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Nata

Client: NT

LumCAT: 11-0161-S

Luminaire: 69-0031

Report No: 20260803-B0115

Ballast type: DC

Test No: 20260803-C015

Voltage(V): 22.180

LampCAT: LUXEON 2835*2

Current(A): 0.454

Lamp flux(lm): 1126.0

Power (W): 10.069

Number of Lamps: 1

PF: 0.000

Length(mm): 280

Width(mm): 40

Phm Type: C

Height(mm): 20

Photometric Results

Lumens(lm): 1038.49, Efficiency(%): 92.23% , Luminous Efficacy(lm/W): 103.14

Central intensity(cd): 596.289, Maximum intensity(cd): 699.211

Angle of maximum intensity: C=0.0 γ =25.0

Beam Angle(50%Imax): [C0/180]Total=78.0

[C90/270]Total=77.2

Field angle(10%Imax): [C0/180]Total=93.4

[C90/270]Total=95.4

Maximum s/h(1/2): C0_180=1.46 C90_270=1.35

Maximum s/h(1/4): C0_180=1.23 C90_270=1.16

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 92.16%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 98.783%

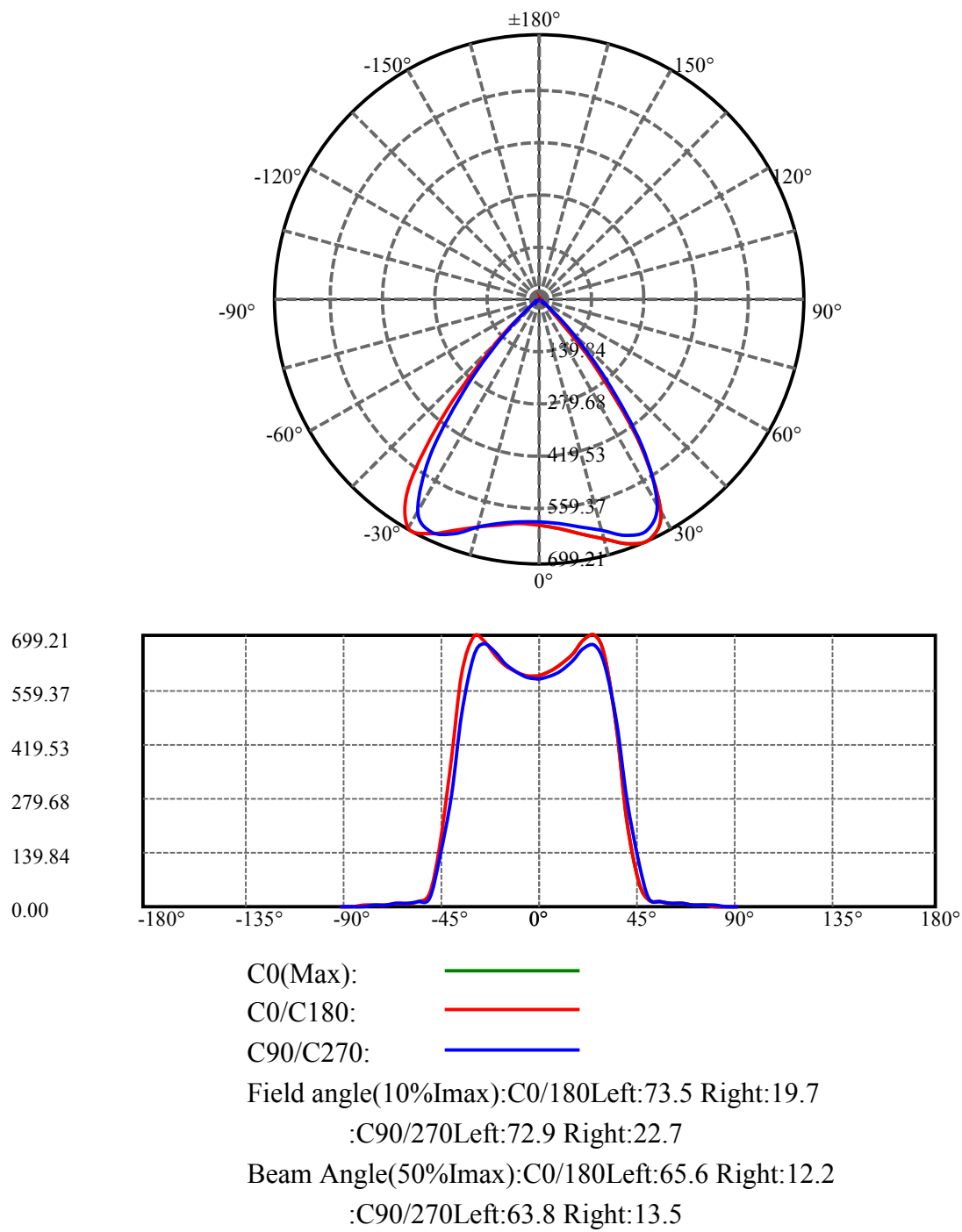
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	595.294	0.000	0	0.00%	0.00%
5.0	601.457	14.307	14.307	1.27%	1.38%
10.0	616.565	43.572	57.879	3.87%	5.57%
15.0	637.487	74.390	132.269	6.61%	12.74%
20.0	663.276	107.201	239.47	9.52%	23.06%
25.0	678.077	140.683	380.153	12.49%	36.61%
30.0	644.877	167.421	547.574	14.87%	52.73%
35.0	526.561	172.503	720.077	15.32%	69.34%
40.0	341.570	144.841	864.918	12.86%	83.29%
45.0	164.773	93.753	958.672	8.33%	92.31%
50.0	54.021	44.211	1002.882	3.93%	96.57%
55.0	18.049	15.671	1018.553	1.39%	98.08%
60.0	10.479	6.594	1025.147	0.59%	98.71%
65.0	7.909	4.470	1029.617	0.40%	99.15%
70.0	5.808	3.473	1033.091	0.31%	99.48%
75.0	3.804	2.512	1035.603	0.22%	99.72%
80.0	2.100	1.580	1037.183	0.14%	99.87%
85.0	0.952	0.829	1038.012	0.07%	99.95%
90.0	0.804	0.481	1038.493	0.04%	100.00%

