



NATA LIGHTING CO.,LTD.
www.nata.cn
Email:info@nata.com
Tel:+86 571 85021543 Fax:+86 571 87977635
Address:Address:380JinOu Road,GaoXin Zone,Jiang Men City,Guangdong,China

Nata

Client: NT

LumCAT: 11-0161-S3

Luminaire: 69-0030

Report No: 20260803-B004

Ballast type: DC

Test No: 20260803-C004

Voltage(V): 22.100

LampCAT: LUXEON 2835*2

Current(A): 0.454

Lamp flux(lm): 1126.0

Power (W): 10.033

Number of Lamps: 1

PF: 0.000

Length(mm): 280

Width(mm): 40

Phm Type: C

Height(mm): 20

Photometric Results

Lumens(lm): 1045.11, Efficiency(%): 92.82% , Luminous Efficacy(lm/W): 104.17

Central intensity(cd): 1176.665, Maximum intensity(cd): 1179.204

Angle of maximum intensity: C=22.5 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=59.6

[C90/270]Total=60.8

Field angle(10%Imax): [C0/180]Total=78.7

[C90/270]Total=79.7

Maximum s/h(1/2): C0_180=1.00 C90_270=0.95

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(%): 92.63%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 99.573%

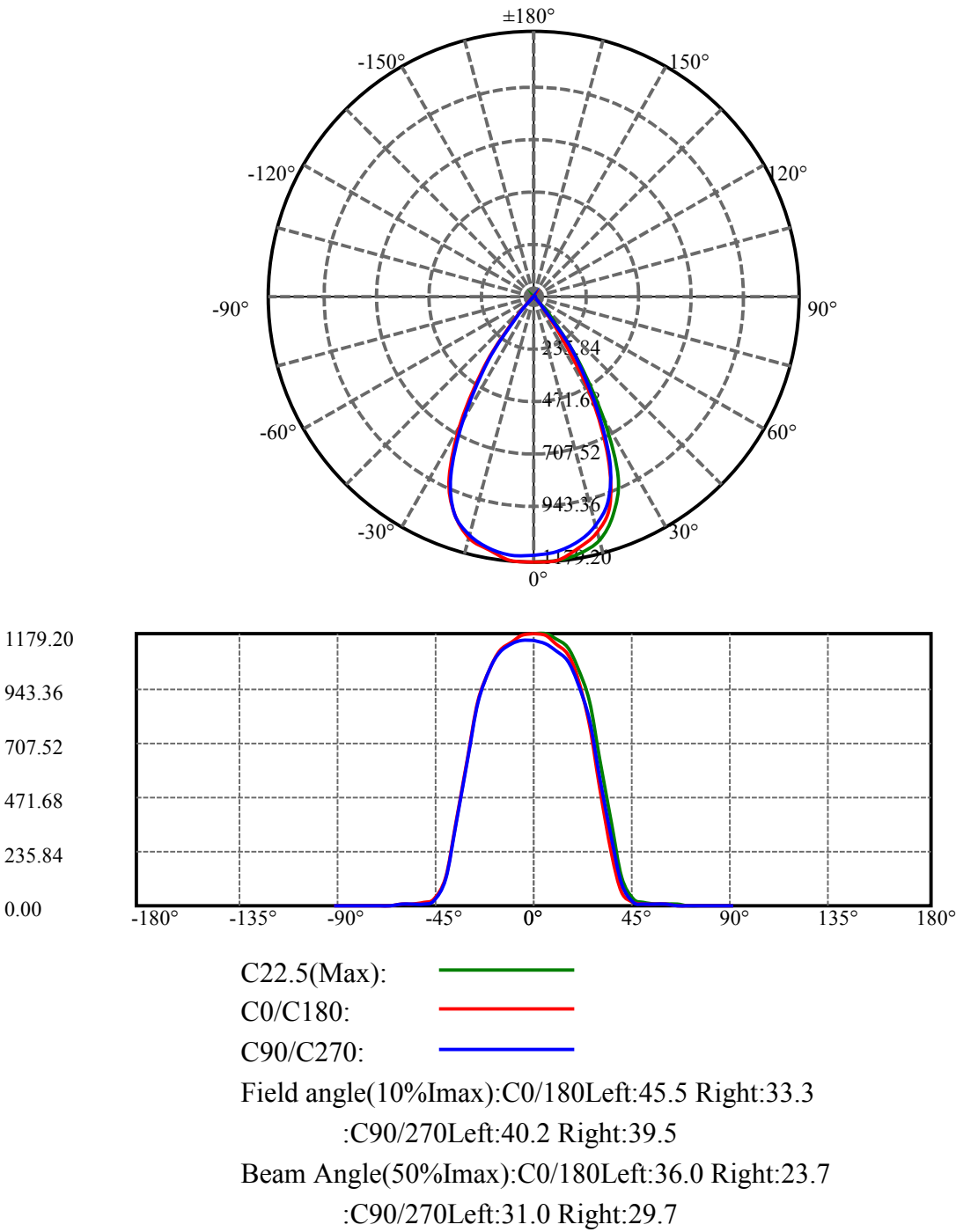
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	1169.402	0.000	0	0.00%	0.00%
5.0	1165.228	27.910	27.91	2.48%	2.67%
10.0	1142.624	82.559	110.469	7.33%	10.57%
15.0	1100.960	133.088	243.557	11.82%	23.30%
20.0	1010.797	174.038	417.595	15.46%	39.96%
25.0	848.997	195.058	612.654	17.32%	58.62%
30.0	587.248	181.758	794.412	16.14%	76.01%
35.0	309.962	132.121	926.532	11.73%	88.65%
40.0	109.746	70.025	996.557	6.22%	95.35%
45.0	29.233	25.733	1022.29	2.29%	97.82%
50.0	13.151	8.564	1030.855	0.76%	98.64%
55.0	8.067	4.614	1035.468	0.41%	99.08%
60.0	5.205	3.068	1038.536	0.27%	99.37%
65.0	3.343	2.078	1040.614	0.18%	99.57%
70.0	2.349	1.441	1042.055	0.13%	99.71%
75.0	1.698	1.058	1043.113	0.09%	99.81%
80.0	1.280	0.797	1043.91	0.07%	99.89%
85.0	1.058	0.635	1044.546	0.06%	99.95%
90.0	1.010	0.566	1045.112	0.05%	100.00%

