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Nata

Client: NT

LumCAT: 11-0161-S

Luminaire: 69-0031-1

Report No: 20260804-B001

Ballast type: DC

Test No: 20260804-C001

Voltage(V): 22.170

LampCAT: LUXEON 2835*2

Current(A): 0.454

Lamp flux(lm): 1126.0

Power (W): 10.065

Number of Lamps: 1

PF: 0.000

Length(mm): 280

Width(mm): 40

Phm Type: C

Height(mm): 20

Photometric Results

Lumens(lm): 993.25, Efficiency(%): 88.21% , Luminous Efficacy(lm/W): 98.68

Central intensity(cd): 607.123, Maximum intensity(cd): 618.465

Angle of maximum intensity: C=202.5 γ =10.0

Beam Angle(50%Imax): [C0/180]Total=80.0

[C90/270]Total=78.6

Field angle(10%Imax): [C0/180]Total=97.8

[C90/270]Total=98.8

Maximum s/h(1/2): C0_180=1.22 C90_270=1.25

Maximum s/h(1/4): C0_180=1.12 C90_270=1.14

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 88.25%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 97.445%

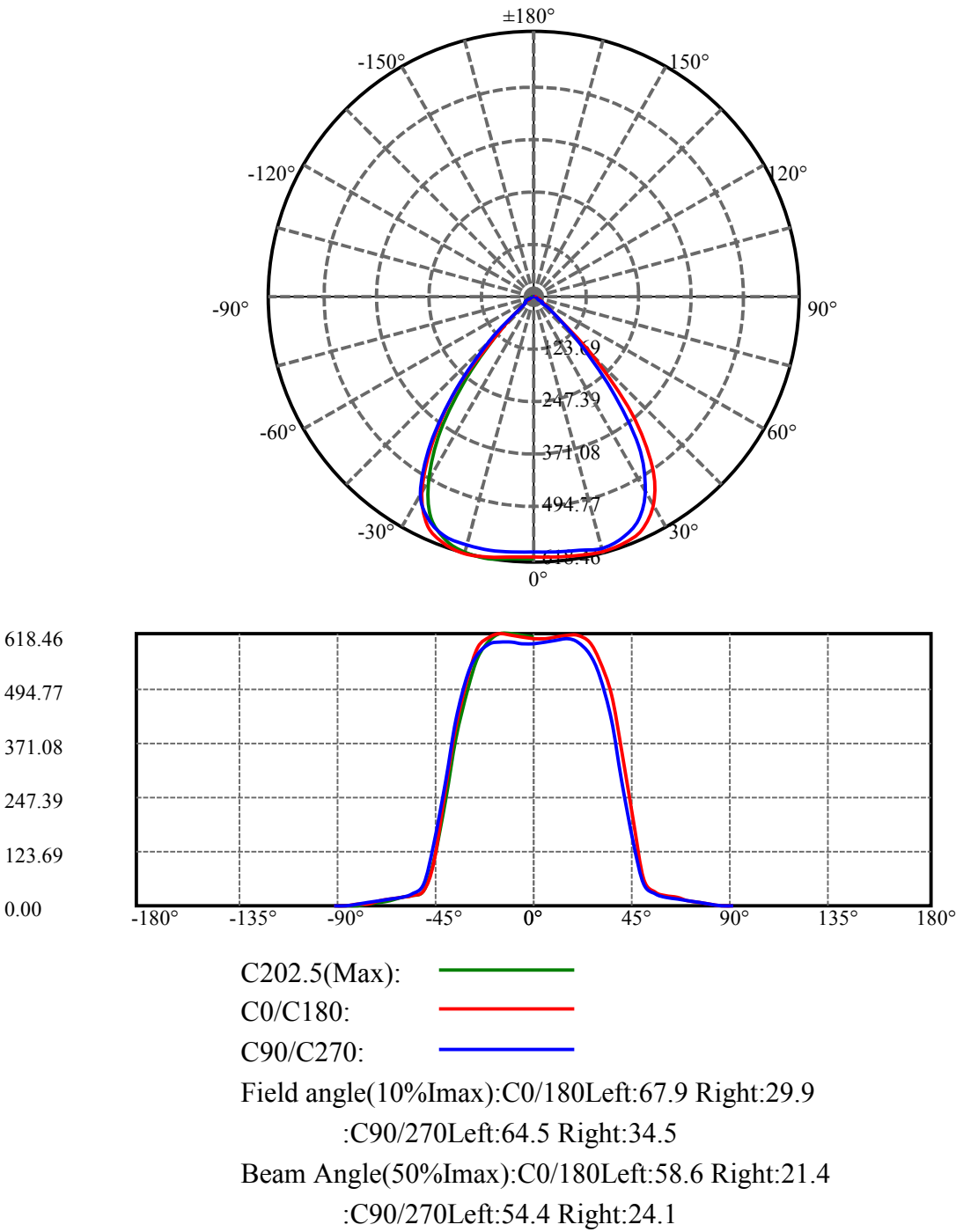
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	604.774	0.000	0	0.00%	0.00%
5.0	606.372	14.479	14.479	1.29%	1.46%
10.0	610.307	43.524	58.003	3.87%	5.84%
15.0	612.376	72.529	130.532	6.44%	13.14%
20.0	606.652	100.465	230.997	8.92%	23.26%
25.0	584.571	124.937	355.934	11.10%	35.84%
30.0	533.518	141.495	497.43	12.57%	50.08%
35.0	445.884	144.224	641.653	12.81%	64.60%
40.0	328.853	129.259	770.912	11.48%	77.62%
45.0	195.825	97.148	868.06	8.63%	87.40%
50.0	89.639	57.682	925.743	5.12%	93.20%
55.0	39.955	28.178	953.921	2.50%	96.04%
60.0	22.371	14.407	968.328	1.28%	97.49%
65.0	16.367	9.417	977.745	0.84%	98.44%
70.0	11.040	6.940	984.685	0.62%	99.14%
75.0	6.364	4.549	989.234	0.40%	99.60%
80.0	3.005	2.507	991.741	0.22%	99.85%
85.0	0.942	1.072	992.813	0.10%	99.96%
90.0	0.656	0.437	993.25	0.04%	100.00%

