



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: 69-0031

Report No: 20260803-B016

Ballast type: DC

Test No: 20260803-C016

Voltage(V): 22.130

LampCAT: LUXEON 2835*2

Current(A): 0.454

Lamp flux(lm): 1126.0

Power (W): 10.047

Number of Lamps: 1

PF: 0.000

Length(mm): 280

Width(mm): 40

Phm Type: C

Height(mm): 20

Photometric Results

Lumens(lm): 1037.29, Efficiency(%): 92.12% , Luminous Efficacy(lm/W): 103.24

Central intensity(cd): 595.104, Maximum intensity(cd): 709.283

Angle of maximum intensity: C=0.0 γ =25.0

Beam Angle(50%Imax): [C0/180]Total=77.7

[C90/270]Total=77.4

Field angle(10%Imax): [C0/180]Total=93.1

[C90/270]Total=94.9

Maximum s/h(1/2): C0_180=1.46 C90_270=1.36

Maximum s/h(1/4): C0_180=1.23 C90_270=1.16

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 92.07%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 98.967%

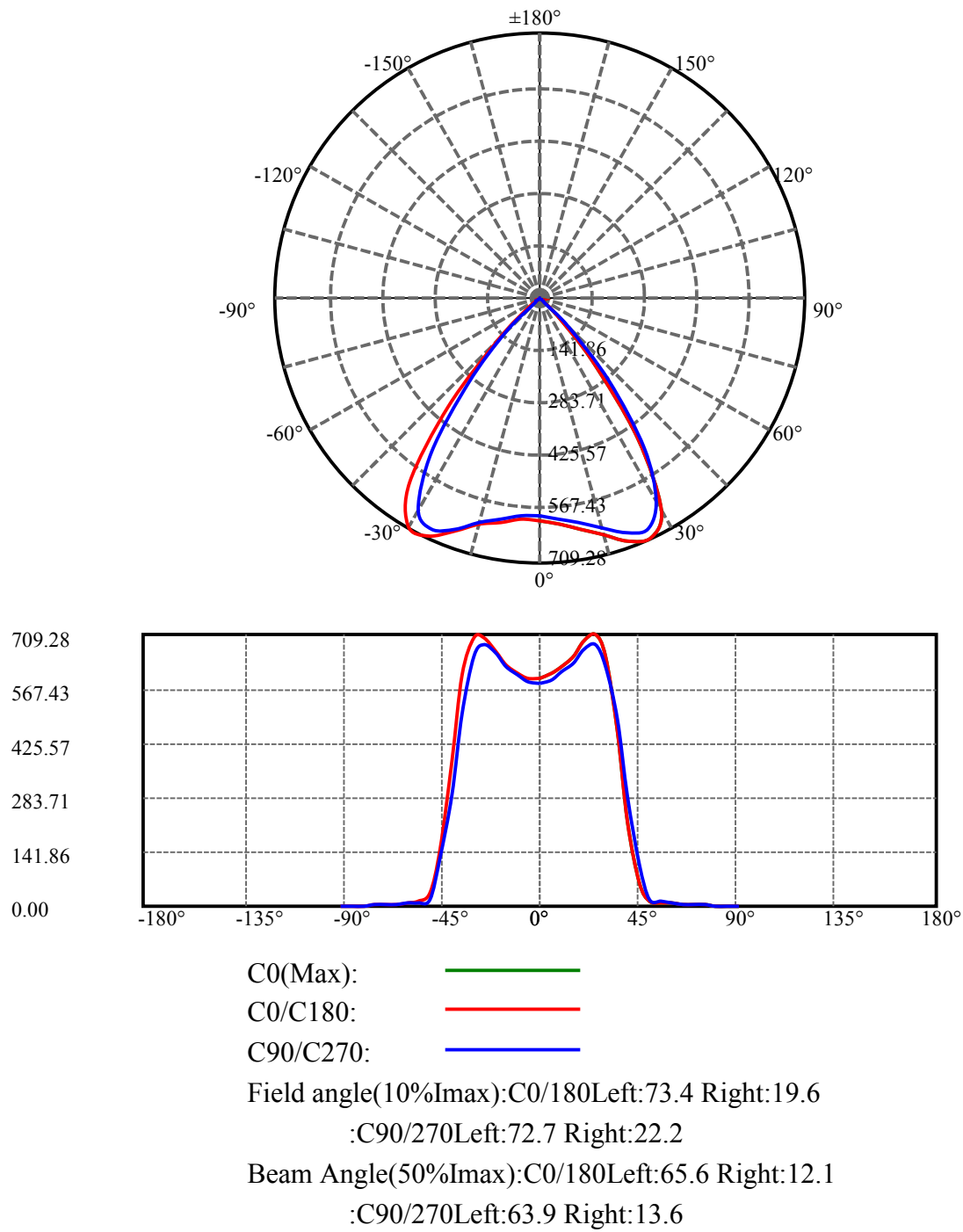
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	590.808	0.000	0	0.00%	0.00%
5.0	598.056	14.213	14.213	1.26%	1.37%
10.0	615.624	43.417	57.63	3.86%	5.56%
15.0	639.492	74.453	132.082	6.61%	12.73%
20.0	668.561	107.802	239.884	9.57%	23.13%
25.0	685.378	142.003	381.887	12.61%	36.82%
30.0	651.876	169.231	551.118	15.03%	53.13%
35.0	528.228	173.779	724.897	15.43%	69.88%
40.0	339.480	144.771	869.667	12.86%	83.84%
45.0	161.170	92.700	962.367	8.23%	92.78%
50.0	51.816	43.037	1005.404	3.82%	96.93%
55.0	16.246	14.799	1020.202	1.31%	98.35%
60.0	8.967	5.828	1026.03	0.52%	98.91%
65.0	6.618	3.789	1029.819	0.34%	99.28%
70.0	4.835	2.900	1032.719	0.26%	99.56%
75.0	3.137	2.084	1034.802	0.19%	99.76%
80.0	1.767	1.312	1036.114	0.12%	99.89%
85.0	0.894	0.723	1036.837	0.06%	99.96%
90.0	0.756	0.452	1037.289	0.04%	100.00%

