



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-S6

Luminaire: 69-0031-1

Report No: 20260803-B017

Ballast type: DC

Test No: 20260803-C017

Voltage(V): 22.160

LampCAT: LUXEON 2835*2

Current(A): 0.454

Lamp flux(lm): 1126.0

Power (W): 10.060

Number of Lamps: 1

PF: 0.000

Length(mm): 280

Width(mm): 40

Phm Type: C

Height(mm): 20

Photometric Results

Lumens(lm): 1018.08, Efficiency(%): 90.42% , Luminous Efficacy(lm/W): 101.20

Central intensity(cd): 734.675, Maximum intensity(cd): 739.161

Angle of maximum intensity: C=157.5 γ =5.0

Beam Angle(50%Imax): [C0/180]Total=75.6

[C90/270]Total=74.5

Field angle(10%Imax): [C0/180]Total=94.5

[C90/270]Total=94.9

Maximum s/h(1/2): C0_180=1.19 C90_270=1.17

Maximum s/h(1/4): C0_180=1.13 C90_270=1.10

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 90.36%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 99.765%

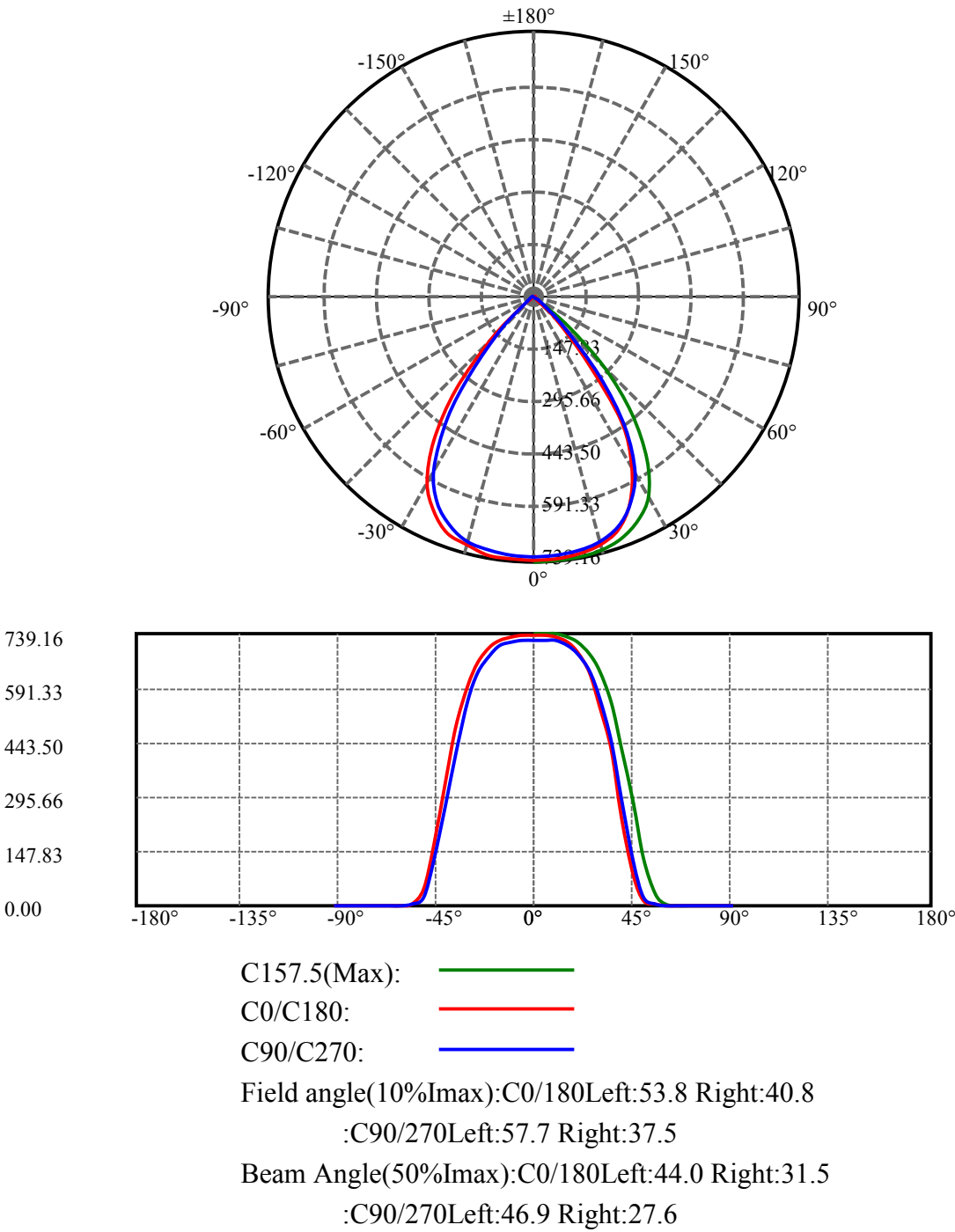
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	732.707	0.000	0	0.00%	0.00%
5.0	731.649	17.506	17.506	1.55%	1.72%
10.0	727.618	52.203	69.709	4.64%	6.85%
15.0	716.144	85.643	155.352	7.61%	15.26%
20.0	692.577	116.098	271.45	10.31%	26.66%
25.0	648.586	140.663	412.113	12.49%	40.48%
30.0	572.473	154.526	566.639	13.72%	55.66%
35.0	460.103	152.054	718.693	13.50%	70.59%
40.0	320.574	130.250	848.943	11.57%	83.39%
45.0	177.040	92.137	941.081	8.18%	92.44%
50.0	70.225	49.964	991.044	4.44%	97.34%
55.0	18.314	19.251	1010.296	1.71%	99.24%
60.0	2.343	4.775	1015.071	0.42%	99.70%
65.0	0.947	0.800	1015.87	0.07%	99.78%
70.0	0.878	0.462	1016.333	0.04%	99.83%
75.0	0.820	0.444	1016.776	0.04%	99.87%
80.0	0.804	0.435	1017.211	0.04%	99.91%
85.0	0.794	0.434	1017.645	0.04%	99.96%
90.0	0.804	0.437	1018.082	0.04%	100.00%

