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Nata

Client: NT

LumCAT: 11-0161-S6

Luminaire: 69-0031

Report No: 20260803-B011

Ballast type: DC

Test No: 20260803-C011

Voltage(V): 22.130

LampCAT: LUXEON 2835*2

Current(A): 0.454

Lamp flux(lm): 1126.0

Power (W): 10.047

Number of Lamps: 1

PF: 0.000

Length(mm): 280

Width(mm): 40

Phm Type: C

Height(mm): 20

Photometric Results

Lumens(lm): 1047.55, Efficiency(%): 93.03% , Luminous Efficacy(lm/W): 104.26

Central intensity(cd): 638.524, Maximum intensity(cd): 727.481

Angle of maximum intensity: C=180.0 γ =25.0

Beam Angle(50%Imax): [C0/180]Total=77.2

[C90/270]Total=76.5

Field angle(10%Imax): [C0/180]Total=93.1

[C90/270]Total=93.9

Maximum s/h(1/2): C0_180=1.43 C90_270=1.33

Maximum s/h(1/4): C0_180=1.21 C90_270=1.14

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 92.95%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 99.827%

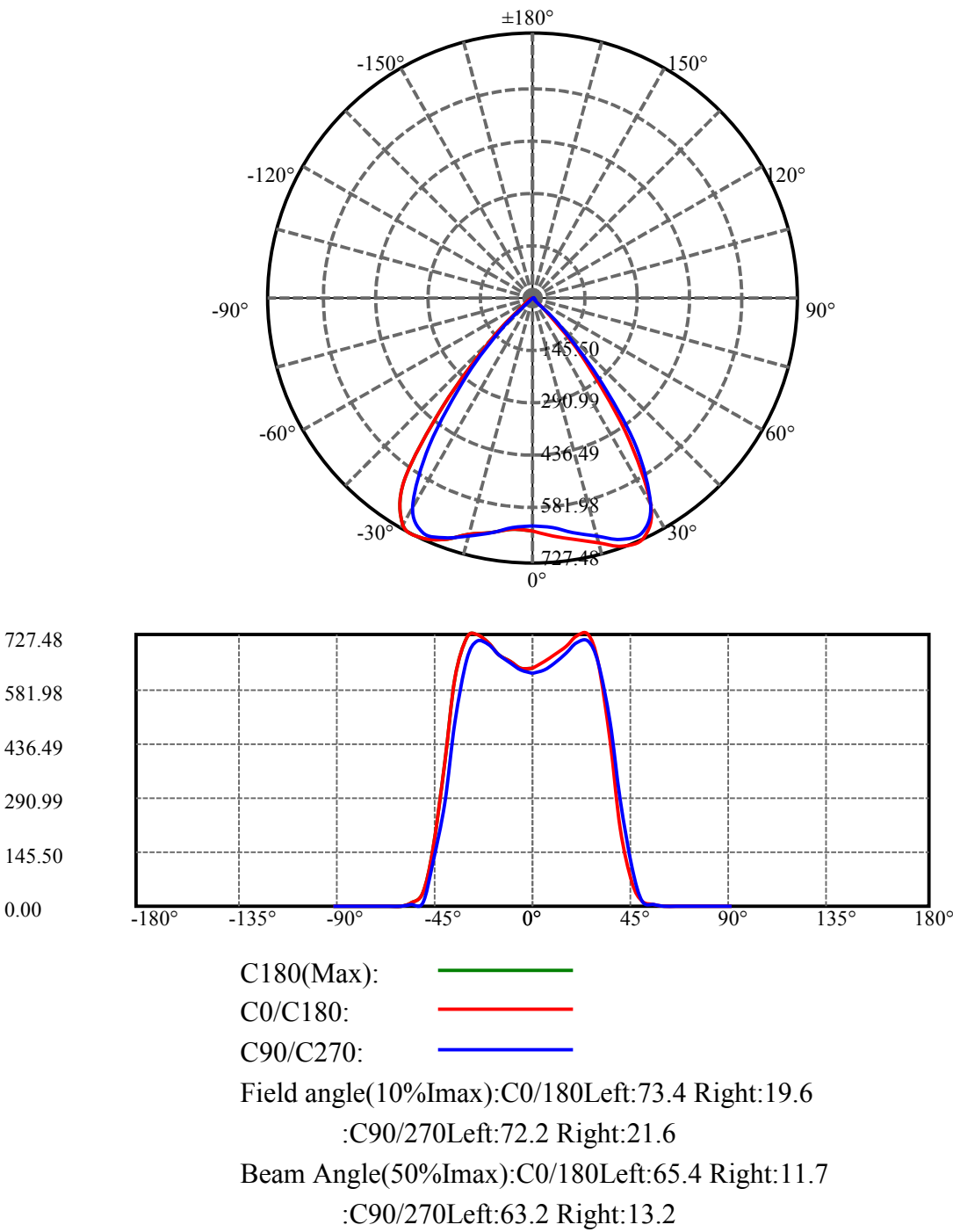
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	634.091	0.000	0	0.00%	0.00%
5.0	643.158	15.269	15.269	1.36%	1.46%
10.0	662.546	46.709	61.978	4.15%	5.92%
15.0	684.008	79.877	141.855	7.09%	13.54%
20.0	706.263	114.578	256.433	10.18%	24.48%
25.0	712.219	148.773	405.205	13.21%	38.68%
30.0	666.360	174.460	579.666	15.49%	55.34%
35.0	528.656	175.975	755.64	15.63%	72.13%
40.0	334.518	144.014	899.654	12.79%	85.88%
45.0	154.828	90.606	990.261	8.05%	94.53%
50.0	45.124	40.403	1030.664	3.59%	98.39%
55.0	8.755	11.715	1042.379	1.04%	99.51%
60.0	1.550	2.382	1044.761	0.21%	99.73%
65.0	0.910	0.598	1045.359	0.05%	99.79%
70.0	0.841	0.443	1045.802	0.04%	99.83%
75.0	0.820	0.434	1046.236	0.04%	99.88%
80.0	0.820	0.439	1046.675	0.04%	99.92%
85.0	0.788	0.437	1047.112	0.04%	99.96%
90.0	0.794	0.433	1047.545	0.04%	100.00%

