
Nata

LumCAT: 1536-A	
Luminaire: 92.70.043.00	
Report No: NT2017080410	Voltage(V): 38.7000
Test No: GC2017080410	Current(A): 0.3000
LampCAT: SEOUL SAWx06	Power (W): 10.6100
Lamp flux(lm): 1216.0	PF: 0.0000
Number of Lamps: 1	Ballast type: DC
Length(mm): 25	Width(mm): 25
Phm Type: C	Height(mm): 0

Photometric Results

Lumens(lm): 1059.18
Efficiency(%): 87.10%
Lumens(lm)/Power(W): 99.83
Central intensity(cd): 1014.960
Maximum intensity(cd): 1014.960
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=65.5
[C90/270]Total=65.5
Field angle(10%Imax): [C0/180]Total=88.1
[C90/270]Total=88.1
Maximum s/h(1/2): C0_180=0.99 C90_270=0.99
Maximum s/h(1/4): C0_180=0.97 C90_270=0.97
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 87.10%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.060%

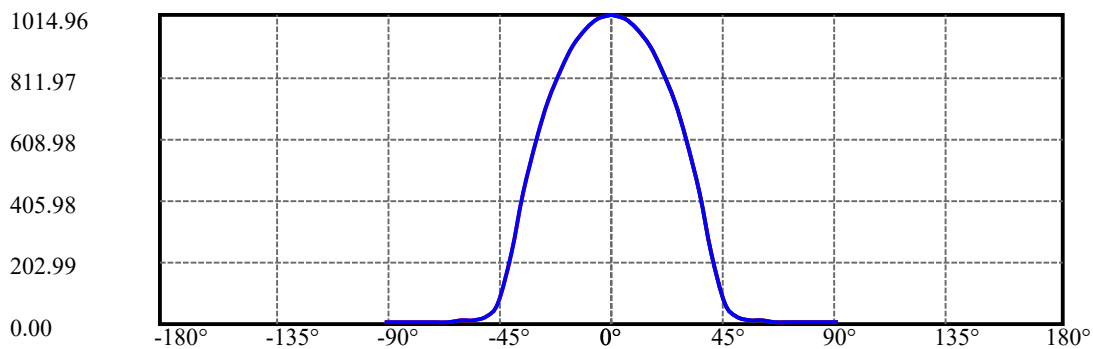
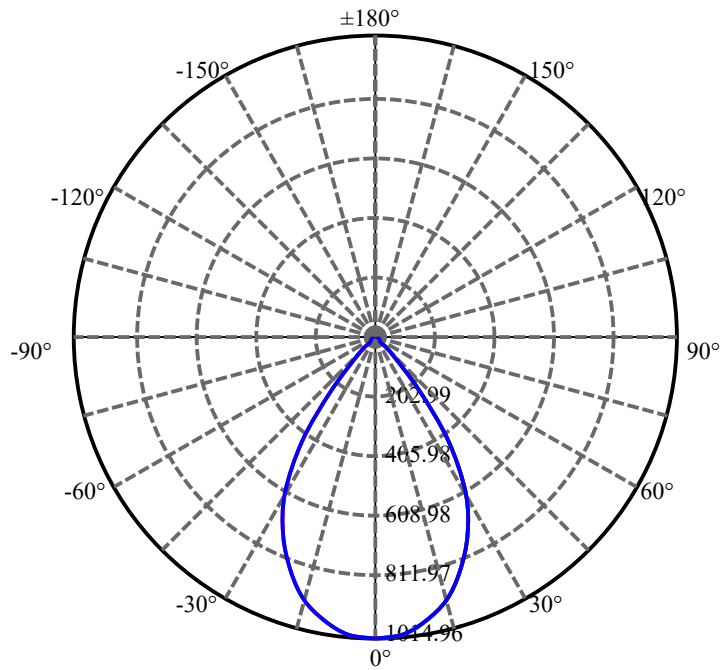
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	1014.960	0.000	0	.000%	.000%
5.0	1004.136	24.138	24.138	1.985%	2.279%
10.0	971.802	70.686	94.823	5.813%	8.952%
15.0	915.288	111.941	206.764	9.206%	19.521%
20.0	838.614	144.546	351.31	11.887%	33.168%
25.0	732.166	164.746	516.056	13.548%	48.722%
30.0	606.310	169.385	685.442	13.930%	64.714%
35.0	427.592	152.249	837.691	12.521%	79.088%
40.0	234.307	110.433	948.124	9.082%	89.515%
45.0	71.011	56.532	1004.656	4.649%	94.852%
50.0	26.755	19.755	1024.411	1.625%	96.717%
55.0	13.530	8.759	1033.17	.720%	97.544%
60.0	10.101	5.462	1038.633	.449%	98.060%
65.0	8.396	4.497	1043.129	.370%	98.484%
70.0	7.318	3.979	1047.108	.327%	98.860%
75.0	6.449	3.598	1050.707	.296%	99.200%
80.0	5.802	3.278	1053.985	.270%	99.509%
85.0	4.605	2.828	1056.812	.233%	99.776%
90.0	4.056	2.371	1059.184	.195%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	685.44	56.37%	64.71%
0-40	948.12	77.97%	89.51%
0-60	1038.63	85.41%	98.06%
0-90	1056.81	86.91%	99.78%
0-120	1056.81	86.91%	99.78%
0-180	1059.18	87.10%	100.00%
60-90	23.64	1.94%	2.23%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-35.44	847.35	69.68%	80.00%

