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Nata

Client: NT

LumCAT: 11-0161-S

Luminaire: 69-0030

Report No: 20260803-B003

Ballast type: DC

Test No: 20260803-C003

LampCAT: LUXEON 2835*2

Lamp flux(lm): 1126.0

Number of Lamps: 1

Length(mm): 280

Phm Type: C

Voltage(V): 22.150

Current(A): 0.454

Power (W): 10.056

PF: 0.000

Width(mm): 40

Height(mm): 20

Photometric Results

Lumens(lm): 1053.90, Efficiency(%): 93.60% , Luminous Efficacy(lm/W): 104.80

Central intensity(cd): 1179.628, Maximum intensity(cd): 1183.860

Angle of maximum intensity: C=22.5 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=60.1

[C90/270]Total=60.3

Field angle(10%Imax): [C0/180]Total=79.4

[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=0.92 C90_270=0.88

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 93.44%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 99.464%

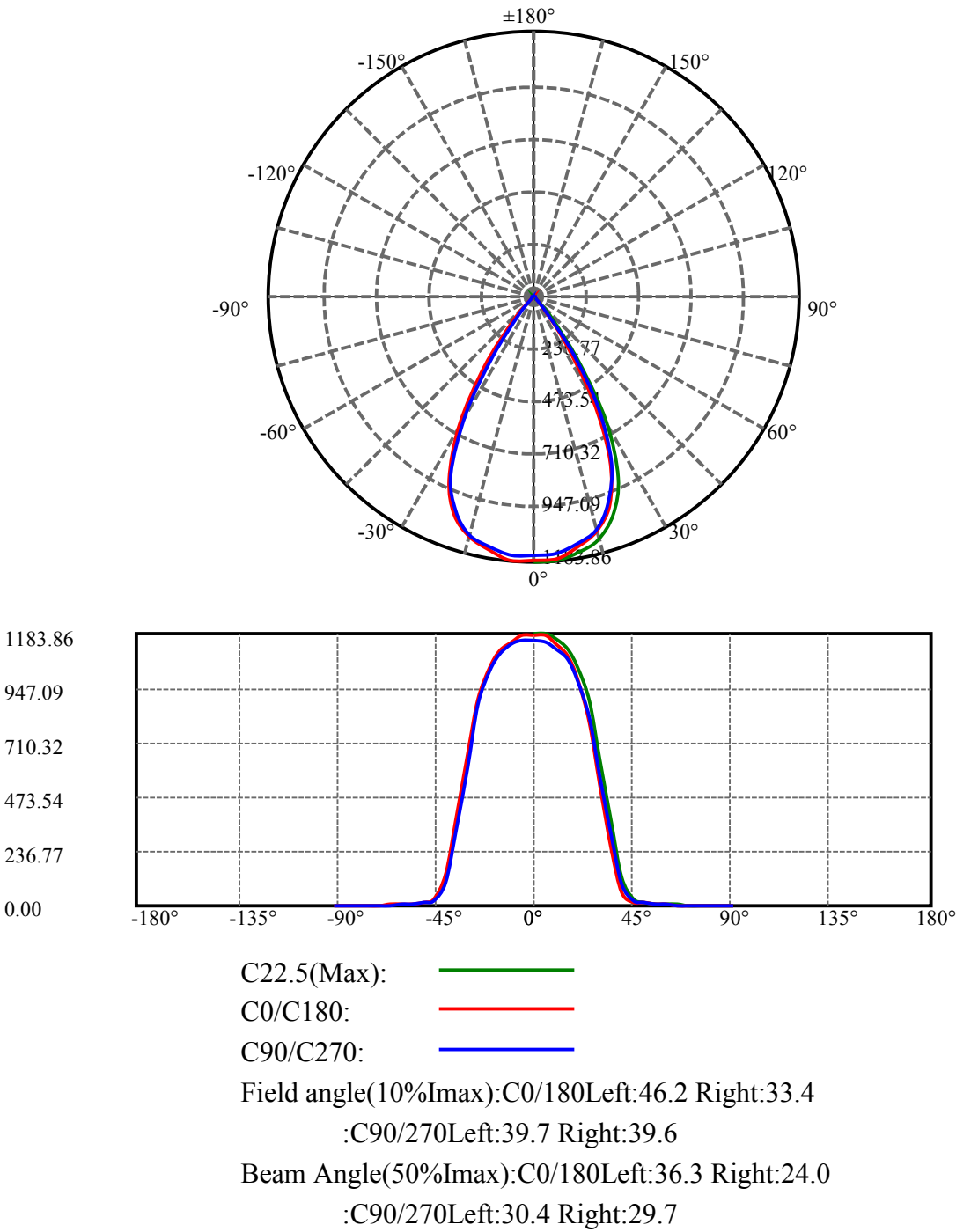
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	1173.703	0.000	0	0.00%	0.00%
5.0	1169.386	28.011	28.011	2.49%	2.66%
10.0	1146.211	82.836	110.847	7.36%	10.52%
15.0	1104.108	133.487	244.335	11.86%	23.18%
20.0	1014.416	174.596	418.931	15.51%	39.75%
25.0	850.225	195.566	614.497	17.37%	58.31%
30.0	587.481	181.943	796.44	16.16%	75.57%
35.0	317.247	133.227	929.667	11.83%	88.21%
40.0	114.909	72.102	1001.769	6.40%	95.05%
45.0	31.386	27.088	1028.857	2.41%	97.62%
50.0	13.955	9.162	1038.019	0.81%	98.49%
55.0	8.967	4.984	1043.003	0.44%	98.97%
60.0	5.962	3.451	1046.453	0.31%	99.29%
65.0	3.930	2.405	1048.858	0.21%	99.52%
70.0	2.730	1.686	1050.544	0.15%	99.68%
75.0	1.926	1.217	1051.761	0.11%	99.80%
80.0	1.397	0.889	1052.65	0.08%	99.88%
85.0	1.079	0.673	1053.323	0.06%	99.95%
90.0	1.016	0.574	1053.896	0.05%	100.00%

