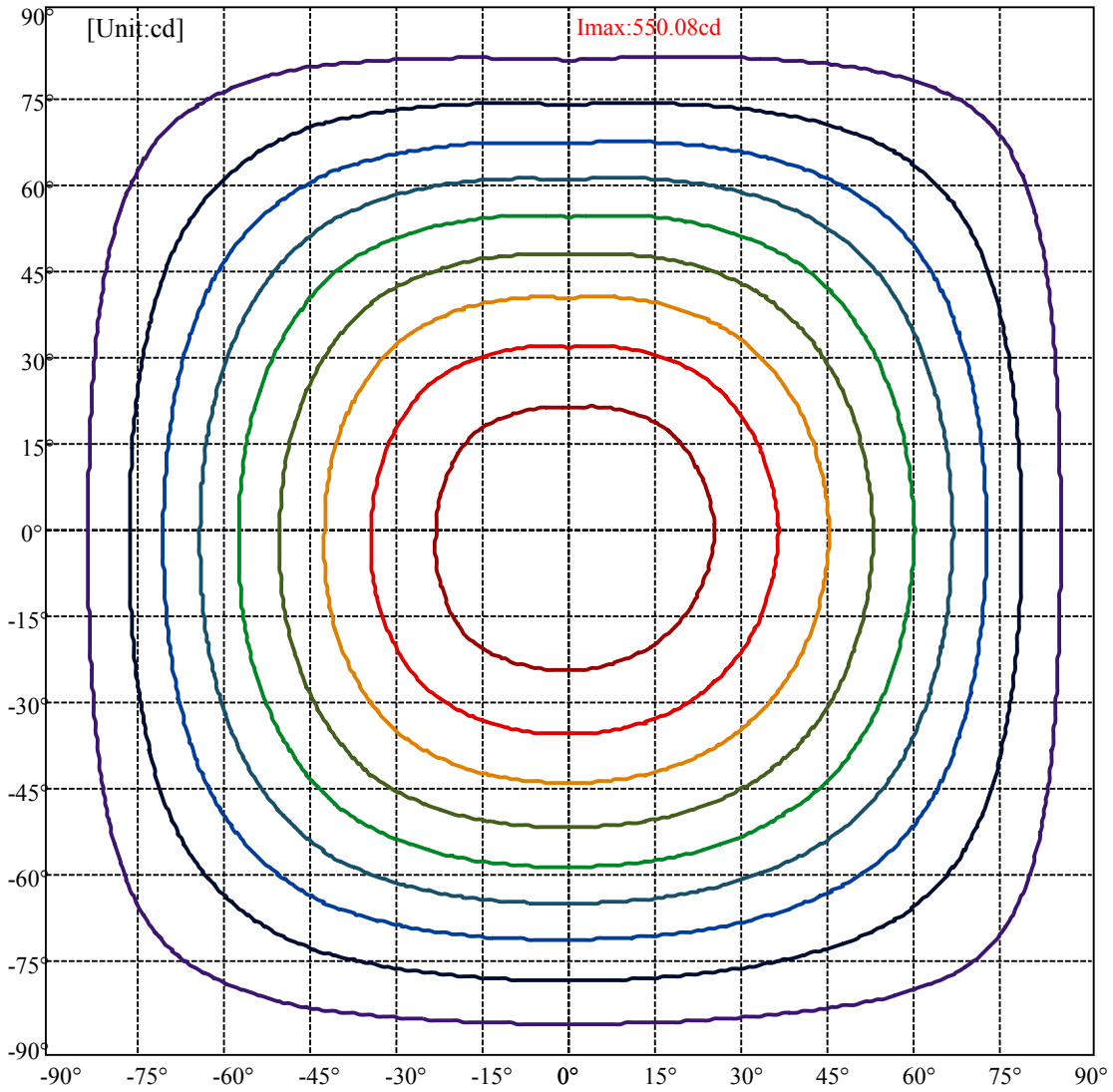
:C90/270Left:84.9 Right:80.8

Beam Angle(50%Imax):C0/180Left:57.0 Right:59.7

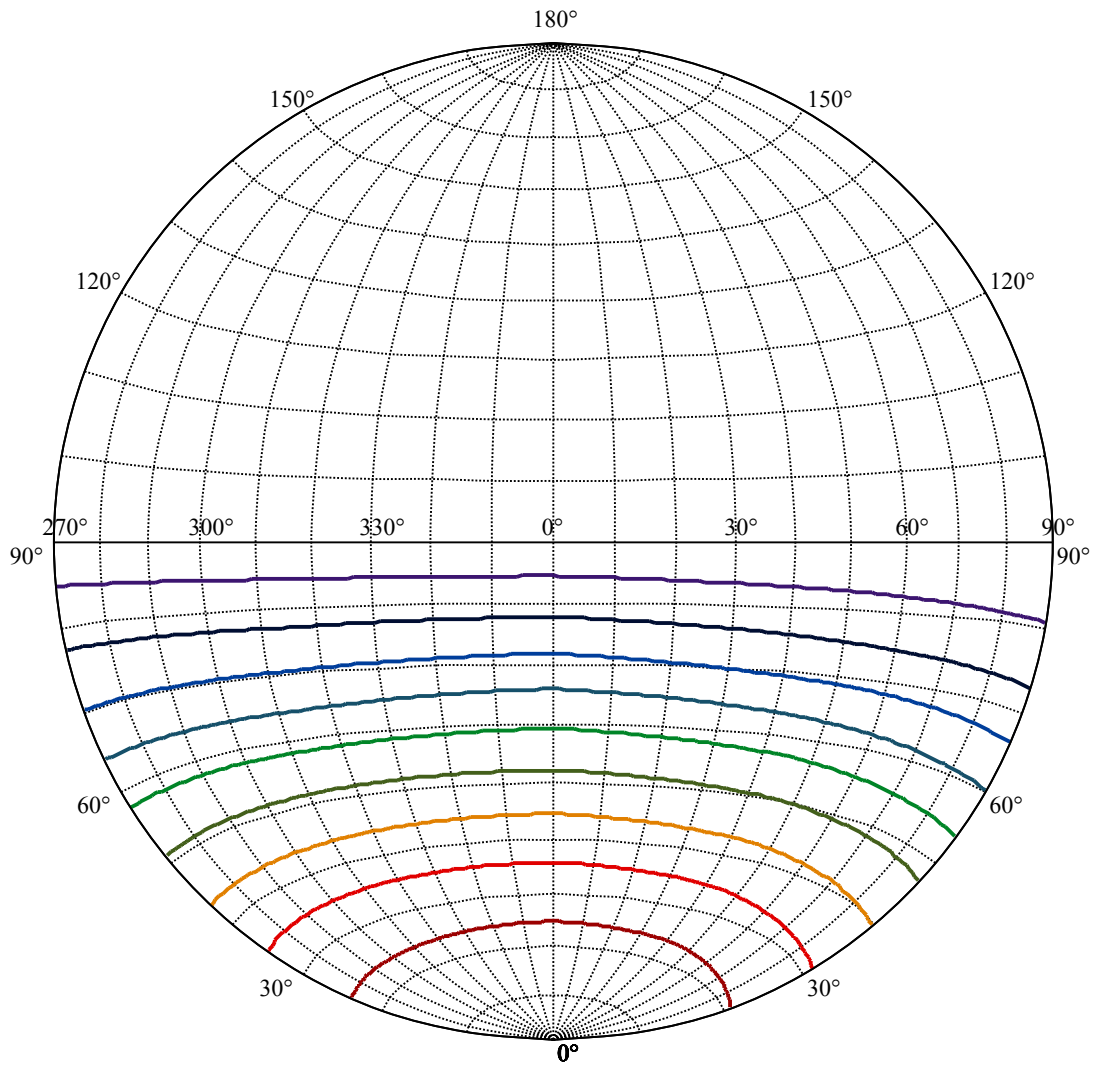
:C90/270Left:58.0 Right:53.9



Max , Ave Beam angle of C45plane116.11



(10%Imax) 54.9303	
(20%Imax) 109.861	
(30%Imax) 164.791	
(40%Imax) 219.721	
(50%Imax) 274.652	
(60%Imax) 329.582	
(70%Imax) 384.512	
(80%Imax) 439.443	
(90%Imax) 494.373	