ZONAL LUMEN SUMMARY

0-10	94.82
10-20	256.49
20-30	334.13
30-40	262.68
40-50	76.29
50-60	14.22
60-70	8.48
70-80	6.88
80-90	2.83
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00



C0(Max):

C0/C180:

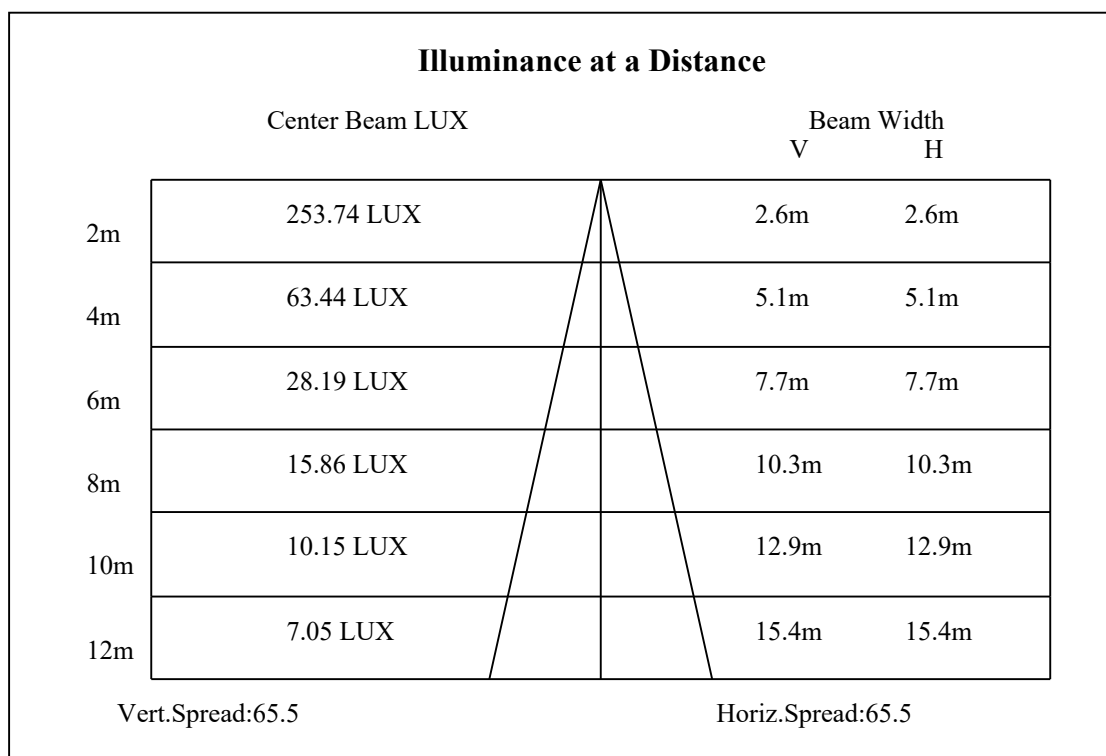
C90/C270:

