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THINKLUX

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LumCAT: LED-CL3-Square-AC180-265V-24W-3000K

Luminaire:

Report No:	Voltage(V): 230.2000
Test No:	Current(A): 0.1290
LampCAT:	Power (W): 24.8300
Lamp flux(lm): 1600.0	PF: 0.8360
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): 1682.74  
Efficiency(%): 105.17%  
Lumens(lm)/Power(W): 67.77  
Central intensity(cd): 526.872  
Maximum intensity(cd): 532.332  
Angle of maximum intensity: C=45.0  $\gamma$ =0.0  
Beam Angle(50%Imax): [C0/180]Total=118.1  
                                  [C90/270]Total=111.7  
Field angle(10%Imax): [C0/180]Total=166.2  
                                  [C90/270]Total=164.9  
Maximum s/h(1/2): C0\_180=1.30 C90\_270=1.26  
Maximum s/h(1/4): C0\_180=1.85 C90\_270=1.39  
Up flux rate of lamp(%): 6.54%  
Down flux rate of lamp(%): 98.64%  
Up flux rate of LUM(%): 6.21%  
Down flux rate of LUM(%): 93.79%  
CIE Type : Direct lighting  
Output flux ratio in  $\pi$  solid angle : 71.783%

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Zonal flux distribution table

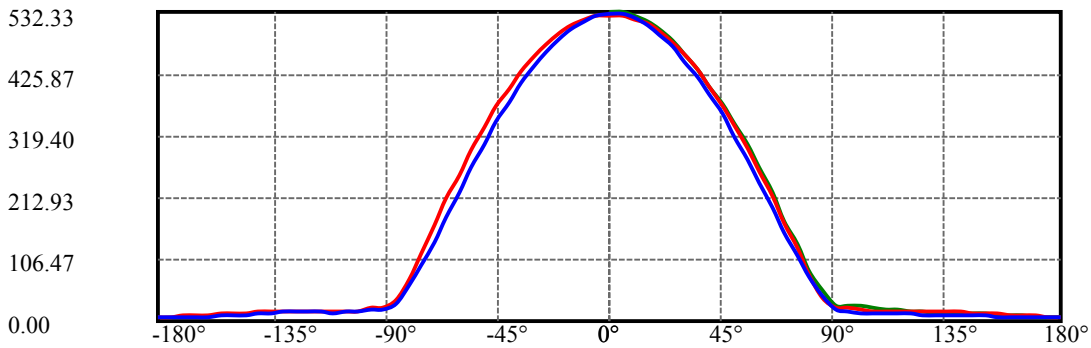
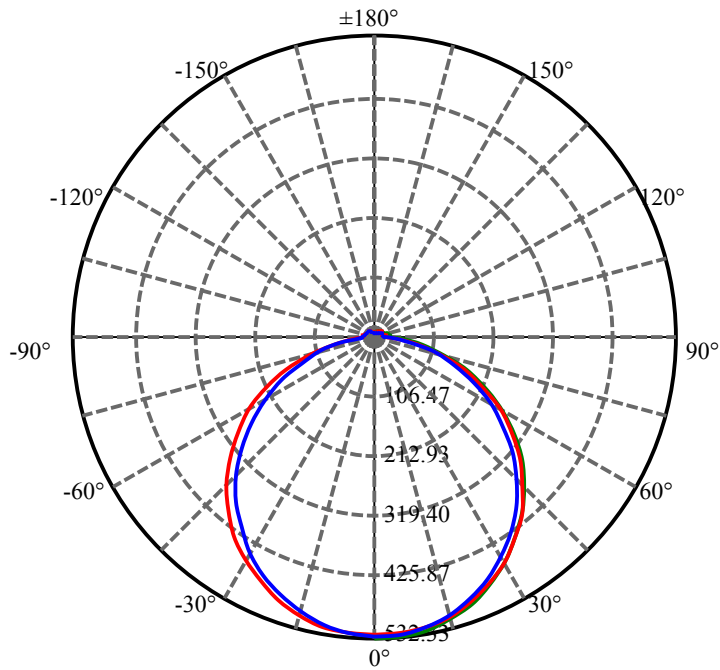
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	529.163	.000	.000	.000%	.000%
5.0	526.848	12.624	12.624	.789%	.789%
10.0	519.998	37.449	50.073	2.341%	3.130%
15.0	508.372	61.002	111.076	3.813%	6.942%
20.0	492.724	82.504	193.580	5.157%	12.099%
25.0	472.639	101.249	294.829	6.328%	18.427%
30.0	449.386	116.683	411.512	7.293%	25.719%
35.0	422.648	128.413	539.925	8.026%	33.745%
40.0	392.229	135.956	675.881	8.497%	42.243%
45.0	359.348	139.161	815.042	8.698%	50.940%
50.0	323.421	137.964	953.005	8.623%	59.563%
55.0	285.300	132.356	1085.361	8.272%	67.835%
60.0	244.887	122.551	1207.912	7.659%	75.495%
65.0	202.354	108.725	1316.637	6.795%	82.290%
70.0	157.579	91.137	1407.775	5.696%	87.986%
75.0	113.925	70.967	1478.742	4.435%	92.421%
80.0	74.317	50.368	1529.110	3.148%	95.569%
85.0	40.754	31.267	1560.377	1.954%	97.524%
90.0	24.228	17.792	1578.170	1.112%	98.636%
95.0	22.741	12.860	1591.030	.804%	99.439%
100.0	21.084	11.908	1602.938	.744%	100.184%
105.0	19.792	10.937	1613.875	.684%	100.867%
110.0	18.597	10.034	1623.910	.627%	101.494%
115.0	18.061	9.282	1633.192	.580%	102.075%
120.0	17.159	8.562	1641.754	.535%	102.610%
125.0	15.868	7.634	1649.388	.477%	103.087%
130.0	15.063	6.725	1656.114	.420%	103.507%
135.0	13.966	5.866	1661.979	.367%	103.874%
140.0	13.186	5.028	1667.007	.314%	104.188%
145.0	12.211	4.237	1671.245	.265%	104.453%
150.0	11.163	3.442	1674.687	.215%	104.668%
155.0	10.383	2.727	1677.413	.170%	104.838%
160.0	9.579	2.094	1679.507	.131%	104.969%
165.0	8.726	1.509	1681.016	.094%	105.064%
170.0	8.019	.993	1682.009	.062%	105.126%
175.0	7.385	.551	1682.560	.034%	105.160%
180.0	7.166	.174	1682.734	.011%	105.171%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	411.51	25.72%	24.45%
0-40	675.88	42.24%	40.17%
0-60	1207.91	75.49%	71.78%
0-90	1578.17	98.64%	93.79%
0-120	1641.75	102.61%	97.56%
0-180	1682.73	105.17%	100.00%
60-90	492.81	30.80%	29.29%
90-120	81.38	5.09%	4.84%
90-130	95.74	5.98%	5.69%
90-150	114.31	7.14%	6.79%
90-180	122.18	7.64%	7.26%
0-66.62	1346.19	84.14%	80.00%

