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Nata

Client: NT

LumCAT: 11-0161-S4

Luminaire: 69-0031

Report No: 20260803-B014

Ballast type: DC

Test No: 20260803-C014

LampCAT: LUXEON 2835*2

Lamp flux(lm): 1126.0

Number of Lamps: 1

Length(mm): 280

Phm Type: C

Voltage(V): 22.120

Current(A): 0.454

Power (W): 10.042

PF: 0.000

Width(mm): 40

Height(mm): 20

Photometric Results

Lumens(lm): 984.83, Efficiency(%): 87.46% , Luminous Efficacy(lm/W): 98.07

Central intensity(cd): 574.452, Maximum intensity(cd): 689.816

Angle of maximum intensity: C=0.0 γ =25.0

Beam Angle(50%Imax): [C0/180]Total=77.4

[C90/270]Total=76.6

Field angle(10%Imax): [C0/180]Total=92.2

[C90/270]Total=94.0

Maximum s/h(1/2): C0_180=1.45 C90_270=1.35

Maximum s/h(1/4): C0_180=1.22 C90_270=1.15

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 87.38%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 99.862%

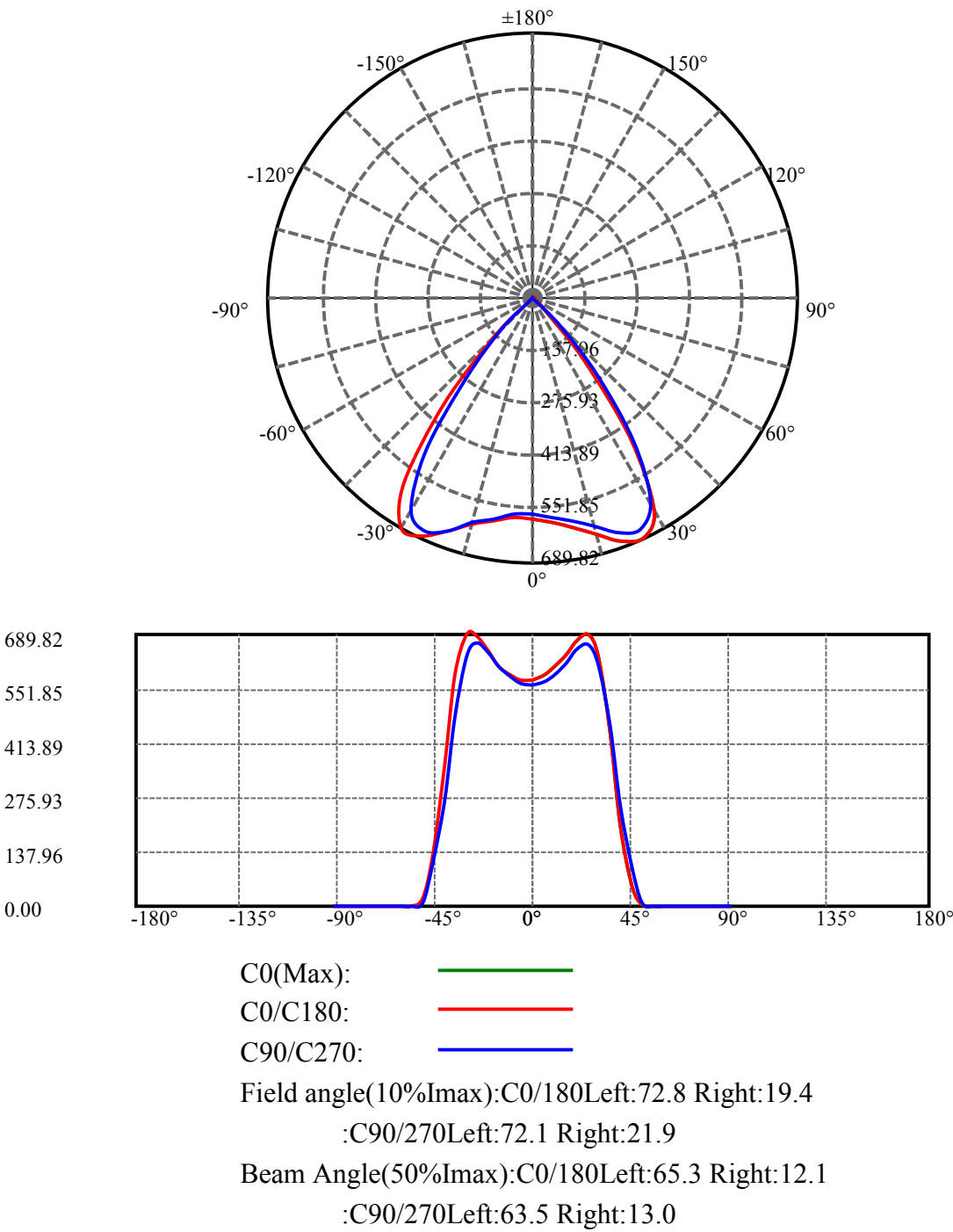
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	570.844	0.000	0	0.00%	0.00%
5.0	578.488	13.740	13.74	1.22%	1.40%
10.0	596.977	42.050	55.79	3.73%	5.66%
15.0	620.914	72.244	128.034	6.42%	13.00%
20.0	651.003	104.824	232.858	9.31%	23.64%
25.0	668.894	138.433	371.291	12.29%	37.70%
30.0	636.509	165.200	536.491	14.67%	54.48%
35.0	512.781	169.241	705.732	15.03%	71.66%
40.0	325.541	139.868	845.6	12.42%	85.86%
45.0	148.120	87.702	933.302	7.79%	94.77%
50.0	39.024	37.815	971.117	3.36%	98.61%
55.0	5.925	9.773	980.89	0.87%	99.60%
60.0	1.032	1.608	982.498	0.14%	99.76%
65.0	0.746	0.432	982.931	0.04%	99.81%
70.0	0.725	0.372	983.303	0.03%	99.85%
75.0	0.714	0.376	983.679	0.03%	99.88%
80.0	0.709	0.381	984.06	0.03%	99.92%
85.0	0.693	0.381	984.441	0.03%	99.96%
90.0	0.714	0.385	984.826	0.03%	100.00%