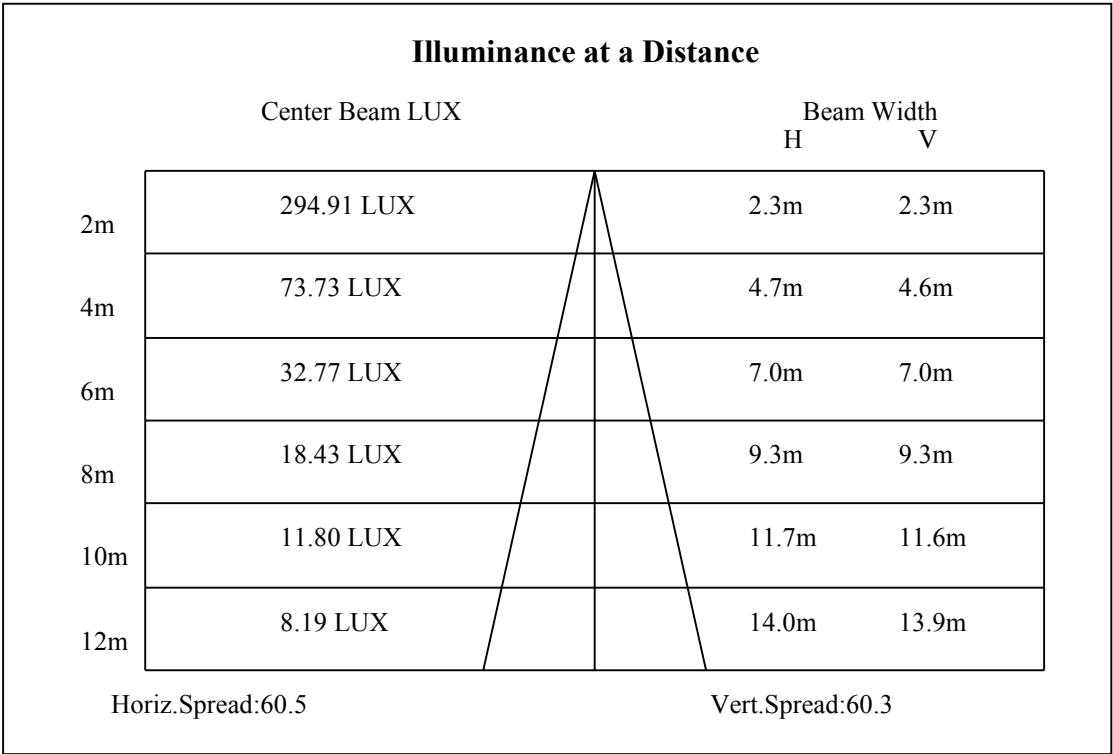
ZONAL LUMEN SUMMARY

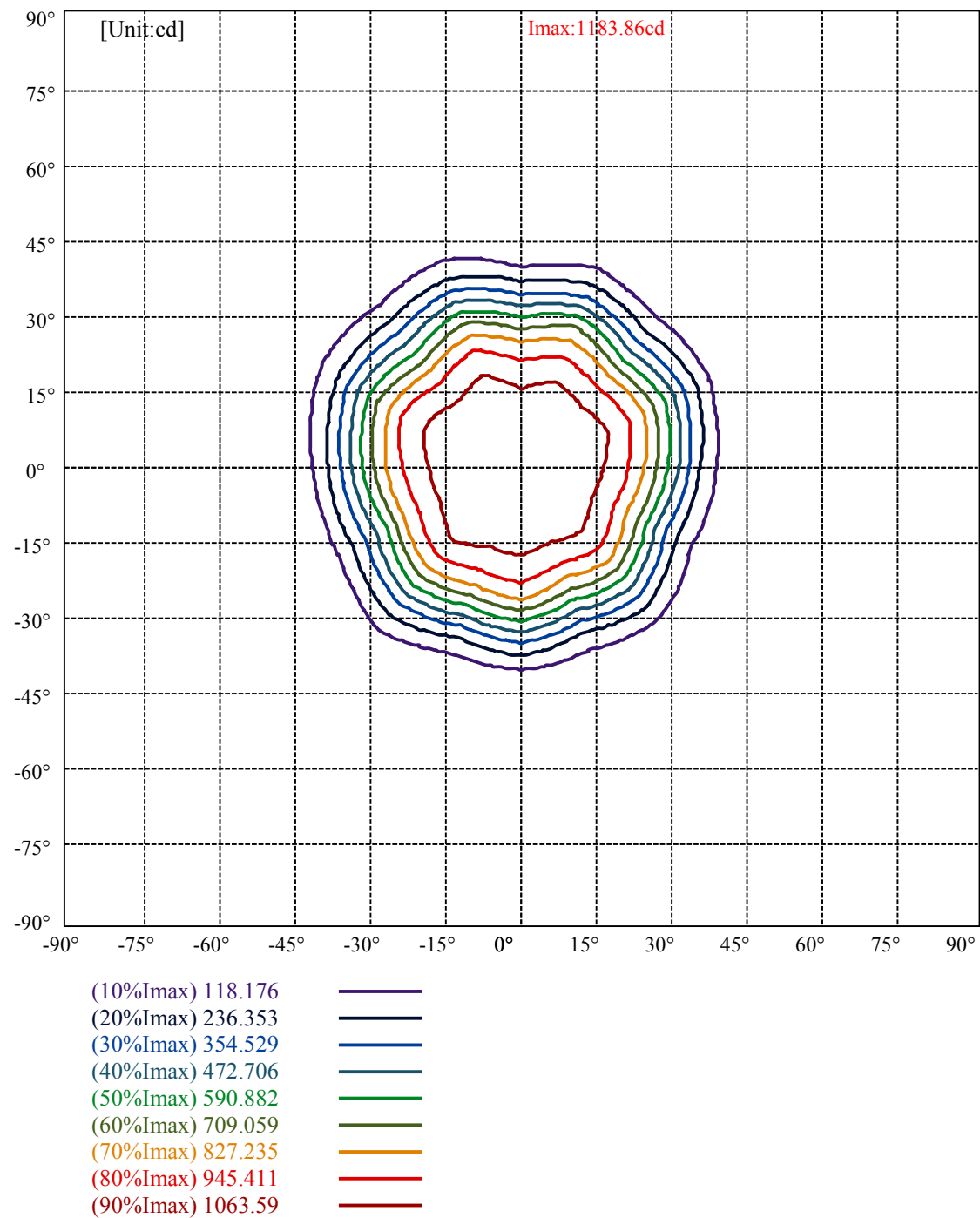
Zone	Lumens	%Lamp	%Fixt
0-30	796.44	70.73%	75.57%
0-40	1001.77	88.97%	95.05%
0-60	1046.45	92.94%	99.29%
0-90	1053.32	93.55%	99.95%
0-120	1053.32	93.55%	99.95%
0-180	1053.90	93.60%	100.00%
60-90	6.87	0.61%	0.65%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-31.75	843.12	74.88%	80.00%

