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THINKLUX

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LumCAT: LED-BL1A-Oval-AC180-265V-18W230-4000K

Luminaire:

Report No:	Voltage(V): 230.2000
Test No:	Current(A): 0.0960
LampCAT:	Power (W): 17.9900
Lamp flux(lm): 1200.0	PF: 0.8070
Number of Lamps: 1	Ballast type:
Length(mm): 0	Width(mm): 0
Phm Type: C	Height(mm): 0

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Photometric Results

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Lumens(lm): 1256.44  
Efficiency(%): 104.70%  
Lumens(lm)/Power(W): 69.84  
Central intensity(cd): 354.303  
Maximum intensity(cd): 362.883  
Angle of maximum intensity: C=45.0  $\gamma$ =0.0  
Beam Angle(50%Imax): [C0/180]Total=131.5  
                                  [C90/270]Total=99.6  
Field angle(10%Imax): [C0/180]Total=202.3  
                                  [C90/270]Total=163.2  
Maximum s/h(1/2): C0\_180=1.36 C90\_270=1.18  
Maximum s/h(1/4): C0\_180=1.94 C90\_270=1.30  
Up flux rate of lamp(%): 9.87%  
Down flux rate of lamp(%): 94.83%  
Up flux rate of LUM(%): 9.43%  
Down flux rate of LUM(%): 90.57%  
CIE Type : Direct lighting  
Output flux ratio in  $\pi$  solid angle : 65.427%

THINKLUX THINKLUX LED-BL1A-Oval-AC180-265V-18W230-4000K

Zonal flux distribution table

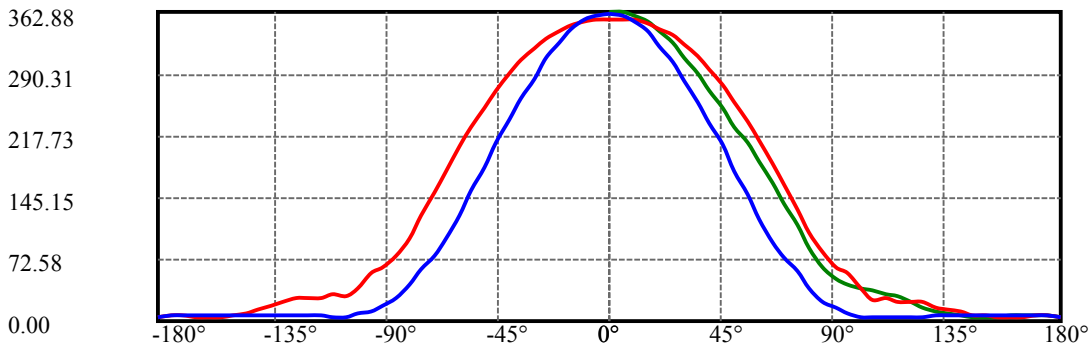
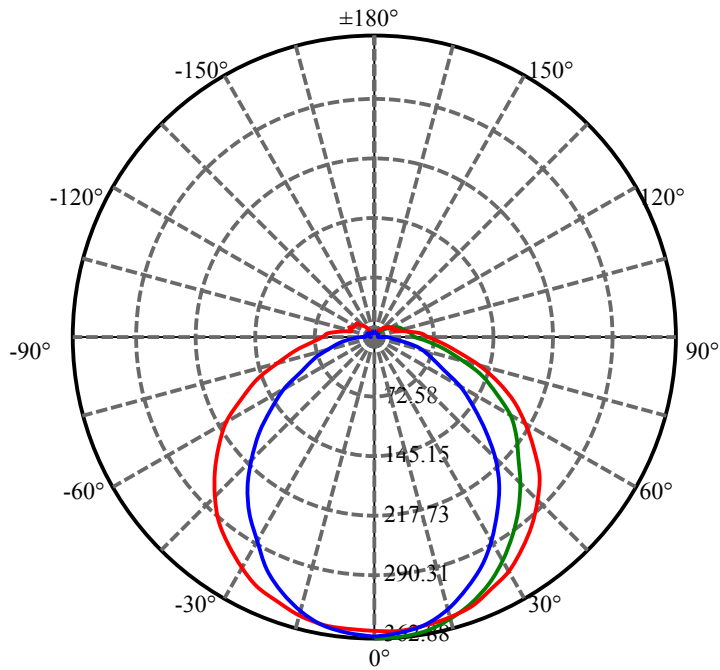
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	358.398	.000	.000	.000%	.000%
5.0	357.350	8.557	8.557	.713%	.713%
10.0	353.498	25.429	33.986	2.119%	2.832%
15.0	345.650	41.473	75.459	3.456%	6.288%
20.0	334.462	56.051	131.510	4.671%	10.959%
25.0	320.471	68.690	200.200	5.724%	16.683%