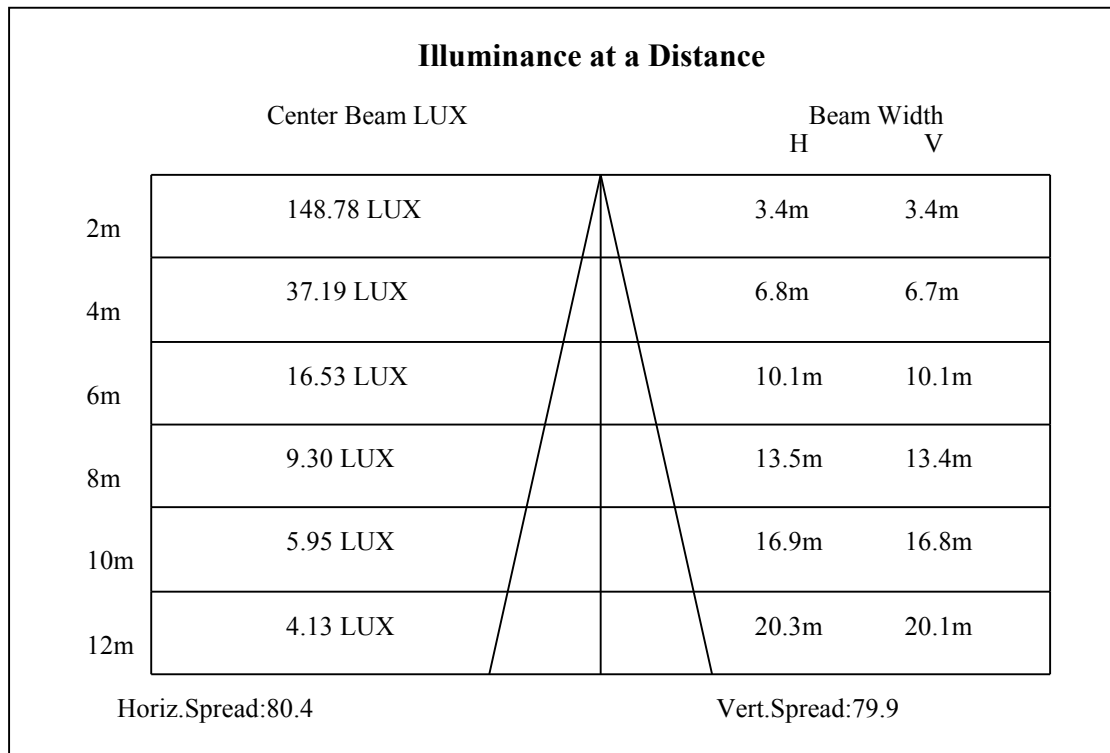
ZONAL LUMEN SUMMARY

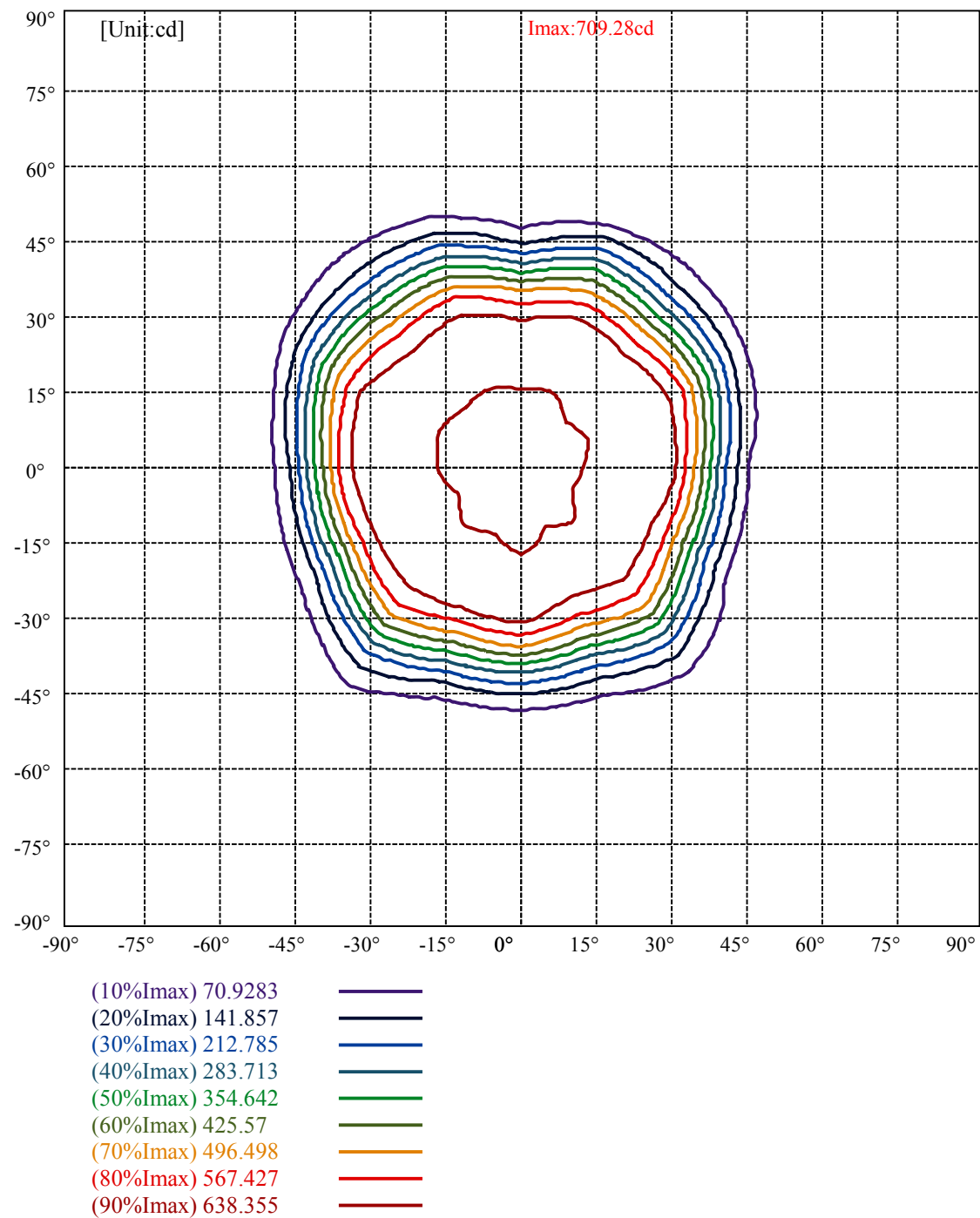
Zone	Lumens	%Lamp	%Fixt
0-30	551.12	48.94%	53.13%
0-40	869.67	77.24%	83.84%
0-60	1026.03	91.12%	98.91%
0-90	1036.84	92.08%	99.96%
0-120	1036.84	92.08%	99.96%
0-180	1037.29	92.12%	100.00%
60-90	10.81	0.96%	1.04%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-38.62	829.83	73.70%	80.00%