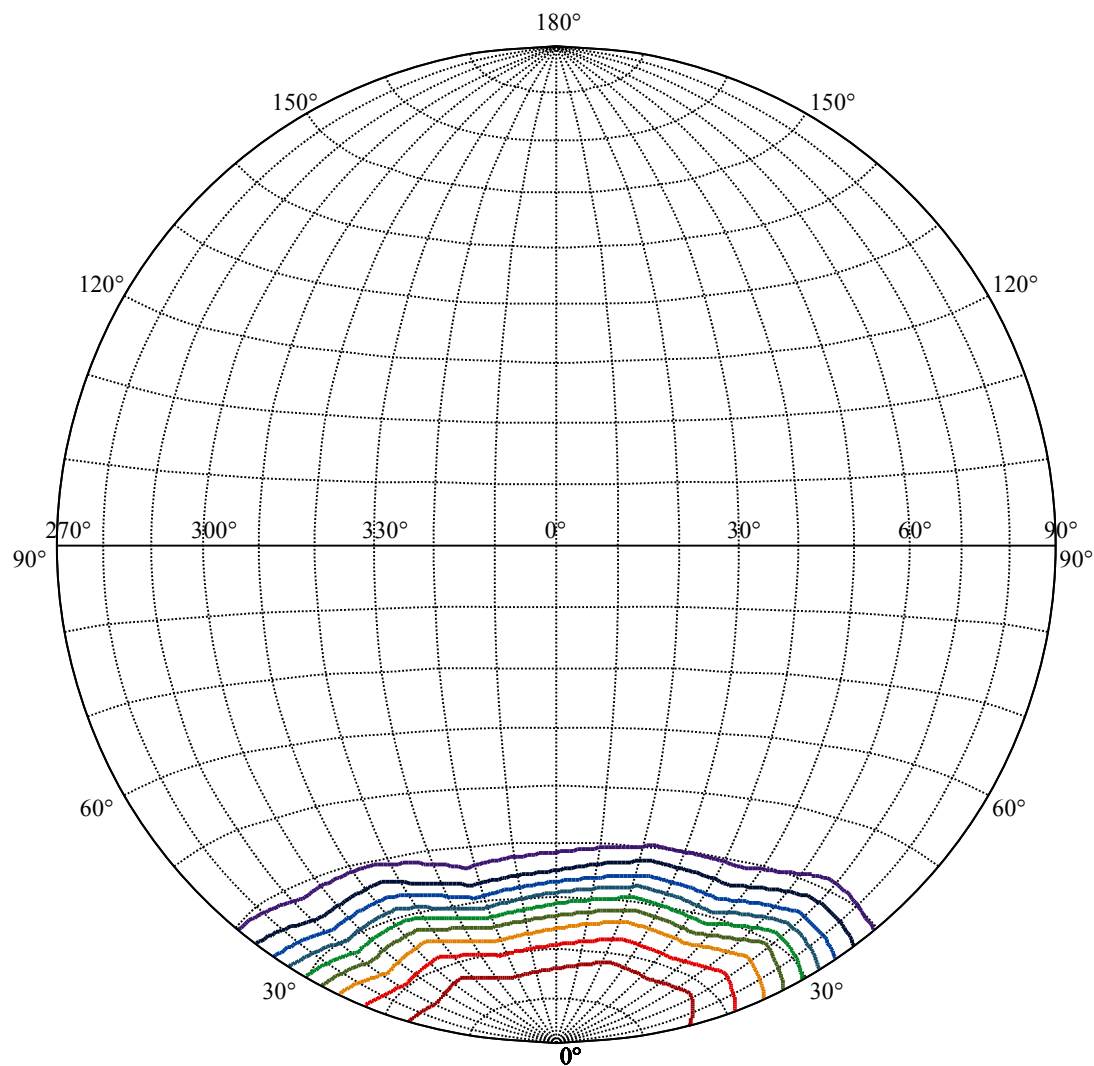
ZONAL LUMEN SUMMARY

0-10	110.85
10-20	308.08
20-30	377.51
30-40	205.33
40-50	36.25
50-60	8.43
60-70	4.09
70-80	2.11
80-90	0.67
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







