
THINKLUX

LumCAT: LED-CL3-Circular-AC180-265V-12W-4000K

Luminaire:

Report No:	Voltage(V): 230.3000
Test No:	Current(A): 0.0670
LampCAT:	Power (W): 12.1600
Lamp flux(lm): 850.0	PF: 0.7830
Number of Lamps: 1	Ballast type:
Length(mm): 0	Width(mm): 0
Phm Type: C	Height(mm): 0

Photometric Results

Lumens(lm): 881.83
Efficiency(%): 103.75%
Lumens(lm)/Power(W): 72.52
Central intensity(cd): 275.526
Maximum intensity(cd): 278.840
Angle of maximum intensity: C=45.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=119.5
 [C90/270]Total=105.6
Field angle(10%Imax): [C0/180]Total=169.4
 [C90/270]Total=166.7
Maximum s/h(1/2): C0_180=1.30 C90_270=1.24
Maximum s/h(1/4): C0_180=1.85 C90_270=1.36
Up flux rate of lamp(%): 8.31%
Down flux rate of lamp(%): 95.44%
Up flux rate of LUM(%): 8.01%
Down flux rate of LUM(%): 91.99%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 69.884%

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Zonal flux distribution table

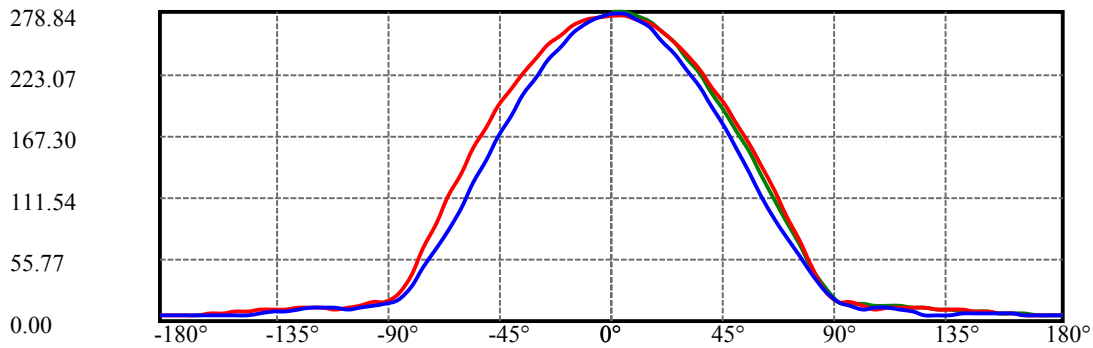
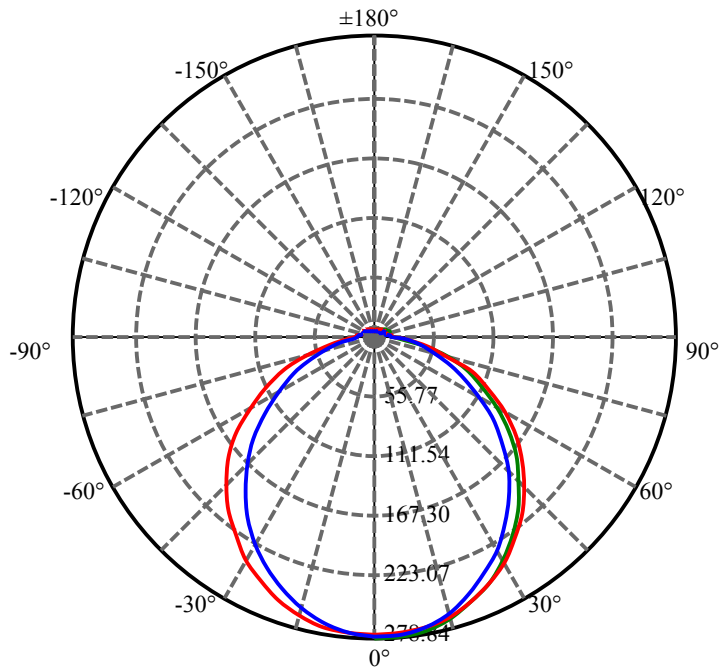
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	276.939	.000	.000	.000%	.000%
5.0	275.477	6.604	6.604	.777%	.777%
10.0	271.333	19.561	26.165	2.301%	3.078%
15.0	264.777	31.802	57.967	3.741%	6.820%
20.0	255.417	42.871	100.838	5.044%	11.863%
25.0	244.132	52.393	153.231	6.164%	18.027%
30.0	231.043	60.134	213.365	7.075%	25.102%
35.0	216.101	65.845	279.210	7.746%	32.848%
40.0	199.478	69.336	348.546	8.157%	41.005%
45.0	181.368	70.517	419.063	8.296%	49.302%
50.0	162.649	69.514	488.577	8.178%	57.480%
55.0	142.833	66.422	554.999	7.814%	65.294%
60.0	122.188	61.259	616.257	7.207%	72.501%
65.0	101.031	54.265	670.522	6.384%	78.885%
70.0	81.751	46.282	716.804	5.445%	84.330%
75.0	61.545	37.455	754.259	4.406%	88.736%
80.0	41.509	27.574	781.833	3.244%	91.980%
85.0	24.886	18.041	799.875	2.122%	94.103%
90.0	16.623	11.366	811.240	1.337%	95.440%
95.0	15.136	8.696	819.936	1.023%	96.463%
100.0	13.771	7.855	827.791	.924%	97.387%
105.0	12.845	7.122	834.913	.838%	98.225%
110.0	12.870	6.721	841.634	.791%	99.016%
115.0	12.504	6.425	848.059	.756%	99.772%
120.0	11.748	5.896	853.955	.694%	100.465%
125.0	10.968	5.251	859.206	.618%	101.083%
130.0	10.237	4.611	863.816	.542%	101.626%
135.0	9.579	4.004	867.821	.471%	102.097%
140.0	8.799	3.403	871.223	.400%	102.497%
145.0	8.238	2.843	874.066	.334%	102.831%
150.0	7.653	2.340	876.406	.275%	103.107%
155.0	7.020	1.857	878.263	.218%	103.325%
160.0	6.508	1.419	879.682	.167%	103.492%
165.0	5.801	1.014	880.696	.119%	103.611%
170.0	5.289	.658	881.354	.077%	103.689%
175.0	4.875	.364	881.718	.043%	103.732%
180.0	4.777	.115	881.833	.014%	103.745%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	213.37	25.10%	24.20%
0-40	348.55	41.01%	39.53%
0-60	616.26	72.50%	69.88%
0-90	811.24	95.44%	91.99%
0-120	853.95	100.47%	96.84%
0-180	881.83	103.75%	100.00%
60-90	256.24	30.15%	29.06%
90-120	54.08	6.36%	6.13%
90-130	63.94	7.52%	7.25%
90-150	76.53	9.00%	8.68%
90-180	81.84	9.63%	9.28%
0-68.78	705.47	83.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	26.17
10-20	74.67
20-30	112.53
30-40	135.18
40-50	140.03
50-60	127.68
60-70	100.55
70-80	65.03
80-90	29.41
90-100	16.55
100-110	13.84
110-120	12.32
120-130	9.86
130-140	7.41
140-150	5.18
150-160	3.28
160-170	1.67
170-180	0.36