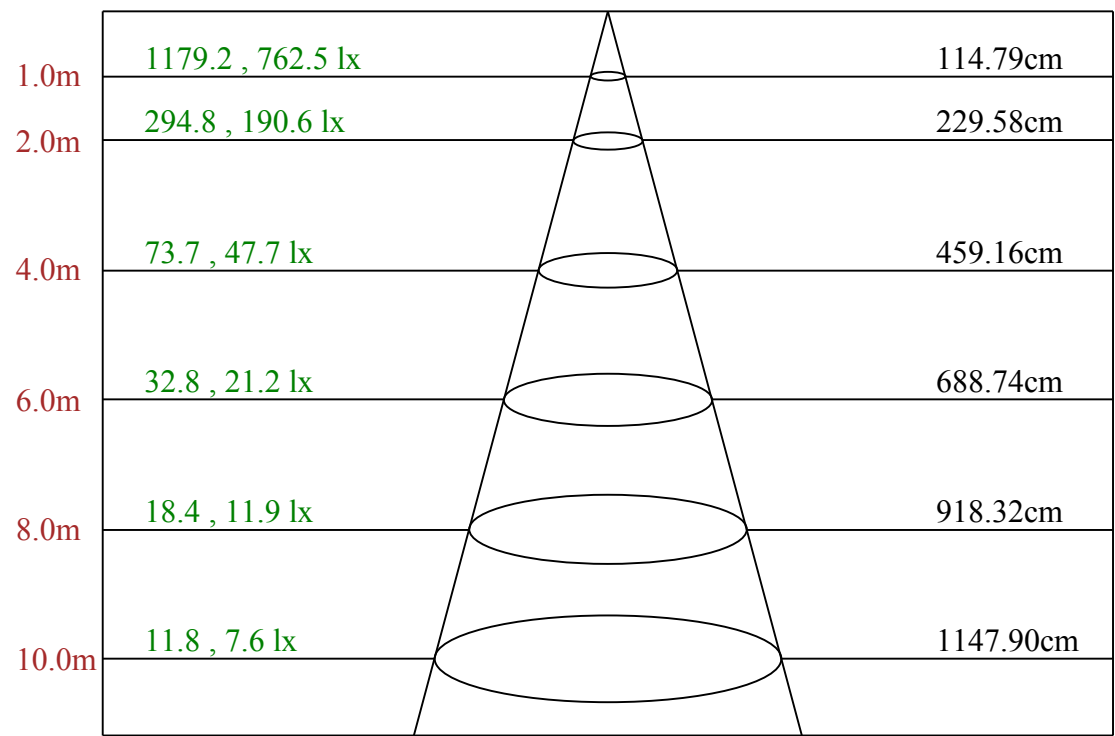
ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	794.41	70.55%	76.01%
0-40	996.56	88.50%	95.35%
0-60	1038.54	92.23%	99.37%
0-90	1044.55	92.77%	99.95%
0-120	1044.55	92.77%	99.95%
0-180	1045.11	92.82%	100.00%
60-90	6.01	0.53%	0.58%
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%
0-31.58	836.09	74.25%	80.00%