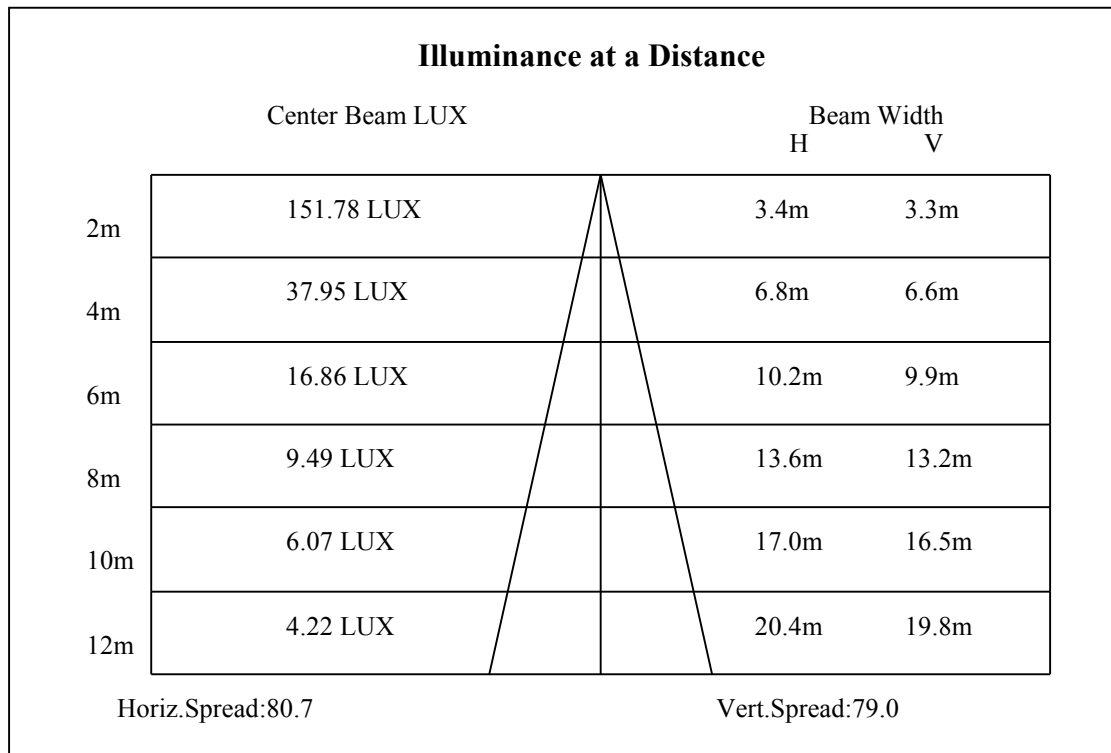
ZONAL LUMEN SUMMARY

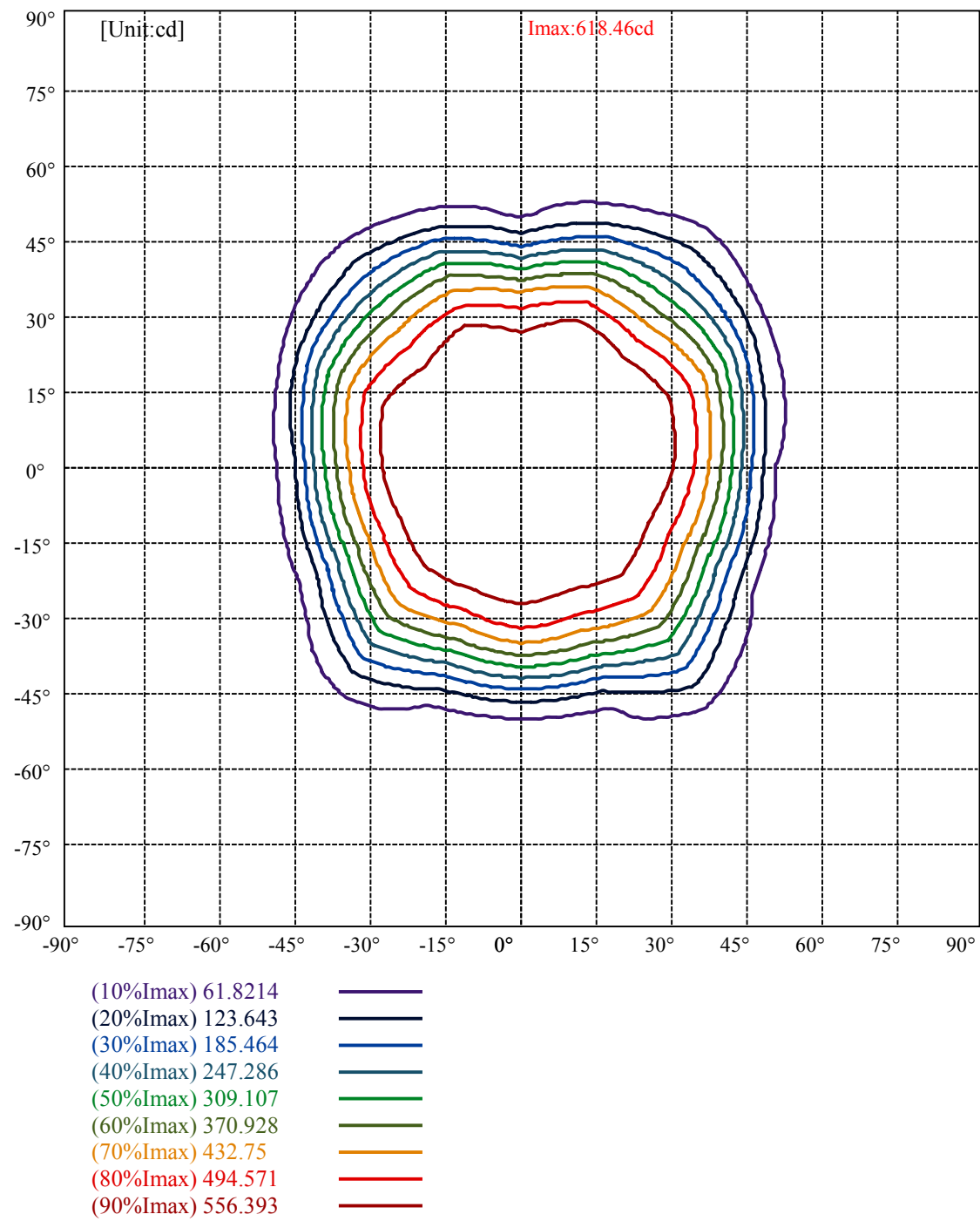
Zone	Lumens	%Lamp	%Fixt
0-30	497.43	44.18%	50.08%
0-40	770.91	68.46%	77.62%
0-60	968.33	86.00%	97.49%
0-90	992.81	88.17%	99.96%
0-120	992.81	88.17%	99.96%
0-180	993.25	88.21%	100.00%
60-90	24.49	2.17%	2.47%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-41.22	794.60	70.57%	80.00%

