
Nata

LumCAT: 1534-E	
Luminaire: 92.70.043.00	
Report No: NT2017080408	Voltage(V): 38.7000
Test No: GC2017080408	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): 1098.27
Efficiency(%): 90.32%
Lumens(lm)/Power(W): 103.51
Central intensity(cd): 4051.506
Maximum intensity(cd): 4051.506
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=20.2
[C90/270]Total=20.2
Field angle(10%Imax): [C0/180]Total=53.5
[C90/270]Total=53.5
Maximum s/h(1/2): C0_180=0.34 C90_270=0.34
Maximum s/h(1/4): C0_180=0.37 C90_270=0.37
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 90.32%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.174%

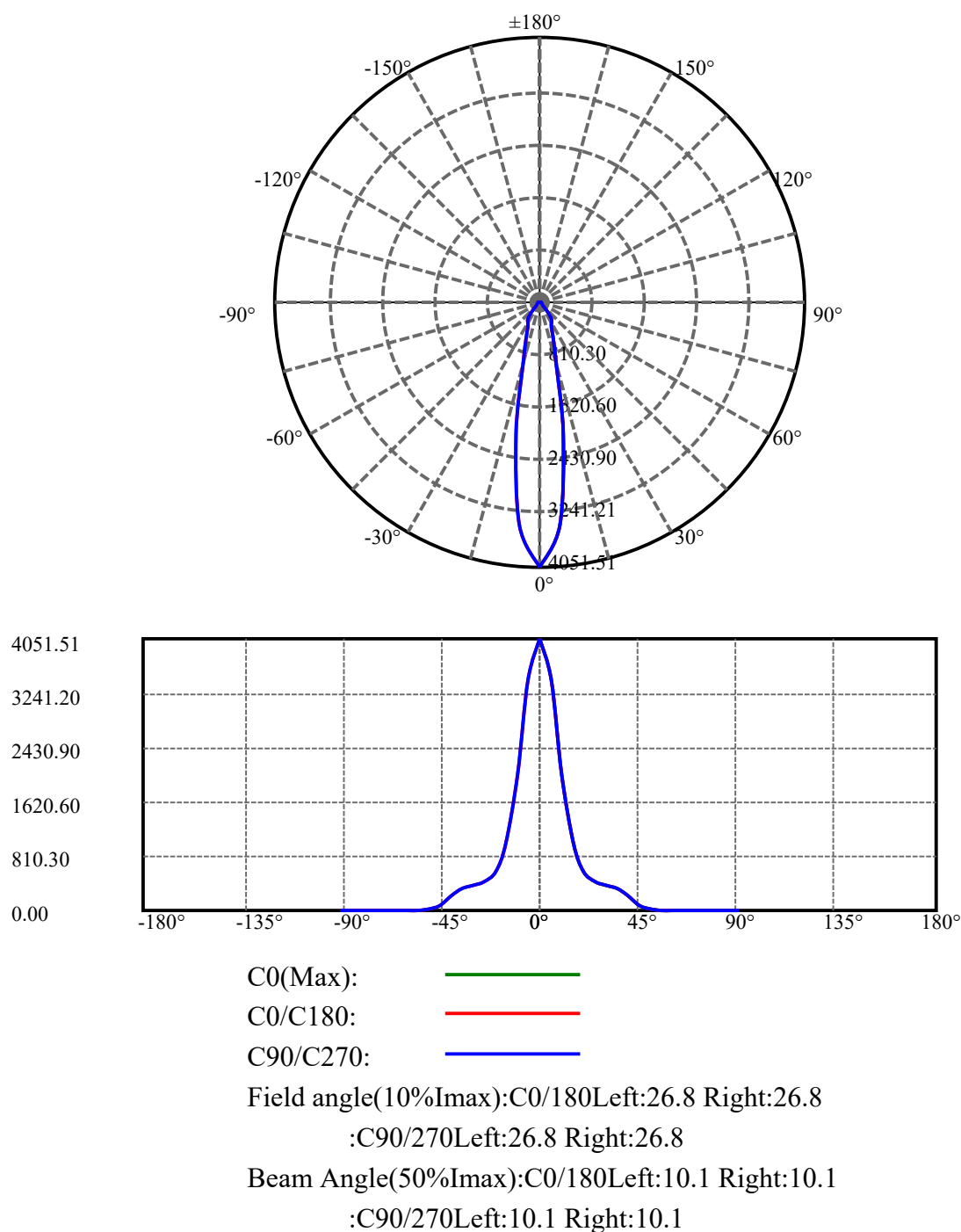
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	4051.506	0.000	0	.000%	.000%
5.0	3417.913	89.295	89.295	7.343%	8.130%
10.0	2049.301	195.579	284.874	16.084%	25.938%
15.0	1014.167	181.723	466.597	14.944%	42.485%
20.0	580.349	131.410	598.008	10.807%	54.450%
25.0	426.027	105.550	703.558	8.680%	64.061%
30.0	367.210	100.385	803.943	8.255%	73.201%
35.0	321.875	101.473	905.415	8.345%	82.440%
40.0	218.572	90.169	995.585	7.415%	90.650%
45.0	71.735	53.753	1049.337	4.420%	95.545%
50.0	17.934	18.119	1067.456	1.490%	97.194%
55.0	11.130	6.319	1073.776	.520%	97.770%
60.0	8.063	4.436	1078.212	.365%	98.174%
65.0	6.755	3.602	1081.814	.296%	98.502%
70.0	6.129	3.262	1085.076	.268%	98.799%
75.0	5.760	3.107	1088.184	.256%	99.082%
80.0	7.485	3.544	1091.728	.291%	99.404%
85.0	6.226	3.726	1095.453	.306%	99.743%
90.0	4.063	2.817	1098.27	.232%	100.000%

