



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

NT

Client: NT

LumCAT: 61-0236

Luminaire: 92.70.427.00

Report No: 20250227-B002

Ballast type: DC

Test No: 20250227-C002

LampCAT: LUMINUS CXM-6

Lamp flux(lm): 1090.5

Number of Lamps: 1

Length(mm): 50

Phm Type: C

Voltage(V): 220.800

Current(A): 0.083

Power (W): 10.100

PF: 0.551

Width(mm): 50

Height(mm): 24

Photometric Results

Lumens(lm): 941.04, Efficiency(%): 86.30% , Luminous Efficacy(lm/W): 93.17

Central intensity(cd): 10582.830, Maximum intensity(cd): 10582.830

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=15.0

[C90/270]Total=15.0

Field angle(10%Imax): [C0/180]Total=26.6

[C90/270]Total=26.6

Maximum s/h(1/2): C0_180=0.26 C90_270=0.26

Maximum s/h(1/4): C0_180=0.25 C90_270=0.25

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 86.30%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 97.922%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	10582.829	0.000	0	0.00%	0.00%
1.0	10464.320	10.071	10.071	0.92%	1.07%
2.0	10109.894	29.530	39.601	2.71%	4.21%
3.0	9566.366	47.059	86.66	4.32%	9.21%
4.0	8869.070	61.709	148.369	5.66%	15.77%
5.0	7987.356	72.515	220.885	6.65%	23.47%
6.0	6930.293	78.396	299.281	7.19%	31.80%
7.0	5857.283	79.372	378.653	7.28%	40.24%
8.0	4789.320	76.196	454.849	6.99%	48.33%
9.0	3759.105	69.280	524.129	6.35%	55.70%
10.0	2799.921	59.357	583.486	5.44%	62.00%
11.0	1904.863	47.010	630.496	4.31%	67.00%
12.0	1484.496	37.051	667.547	3.40%	70.94%
13.0	1137.246	31.113	698.66	2.85%	74.24%
14.0	865.043	25.629	724.29	2.35%	76.97%
15.0	671.597	21.096	745.385	1.93%	79.21%
16.0	537.639	17.719	763.104	1.62%	81.09%
17.0	436.958	15.177	778.281	1.39%	82.70%
18.0	354.793	13.054	791.335	1.20%	84.09%
19.0	293.015	11.271	802.606	1.03%	85.29%
20.0	259.913	10.120	812.726	0.93%	86.36%
21.0	227.989	9.369	822.095	0.86%	87.36%
22.0	165.794	7.913	830.008	0.73%	88.20%
23.0	140.973	6.437	836.445	0.59%	88.89%
24.0	121.237	5.733	842.178	0.53%	89.49%
25.0	104.514	5.133	847.311	0.47%	90.04%
