
Nata

LumCAT: 1567-E	
Luminaire: 92.70.043.00	
Report No: NT2017080407	Voltage(V): 38.7000
Test No: GC2017080407	Current(A): 0.3000
LampCAT: SEOUL SAWx06	Power (W): 11.6100
Lamp flux(lm): 1216.0	PF: 0.0000
Number of Lamps: 1	Ballast type: DC
Length(mm): 21	Width(mm): 21
Phm Type: C	Height(mm): 0

Photometric Results

Lumens(lm): 1062.46
Efficiency(%): 87.37%
Lumens(lm)/Power(W): 91.51
Central intensity(cd): 623.340
Maximum intensity(cd): 639.500
Angle of maximum intensity: C=0.0 γ =15.0
Beam Angle(50%Imax): [C0/180]Total=84.6
[C90/270]Total=84.6
Field angle(10%Imax): [C0/180]Total=105.0
[C90/270]Total=105.0
Maximum s/h(1/2): C0_180=1.27 C90_270=1.27
Maximum s/h(1/4): C0_180=1.23 C90_270=1.23
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 87.37%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 97.217%

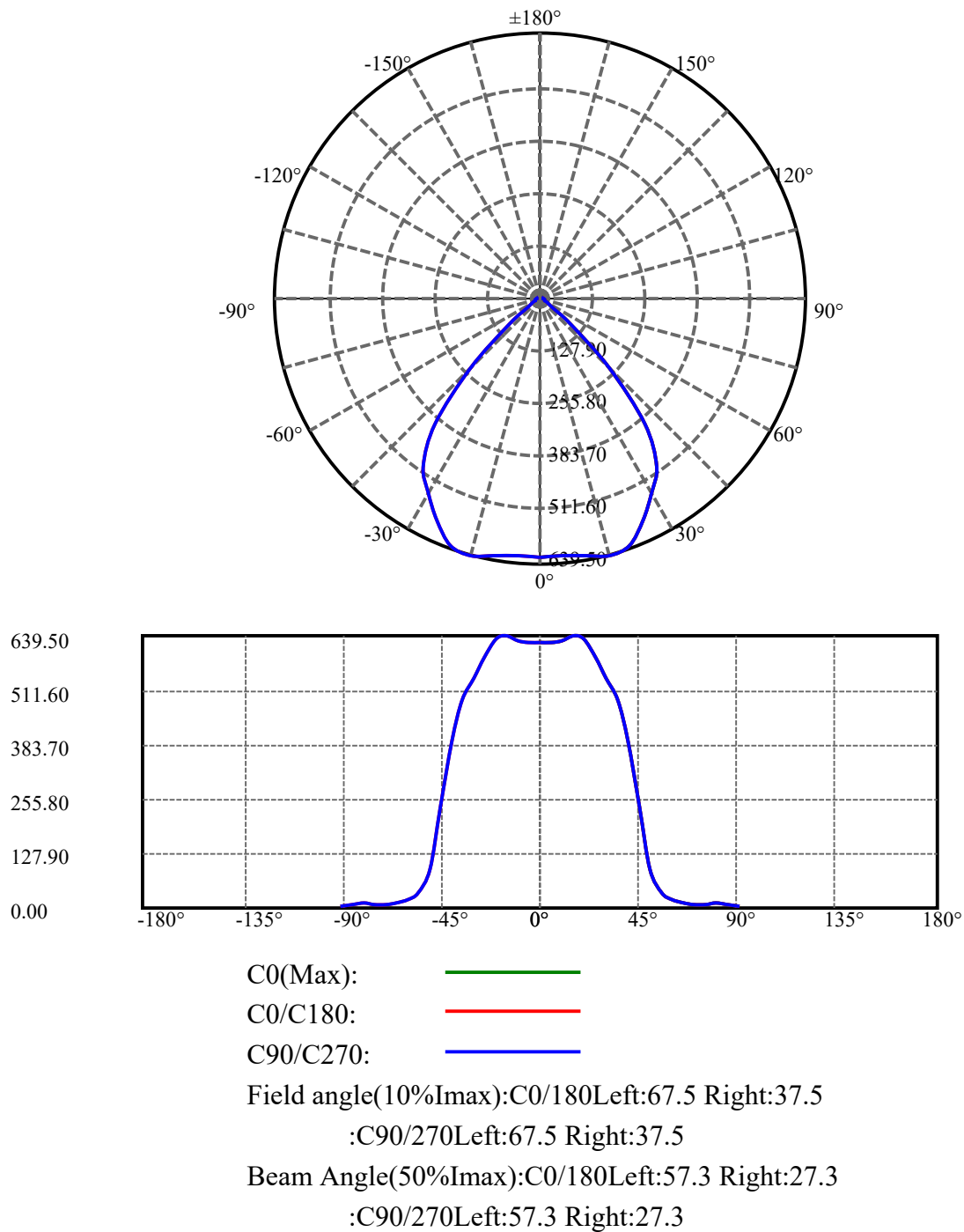
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	623.340	0.000	0	.000%	.000%
5.0	623.263	14.903	14.903	1.226%	1.403%
10.0	629.427	44.813	59.715	3.685%	5.620%
15.0	639.499	75.272	134.987	6.190%	12.705%
20.0	632.884	104.862	239.85	8.624%	22.575%
25.0	589.677	128.224	368.074	10.545%	34.643%
30.0	540.328	143.003	511.077	11.760%	48.103%
35.0	490.388	151.780	662.857	12.482%	62.389%
40.0	393.443	147.461	810.318	12.127%	76.268%
45.0	234.071	116.189	926.507	9.555%	87.204%
50.0	93.335	66.157	992.664	5.441%	93.430%
55.0	34.935	27.890	1020.554	2.294%	96.055%
60.0	18.449	12.340	1032.893	1.015%	97.217%
65.0	10.449	7.025	1039.918	.578%	97.878%
70.0	7.812	4.624	1044.542	.380%	98.313%
75.0	7.068	3.889	1048.432	.320%	98.679%
80.0	12.209	5.158	1053.589	.424%	99.165%
85.0	8.410	5.603	1059.192	.461%	99.692%
90.0	3.541	3.272	1062.464	.269%	100.000%