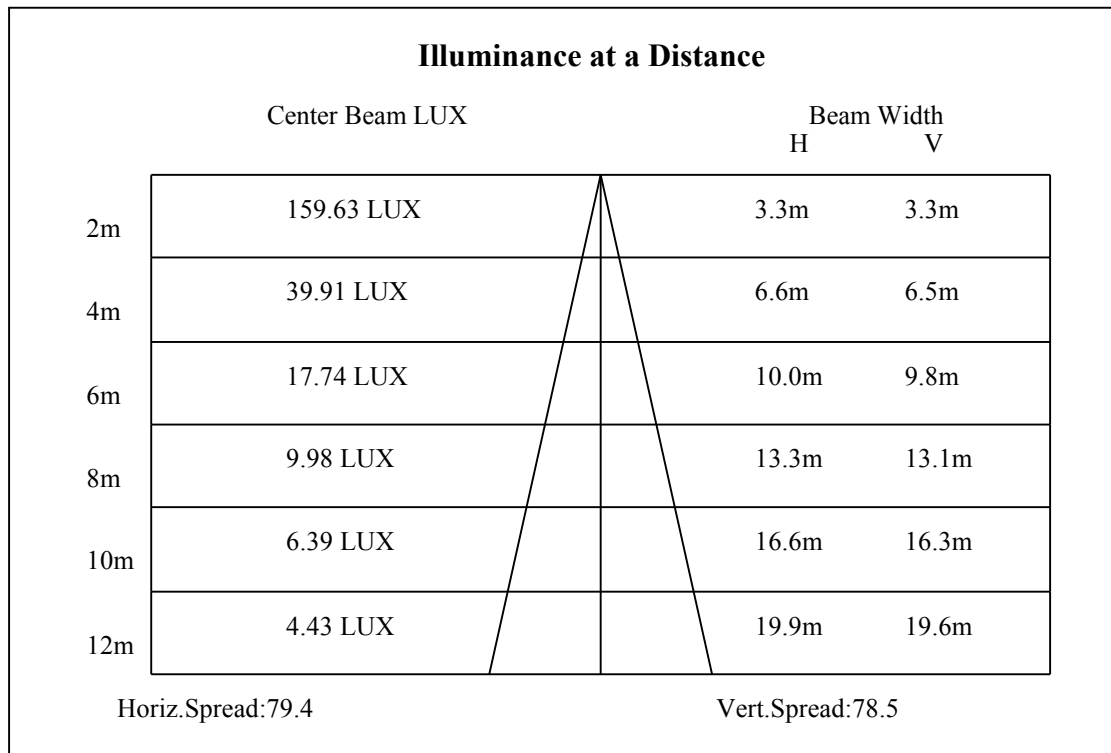
ZONAL LUMEN SUMMARY

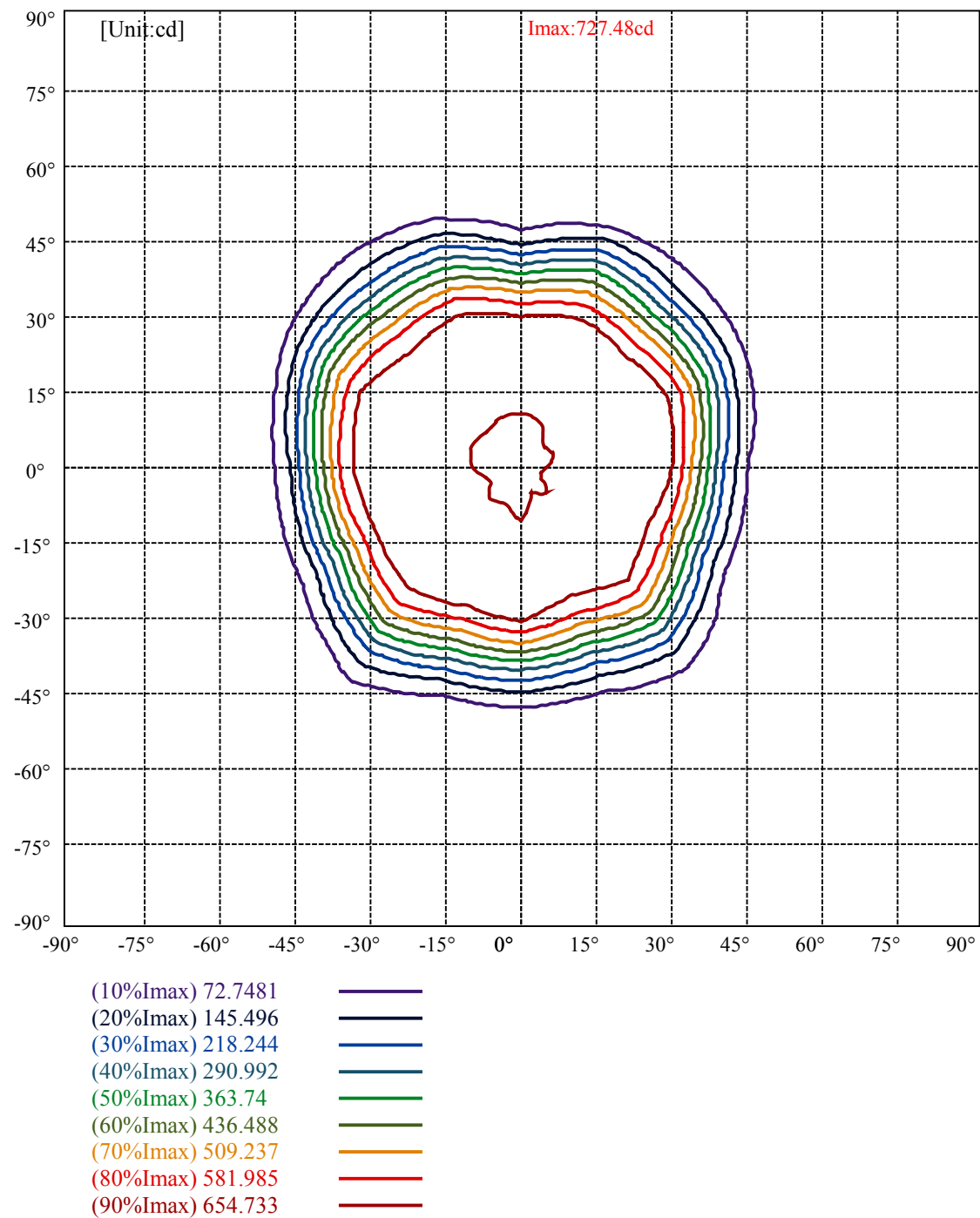
Zone	Lumens	%Lamp	%Fixt
0-30	579.67	51.48%	55.34%
0-40	899.65	79.90%	85.88%
0-60	1044.76	92.79%	99.73%
0-90	1047.11	92.99%	99.96%
0-120	1047.11	92.99%	99.96%
0-180	1047.55	93.03%	100.00%
60-90	2.35	0.21%	0.22%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-37.86	838.04	74.43%	80.00%