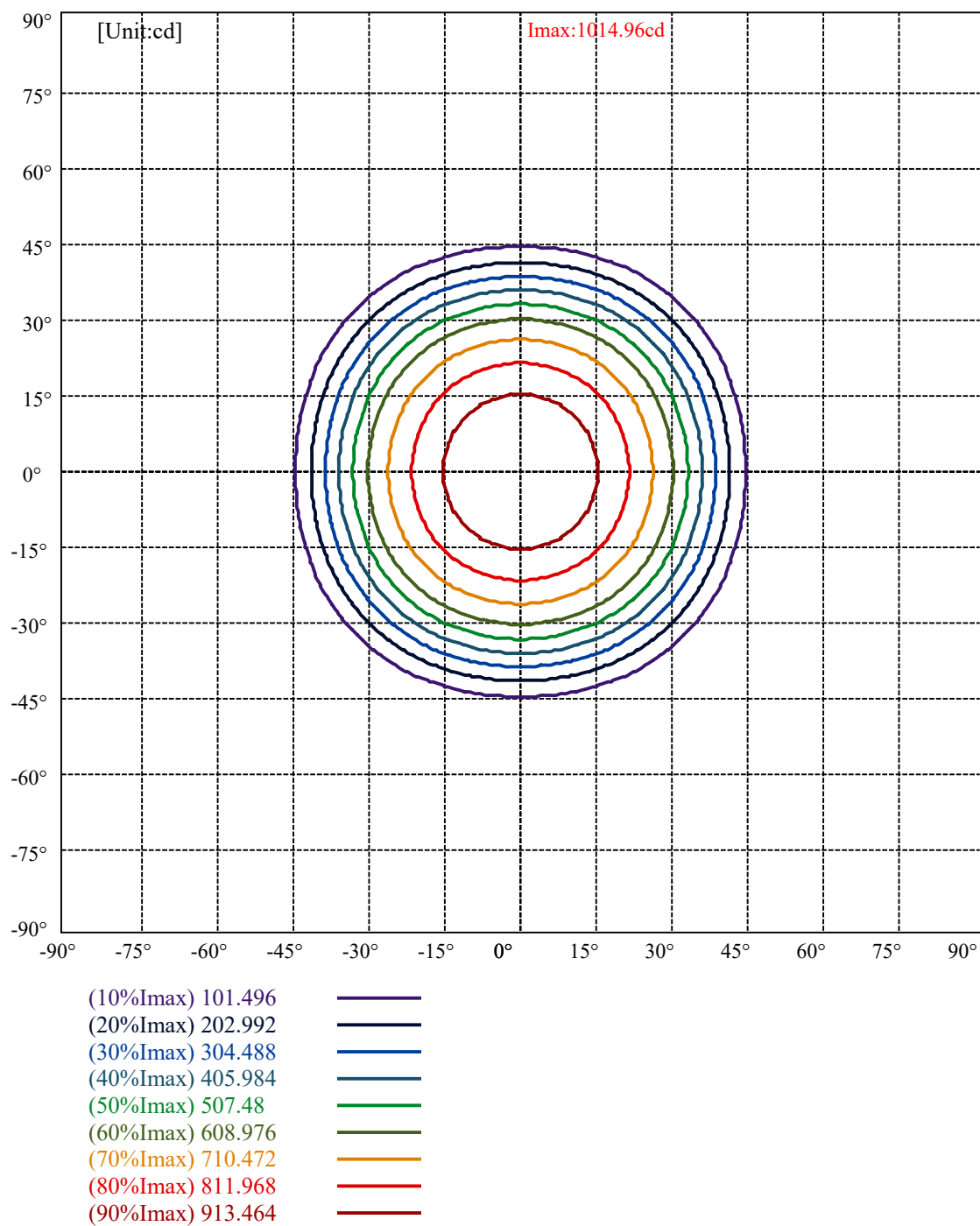
Field angle(10%Imax):C0/180Left:44.1 Right:44.1