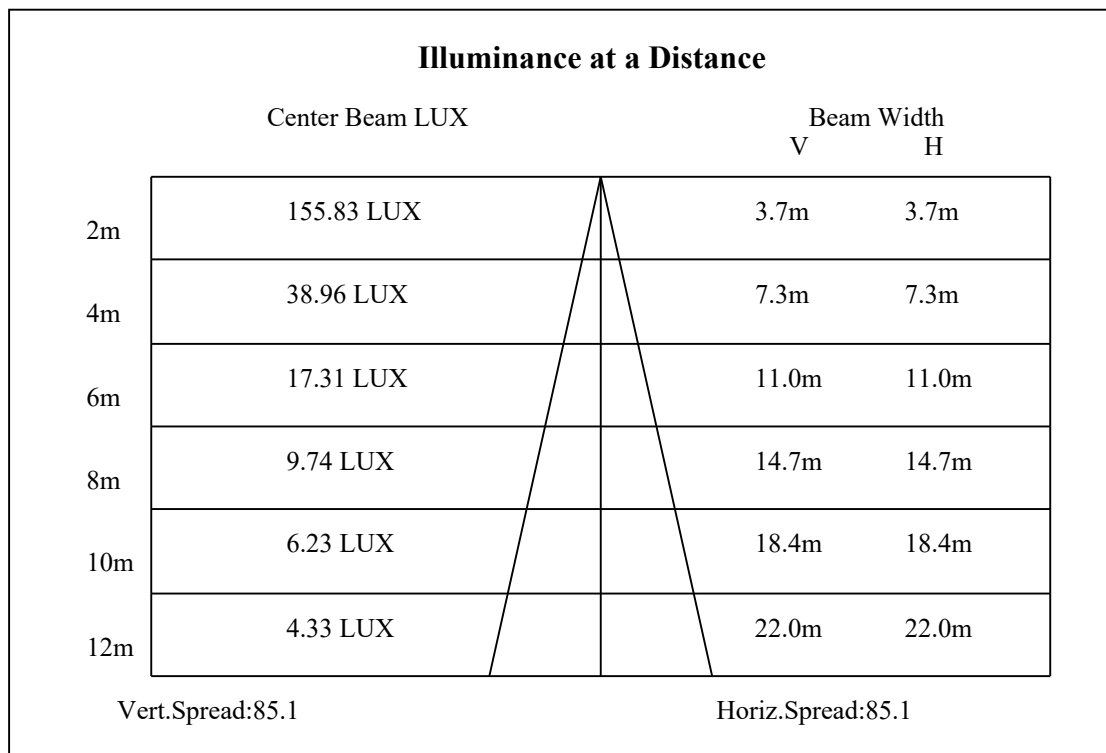
ZONAL LUMEN SUMMARY

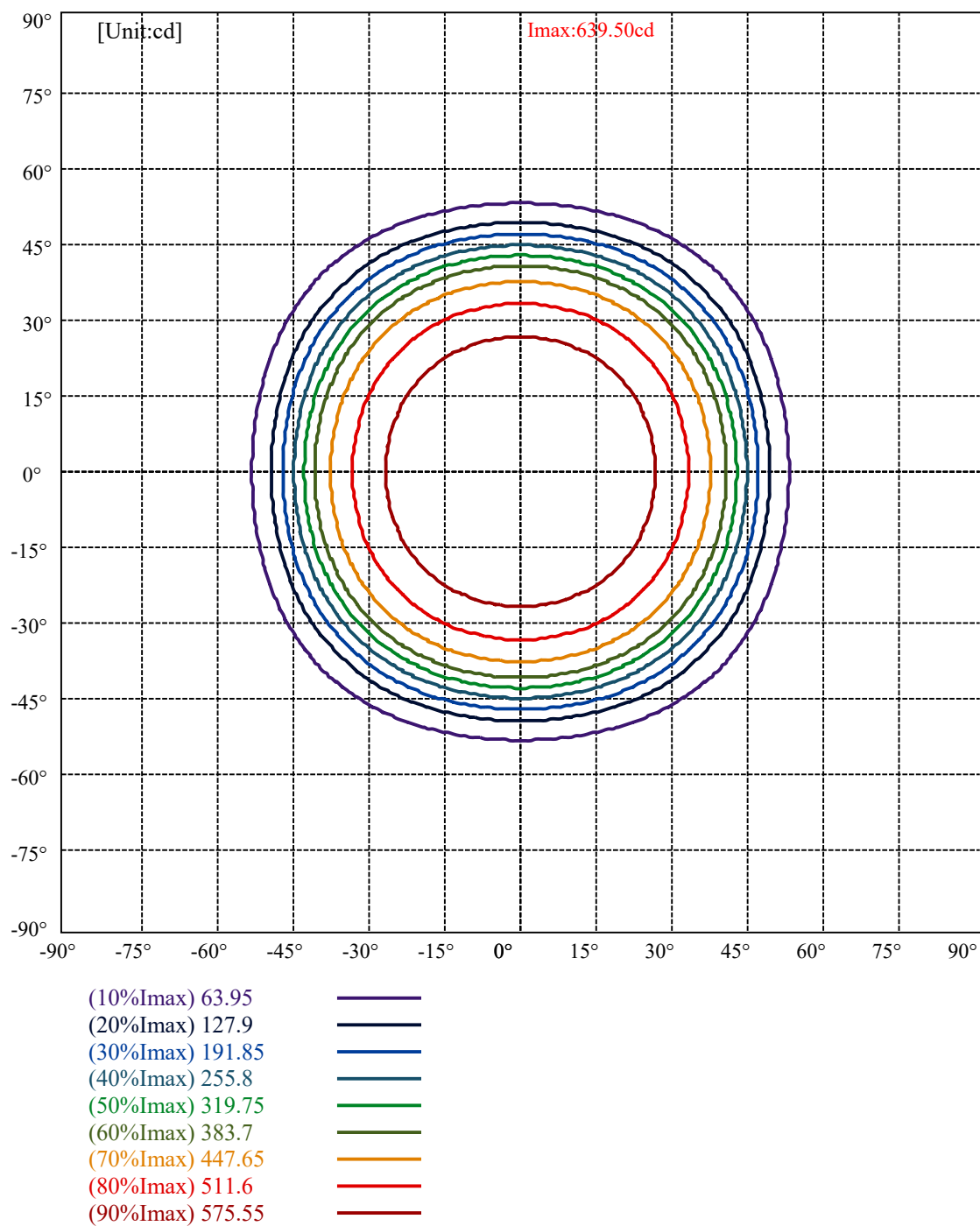
Zone	Lumens	%Lamp	%Fixt
0-30	511.08	42.03%	48.10%
0-40	810.32	66.64%	76.27%
0-60	1032.89	84.94%	97.22%
0-90	1059.19	87.10%	99.69%
0-120	1059.19	87.10%	99.69%
0-180	1062.46	87.37%	100.00%
60-90	38.64	3.18%	3.64%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-41.71	849.97	69.90%	80.00%