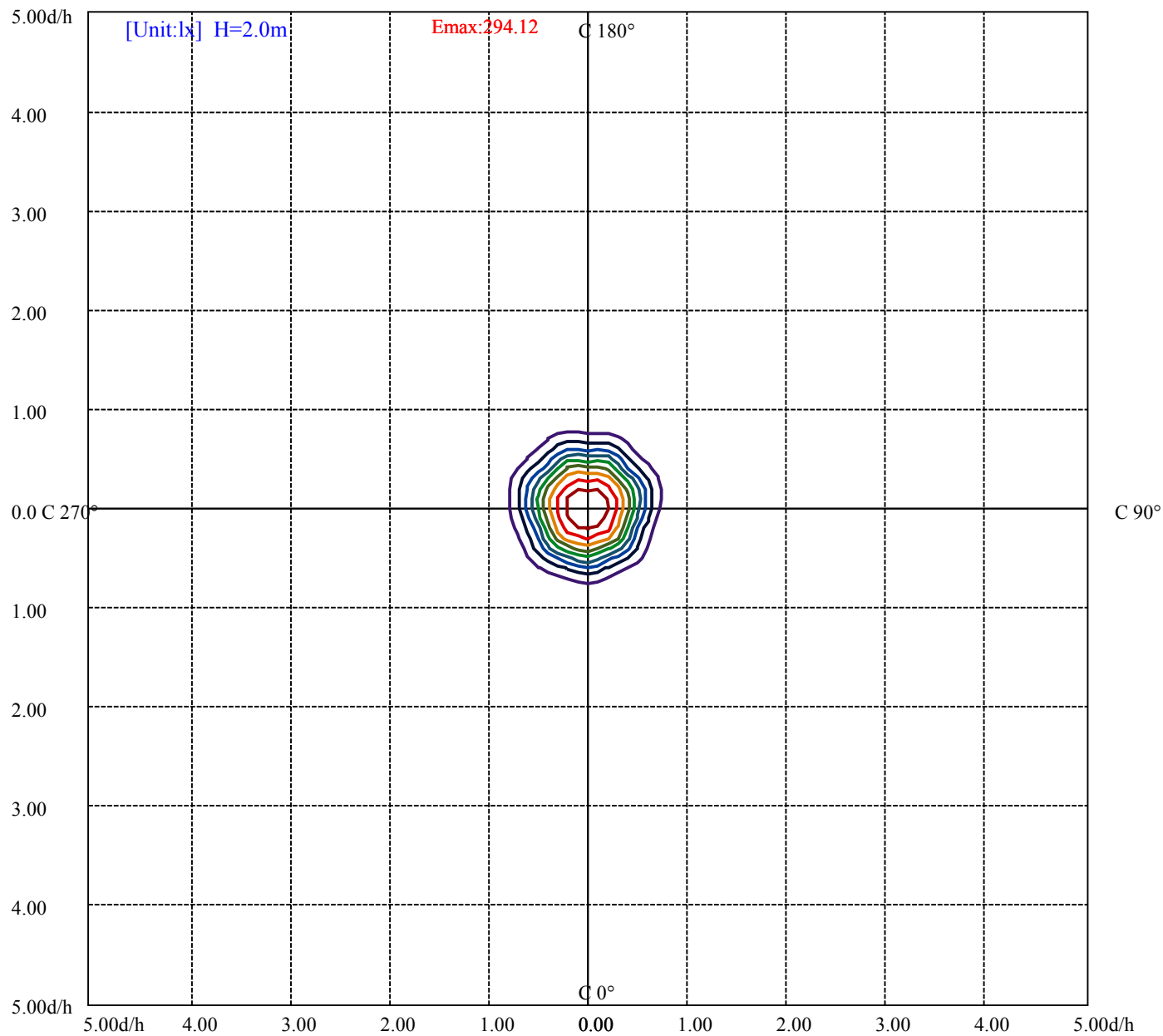


House

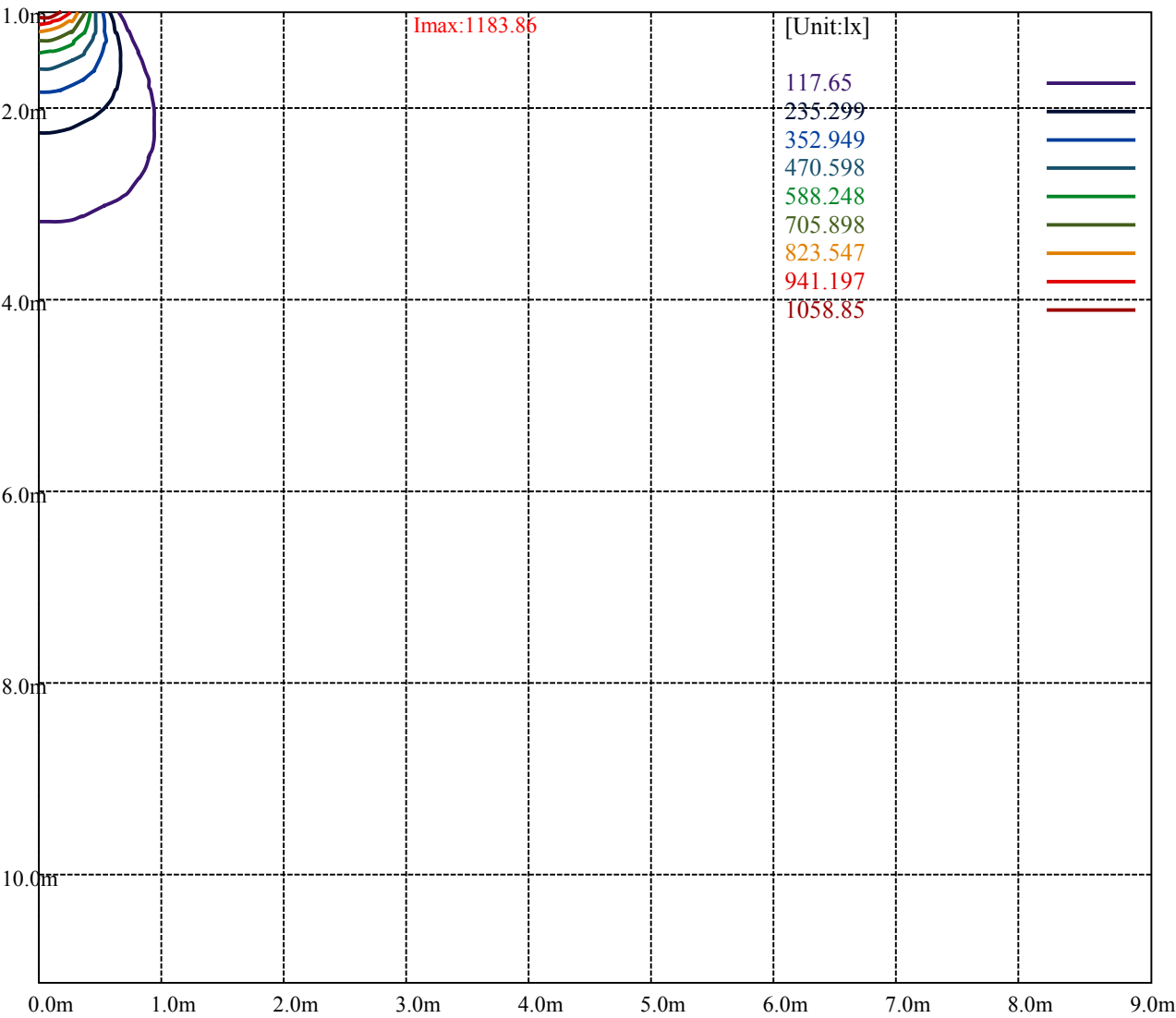
[Unit:cd]

