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Nata

Client: NT

LumCAT: 11-0161-S2

Luminaire: 69-0030

Report No: 20260803-B002

Ballast type: DC

Test No: 20260803-C002

Voltage(V): 22.190

LampCAT: LUXEON 2835*2

Current(A): 0.454

Lamp flux(lm): 1126.0

Power (W): 10.074

Number of Lamps: 1

PF: 0.000

Length(mm): 280

Width(mm): 40

Phm Type: C

Height(mm): 20

Photometric Results

Lumens(lm): 1016.36, Efficiency(%): 90.26% , Luminous Efficacy(lm/W): 100.89

Central intensity(cd): 1166.255, Maximum intensity(cd): 1170.656

Angle of maximum intensity: C=22.5 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=59.4

[C90/270]Total=60.6

Field angle(10%Imax): [C0/180]Total=78.1

[C90/270]Total=79.3

Maximum s/h(1/2): C0_180=1.00 C90_270=0.96

Maximum s/h(1/4): C0_180=0.91 C90_270=0.88

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 90.09%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 99.876%

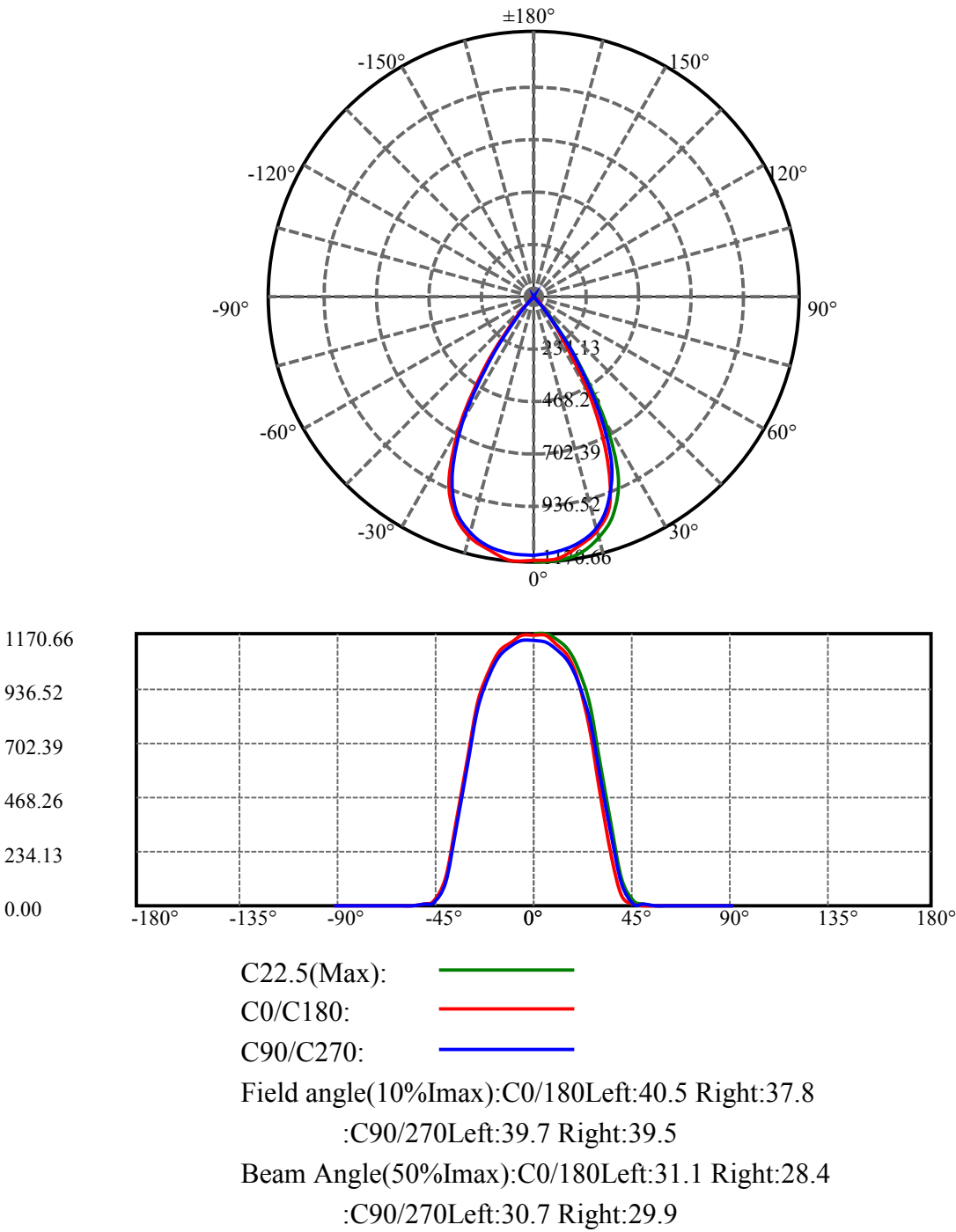
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	1160.816	0.000	0	0.00%	0.00%
5.0	1156.172	27.699	27.699	2.46%	2.73%
10.0	1132.547	81.875	109.574	7.27%	10.78%
15.0	1089.639	131.819	241.392	11.71%	23.75%
20.0	998.175	172.065	413.457	15.28%	40.68%
25.0	836.920	192.468	605.925	17.09%	59.62%
30.0	577.694	179.021	784.946	15.90%	77.23%
35.0	302.493	129.614	914.56	11.51%	89.98%
40.0	101.843	67.460	982.02	5.99%	96.62%
45.0	21.488	22.836	1004.856	2.03%	98.87%
50.0	5.904	5.535	1010.391	0.49%	99.41%
55.0	2.502	1.828	1012.218	0.16%	99.59%
60.0	1.397	0.901	1013.119	0.08%	99.68%
65.0	1.037	0.592	1013.711	0.05%	99.74%
70.0	1.000	0.516	1014.227	0.05%	99.79%
75.0	0.979	0.517	1014.744	0.05%	99.84%
80.0	0.995	0.528	1015.272	0.05%	99.89%
85.0	0.995	0.540	1015.812	0.05%	99.95%
90.0	0.989	0.543	1016.355	0.05%	100.00%