30.0	303.483	78.962	279.162	6.580%	23.264%
35.0	284.300	86.555	365.717	7.213%	30.476%
40.0	264.313	91.532	457.249	7.628%	38.104%
45.0	243.035	93.940	551.189	7.828%	45.932%
50.0	220.806	93.726	644.915	7.810%	53.743%
55.0	198.186	91.103	736.017	7.592%	61.335%
60.0	174.032	86.037	822.054	7.170%	68.505%
65.0	148.268	78.352	900.406	6.529%	75.034%
70.0	123.943	68.925	969.332	5.744%	80.778%
75.0	99.885	58.505	1027.837	4.875%	85.653%
80.0	76.096	47.088	1074.924	3.924%	89.577%
85.0	55.841	35.851	1110.775	2.988%	92.565%
90.0	43.459	27.189	1137.964	2.266%	94.830%
95.0	37.146	22.070	1160.035	1.839%	96.670%
100.0	30.273	18.319	1178.354	1.527%	98.196%
105.0	25.154	14.831	1193.185	1.236%	99.432%
110.0	23.838	12.806	1205.990	1.067%	100.499%
115.0	20.986	11.350	1217.340	.946%	101.445%
120.0	18.110	9.504	1226.844	.792%	102.237%
125.0	14.503	7.538	1234.383	.628%	102.865%
130.0	11.529	5.660	1240.043	.472%	103.337%
135.0	9.628	4.275	1244.318	.356%	103.693%
140.0	7.653	3.200	1247.518	.267%	103.960%
145.0	6.264	2.322	1249.840	.194%	104.153%
150.0	5.606	1.748	1251.588	.146%	104.299%
155.0	5.509	1.407	1252.994	.117%	104.416%
160.0	5.777	1.184	1254.178	.099%	104.515%
165.0	6.045	.974	1255.152	.081%	104.596%
170.0	6.142	.723	1255.875	.060%	104.656%
175.0	5.923	.432	1256.307	.036%	104.692%
180.0	5.362	.135	1256.442	.011%	104.704%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	279.16	23.26%	22.22%
0-40	457.25	38.10%	36.39%
0-60	822.05	68.50%	65.43%
0-90	1137.96	94.83%	90.57%
0-120	1226.84	102.24%	97.64%
0-180	1256.44	104.70%	100.00%
60-90	401.95	33.50%	31.99%
90-120	116.07	9.67%	9.24%
90-130	129.27	10.77%	10.29%
90-150	140.81	11.73%	11.21%
90-180	145.53	12.13%	11.58%
0-73.06	1005.15	83.76%	80.00%