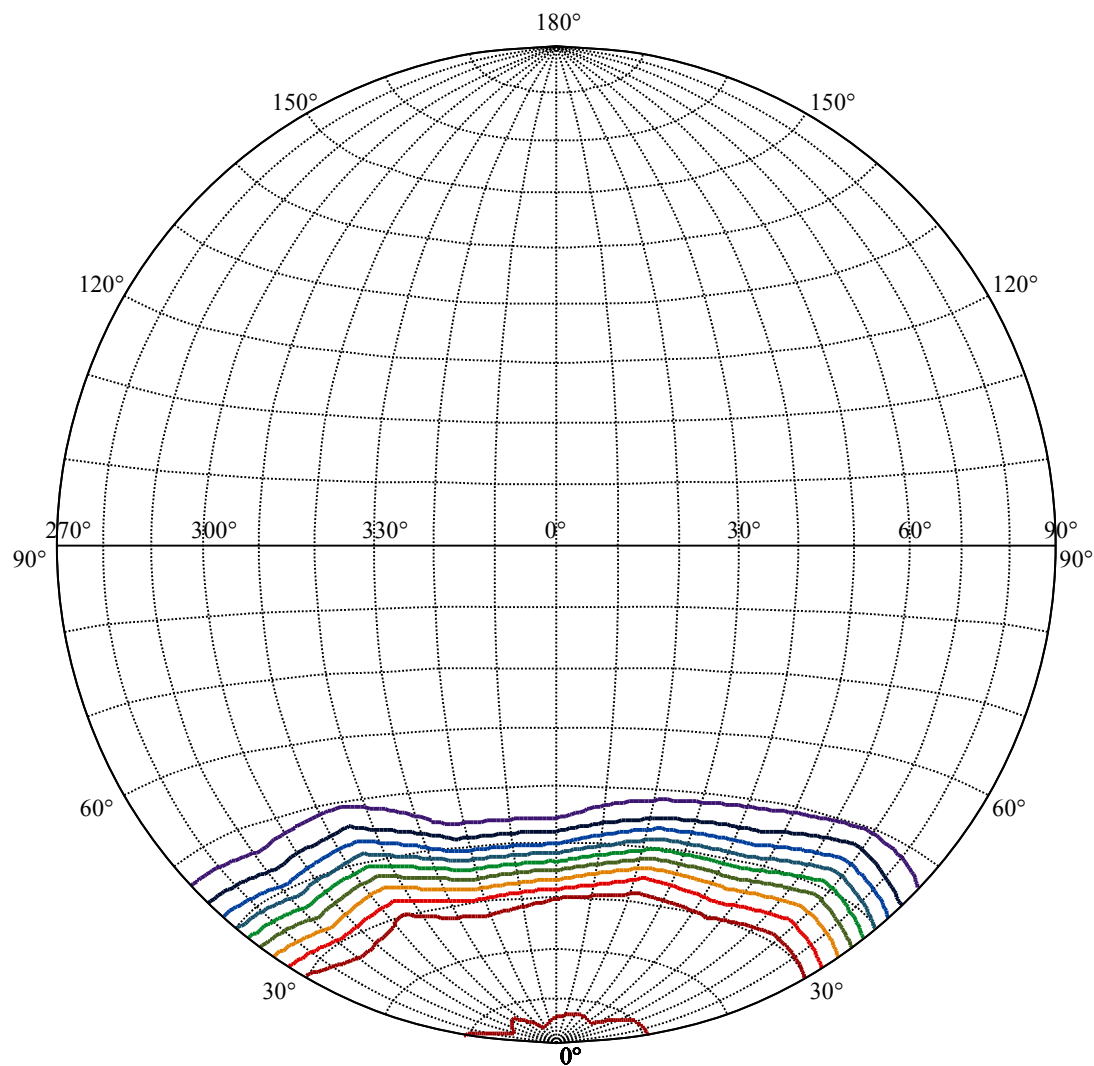
ZONAL LUMEN SUMMARY

0-10	61.98
10-20	194.45
20-30	323.23
30-40	319.99
40-50	131.01
50-60	14.10
60-70	1.04
70-80	0.87
80-90	0.44
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