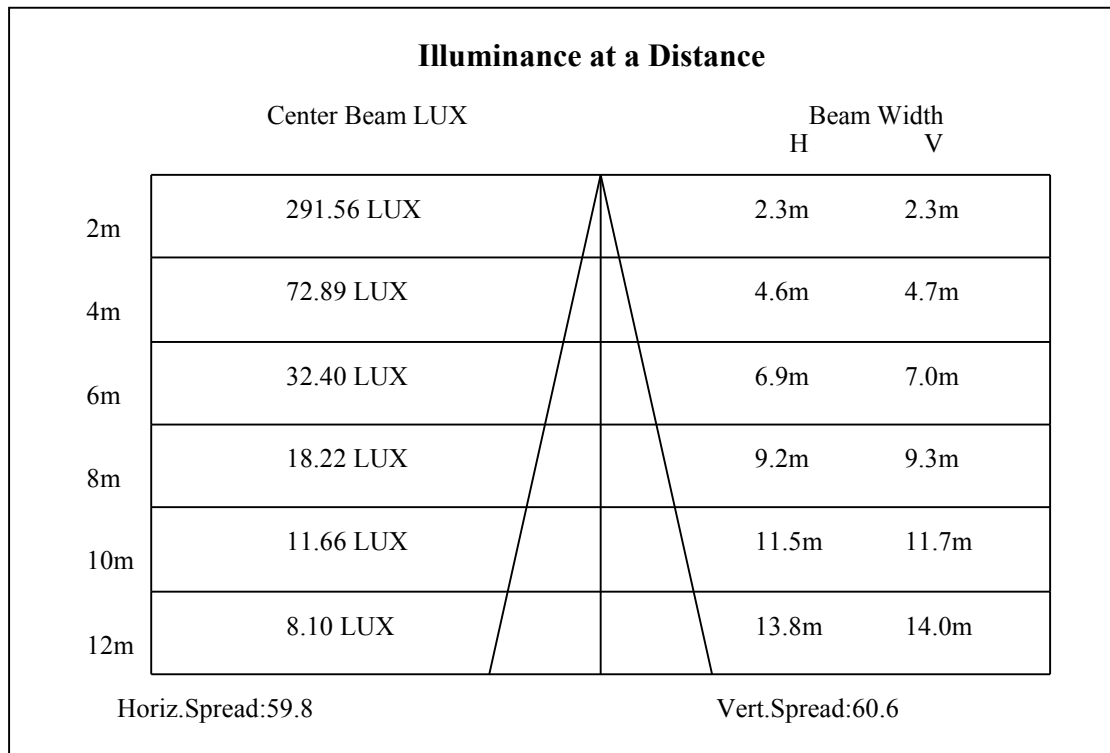
ZONAL LUMEN SUMMARY

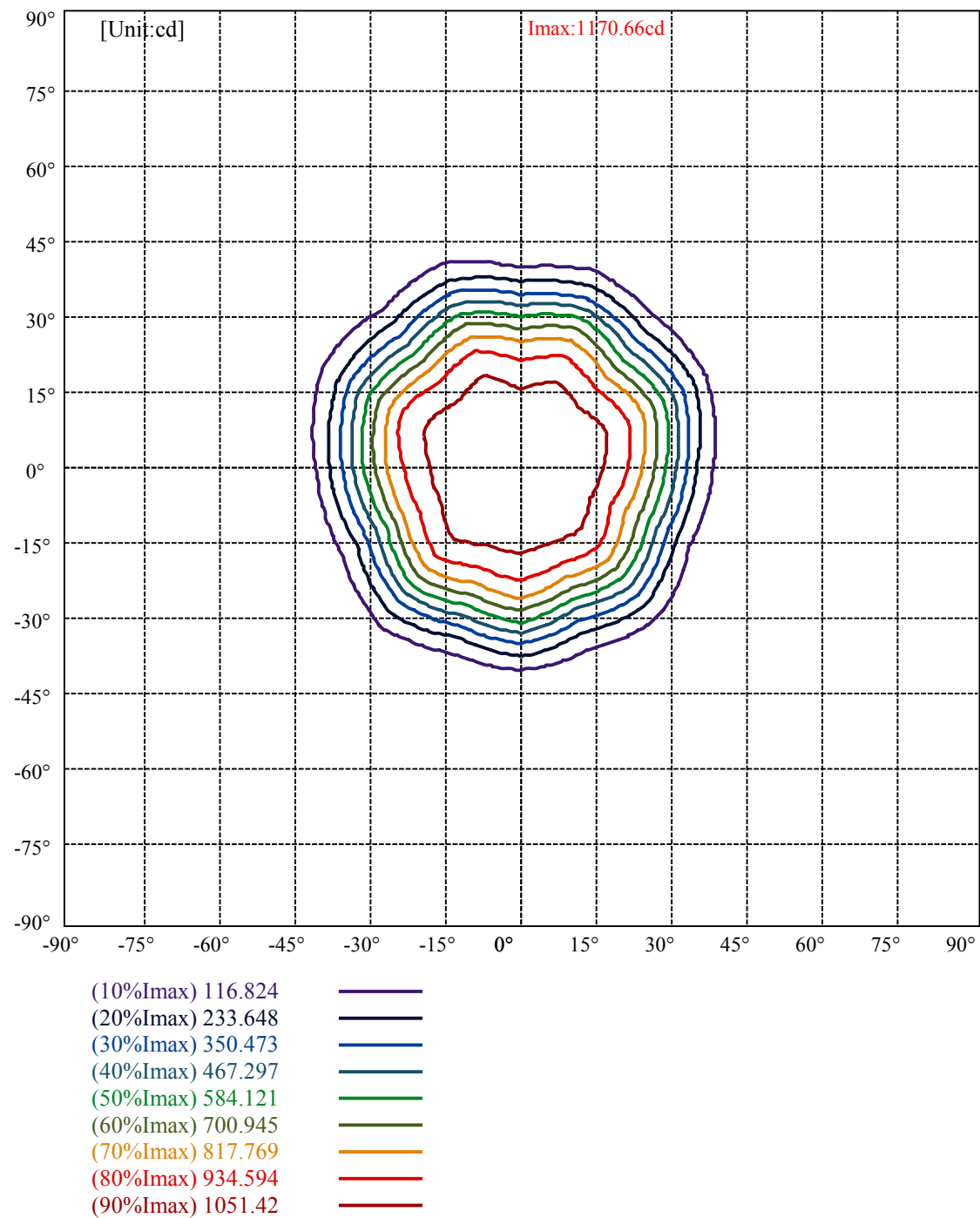
Zone	Lumens	%Lamp	%Fixt
0-30	784.95	69.71%	77.23%
0-40	982.02	87.21%	96.62%
0-60	1013.12	89.98%	99.68%
0-90	1015.81	90.21%	99.95%
0-120	1015.81	90.21%	99.95%
0-180	1016.36	90.26%	100.00%
60-90	2.69	0.24%	0.26%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-31.09	813.08	72.21%	80.00%