ZONAL LUMEN SUMMARY

0-10	33.99
10-20	97.52
20-30	147.65
30-40	178.09
40-50	187.67
50-60	177.14
60-70	147.28
70-80	105.59
80-90	63.04
90-100	40.39
100-110	27.64
110-120	20.85
120-130	13.20
130-140	7.47
140-150	4.07
150-160	2.59
160-170	1.70
170-180	0.43



C45(Max): —

C0/C180: —

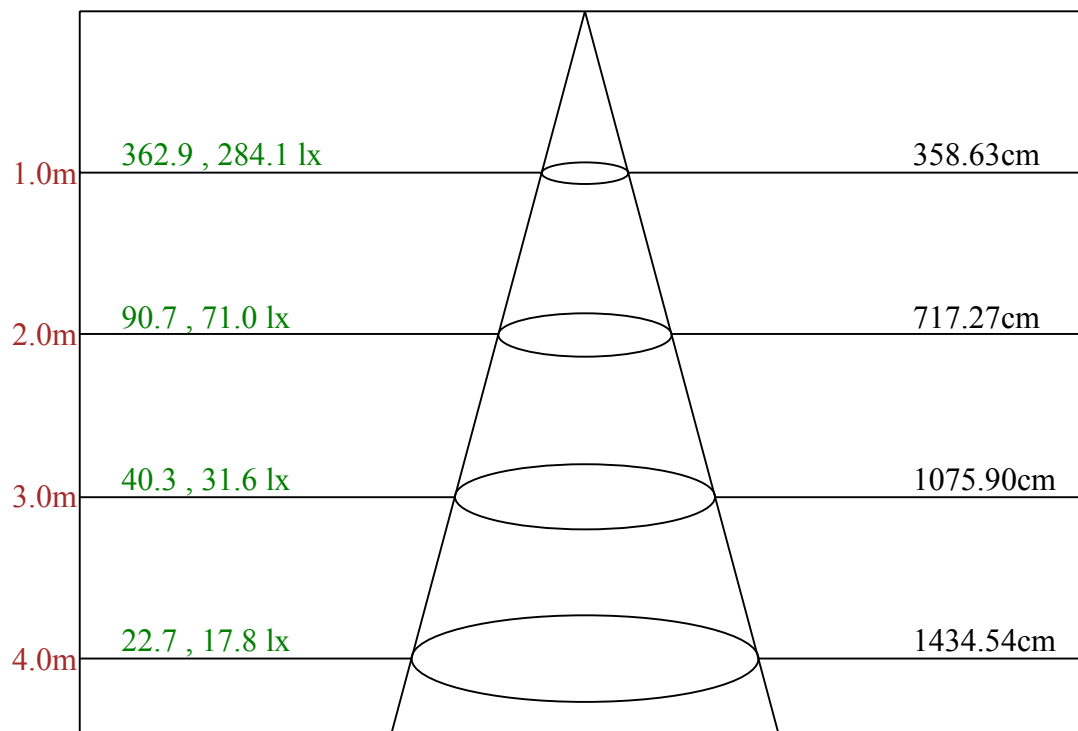
C90/C270: —

Field angle(10%Imax):C0/180Left:101.2 Right:101.1

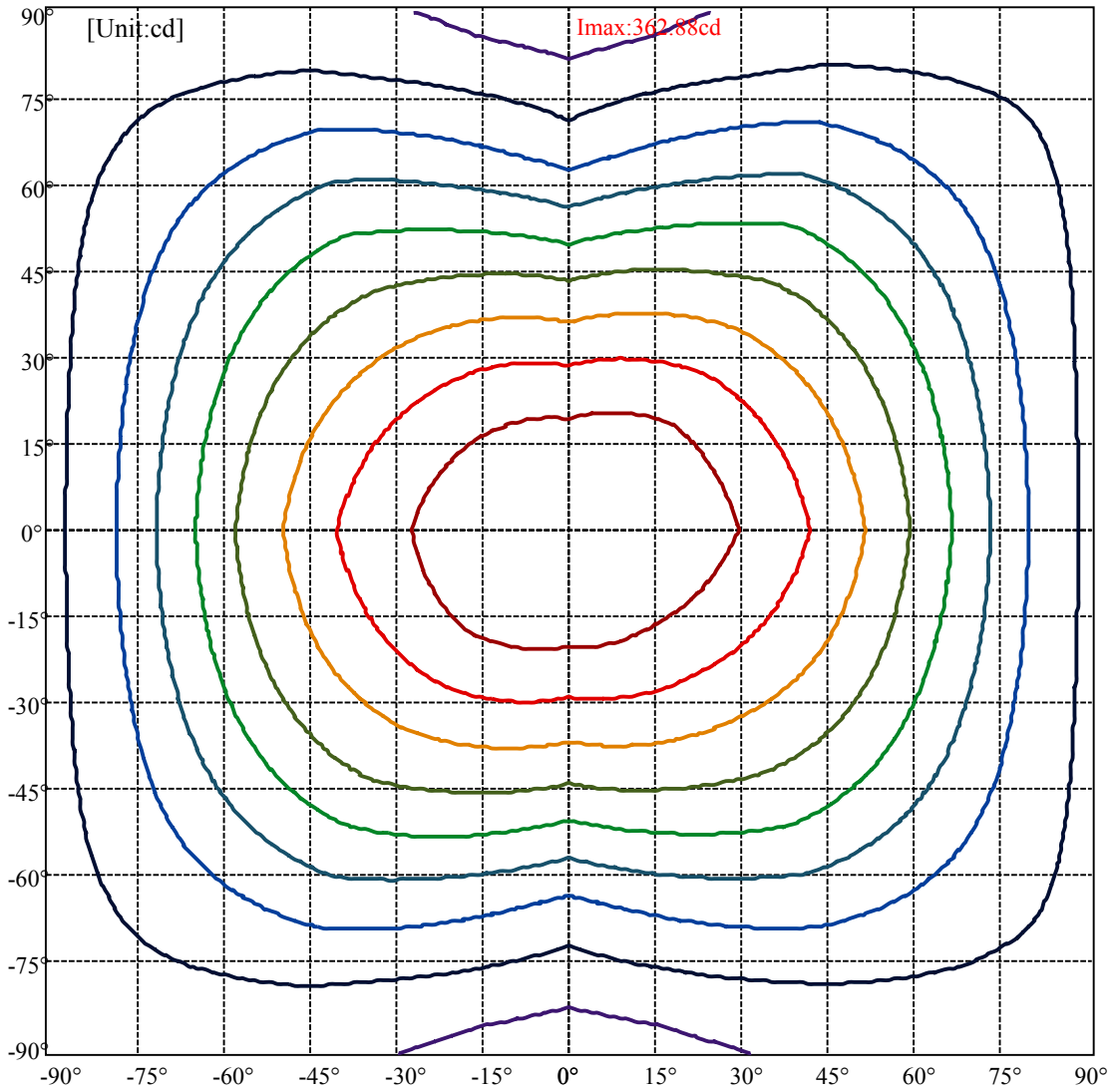
:C90/270Left:82.1 Right:81.1