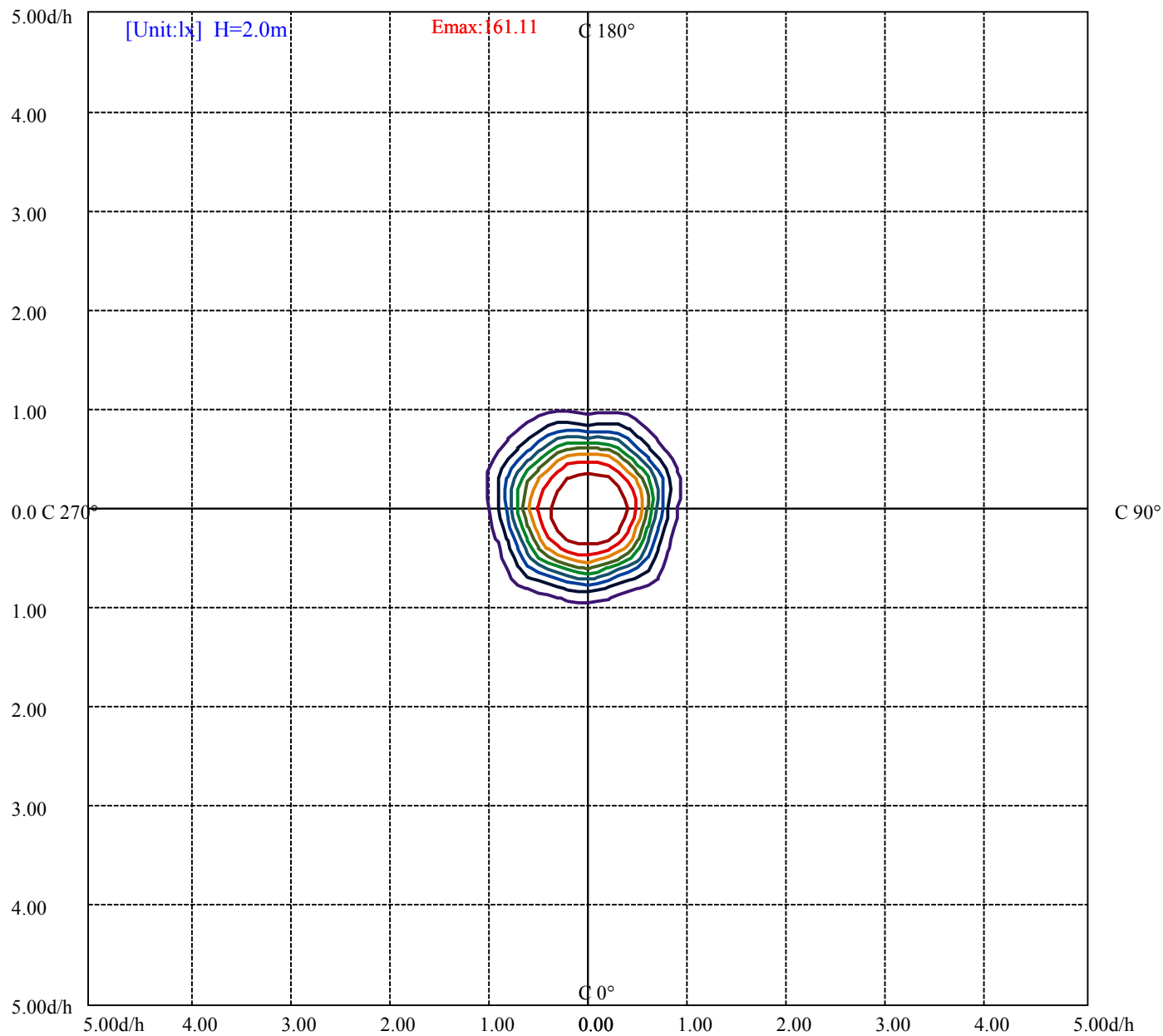


House

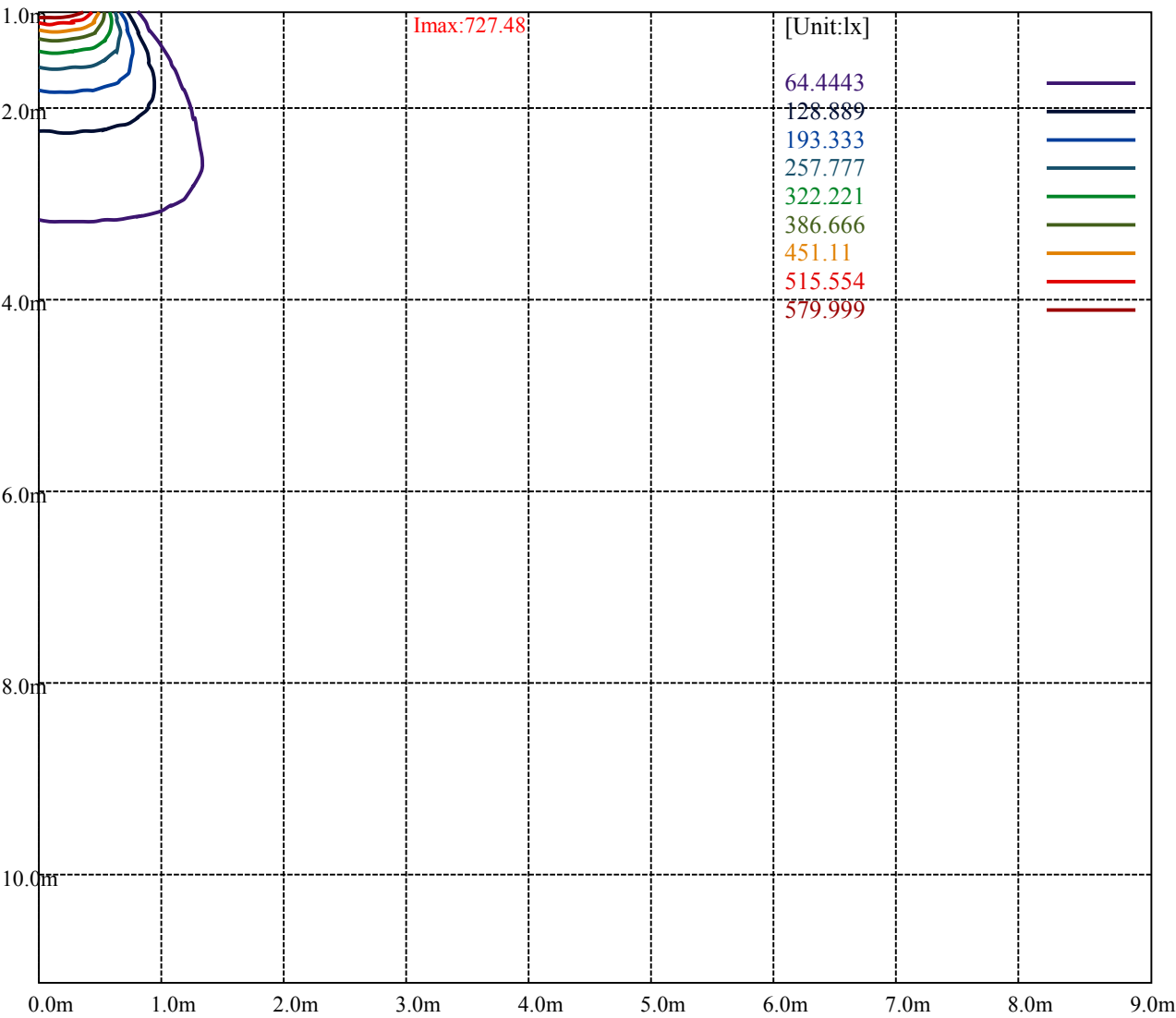
[Unit:cd]

Road

Imax:727.48	
(10%Imax) 72.7904	
(20%Imax) 145.581	
(30%Imax) 218.371	
(40%Imax) 291.162	
(50%Imax) 363.952	
(60%Imax) 436.742	
(70%Imax) 509.533	
(80%Imax) 582.323	
(90%Imax) 655.114	



(10%Emax)	16.11107	—
(20%Emax)	32.22225	—