C45(Max): ———

C0/C180: ———

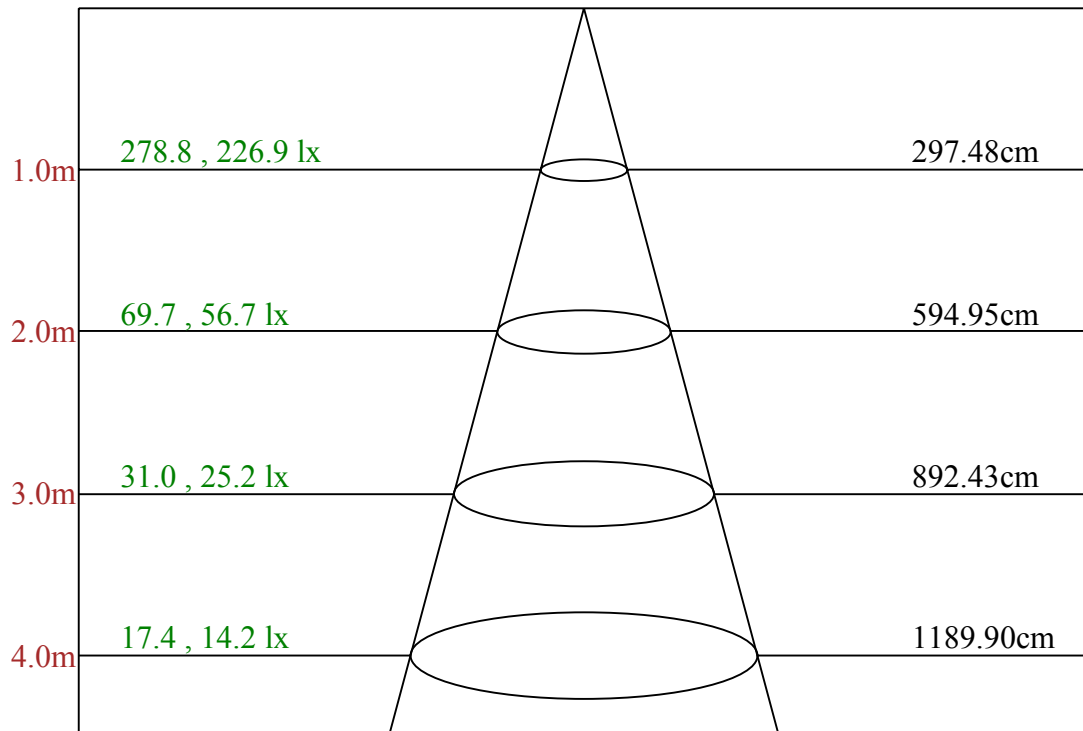
C90/C270: ———

Field angle(10%Imax):C0/180Left:84.0 Right:85.3

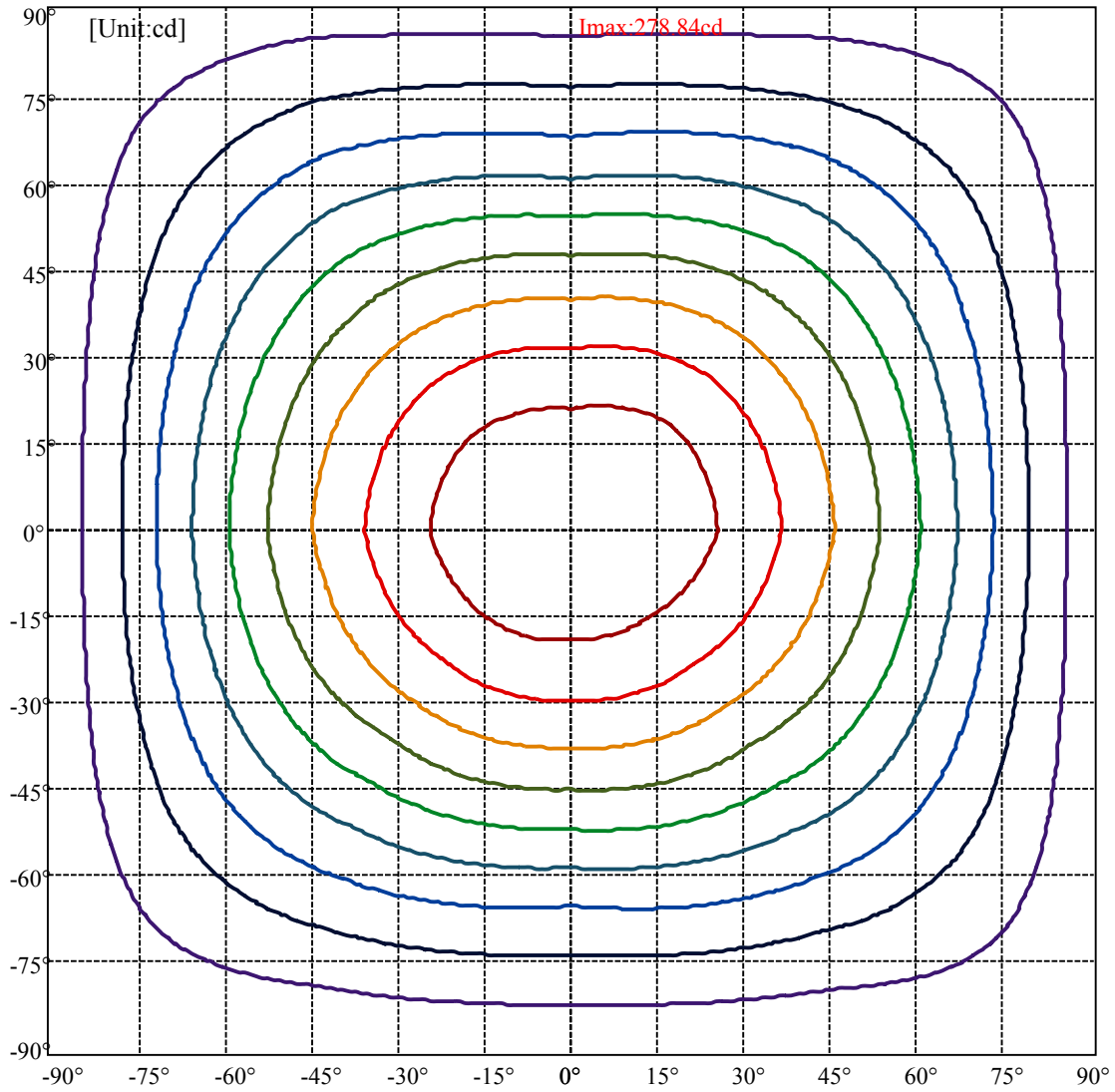
:C90/270Left:81.7 Right:85.0










Beam Angle(50%Imax):C0/180Left:59.1 Right:60.5