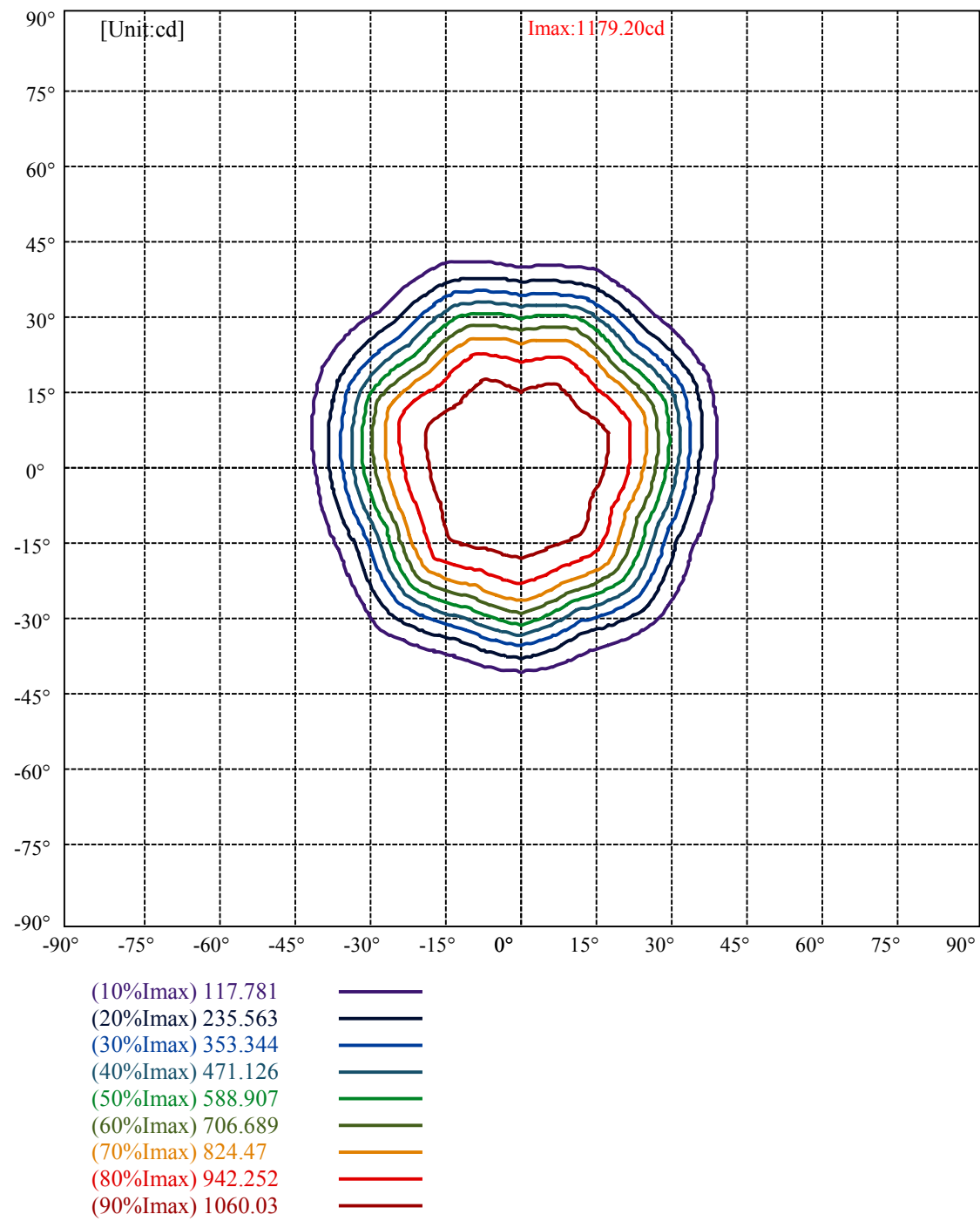
ZONAL LUMEN SUMMARY

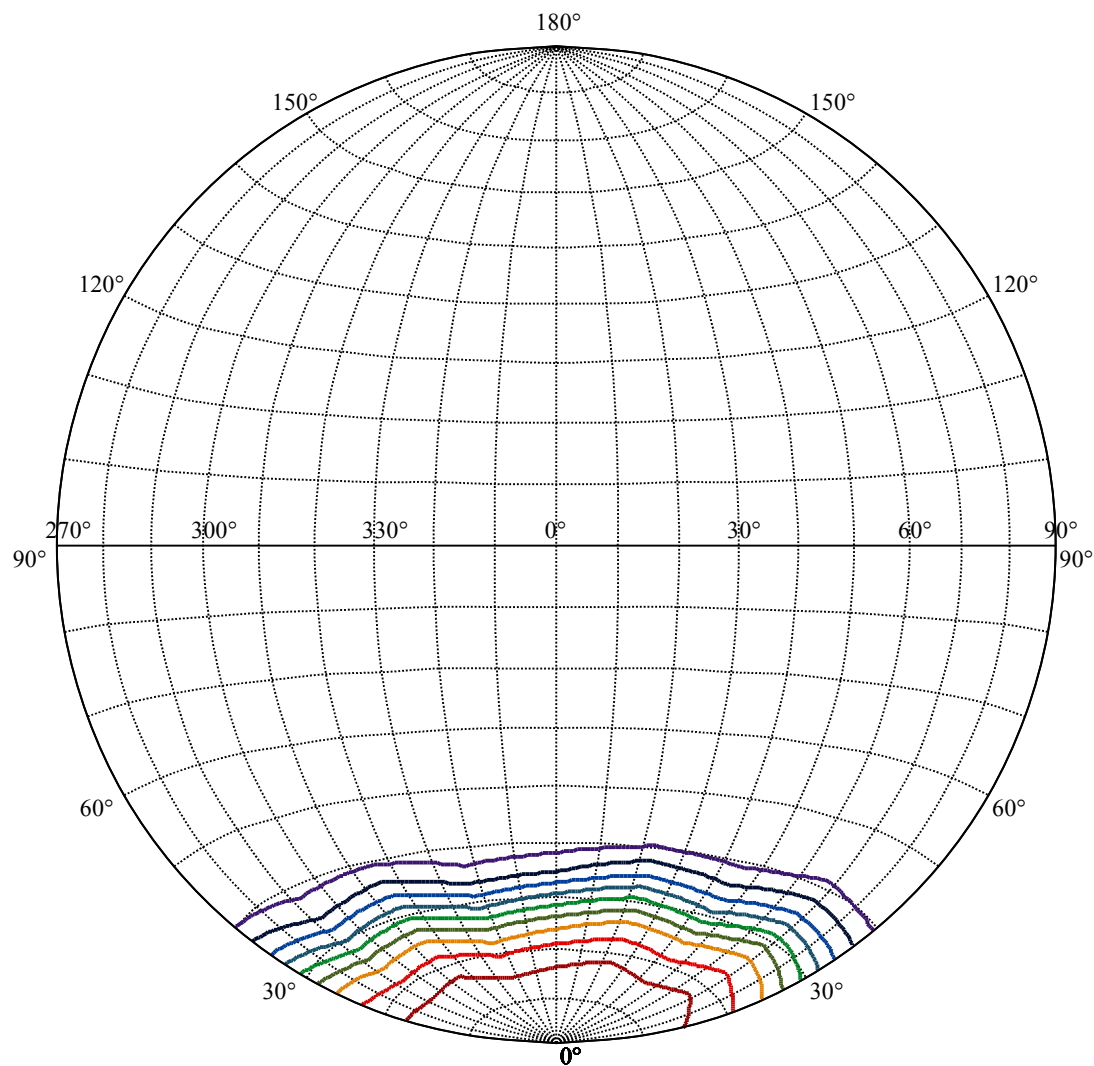
0-10	110.47
10-20	307.13
20-30	376.82
30-40	202.15
40-50	34.30
50-60	7.68
60-70	3.52
70-80	1.85
80-90	0.64
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00