Beam Angle(50%Imax):C0/180Left:64.8 Right:66.6

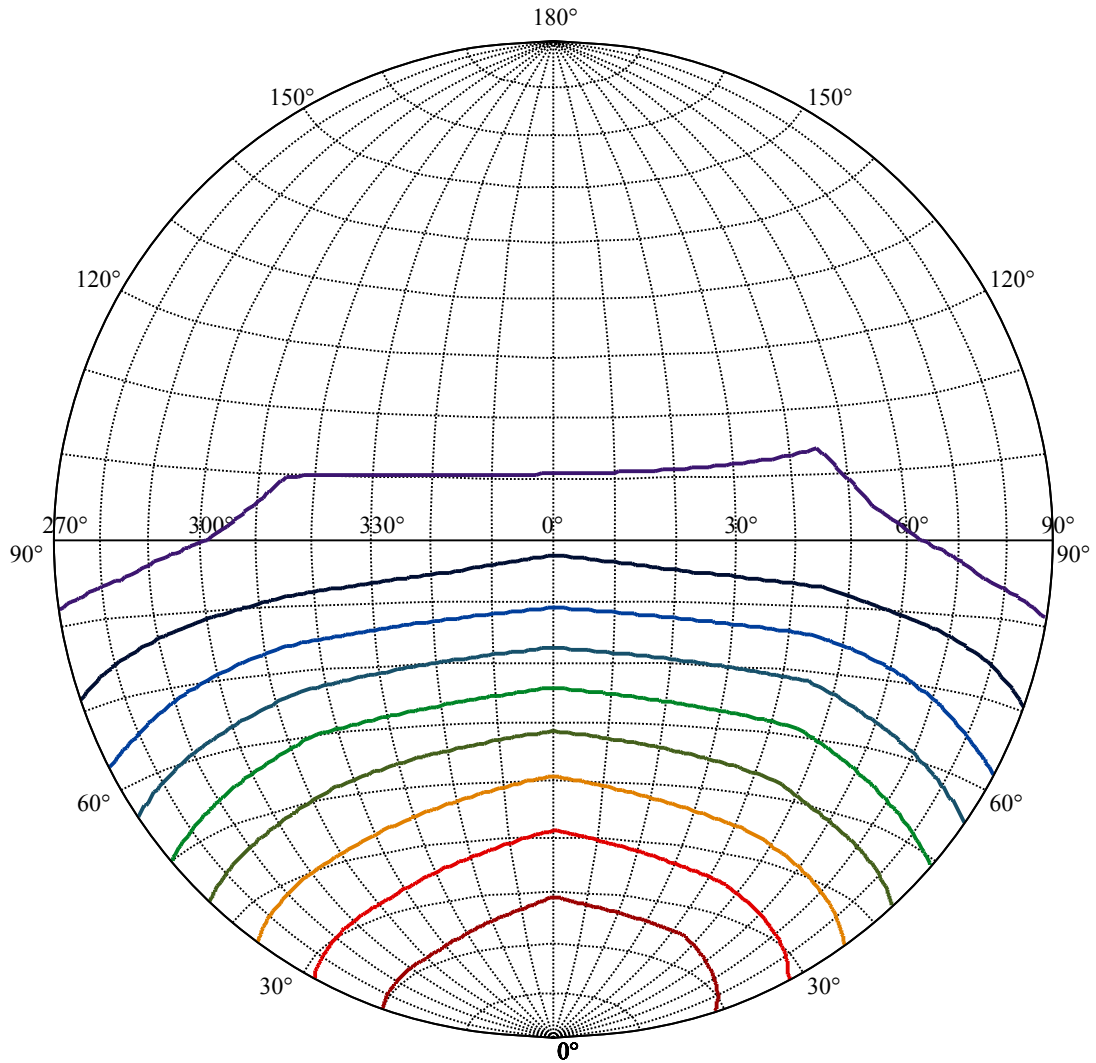
:C90/270Left:50.1 Right:49.4



Max , Ave      Beam angle of C45plane121.68



(10%I <sub>max</sub> ) 36.2661	
(20%I <sub>max</sub> ) 72.5322	
(30%I <sub>max</sub> ) 108.798	
(40%I <sub>max</sub> ) 145.064	
(50%I <sub>max</sub> ) 181.331	
(60%I <sub>max</sub> ) 217.597	
(70%I <sub>max</sub> ) 253.863	
(80%I <sub>max</sub> ) 290.129	
(90%I <sub>max</sub> ) 326.395	