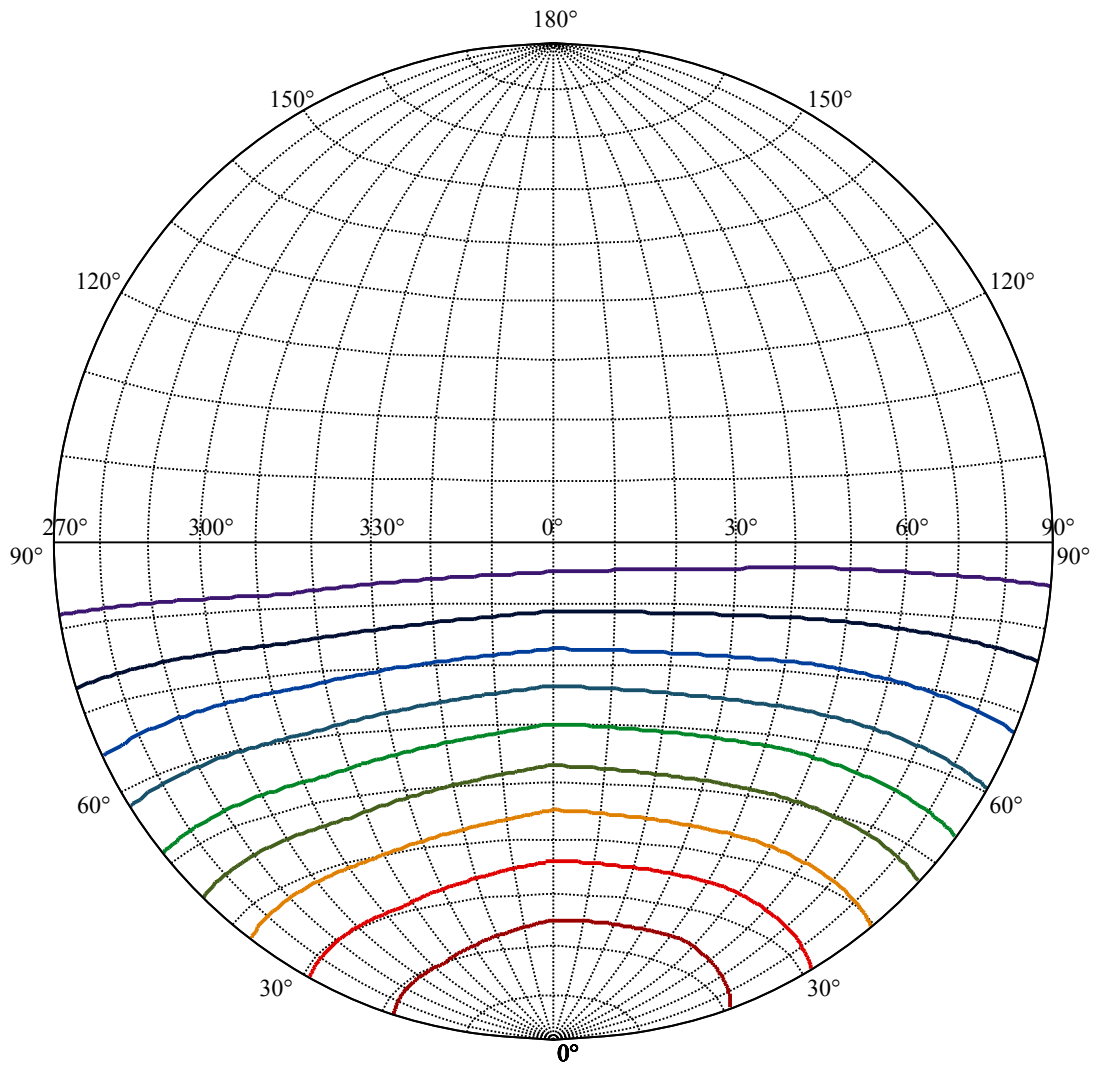
:C90/270Left:51.6 Right:54.0



Max , Ave Beam angle of C45plane111.85



(10%Imax) 27.884	
(20%Imax) 55.768	
(30%Imax) 83.652	
(40%Imax) 111.536	
(50%Imax) 139.42	
(60%Imax) 167.304	
(70%Imax) 195.188	
(80%Imax) 223.072	
(90%Imax) 250.956	