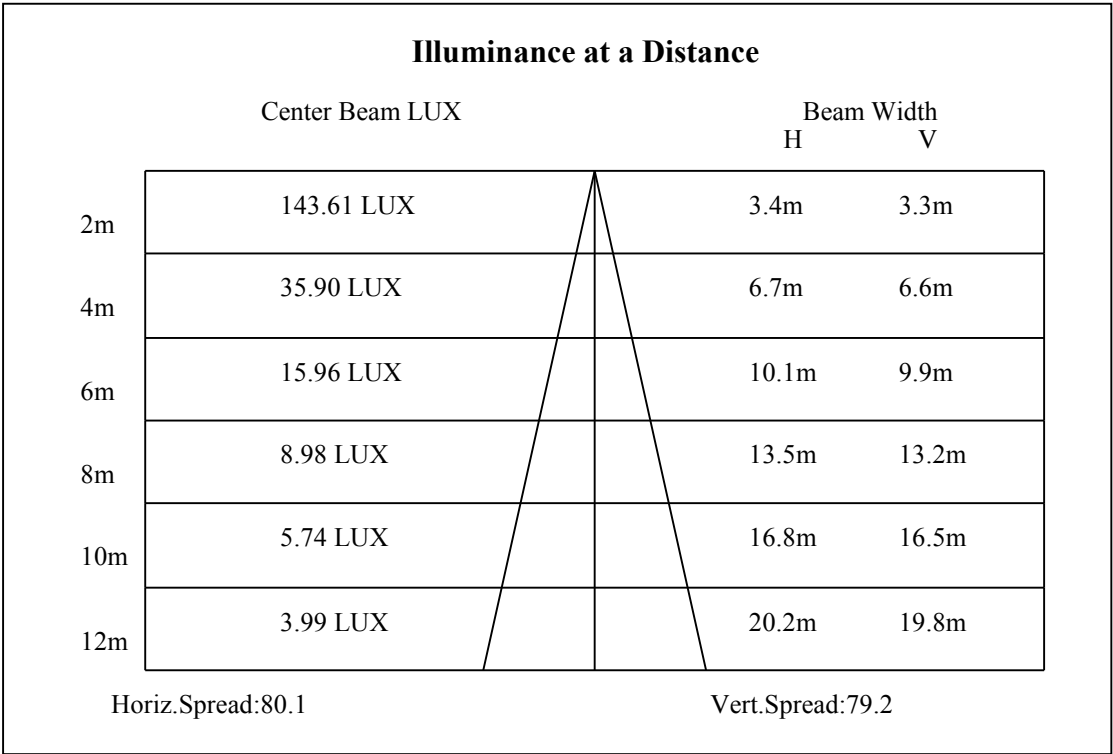
ZONAL LUMEN SUMMARY

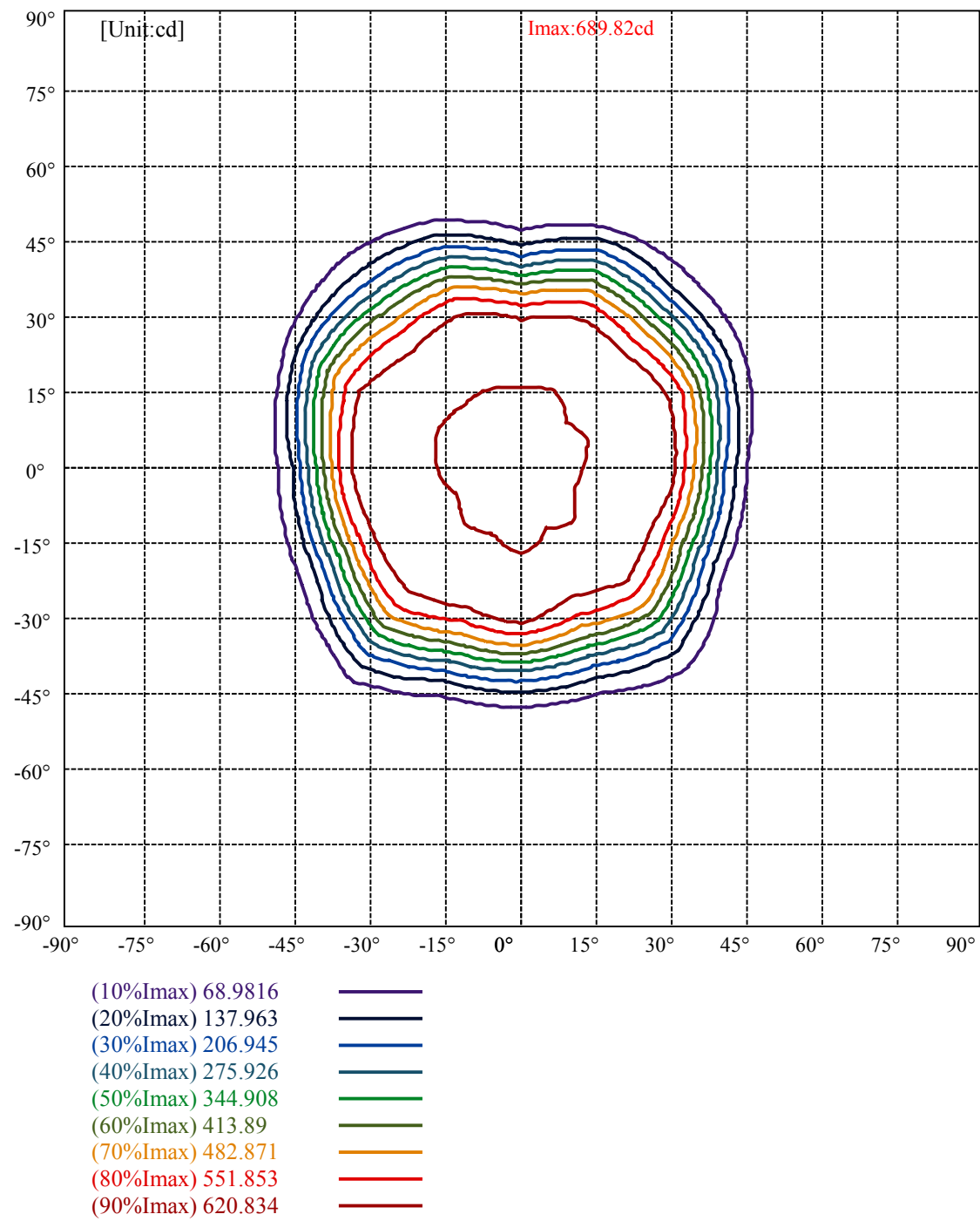
Zone	Lumens	%Lamp	%Fixt
0-30	536.49	47.65%	54.48%
0-40	845.60	75.10%	85.86%
0-60	982.50	87.26%	99.76%
0-90	984.44	87.43%	99.96%
0-120	984.44	87.43%	99.96%
0-180	984.83	87.46%	100.00%
60-90	1.94	0.17%	0.20%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-37.94	787.86	69.97%	80.00%