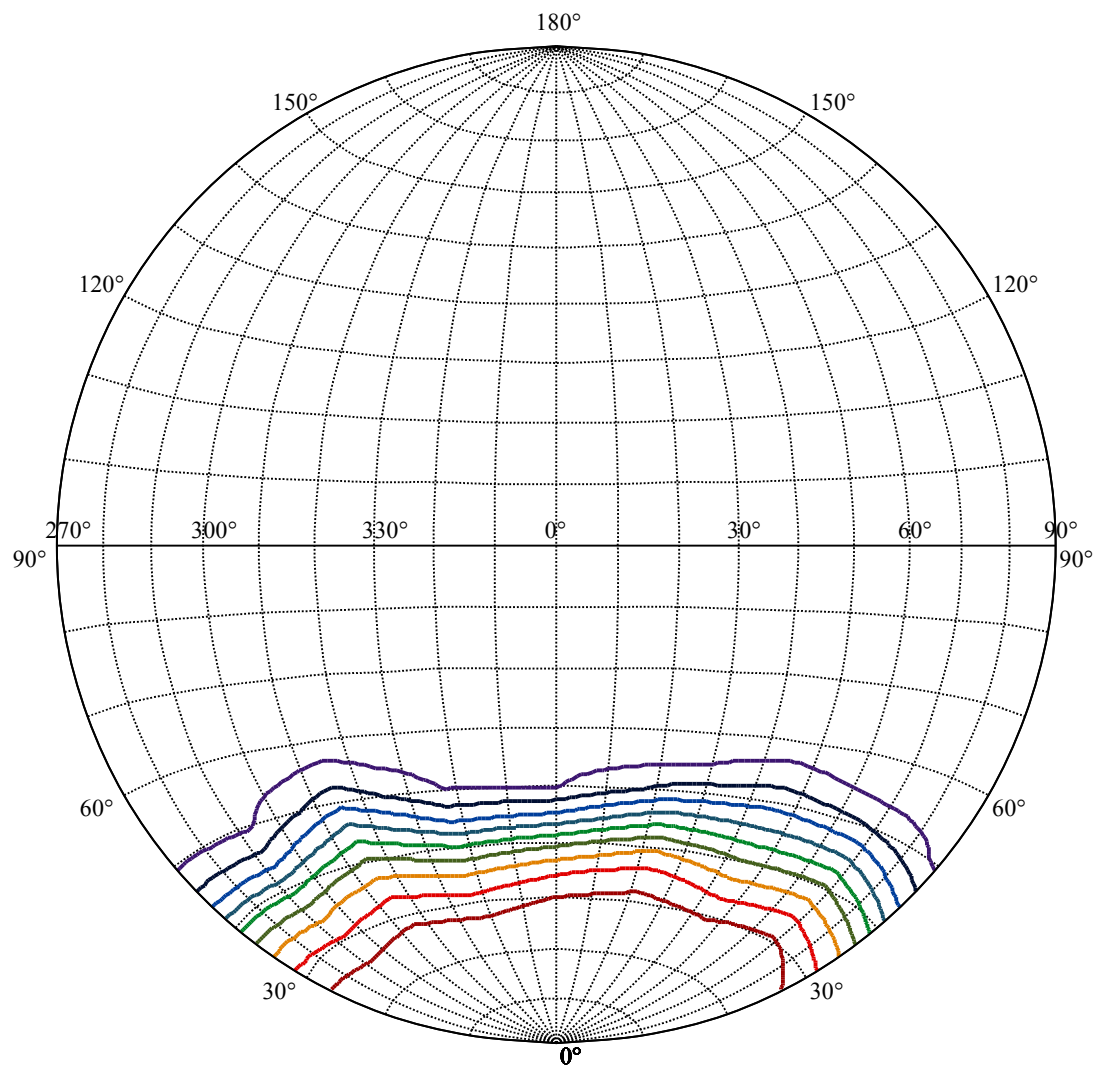
ZONAL LUMEN SUMMARY

0-10	58.00
10-20	172.99
20-30	266.43
30-40	273.48
40-50	154.83
50-60	42.58
60-70	16.36
70-80	7.06
80-90	1.07
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