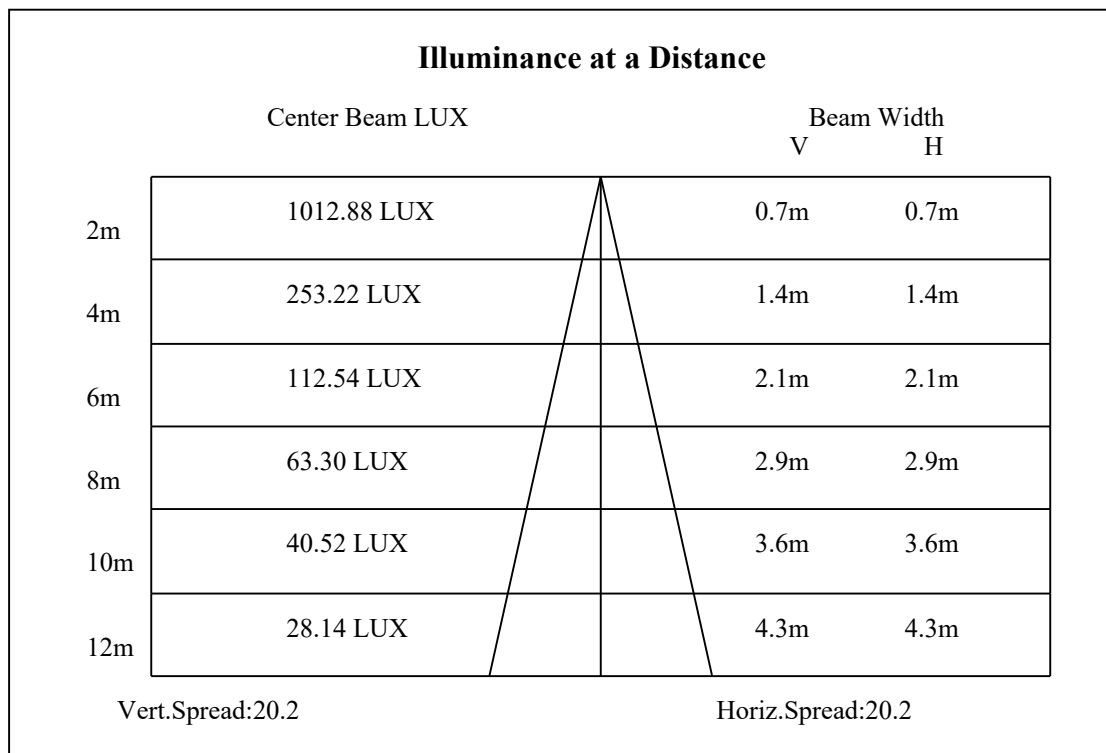
ZONAL LUMEN SUMMARY

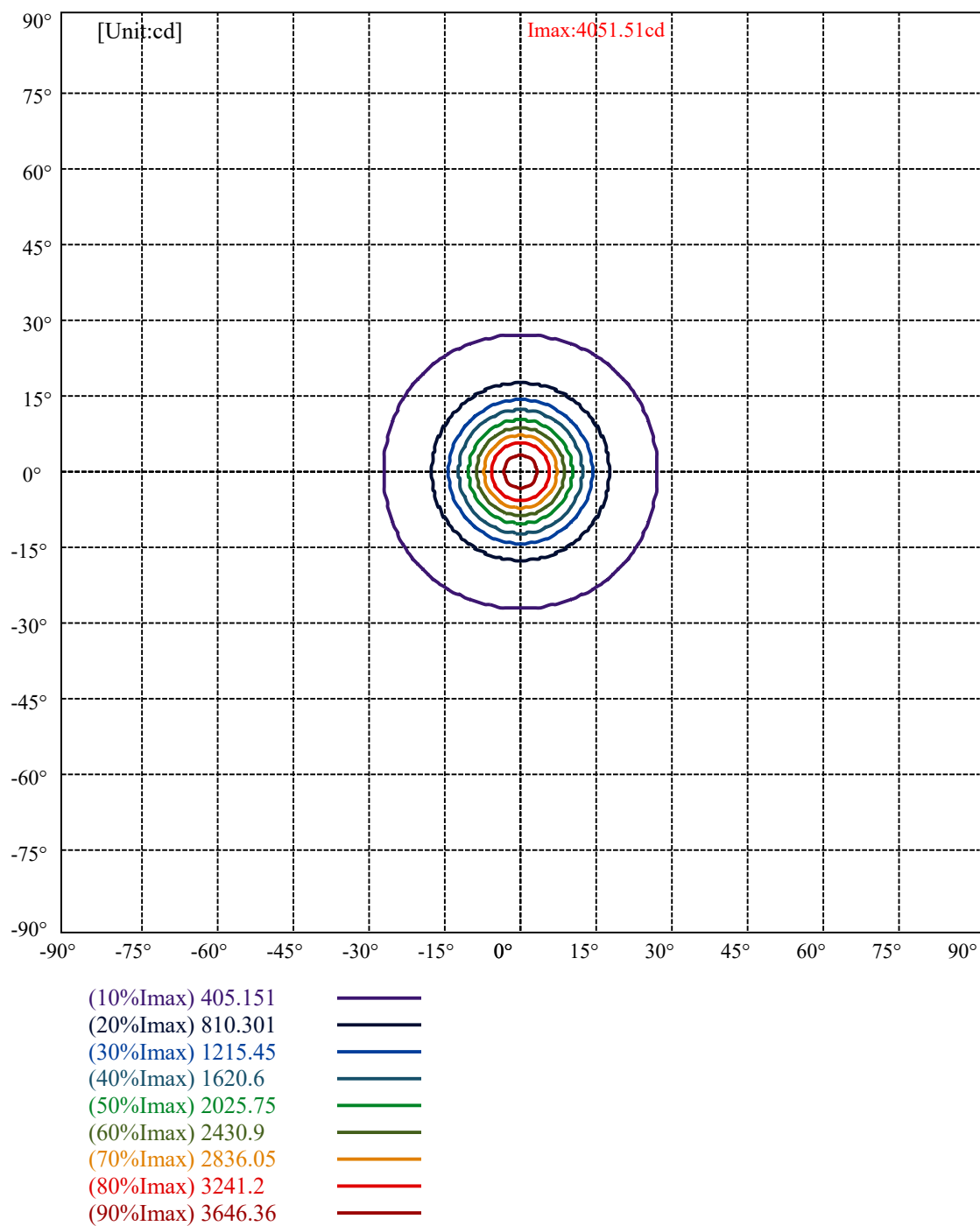
Zone	Lumens	%Lamp	%Fixt
0-30	803.94	66.11%	73.20%
0-40	995.58	81.87%	90.65%
0-60	1078.21	88.67%	98.17%
0-90	1095.45	90.09%	99.74%
0-120	1095.45	90.09%	99.74%
0-180	1098.27	90.32%	100.00%
60-90	21.68	1.78%	1.97%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-33.68	878.62	72.25%	80.00%