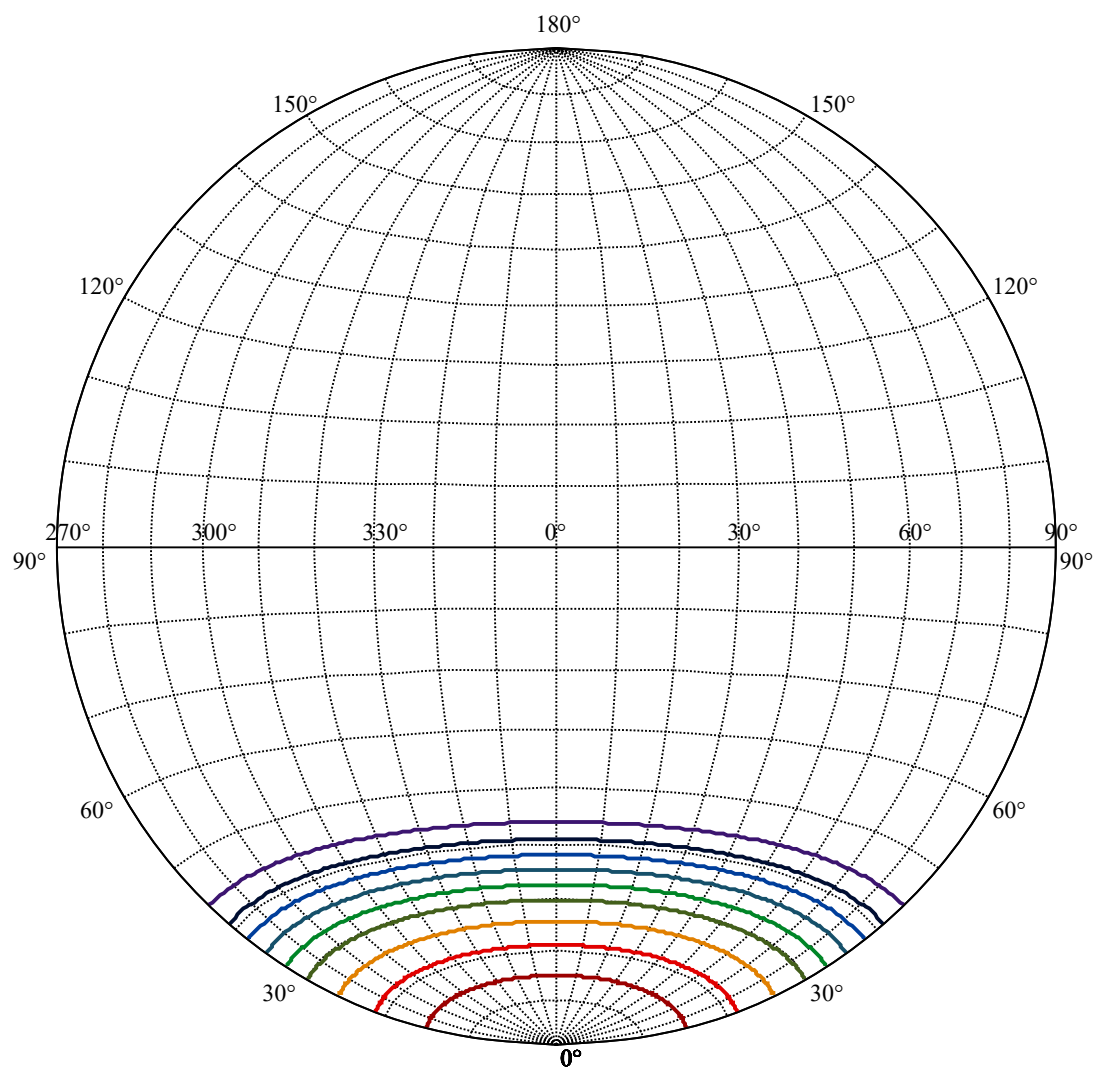
:C90/270Left:44.1 Right:44.1

Beam Angle(50%Imax):C0/180Left:32.8 Right:32.8

:C90/270Left:32.8 Right:32.8







House

[Unit:cd]