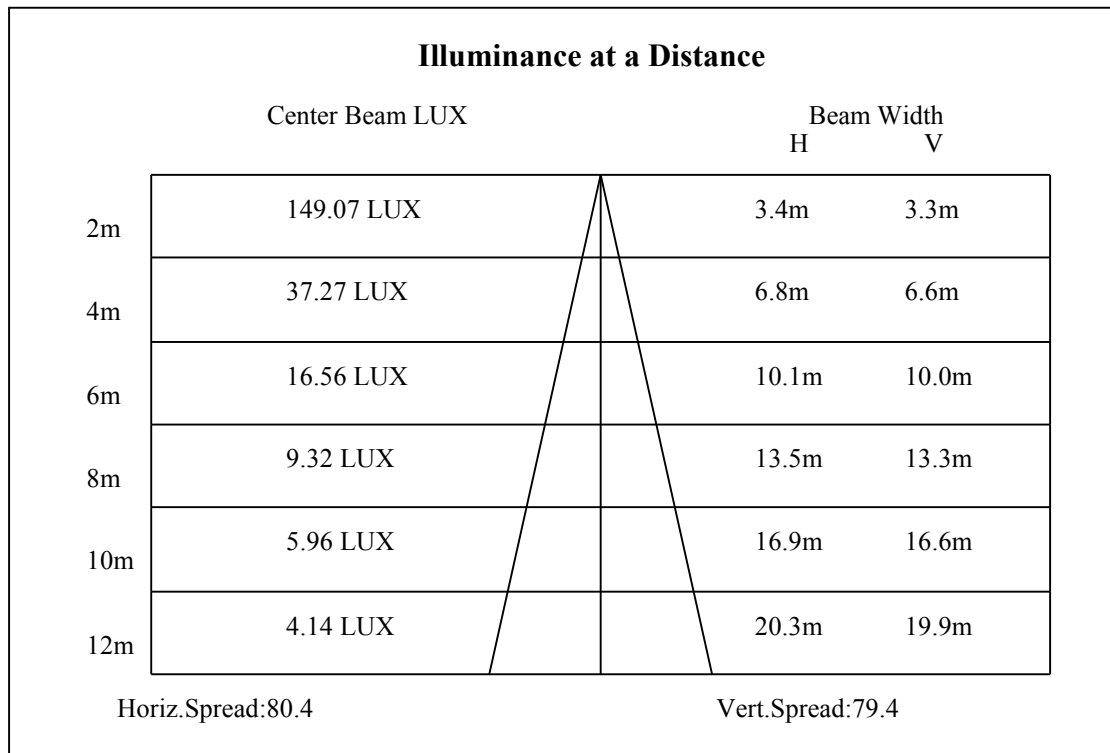
ZONAL LUMEN SUMMARY

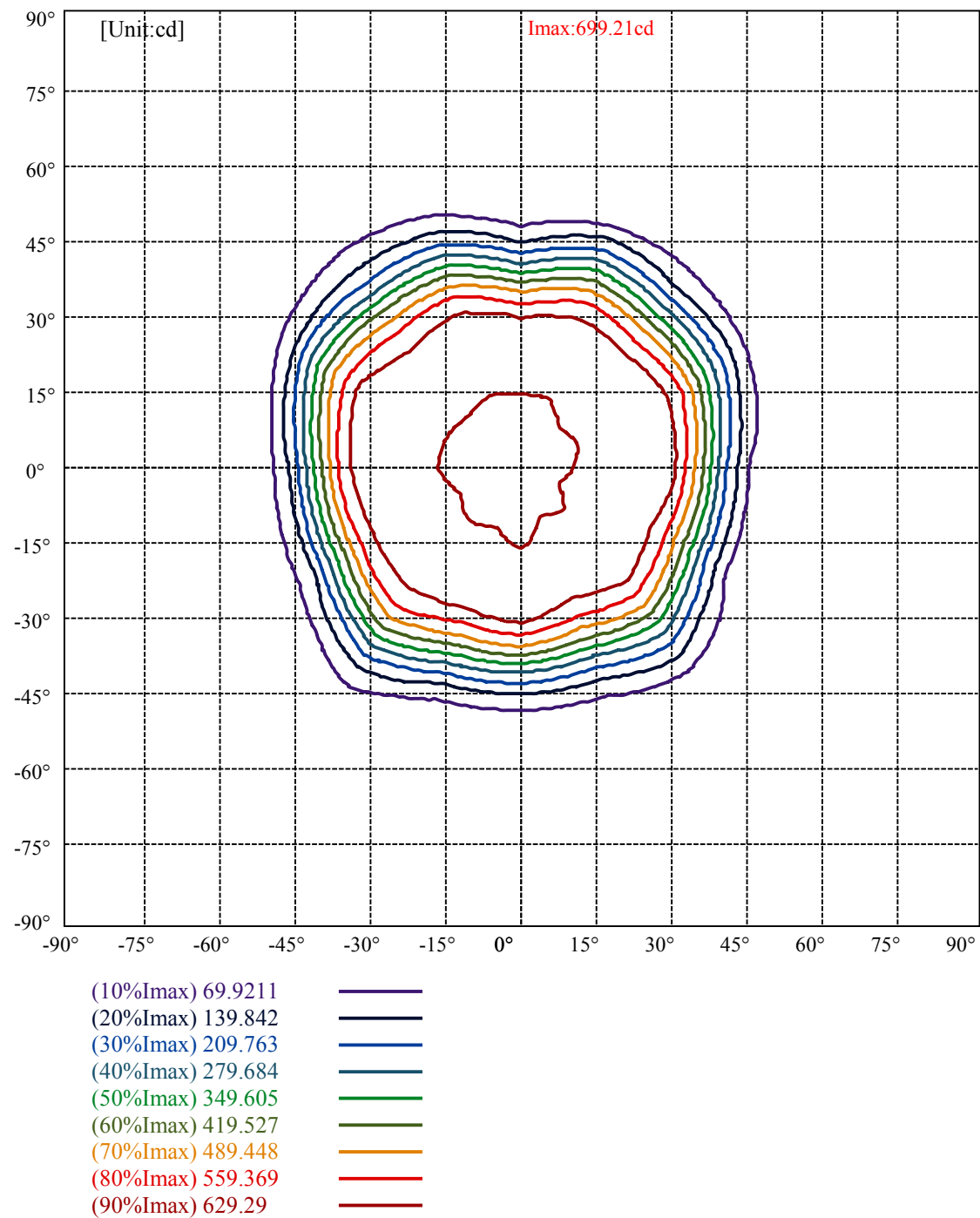
Zone	Lumens	%Lamp	%Fixt
0-30	547.57	48.63%	52.73%
0-40	864.92	76.81%	83.29%
0-60	1025.15	91.04%	98.71%
0-90	1038.01	92.19%	99.95%
0-120	1038.01	92.19%	99.95%
0-180	1038.49	92.23%	100.00%
60-90	12.86	1.14%	1.24%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-38.82	830.79	73.78%	80.00%