ZONAL LUMEN SUMMARY

0-10	50.07
10-20	143.51
20-30	217.93
30-40	264.37
40-50	277.12
50-60	254.91
60-70	199.86
70-80	121.33
80-90	49.06
90-100	24.77
100-110	20.97
110-120	17.84
120-130	14.36
130-140	10.89
140-150	7.68
150-160	4.82
160-170	2.50
170-180	0.55



C45(Max): ———

C0/C180: ———

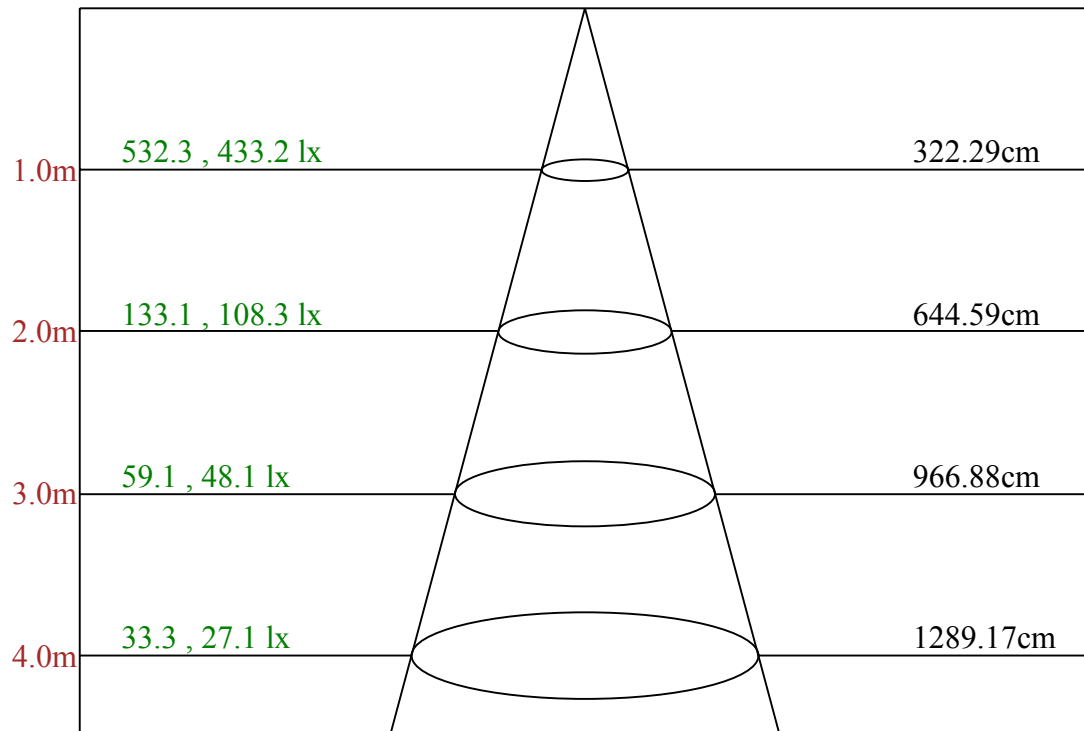
C90/C270: ———

Field angle(10%Imax):C0/180Left:82.8 Right:83.4