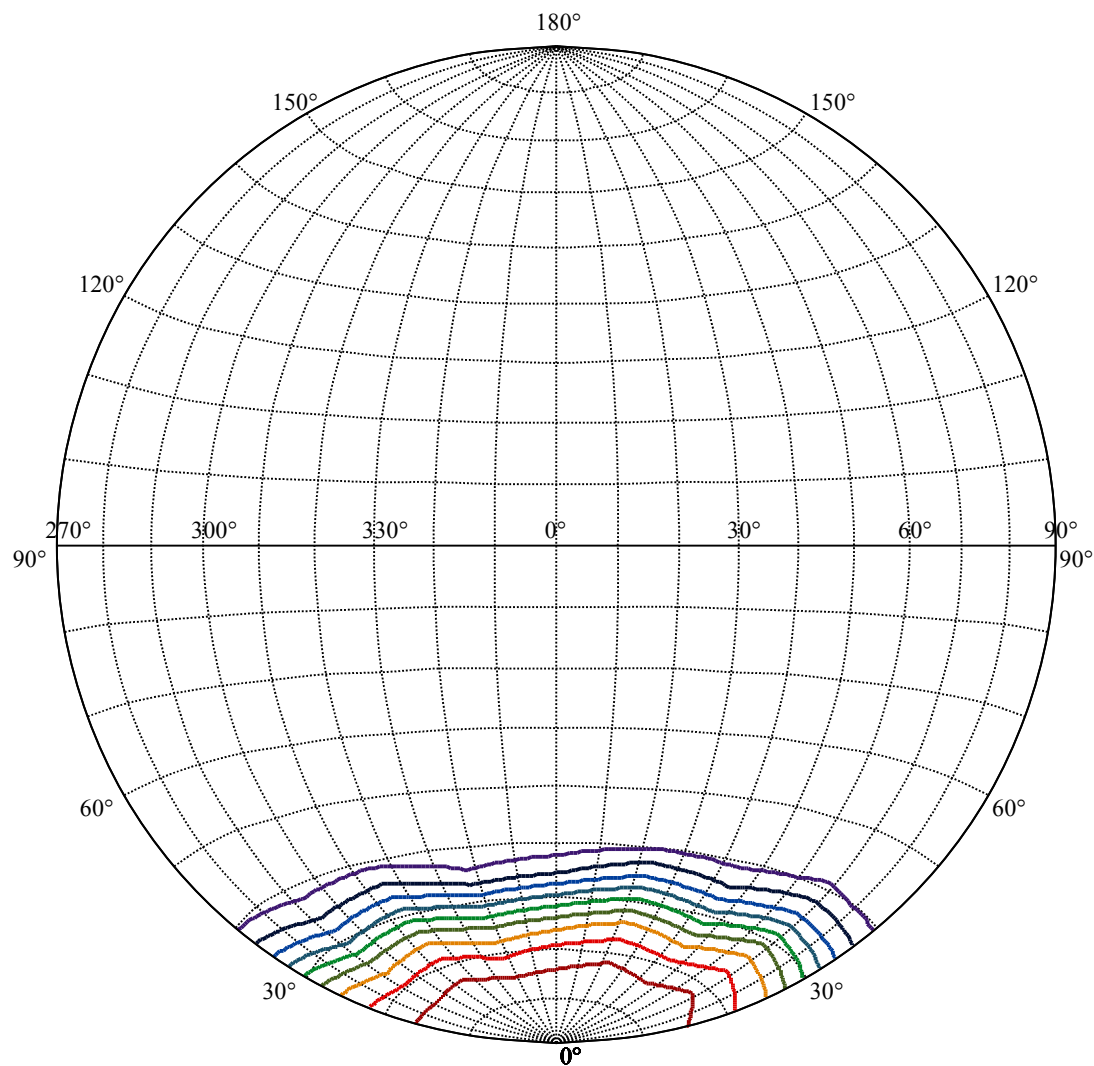
ZONAL LUMEN SUMMARY

0-10	109.57
10-20	303.88
20-30	371.49
30-40	197.07
40-50	28.37
50-60	2.73
60-70	1.11
70-80	1.05
80-90	0.54
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