House

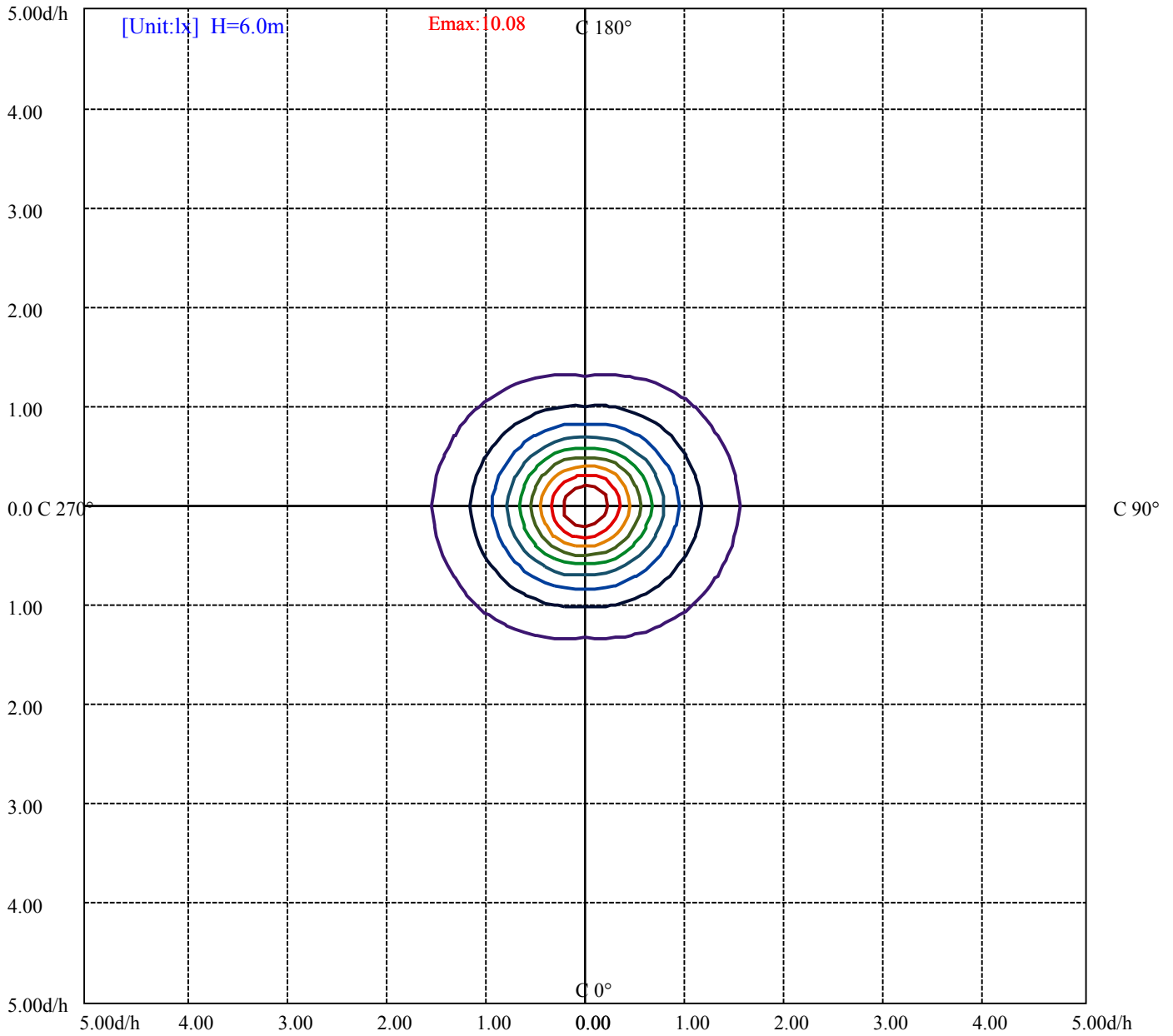
[Unit:cd]