Max , Ave Beam angle of C22.5 plane 59.71



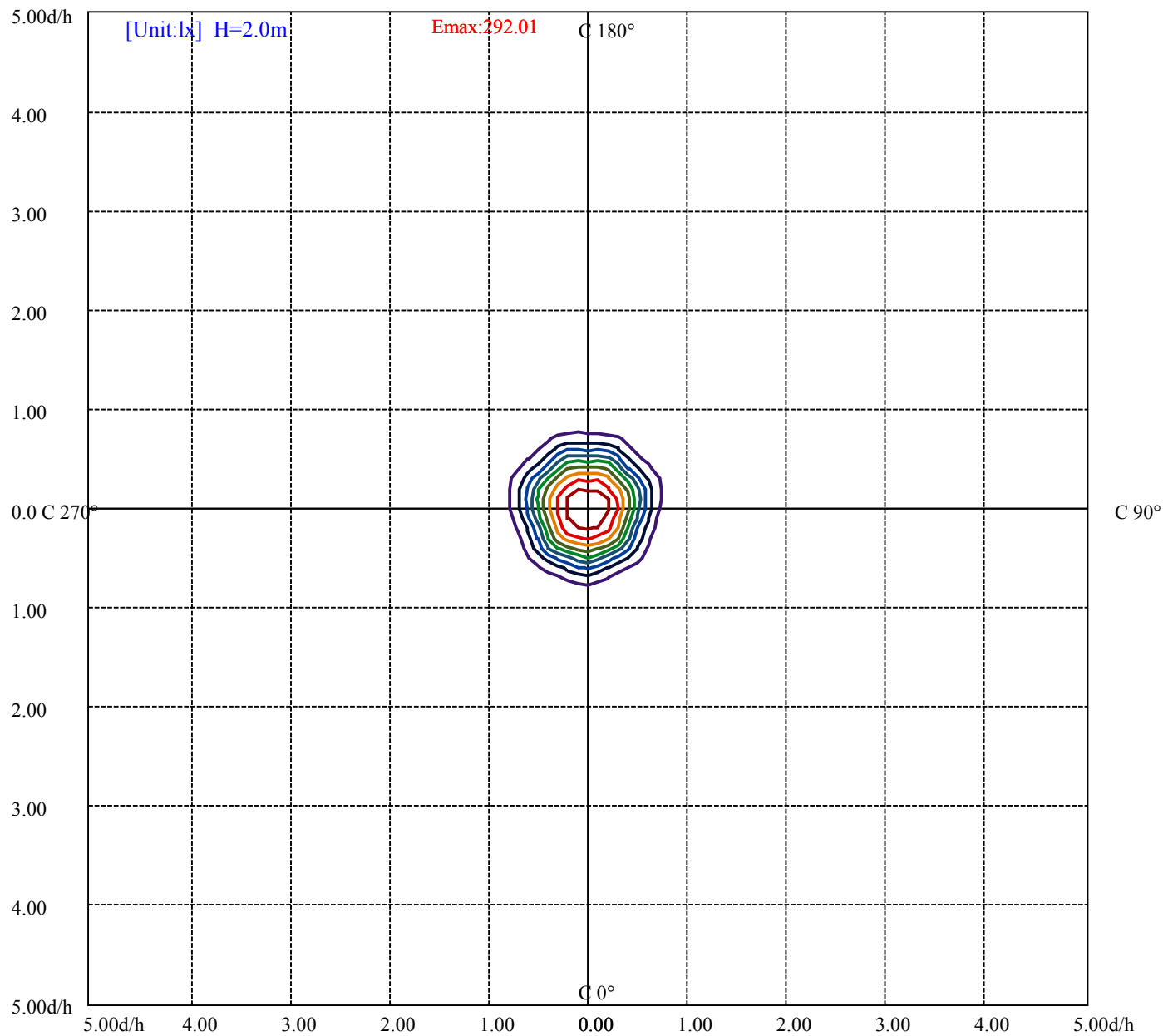


House

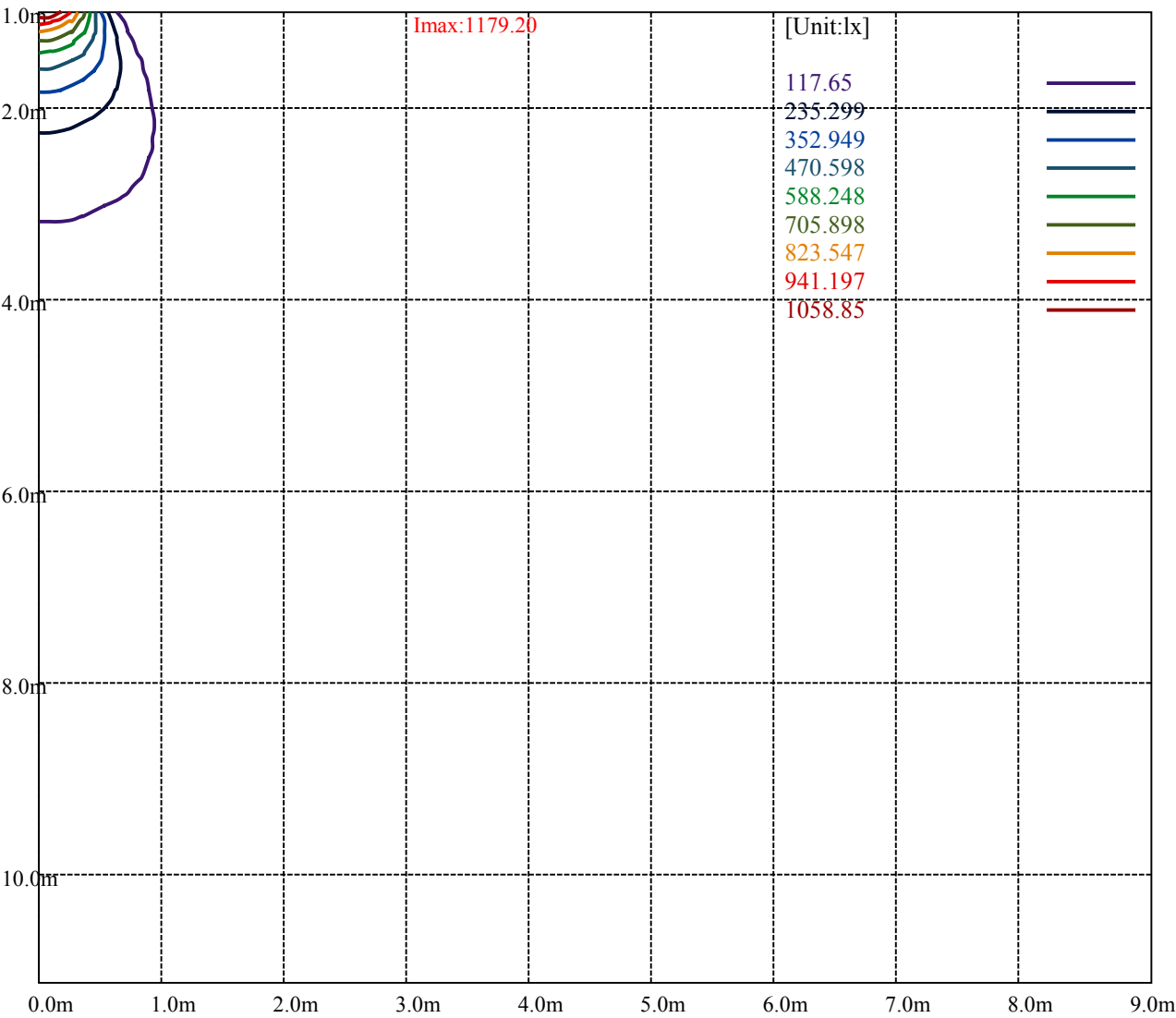
[Unit:cd]

Road

Imax:1179.20	
(10%Imax) 117.914	
(20%Imax) 235.829	
(30%Imax) 353.743	
(40%Imax) 471.658	
(50%Imax) 589.572	
(60%Imax) 707.487	
(70%Imax) 825.401	
(80%Imax) 943.315	
(90%Imax) 1061.23	



(10%Emax)	29.20075	