Road

Imax:1014.96

(10%Imax) 101.496

(20%Imax) 202.992

(30%Imax) 304.488

(40%Imax) 405.984

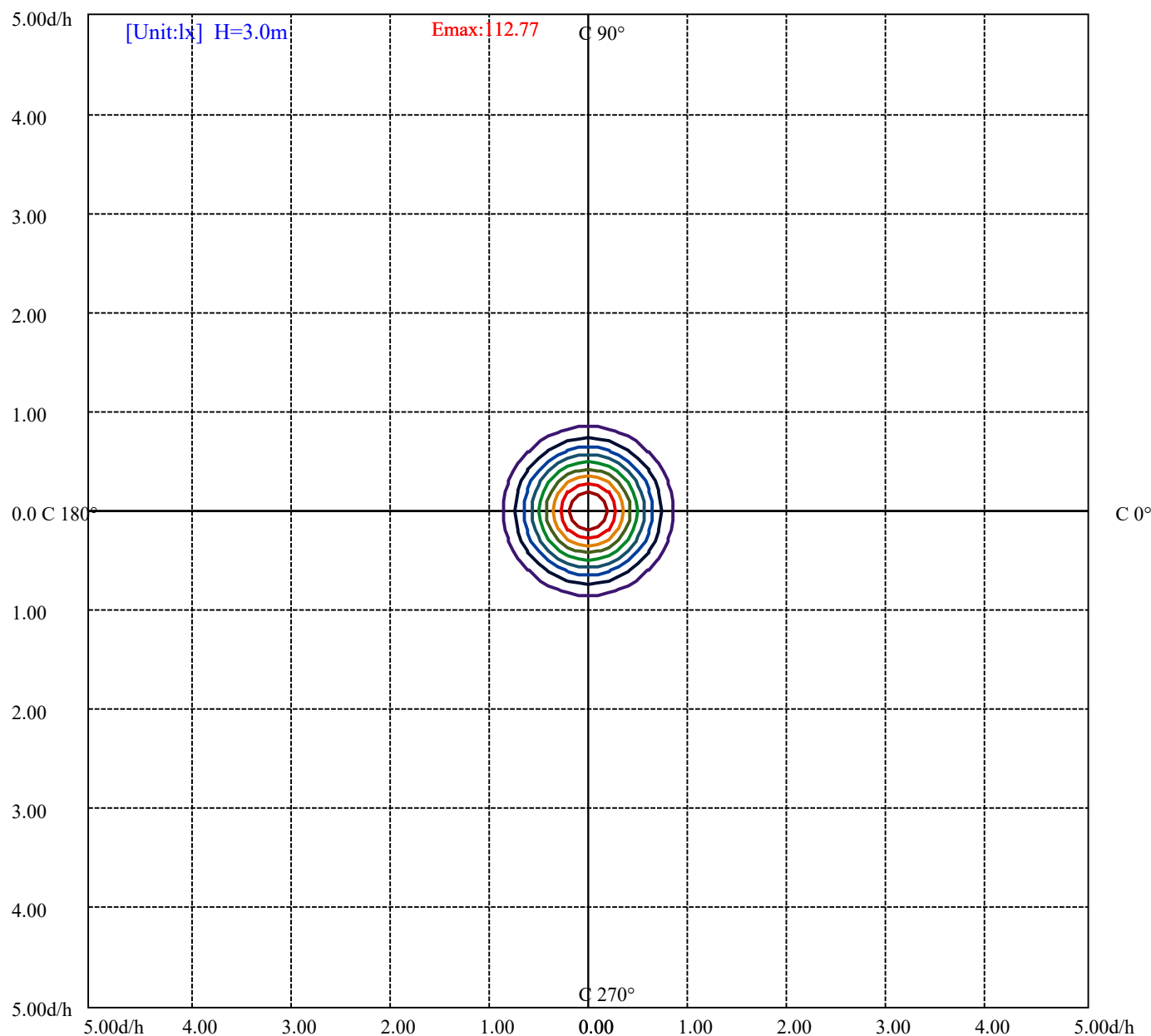
(50%Imax) 507.48

(60%Imax) 608.976

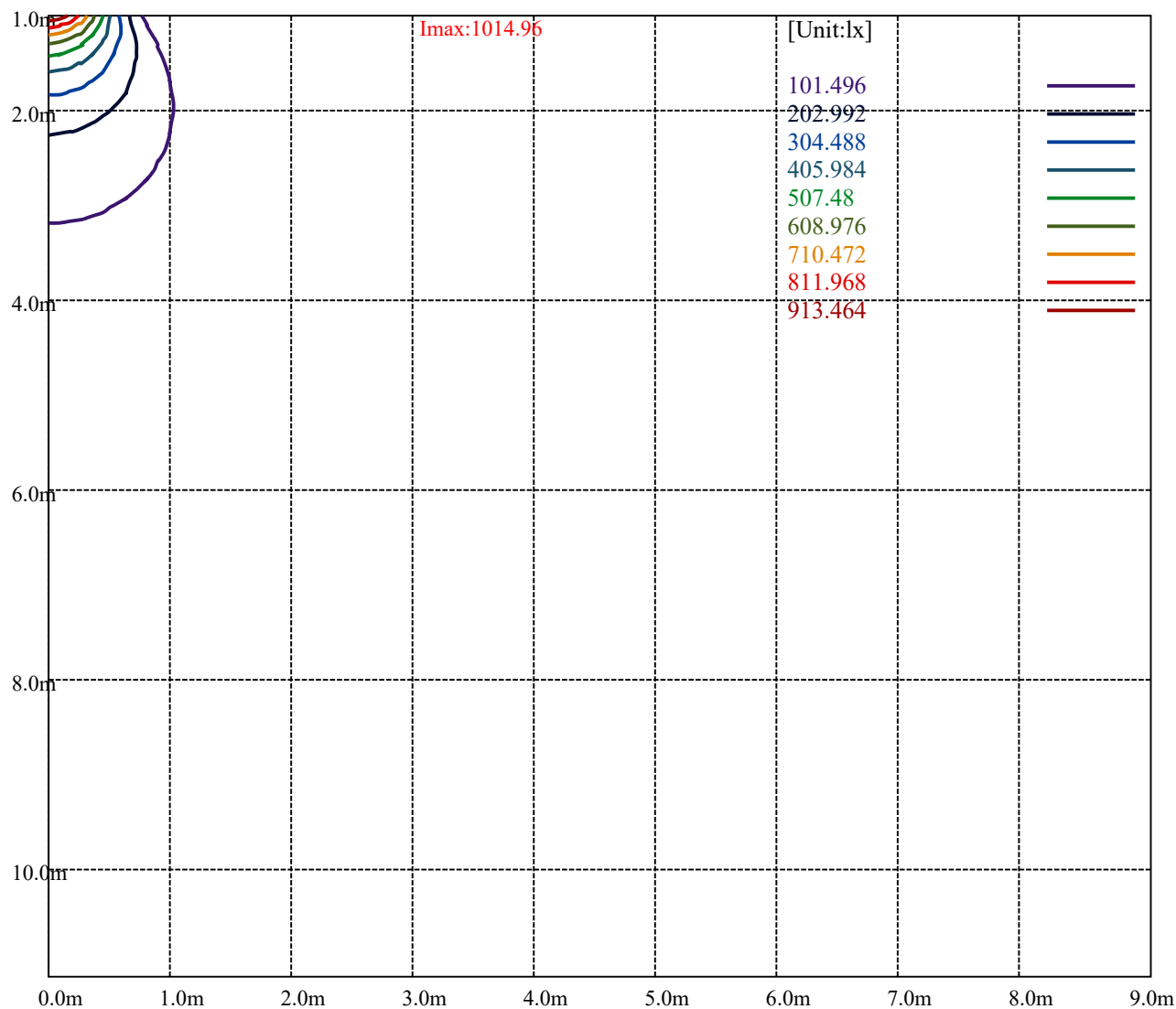
(70%Imax) 710.472

(80%Imax) 811.968

(90%Imax) 913.464



(10%Emax) 11.27733	—
(20%Emax) 22.55467	—
(30%Emax) 33.832	—
(40%Emax) 45.10933	—