Road

**Imax:362.88**

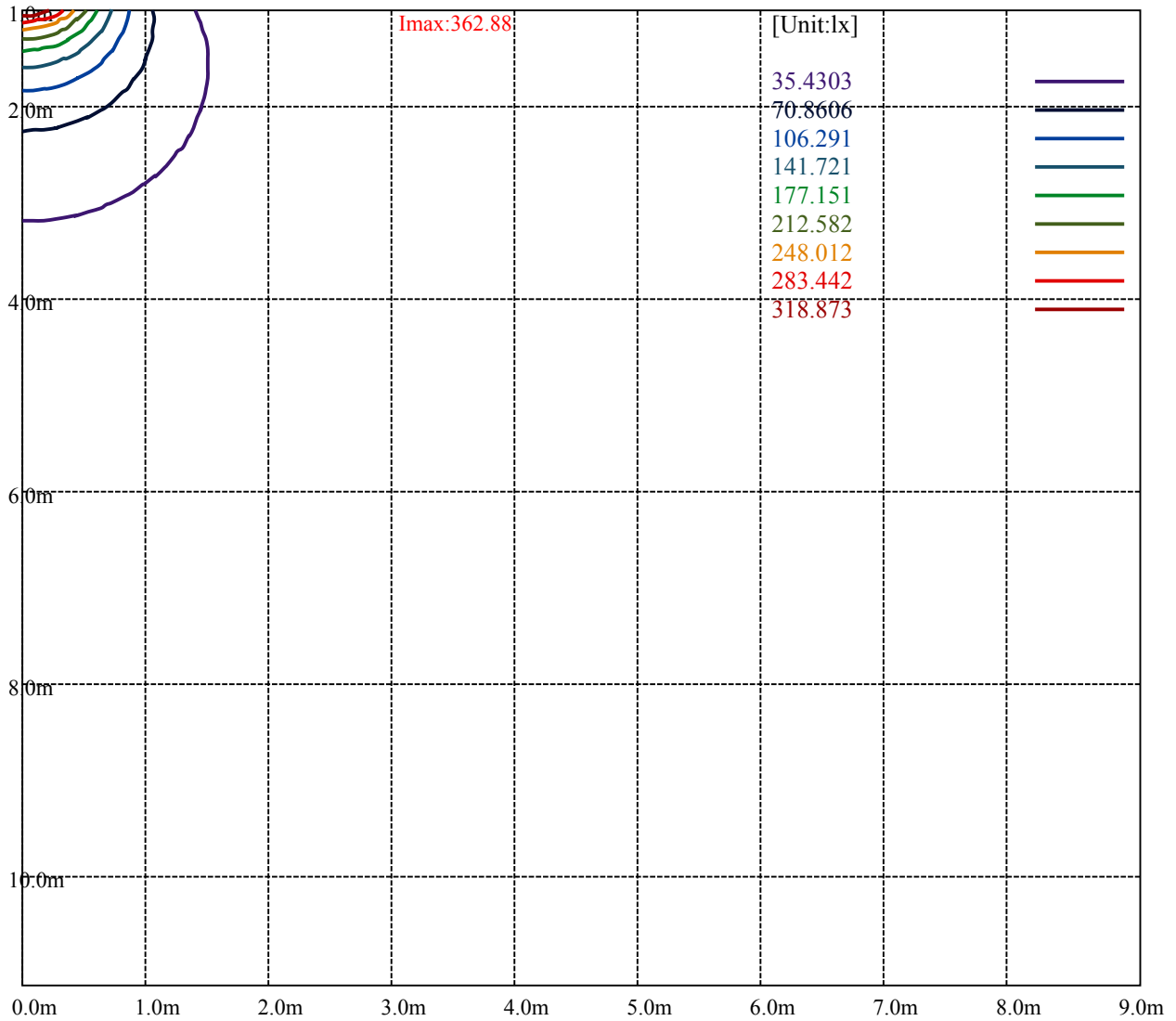
- (10%Imax) 36.2882
- (20%Imax) 72.5765
- (30%Imax) 108.865
- (40%Imax) 145.153
- (50%Imax) 181.441
- (60%Imax) 217.73
- (70%Imax) 254.018
- (80%Imax) 290.306
- (90%Imax) 326.594





- (10%Emax) 1.008006
- (20%Emax) 2.016011
- (30%Emax) 3.024028
- (40%Emax) 4.032028
- (50%Emax) 5.040028
- (60%Emax) 6.048028
- (70%Emax) 7.056056
- (80%Emax) 8.064055
- (90%Emax) 9.072056





Luminance Table

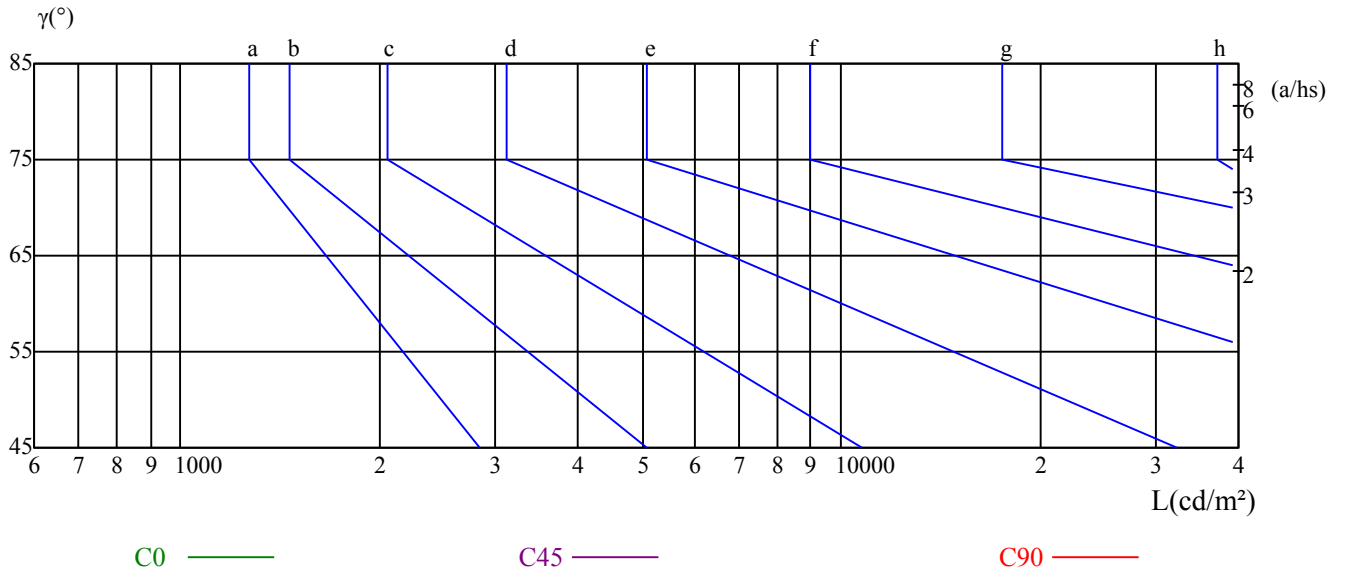
$\gamma$	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