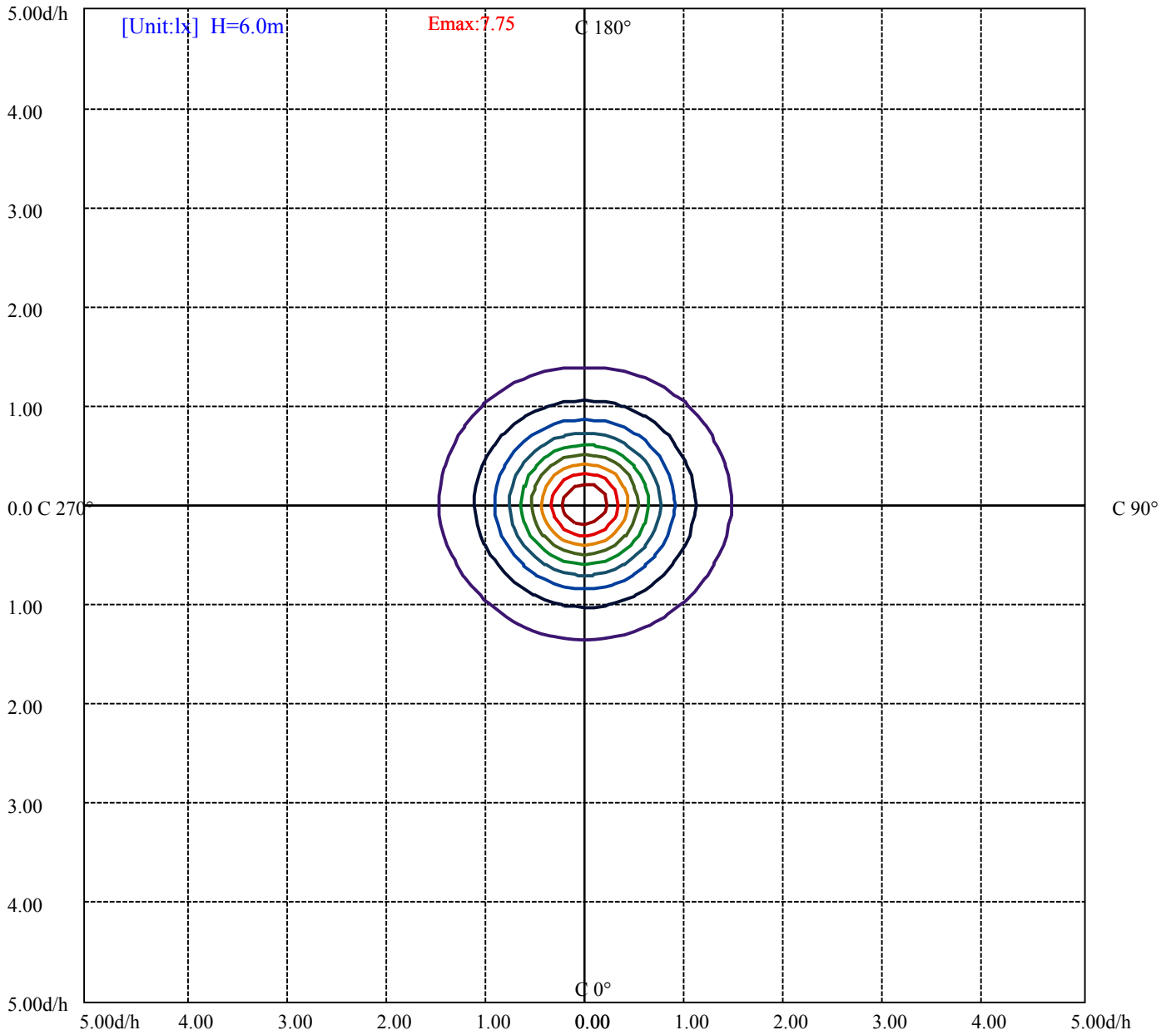
House

[Unit:cd]

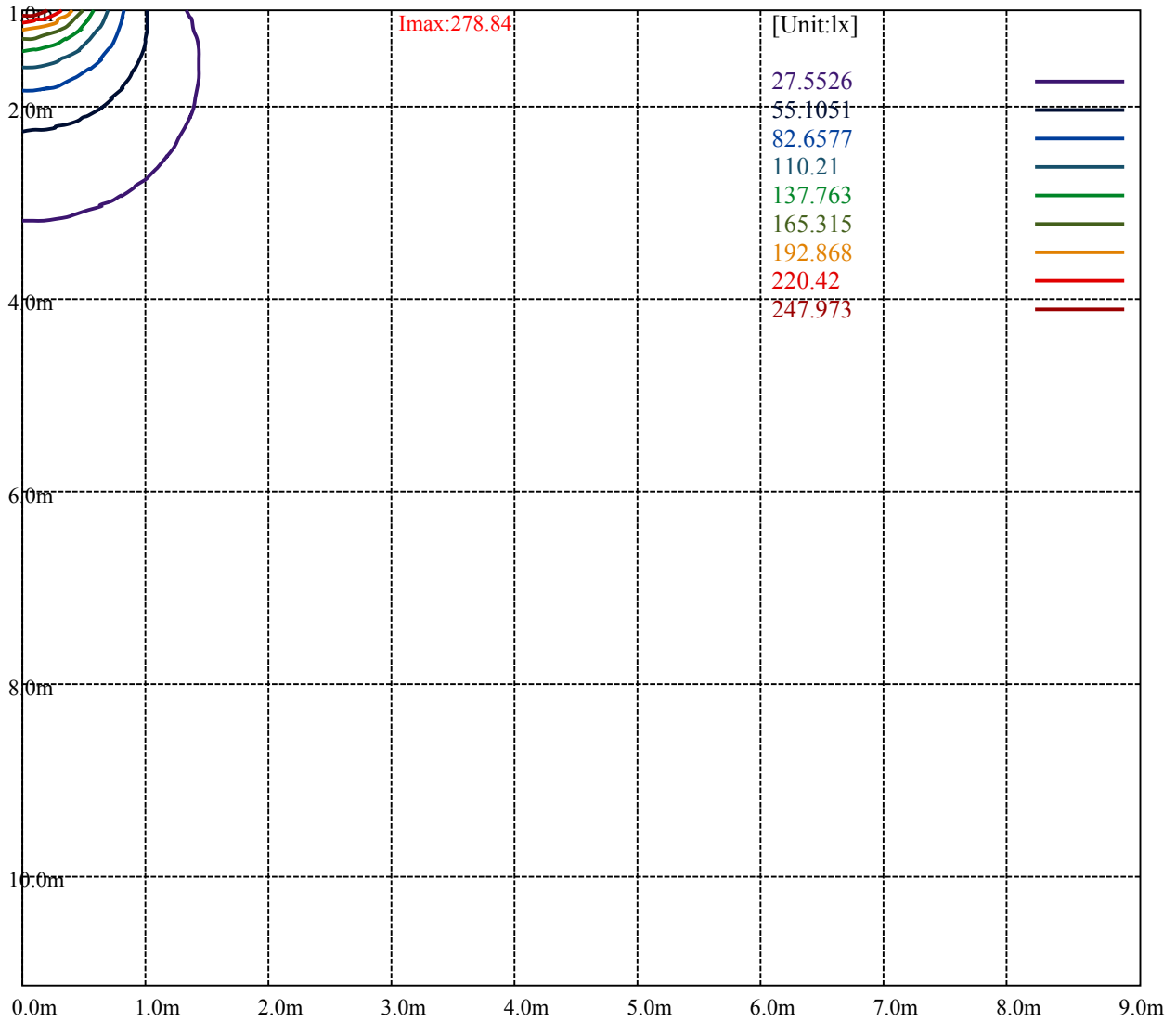
Road

I_{max}:278.84

(10%I _{max}) 27.884	
(20%I _{max}) 55.7681	
(30%I _{max}) 83.6521	
(40%I _{max}) 111.536	
(50%I _{max}) 139.42	
(60%I _{max}) 167.304	
(70%I _{max}) 195.188	
(80%I _{max}) 223.072	
(90%I _{max}) 250.956	