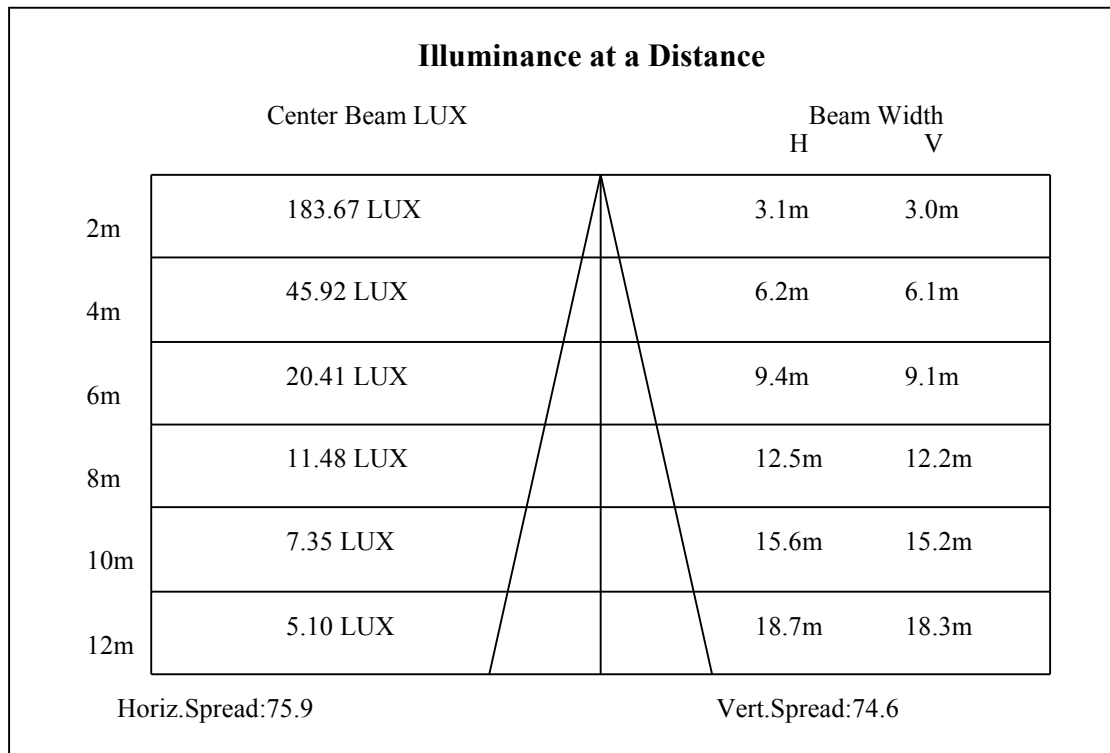
ZONAL LUMEN SUMMARY

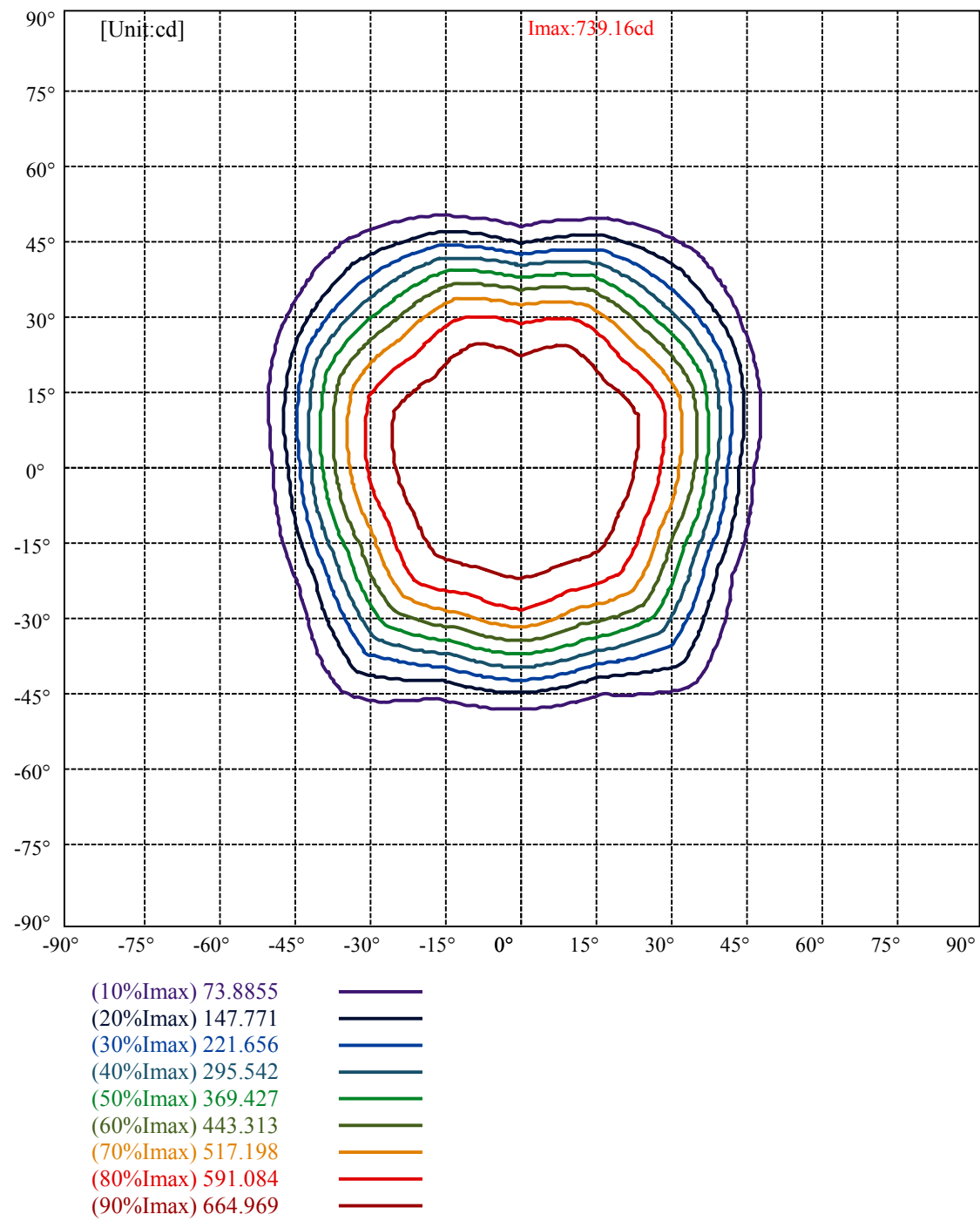
Zone	Lumens	%Lamp	%Fixt
0-30	566.64	50.32%	55.66%
0-40	848.94	75.39%	83.39%
0-60	1015.07	90.15%	99.70%
0-90	1017.65	90.38%	99.96%
0-120	1017.65	90.38%	99.96%
0-180	1018.08	90.42%	100.00%
60-90	2.57	0.23%	0.25%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-38.68	814.47	72.33%	80.00%