(20%Emax)	58.4015	
(30%Emax)	87.60225	
(40%Emax)	116.8033	
(50%Emax)	146.004	
(60%Emax)	175.2047	
(70%Emax)	204.4055	
(80%Emax)	233.6062	
(90%Emax)	262.8075	



Luminance Table

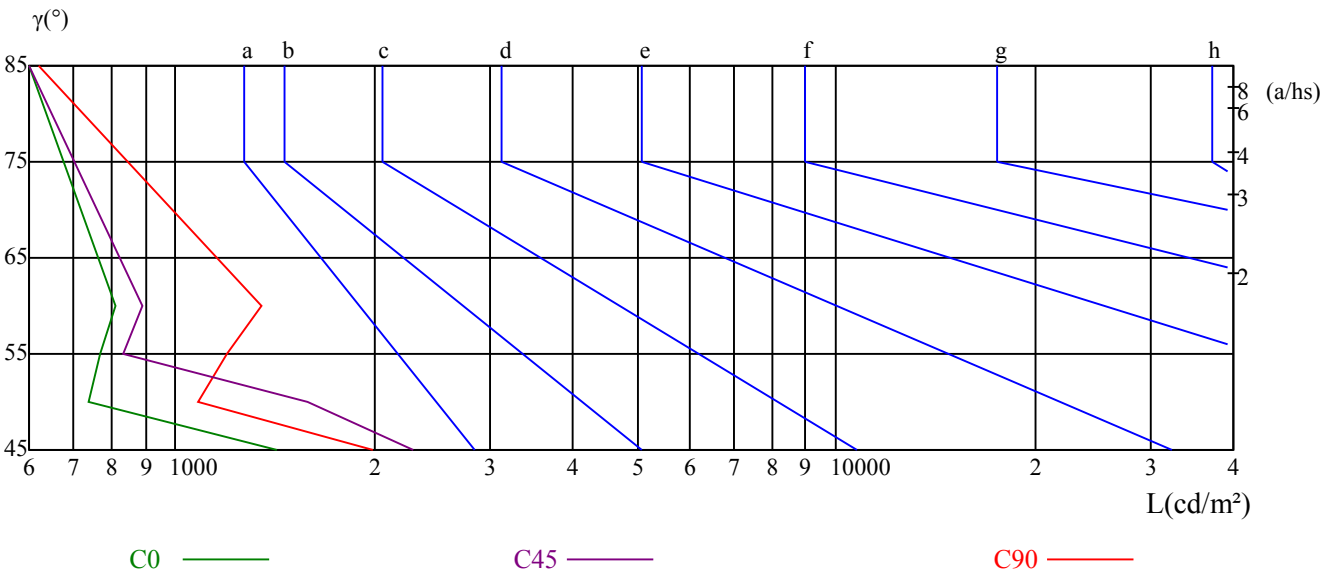
γ	45	50	55	60	65	70	75	80	85
C0	1425	737	769	810	0	0	0	0	155
C45	2284	1587	835	889	0	0	0	0	185
C90	1995	1083	1196	1345	0	0	0	0	621