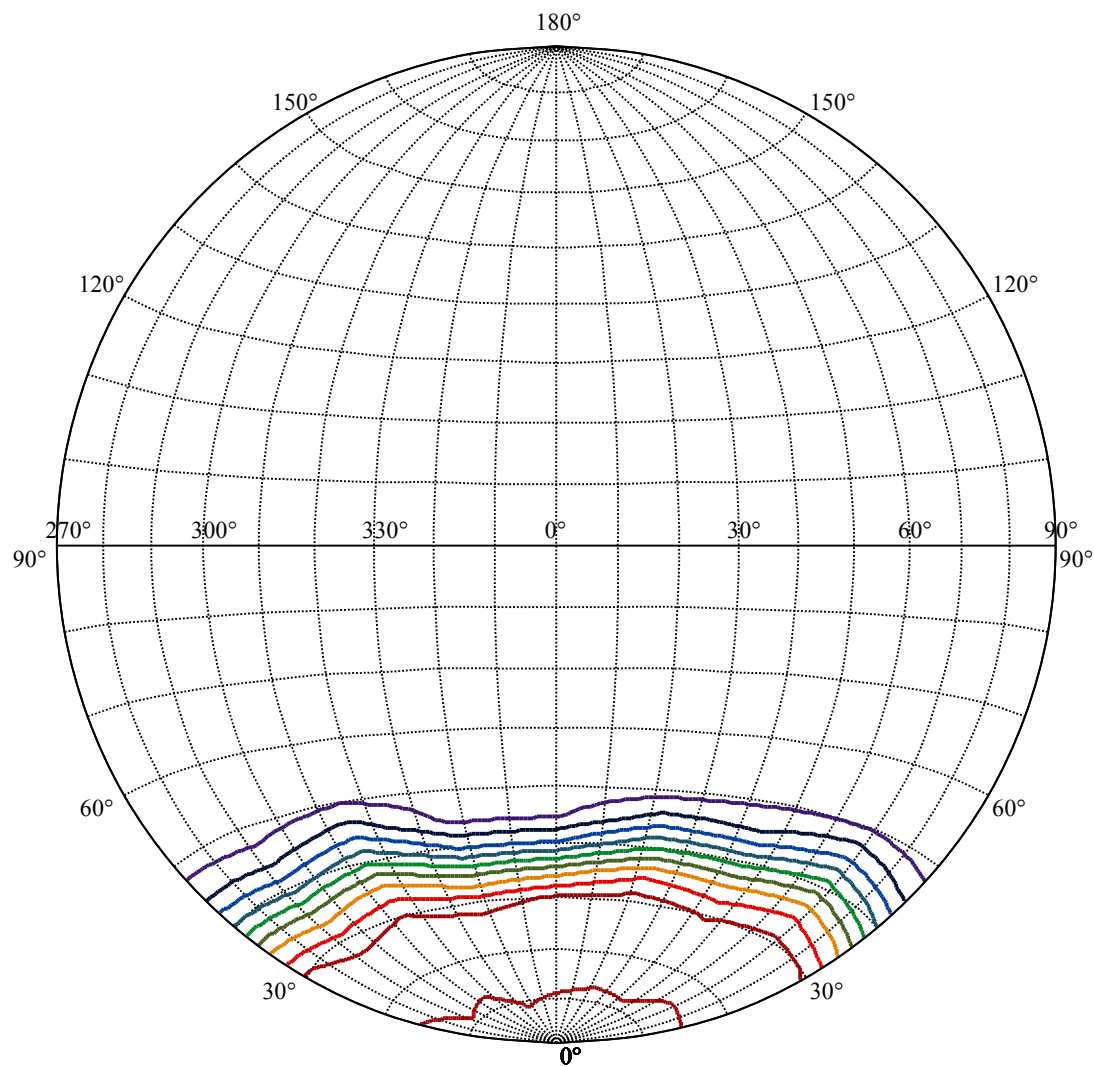
ZONAL LUMEN SUMMARY

0-10	57.88
10-20	181.59
20-30	308.10
30-40	317.34
40-50	137.96
50-60	22.27
60-70	7.94
70-80	4.09
80-90	0.83
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