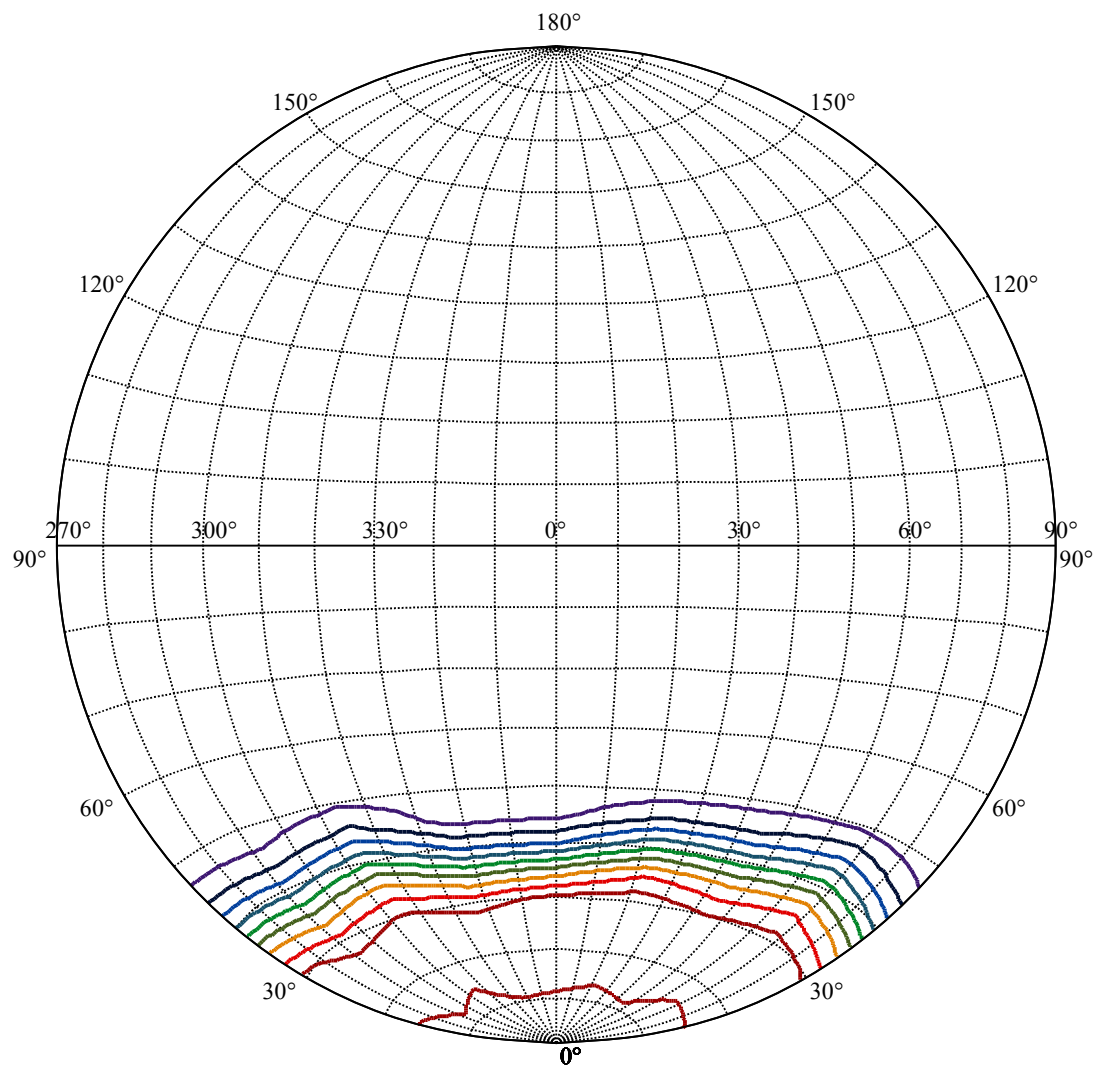
ZONAL LUMEN SUMMARY

0-10	55.79
10-20	177.07
20-30	303.63
30-40	309.11
40-50	125.52
50-60	11.38
60-70	0.80
70-80	0.76
80-90	0.38
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