26.0	91.002	4.615	851.926	0.42%	90.53%
27.0	79.539	4.172	856.098	0.38%	90.97%
28.0	70.125	3.789	859.887	0.35%	91.38%
29.0	62.458	3.469	863.356	0.32%	91.74%
30.0	56.862	3.222	866.578	0.30%	92.09%
31.0	52.078	3.032	869.609	0.28%	92.41%
32.0	48.493	2.881	872.491	0.26%	92.72%
33.0	45.691	2.775	875.265	0.25%	93.01%
34.0	43.226	2.691	877.956	0.25%	93.30%
35.0	41.251	2.624	880.58	0.24%	93.58%
36.0	39.473	2.570	883.15	0.24%	93.85%
37.0	37.725	2.518	885.668	0.23%	94.12%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	35.882	2.457	888.125	0.23%	94.38%
39.0	33.928	2.383	890.508	0.22%	94.63%
40.0	32.195	2.306	892.814	0.21%	94.88%
41.0	30.337	2.227	895.04	0.20%	95.11%
42.0	28.530	2.139	897.179	0.20%	95.34%
43.0	26.657	2.044	899.223	0.19%	95.56%
44.0	25.077	1.953	901.176	0.18%	95.76%
45.0	23.394	1.863	903.039	0.17%	95.96%
46.0	21.778	1.767	904.805	0.16%	96.15%
47.0	20.322	1.674	906.48	0.15%	96.33%
48.0	18.815	1.582	908.062	0.15%	96.50%
49.0	17.542	1.493	909.555	0.14%	96.65%
50.0	16.233	1.408	910.963	0.13%	96.80%
51.0	15.113	1.326	912.289	0.12%	96.94%
52.0	14.111	1.254	913.543	0.12%	97.08%
53.0	13.116	1.184	914.728	0.11%	97.20%
54.0	12.275	1.119	915.847	0.10%	97.32%
55.0	11.522	1.062	916.909	0.10%	97.44%
56.0	10.812	1.009	917.918	0.09%	97.54%
57.0	10.176	0.960	918.878	0.09%	97.64%
58.0	9.554	0.912	919.79	0.08%	97.74%
59.0	9.005	0.868	920.658	0.08%	97.83%
60.0	8.537	0.829	921.487	0.08%	97.92%
61.0	8.179	0.798	922.284	0.07%	98.01%
62.0	7.879	0.774	923.058	0.07%	98.09%
63.0	7.615	0.754	923.812	0.07%	98.17%
64.0	7.367	0.735	924.547	0.07%	98.25%
65.0	7.140	0.718	925.265	0.07%	98.32%
66.0	6.950	0.703	925.968	0.06%	98.40%
67.0	6.774	0.690	926.658	0.06%	98.47%
68.0	6.642	0.680	927.337	0.06%	98.54%
69.0	6.503	0.671	928.008	0.06%	98.62%
70.0	6.394	0.662	928.67	0.06%	98.69%
71.0	6.284	0.655	929.326	0.06%	98.76%
72.0	6.203	0.649	929.975	0.06%	98.82%
73.0	6.130	0.645	930.62	0.06%	98.89%
74.0	6.050	0.640	931.26	0.06%	98.96%
75.0	5.977	0.635	931.896	0.06%	99.03%