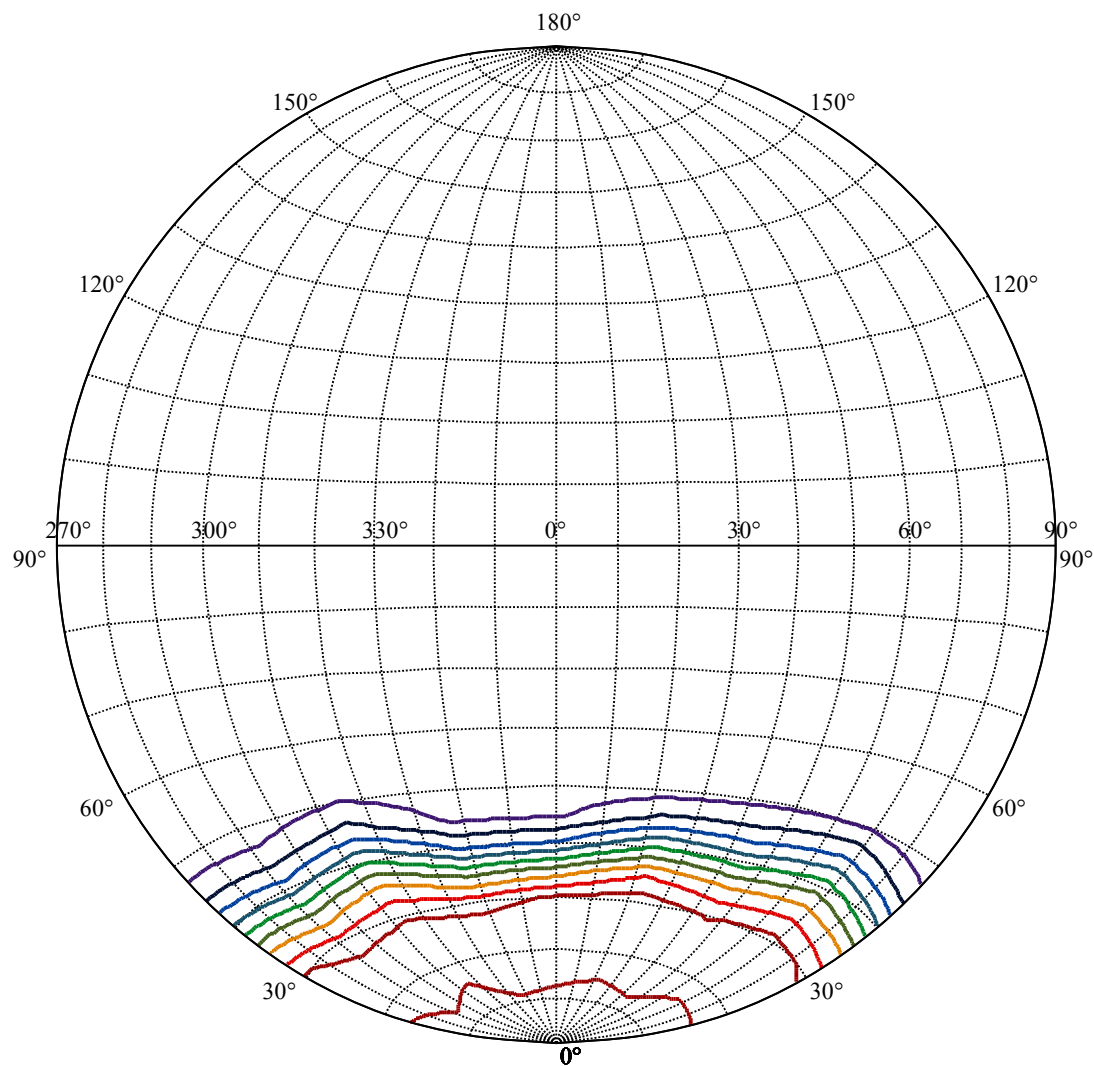
ZONAL LUMEN SUMMARY

0-10	57.63
10-20	182.25
20-30	311.23
30-40	318.55
40-50	135.74
50-60	20.63
60-70	6.69
70-80	3.40
80-90	0.72
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