(50%Emax) 56.38667	—
(60%Emax) 67.664	—
(70%Emax) 78.94133	—
(80%Emax) 90.21867	—
(90%Emax) 101.496	—



Luminance Table

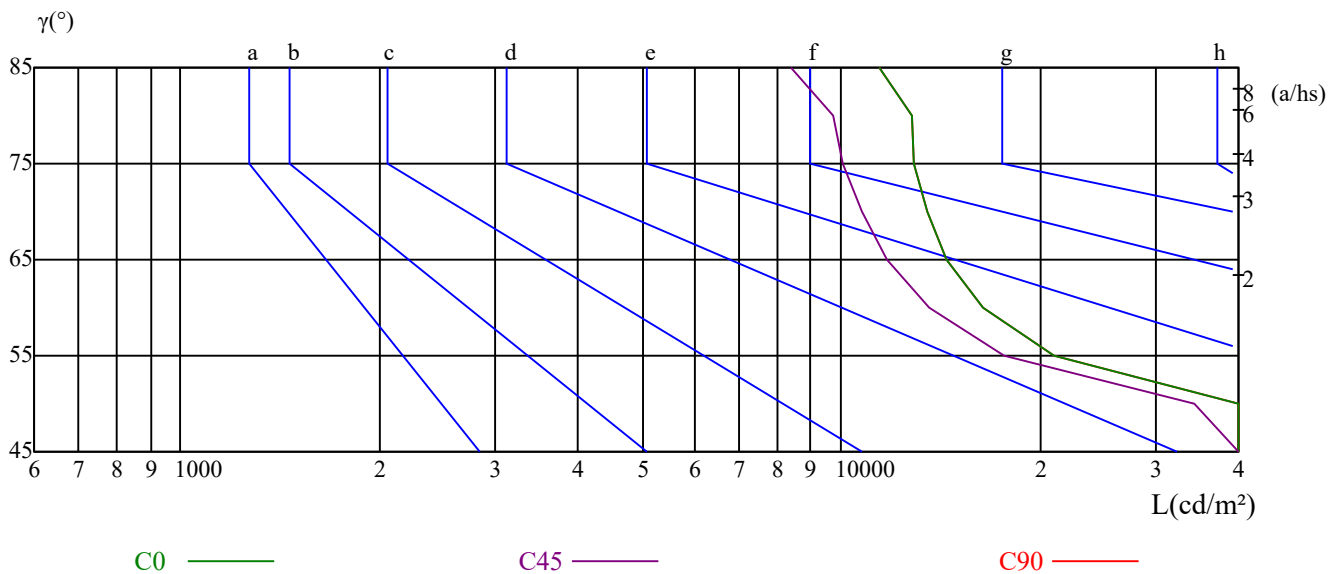
γ	45	50	55	60	65	70	75	80	85
C0	103000	39941	20971	16408	14443	13486	12901	12801	11423
C45	89668	34260	17711	13628	11781	10780	10078	9735	8410
C90	103000	39941	20971	16408	14443	13486	12901	12801	11423