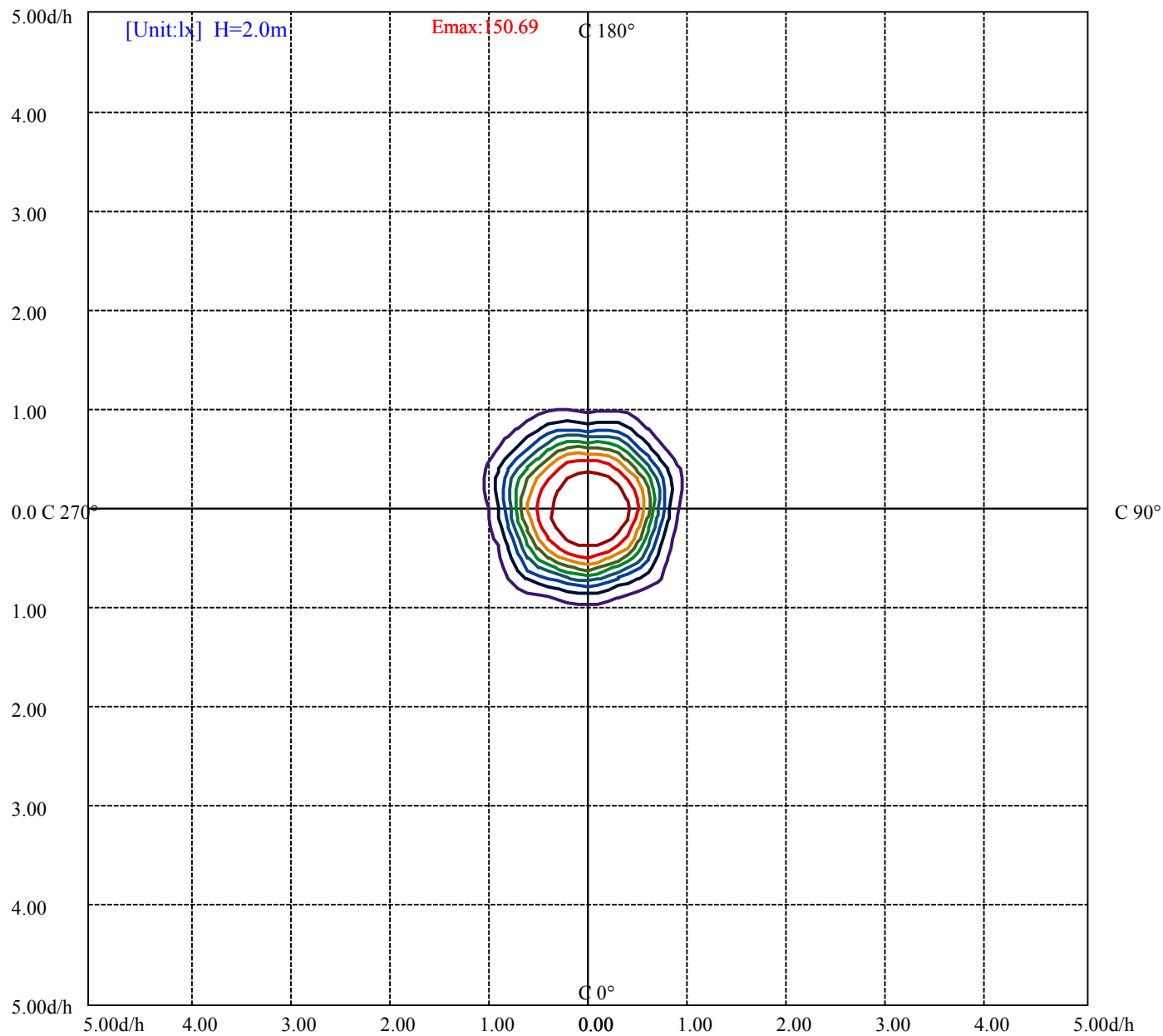


House

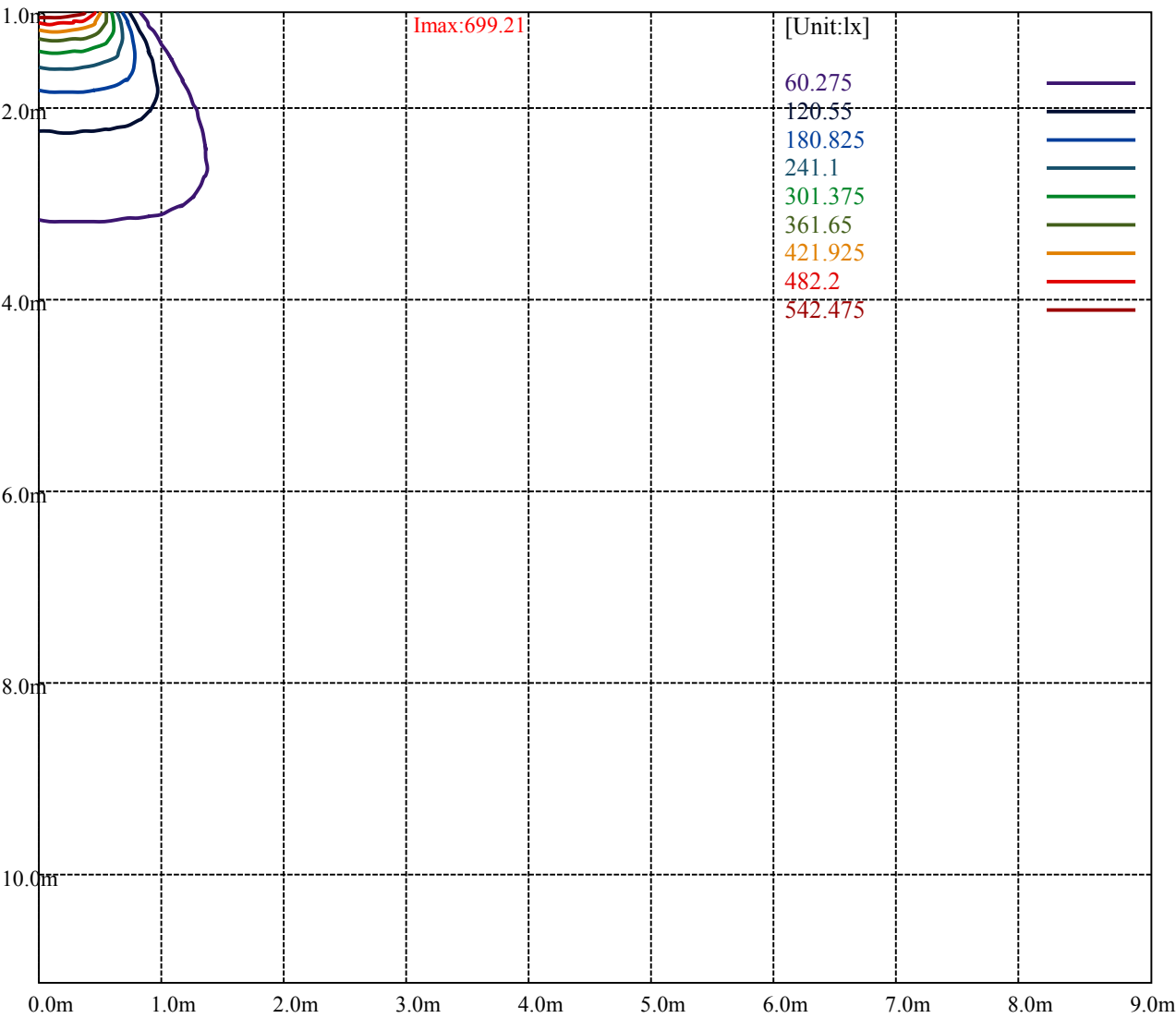
[Unit:cd]

Road

Imax:699.21	
(10%Imax) 70.2512	
(20%Imax) 140.502	
(30%Imax) 210.754	
(40%Imax) 281.005	
(50%Imax) 351.256	
(60%Imax) 421.507	
(70%Imax) 491.758	
(80%Imax) 562.01	
(90%Imax) 632.261	



(10%Emax)	15.06875	
(20%Emax)	30.1375	