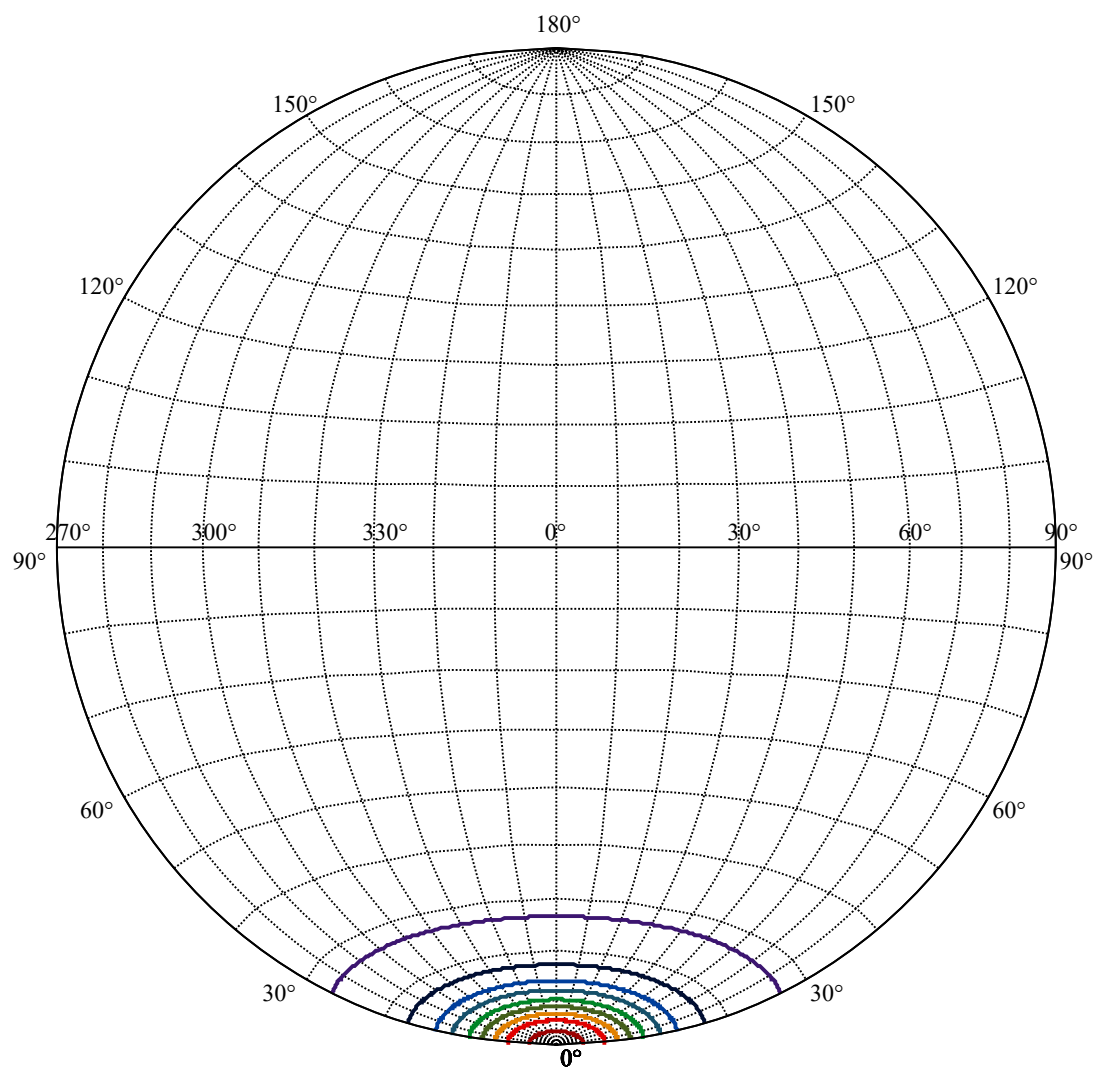
ZONAL LUMEN SUMMARY

0-10	284.87
10-20	313.13
20-30	205.94
30-40	191.64
40-50	71.87
50-60	10.76
60-70	6.86
70-80	6.65
80-90	3.73
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









[Unit:cd]