Road

Imax:1183.86	
(10%Imax) 118.37	
(20%Imax) 236.739	
(30%Imax) 355.109	
(40%Imax) 473.478	
(50%Imax) 591.848	
(60%Imax) 710.218	
(70%Imax) 828.587	
(80%Imax) 946.957	
(90%Imax) 1065.33	



(10%Emax) 29.41225	—
(20%Emax) 58.82475	—
(30%Emax) 88.237	—
(40%Emax) 117.6495	—
(50%Emax) 147.0618	—
(60%Emax) 176.4742	—
(70%Emax) 205.8865	—
(80%Emax) 235.2988	—
(90%Emax) 264.71	—



Luminance Table

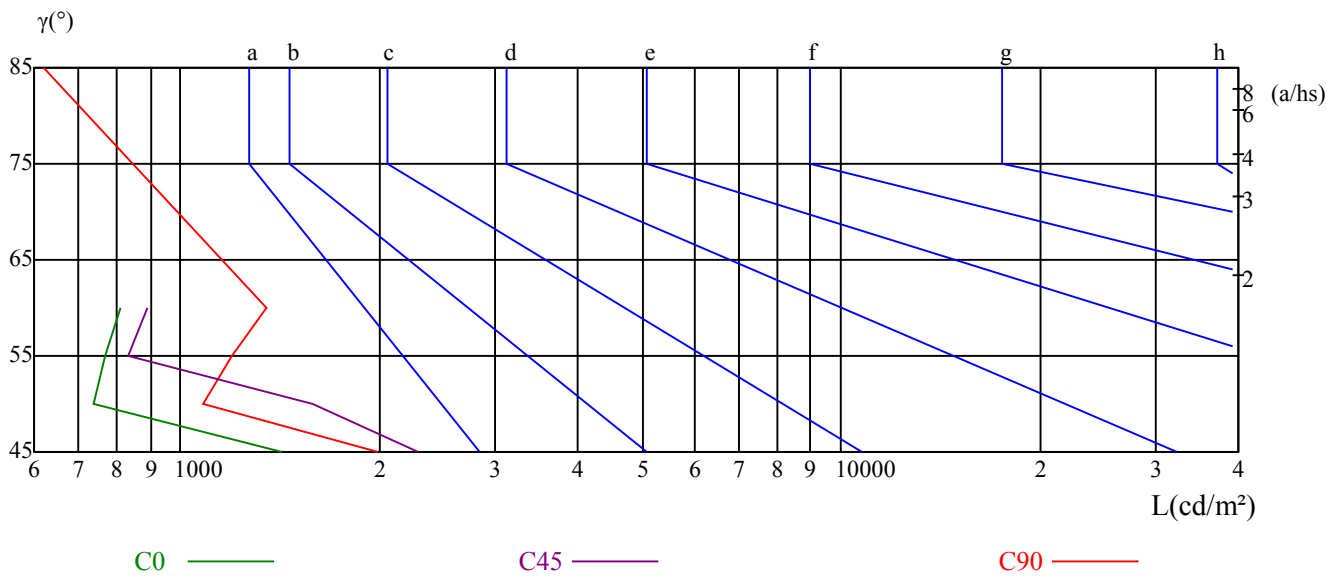
γ	45	50	55	60	65	70	75	80	85
C0	1425	737	769	810	0	0	0	0	0
C45	2284	1587	835	889	0	0	0	0	0
C90	1995	1083	1196	1345	0	0	0	0	621