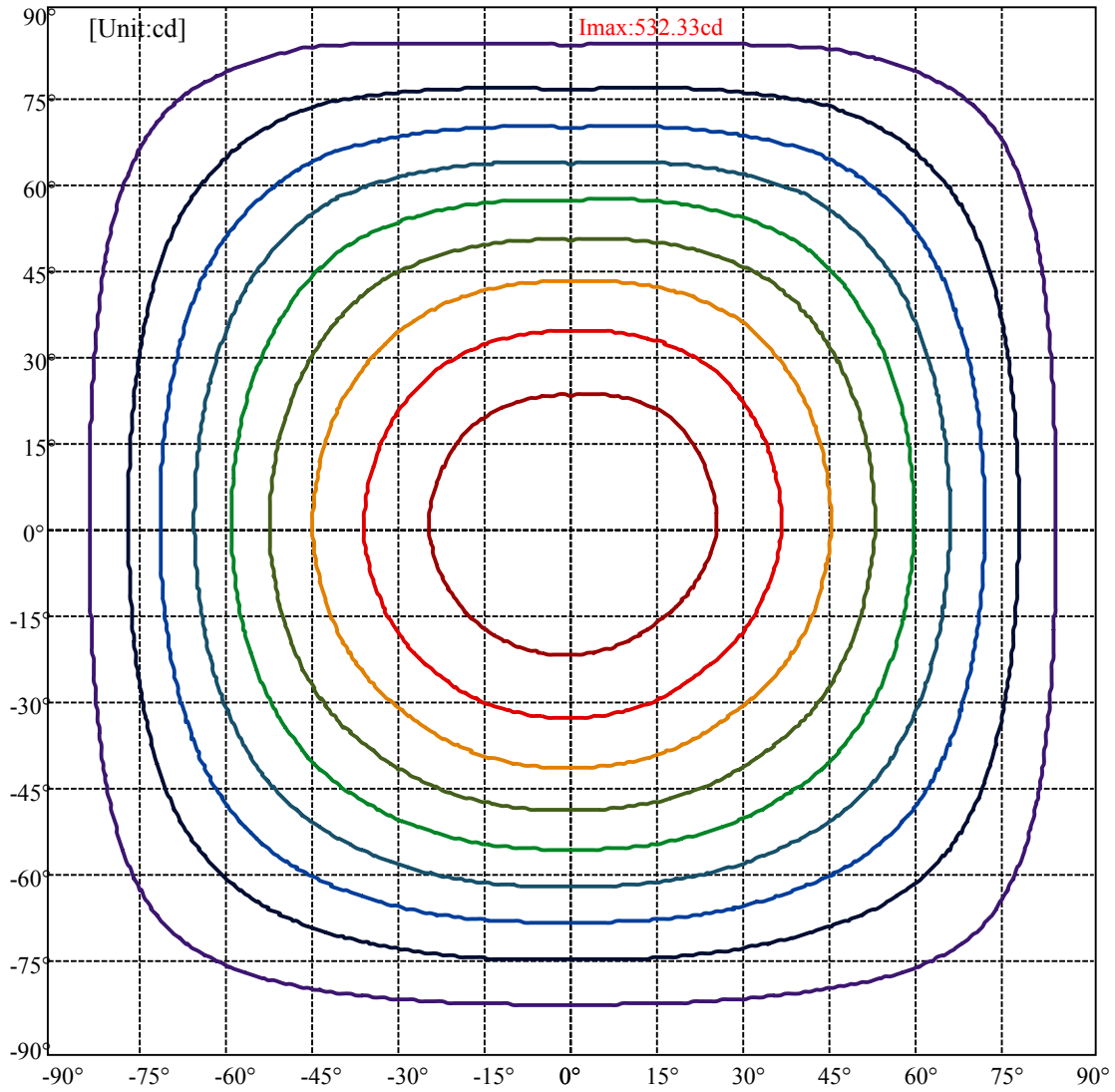
:C90/270Left:81.5 Right:83.4










Beam Angle(50%Imax):C0/180Left:58.7 Right:59.4

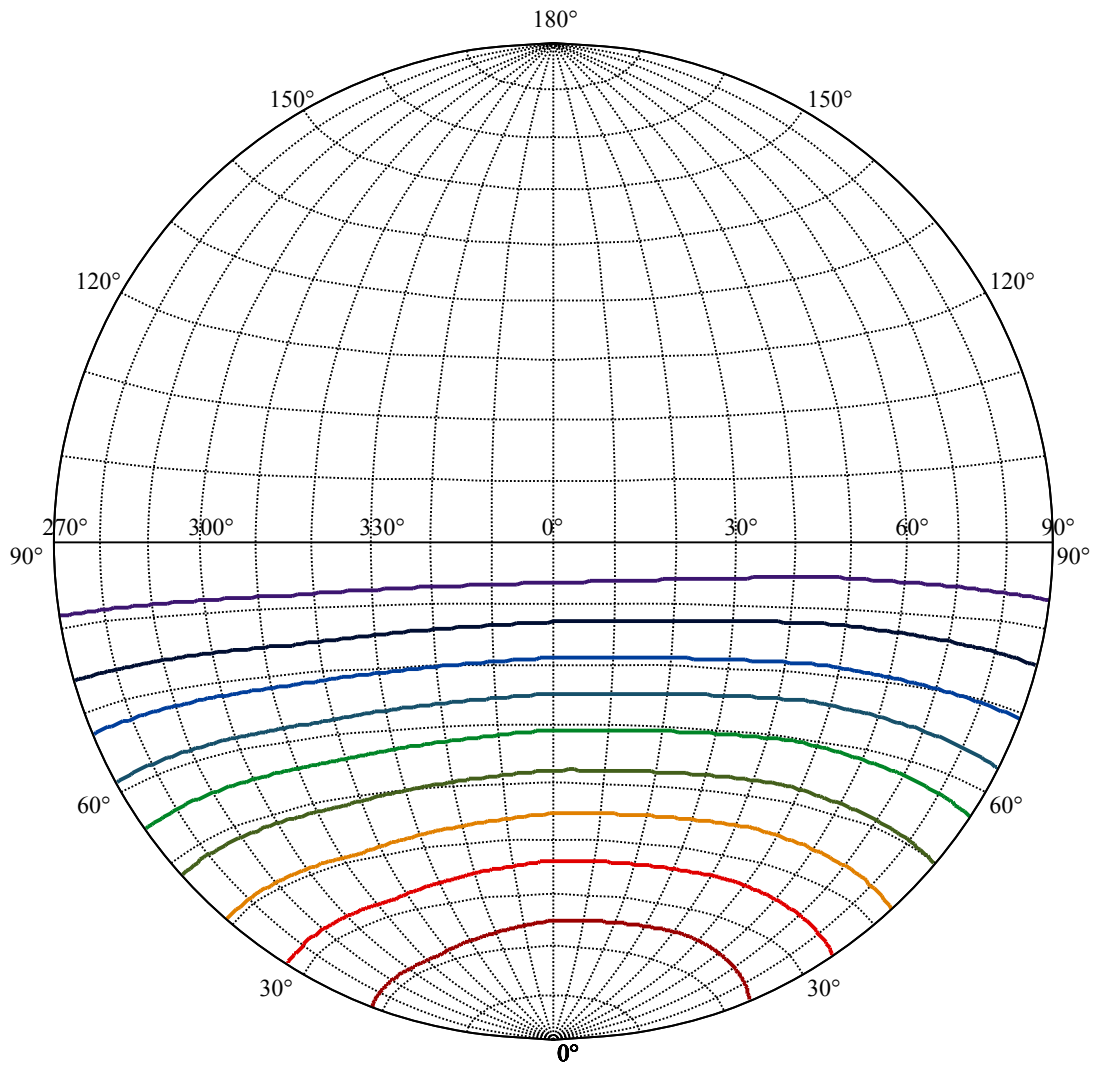
:C90/270Left:55.0 Right:56.7



Max , Ave      Beam angle of C45plane116.17



(10%Imax) 53.2221	
(20%Imax) 106.444	
(30%Imax) 159.666	
(40%Imax) 212.888	
(50%Imax) 266.11	
(60%Imax) 319.332	
(70%Imax) 372.555	
(80%Imax) 425.777	
(90%Imax) 478.999	