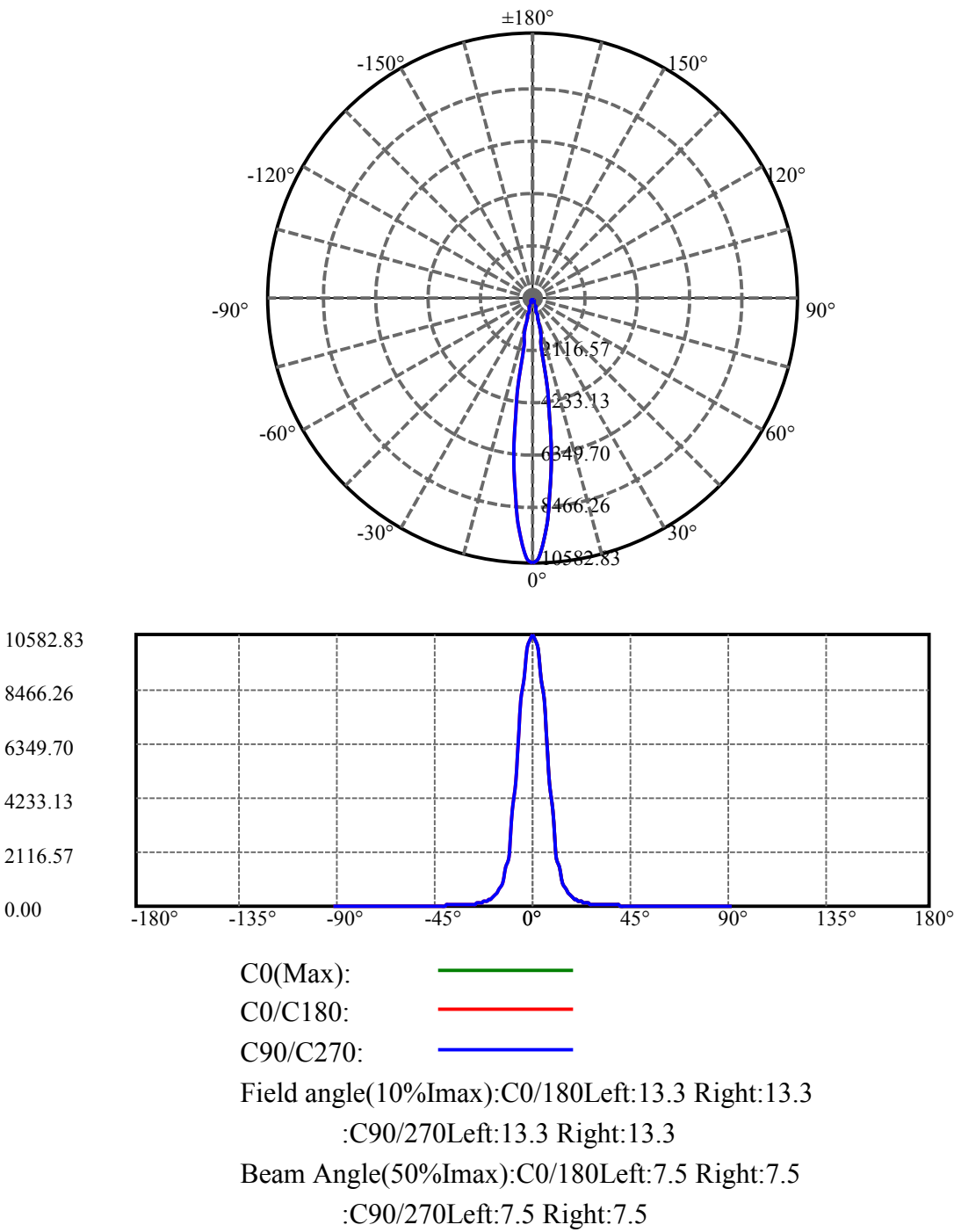
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	5.903	0.631	932.526	0.06%	99.10%
77.0	5.838	0.626	933.152	0.06%	99.16%
78.0	5.794	0.623	933.775	0.06%	99.23%
79.0	5.743	0.620	934.395	0.06%	99.29%
80.0	5.706	0.617	935.012	0.06%	99.36%
81.0	5.677	0.616	935.627	0.06%	99.42%
82.0	5.677	0.616	936.243	0.06%	99.49%
83.0	5.728	0.620	936.863	0.06%	99.56%
84.0	5.625	0.619	937.482	0.06%	99.62%
85.0	5.516	0.608	938.09	0.06%	99.69%
86.0	5.465	0.600	938.69	0.06%	99.75%
87.0	5.406	0.595	939.285	0.05%	99.81%
88.0	5.333	0.588	939.873	0.05%	99.88%
89.0	5.318	0.584	940.457	0.05%	99.94%
90.0	5.333	0.584	941.041	0.05%	100.00%