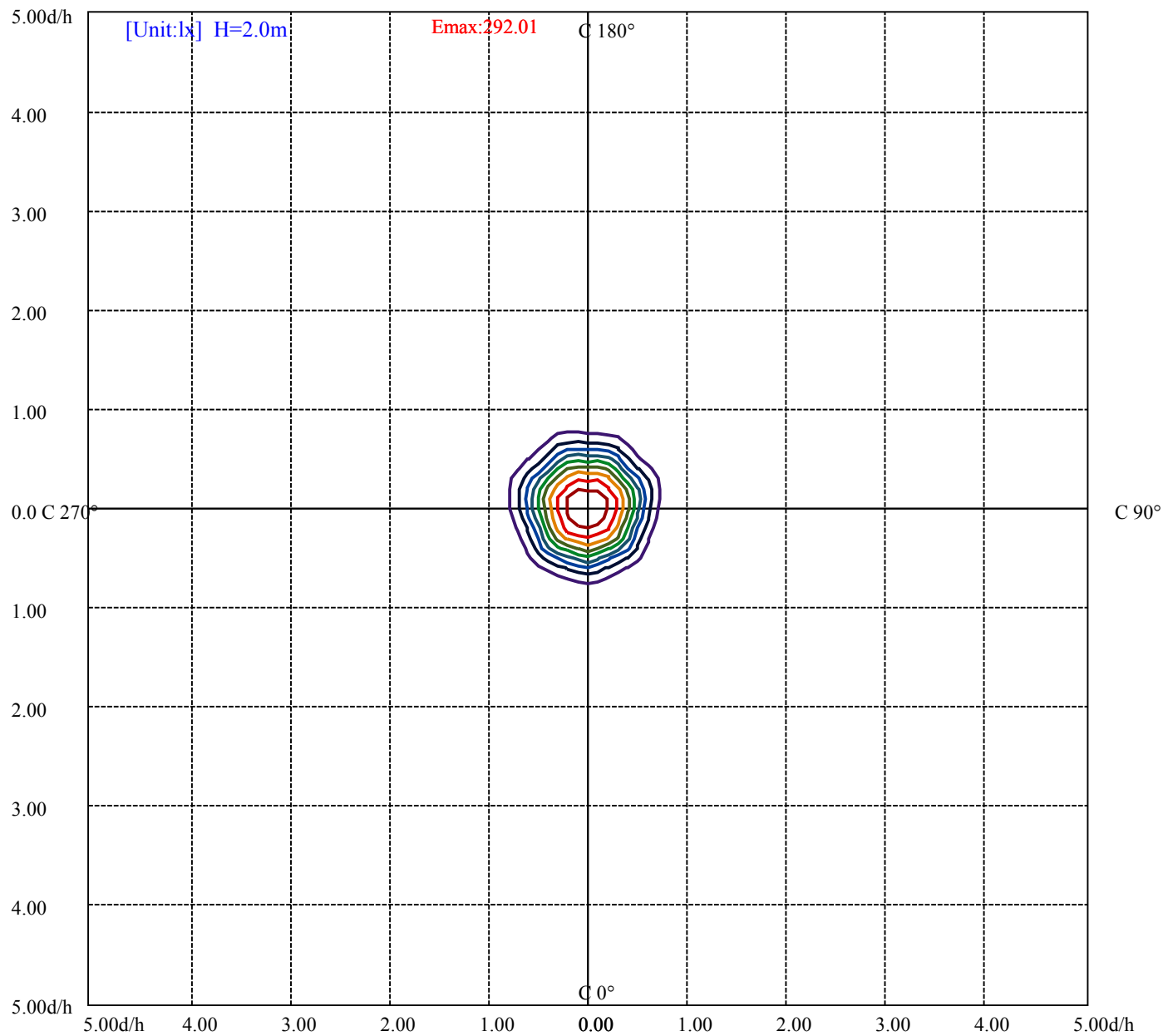


House

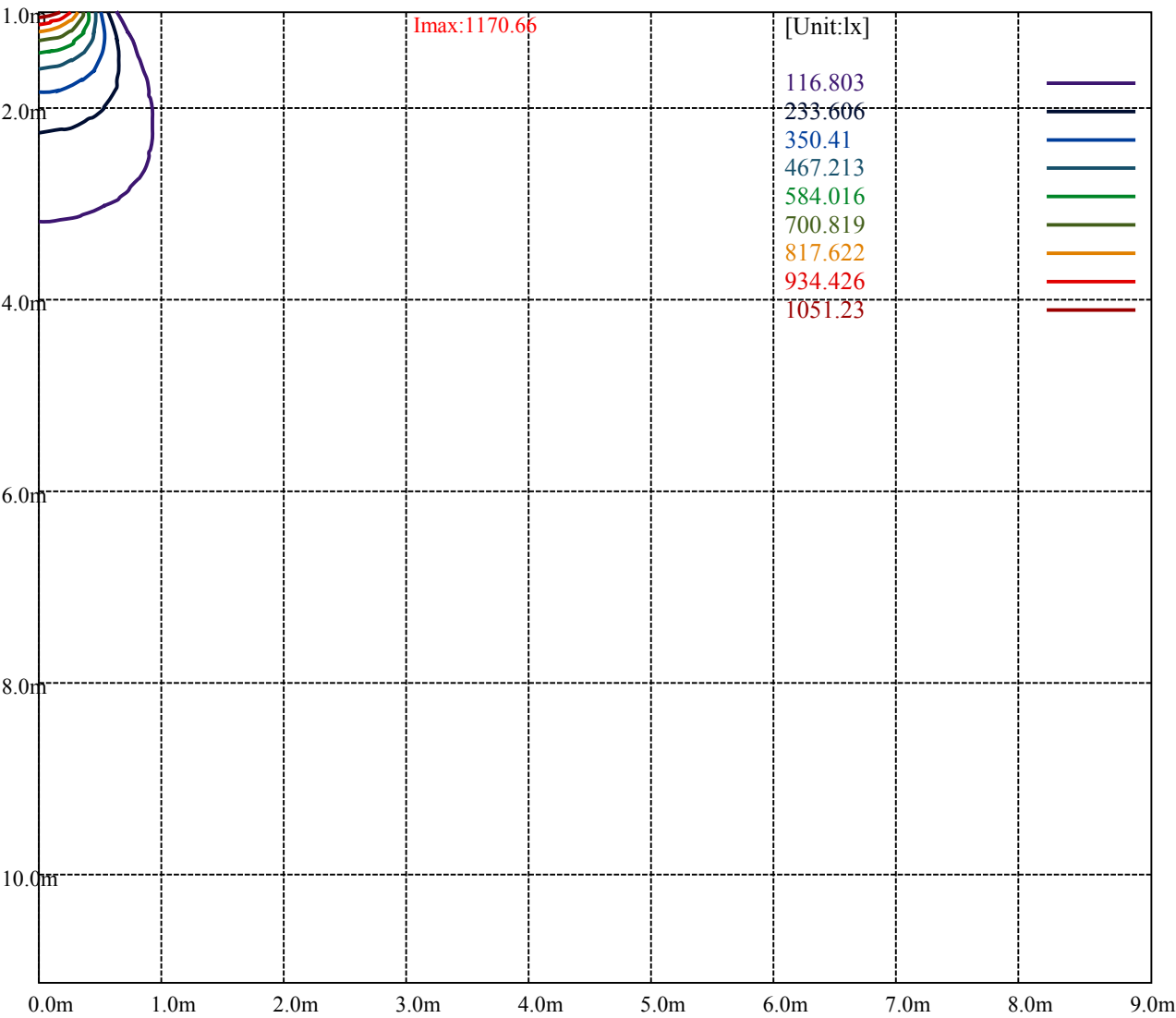
[Unit:cd]