- (10%Emax) 0.7745556
- (20%Emax) 1.549114
- (30%Emax) 2.323669
- (40%Emax) 3.098222
- (50%Emax) 3.872778
- (60%Emax) 4.647333
- (70%Emax) 5.421889
- (80%Emax) 6.196445
- (90%Emax) 6.971



Luminance Table

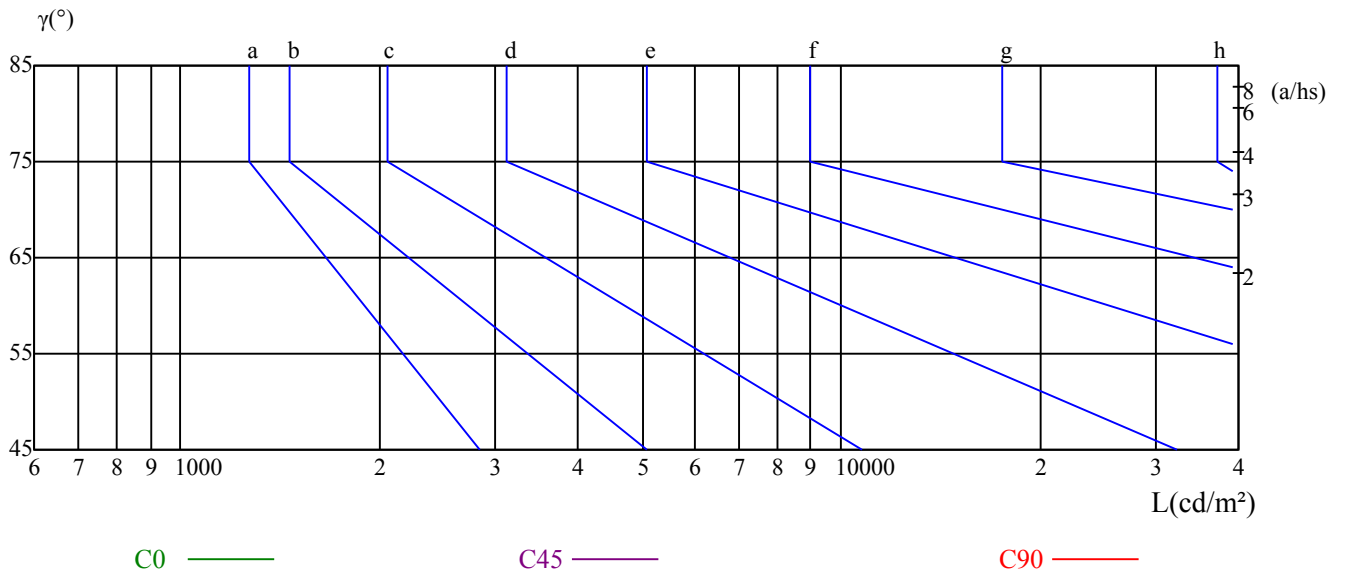
γ	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

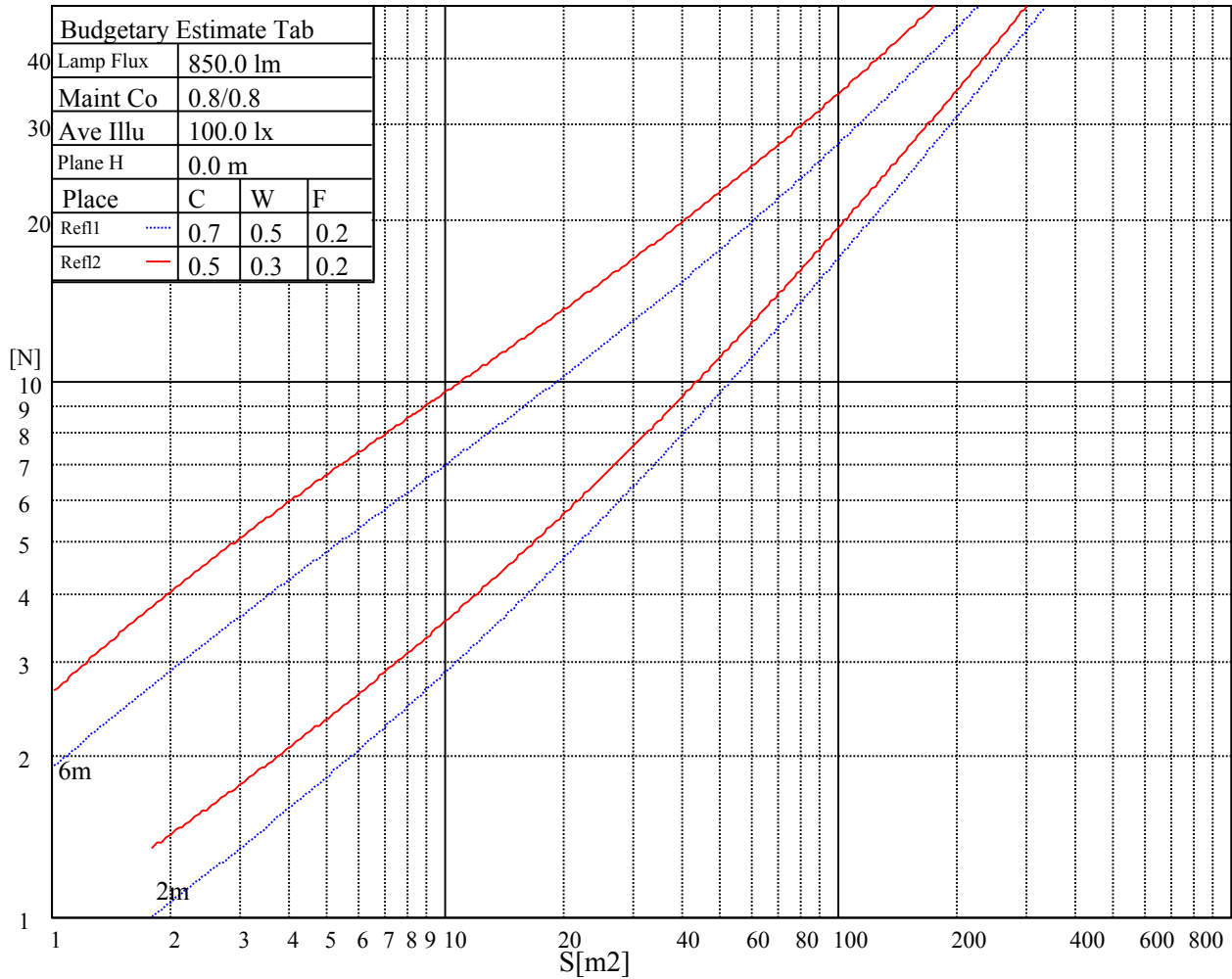
L横(65)	L纵(65)	L45(65)	L横(75)	L纵(75)	L45(75)	L横(85)	L纵(85)	L45(85)
0	0	0	0	0	0	0	0	0