House

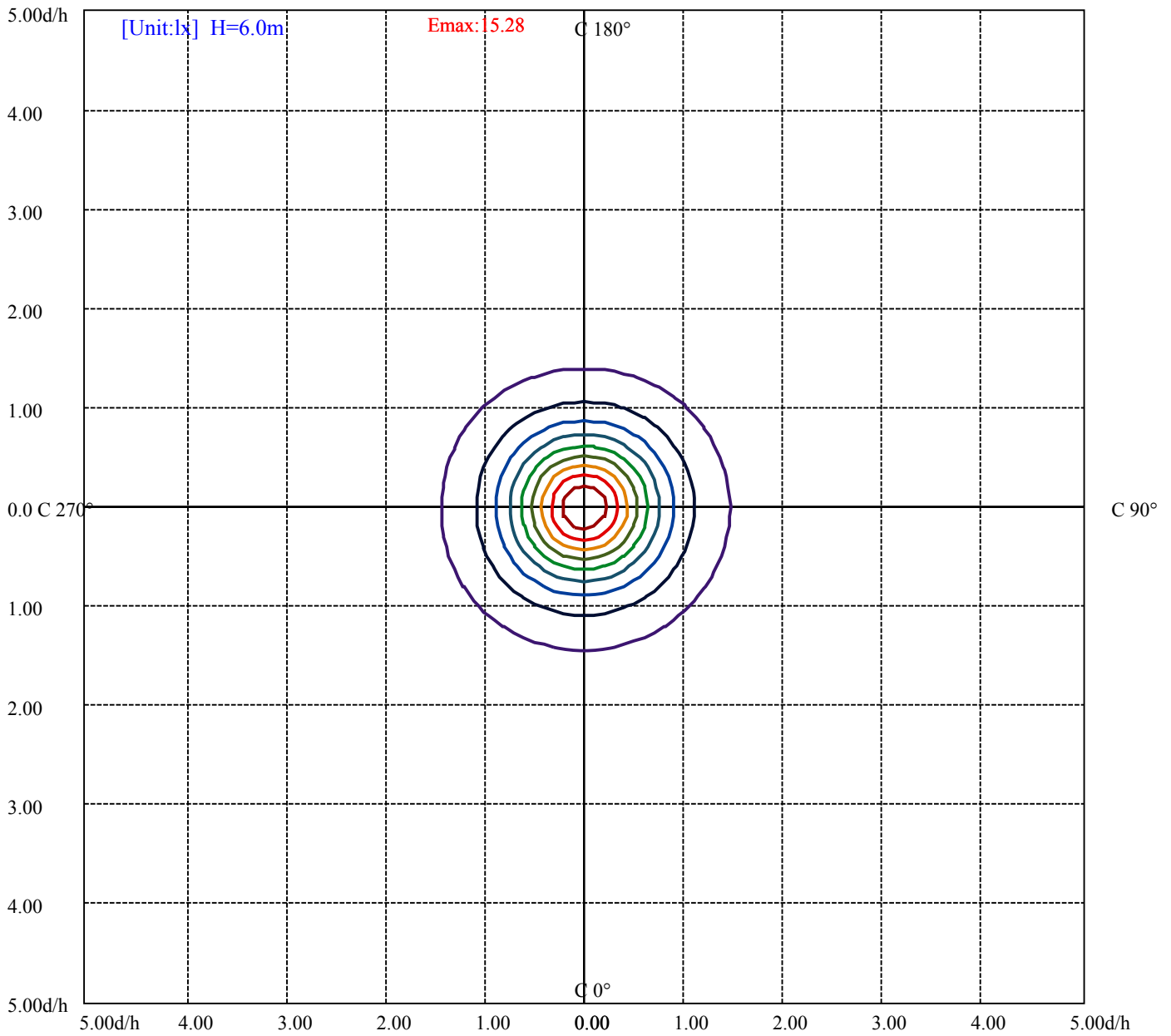
[Unit:cd]