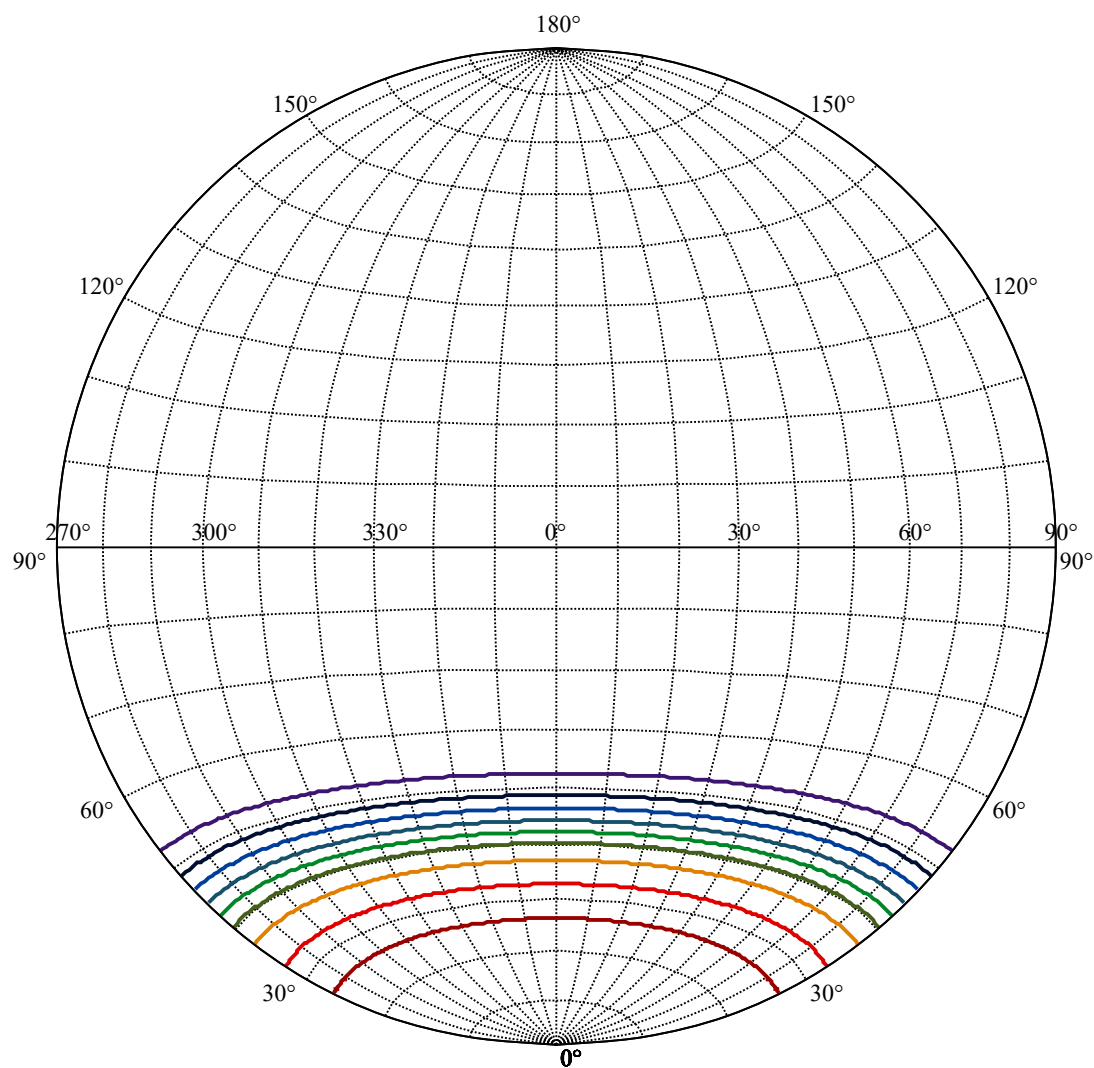
ZONAL LUMEN SUMMARY

0-10	59.72
10-20	180.13
20-30	271.23
30-40	299.24
40-50	182.35
50-60	40.23
60-70	11.65
70-80	9.05
80-90	5.60
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