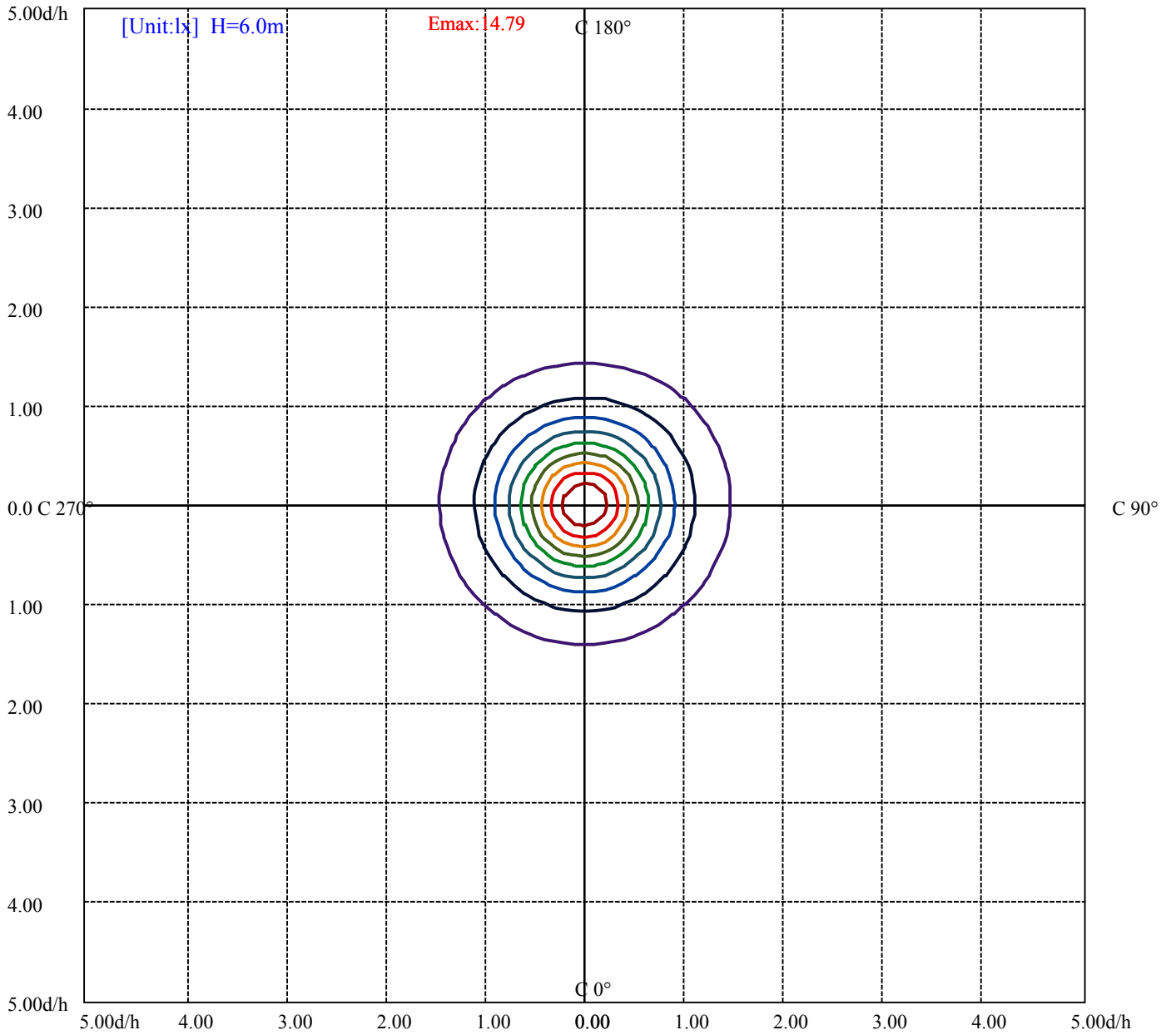
House

[Unit:cd]