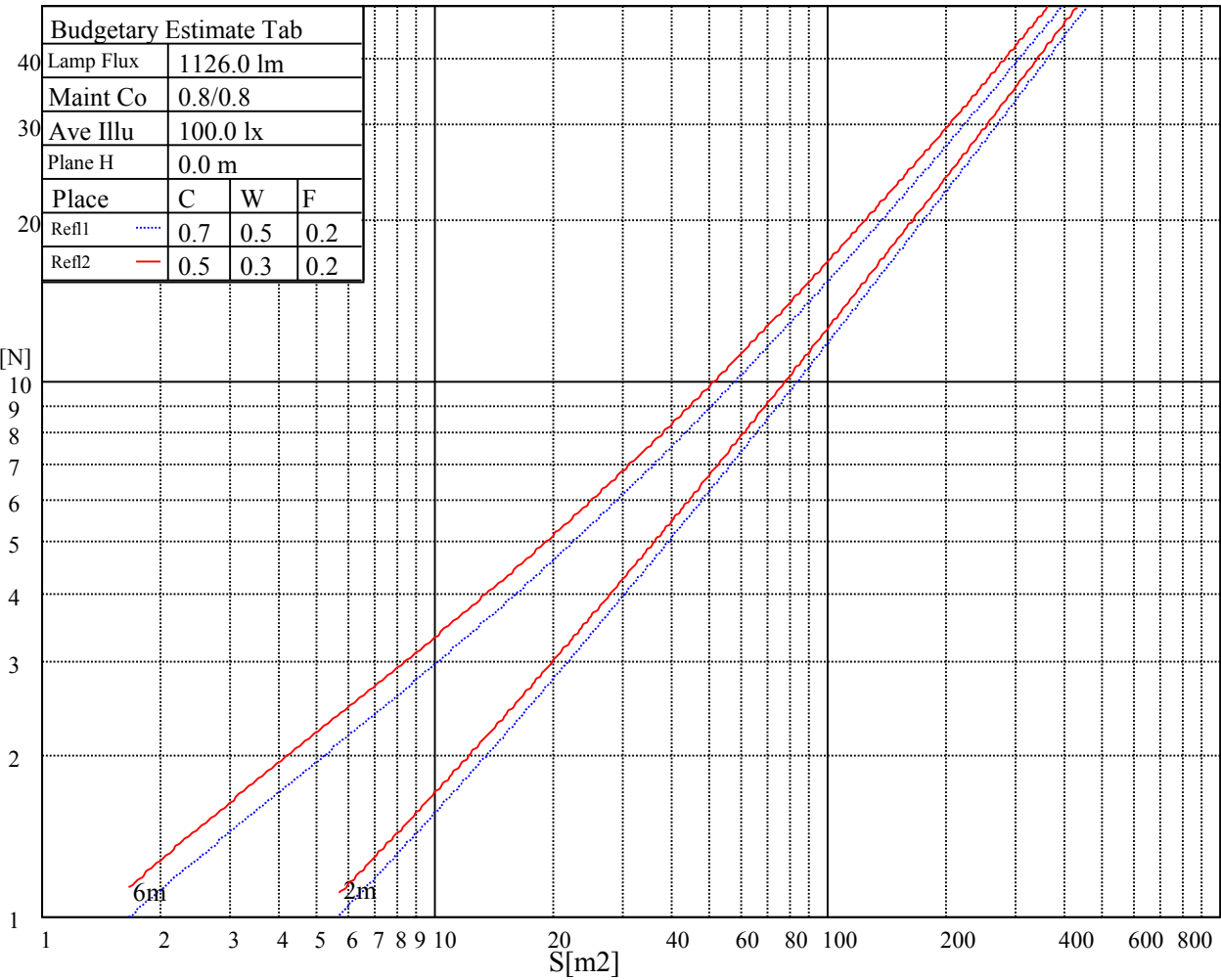
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
0	0	894	0	0	0	0	564	845

Glare Table

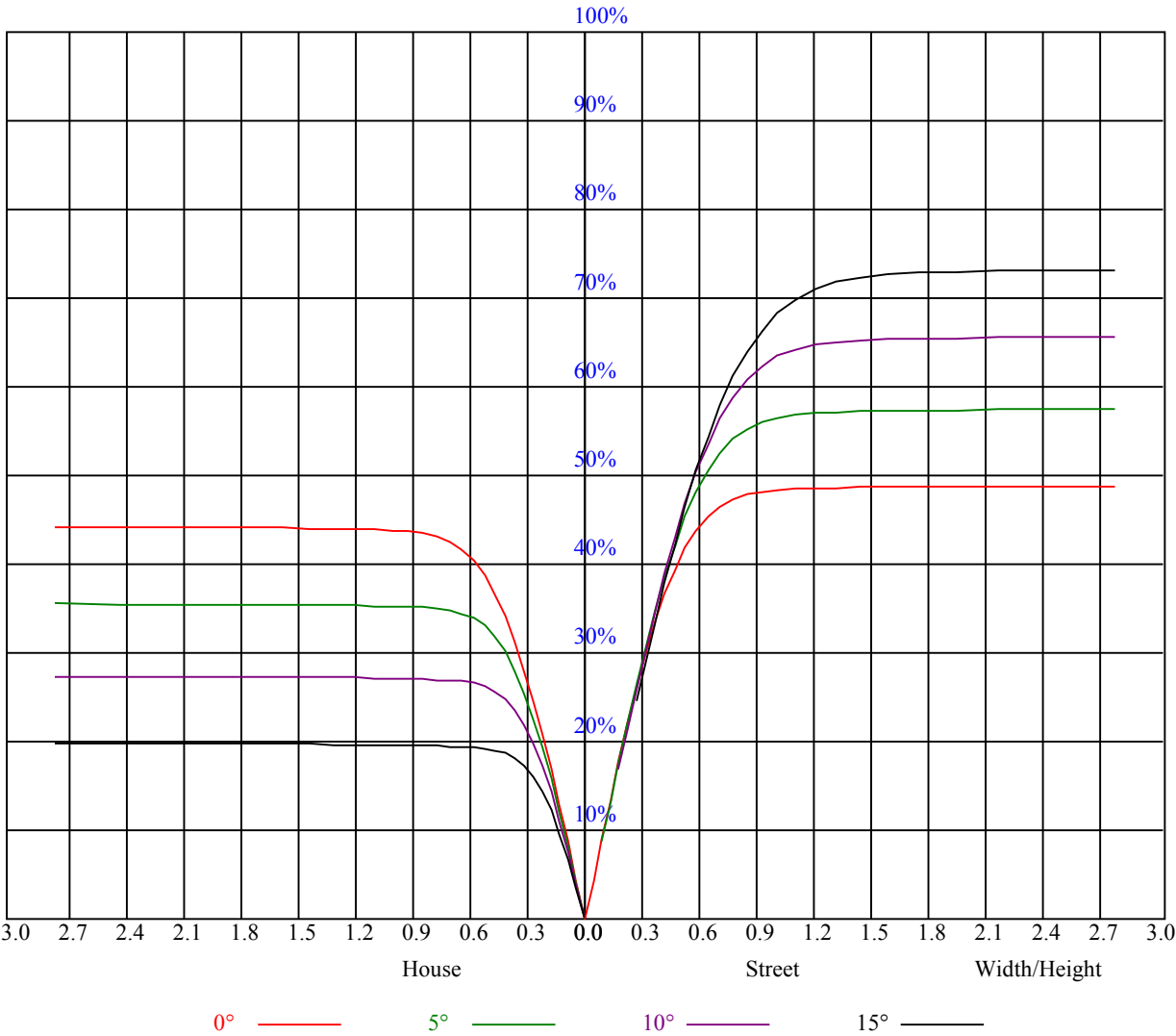
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	≤ 300				
1.5	B		2000	1000	500	≤ 300			
1.85	C			2000	1000	500	≤ 300		
2.2	D				2000	1000	500	≤ 300	
2.55	E					2000	1000	500	≤ 300
		a	b	c	d	e	f	g	h