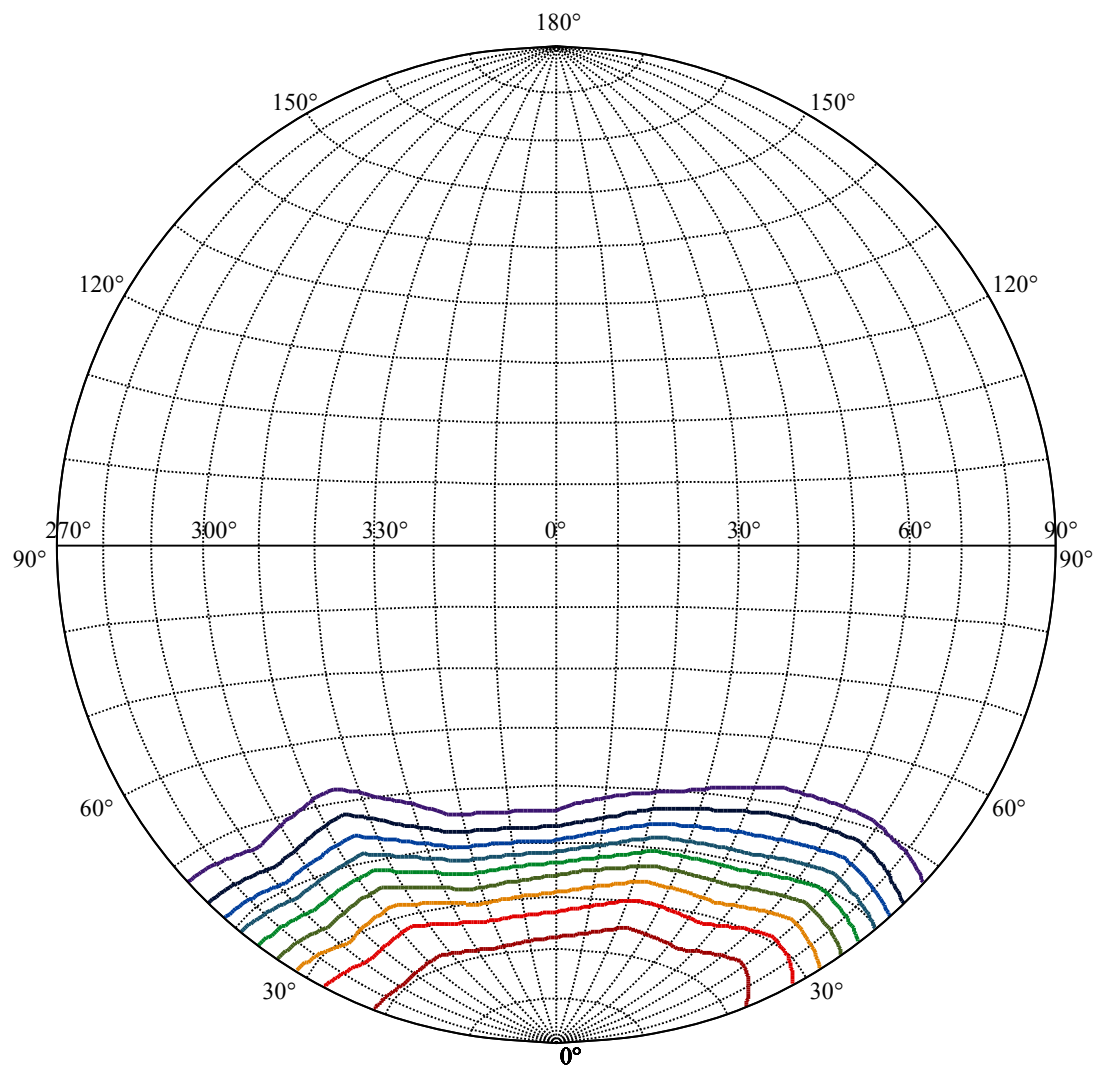
ZONAL LUMEN SUMMARY

0-10	69.71
10-20	201.74
20-30	295.19
30-40	282.30
40-50	142.10
50-60	24.03
60-70	1.26
70-80	0.88
80-90	0.43
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