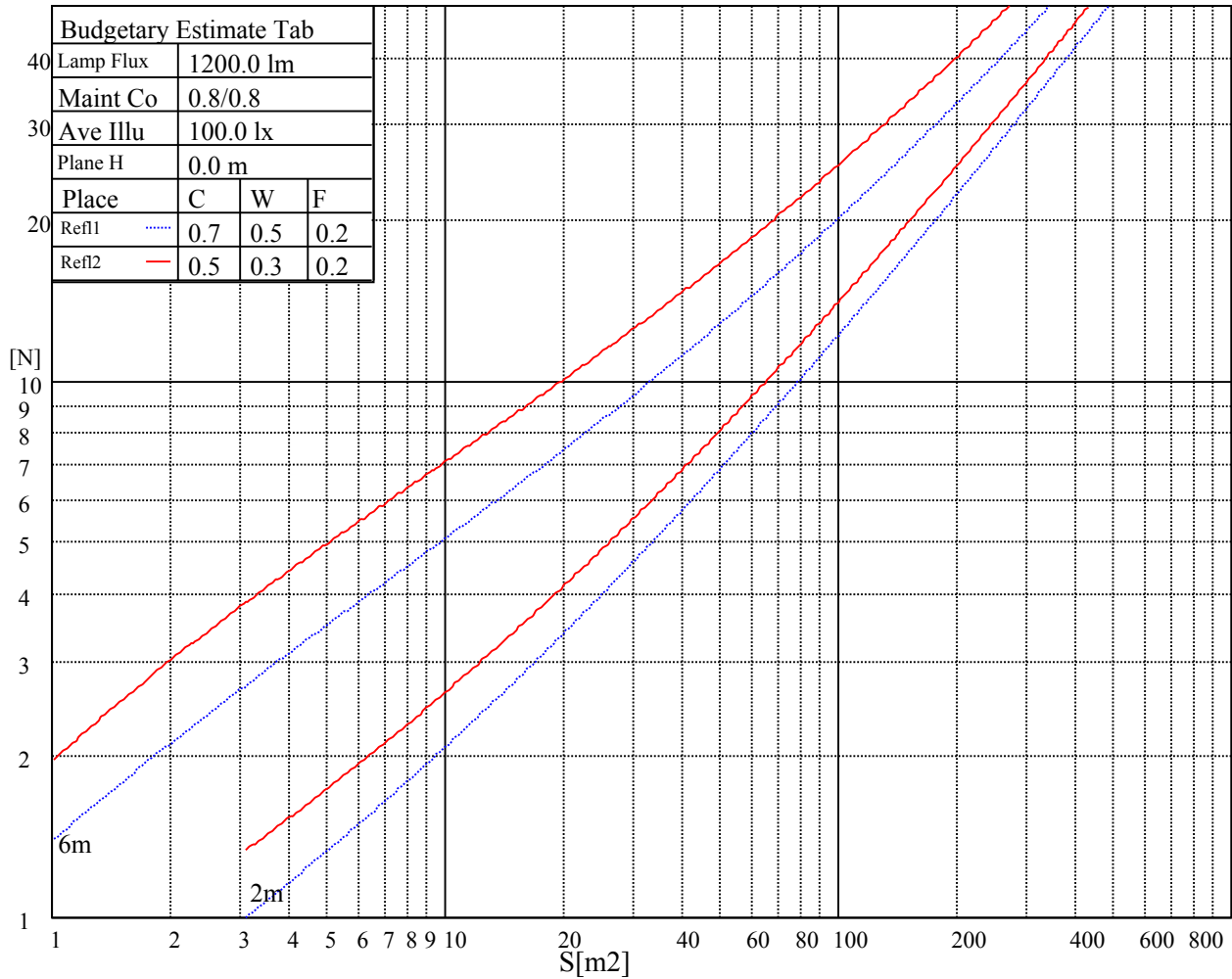
L横(65)	L纵(65)	L45(65)	L横(75)	L纵(75)	L45(75)	L横(85)	L纵(85)	L45(85)
0	0	0	0	0	0	0	0	0