Road

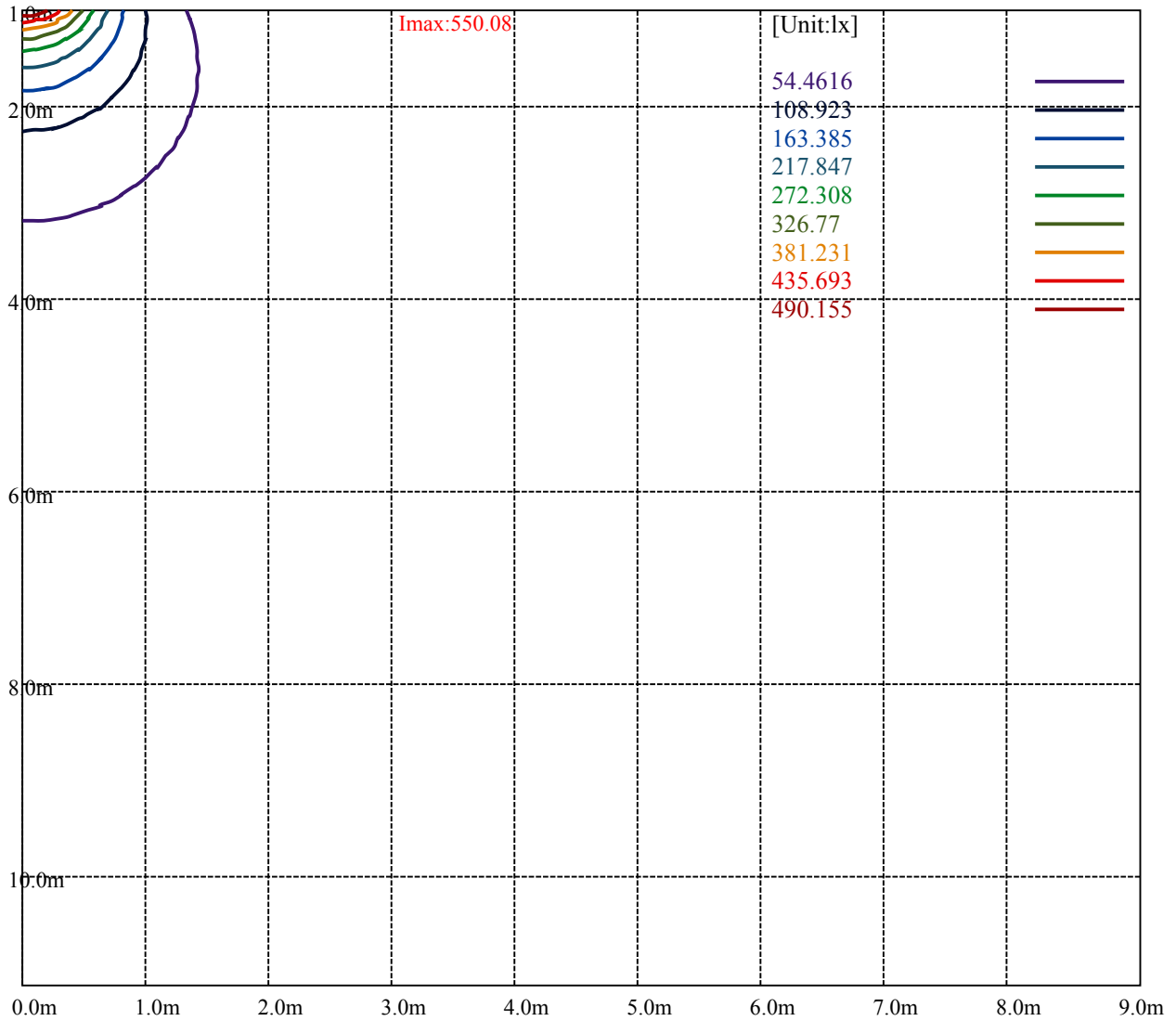
Imax:550.08

- (10%Imax) 55.0076
- (20%Imax) 110.015
- (30%Imax) 165.023
- (40%Imax) 220.03
- (50%Imax) 275.038
- (60%Imax) 330.046
- (70%Imax) 385.053
- (80%Imax) 440.061
- (90%Imax) 495.068





(10%Emax) 1.527989	
(20%Emax) 3.055972	
(30%Emax) 4.583972	
(40%Emax) 6.111944	
(50%Emax) 7.639944	
(60%Emax) 9.167917	
(70%Emax) 10.69592	
(80%Emax) 12.22392	
(90%Emax) 13.75189	