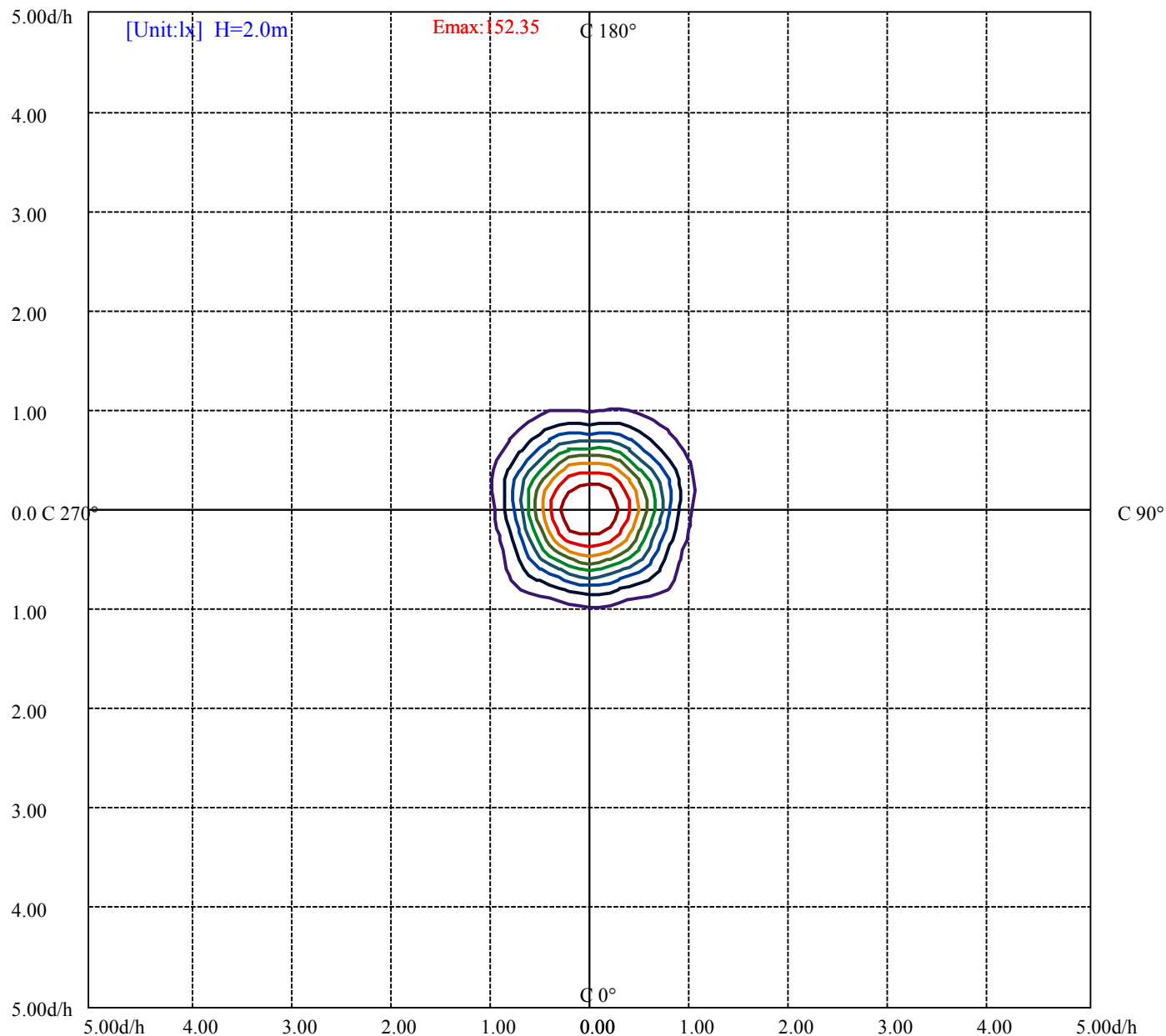


House

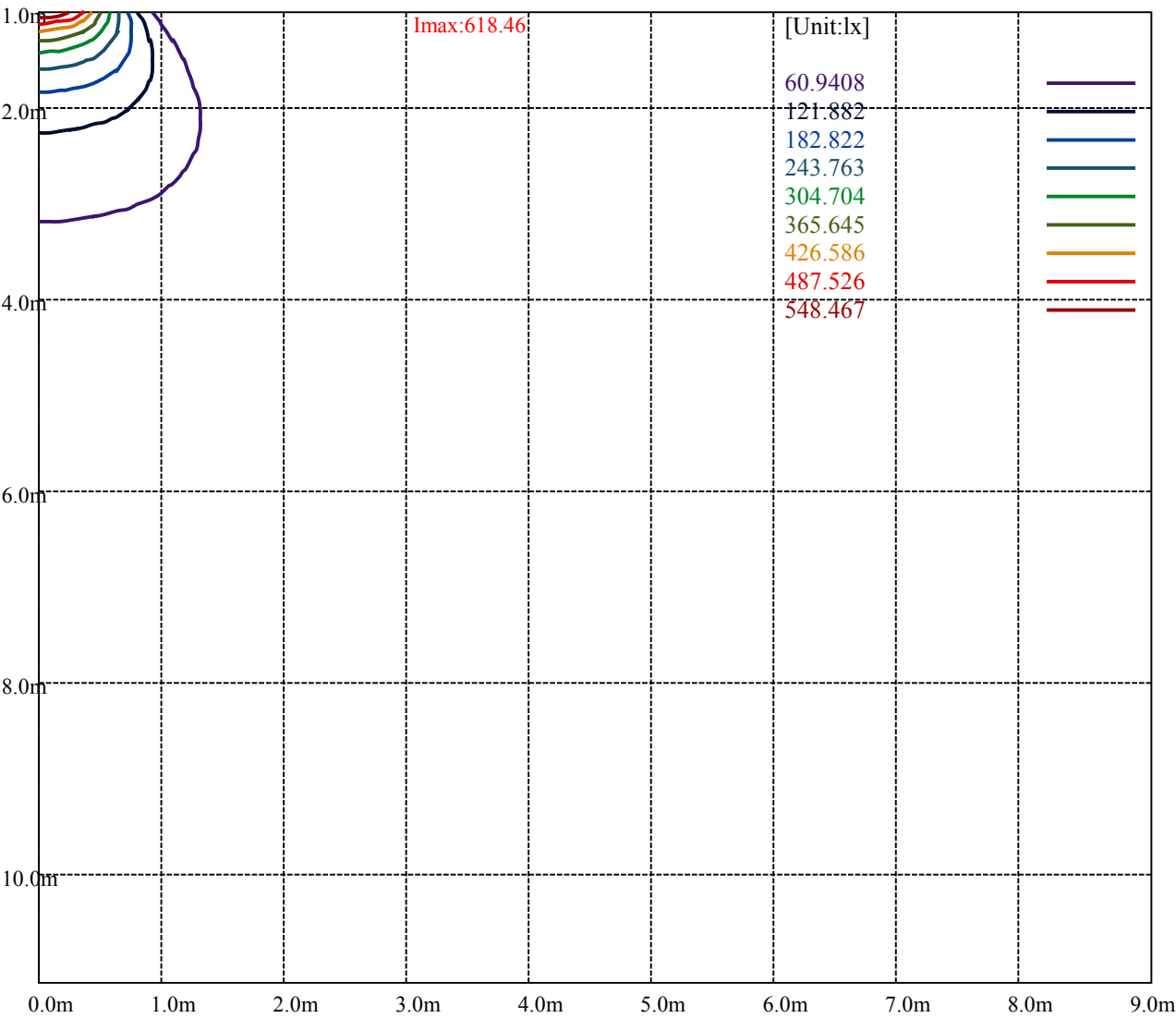
[Unit:cd]

Road

Imax:618.46	
(10%Imax) 61.8451	
(20%Imax) 123.69	
(30%Imax) 185.535	
(40%Imax) 247.381	
(50%Imax) 309.226	
(60%Imax) 371.071	
(70%Imax) 432.916	
(80%Imax) 494.761	
(90%Imax) 556.606	



(10%Emax)	15.23518	
(20%Emax)	30.47025	
(30%Emax)	45.7055	