House

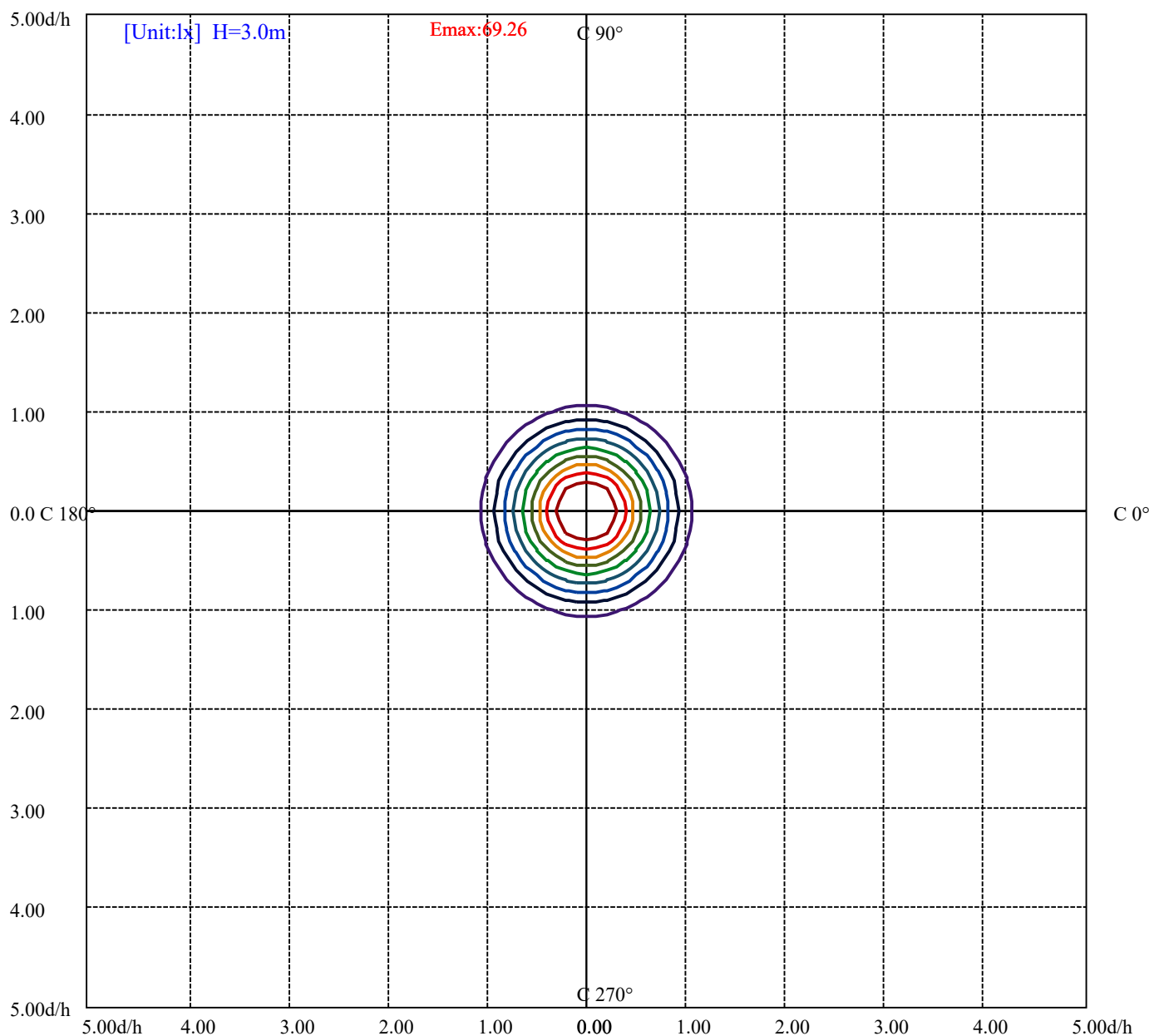
[Unit:cd]