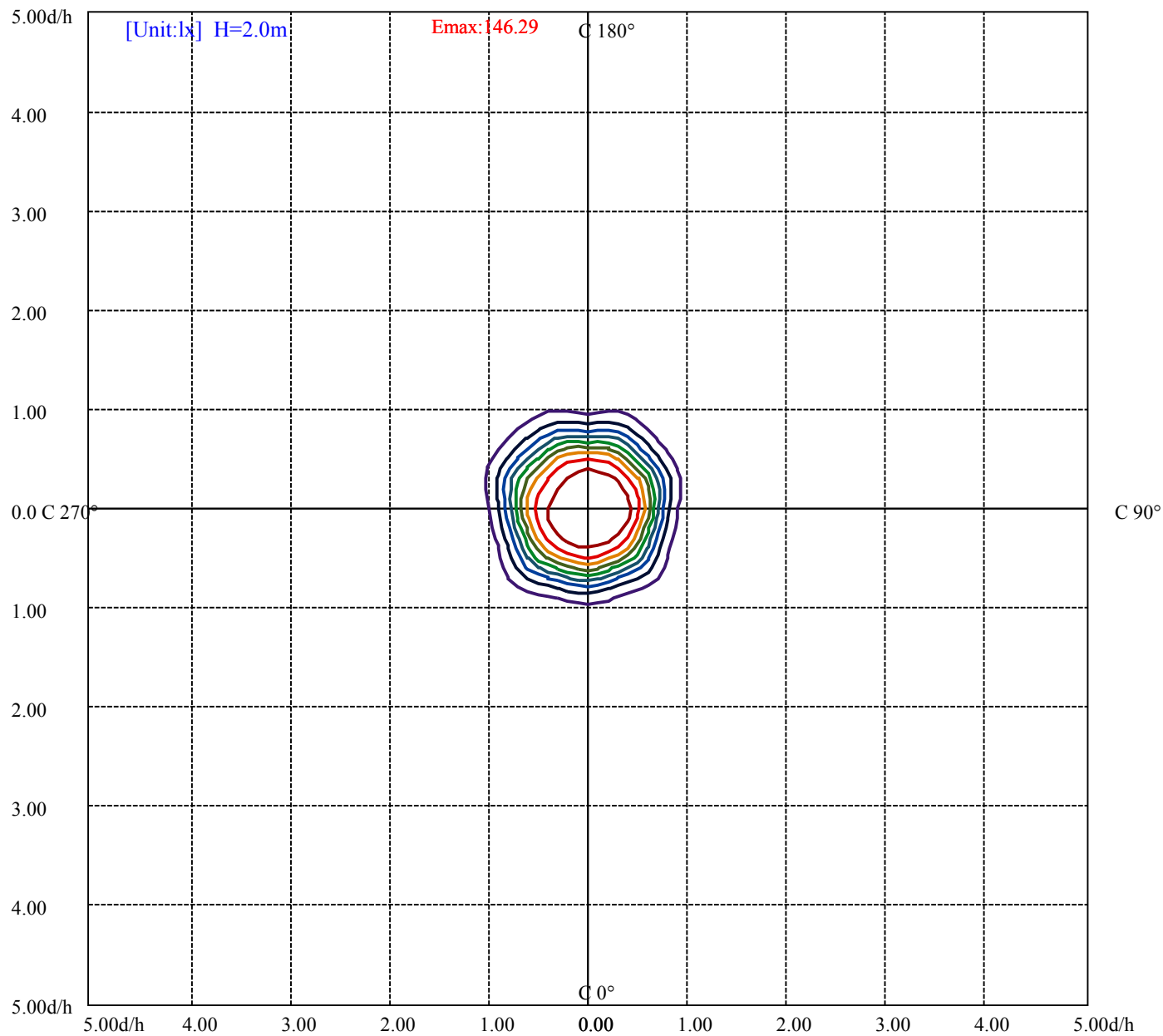


House

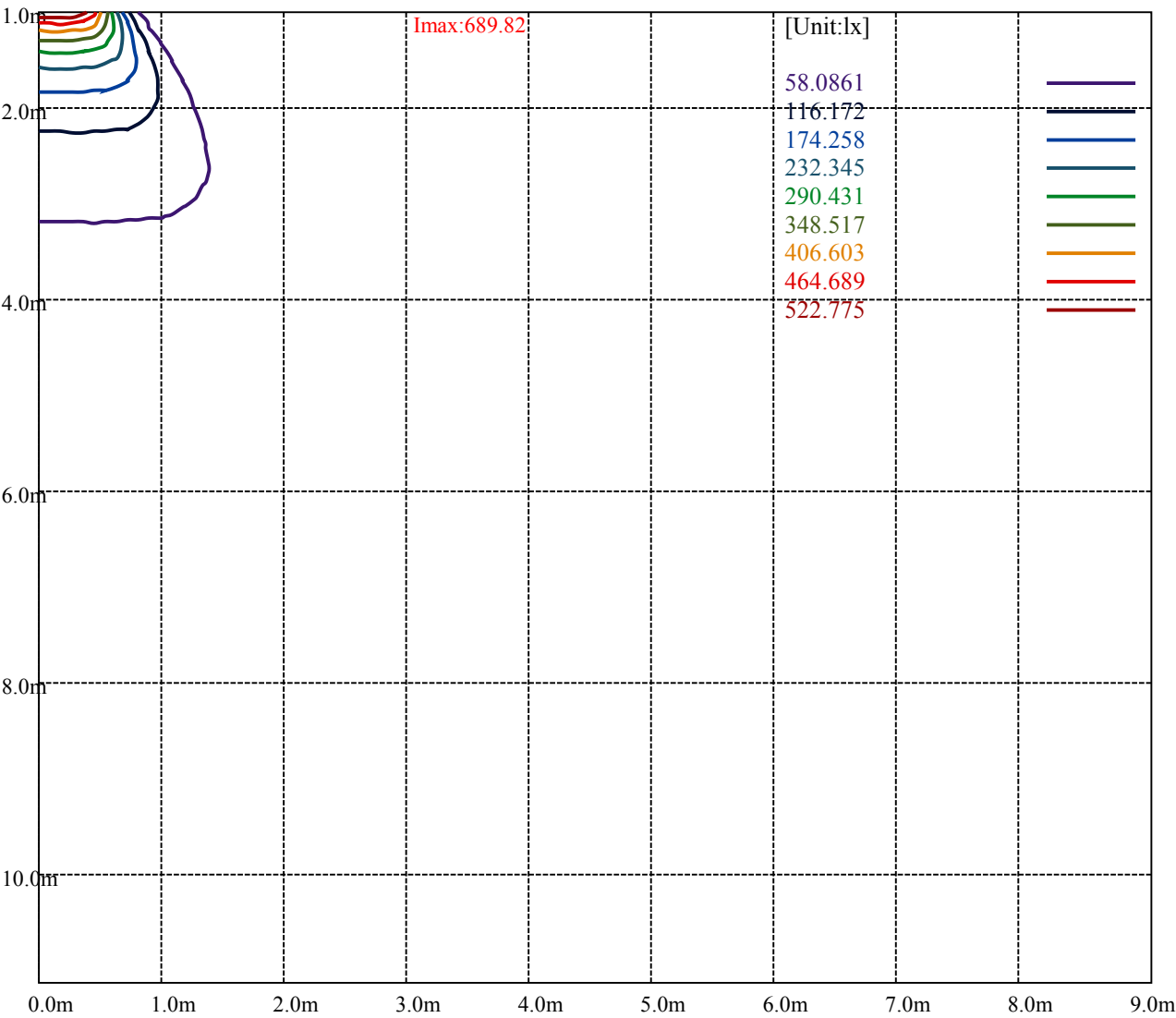
[Unit:cd]

Road

Imax:689.82	
(10%Imax) 68.5584	
(20%Imax) 137.117	
(30%Imax) 205.675	
(40%Imax) 274.234	
(50%Imax) 342.792	
(60%Imax) 411.35	
(70%Imax) 479.909	
(80%Imax) 548.467	
(90%Imax) 617.026	



(10%Emax)	14.62897	
(20%Emax)	29.258	