(40%Emax)	60.94075	
(50%Emax)	76.17575	
(60%Emax)	91.411	
(70%Emax)	106.6462	
(80%Emax)	121.8815	
(90%Emax)	137.1165	



Luminance Table

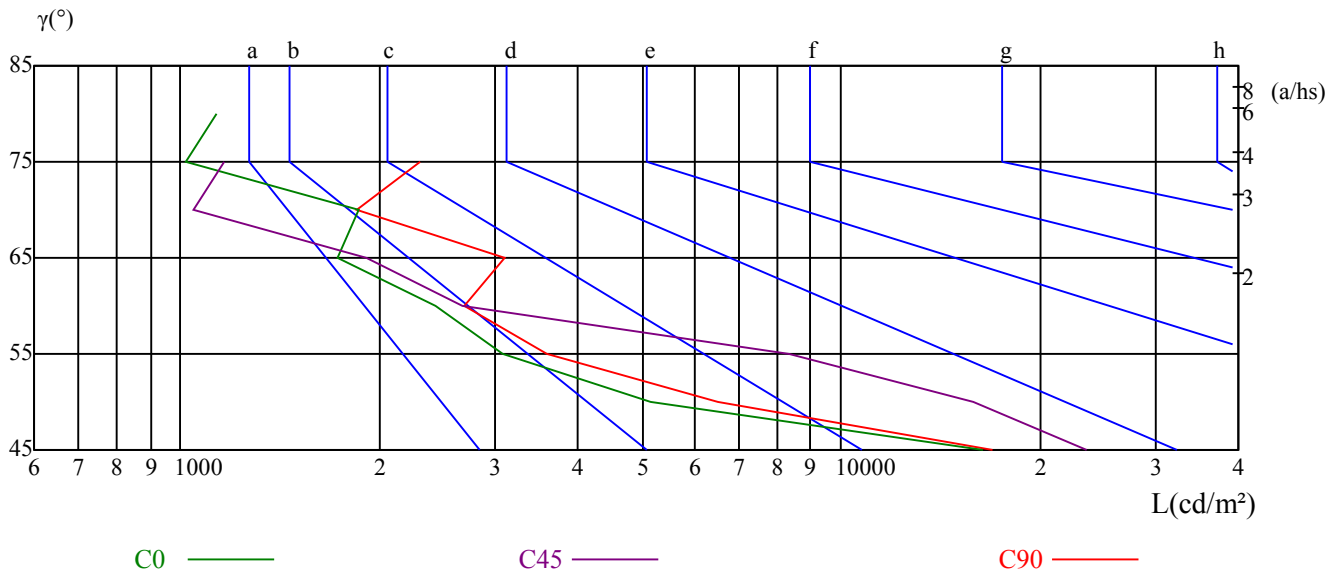
γ	45	50	55	60	65	70	75	80	85
C0	16387	5157	3075	2430	1726	1862	1019	1135	0
C45	23597	15871	8354	2667	1916	1047	1164	0	0
C90	16957	6501	3587	2690	3101	1847	2305	0	0