Glare Table

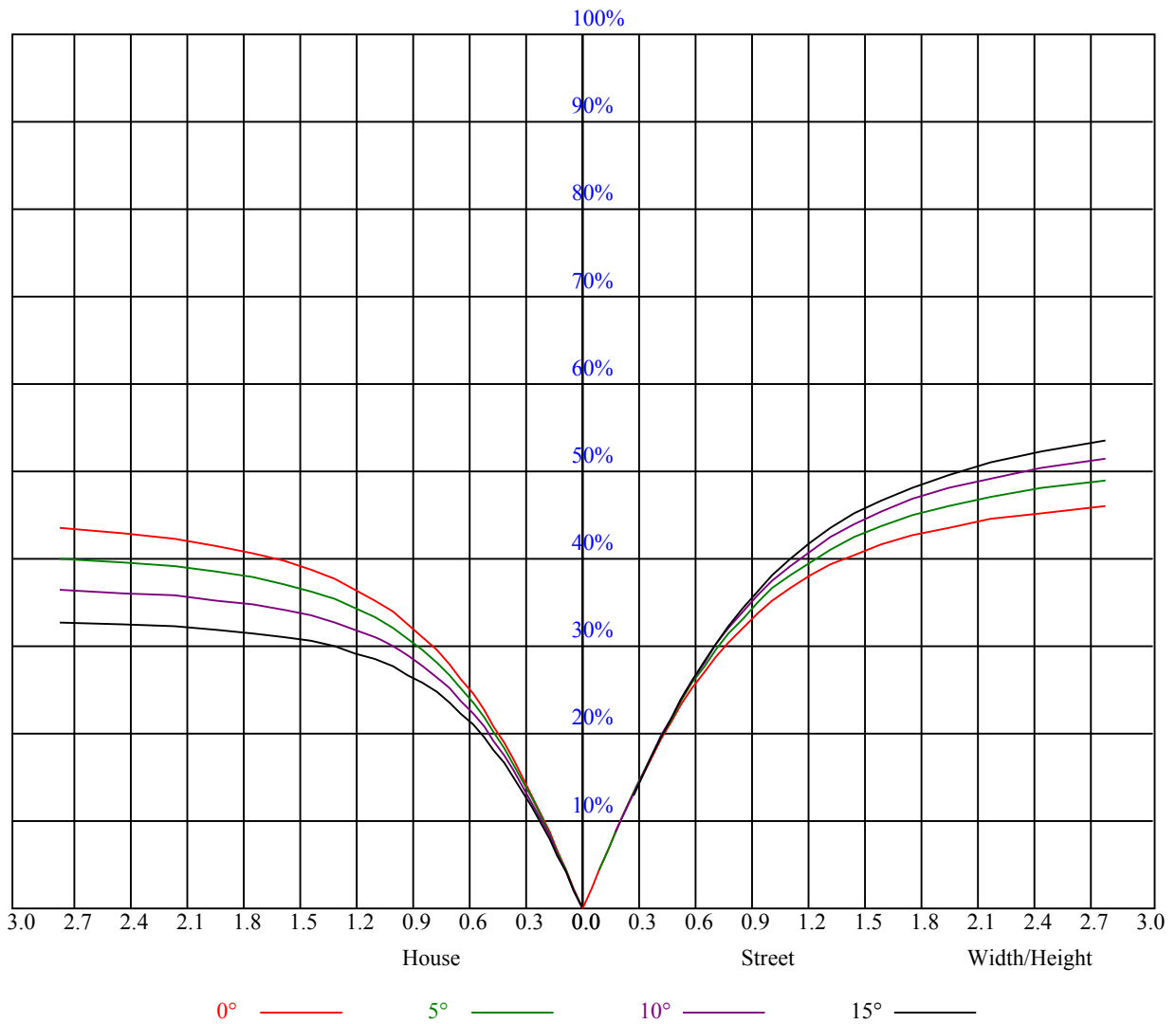
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	1.22	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	1.05	1.00	0.96	1.02	0.97	0.94	0.96	0.92	0.89	0.90	0.87	0.85	0.85	0.83	0.81	0.78
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	0.74	0.71	0.67	0.64
3	0.80	0.71	0.64	0.77	0.69	0.63	0.73	0.66	0.61	0.69	0.63	0.59	0.65	0.61	0.57	0.54
4	0.70	0.61	0.54	0.68	0.60	0.53	0.65	0.57	0.52	0.61	0.55	0.50	0.58	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	0.48	0.43	0.52	0.47	0.42	0.40
6	0.57	0.47	0.40	0.55	0.46	0.40	0.52	0.45	0.39	0.50	0.43	0.38	0.47	0.42	0.37	0.35
7	0.51	0.42	0.36	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	0.47	0.38	0.32	0.46	0.37	0.31	0.44	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	0.26	0.24
10	0.39	0.31	0.26	0.39	0.31	0.26	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)