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	1.22	1.22	1.22	1.18	1.18	1.18	1.11	1.11	1.11	1.04	1.04	1.04	0.98	0.98	0.98	0.95
1	1.04	0.99	0.94	1.01	0.96	0.92	0.94	0.91	0.87	0.89	0.86	0.83	0.83	0.81	0.79	0.76
2	0.90	0.82	0.76	0.87	0.80	0.74	0.82	0.76	0.71	0.77	0.72	0.68	0.72	0.68	0.65	0.62
3	0.78	0.69	0.62	0.76	0.68	0.61	0.71	0.64	0.59	0.67	0.61	0.56	0.63	0.58	0.54	0.51
4	0.69	0.60	0.52	0.67	0.58	0.51	0.63	0.56	0.50	0.60	0.53	0.48	0.56	0.51	0.46	0.43
5	0.62	0.52	0.45	0.60	0.51	0.44	0.56	0.49	0.43	0.53	0.47	0.41	0.50	0.45	0.40	0.37
6	0.55	0.46	0.39	0.54	0.45	0.38	0.51	0.43	0.37	0.48	0.41	0.36	0.46	0.40	0.35	0.32
7	0.50	0.41	0.34	0.49	0.40	0.34	0.46	0.38	0.33	0.44	0.37	0.32	0.42	0.36	0.31	0.29
8	0.46	0.37	0.30	0.44	0.36	0.30	0.42	0.35	0.29	0.40	0.33	0.28	0.38	0.32	0.28	0.25
9	0.42	0.33	0.27	0.41	0.32	0.27	0.39	0.31	0.26	0.37	0.30	0.26	0.35	0.29	0.25	0.23
10	0.38	0.30	0.25	0.38	0.30	0.24	0.36	0.29	0.24	0.34	0.28	0.23	0.33	0.27	0.23	0.21

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Intensity data(cd)

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C/γ(°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	354.30	353.91	352.74	349.43	343.38	335.19	324.86	310.43	295.02
45.0	362.88	362.10	359.18	351.96	340.85	326.81	309.65	290.74	270.65
90.0	359.57	357.81	351.38	339.48	323.30	303.99	282.35	257.59	232.63
135.0	356.84	355.86	351.96	343.19	331.68	317.64	300.68	280.60	260.71
180.0	354.30	353.33	350.99	346.89	340.07	330.90	319.40	305.75	289.76
225.0	362.88	361.71	357.81	349.62	338.31	324.08	307.31	287.03	267.34
270.0	359.57	358.40	353.13	342.02	326.61	307.70	283.91	260.71	236.14
315.0	356.84	355.67	350.79	342.60	331.49	317.45	299.70	281.57	262.27
360.0	354.30	353.91	352.74	349.43	343.38	335.19	324.86	310.43	295.02
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	277.48	257.98	234.58	210.98	185.83	159.11	130.65	103.54	81.12
45.0	249.59	227.75	208.84	188.17	163.21	137.86	111.93	85.21	63.37
90.0	206.30	176.47	148.00	119.34	92.62	73.90	57.72	39.39	23.59
135.0	240.04	221.12	201.62	181.34	158.92	132.21	106.66	81.90	60.45
180.0	270.07	250.18	228.14	204.74	176.27	149.95	123.04	97.30	76.63
225.0	247.84	228.73	208.06	181.93	157.16	131.23	104.71	79.75	58.69
270.0	210.01	180.56	152.48	124.21	96.72	77.22	60.06	42.51	26.71
315.0	242.96	223.66	203.77	181.54	155.41	130.06	104.32	79.17	56.16
360.0	277.48	257.98	234.58	210.98	185.83	159.11	130.65	103.54	81.12
C/γ(°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	64.15	55.77	38.22	25.15	27.30	23.59	21.84	21.45	16.57
45.0	49.33	43.09	39.19	35.49	32.17	28.47	23.01	15.21	10.33
90.0	16.38	9.16	5.26	5.07	4.87	4.68	5.07	5.26	5.85
135.0	46.60	40.75	37.83	34.71	31.59	27.88	23.01	15.40	11.31
180.0	62.79	55.96	37.24	29.64	30.81	28.08	26.91	26.71	22.62
225.0	46.60	41.53	38.41	35.29	31.78	27.88	22.42	15.79	11.89
270.0	17.16	11.11	10.14	3.90	5.07	5.65	7.41	7.02	6.63
315.0	44.65	39.78	35.88	31.98	27.10	21.64	15.21	9.16	7.02
360.0	64.15	55.77	38.22	25.15	27.30	23.59	21.84	21.45	16.57
C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	13.65	10.92	7.80	5.85	5.07	5.26	5.46	5.85	6.24
45.0	8.77	6.24	5.07	5.07	5.26	5.65	6.04	6.43	6.04
90.0	6.04	6.24	6.43	6.43	6.63	6.82	6.82	6.43	5.85
135.0	8.97	6.24	4.87	5.07	5.07	5.26	5.65	6.24	5.85
180.0	18.91	14.43	10.14	6.04	5.07	5.26	5.46	5.85	6.04
225.0	8.77	6.04	4.87	5.07	5.26	5.65	6.04	6.04	5.85
270.0	6.43	6.24	6.04	6.24	6.43	6.63	6.82	6.43	5.85
315.0	5.46	4.87	4.87	5.07	5.26	5.65	6.04	5.85	5.65
360.0	13.65	10.92	7.80	5.85	5.07	5.26	5.46	5.85	6.24
C/γ(°)	180.0								
0.0	5.26								
45.0	5.46								
90.0	5.26								
135.0	5.46								
180.0	5.26								
225.0	5.46								
270.0	5.26								
315.0	5.46								
360.0	5.26								