Road

Imax:1170.66	
(10%Imax) 117.06	
(20%Imax) 234.12	
(30%Imax) 351.179	
(40%Imax) 468.239	
(50%Imax) 585.299	
(60%Imax) 702.359	
(70%Imax) 819.418	
(80%Imax) 936.478	
(90%Imax) 1053.54	



(10%Emax)	29.20075	—
(20%Emax)	58.4015	—
(30%Emax)	87.60225	—
(40%Emax)	116.803	—
(50%Emax)	146.0038	—
(60%Emax)	175.2045	—
(70%Emax)	204.4052	—
(80%Emax)	233.606	—
(90%Emax)	262.8075	—



Luminance Table

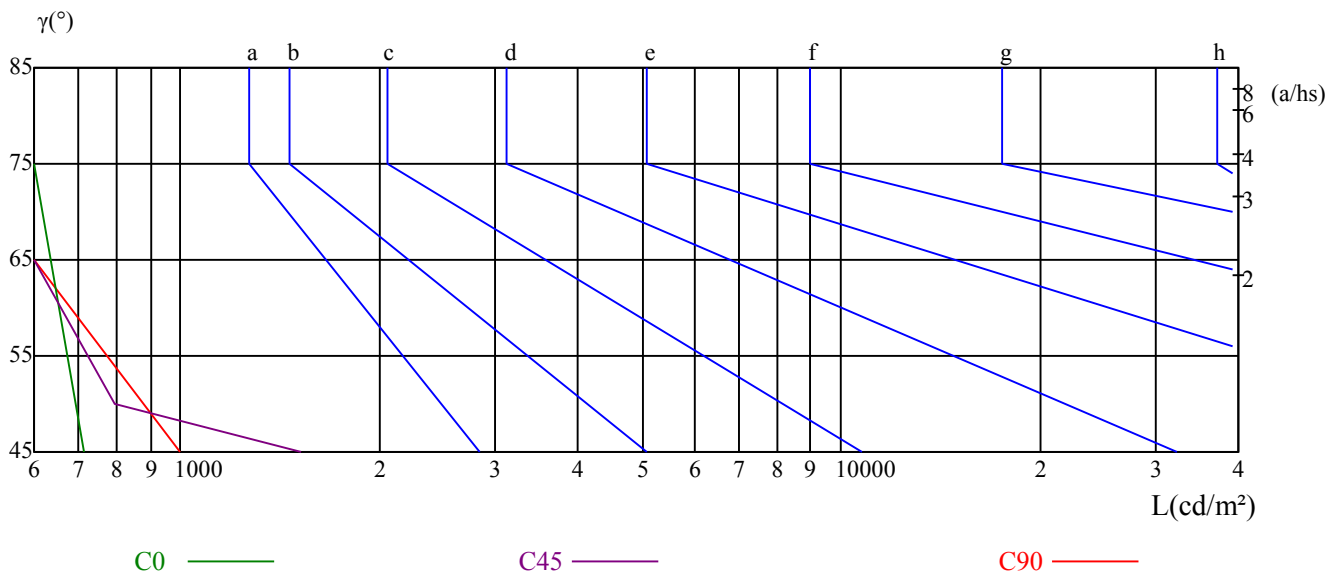
γ	45	50	55	60	65	70	75	80	85
C0	712	0	0	0	0	0	112	125	0
C45	1522	794	0	0	115	0	128	0	185
C90	997	0	0	0	186	222	0	372	573