Road

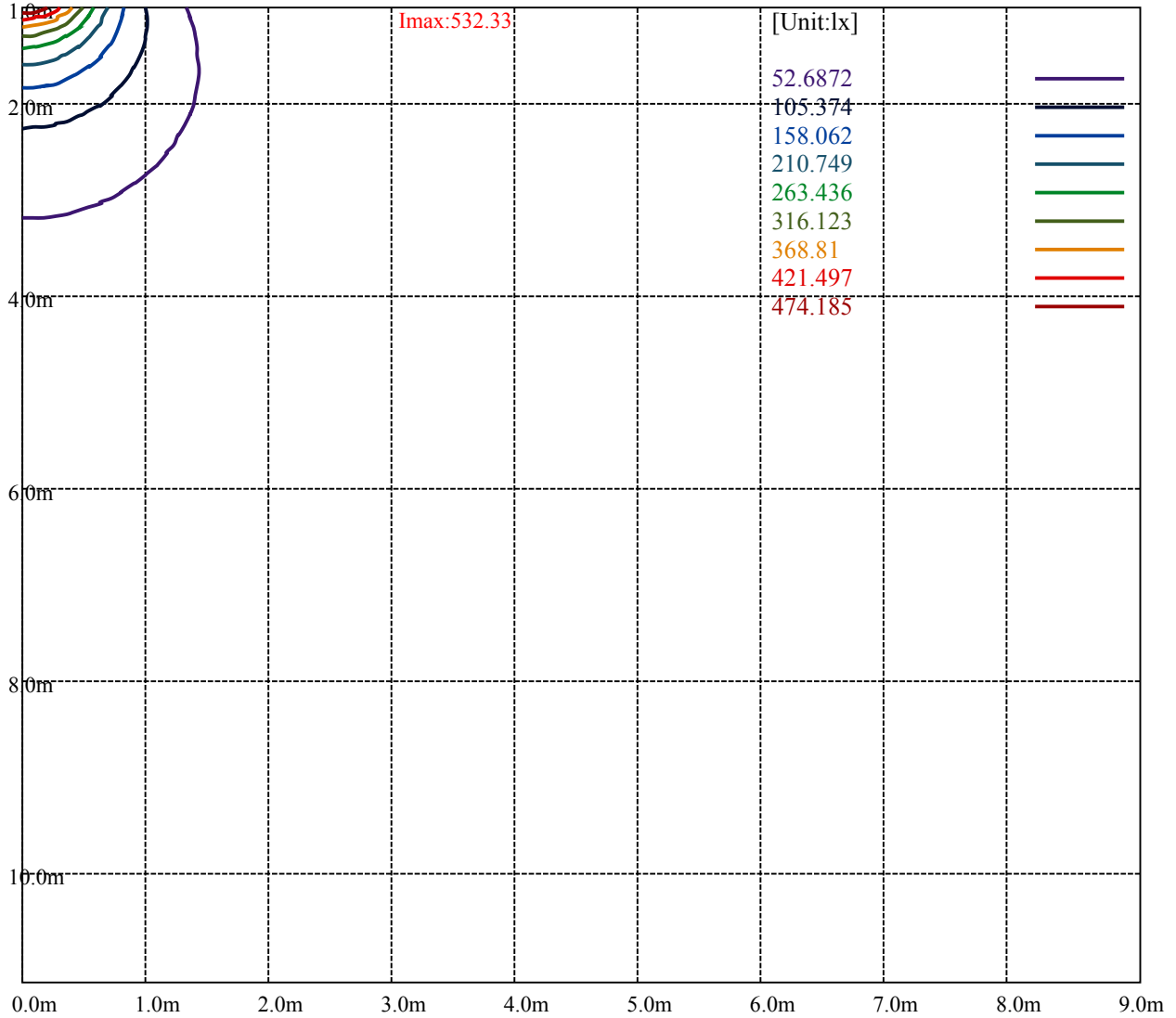
**I<sub>max</sub>:532.33**

(10%I <sub>max</sub> ) 53.2332	
(20%I <sub>max</sub> ) 106.466	
(30%I <sub>max</sub> ) 159.699	
(40%I <sub>max</sub> ) 212.933	
(50%I <sub>max</sub> ) 266.166	
(60%I <sub>max</sub> ) 319.399	
(70%I <sub>max</sub> ) 372.632	
(80%I <sub>max</sub> ) 425.865	
(90%I <sub>max</sub> ) 479.099	



(10%Emax) 1.478697	—