(30%Emax)	45.20625	
(40%Emax)	60.275	
(50%Emax)	75.34375	
(60%Emax)	90.4125	
(70%Emax)	105.4812	
(80%Emax)	120.55	
(90%Emax)	135.6187	



Luminance Table

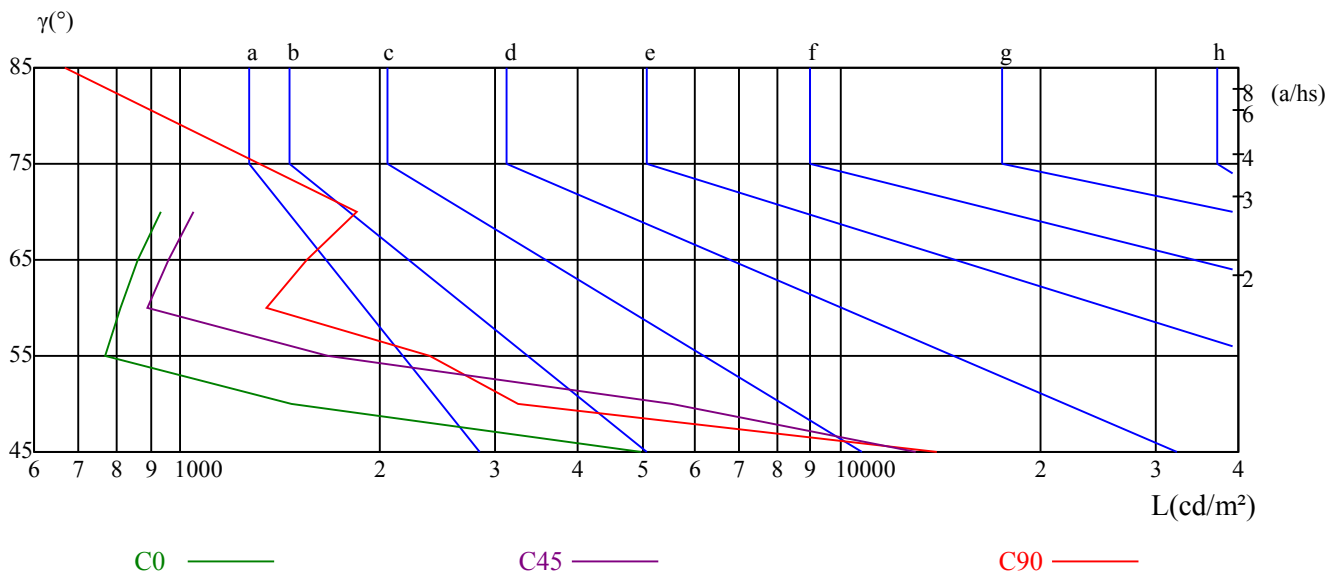
γ	45	50	55	60	65	70	75	80	85
C0	4987	1473	769	810	863	931	0	0	0
C45	12940	5555	1671	889	958	1047	0	0	0
C90	13965	3250	2391	1345	1551	1847	0	0	668