Imax:4051.51

(10%Imax) 405.151

(20%Imax) 810.301

(30%Imax) 1215.45

(40%Imax) 1620.6

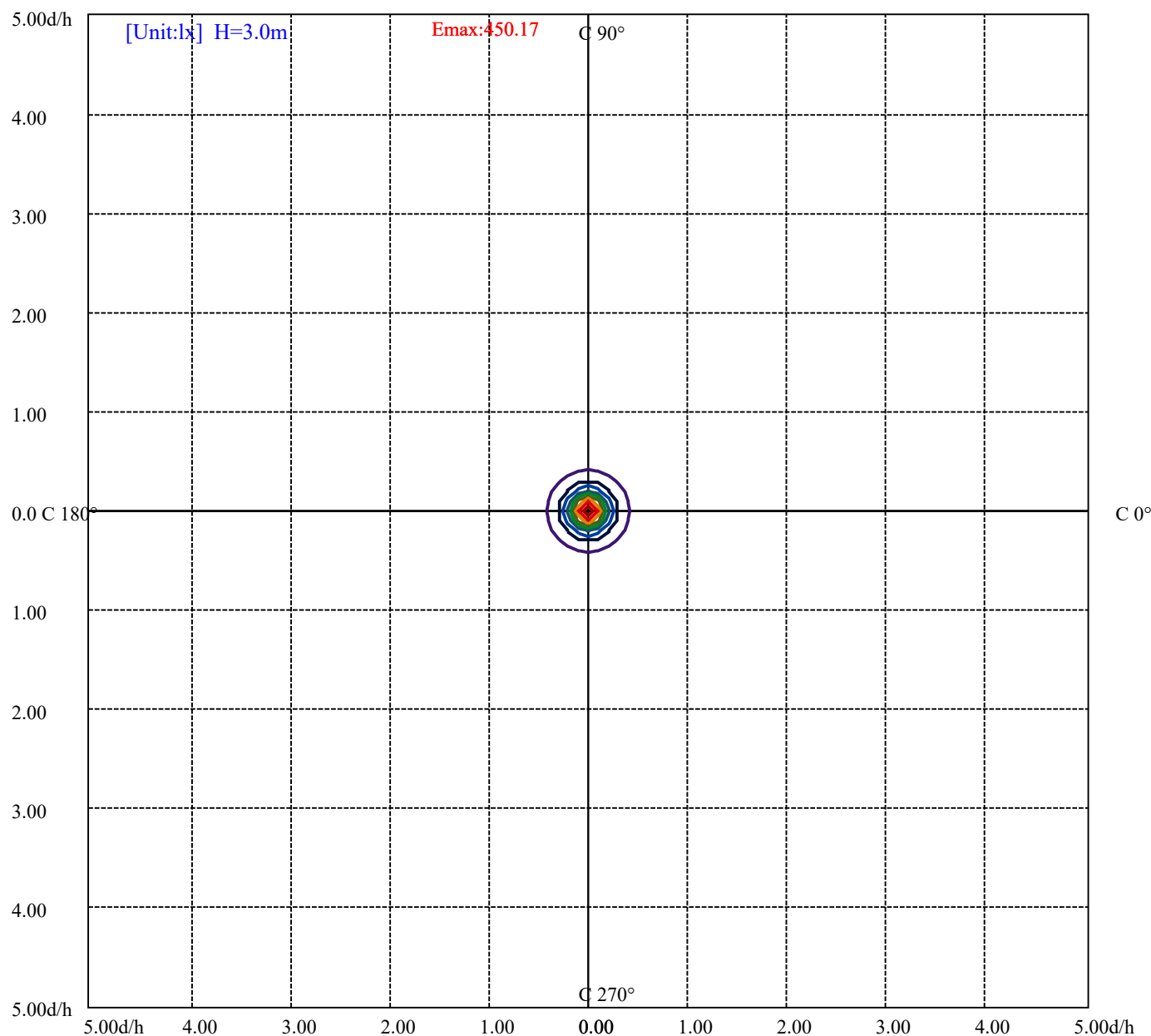
(50%Imax) 2025.75

(60%Imax) 2430.9

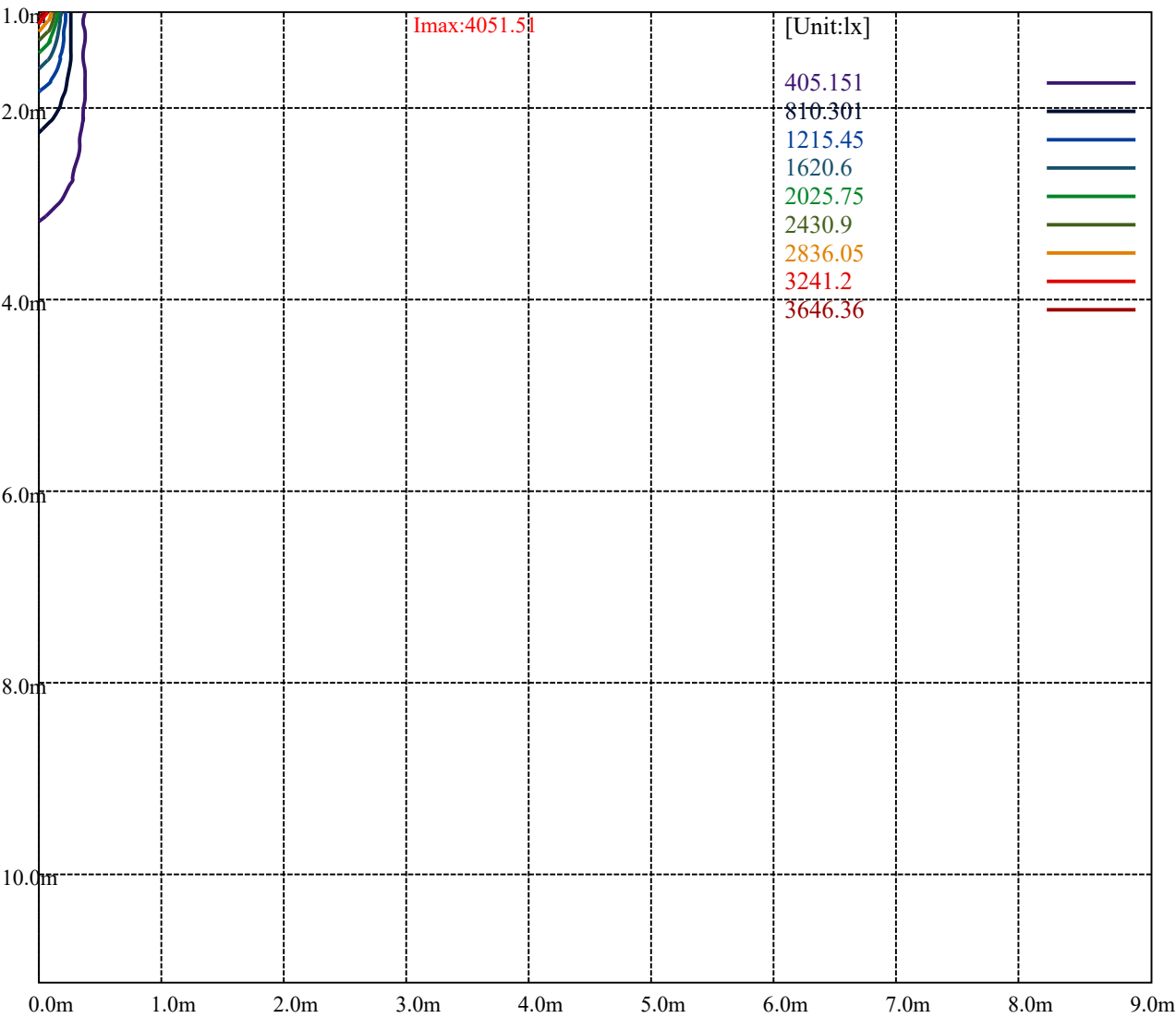
(70%Imax) 2836.05

(80%Imax) 3241.2

(90%Imax) 3646.36



(10%Emax) 45.01656	—
(20%Emax) 90.033	—
(30%Emax) 135.05	—
(40%Emax) 180.0656	—
(50%Emax) 225.0822	—