(20%Emax) 2.957389	—
(30%Emax) 4.436083	—
(40%Emax) 5.914805	—
(50%Emax) 7.393499	—
(60%Emax) 8.872194	—
(70%Emax) 10.35089	—
(80%Emax) 11.82958	—
(90%Emax) 13.30828	—





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Luminance Limiting Curve(no luminous side)

Luminance Table

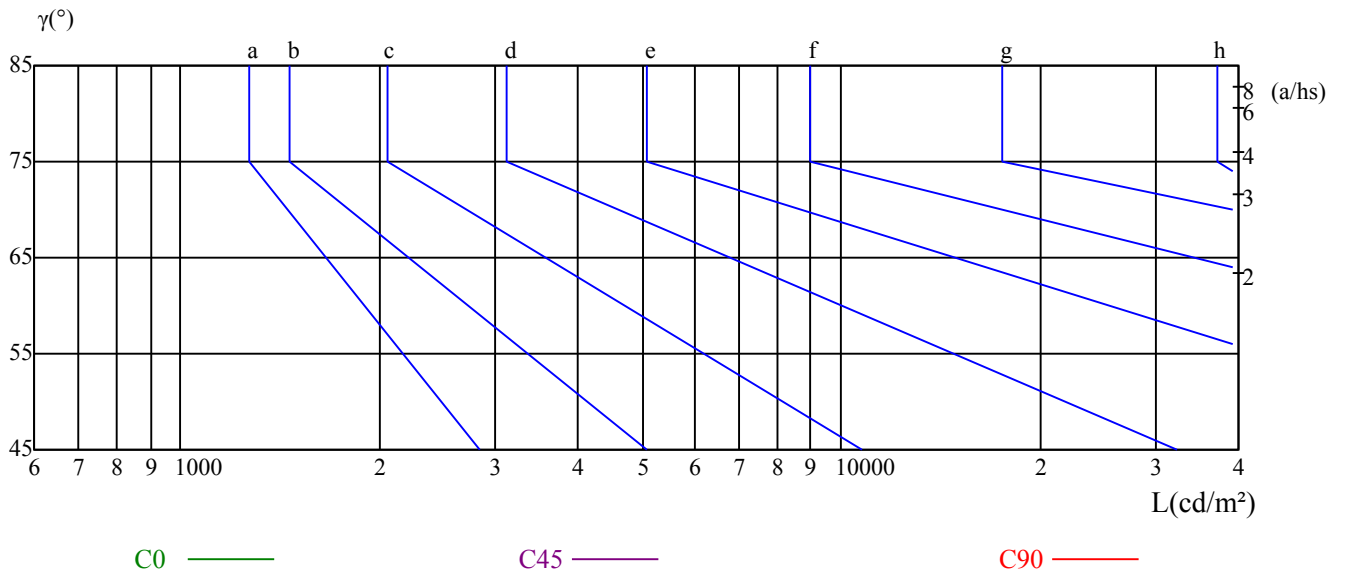
$\gamma$	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