Luminance Table

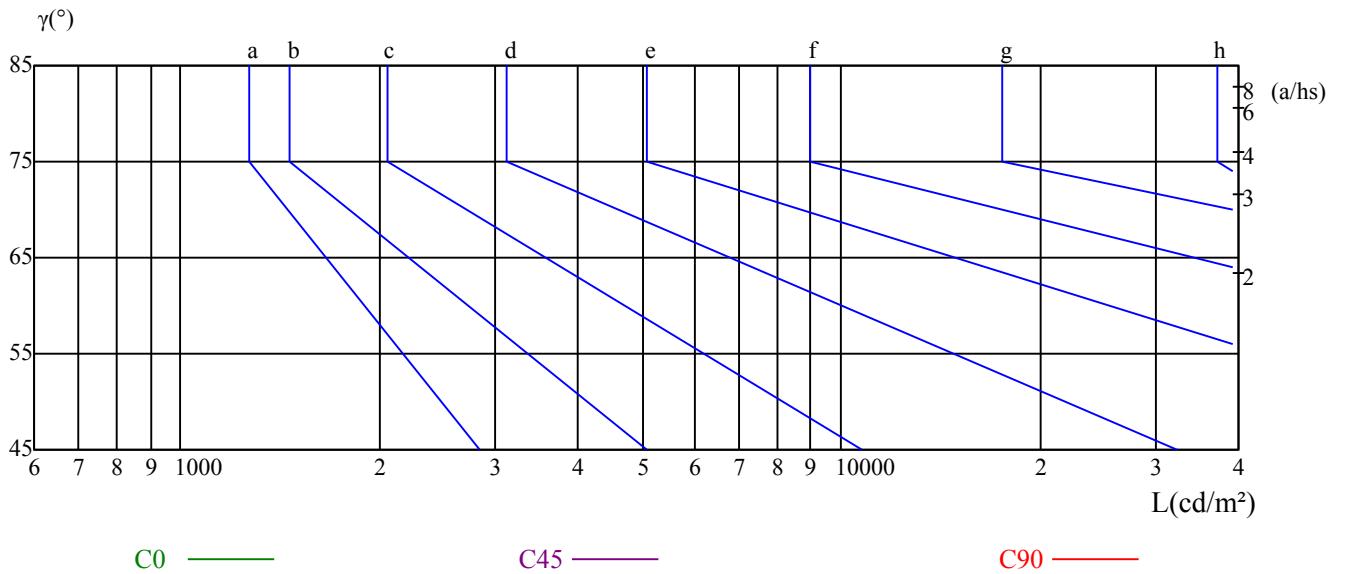
γ	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