(30%Emax)	43.887	
(40%Emax)	58.51575	
(50%Emax)	73.14475	
(60%Emax)	87.77375	
(70%Emax)	102.4027	
(80%Emax)	117.0318	
(90%Emax)	131.6608	



Luminance Table

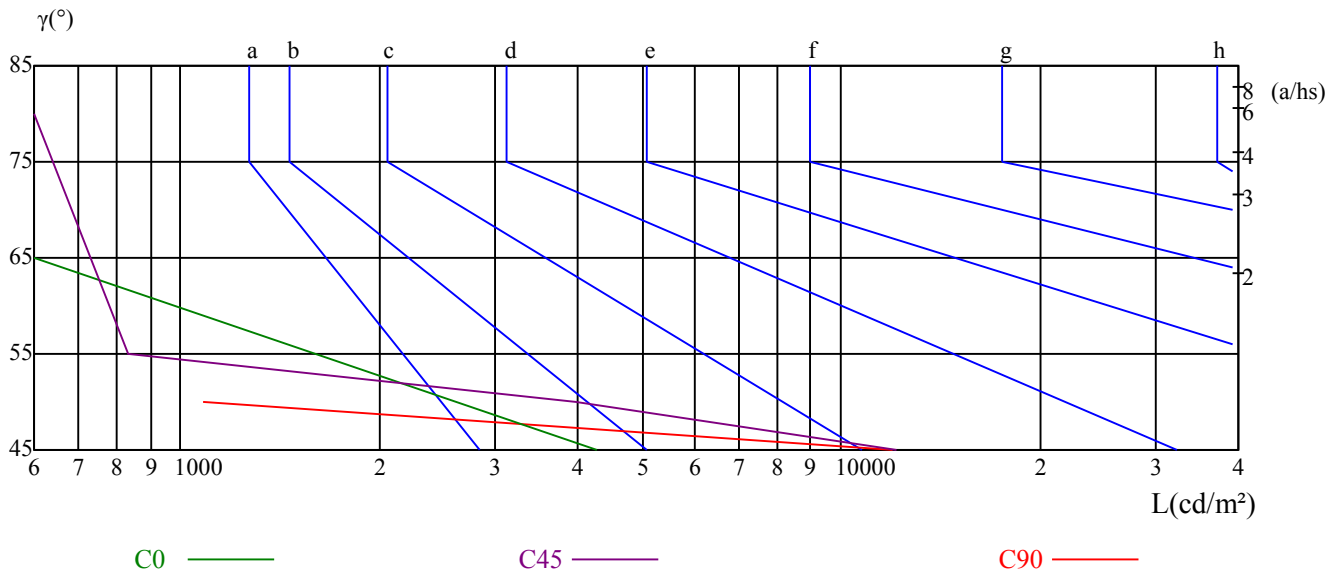
γ	45	50	55	60	65	70	75	80	85
C0	4275	0	0	0	69	74	0	0	103
C45	12179	3968	835	0	0	0	0	106	123
C90	11970	1083	0	0	0	0	0	0	0