(60%Emax) 270.0989	—
(70%Emax) 315.1156	—
(80%Emax) 360.1322	—
(90%Emax) 405.1489	—



Luminance Table

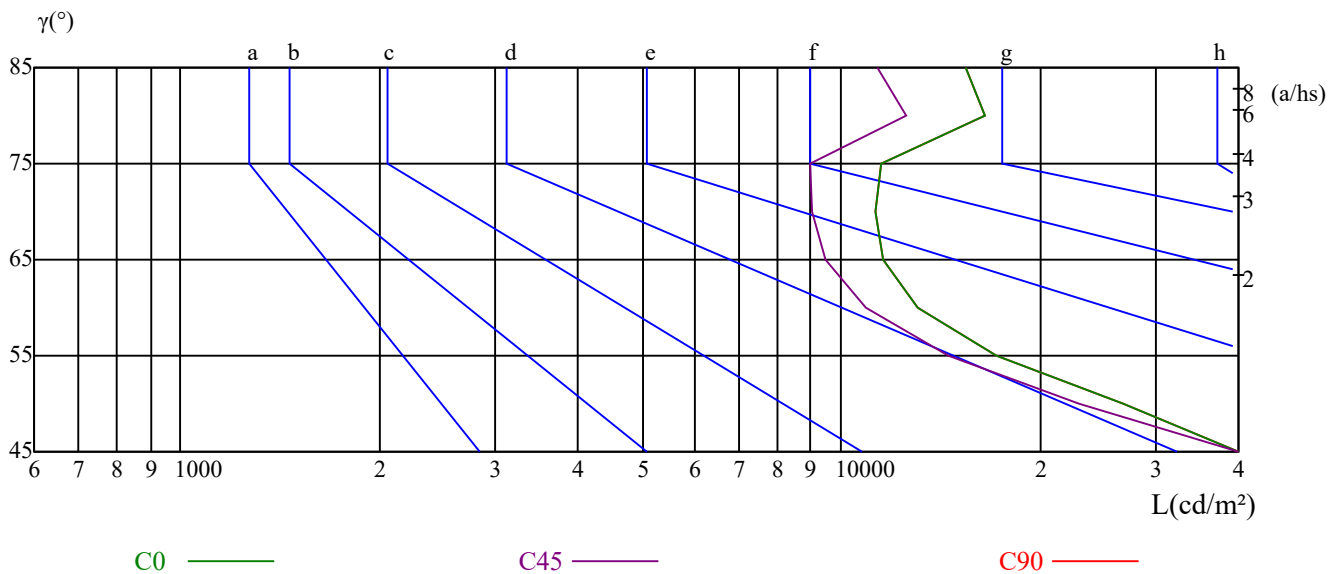
γ	45	50	55	60	65	70	75	80	85
C0	104050	26772	17251	13097	11619	11294	11524	16516	15444
C45	90581	22965	14570	10878	9477	9027	9002	12559	11370
C90	104050	26772	17251	13097	11619	11294	11524	16516	15444