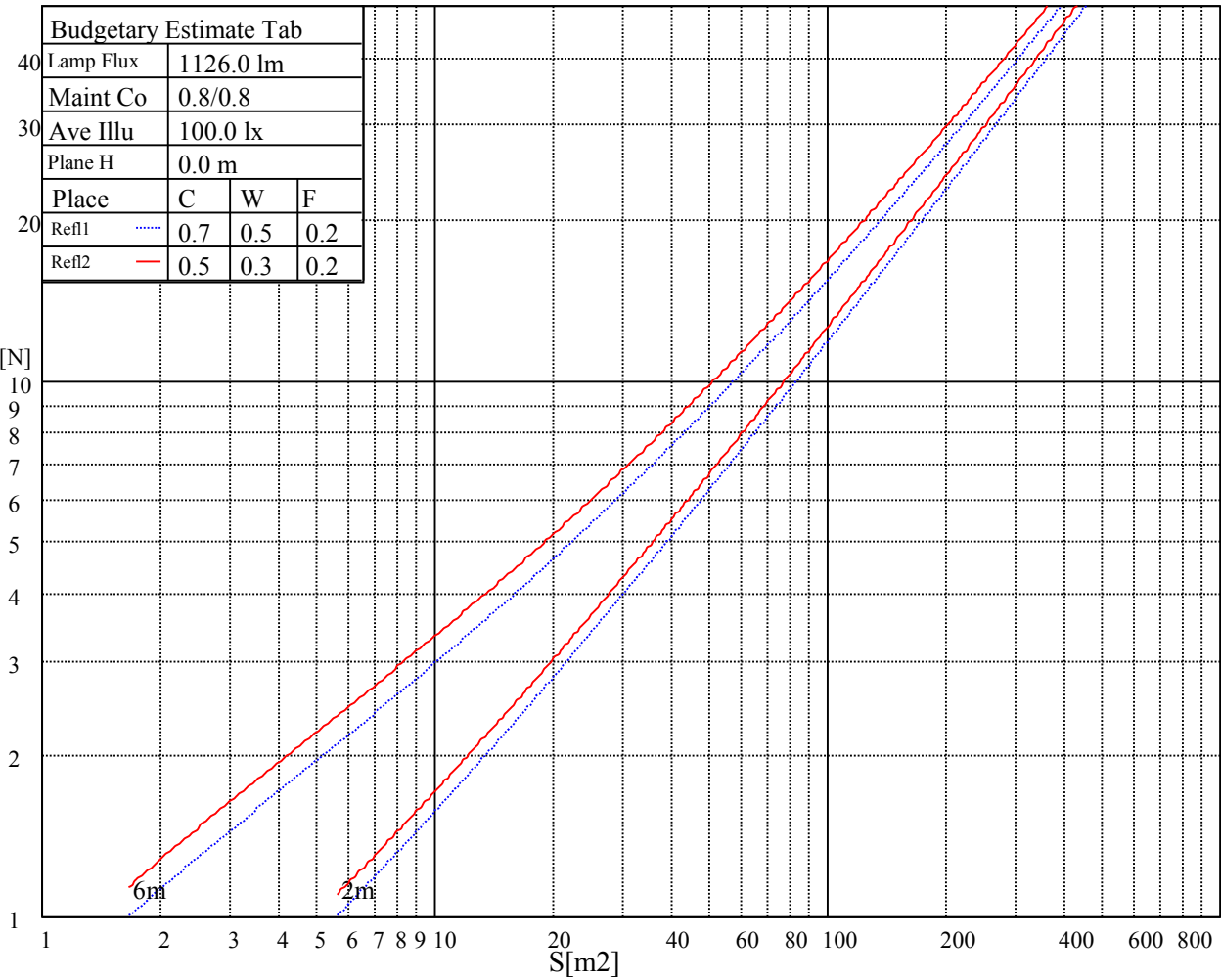
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
0	0	0	0	0	0	520	1084	520

Glare Table

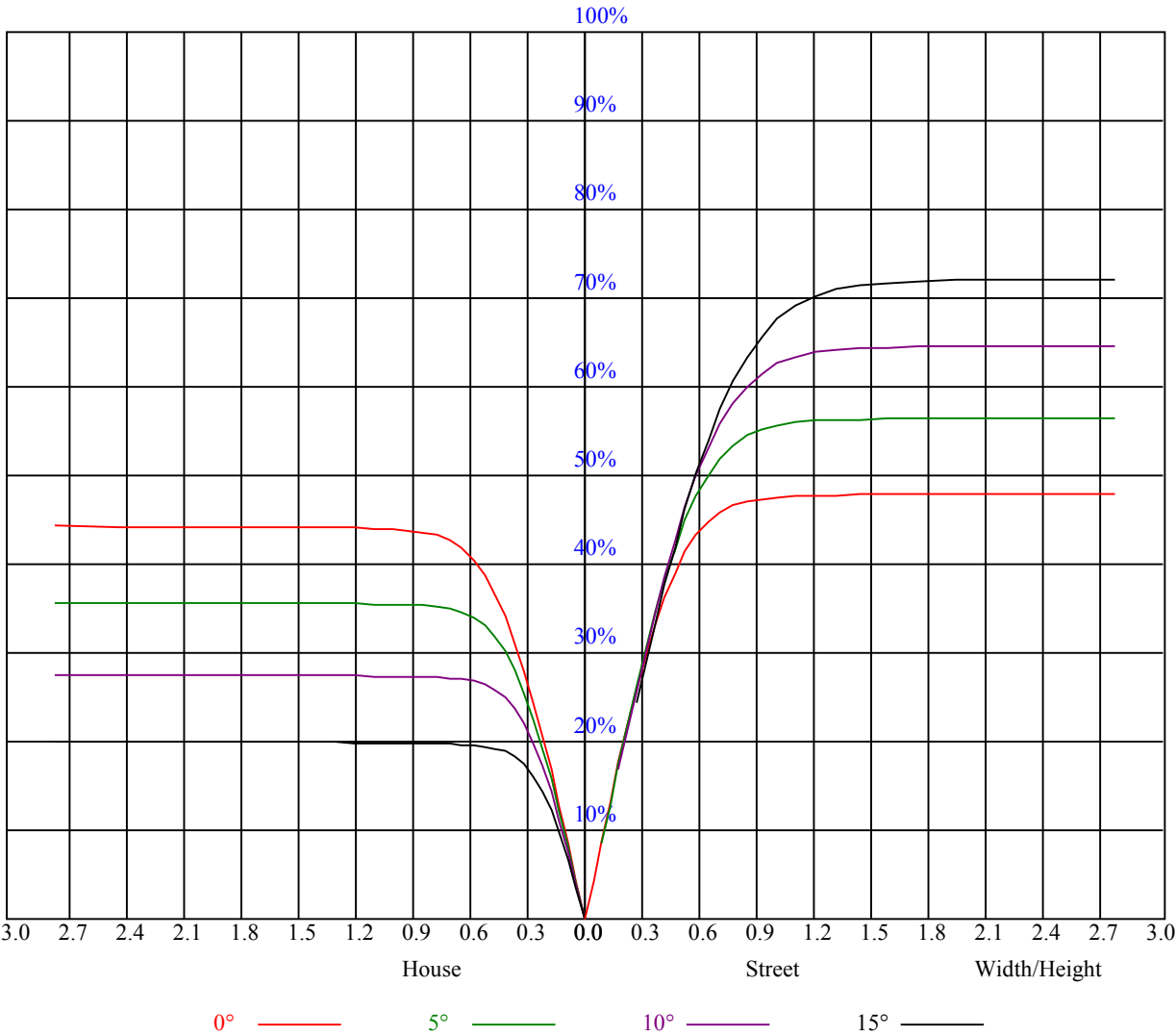
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	≤ 300				
1.5	B		2000	1000	500	≤ 300			
1.85	C			2000	1000	500	≤ 300		
2.2	D				2000	1000	500	≤ 300	
2.55	E					2000	1000	500	≤ 300
		a	b	c	d	e	f	g	h