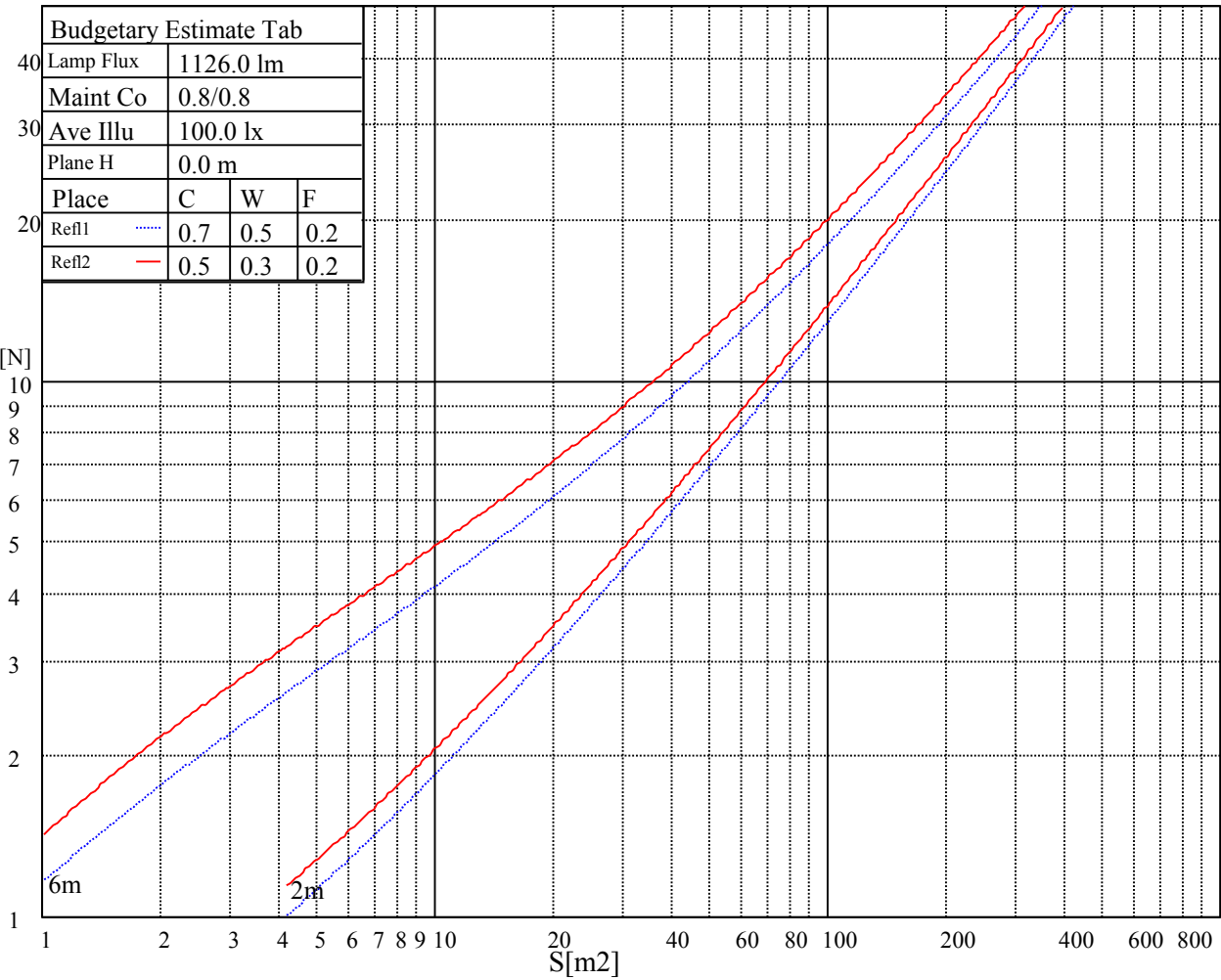
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
72	80	40	117	0	131	347	347	542

Glare Table

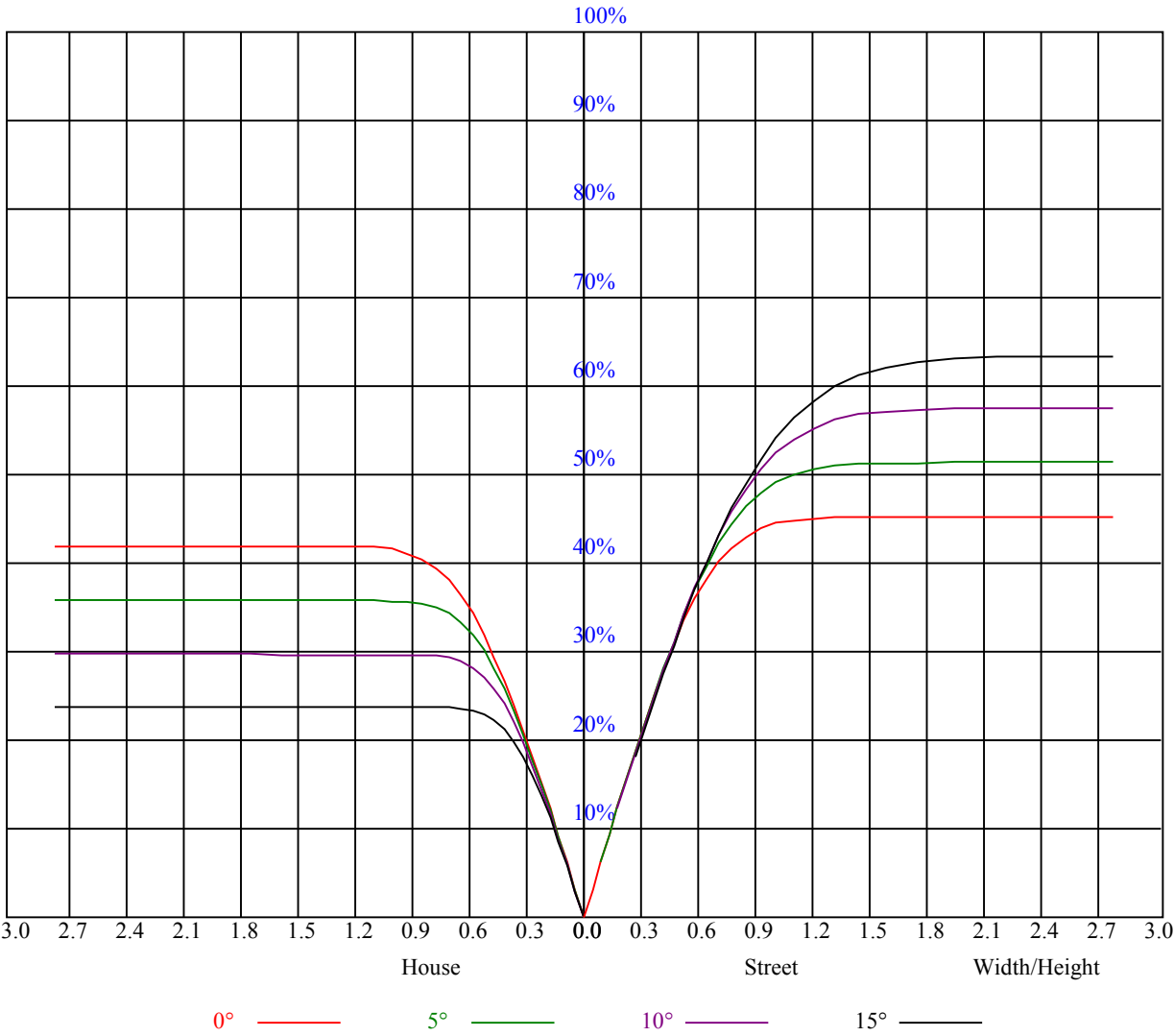
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	≤ 300				
1.5	B		2000	1000	500	≤ 300			
1.85	C			2000	1000	500	≤ 300		
2.2	D				2000	1000	500	≤ 300	
2.55	E					2000	1000	500	≤ 300
		a	b	c	d	e	f	g	h