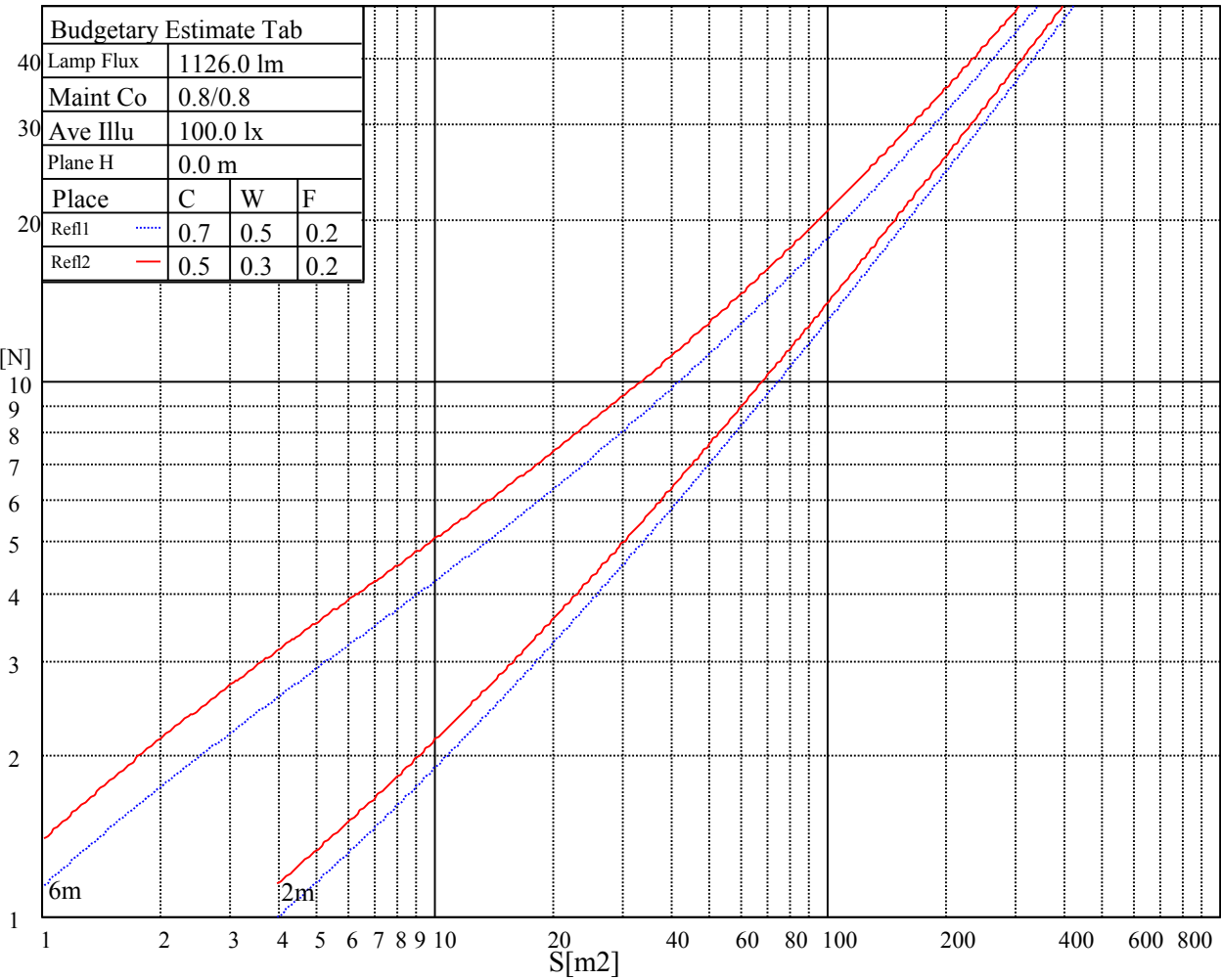
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
3576	3576	3576	2920	2920	2920	0	0	173

Glare Table

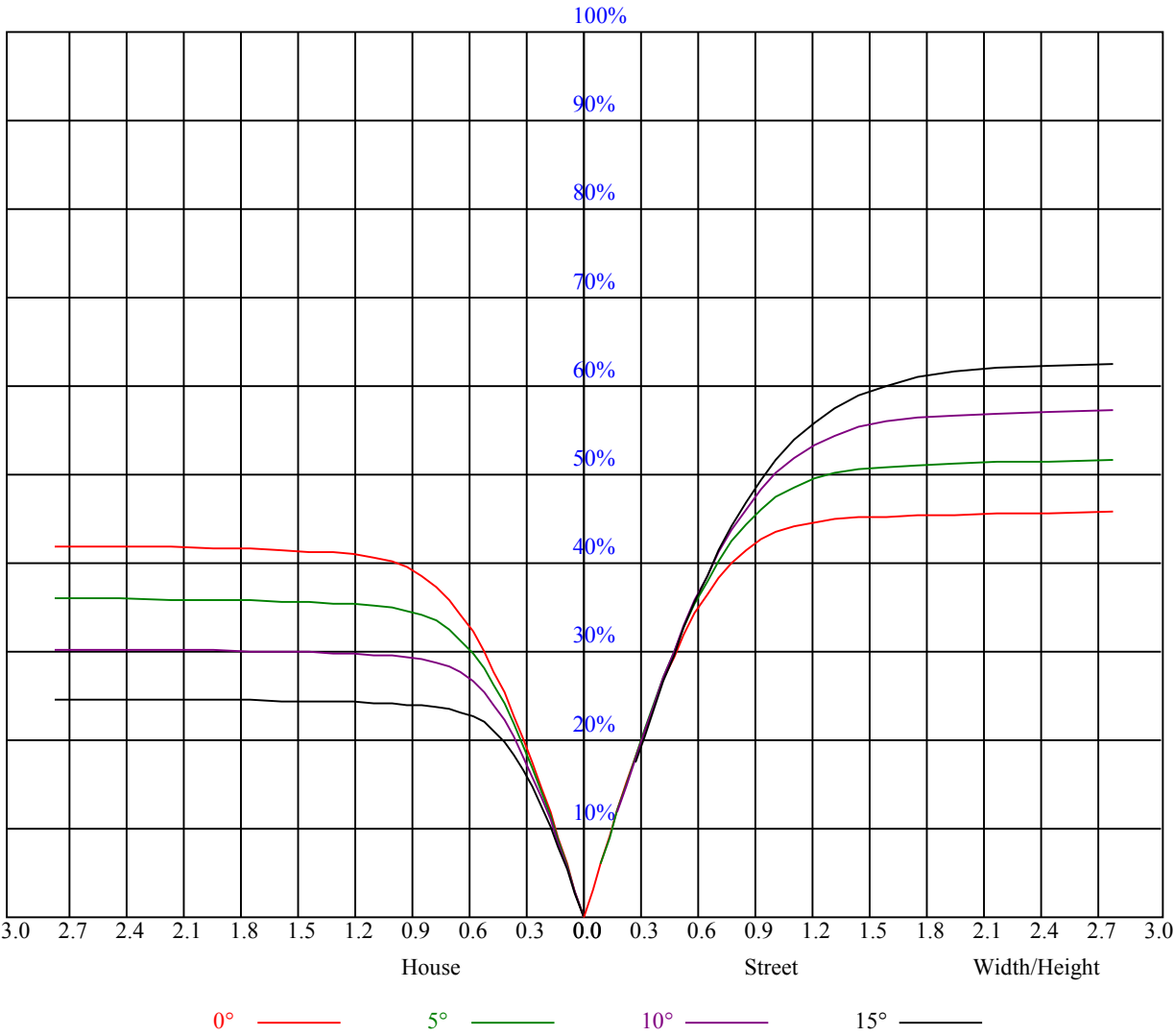
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