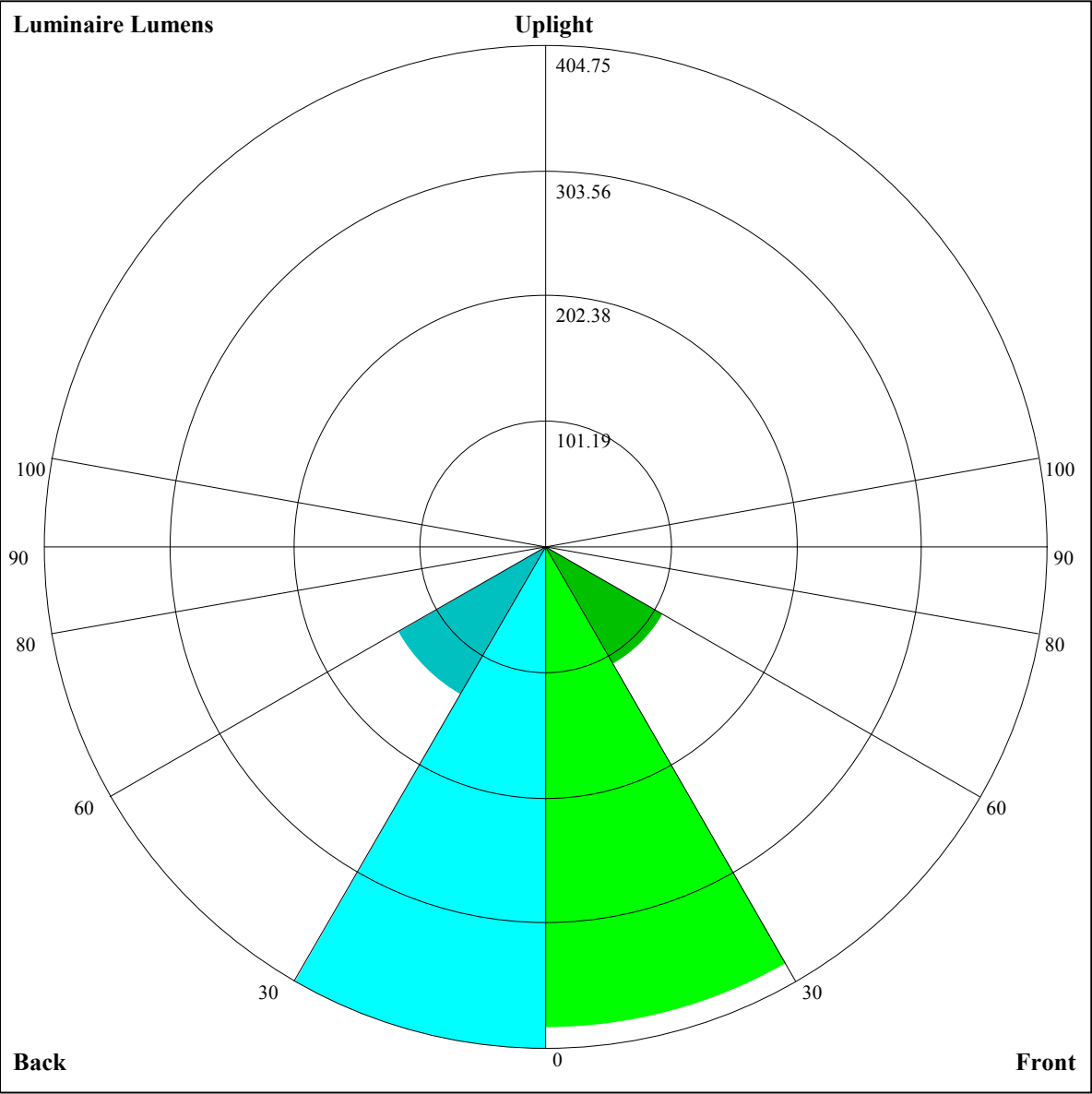
Luminance Limiting Curve





RHOC	80			70			50			30			10			0
RHOW	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR	COEFFICIENTS OF UTILIZATION RHOFC=20 CU															
0	1.11	1.11	1.11	1.09	1.09	1.09	1.04	1.04	1.04	0.99	0.99	0.99	0.95	0.95	0.95	0.93
1	1.04	1.01	0.99	1.02	1.00	0.98	0.98	0.96	0.95	0.94	0.93	0.92	0.91	0.90	0.89	0.88
2	0.97	0.93	0.90	0.95	0.92	0.89	0.92	0.89	0.87	0.89	0.87	0.85	0.87	0.85	0.83	0.82
3	0.90	0.86	0.82	0.89	0.85	0.82	0.87	0.83	0.80	0.84	0.81	0.79	0.82	0.80	0.78	0.76
4	0.85	0.80	0.76	0.84	0.79	0.75	0.82	0.78	0.74	0.80	0.76	0.74	0.78	0.75	0.73	0.71
5	0.79	0.74	0.70	0.79	0.74	0.70	0.77	0.73	0.69	0.75	0.72	0.69	0.74	0.71	0.68	0.67
6	0.75	0.69	0.65	0.74	0.69	0.65	0.73	0.68	0.65	0.71	0.67	0.64	0.70	0.67	0.64	0.62
7	0.70	0.65	0.61	0.70	0.65	0.61	0.69	0.64	0.61	0.67	0.63	0.60	0.66	0.63	0.60	0.59
8	0.66	0.61	0.57	0.66	0.61	0.57	0.65	0.60	0.57	0.64	0.60	0.57	0.63	0.59	0.56	0.55
9	0.63	0.57	0.54	0.62	0.57	0.54	0.61	0.57	0.53	0.61	0.56	0.53	0.60	0.56	0.53	0.52
10	0.59	0.54	0.51	0.59	0.54	0.51	0.58	0.54	0.50	0.58	0.53	0.50	0.57	0.53	0.50	0.49





Luminaire Lumens:

FL=388.2,FM=108.93,FH=2.89,FVH=0.61

BL=404.75,BM=137.61,BH=3.23,BVH=0.63

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	1179.63	1174.55	1136.29	1087.96	985.55	796.04	529.93	240.04	61.79
22.5	1183.86	1182.42	1158.72	1120.97	1036.92	888.47	640.98	358.45	126.28
45.0	1178.44	1170.74	1143.40	1096.85	1005.69	813.73	516.81	258.49	81.25
67.5	1167.44	1165.49	1149.33	1115.22	1031.51	896.25	695.57	384.43	153.62
90.0	1156.27	1148.06	1117.25	1073.83	979.20	815.59	568.36	300.90	98.35
112.5	1173.53	1171.84	1153.64	1122.83	1060.96	943.74	729.77	458.66	205.59
135.0	1169.05	1162.62	1143.32	1106.92	1028.12	876.87	595.70	361.16	147.36
157.5	1181.41	1180.98	1173.20	1139.93	1073.66	968.87	754.48	477.54	220.91