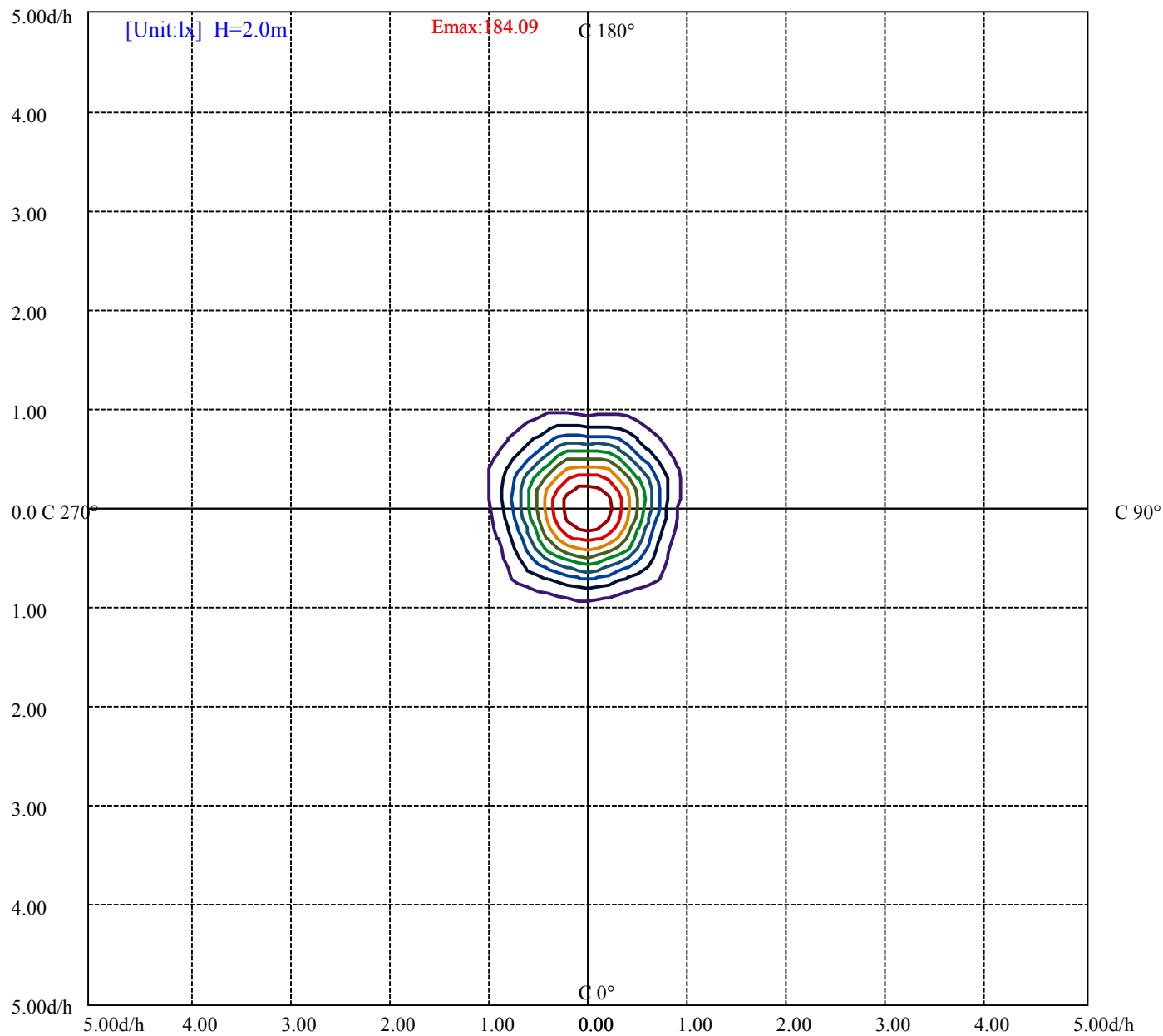


House

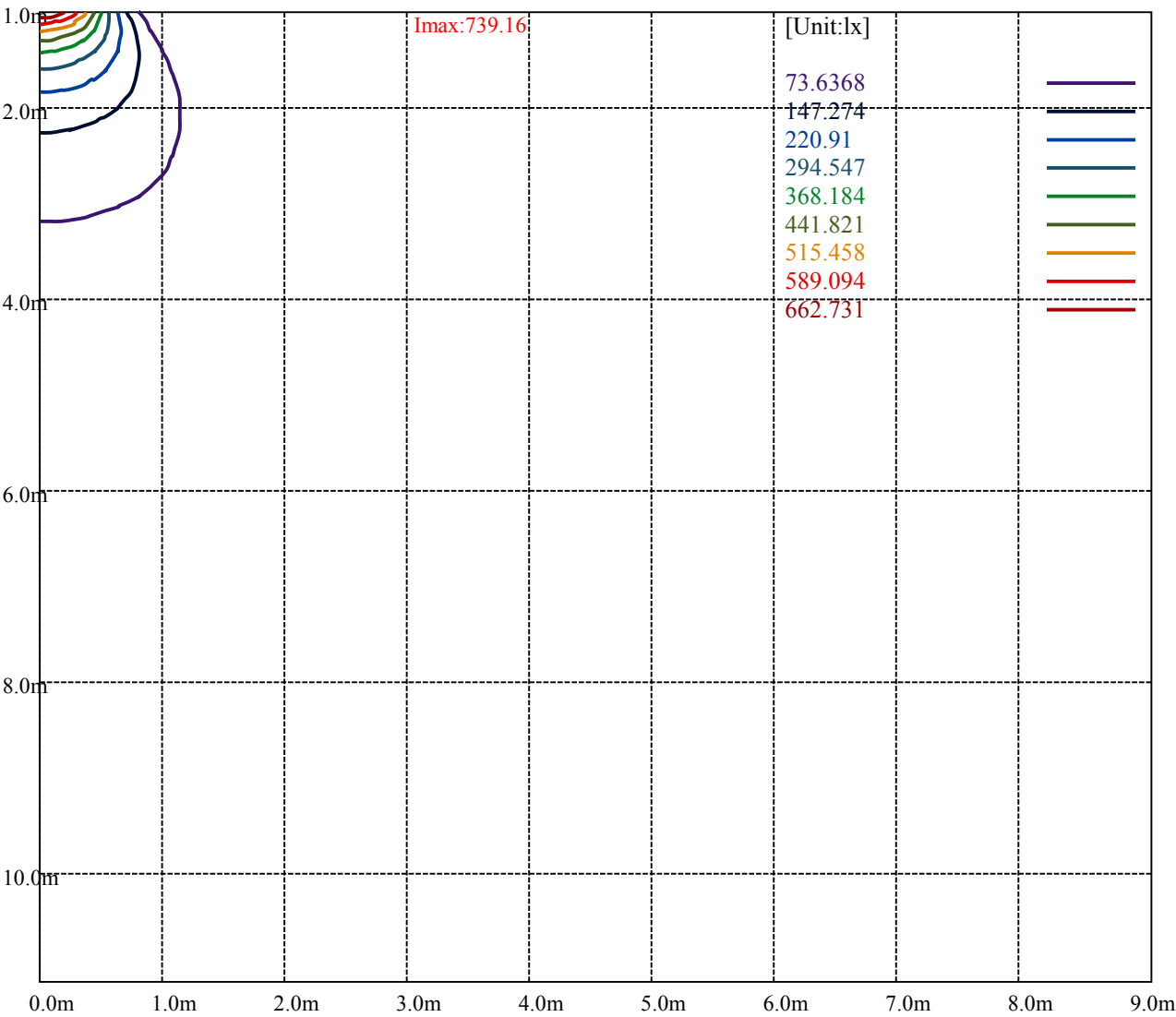
[Unit:cd]

Road

Imax:739.16	
(10%Imax) 73.9099	
(20%Imax) 147.82	
(30%Imax) 221.73	
(40%Imax) 295.64	
(50%Imax) 369.549	
(60%Imax) 443.459	
(70%Imax) 517.369	
(80%Imax) 591.279	
(90%Imax) 665.189	



(10%Emax)	18.40918	
(20%Emax)	36.81825	