Road

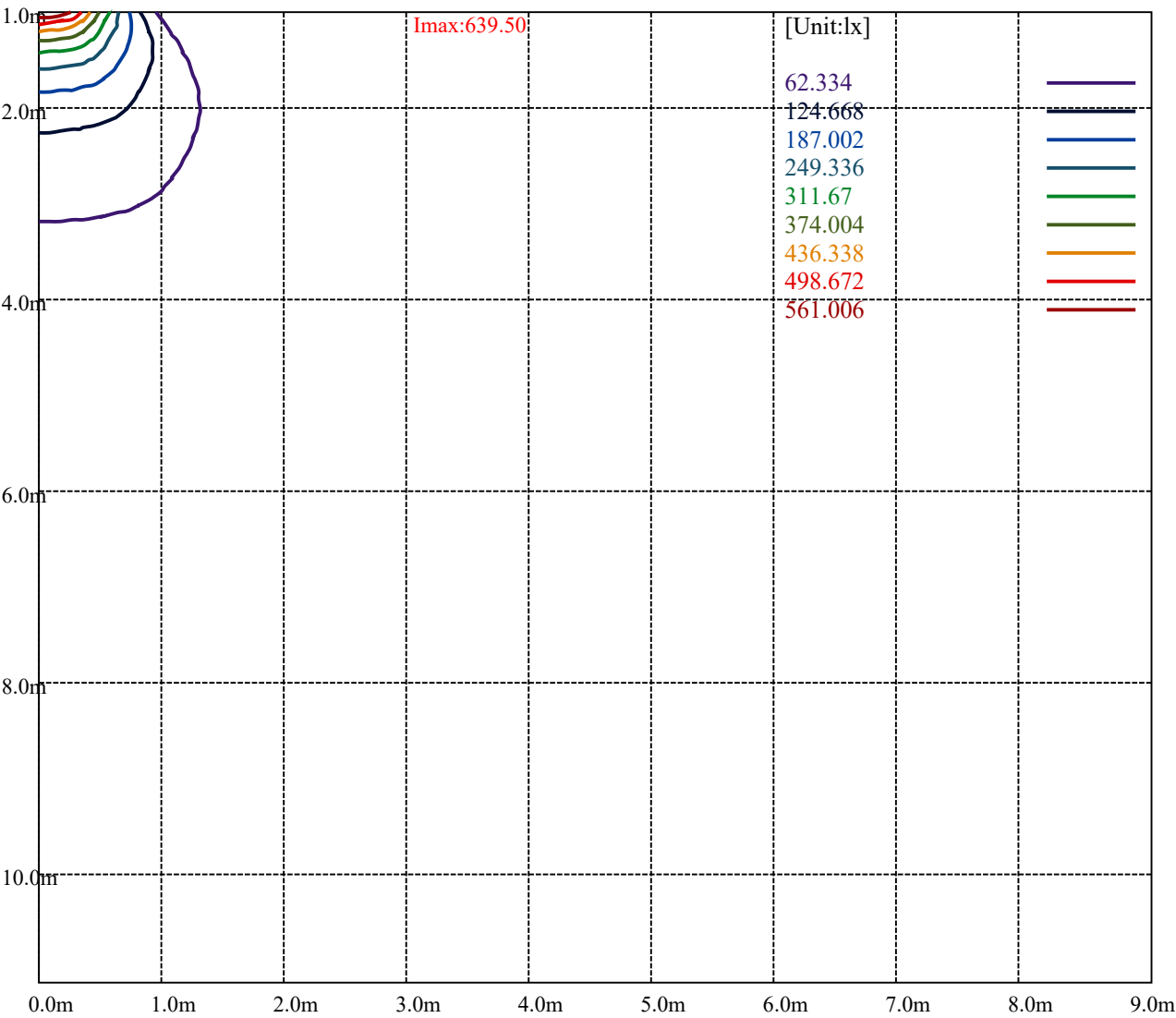
Imax:639.50

(10%Imax) 63.95
(20%Imax) 127.9
(30%Imax) 191.85
(40%Imax) 255.8
(50%Imax) 319.75
(60%Imax) 383.7
(70%Imax) 447.65
(80%Imax) 511.6
(90%Imax) 575.55





(10%Emax) 6.926	—
(20%Emax) 13.852	—
(30%Emax) 20.778	—
(40%Emax) 27.704	—
(50%Emax) 34.63	—
(60%Emax) 41.556	—