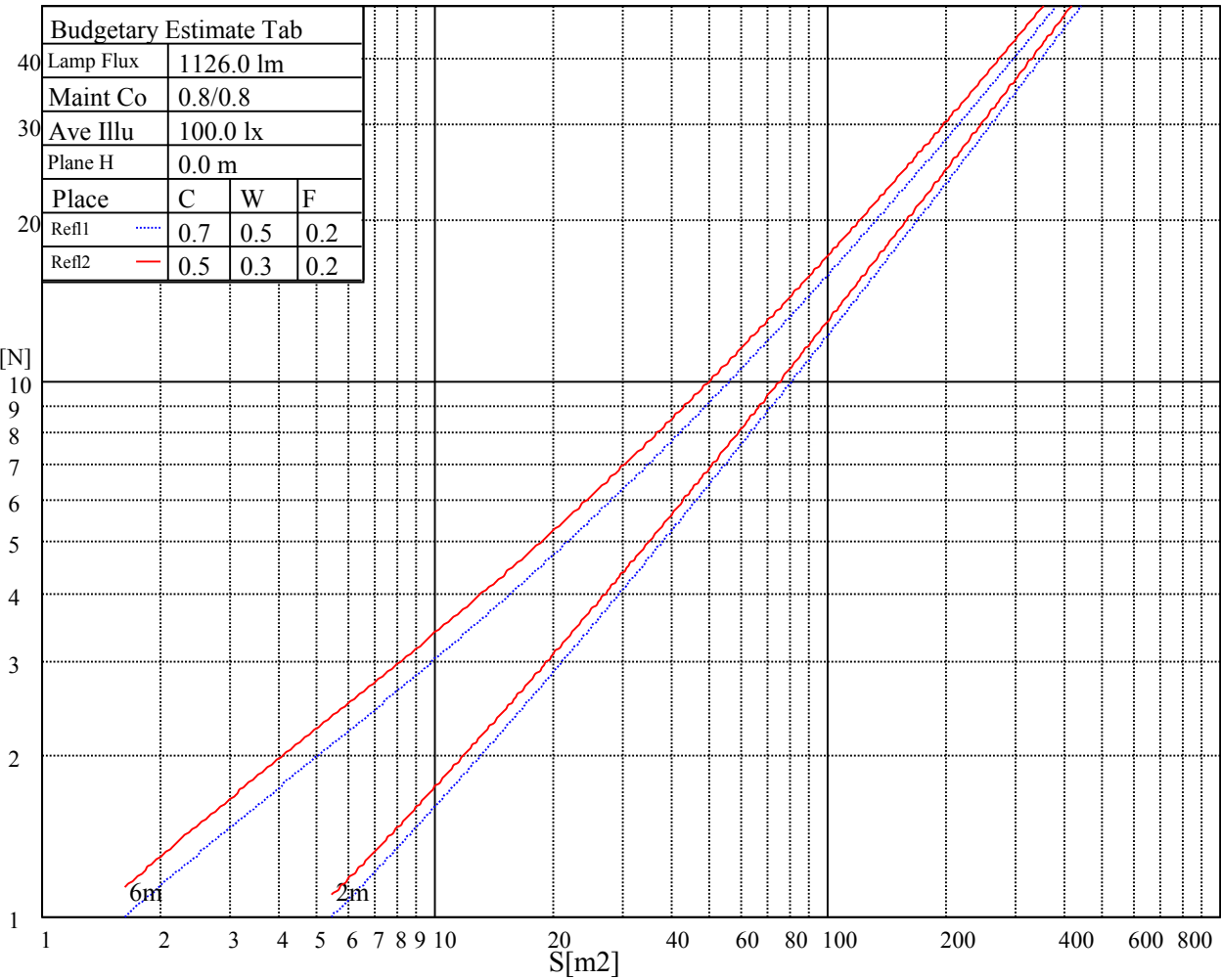
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
0	107	107	161	0	255	0	1041	1019

Glare Table

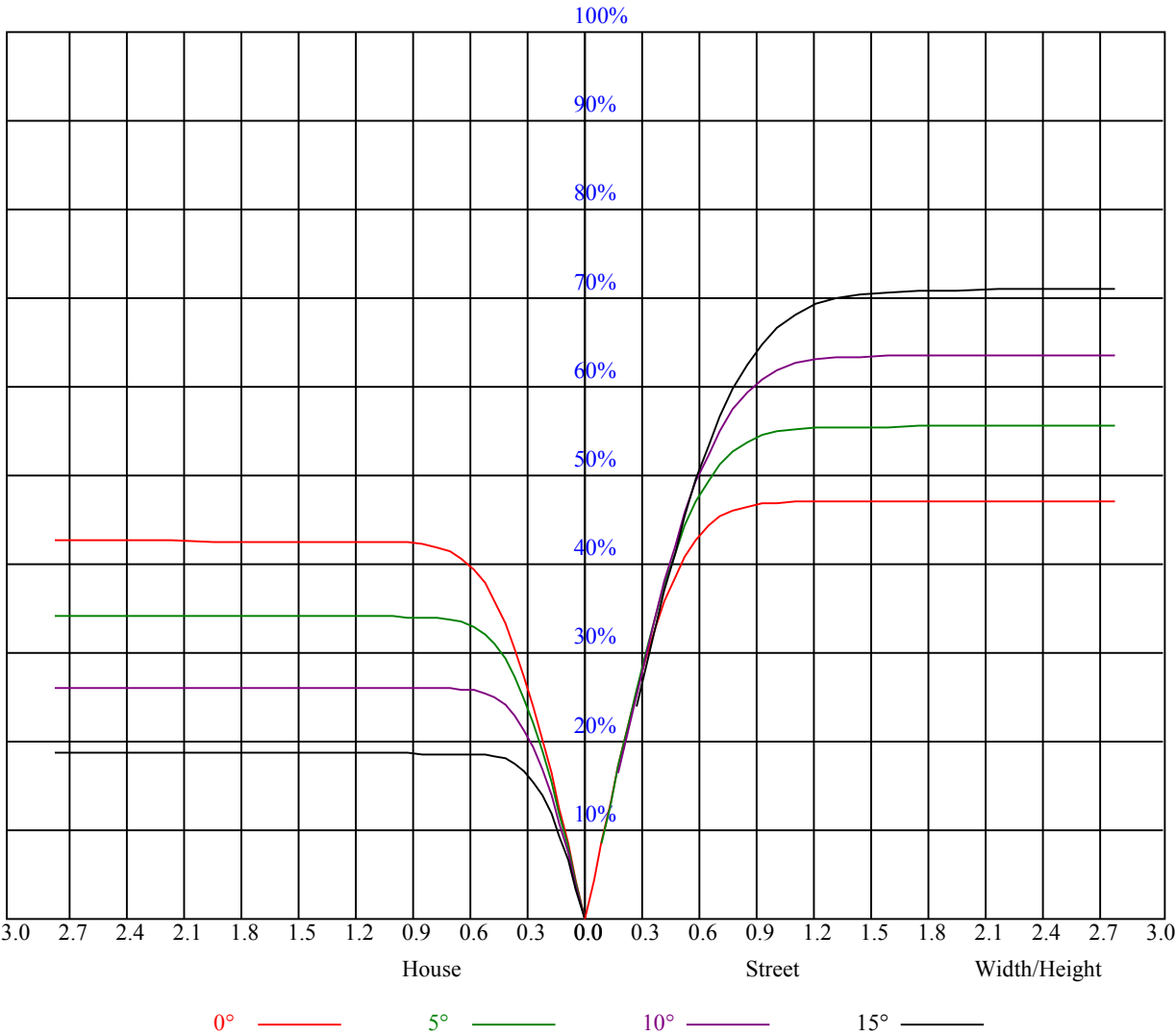
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	≤ 300				
1.5	B		2000	1000	500	≤ 300			
1.85	C			2000	1000	500	≤ 300		
2.2	D				2000	1000	500	≤ 300	
2.55	E					2000	1000	500	≤ 300
		a	b	c	d	e	f	g	h