(30%Emax)	55.2275	
(40%Emax)	73.63675	
(50%Emax)	92.04575	
(60%Emax)	110.455	
(70%Emax)	128.8642	
(80%Emax)	147.2733	
(90%Emax)	165.6825	



Luminance Table

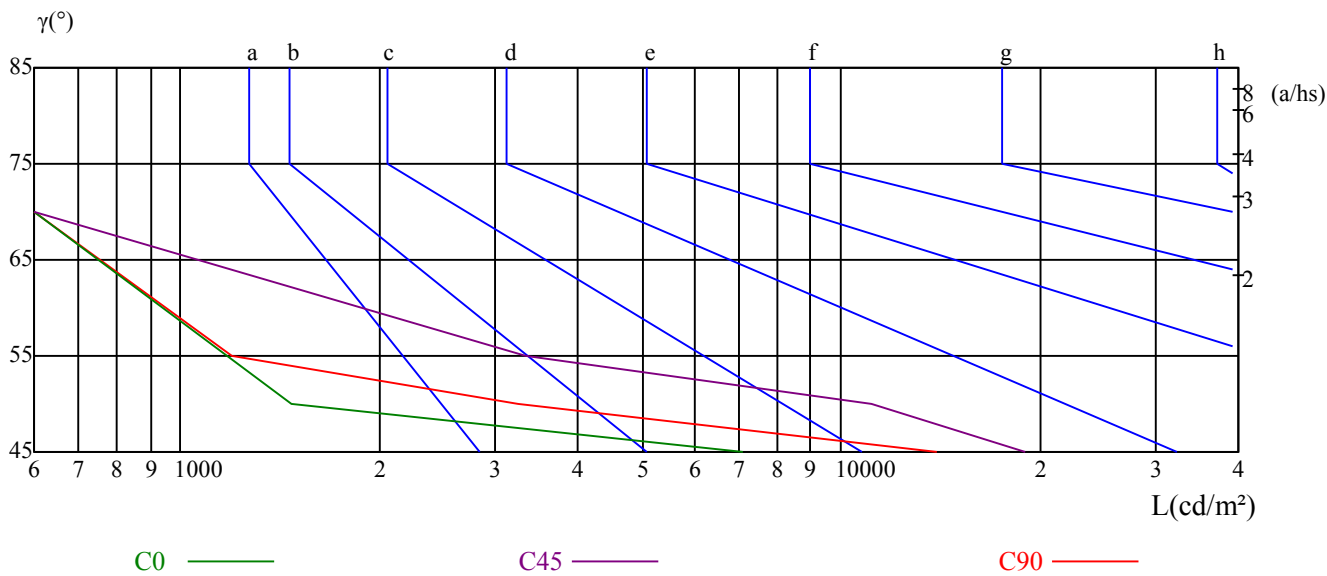
γ	45	50	55	60	65	70	75	80	85
C0	7125	1473	0	0	0	93	0	102	116
C45	19029	11110	3342	0	0	105	0	119	139
C90	13965	3250	1196	0	0	203	231	310	0