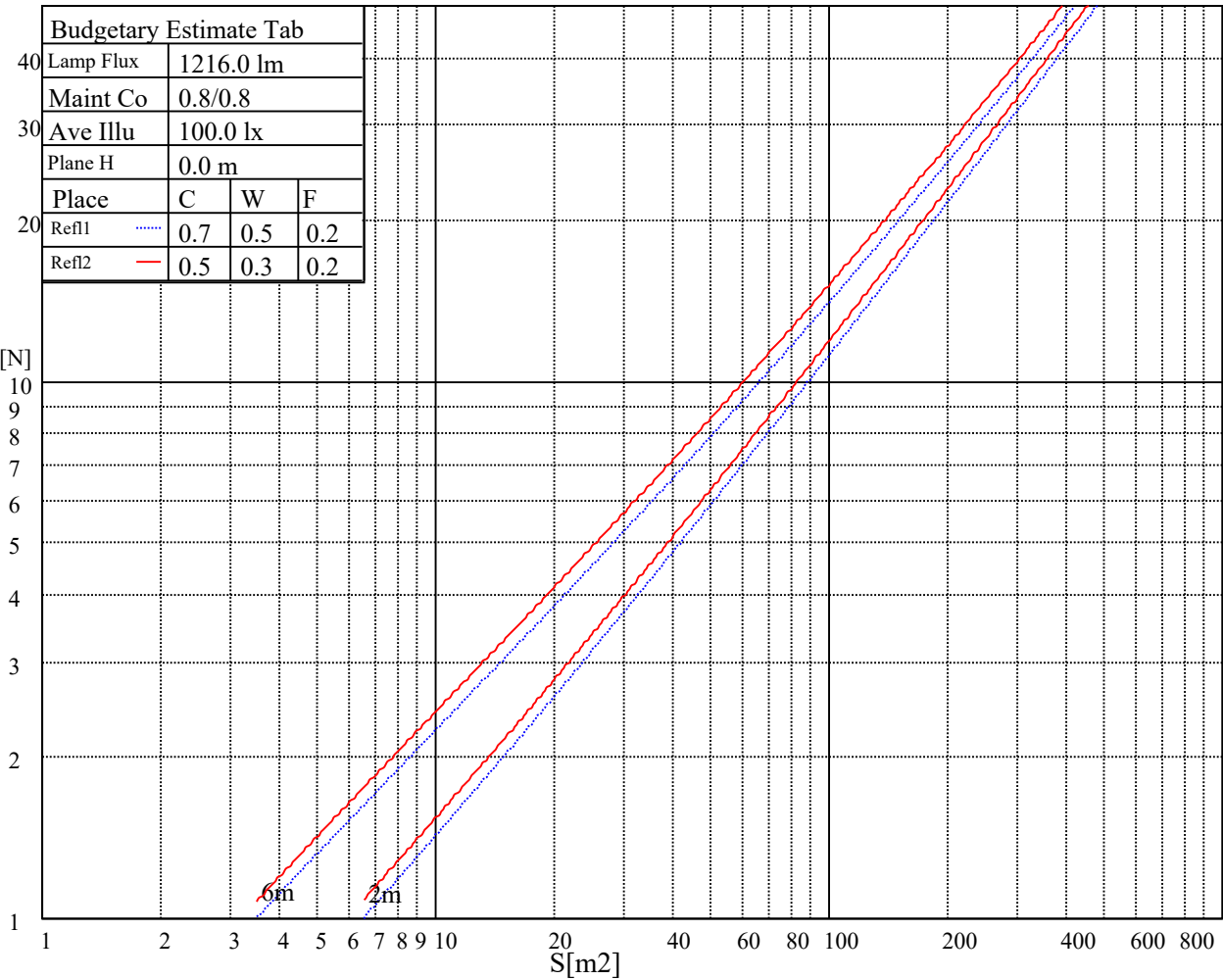
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
25573	25573	25573	35608	35608	35608	114297	114297	114297