180.0	1179.63	1178.78	1149.50	1108.70	1034.55	899.38	658.75	376.56	139.83
202.5	1183.86	1178.61	1147.89	1104.04	1008.82	823.46	516.81	277.70	93.10
225.0	1178.44	1179.88	1168.79	1143.74	1055.63	906.75	646.73	371.06	151.17
247.5	1167.44	1163.55	1144.16	1093.55	1003.32	819.99	527.22	248.25	73.21
270.0	1156.27	1154.66	1136.29	1097.70	1020.25	873.32	603.99	321.89	104.19
292.5	1173.53	1167.86	1144.76	1081.36	958.29	745.59	467.89	206.18	55.19
315.0	1169.05	1165.49	1147.80	1106.67	1013.73	825.92	556.42	286.25	91.41
337.5	1181.41	1164.65	1125.03	1065.45	934.43	709.62	390.28	148.37	35.29
360.0	1179.63	1174.55	1136.29	1087.96	985.55	796.04	529.93	240.04	61.79

C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	16.42	11.09	7.28	4.82	3.47	2.45	1.78	1.35	1.02
22.5	29.79	13.29	9.65	6.60	4.32	3.05	2.03	1.52	1.10
45.0	28.02	14.39	9.06	6.26	3.81	2.54	1.78	1.27	1.02
67.5	40.71	15.15	9.99	6.77	4.23	2.96	2.20	1.52	1.10
90.0	20.99	11.93	8.21	4.99	3.55	2.54	1.86	1.35	1.10
112.5	60.77	16.67	10.58	7.19	4.66	3.30	2.37	1.61	1.18
135.0	40.37	19.38	10.58	7.19	4.57	2.96	2.03	1.44	1.18
157.5	66.95	20.14	11.60	8.13	5.16	3.55	2.54	1.78	1.18
180.0	32.16	13.54	9.23	5.92	4.15	2.96	2.12	1.44	1.02
202.5	21.84	11.93	8.38	5.50	3.81	2.62	1.78	1.35	1.02
225.0	44.27	18.87	10.75	7.28	4.32	2.79	1.95	1.44	1.02
247.5	19.38	11.17	7.53	4.66	3.30	2.37	1.61	1.27	1.02
270.0	20.82	11.68	7.79	5.08	3.55	2.54	1.86	1.35	1.10
292.5	15.91	10.16	7.19	4.40	3.05	2.20	1.61	1.18	1.10
315.0	29.12	13.88	8.80	6.01	3.72	2.54	1.78	1.27	1.10
337.5	14.64	9.99	6.86	4.57	3.22	2.29	1.52	1.18	1.02
360.0	16.42	11.09	7.28	4.82	3.47	2.45	1.78	1.35	1.02

C/ γ (°)	90.0
0.0	1.02
22.5	1.02
45.0	1.02
67.5	1.02
90.0	1.02
112.5	1.02
135.0	1.02
157.5	1.02
180.0	1.02
202.5	1.02
225.0	1.02
247.5	1.02
270.0	1.02
292.5	1.02
315.0	1.02
337.5	1.02
360.0	1.02