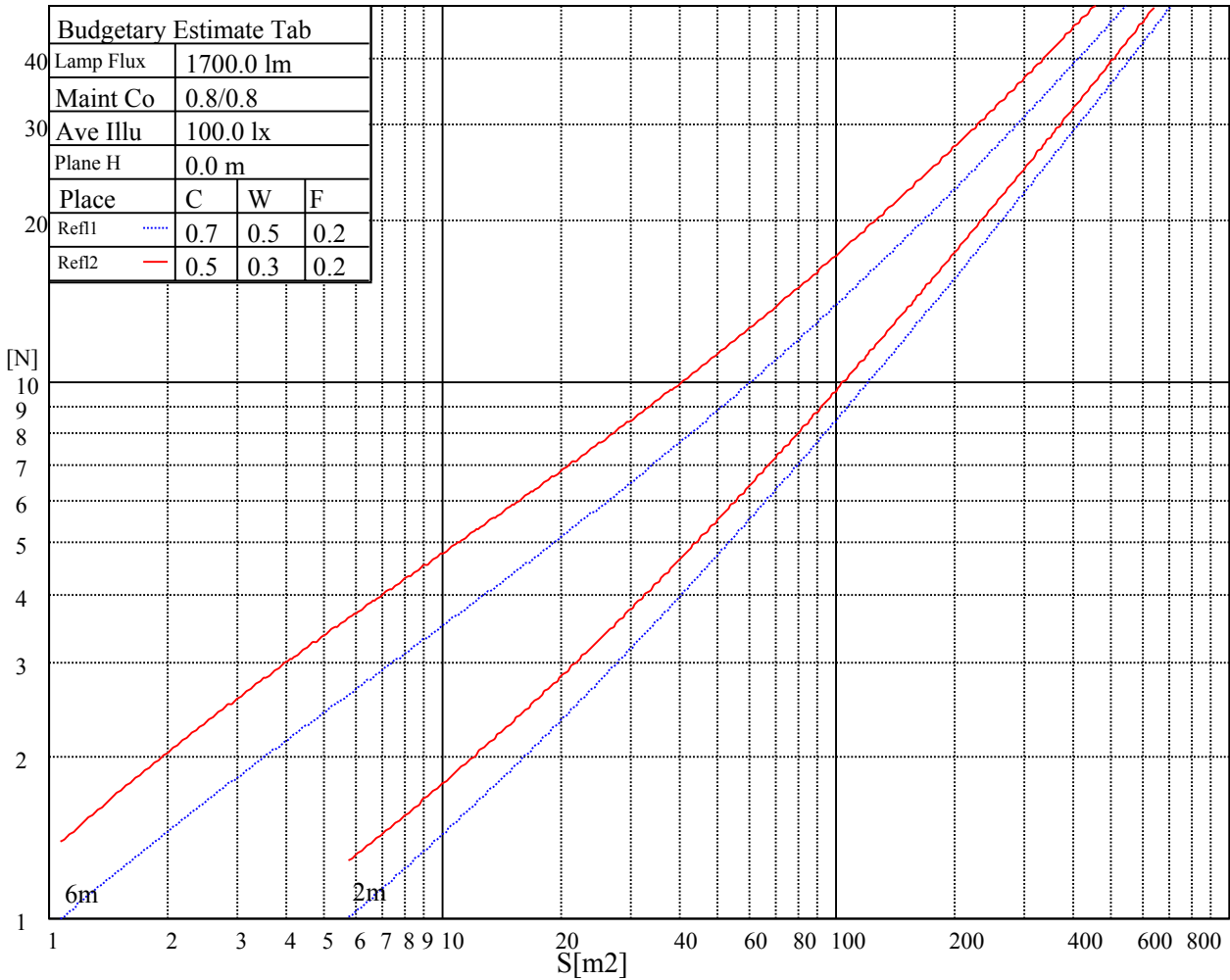
L横(65)	L纵(65)	L45(65)	L横(75)	L纵(75)	L45(75)	L横(85)	L纵(85)	L45(85)
0	0	0	0	0	0	0	0	0

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 RHOF=20 CU															
0	1.21	1.21	1.21	1.17	1.17	1.17	1.11	1.11	1.11	1.04	1.04	1.04	0.99	0.99	0.99	0.96
1	1.05	1.00	0.96	1.02	0.97	0.94	0.96	0.92	0.89	0.91	0.88	0.85	0.86	0.84	0.82	0.79
2	0.91	0.84	0.77	0.88	0.82	0.76	0.83	0.78	0.73	0.79	0.74	0.70	0.75	0.71	0.68	0.65
3	0.80	0.71	0.64	0.77	0.69	0.63	0.73	0.67	0.61	0.69	0.64	0.59	0.66	0.61	0.57	0.55
4	0.70	0.61	0.54	0.68	0.60	0.53	0.65	0.58	0.52	0.62	0.55	0.50	0.59	0.53	0.49	0.46
5	0.63	0.53	0.46	0.61	0.52	0.46	0.58	0.50	0.45	0.55	0.49	0.43	0.53	0.47	0.42	0.40
6	0.56	0.47	0.40	0.55	0.46	0.40	0.52	0.45	0.39	0.50	0.43	0.38	0.48	0.42	0.37	0.35
7	0.51	0.42	0.35	0.50	0.41	0.35	0.48	0.40	0.34	0.45	0.39	0.34	0.43	0.37	0.33	0.31
8	0.46	0.38	0.32	0.45	0.37	0.31	0.43	0.36	0.31	0.42	0.35	0.30	0.40	0.34	0.29	0.27
9	0.43	0.34	0.28	0.42	0.34	0.28	0.40	0.33	0.28	0.38	0.32	0.27	0.37	0.31	0.27	0.25
10	0.39	0.31	0.26	0.38	0.31	0.25	0.37	0.30	0.25	0.35	0.29	0.25	0.34	0.28	0.24	0.22