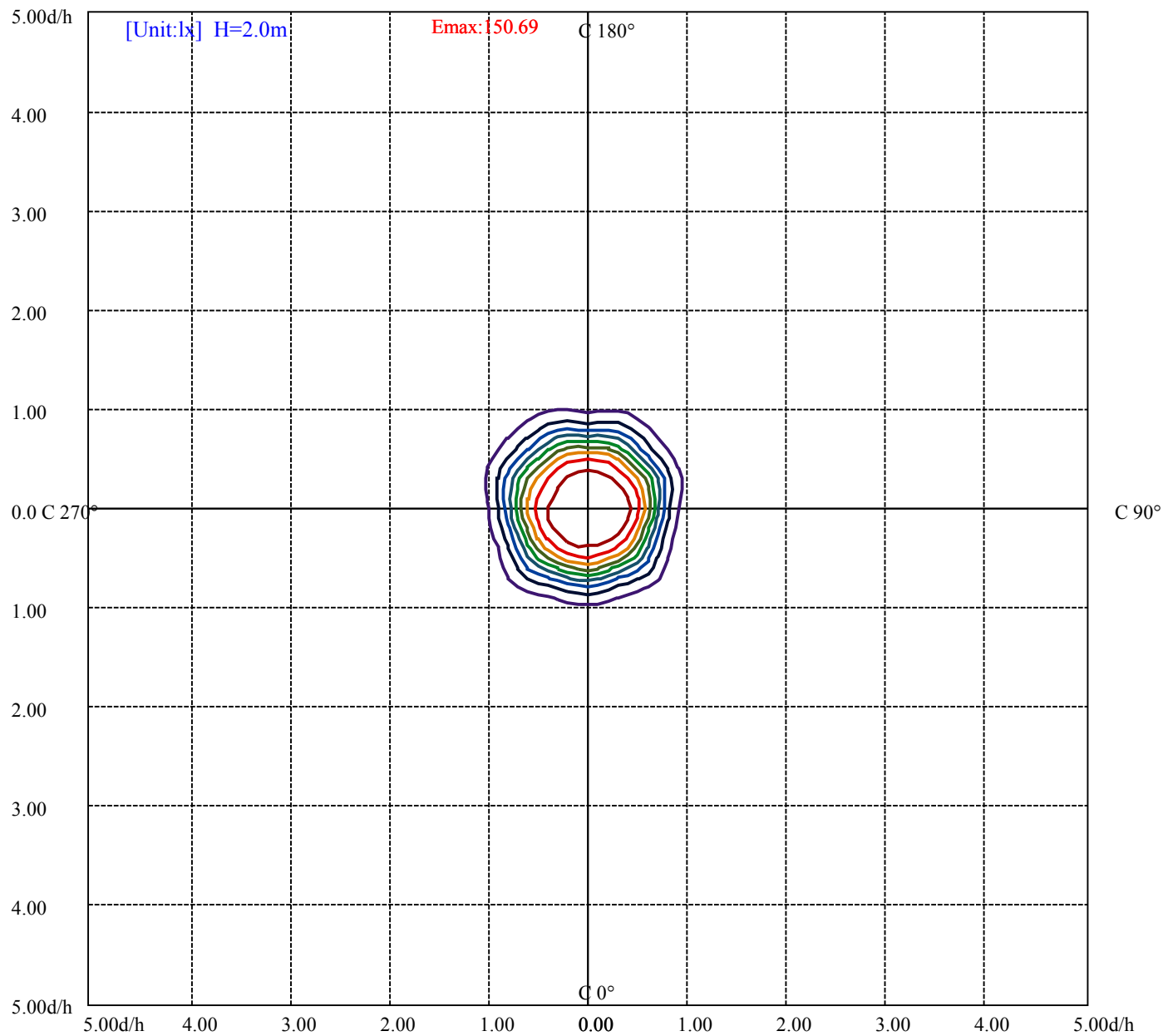


House

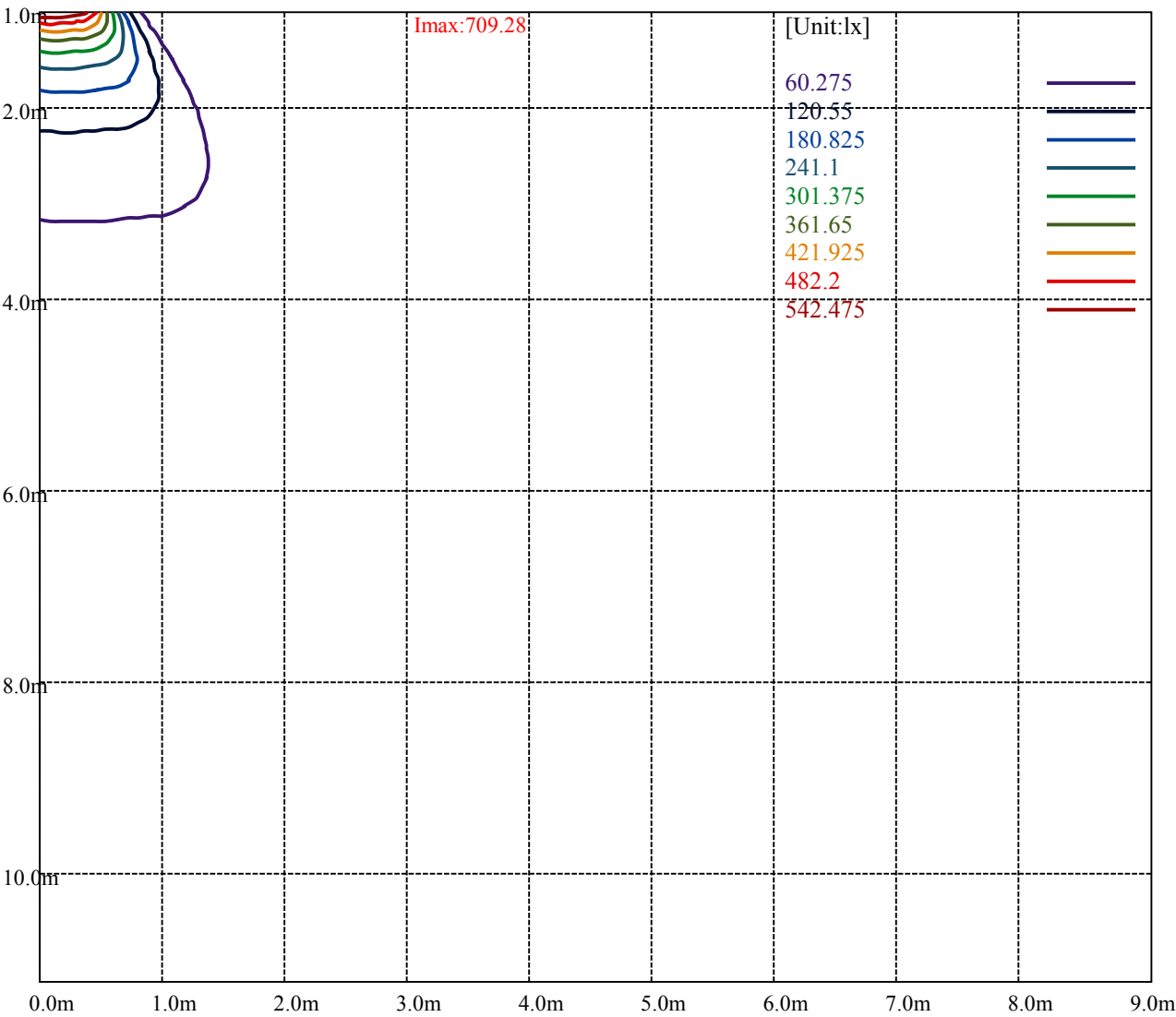
[Unit:cd]

Road

Imax:709.28	
(10%Imax) 71.0976	
(20%Imax) 142.195	
(30%Imax) 213.293	
(40%Imax) 284.39	
(50%Imax) 355.488	
(60%Imax) 426.586	
(70%Imax) 497.683	
(80%Imax) 568.781	
(90%Imax) 639.878	



(10%Emax)	15.06875	
(20%Emax)	30.1375	