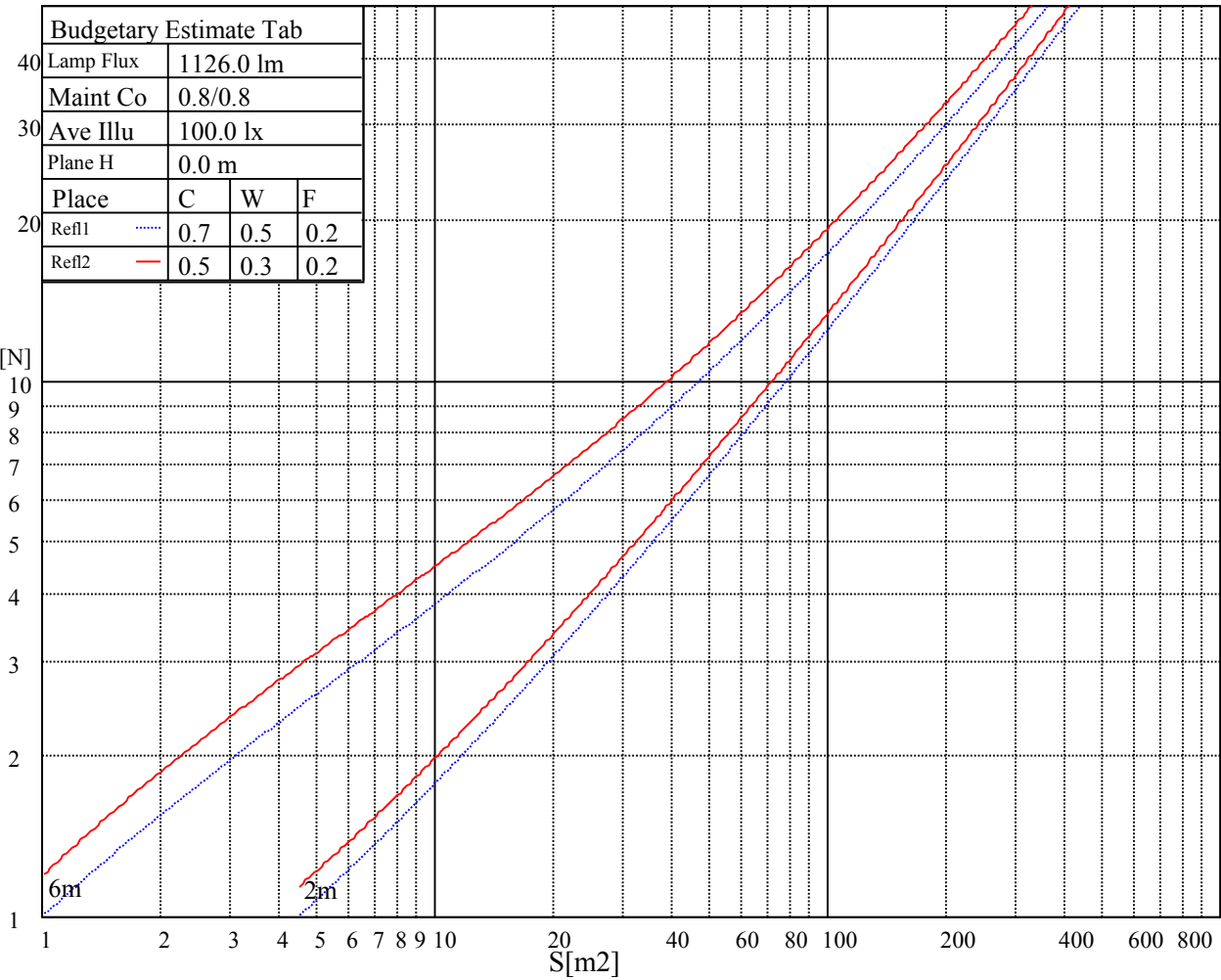
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
0	98	49	0	292	0	780	390	629