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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	544.62	543.64	538.38	528.82	514.78	494.70	472.08	445.75	415.92
45.0	550.08	547.35	540.13	528.04	511.66	489.24	464.86	436.98	405.59
90.0	546.96	543.25	533.89	517.90	498.60	475.20	448.29	416.70	383.16
135.0	545.59	542.86	535.26	523.17	506.59	486.12	462.13	434.45	403.64
180.0	544.62	541.69	534.67	522.97	505.62	485.14	460.77	433.08	397.79
225.0	549.88	547.35	540.33	529.21	514.00	494.89	472.08	445.75	413.58
270.0	546.96	545.40	538.96	527.65	512.25	490.02	466.42	439.32	408.90
315.0	545.59	543.45	537.01	525.70	510.69	491.77	469.15	442.83	411.05
360.0	544.62	543.64	538.38	528.82	514.78	494.70	472.08	445.75	415.92
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	382.97	347.09	309.26	270.07	229.31	181.34	136.69	89.11	51.09
45.0	369.90	332.85	292.88	250.57	206.11	156.38	114.07	74.49	41.34
90.0	346.89	308.09	264.02	220.93	176.08	133.96	94.18	58.69	32.17
135.0	365.42	328.76	289.37	247.45	199.48	154.04	112.12	71.56	39.58
180.0	363.47	326.61	288.01	247.84	205.91	161.84	113.88	71.76	38.80
225.0	380.43	344.75	308.28	263.24	219.56	174.13	127.14	86.58	50.31
270.0	372.44	337.14	297.75	256.61	211.37	166.91	129.67	89.50	54.21
315.0	378.29	342.80	305.36	258.56	215.08	169.64	126.75	86.77	50.50
360.0	382.97	347.09	309.26	270.07	229.31	181.34	136.69	89.11	51.09
C/γ(°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	28.08	25.93	22.81	19.30	17.35	18.91	18.33	17.55	17.35
45.0	27.10	26.52	25.93	25.35	24.37	23.20	21.84	20.28	18.91
90.0	25.35	22.42	20.28	17.74	20.08	19.50	18.13	17.16	15.01
135.0	26.91	26.52	25.93	25.35	24.18	22.81	21.25	20.67	19.11
180.0	26.71	26.13	21.84	19.69	17.94	19.30	18.52	17.74	17.35
225.0	28.86	26.91	26.52	25.74	24.76	23.79	22.62	21.64	20.67
270.0	30.22	25.74	22.23	17.94	18.52	20.28	20.47	19.89	18.91
315.0	28.86	26.52	25.93	25.35	24.57	23.79	22.81	21.84	20.47
360.0	28.08	25.93	22.81	19.30	17.35	18.91	18.33	17.55	17.35
C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	16.77	16.18	15.60	14.23	12.87	11.11	9.55	8.19	7.41
45.0	17.16	15.60	14.04	13.06	11.89	10.72	9.36	8.19	7.21
90.0	13.06	11.89	11.11	10.72	10.33	9.94	8.97	7.80	7.21
135.0	17.55	15.40	13.84	12.67	11.50	10.33	8.58	7.80	7.41
180.0	16.18	16.18	14.82	13.65	12.09	10.53	8.97	7.80	7.21
225.0	19.11	17.35	15.60	13.84	12.09	10.92	9.16	7.99	7.41
270.0	17.55	15.99	14.62	13.45	11.70	9.94	8.58	8.38	7.60
315.0	18.91	17.16	15.21	13.65	11.89	10.53	9.55	8.58	7.60
360.0	16.77	16.18	15.60	14.23	12.87	11.11	9.55	8.19	7.41
C/γ(°)	180.0								
0.0	7.21								
45.0	7.21								
90.0	7.21								
135.0	7.21								
180.0	7.21								
225.0	7.21								
270.0	7.21								
315.0	7.21								
360.0	7.21								