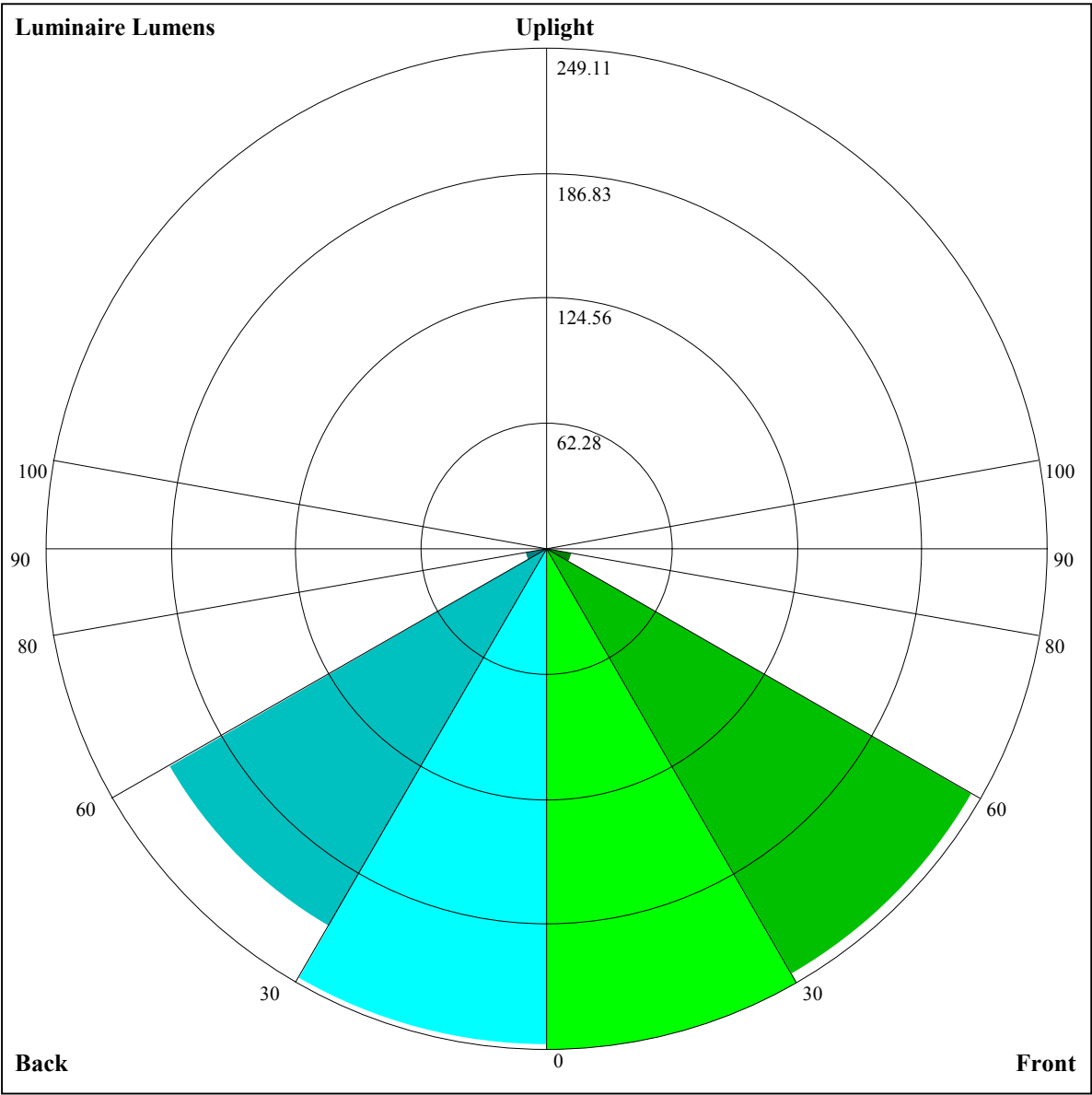
Luminance Limiting Curve





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	1.05	1.05	1.05	1.03	1.03	1.03	0.98	0.98	0.98	0.94	0.94	0.94	0.90	0.90	0.90	0.88
1	0.96	0.94	0.91	0.94	0.92	0.90	0.91	0.89	0.87	0.87	0.86	0.85	0.84	0.83	0.82	0.80
2	0.88	0.84	0.80	0.86	0.83	0.79	0.84	0.80	0.78	0.81	0.78	0.76	0.78	0.76	0.74	0.73
3	0.81	0.75	0.71	0.79	0.74	0.71	0.77	0.73	0.69	0.75	0.71	0.68	0.73	0.70	0.67	0.66
4	0.74	0.68	0.64	0.73	0.67	0.63	0.71	0.66	0.62	0.69	0.65	0.62	0.67	0.64	0.61	0.59
5	0.68	0.62	0.57	0.67	0.61	0.57	0.65	0.60	0.56	0.64	0.59	0.56	0.62	0.58	0.55	0.54
6	0.63	0.56	0.52	0.62	0.56	0.52	0.60	0.55	0.51	0.59	0.54	0.51	0.58	0.54	0.51	0.49
7	0.58	0.52	0.47	0.57	0.51	0.47	0.56	0.51	0.47	0.55	0.50	0.47	0.54	0.50	0.46	0.45
8	0.54	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	0.43	0.41
9	0.50	0.44	0.40	0.49	0.44	0.40	0.48	0.43	0.39	0.48	0.43	0.39	0.47	0.42	0.39	0.38
10	0.46	0.41	0.37	0.46	0.40	0.37	0.45	0.40	0.36	0.45	0.40	0.36	0.44	0.39	0.36	0.35





Luminaire Lumens:

FL=249.11,FM=244.63,FH=12.51,FVH=0.84

BL=247.08,BM=216.89,BH=10.67,BVH=0.67

UL=0,UH=0

BUG Rating:B1-U0-G0

Intensity data(cd)

Appendix Page: 15 Total:15

C/ γ (°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	607.12	608.48	612.20	615.16	613.72	598.57	556.42	479.40	352.86
22.5	609.66	609.24	611.02	615.25	616.69	608.65	579.53	520.96	425.06
45.0	607.72	609.32	613.13	615.76	614.23	597.22	548.64	467.47	368.86
67.5	602.55	603.40	607.72	612.12	613.81	601.96	570.56	490.40	382.66
90.0	595.27	597.56	601.79	605.77	599.17	573.77	520.62	423.62	283.29
112.5	604.84	604.58	608.05	611.52	612.03	599.00	557.35	472.55	369.79
135.0	602.30	603.91	609.92	611.86	605.35	580.21	526.04	444.44	344.15
157.5	608.73	609.49	613.81	617.79	615.93	598.83	553.80	475.42	356.42
180.0	607.12	609.92	615.25	617.96	612.29	585.88	518.67	406.10	269.41