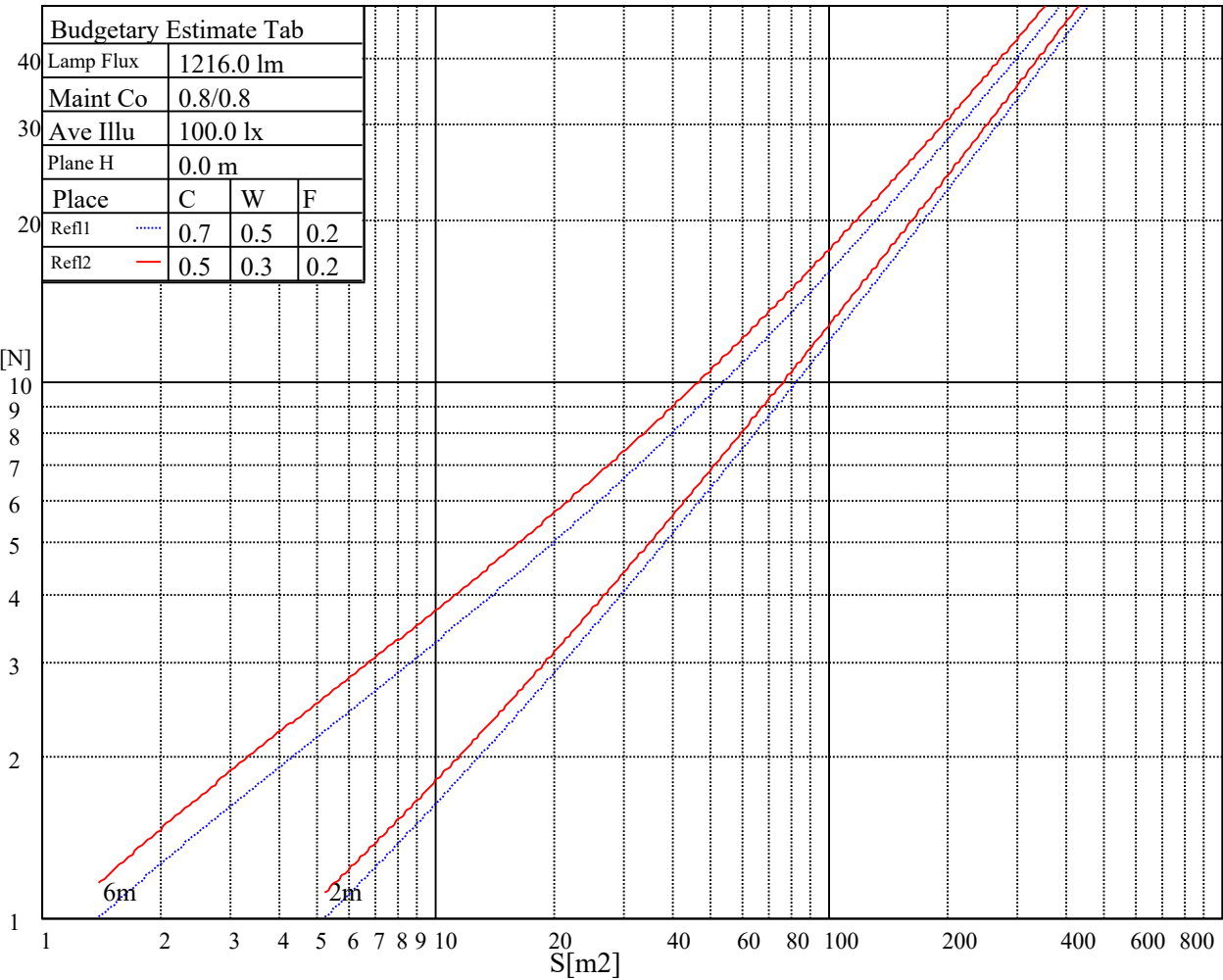
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
31788	31788	31788	39865	39865	39865	84541	84541	84541