Glare Table

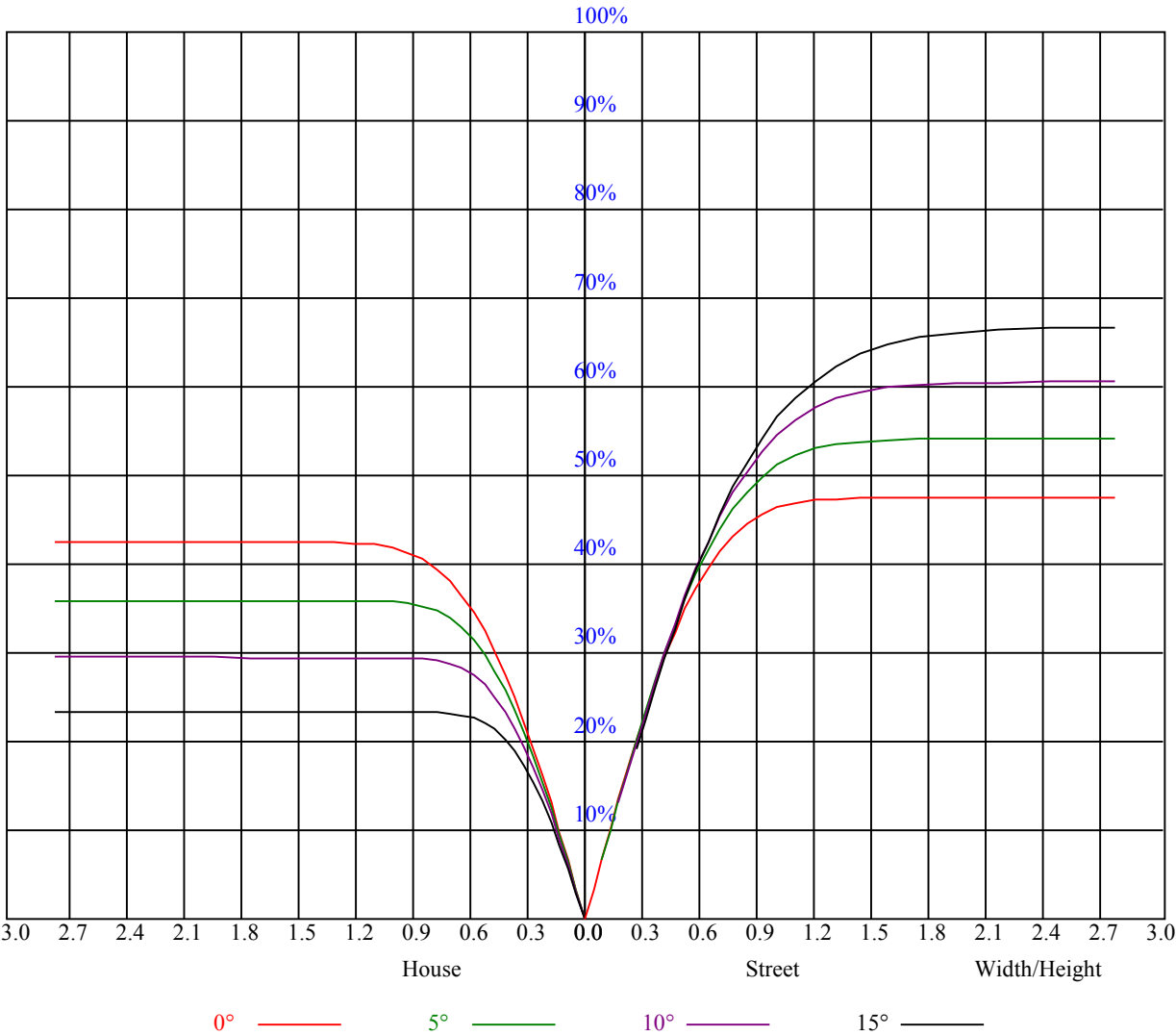
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	≤ 300				
1.5	B		2000	1000	500	≤ 300			
1.85	C			2000	1000	500	≤ 300		
2.2	D				2000	1000	500	≤ 300	
2.55	E					2000	1000	500	≤ 300
		a	b	c	d	e	f	g	h