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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	275.53	274.94	272.21	267.92	261.29	251.35	240.23	226.58	212.15
45.0	278.84	278.84	275.92	270.26	261.10	250.37	237.50	223.07	206.89
90.0	277.28	276.50	271.82	264.22	252.91	240.82	226.78	210.98	193.82
135.0	276.11	275.72	272.60	266.75	257.59	247.06	234.38	220.15	203.57
180.0	275.53	274.36	271.63	266.56	258.76	249.40	237.89	224.24	209.42
225.0	278.84	276.11	270.65	262.85	252.71	239.45	225.22	209.23	191.68
270.0	277.28	274.16	267.92	259.15	248.03	235.36	220.73	204.35	184.85
315.0	276.11	273.19	267.92	260.51	250.96	239.26	225.61	210.20	193.43
360.0	275.53	274.94	272.21	267.92	261.29	251.35	240.23	226.58	212.15
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	196.36	178.81	160.09	139.81	117.97	95.55	72.54	50.11	28.27
45.0	189.34	171.01	151.70	131.82	109.20	90.28	69.22	49.33	30.81
90.0	175.49	156.38	134.16	113.10	92.43	75.46	59.47	43.68	27.69
135.0	186.41	168.28	149.17	129.48	108.03	88.92	69.03	49.33	30.81
180.0	193.24	175.30	156.19	133.57	111.73	89.11	66.10	41.53	24.18
225.0	170.81	151.51	131.82	111.93	92.23	72.93	52.65	32.17	18.52
270.0	165.55	145.27	124.41	102.76	81.90	66.49	48.55	31.98	19.30
315.0	173.74	154.63	135.13	115.05	94.77	75.27	54.79	33.93	19.50
360.0	196.36	178.81	160.09	139.81	117.97	95.55	72.54	50.11	28.27
C/γ(°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	17.55	16.57	14.43	10.53	11.70	11.89	11.50	11.70	10.92
45.0	17.74	15.01	14.82	14.62	14.23	13.26	12.48	11.70	10.72
90.0	16.77	13.65	10.92	11.70	11.70	10.53	7.80	5.65	5.65
135.0	17.74	15.21	14.82	14.62	14.23	13.26	12.28	11.11	10.53
180.0	17.16	16.77	13.26	11.50	11.11	12.09	11.70	11.50	10.92
225.0	15.40	15.01	14.82	14.43	14.04	13.65	13.06	12.28	11.50
270.0	15.21	13.84	12.28	10.92	11.70	11.50	11.70	10.53	9.36
315.0	15.40	15.01	14.82	14.43	14.23	13.84	13.45	13.26	12.28
360.0	17.55	16.57	14.43	10.53	11.70	11.89	11.50	11.70	10.92
C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	10.92	10.14	9.36	8.58	7.60	6.82	5.85	5.26	4.87
45.0	10.14	9.36	8.97	8.58	7.60	7.02	6.24	5.65	4.87
90.0	5.85	6.24	6.43	6.24	6.24	6.24	5.65	5.46	4.87
135.0	10.14	9.36	8.58	7.21	6.43	6.04	5.65	5.07	4.87
180.0	10.92	10.14	9.16	8.38	7.41	6.63	5.85	5.26	4.87
225.0	10.33	9.16	8.38	7.99	7.41	6.82	5.65	5.07	4.87
270.0	7.80	6.63	6.04	5.85	5.85	5.85	5.65	5.46	4.87
315.0	10.53	9.36	8.97	8.38	7.60	6.63	5.85	5.07	4.87
360.0	10.92	10.14	9.36	8.58	7.60	6.82	5.85	5.26	4.87
C/γ(°)	180.0								
0.0	4.87								
45.0	4.68								
90.0	4.68								
135.0	4.87								
180.0	4.87								
225.0	4.68								
270.0	4.68								
315.0	4.87								
360.0	4.87								