(30%Emax)	48.33325	—
(40%Emax)	64.44425	—
(50%Emax)	80.55525	—
(60%Emax)	96.6665	—
(70%Emax)	112.7775	—
(80%Emax)	128.8885	—
(90%Emax)	144.9998	—



Luminance Table

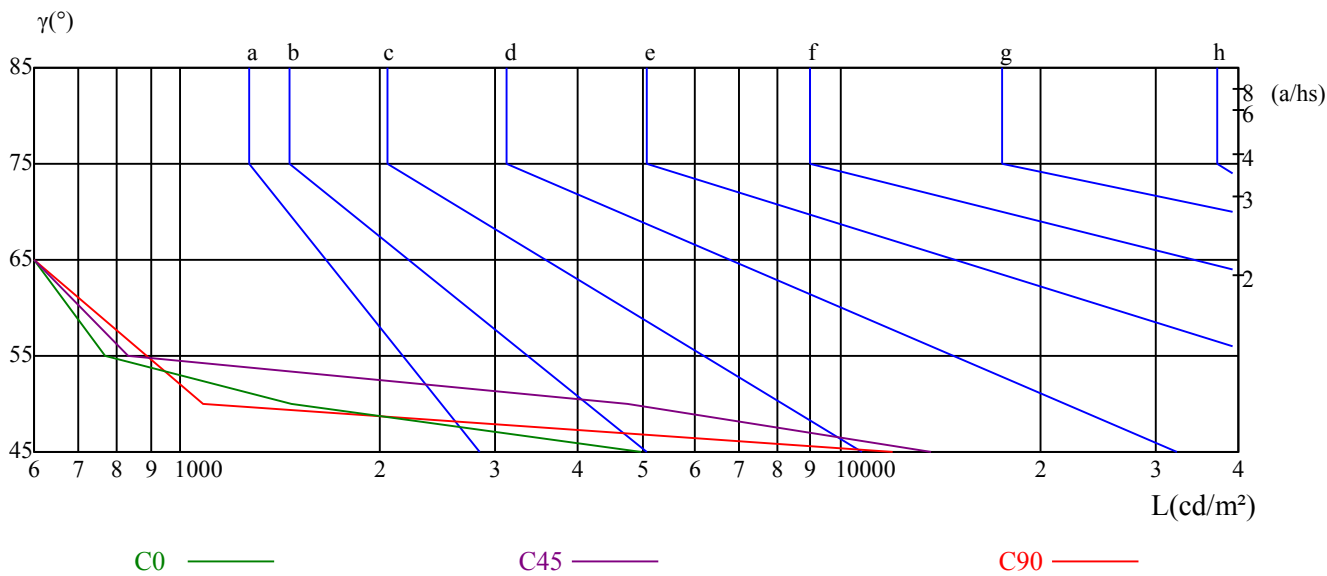
γ	45	50	55	60	65	70	75	80	85
C0	4987	1473	769	0	86	0	92	0	116
C45	13701	4761	835	0	96	105	0	0	139
C90	11970	1083	0	0	171	0	231	310	0