(30%Emax)	45.20625	
(40%Emax)	60.275	
(50%Emax)	75.34375	
(60%Emax)	90.4125	
(70%Emax)	105.4812	
(80%Emax)	120.55	
(90%Emax)	135.6187	



Luminance Table

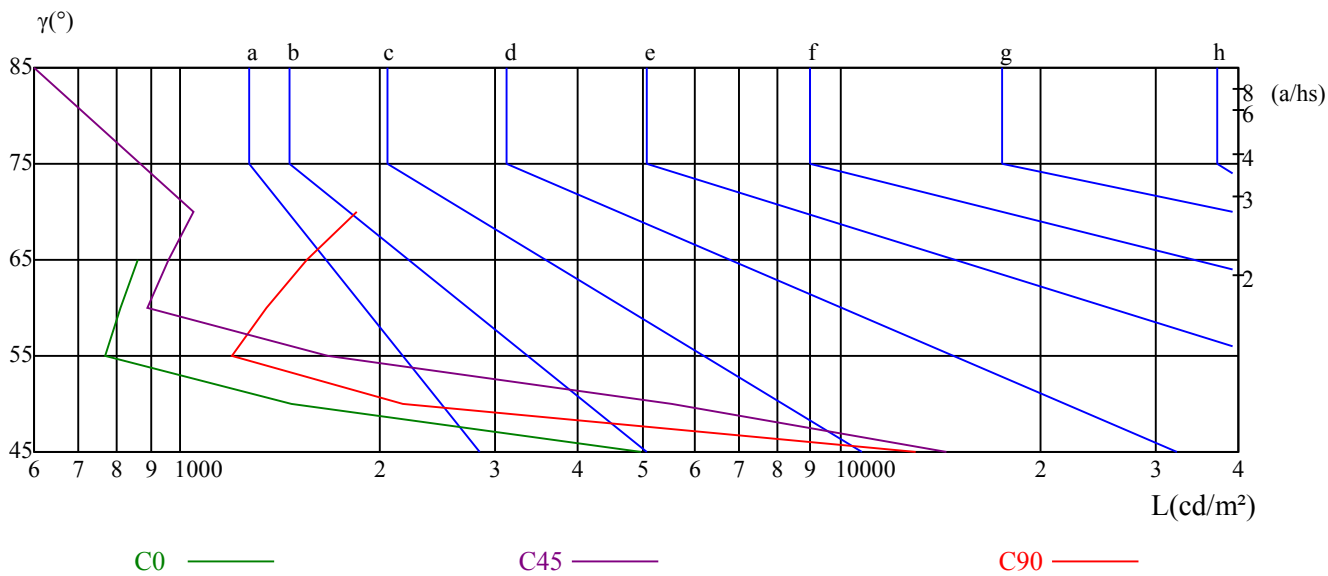
γ	45	50	55	60	65	70	75	80	85
C0	4987	1473	769	810	863	0	0	0	0
C45	14462	5555	1671	889	958	1047	0	0	154
C90	12967	2167	1196	1345	1551	1847	0	0	0