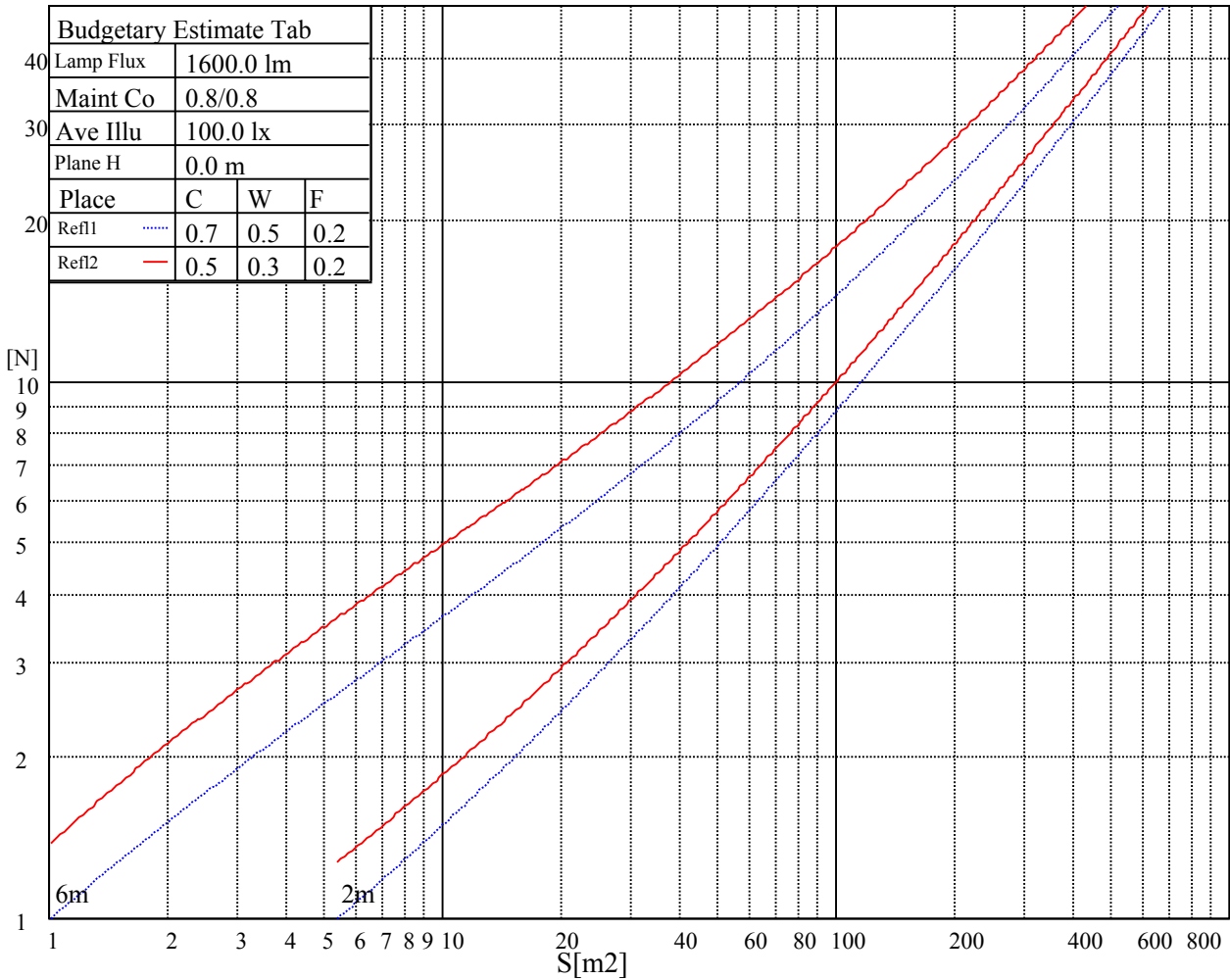
L横(65)	L纵(65)	L45(65)	L横(75)	L纵(75)	L45(75)	L横(85)	L纵(85)	L45(85)
0	0	0	0	0	0	0	0	0

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





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Utilization factor table for indoor luminaire