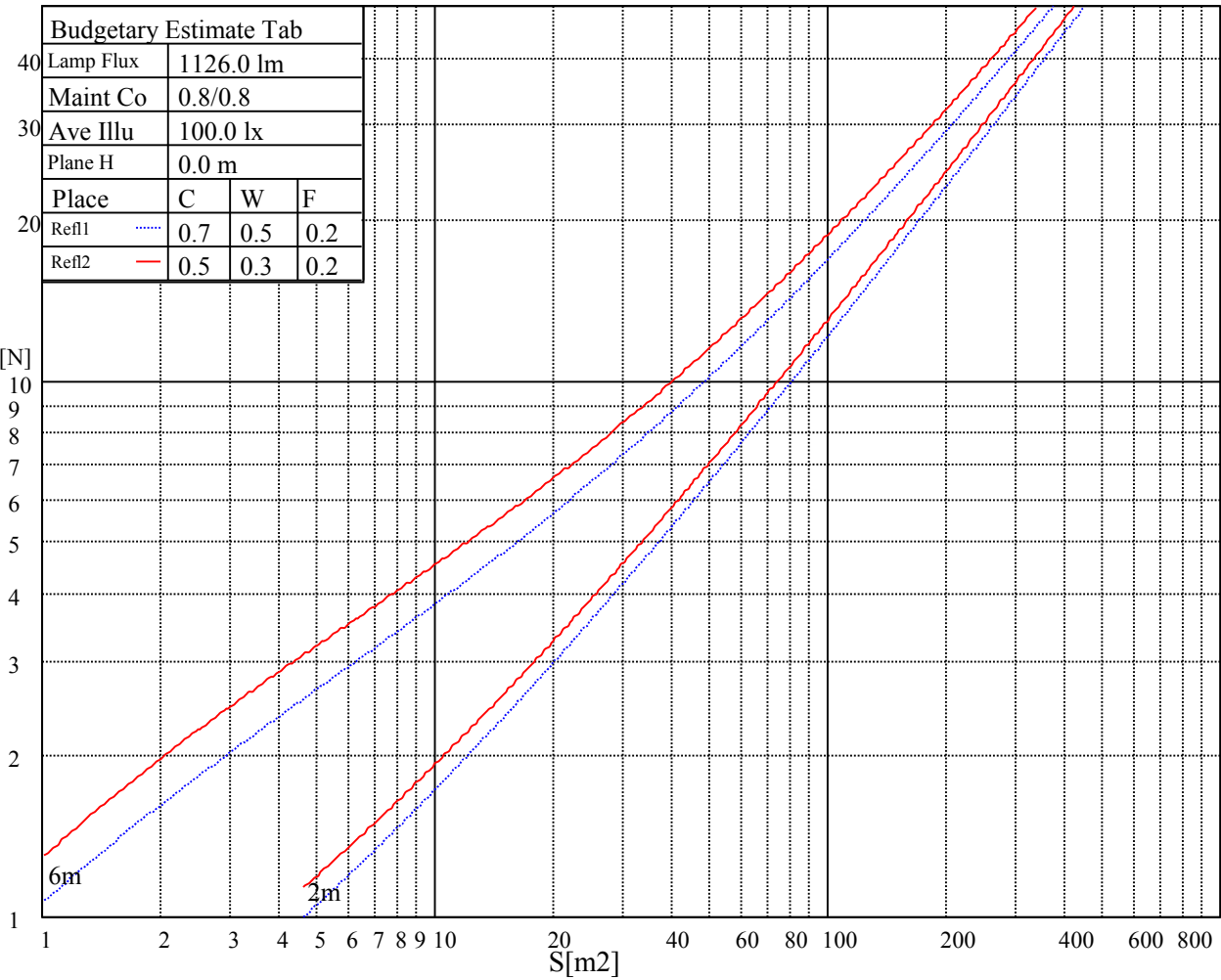
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
89	98	148	131	146	73	390	0	824

Glare Table

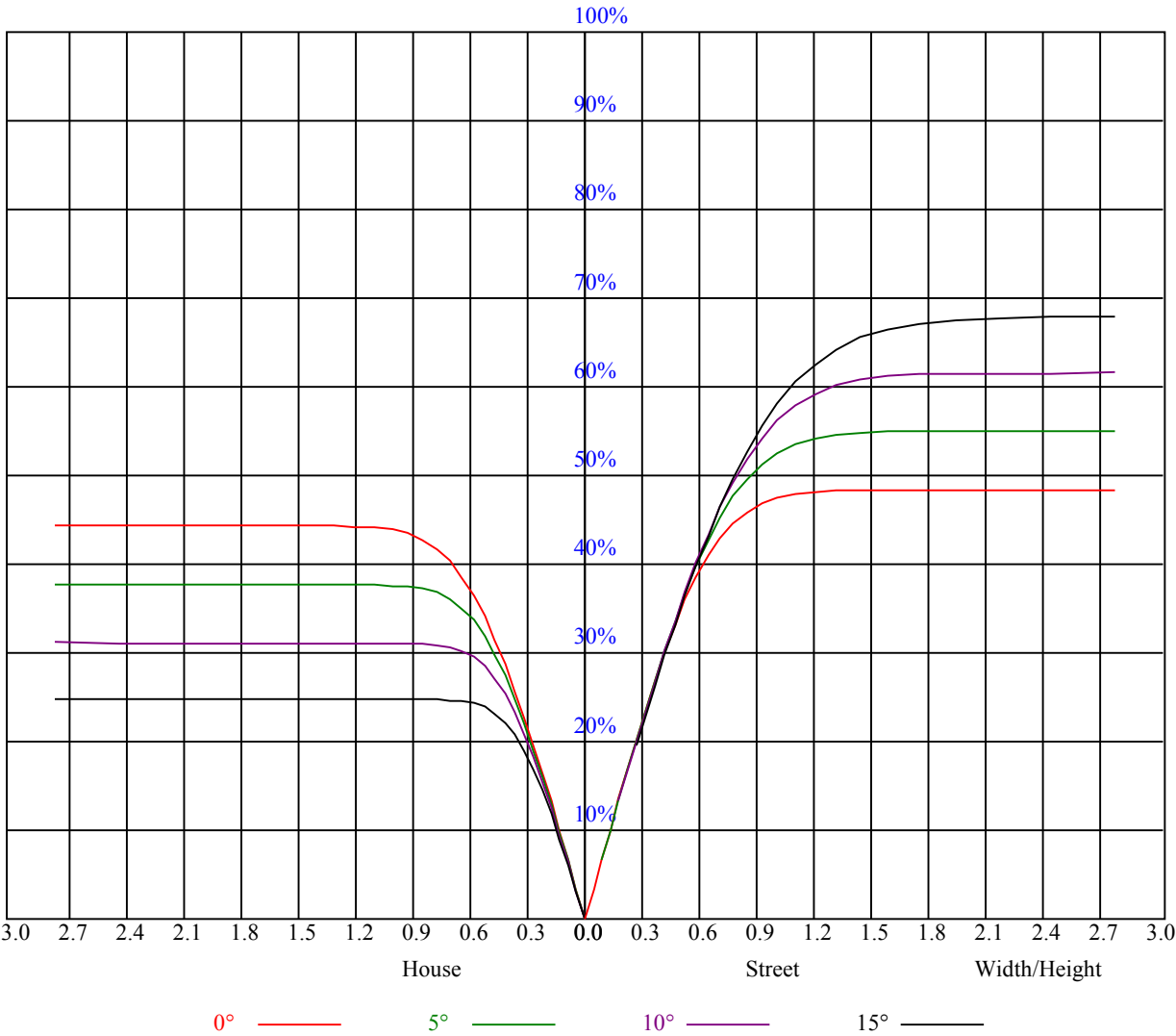
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