(70%Emax) 48.482	—
(80%Emax) 55.408	—
(90%Emax) 62.334	—



Luminance Table

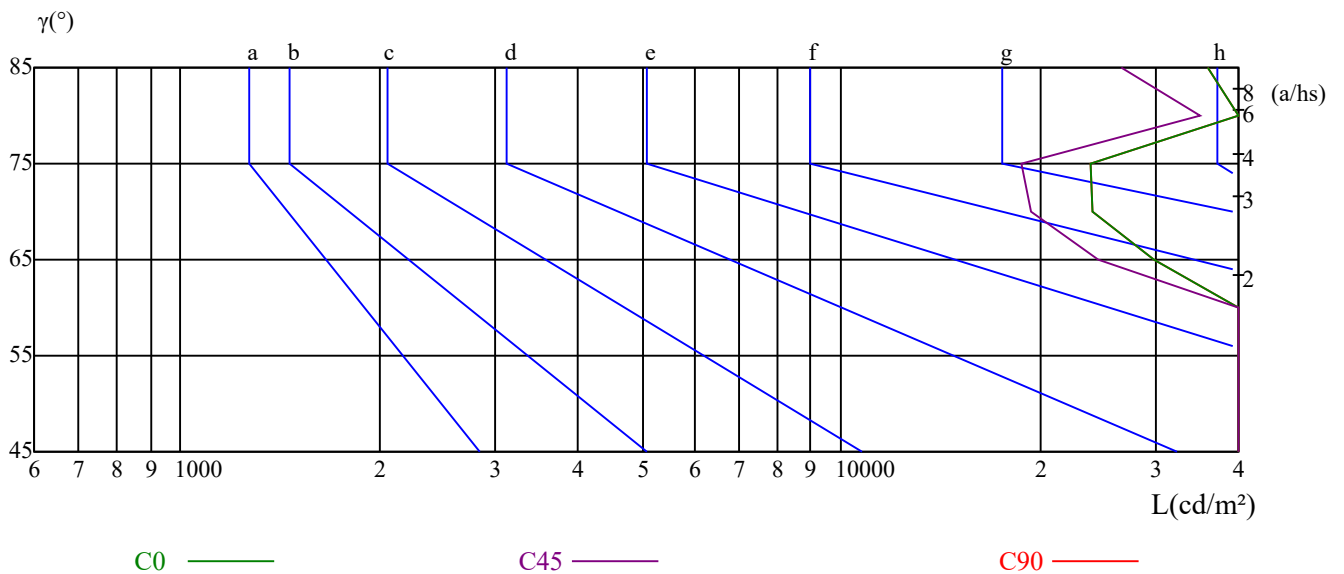
γ	45	50	55	60	65	70	75	80	85
C0	551710	227466	88835	49433	29827	24056	23820	45824	35926
C45	484776	196998	75762	41462	24562	19404	18761	35082	26562
C90	551710	227466	88835	49433	29827	24056	23820	45824	35926