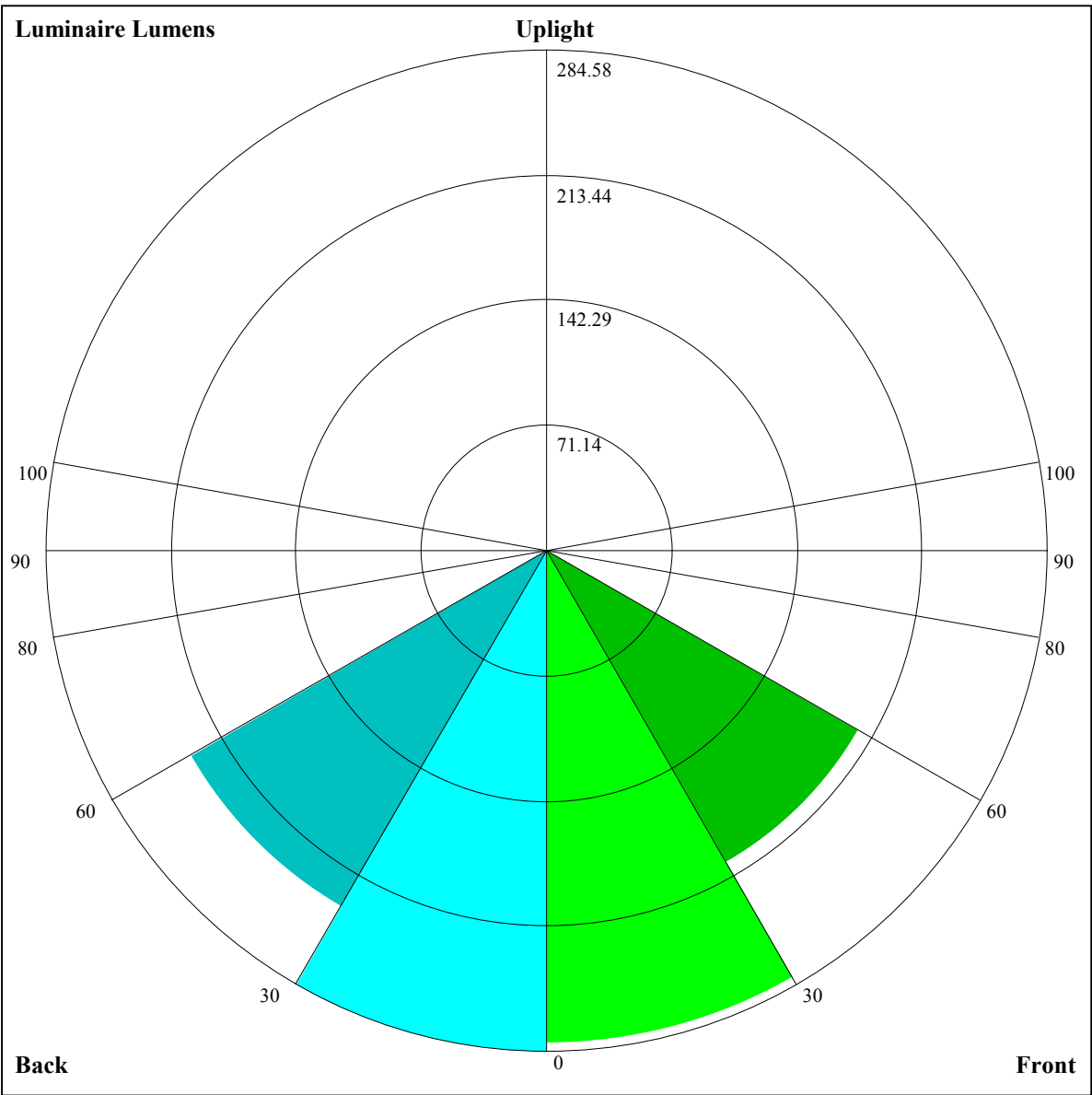
Luminance Limiting Curve





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	1.08	1.08	1.08	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	0.99	0.97	0.95	0.97	0.95	0.93	0.94	0.92	0.90	0.90	0.89	0.88	0.87	0.86	0.85	0.83
2	0.91	0.87	0.84	0.90	0.86	0.83	0.87	0.84	0.81	0.84	0.82	0.80	0.82	0.80	0.78	0.76
3	0.84	0.79	0.75	0.83	0.78	0.75	0.81	0.77	0.73	0.78	0.75	0.72	0.76	0.74	0.71	0.70
4	0.78	0.72	0.68	0.77	0.72	0.68	0.75	0.70	0.67	0.73	0.69	0.66	0.71	0.68	0.65	0.64
5	0.72	0.66	0.62	0.71	0.65	0.61	0.69	0.65	0.61	0.68	0.64	0.60	0.66	0.63	0.60	0.58
6	0.67	0.61	0.56	0.66	0.60	0.56	0.64	0.59	0.56	0.63	0.59	0.55	0.62	0.58	0.55	0.53
7	0.62	0.56	0.52	0.61	0.55	0.51	0.60	0.55	0.51	0.59	0.54	0.51	0.58	0.54	0.51	0.49
8	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	0.47	0.45
9	0.54	0.48	0.44	0.53	0.48	0.44	0.52	0.47	0.44	0.51	0.47	0.43	0.51	0.46	0.43	0.42
10	0.50	0.44	0.41	0.50	0.44	0.40	0.49	0.44	0.40	0.48	0.44	0.40	0.48	0.43	0.40	0.39





Luminaire Lumens:
FL=280.41,FM=204.63,FH=0.96,FVH=0.44
BL=284.58,BM=233.75,BH=1.15,BVH=0.44
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	734.68	733.57	727.99	715.80	690.75	635.14	543.56	423.28	236.99
22.5	736.79	735.94	732.81	724.01	703.78	667.47	600.52	494.13	352.78
45.0	734.08	730.87	727.73	714.02	695.15	650.97	569.63	462.13	332.97
67.5	728.41	728.84	727.57	720.46	705.64	673.23	611.35	502.00	367.00
90.0	722.91	720.79	719.10	707.59	683.72	640.05	565.48	444.11	287.27
112.5	734.42	734.76	732.22	725.87	707.42	676.87	621.09	528.41	398.49
135.0	732.05	731.37	728.75	718.42	697.86	660.53	592.31	499.46	382.15
157.5	738.31	739.16	737.38	731.71	714.53	685.92	640.05	549.91	426.67
180.0	734.68	734.34	729.34	718.51	702.09	662.31	596.54	487.44	340.08
202.5	736.79	735.78	730.19	717.07	690.83	644.70	556.08	436.74	295.39
225.0	734.08	733.83	731.46	723.08	697.60	654.44	596.29	490.83	371.82
247.5	728.41	726.63	723.25	708.44	676.70	622.27	533.66	406.19	261.03
270.0	722.91	721.73	715.29	705.14	680.25	635.82	556.17	415.41	274.66
292.5	734.42	731.29	724.01	704.88	671.03	610.09	505.39	391.80	246.47
315.0	732.05	731.04	726.80	715.12	686.35	638.27	563.36	456.29	333.48
337.5	738.31	736.45	727.99	708.18	677.54	619.31	508.09	373.52	221.93
360.0	734.68	733.57	727.99	715.80	690.75	635.14	543.56	423.28	236.99

C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	83.62	13.71	3.39	0.93	0.85	0.85	0.76	0.76	0.76
22.5	199.92	67.80	10.83	2.54	0.93	0.85	0.85	0.76	0.76
45.0	215.15	114.94	33.09	1.61	1.02	0.85	0.76	0.76	0.76
67.5	220.66	92.43	16.34	2.71	1.02	0.93	0.85	0.85	0.85
90.0	118.33	23.53	4.49	1.10	0.93	0.93	0.85	0.85	0.76
112.5	251.72	103.35	20.57	3.13	1.10	0.93	0.93	0.85	0.85
135.0	259.00	149.56	59.59	6.09	1.02	0.93	0.85	0.85	0.85
157.5	280.67	129.67	31.06	5.25	1.02	0.85	0.85	0.76	0.76
180.0	165.56	43.93	6.60	1.27	0.85	0.85	0.76	0.76	0.76
202.5	145.50	38.85	6.09	1.18	0.85	0.85	0.76	0.76	0.76
225.0	248.42	144.14	56.03	5.76	1.02	0.93	0.85	0.76	0.85
247.5	121.04	30.98	4.06	1.02	0.93	0.85	0.85	0.85	0.76
270.0	123.83	22.34	3.55	1.10	0.93	0.93	0.85	0.85	0.76
292.5	101.99	20.74	3.05	1.02	0.93	0.85	0.76	0.85	0.85
315.0	214.14	113.59	31.32	1.86	0.93	0.85	0.85	0.85	0.85
337.5	83.12	14.05	2.96	0.93	0.85	0.85	0.76	0.76	0.76
360.0	83.62	13.71	3.39	0.93	0.85	0.85	0.76	0.76	0.76

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