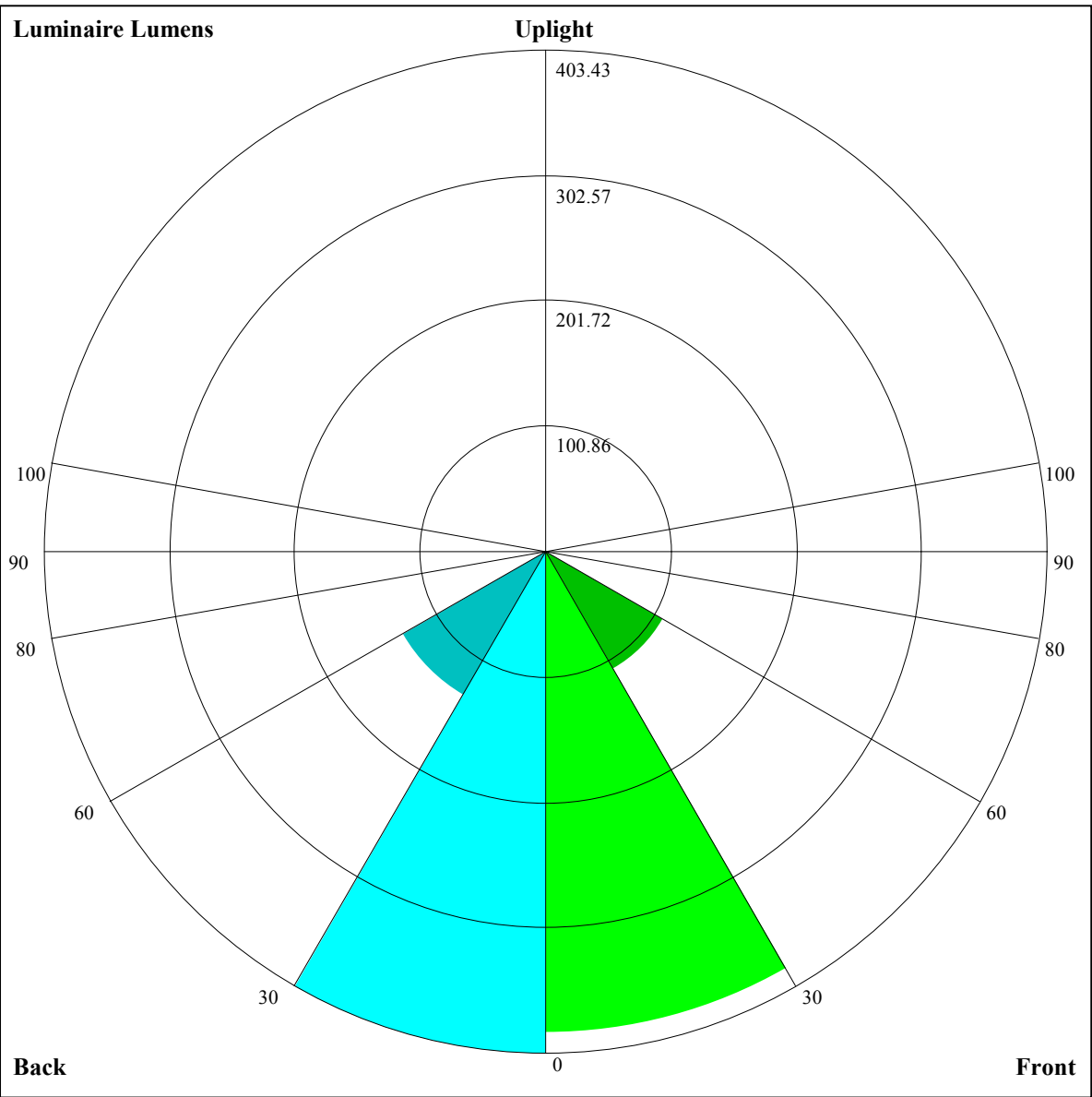
Luminance Limiting Curve





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	1.10	1.10	1.10	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	1.03	1.01	0.99	1.01	0.99	0.97	0.97	0.96	0.94	0.94	0.92	0.91	0.91	0.90	0.89	0.87
2	0.96	0.92	0.89	0.94	0.91	0.88	0.91	0.89	0.86	0.89	0.86	0.84	0.86	0.84	0.83	0.81
3	0.90	0.85	0.82	0.88	0.84	0.81	0.86	0.83	0.80	0.84	0.81	0.78	0.82	0.79	0.77	0.76
4	0.84	0.79	0.75	0.83	0.78	0.75	0.81	0.77	0.74	0.79	0.76	0.73	0.77	0.75	0.72	0.71
5	0.79	0.74	0.70	0.78	0.73	0.69	0.76	0.72	0.69	0.75	0.71	0.68	0.73	0.70	0.68	0.66
6	0.74	0.69	0.65	0.73	0.68	0.65	0.72	0.68	0.64	0.71	0.67	0.64	0.70	0.66	0.63	0.62
7	0.70	0.65	0.61	0.69	0.64	0.61	0.68	0.64	0.60	0.67	0.63	0.60	0.66	0.62	0.60	0.58
8	0.66	0.61	0.57	0.65	0.60	0.57	0.64	0.60	0.57	0.64	0.59	0.56	0.63	0.59	0.56	0.55
9	0.62	0.57	0.54	0.62	0.57	0.53	0.61	0.56	0.53	0.60	0.56	0.53	0.60	0.56	0.53	0.52
10	0.59	0.54	0.50	0.59	0.54	0.50	0.58	0.53	0.50	0.57	0.53	0.50	0.57	0.53	0.50	0.49





Luminaire Lumens:

FL=387.58,FM=108.68,FH=2.53,FVH=0.59

BL=403.43,BM=133.34,BH=2.78,BVH=0.61

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	1176.67	1173.53	1136.63	1087.96	991.05	784.95	515.37	226.16	55.35
22.5	1179.20	1178.10	1157.11	1117.59	1033.71	885.50	638.35	356.67	126.28
45.0	1171.59	1162.70	1137.05	1084.58	983.35	813.64	517.49	263.99	83.62
67.5	1165.15	1160.50	1139.42	1104.04	1028.38	897.78	672.13	368.44	142.70
90.0	1151.78	1137.98	1107.77	1058.42	968.79	803.57	559.89	296.49	96.74
112.5	1172.35	1163.72	1145.52	1115.89	1042.68	923.68	694.89	429.38	182.48
135.0	1162.02	1157.28	1138.24	1098.80	1017.71	866.29	584.69	327.47	125.18
157.5	1176.50	1175.48	1167.02	1132.82	1064.69	972.34	762.86	455.96	204.66
180.0	1176.67	1174.63	1144.50	1109.04	1026.77	888.64	645.63	361.58	128.06