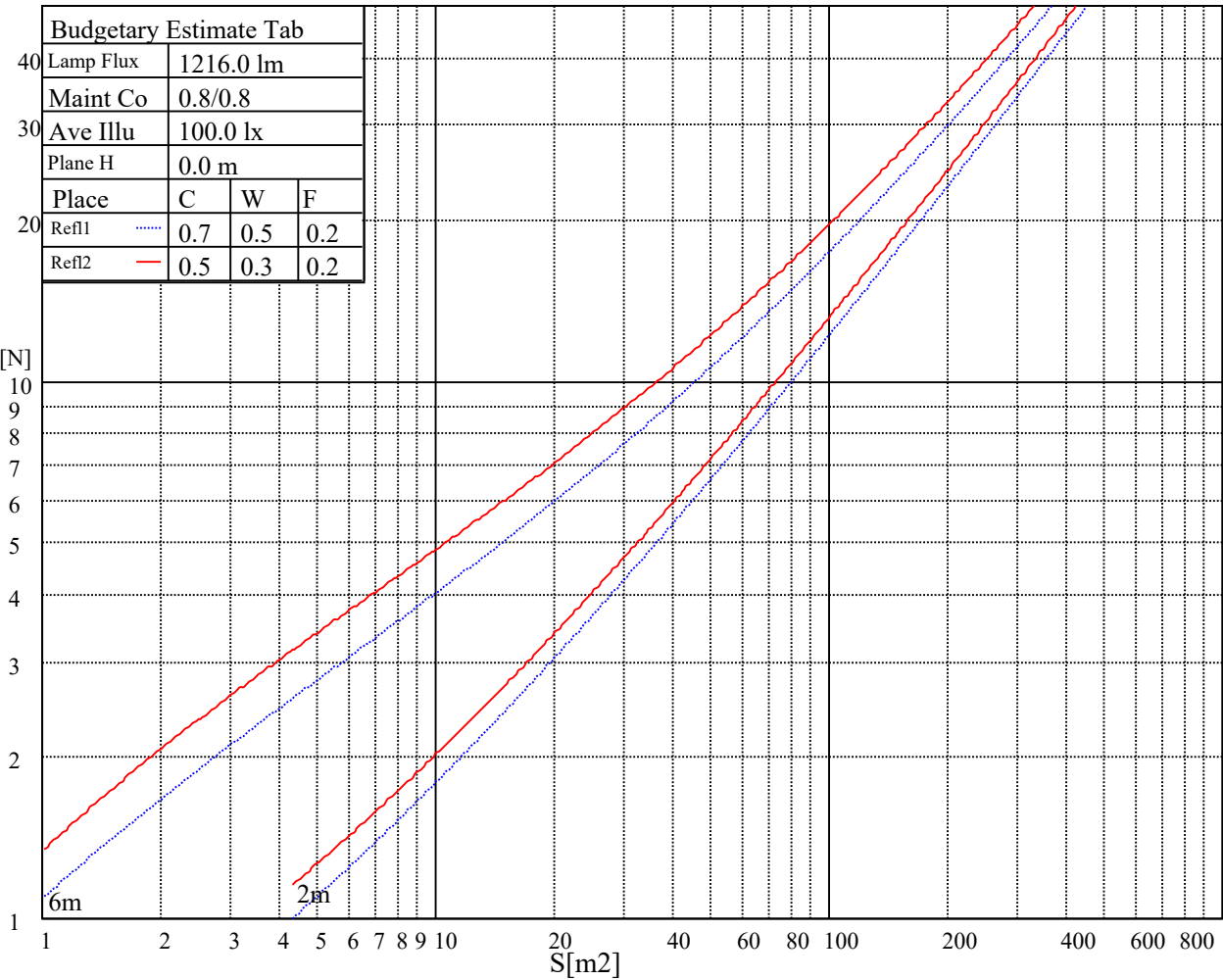
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
61809	61809	61809	68269	68269	68269	241245	241245	241245