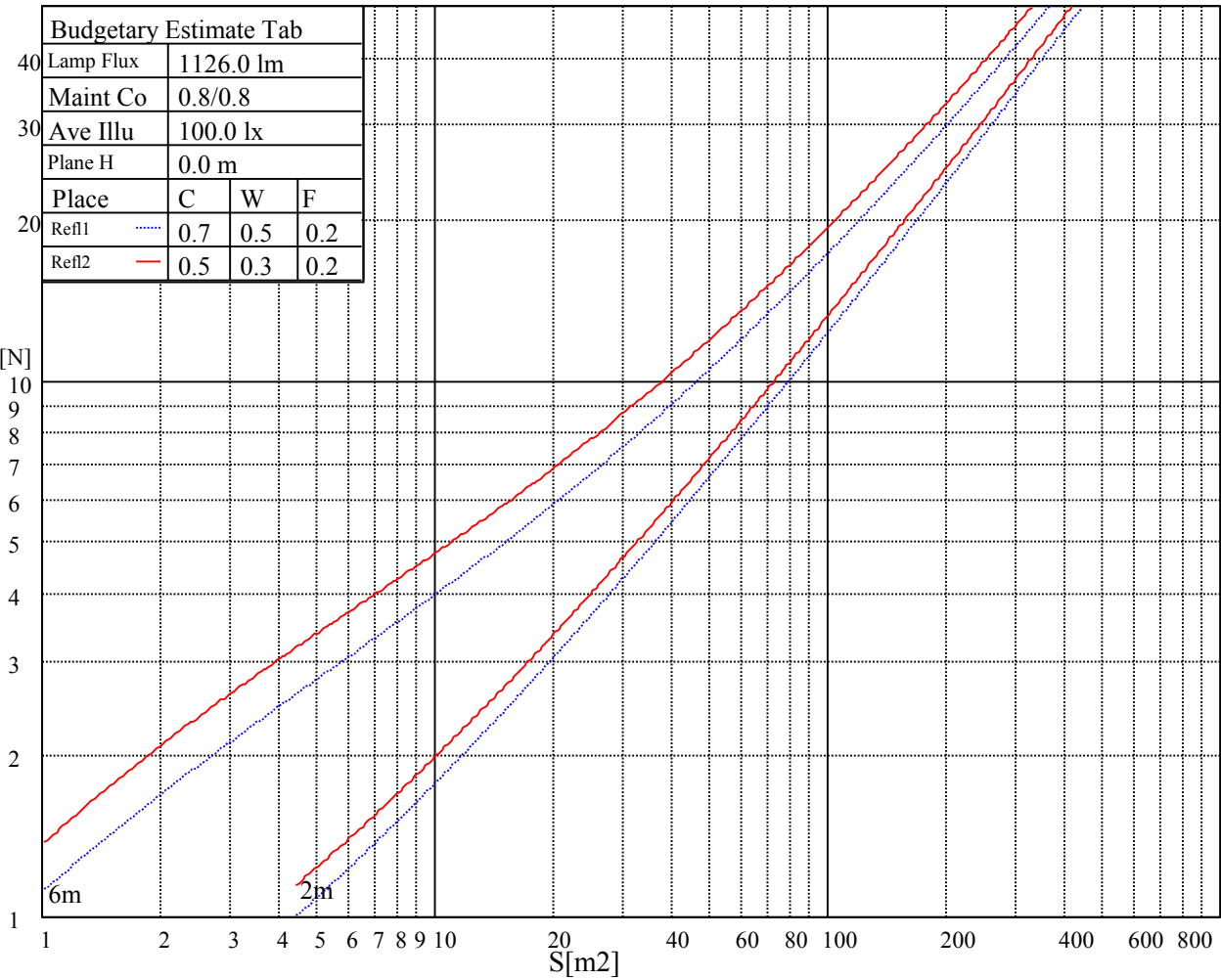
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
1788	1788	1788	1460	0	730	0	607	217

Glare Table

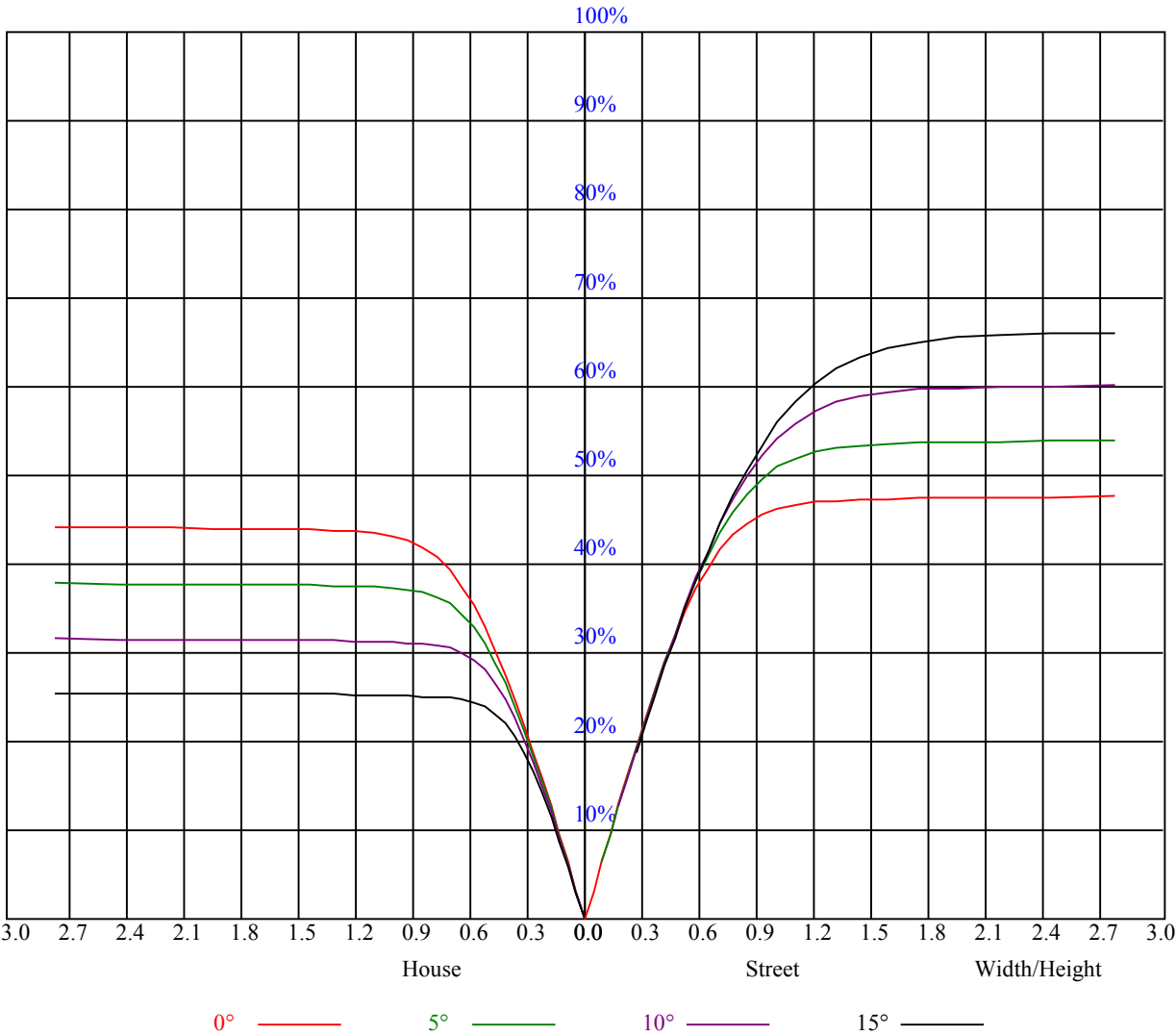
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