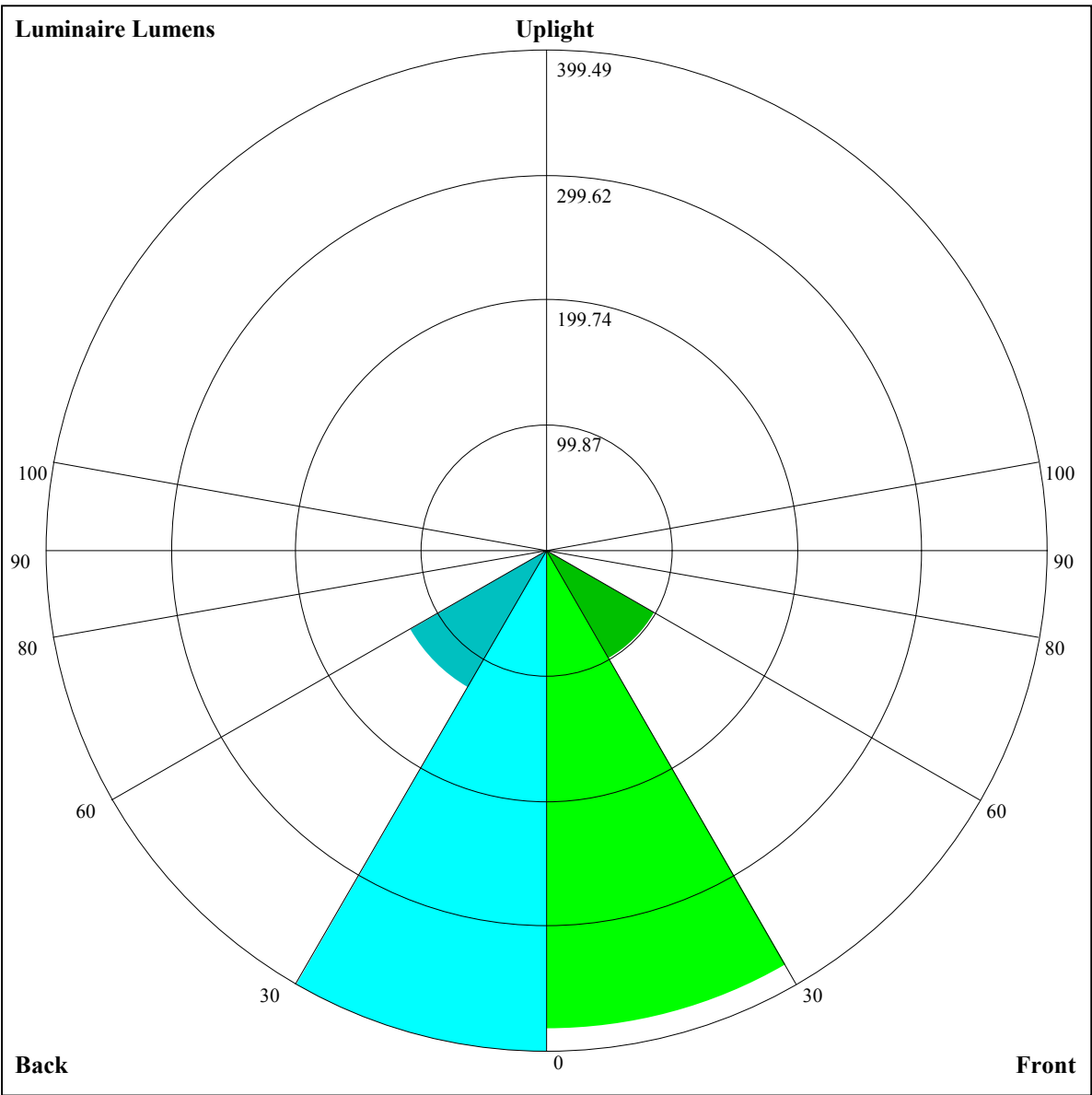
Luminance Limiting Curve





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	1.07	1.07	1.07	1.05	1.05	1.05	1.00	1.00	1.00	0.96	0.96	0.96	0.92	0.92	0.92	0.90
1	1.00	0.98	0.96	0.98	0.96	0.95	0.95	0.93	0.92	0.91	0.90	0.89	0.88	0.87	0.86	0.85
2	0.94	0.90	0.87	0.92	0.89	0.86	0.89	0.87	0.84	0.86	0.84	0.82	0.84	0.82	0.81	0.79
3	0.88	0.83	0.80	0.86	0.82	0.79	0.84	0.81	0.78	0.82	0.79	0.77	0.80	0.78	0.76	0.74
4	0.82	0.77	0.74	0.81	0.77	0.73	0.79	0.75	0.72	0.77	0.74	0.72	0.76	0.73	0.71	0.69
5	0.77	0.72	0.68	0.76	0.72	0.68	0.75	0.71	0.68	0.73	0.70	0.67	0.72	0.69	0.66	0.65
6	0.73	0.68	0.64	0.72	0.67	0.64	0.71	0.66	0.63	0.69	0.66	0.63	0.68	0.65	0.62	0.61
7	0.69	0.63	0.60	0.68	0.63	0.60	0.67	0.62	0.59	0.66	0.62	0.59	0.65	0.61	0.59	0.57
8	0.65	0.60	0.56	0.64	0.59	0.56	0.63	0.59	0.56	0.62	0.58	0.55	0.61	0.58	0.55	0.54
9	0.61	0.56	0.53	0.61	0.56	0.53	0.60	0.56	0.52	0.59	0.55	0.52	0.58	0.55	0.52	0.51
10	0.58	0.53	0.50	0.58	0.53	0.50	0.57	0.53	0.49	0.56	0.52	0.49	0.56	0.52	0.49	0.48





Luminaire Lumens:

FL=382.04,FM=99.64,FH=1.05,FVH=0.55

BL=399.49,BM=126.37,BH=1.09,BVH=0.54

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	1166.25	1162.11	1123.60	1073.40	976.07	767.01	497.18	208.30	42.66
22.5	1170.66	1168.37	1147.46	1105.82	1022.20	873.82	627.27	344.40	112.91
45.0	1164.90	1158.21	1131.13	1076.96	980.89	782.24	513.93	255.44	74.57
67.5	1155.17	1153.14	1135.87	1099.98	1026.60	897.69	675.94	366.49	138.22
90.0	1142.89	1132.65	1101.84	1056.82	967.77	810.17	565.82	299.88	94.46
112.5	1163.29	1158.21	1139.09	1112.51	1044.88	927.23	706.66	436.32	184.52
135.0	1154.91	1148.40	1133.50	1094.90	1018.22	872.30	591.89	329.16	121.97
157.5	1168.46	1168.03	1159.91	1124.02	1061.13	971.33	741.02	463.91	205.68
180.0	1166.25	1164.82	1134.26	1099.98	1016.61	882.88	640.22	359.80	123.57