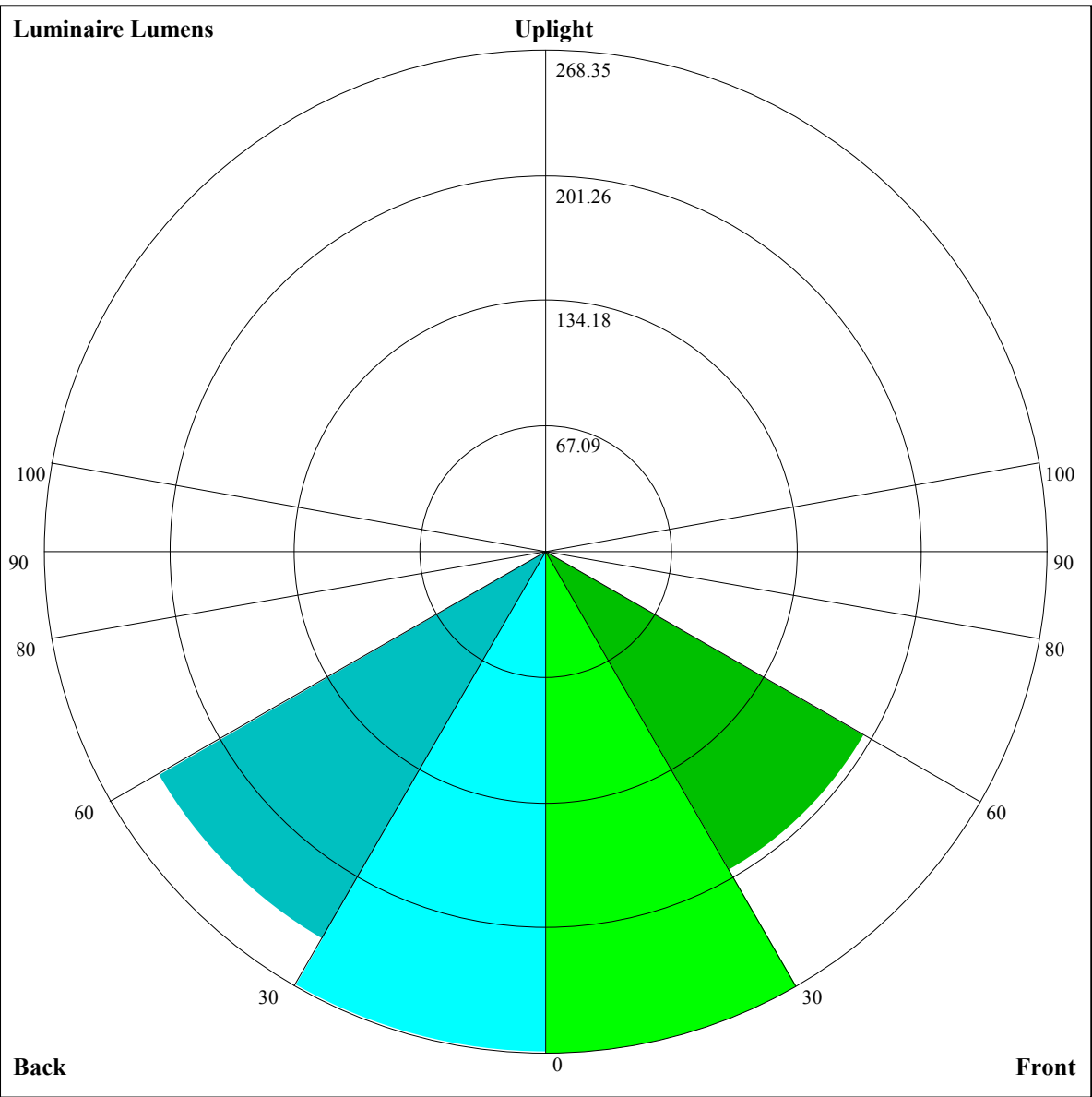
Luminance Limiting Curve





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	1.04	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	0.96	0.94	0.92	0.94	0.92	0.90	0.91	0.89	0.87	0.87	0.86	0.85	0.84	0.83	0.82	0.81
2	0.88	0.85	0.81	0.87	0.83	0.80	0.84	0.81	0.79	0.81	0.79	0.77	0.79	0.77	0.75	0.74
3	0.81	0.77	0.73	0.80	0.76	0.72	0.78	0.74	0.71	0.76	0.73	0.70	0.74	0.71	0.69	0.67
4	0.75	0.70	0.66	0.74	0.69	0.65	0.72	0.68	0.64	0.70	0.67	0.64	0.69	0.66	0.63	0.61
5	0.69	0.64	0.59	0.69	0.63	0.59	0.67	0.62	0.59	0.65	0.61	0.58	0.64	0.60	0.58	0.56
6	0.64	0.58	0.54	0.63	0.58	0.54	0.62	0.57	0.54	0.61	0.56	0.53	0.60	0.56	0.53	0.51
7	0.59	0.54	0.49	0.59	0.53	0.49	0.58	0.53	0.49	0.57	0.52	0.49	0.56	0.52	0.48	0.47
8	0.55	0.49	0.45	0.55	0.49	0.45	0.54	0.49	0.45	0.53	0.48	0.45	0.52	0.48	0.45	0.43
9	0.51	0.46	0.42	0.51	0.45	0.42	0.50	0.45	0.41	0.49	0.45	0.41	0.48	0.44	0.41	0.40
10	0.48	0.42	0.39	0.48	0.42	0.38	0.47	0.42	0.38	0.46	0.41	0.38	0.45	0.41	0.38	0.37





Luminaire Lumens:

FL=268.35,FM=196.97,FH=0.76,FVH=0.39

BL=267.76,BM=239.19,BH=0.8,BVH=0.38

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	574.45	587.74	607.04	638.35	674.16	689.82	634.38	443.01	206.44
22.5	574.11	583.93	601.88	624.39	654.27	678.39	663.83	543.05	335.17
45.0	573.86	589.26	609.15	630.99	656.89	666.03	619.31	499.29	314.78
67.5	564.97	573.94	593.33	610.93	643.69	668.83	647.67	547.03	378.43
90.0	561.33	571.24	588.93	615.42	650.29	665.95	611.10	456.89	257.47
112.5	572.67	575.04	589.52	609.66	641.74	665.10	662.31	564.89	402.72
135.0	567.26	571.40	590.45	613.13	636.32	654.01	634.88	551.51	406.70
157.5	578.09	572.84	586.56	606.11	630.48	659.09	671.03	620.16	491.84
180.0	574.45	574.62	588.59	608.98	646.73	684.40	688.88	585.45	357.77