202.5	1179.20	1175.31	1147.04	1103.62	1007.30	821.43	514.44	250.28	76.77
225.0	1171.59	1175.40	1165.58	1140.44	1055.46	927.91	671.03	363.61	144.65
247.5	1165.07	1163.88	1147.80	1102.61	1005.52	815.59	549.40	261.45	77.78
270.0	1151.78	1150.93	1137.14	1097.87	1026.43	878.39	638.19	348.55	119.26
292.5	1172.35	1170.15	1143.74	1095.07	980.22	778.18	465.44	202.80	63.14
315.0	1162.02	1161.09	1143.23	1106.75	1014.16	830.83	559.30	287.35	92.00
337.5	1176.50	1162.95	1124.19	1059.86	926.55	695.23	406.86	159.21	37.24
360.0	1176.67	1173.53	1136.63	1087.96	991.05	784.95	515.37	226.16	55.35
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	16.17	10.58	6.77	4.32	3.05	2.12	1.52	1.18	1.02
22.5	29.20	13.20	8.89	5.59	3.72	2.62	1.86	1.35	1.02
45.0	28.02	13.97	8.38	5.33	3.30	2.29	1.61	1.18	1.02
67.5	36.56	14.05	9.06	6.01	3.72	2.62	1.86	1.35	1.10
90.0	18.20	10.92	7.11	4.49	3.13	2.20	1.69	1.27	1.10
112.5	51.04	14.98	9.48	6.60	3.98	2.79	2.03	1.44	1.18
135.0	39.02	18.20	9.56	6.35	4.06	2.54	1.78	1.35	1.10
157.5	60.60	18.28	10.41	7.11	4.32	3.13	2.29	1.52	1.18
180.0	28.19	12.36	8.13	5.25	3.39	2.45	1.78	1.35	1.02
202.5	20.40	11.00	7.36	4.66	3.13	2.20	1.52	1.18	1.02
225.0	41.81	18.71	9.48	6.18	3.55	2.45	1.78	1.27	1.02
247.5	17.52	10.50	6.77	3.98	2.71	1.95	1.44	1.18	1.02
270.0	22.34	10.75	6.86	4.15	2.96	2.12	1.61	1.27	1.02
292.5	16.08	9.56	6.18	3.81	2.62	1.95	1.35	1.10	1.02
315.0	28.35	13.97	8.38	5.59	3.13	2.20	1.61	1.27	1.10
337.5	14.22	9.40	6.26	3.89	2.71	1.95	1.44	1.18	1.02
360.0	16.17	10.58	6.77	4.32	3.05	2.12	1.52	1.18	1.02
C/ γ (°)	90.0								
0.0	1.02								
22.5	0.93								
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	0.93								
202.5	1.02								
225.0	1.02								
247.5	1.02								
270.0	1.02								
292.5	1.02								
315.0	1.10								
337.5	1.02								
360.0	1.02								