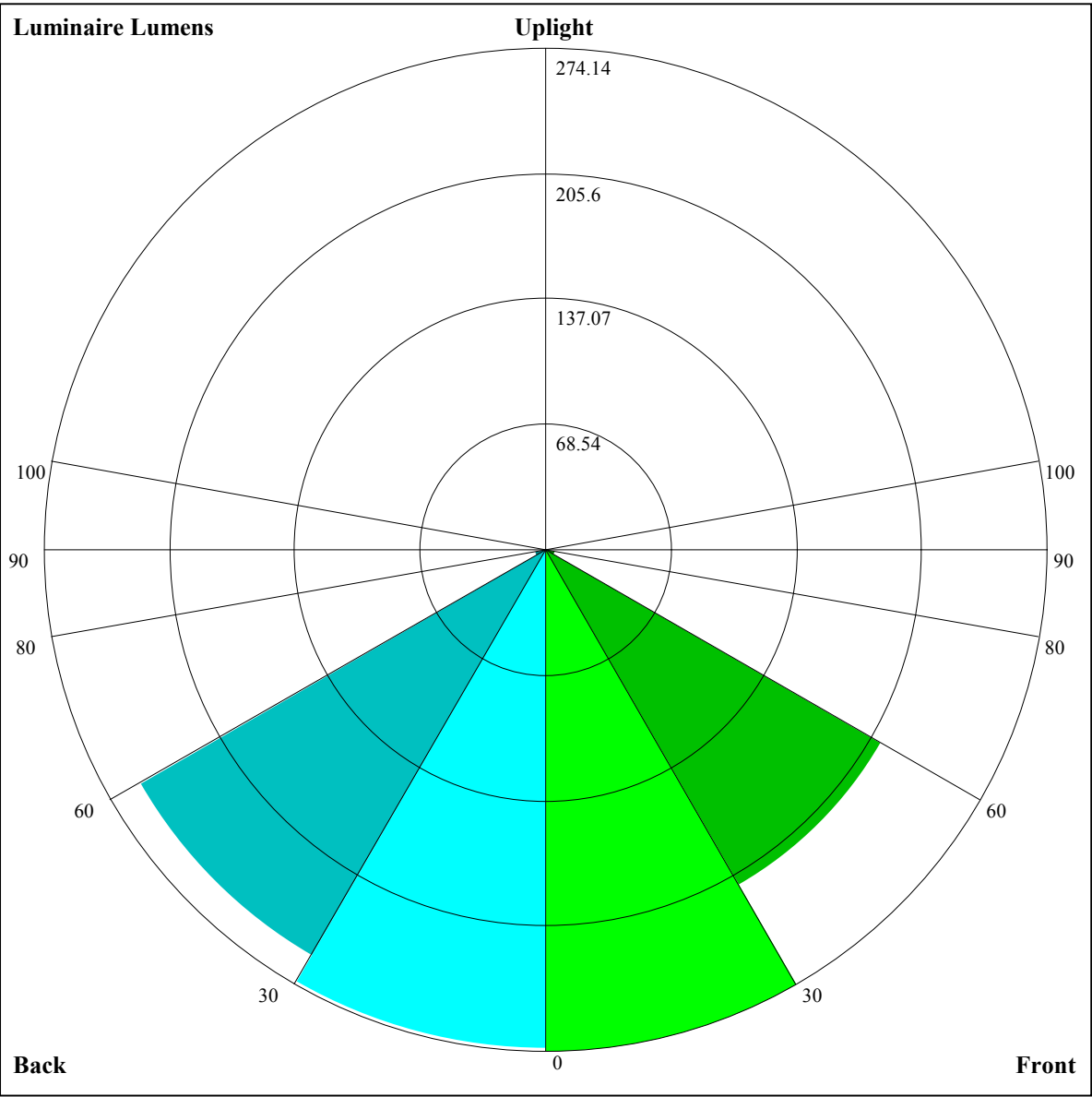
Luminance Limiting Curve





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	COEFFCIENTS OF UTILIZATION RHOFC=20 CU															
0	1.10	1.10	1.10	1.07	1.07	1.07	1.02	1.02	1.02	0.98	0.98	0.98	0.94	0.94	0.94	0.92
1	1.01	0.98	0.96	0.99	0.97	0.95	0.95	0.93	0.92	0.92	0.90	0.89	0.89	0.87	0.86	0.85
2	0.93	0.89	0.85	0.91	0.87	0.84	0.88	0.85	0.82	0.85	0.83	0.80	0.83	0.81	0.79	0.77
3	0.85	0.80	0.76	0.84	0.79	0.75	0.81	0.77	0.74	0.79	0.76	0.73	0.77	0.74	0.72	0.70
4	0.78	0.73	0.68	0.77	0.72	0.68	0.75	0.71	0.67	0.73	0.69	0.66	0.72	0.68	0.65	0.64
5	0.72	0.66	0.62	0.71	0.66	0.61	0.70	0.65	0.61	0.68	0.64	0.60	0.67	0.63	0.60	0.58
6	0.67	0.60	0.56	0.66	0.60	0.56	0.65	0.59	0.55	0.63	0.58	0.55	0.62	0.58	0.55	0.53
7	0.62	0.55	0.51	0.61	0.55	0.51	0.60	0.55	0.51	0.59	0.54	0.50	0.58	0.53	0.50	0.49
8	0.57	0.51	0.47	0.57	0.51	0.47	0.56	0.50	0.46	0.55	0.50	0.46	0.54	0.49	0.46	0.45
9	0.53	0.47	0.43	0.53	0.47	0.43	0.52	0.47	0.43	0.51	0.46	0.43	0.50	0.46	0.42	0.41
10	0.50	0.44	0.40	0.49	0.44	0.40	0.49	0.43	0.39	0.48	0.43	0.39	0.47	0.42	0.39	0.38





Luminaire Lumens:

FL=274.14,FM=211.59,FH=5.66,FVH=0.61

BL=273.04,BM=256.28,BH=6.3,BVH=0.7

UL=0,UH=0

BUG Rating:B1-U0-G0

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	596.29	608.48	627.44	653.59	686.26	699.21	643.60	457.39	219.73
22.5	593.83	604.50	620.75	640.30	666.46	686.60	669.16	549.91	348.12
45.0	596.88	609.83	625.74	646.14	666.37	671.53	627.18	508.94	324.43
67.5	590.87	599.25	613.89	630.65	659.18	677.29	654.35	555.24	390.36
90.0	587.06	593.92	609.41	632.09	662.82	674.24	622.44	475.34	276.60
112.5	598.57	597.98	609.24	627.18	658.25	682.71	673.48	584.44	417.61
135.0	594.09	596.46	611.27	631.25	651.14	667.05	648.00	567.77	424.64
157.5	604.75	599.67	609.83	626.51	646.06	670.60	681.18	642.84	512.33
180.0	596.29	594.77	605.51	622.36	649.19	684.40	692.86	599.84	381.64