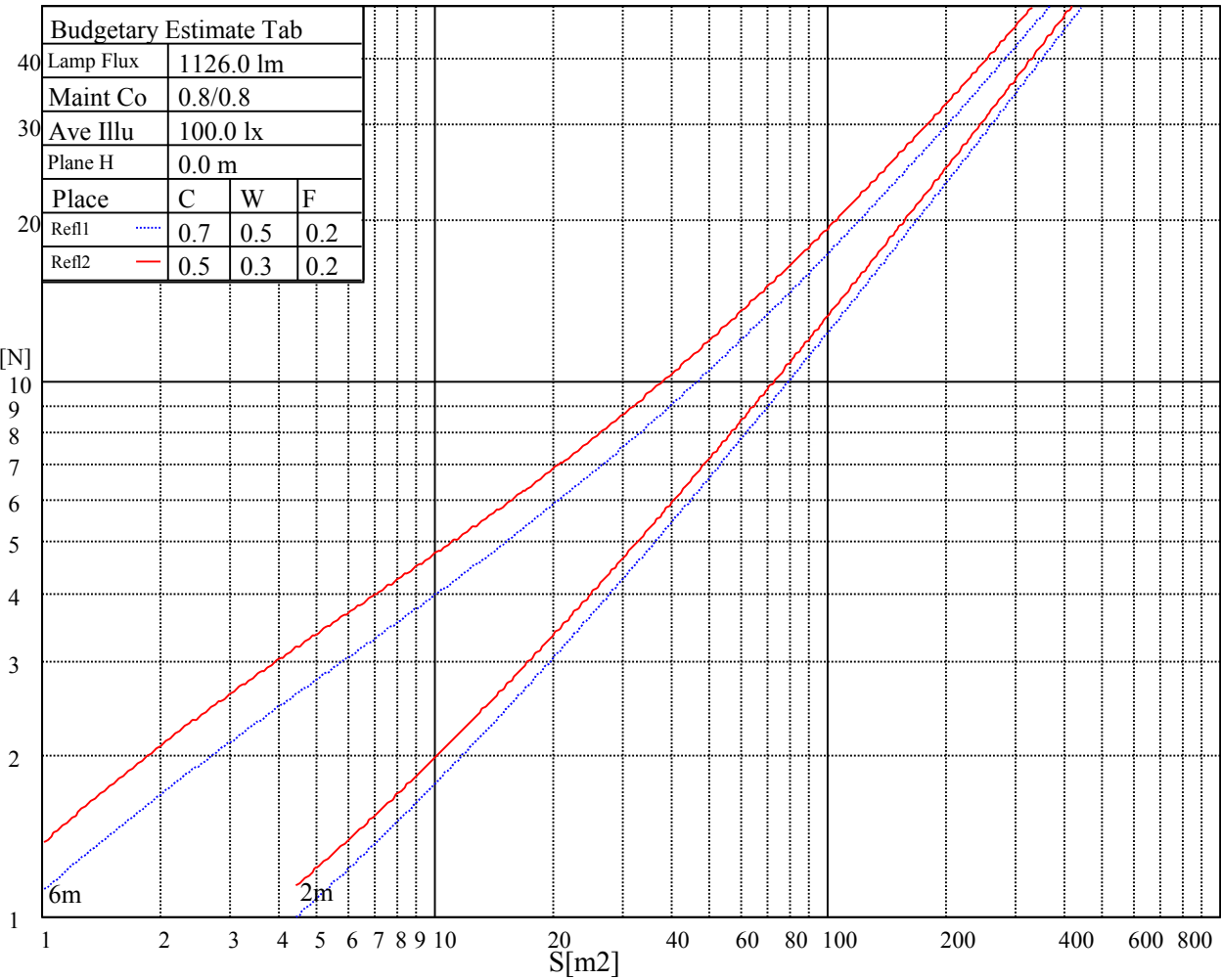
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
1788	1788	1788	0	0	0	0	434	434