202.5	574.11	581.14	600.61	628.96	660.87	684.40	657.91	530.10	316.64
225.0	573.86	574.54	592.99	617.53	641.40	667.05	655.37	582.32	431.66
247.5	564.97	574.79	598.24	625.66	658.84	673.14	611.86	471.02	281.77
270.0	561.33	565.56	582.83	606.87	643.52	667.47	634.55	480.42	269.49
292.5	572.67	586.56	609.32	630.14	654.52	651.90	579.61	422.27	235.72
315.0	567.26	579.02	599.34	621.26	647.41	656.89	623.80	504.62	331.03
337.5	578.09	594.17	612.88	646.23	674.92	669.84	587.66	402.46	191.03
360.0	574.45	587.74	607.04	638.35	674.16	689.82	634.38	443.01	206.44

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	50.53	3.13	0.93	0.68	0.68	0.68	0.59	0.59	0.68
22.5	142.36	27.42	2.29	0.85	0.68	0.68	0.68	0.68	0.68
45.0	135.17	44.27	6.60	1.02	0.76	0.76	0.76	0.68	0.68
67.5	200.09	52.73	3.98	1.10	0.85	0.68	0.76	0.68	0.68
90.0	98.86	8.21	1.44	0.85	0.76	0.76	0.68	0.76	0.76
112.5	222.94	80.66	7.19	1.27	0.85	0.76	0.76	0.76	0.76
135.0	231.41	96.49	24.21	1.78	0.76	0.76	0.76	0.68	0.68
157.5	283.29	86.76	10.41	1.35	0.76	0.76	0.68	0.68	0.68
180.0	132.88	19.89	1.69	0.76	0.68	0.59	0.68	0.68	0.59
202.5	122.56	20.65	1.69	0.68	0.68	0.68	0.68	0.68	0.68
225.0	244.19	90.99	21.33	1.78	0.76	0.76	0.76	0.76	0.68
247.5	104.70	12.95	1.35	0.85	0.76	0.76	0.68	0.76	0.68
270.0	109.61	10.50	1.44	0.85	0.76	0.76	0.76	0.76	0.68
292.5	91.33	10.07	1.27	0.85	0.76	0.76	0.76	0.76	0.76
315.0	161.41	57.05	8.04	1.10	0.76	0.76	0.76	0.76	0.76
337.5	38.60	2.62	0.93	0.76	0.68	0.68	0.68	0.68	0.68
360.0	50.53	3.13	0.93	0.68	0.68	0.68	0.59	0.59	0.68

C/γ(°)	90.0
0.0	0.59
22.5	0.68
45.0	0.68
67.5	0.76
90.0	0.68
112.5	0.76
135.0	0.76
157.5	0.68
180.0	0.68
202.5	0.68
225.0	0.68
247.5	0.76
270.0	0.76
292.5	0.76
315.0	0.76
337.5	0.76
360.0	0.59