202.5	593.83	598.83	614.99	638.61	665.86	688.38	664.42	545.17	339.15
225.0	596.88	595.36	609.83	630.14	651.56	672.38	655.79	587.57	447.75
247.5	590.87	597.81	616.09	640.98	670.69	682.45	622.78	487.78	298.27
270.0	587.06	588.93	603.06	623.46	657.31	678.22	642.93	494.30	288.03
292.5	598.57	613.39	628.71	651.47	671.20	665.44	591.89	440.21	250.79
315.0	594.09	605.51	621.93	640.22	660.28	669.16	633.70	514.95	342.54
337.5	604.75	618.63	637.34	664.85	689.82	679.57	594.26	413.30	203.14
360.0	596.29	608.48	627.44	653.59	686.26	699.21	643.60	457.39	219.73
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	63.23	16.17	11.17	8.80	6.77	4.99	3.22	1.78	0.68
22.5	169.11	39.36	14.47	10.50	8.29	6.26	4.32	2.29	0.93
45.0	147.10	57.22	18.03	10.58	7.96	5.50	3.39	1.78	0.85
67.5	213.21	67.20	16.42	11.68	8.97	6.77	4.66	2.71	1.18
90.0	117.40	22.85	13.29	10.33	8.04	5.84	3.81	2.20	1.18
112.5	240.89	98.10	20.99	12.36	9.31	7.36	5.25	3.05	1.44
135.0	233.52	115.53	39.78	12.44	8.97	6.60	4.23	2.37	1.10
157.5	309.78	108.51	25.48	12.70	9.65	7.45	5.42	3.30	1.35
180.0	155.74	35.89	13.88	10.24	7.87	6.18	4.32	2.37	0.68
202.5	127.13	36.06	13.20	9.48	7.36	5.33	3.30	1.69	0.76
225.0	262.13	109.35	35.38	11.85	8.38	5.92	3.81	2.12	0.85
247.5	125.18	27.00	12.27	9.23	6.94	4.99	2.96	1.61	0.85
270.0	124.08	23.78	12.87	9.73	7.19	5.16	3.47	2.03	0.93
292.5	106.90	23.11	11.85	8.80	6.52	4.74	2.79	1.44	0.85
315.0	189.68	69.15	18.87	10.50	7.79	5.33	3.30	1.61	0.85
337.5	51.29	15.07	10.83	8.46	6.52	4.49	2.62	1.27	0.76
360.0	63.23	16.17	11.17	8.80	6.77	4.99	3.22	1.78	0.68
C/ γ (°)	90.0								
0.0	0.68								
22.5	0.76								
45.0	0.76								
67.5	0.76								
90.0	0.85								
112.5	0.85								
135.0	0.85								
157.5	0.85								
180.0	0.76								
202.5	0.76								
225.0	0.85								
247.5	0.85								
270.0	0.85								
292.5	0.85								
315.0	0.85								
337.5	0.76								
360.0	0.68								