Glare Table

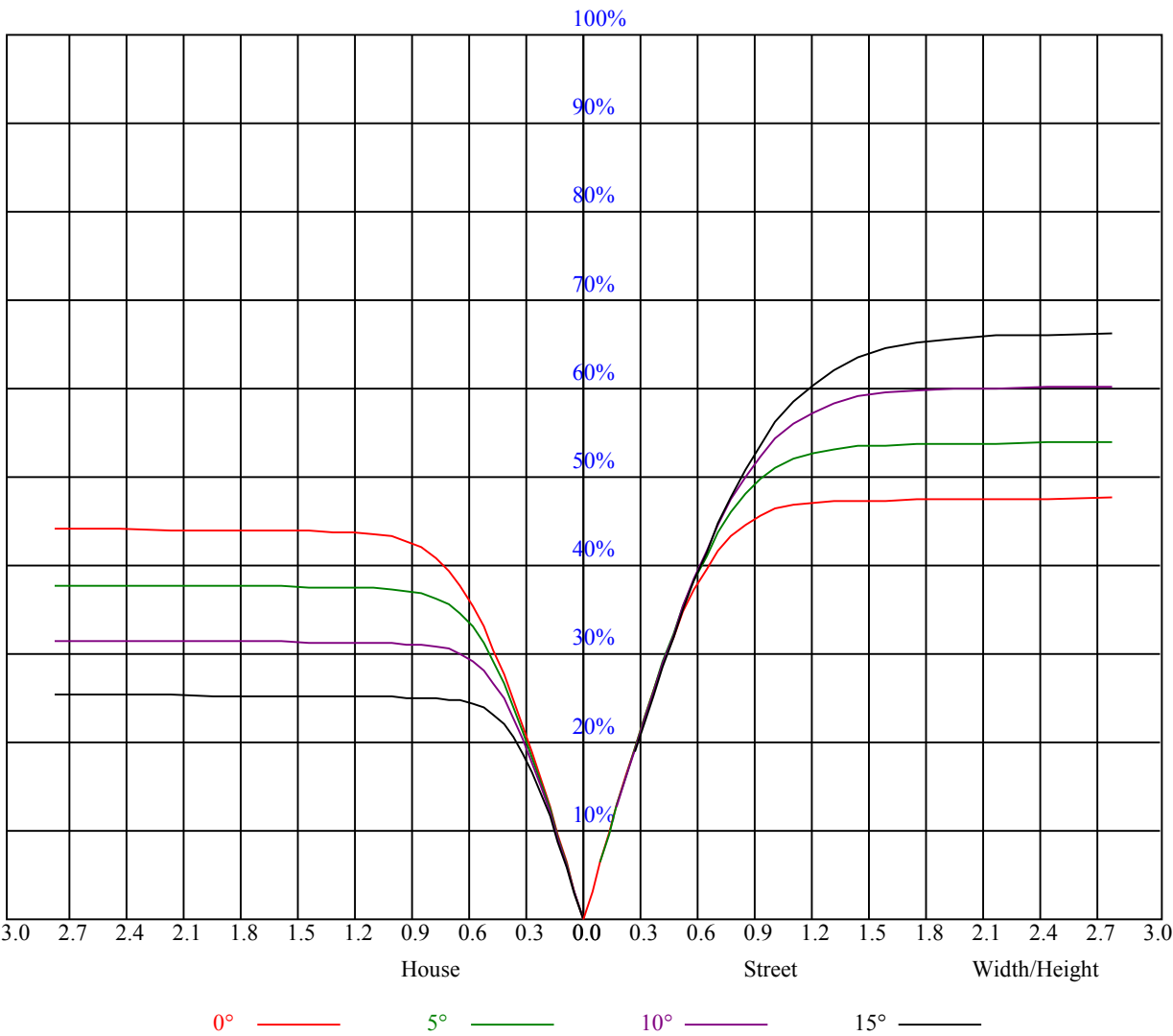
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