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	1.24	1.24	1.24	1.20	1.20	1.20	1.13	1.13	1.13	1.07	1.07	1.07	1.01	1.01	1.01	0.99
1	1.07	1.02	0.98	1.04	1.00	0.96	0.98	0.95	0.92	0.93	0.90	0.88	0.88	0.86	0.84	0.81
2	0.93	0.85	0.79	0.90	0.83	0.78	0.85	0.80	0.75	0.81	0.76	0.72	0.77	0.73	0.70	0.67
3	0.81	0.72	0.65	0.79	0.71	0.64	0.75	0.68	0.62	0.71	0.65	0.61	0.68	0.63	0.59	0.56
4	0.72	0.62	0.55	0.70	0.61	0.54	0.66	0.59	0.53	0.63	0.57	0.52	0.60	0.55	0.50	0.48
5	0.64	0.54	0.47	0.62	0.53	0.47	0.59	0.52	0.46	0.57	0.50	0.45	0.54	0.48	0.44	0.41
6	0.58	0.48	0.41	0.56	0.47	0.41	0.54	0.46	0.40	0.51	0.44	0.39	0.49	0.43	0.38	0.36
7	0.52	0.43	0.36	0.51	0.42	0.36	0.49	0.41	0.35	0.47	0.40	0.35	0.45	0.39	0.34	0.32
8	0.47	0.38	0.32	0.46	0.38	0.32	0.44	0.37	0.31	0.43	0.36	0.31	0.41	0.35	0.30	0.28
9	0.43	0.35	0.29	0.43	0.34	0.29	0.41	0.33	0.28	0.39	0.33	0.28	0.38	0.32	0.27	0.25
10	0.40	0.32	0.26	0.39	0.31	0.26	0.38	0.31	0.26	0.36	0.30	0.25	0.35	0.29	0.25	0.23

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Intensity data(cd) Page: 13 Total:13

C/γ(°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	526.87	525.31	520.44	511.47	498.60	479.29	458.04	433.08	405.00
45.0	532.33	531.94	526.87	516.93	502.50	482.02	459.21	433.08	404.61
90.0	529.80	528.43	521.61	508.15	491.77	471.69	447.90	420.80	390.38
135.0	527.65	527.07	521.61	511.47	495.48	476.56	453.75	427.62	398.57
180.0	526.87	524.73	519.07	508.54	494.70	476.76	455.11	429.18	400.32
225.0	532.33	528.24	519.85	506.01	488.85	467.79	443.41	415.53	381.41
270.0	529.80	525.70	515.95	502.50	484.95	462.91	438.15	409.88	378.48
315.0	527.65	523.36	514.59	501.91	484.95	464.08	439.51	412.02	379.07
360.0	526.87	525.31	520.44	511.47	498.60	479.29	458.04	433.08	405.00

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	370.88	336.17	298.73	258.56	214.10	169.84	124.99	78.00	41.14
45.0	373.41	339.29	302.63	263.44	221.71	172.96	130.84	87.36	51.67
90.0	357.23	317.84	279.04	238.28	195.77	152.29	110.95	75.27	42.12
135.0	366.20	332.66	296.39	257.78	216.83	170.81	128.31	89.11	53.43
180.0	368.73	334.02	293.27	252.91	210.20	165.55	114.85	72.15	37.05
225.0	348.06	312.38	274.36	233.60	190.90	147.22	102.76	65.32	35.49
270.0	344.16	303.99	264.61	222.88	179.78	136.11	97.30	62.79	30.03
315.0	346.11	311.01	273.38	231.65	189.53	145.86	101.40	64.54	35.10
360.0	370.88	336.17	298.73	258.56	214.10	169.84	124.99	78.00	41.14

C/γ(°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	22.03	21.84	18.52	15.60	15.21	16.38	15.99	15.60	15.40
45.0	28.08	25.74	25.35	23.79	21.06	18.72	17.35	15.40	14.43
90.0	19.89	15.60	14.04	13.26	14.23	13.45	11.70	10.53	9.75
135.0	29.05	25.74	25.35	23.79	21.45	19.30	17.74	15.79	15.01
180.0	22.03	21.84	18.13	16.38	15.40	16.57	16.18	15.79	15.60
225.0	26.71	26.32	25.93	25.35	23.79	22.23	21.06	18.91	17.35
270.0	19.89	18.91	15.99	15.21	14.43	15.79	16.57	16.18	15.60
315.0	26.13	25.93	25.35	24.96	23.20	22.03	20.67	18.72	17.35
360.0	22.03	21.84	18.52	15.60	15.21	16.38	15.99	15.60	15.40

C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	15.01	15.01	14.23	12.87	11.89	10.53	9.16	8.38	7.60
45.0	13.65	13.06	12.28	11.70	10.92	10.14	8.97	8.19	7.41
90.0	9.55	9.36	8.97	8.58	8.19	8.19	7.99	7.80	7.21
135.0	13.84	13.26	12.48	11.70	11.11	10.14	9.36	8.19	7.60
180.0	15.01	15.21	14.23	13.06	11.89	10.72	9.55	8.38	7.60
225.0	14.82	13.06	12.28	11.50	10.53	9.75	8.77	7.99	7.41
270.0	14.62	13.84	11.50	8.77	8.38	7.99	7.60	7.41	7.02
315.0	15.21	12.67	11.70	11.11	10.14	9.16	8.38	7.80	7.21
360.0	15.01	15.01	14.23	12.87	11.89	10.53	9.16	8.38	7.60

C/γ(°)	180.0
0.0	7.21
45.0	7.02
90.0	7.21
135.0	7.21
180.0	7.21
225.0	7.02
270.0	7.21
315.0	7.21
360.0	7.21