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	1.04	1.04	1.04	1.02	1.02	1.02	0.97	0.97	0.97	0.93	0.93	0.93	0.89	0.89	0.89	0.87
1	0.95	0.92	0.90	0.93	0.91	0.89	0.90	0.88	0.86	0.86	0.85	0.83	0.83	0.82	0.81	0.79
2	0.87	0.83	0.79	0.85	0.81	0.78	0.82	0.79	0.76	0.80	0.77	0.75	0.77	0.75	0.73	0.71
3	0.79	0.74	0.70	0.78	0.73	0.69	0.76	0.72	0.68	0.73	0.70	0.67	0.71	0.69	0.66	0.65
4	0.73	0.67	0.62	0.72	0.66	0.62	0.70	0.65	0.61	0.68	0.64	0.61	0.66	0.63	0.60	0.58
5	0.67	0.61	0.56	0.66	0.60	0.56	0.64	0.59	0.55	0.63	0.58	0.55	0.61	0.57	0.54	0.53
6	0.61	0.55	0.51	0.61	0.55	0.51	0.59	0.54	0.50	0.58	0.53	0.50	0.57	0.53	0.50	0.48
7	0.57	0.51	0.46	0.56	0.50	0.46	0.55	0.50	0.46	0.54	0.49	0.46	0.53	0.48	0.45	0.44
8	0.53	0.46	0.42	0.52	0.46	0.42	0.51	0.46	0.42	0.50	0.45	0.42	0.49	0.45	0.41	0.40
9	0.49	0.43	0.39	0.48	0.43	0.39	0.47	0.42	0.38	0.47	0.42	0.38	0.46	0.41	0.38	0.37
10	0.45	0.40	0.36	0.45	0.39	0.36	0.44	0.39	0.35	0.44	0.39	0.35	0.43	0.38	0.35	0.34

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Intensity data(cd)									
C/γ(°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	629.64	623.91	626.47	632.48	624.58	585.79	540.43	501.25	395.35
45.0	619.24	615.28	627.03	638.94	628.14	589.63	544.11	493.57	376.98
90.0	618.79	616.95	631.59	641.50	627.64	578.89	532.81	486.06	364.85
135.0	625.69	620.24	625.08	637.38	641.50	603.65	551.95	489.85	391.95
180.0	629.64	630.37	628.64	639.55	637.43	595.19	537.65	484.28	390.67
225.0	619.24	627.14	634.98	647.12	646.06	593.97	544.61	497.75	433.75
270.0	618.79	623.35	628.86	642.05	638.21	598.14	544.66	493.80	421.78
315.0	625.69	628.86	632.76	636.99	619.51	572.15	526.41	476.54	372.20
360.0	629.64	623.91	626.47	632.48	624.58	585.79	540.43	501.25	395.35
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	230.45	83.64	30.83	17.86	10.69	8.13	9.35	23.99	19.59
45.0	199.29	69.17	25.49	15.25	9.57	8.07	8.74	24.93	14.47
90.0	184.87	63.55	25.15	13.63	8.57	7.18	6.85	14.41	4.90
135.0	224.61	100.45	44.97	19.65	11.69	8.24	6.34	5.40	4.34
180.0	236.02	105.01	39.74	18.53	10.57	7.85	6.18	6.57	5.06
225.0	293.90	117.04	41.07	24.54	10.80	8.01	6.51	7.12	6.40
270.0	287.77	124.05	42.07	21.15	11.69	7.79	6.34	7.85	8.18
315.0	215.65	83.76	30.16	16.97	10.02	7.23	6.23	7.40	4.34
360.0	230.45	83.64	30.83	17.86	10.69	8.13	9.35	23.99	19.59
C/γ(°)	90.0								
0.0	3.56								
45.0	3.56								
90.0	3.45								
135.0	3.56								
180.0	3.62								
225.0	3.56								
270.0	3.51								
315.0	3.51								
360.0	3.56								