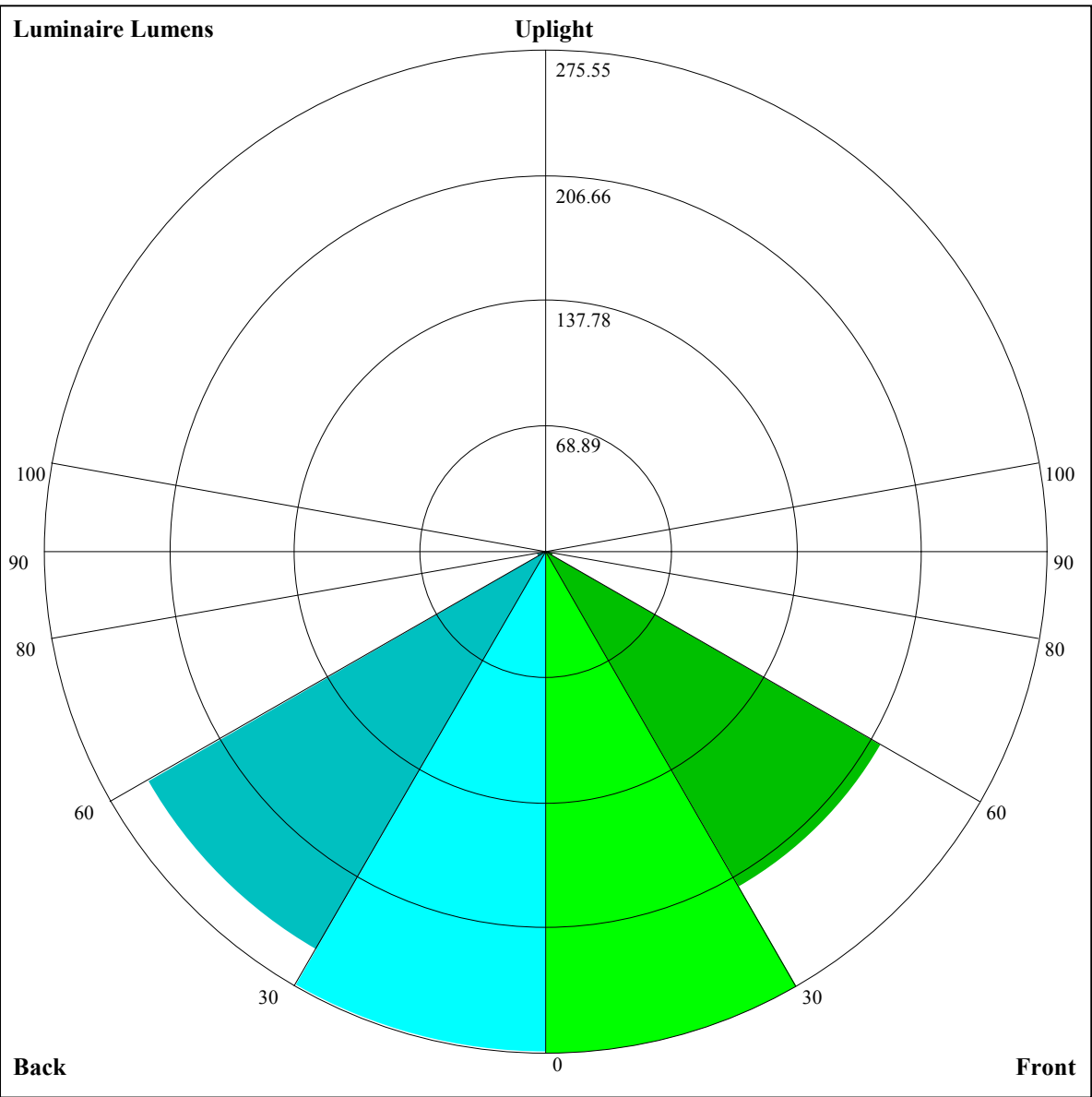
Luminance Limiting Curve





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	1.07	1.07	1.07	1.02	1.02	1.02	0.98	0.98	0.98	0.94	0.94	0.94	0.92
1	1.01	0.98	0.96	0.99	0.97	0.95	0.95	0.93	0.92	0.92	0.90	0.89	0.89	0.87	0.86	0.85
2	0.93	0.89	0.85	0.91	0.87	0.84	0.88	0.85	0.82	0.85	0.83	0.80	0.83	0.81	0.79	0.77
3	0.85	0.80	0.76	0.84	0.79	0.75	0.81	0.77	0.74	0.79	0.76	0.73	0.77	0.74	0.72	0.70
4	0.78	0.73	0.68	0.77	0.72	0.68	0.75	0.71	0.67	0.73	0.69	0.66	0.72	0.68	0.65	0.64
5	0.72	0.66	0.62	0.71	0.66	0.61	0.70	0.65	0.61	0.68	0.64	0.60	0.67	0.63	0.60	0.58
6	0.67	0.61	0.56	0.66	0.60	0.56	0.65	0.59	0.55	0.63	0.59	0.55	0.62	0.58	0.55	0.53
7	0.62	0.56	0.51	0.61	0.55	0.51	0.60	0.55	0.51	0.59	0.54	0.50	0.58	0.53	0.50	0.49
8	0.57	0.51	0.47	0.57	0.51	0.47	0.56	0.50	0.47	0.55	0.50	0.46	0.54	0.49	0.46	0.45
9	0.53	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
10	0.50	0.44	0.40	0.49	0.44	0.40	0.49	0.43	0.40	0.48	0.43	0.39	0.47	0.43	0.39	0.38





Luminaire Lumens:

FL=275.55,FM=212.94,FH=4.75,FVH=0.56

BL=275.15,BM=252.81,BH=5.27,BVH=0.62

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	595.10	607.72	626.42	653.42	690.15	709.28	653.51	459.09	219.30
22.5	592.82	602.13	620.07	641.57	673.40	693.88	681.78	565.48	359.97
45.0	592.90	606.78	625.91	649.10	672.80	679.41	633.95	510.80	322.90
67.5	585.88	595.44	612.79	632.35	660.62	684.31	666.03	551.77	397.30
90.0	581.39	592.06	610.25	635.31	668.06	681.44	624.98	489.22	286.25
112.5	593.66	594.34	607.63	627.86	659.43	688.21	674.16	587.57	419.05
135.0	588.59	593.41	609.66	633.62	656.30	673.06	649.78	563.03	414.99
157.5	596.12	593.16	606.36	625.83	649.44	677.37	688.63	636.15	489.64
180.0	595.10	594.77	608.48	627.94	664.68	701.16	702.00	603.82	379.02
202.5	592.82	600.10	619.06	647.83	679.41	699.80	671.28	540.43	325.36
225.0	592.90	593.07	609.32	633.36	657.40	681.01	664.59	584.61	432.93
247.5	585.88	594.17	614.49	645.21	677.04	688.04	635.90	480.76	290.91
270.0	581.39	584.95	603.23	624.05	659.35	683.04	651.22	502.42	292.18
292.5	593.66	607.04	626.67	650.63	672.72	668.23	596.12	436.15	245.88
315.0	588.59	598.40	617.70	638.78	664.34	673.73	635.22	526.46	354.64
337.5	596.12	611.35	631.92	665.02	691.85	684.06	600.86	413.89	201.36
360.0	595.10	607.72	626.42	653.42	690.15	709.28	653.51	459.09	219.30

C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	61.36	14.56	9.99	7.62	5.84	4.06	2.62	1.44	0.68
22.5	160.31	41.22	13.03	9.14	6.86	5.33	3.64	1.95	0.85
45.0	159.04	61.96	18.45	9.06	6.60	4.57	2.79	1.52	0.85
67.5	217.86	67.71	14.90	9.90	7.62	5.67	3.98	2.20	1.10
90.0	108.09	19.13	11.26	8.63	6.60	4.82	3.05	1.86	1.02
112.5	238.85	94.97	18.71	10.58	7.87	5.92	4.23	2.62	1.18
135.0	238.94	105.29	33.43	10.41	7.45	5.59	3.47	1.95	1.02
157.5	280.16	102.58	22.68	10.92	8.04	6.26	4.49	2.62	1.18
180.0	151.17	33.69	12.27	8.72	6.60	4.99	3.39	2.03	0.68
202.5	131.62	30.81	11.34	8.13	6.09	4.57	2.71	1.44	0.76
225.0	244.78	108.00	33.69	10.41	7.11	5.08	3.22	1.69	0.85
247.5	117.82	23.28	11.00	7.79	5.76	4.06	2.62	1.44	0.85
270.0	127.13	19.13	10.83	8.29	6.09	4.32	2.96	1.69	0.85
292.5	102.67	20.48	10.24	7.62	5.67	3.89	2.29	1.27	0.85
315.0	180.79	72.28	18.62	9.14	6.35	4.49	2.62	1.44	0.85
337.5	58.15	13.97	9.48	7.11	5.33	3.72	2.12	1.10	0.76
360.0	61.36	14.56	9.99	7.62	5.84	4.06	2.62	1.44	0.68

C/ γ (°)	90.0
0.0	0.68
22.5	0.68
45.0	0.76
67.5	0.76
90.0	0.76
112.5	0.76
135.0	0.85
157.5	0.76
180.0	0.68
202.5	0.76
225.0	0.76
247.5	0.76
270.0	0.85
292.5	0.76
315.0	0.76
337.5	0.76
360.0	0.68