202.5	609.66	614.66	618.46	617.53	603.99	565.31	491.93	379.95	241.22
225.0	607.72	609.58	613.81	615.50	607.38	574.79	520.45	441.91	340.76
247.5	602.55	605.01	608.73	608.98	595.10	564.29	494.04	390.02	262.38
270.0	595.27	596.03	599.17	599.67	594.09	573.69	525.61	420.66	283.97
292.5	604.84	606.61	611.61	610.85	594.26	563.96	507.25	412.03	283.97
315.0	602.30	603.74	606.28	607.38	602.21	585.29	544.49	475.08	382.83
337.5	608.73	610.42	613.98	614.91	606.19	581.73	520.87	434.12	314.01
360.0	607.12	608.48	612.20	615.16	613.72	598.57	556.42	479.40	352.86
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	192.39	60.09	30.39	23.45	17.94	12.87	8.04	4.23	0.76
22.5	285.41	141.94	49.94	26.41	20.82	15.66	10.24	5.50	1.69
45.0	266.11	168.35	81.00	27.76	18.37	12.27	6.69	3.30	1.18
67.5	251.55	126.54	45.11	24.88	18.96	13.37	8.80	4.32	1.61
90.0	142.36	48.92	26.32	20.57	15.15	9.90	5.84	2.79	1.18
112.5	241.73	107.32	36.48	23.19	18.11	12.44	7.62	3.55	1.27
135.0	227.60	128.23	48.84	21.41	15.40	9.73	5.33	2.45	0.85
157.5	213.63	75.92	31.66	22.60	17.18	12.02	7.19	3.47	0.85
180.0	99.88	34.70	24.38	19.55	14.56	9.82	5.25	2.37	0.68
202.5	105.46	33.35	23.02	18.20	13.03	8.04	3.98	1.52	0.68
225.0	234.79	127.30	54.76	22.01	14.81	9.40	5.16	2.29	0.68
247.5	134.41	46.89	24.46	18.20	13.29	8.46	4.06	1.69	0.68
270.0	143.21	48.33	26.41	20.57	15.24	10.24	5.84	2.79	0.85
292.5	143.21	51.46	26.49	19.72	14.22	9.23	5.08	2.12	0.68
315.0	278.89	171.06	81.68	27.51	17.94	11.93	7.03	3.30	0.76
337.5	172.58	63.82	28.35	21.92	16.84	11.26	5.67	2.37	0.68
360.0	192.39	60.09	30.39	23.45	17.94	12.87	8.04	4.23	0.76
C/ γ (°)	90.0								
0.0	0.68								
22.5	0.68								
45.0	0.68								
67.5	0.68								
90.0	0.59								
112.5	0.59								
135.0	0.68								
157.5	0.68								
180.0	0.68								
202.5	0.68								
225.0	0.68								
247.5	0.68								
270.0	0.59								
292.5	0.59								
315.0	0.68								
337.5	0.68								
360.0	0.68								