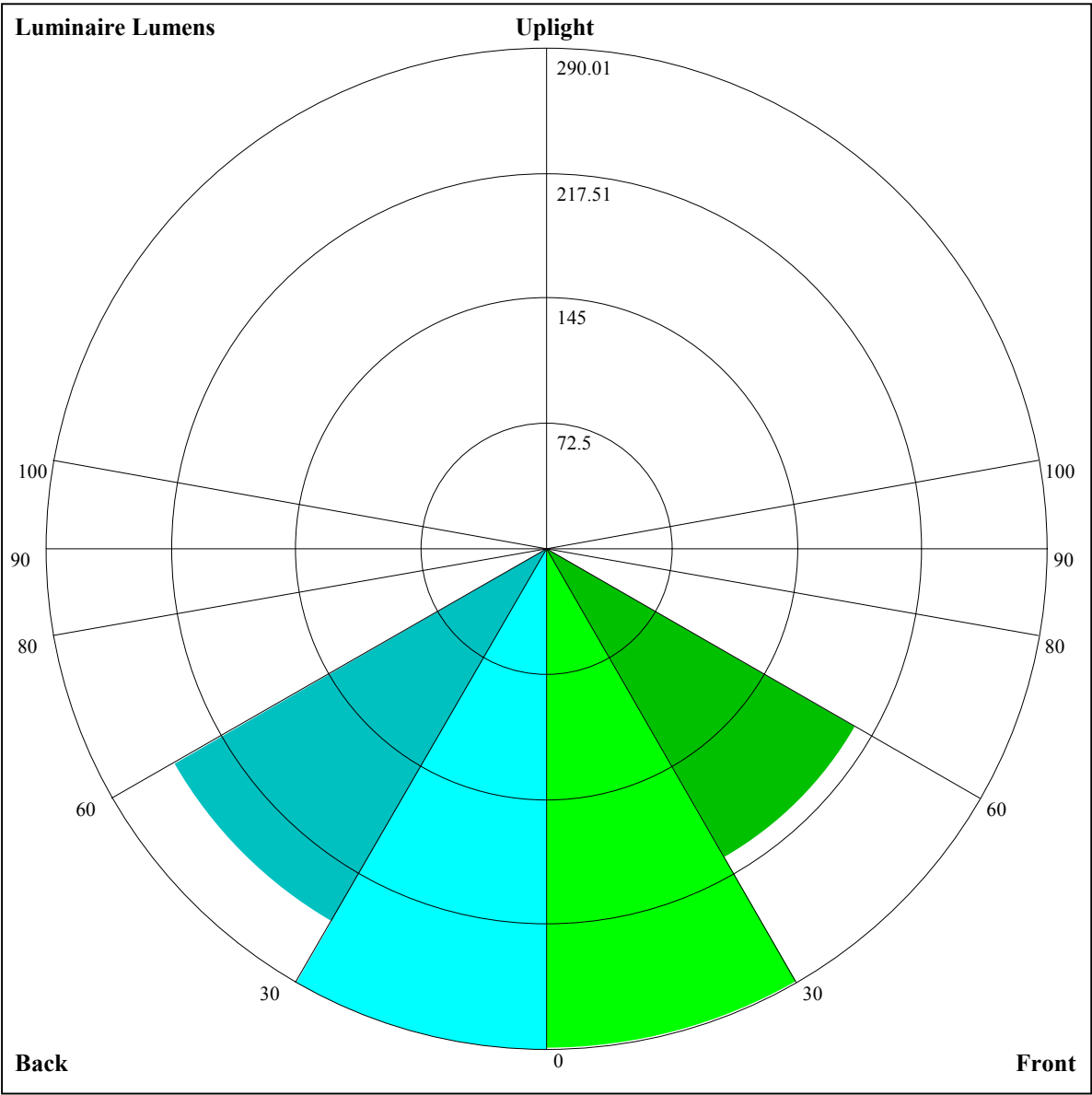
Luminance Limiting Curve





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	1.11	1.11	1.11	1.08	1.08	1.08	1.03	1.03	1.03	0.99	0.99	0.99	0.95	0.95	0.95	0.93
1	1.02	1.00	0.97	1.00	0.98	0.96	0.96	0.95	0.93	0.93	0.91	0.90	0.90	0.89	0.88	0.86
2	0.94	0.90	0.87	0.93	0.89	0.86	0.89	0.86	0.84	0.87	0.84	0.82	0.84	0.82	0.80	0.79
3	0.87	0.82	0.78	0.85	0.81	0.77	0.83	0.79	0.76	0.81	0.77	0.74	0.78	0.76	0.73	0.72
4	0.80	0.74	0.70	0.79	0.74	0.70	0.77	0.72	0.69	0.75	0.71	0.68	0.73	0.70	0.67	0.66
5	0.74	0.68	0.63	0.73	0.67	0.63	0.71	0.66	0.63	0.70	0.65	0.62	0.68	0.64	0.61	0.60
6	0.68	0.62	0.58	0.68	0.62	0.58	0.66	0.61	0.57	0.65	0.60	0.57	0.64	0.60	0.56	0.55
7	0.64	0.57	0.53	0.63	0.57	0.53	0.62	0.56	0.52	0.60	0.56	0.52	0.59	0.55	0.52	0.50
8	0.59	0.53	0.49	0.58	0.53	0.48	0.57	0.52	0.48	0.56	0.52	0.48	0.55	0.51	0.48	0.46
9	0.55	0.49	0.45	0.54	0.49	0.45	0.54	0.48	0.44	0.53	0.48	0.44	0.52	0.47	0.44	0.43
10	0.51	0.45	0.41	0.51	0.45	0.41	0.50	0.45	0.41	0.49	0.44	0.41	0.49	0.44	0.41	0.40





Luminaire Lumens:

FL=289.21,FM=206,FH=0.91,FVH=0.44

BL=290.01,BM=249.44,BH=0.99,BVH=0.43

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	638.52	654.44	672.13	695.57	722.99	726.13	650.63	444.36	208.30
22.5	638.02	647.50	665.69	684.82	711.31	722.15	697.94	568.87	353.29
45.0	636.07	650.80	670.60	691.76	710.30	707.84	648.93	515.37	320.70
67.5	628.88	635.39	655.20	674.07	698.79	716.56	688.04	557.78	397.64
90.0	623.54	633.11	652.07	675.94	704.54	710.89	650.97	490.57	283.12
112.5	636.32	636.32	652.15	673.06	699.89	717.24	700.14	594.17	418.97
135.0	629.81	634.12	655.96	678.39	694.81	704.29	671.96	577.16	420.07
157.5	641.57	635.56	651.90	671.45	691.76	711.65	712.16	650.97	495.06