202.5	1170.66	1165.75	1136.38	1091.60	995.62	813.56	508.18	243.17	70.25
225.0	1164.90	1165.83	1155.42	1127.24	1036.92	909.37	653.42	350.16	134.83
247.5	1155.17	1151.61	1130.37	1081.95	978.95	787.91	525.36	245.46	67.54
270.0	1142.89	1141.29	1121.31	1078.57	999.26	849.45	610.76	325.44	105.29
292.5	1163.29	1154.15	1127.24	1071.46	950.08	741.19	436.49	205.08	49.85
315.0	1154.91	1153.81	1131.81	1087.96	992.23	804.93	534.42	267.72	78.04
337.5	1168.46	1152.37	1111.58	1051.06	903.36	699.63	414.57	139.15	25.14
360.0	1166.25	1162.11	1123.60	1073.40	976.07	767.01	497.18	208.30	42.66
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	6.86	3.13	1.52	1.02	0.93	0.93	0.93	0.93	0.93
22.5	18.96	4.91	2.45	1.27	1.02	1.02	0.93	0.93	1.02
45.0	19.13	6.52	2.79	1.61	1.02	0.93	0.93	1.02	1.02
67.5	35.38	6.43	3.05	1.52	1.02	1.02	1.02	1.02	1.02
90.0	10.41	4.06	2.03	1.10	1.02	1.02	0.93	1.02	1.02
112.5	46.72	7.53	3.30	1.86	1.10	1.02	1.02	1.02	1.02
135.0	31.15	11.00	3.72	2.03	1.18	1.02	1.02	1.02	1.02
157.5	54.17	10.24	3.55	1.69	1.10	1.02	1.02	1.02	1.02
180.0	20.14	4.91	2.20	1.18	1.02	1.02	0.93	0.93	0.93
202.5	12.44	3.89	1.95	1.10	1.02	0.93	0.93	0.93	0.93
225.0	33.01	11.34	3.72	2.12	1.18	1.02	1.02	1.02	0.93
247.5	9.65	3.98	1.95	1.02	0.93	1.02	0.93	1.02	1.02
270.0	13.46	4.15	1.95	1.10	1.02	1.02	1.02	1.02	1.02
292.5	7.79	3.30	1.69	1.02	1.02	1.02	1.02	1.02	1.02
315.0	18.87	6.43	2.79	1.69	1.02	1.02	1.02	1.02	1.02
337.5	5.67	2.62	1.35	1.02	1.02	1.02	1.02	1.02	1.02
360.0	6.86	3.13	1.52	1.02	0.93	0.93	0.93	0.93	0.93
C/ γ (°)	90.0								
0.0	0.93								
22.5	0.93								
45.0	1.02								
67.5	1.02								
90.0	1.02								
112.5	0.93								
135.0	1.02								
157.5	1.02								
180.0	0.93								
202.5	1.02								
225.0	1.02								
247.5	0.93								
270.0	1.02								
292.5	1.02								
315.0	1.02								
337.5	1.02								
360.0	0.93								