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





RHOC	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	1.08	1.08	1.08	1.05	1.05	1.05	1.00	1.00	1.00	0.96	0.96	0.96	0.92	0.92	0.92	0.90
1	1.00	0.98	0.96	0.98	0.96	0.95	0.95	0.93	0.92	0.91	0.90	0.89	0.88	0.87	0.86	0.85
2	0.94	0.91	0.88	0.92	0.89	0.87	0.90	0.87	0.85	0.87	0.85	0.83	0.84	0.83	0.81	0.80
3	0.88	0.84	0.81	0.87	0.83	0.80	0.85	0.82	0.79	0.83	0.80	0.78	0.81	0.79	0.77	0.75
4	0.83	0.79	0.75	0.82	0.78	0.75	0.81	0.77	0.74	0.79	0.76	0.73	0.77	0.75	0.72	0.71
5	0.79	0.74	0.71	0.78	0.74	0.70	0.77	0.73	0.70	0.75	0.72	0.69	0.74	0.71	0.69	0.67
6	0.75	0.70	0.67	0.74	0.70	0.67	0.73	0.69	0.66	0.72	0.68	0.66	0.71	0.68	0.65	0.64
7	0.72	0.67	0.63	0.71	0.66	0.63	0.70	0.66	0.63	0.69	0.65	0.63	0.68	0.65	0.62	0.61
8	0.68	0.64	0.60	0.68	0.63	0.60	0.67	0.63	0.60	0.66	0.62	0.60	0.65	0.62	0.59	0.58
9	0.65	0.61	0.58	0.65	0.61	0.57	0.64	0.60	0.57	0.64	0.60	0.57	0.63	0.59	0.57	0.56
10	0.63	0.58	0.55	0.62	0.58	0.55	0.62	0.58	0.55	0.61	0.57	0.55	0.61	0.57	0.55	0.54

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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	4023.05	3787.65	2415.84	1200.96	632.20	445.21	376.20	339.47	286.05
45.0	4046.98	3792.10	2491.52	1224.34	663.92	454.67	387.89	352.83	288.28
90.0	4100.41	3657.98	2227.18	1100.96	613.22	420.39	348.77	322.22	256.39
135.0	4050.88	3563.37	2303.42	1158.11	629.98	434.08	337.25	305.53	237.69
180.0	4023.05	3064.73	1640.05	829.93	519.06	412.16	372.36	324.28	185.43
225.0	4016.38	3016.32	1611.11	803.78	516.50	416.05	374.87	313.26	156.49
270.0	4100.41	3227.24	1852.09	914.91	539.82	416.83	373.42	334.47	187.16
315.0	4050.88	3233.91	1853.20	880.35	528.08	408.82	366.91	282.93	151.09
360.0	4023.05	3787.65	2415.84	1200.96	632.20	445.21	376.20	339.47	286.05
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	110.64	19.53	12.80	8.35	6.73	6.07	5.45	5.01	4.62
45.0	105.90	17.75	11.02	8.01	6.57	5.73	5.29	4.84	4.51
90.0	92.44	17.53	10.80	7.68	6.46	5.79	5.29	4.84	4.56
135.0	99.00	21.82	12.35	8.90	7.29	6.51	6.01	5.40	5.23
180.0	37.51	13.58	9.07	7.12	6.51	6.01	5.84	10.13	6.34
225.0	28.77	11.80	9.02	7.51	6.46	6.12	6.12	14.80	12.02
270.0	48.75	15.19	9.85	7.35	6.46	6.07	5.90	9.57	8.07
315.0	50.87	26.27	14.14	9.57	7.57	6.73	6.18	5.29	4.45
360.0	110.64	19.53	12.80	8.35	6.73	6.07	5.45	5.01	4.62
C/γ(°)	90.0								
0.0	4.17								
45.0	4.06								
90.0	4.06								
135.0	4.06								
180.0	4.06								
225.0	4.01								
270.0	4.06								
315.0	4.01								
360.0	4.17								