180.0	638.52	639.29	655.88	672.89	702.77	727.48	717.15	611.52	384.94
202.5	638.02	649.36	669.50	692.69	711.74	722.66	680.00	538.99	321.12
225.0	636.07	639.71	660.11	683.81	701.16	715.89	691.76	593.58	427.69
247.5	628.88	643.35	664.51	690.58	713.60	710.98	640.39	471.95	279.57
270.0	623.54	632.01	652.07	674.83	700.48	709.71	659.26	492.01	277.62
292.5	636.32	654.10	676.02	690.07	706.49	690.49	595.61	424.47	235.05
315.0	629.81	645.55	666.96	686.94	707.42	701.16	657.91	525.02	340.59
337.5	641.57	659.94	680.00	707.25	722.15	700.40	598.91	401.70	188.58
360.0	638.52	654.44	672.13	695.57	722.99	726.13	650.63	444.36	208.30

C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	61.11	14.64	6.18	0.85	0.85	0.76	0.76	0.68	0.76
22.5	153.54	33.86	5.16	1.69	0.85	0.85	0.76	0.76	0.76
45.0	151.42	52.14	9.06	1.27	0.85	0.85	0.85	0.85	0.76
67.5	212.62	61.53	6.69	1.86	0.93	0.85	0.85	0.85	0.85
90.0	103.01	11.43	3.13	1.02	0.93	0.93	0.85	0.85	0.76
112.5	235.55	90.23	11.00	2.54	1.02	0.93	0.85	0.85	0.85
135.0	237.08	99.54	25.48	2.03	1.02	0.85	0.76	0.85	0.85
157.5	279.82	97.76	15.15	3.22	1.02	0.85	0.85	0.85	0.76
180.0	154.04	36.23	10.83	1.95	0.85	0.85	0.76	0.76	0.68
202.5	124.34	23.45	3.89	0.93	0.85	0.76	0.76	0.76	0.76
225.0	235.72	97.25	24.29	2.29	0.93	0.85	0.85	0.85	0.76
247.5	105.21	15.07	3.05	0.93	0.85	0.85	0.85	0.85	0.76
270.0	117.40	11.17	2.71	1.02	0.93	0.85	0.93	0.85	0.85
292.5	91.92	12.10	2.37	1.02	0.93	0.85	0.85	0.85	0.85
315.0	165.64	59.50	9.06	1.35	0.93	0.85	0.85	0.85	0.85
337.5	48.84	6.09	2.03	0.85	0.85	0.76	0.76	0.85	0.76
360.0	61.11	14.64	6.18	0.85	0.85	0.76	0.76	0.68	0.76

C/ γ (°)	90.0
0.0	0.68
22.5	0.76
45.0	0.76
67.5	0.85
90.0	0.85
112.5	0.85
135.0	0.76
157.5	0.76
180.0	0.76
202.5	0.76
225.0	0.76
247.5	0.85
270.0	0.85
292.5	0.85
315.0	0.85
337.5	0.76
360.0	0.68