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	1.04	1.04	1.04	1.01	1.01	1.01	0.97	0.97	0.97	0.93	0.93	0.93	0.89	0.89	0.89	0.87
1	0.96	0.93	0.91	0.94	0.92	0.90	0.90	0.89	0.87	0.87	0.86	0.85	0.84	0.83	0.82	0.81
2	0.89	0.85	0.82	0.87	0.84	0.81	0.84	0.81	0.79	0.82	0.79	0.77	0.79	0.77	0.76	0.74
3	0.82	0.78	0.74	0.81	0.77	0.73	0.79	0.75	0.72	0.77	0.74	0.71	0.75	0.72	0.70	0.69
4	0.76	0.71	0.67	0.75	0.71	0.67	0.74	0.69	0.66	0.72	0.68	0.65	0.70	0.67	0.65	0.63
5	0.71	0.66	0.62	0.70	0.65	0.62	0.69	0.64	0.61	0.67	0.64	0.61	0.66	0.63	0.60	0.59
6	0.67	0.61	0.57	0.66	0.61	0.57	0.64	0.60	0.57	0.63	0.59	0.56	0.62	0.59	0.56	0.54
7	0.62	0.57	0.53	0.62	0.56	0.53	0.61	0.56	0.52	0.59	0.55	0.52	0.58	0.55	0.52	0.51
8	0.58	0.53	0.49	0.58	0.53	0.49	0.57	0.52	0.49	0.56	0.52	0.49	0.55	0.51	0.48	0.47
9	0.55	0.50	0.46	0.54	0.49	0.46	0.54	0.49	0.46	0.53	0.49	0.45	0.52	0.48	0.45	0.44
10	0.52	0.46	0.43	0.51	0.46	0.43	0.51	0.46	0.43	0.50	0.46	0.43	0.49	0.45	0.42	0.41

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	1011.08	999.39	965.11	909.01	829.99	732.71	608.61	434.92	246.04
45.0	1013.75	1003.29	968.17	904.39	821.25	711.62	590.52	399.30	201.18
90.0	1018.20	1013.30	972.62	914.36	814.46	685.24	546.61	362.29	186.60
135.0	1016.81	1017.87	993.44	931.55	850.13	718.30	563.58	395.74	225.50
180.0	1011.08	999.39	972.90	910.29	839.06	736.66	615.51	437.92	244.37
225.0	1013.75	1006.18	979.36	931.16	864.38	774.06	657.47	479.83	277.42
270.0	1018.20	1002.34	971.73	925.15	861.10	763.54	658.53	504.43	296.40
315.0	1016.81	991.32	951.09	896.38	828.54	735.21	609.66	406.31	196.95
360.0	1011.08	999.39	965.11	909.01	829.99	732.71	608.61	434.92	246.04

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	72.79	27.66	13.47	10.07	8.07	7.07	6.29	5.79	4.62
45.0	46.64	21.37	11.02	8.46	7.01	6.07	5.40	5.51	4.62
90.0	39.85	18.92	10.91	8.90	7.57	6.57	5.90	5.68	4.51
135.0	69.84	28.72	15.92	12.24	10.46	9.24	8.01	6.29	4.45
180.0	68.67	24.82	12.08	9.41	7.96	7.01	6.29	6.12	4.51
225.0	86.54	26.66	12.86	8.90	7.12	6.07	5.34	4.79	4.45
270.0	113.47	33.00	15.08	10.18	8.51	7.40	6.40	5.90	5.01
315.0	70.29	32.89	16.92	12.63	10.46	9.13	7.96	6.34	4.67
360.0	72.79	27.66	13.47	10.07	8.07	7.07	6.29	5.79	4.62

C/γ(°)	90.0
0.0	4.01
45.0	4.01
90.0	4.01
135.0	4.01
180.0	4.01
225.0	4.23
270.0	4.17
315.0	4.01
360.0	4.01