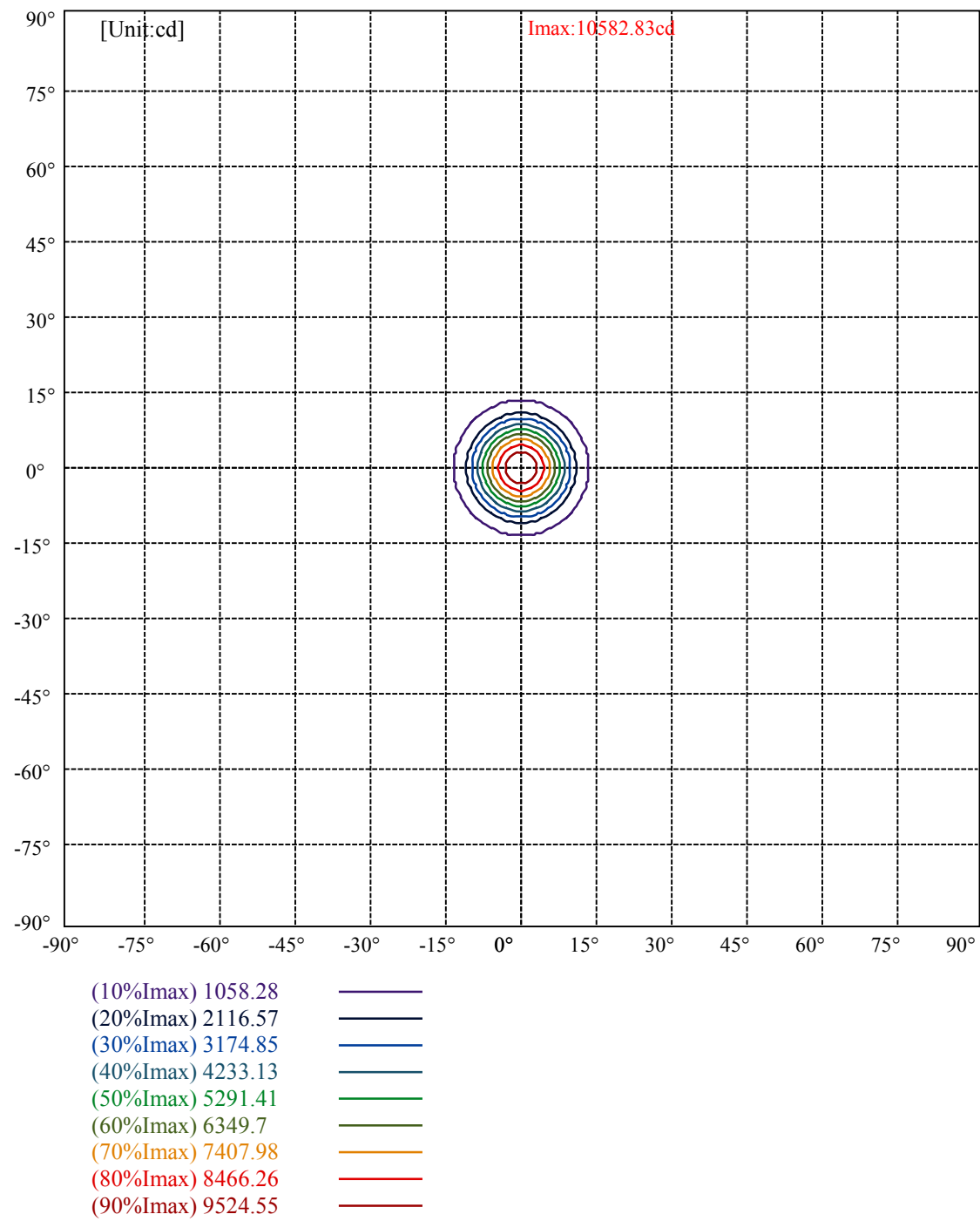
ZONAL LUMEN SUMMARY

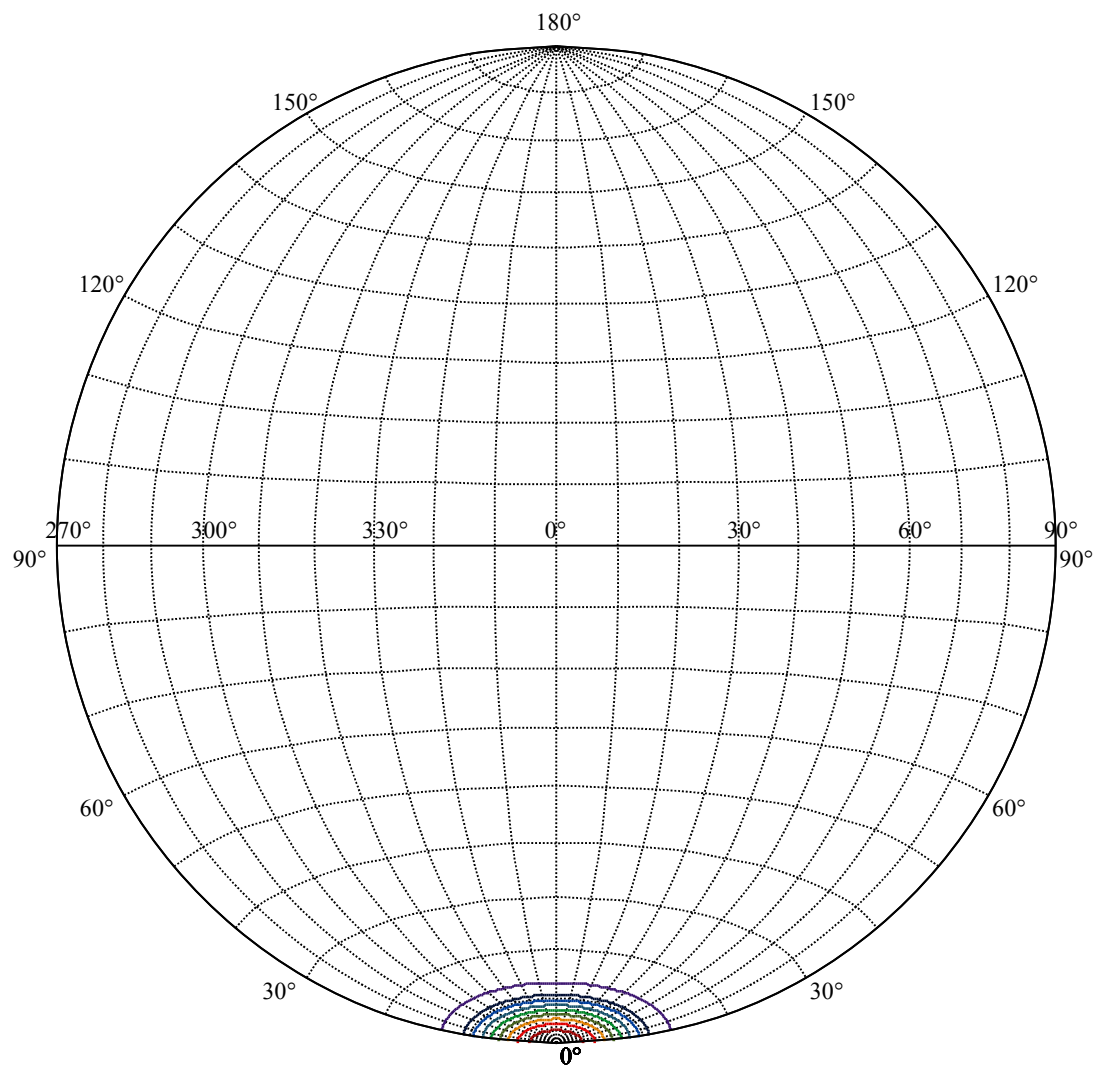
Zone	Lumens	%Lamp	%Fixt
0-30	866.58	79.47%	92.09%
0-40	892.81	81.87%	94.88%
0-60	921.49	84.50%	97.92%
0-90	940.46	86.24%	99.94%
0-120	940.46	86.24%	99.94%
0-180	941.04	86.30%	100.00%
60-90	18.97	1.74%	2.02%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-15.42	752.83	69.04%	80.00%

ZONAL LUMEN SUMMARY

0-10	583.49
10-20	229.24
20-30	53.85
30-40	26.24
40-50	18.15
50-60	10.52
60-70	7.18
70-80	6.34
80-90	5.44
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







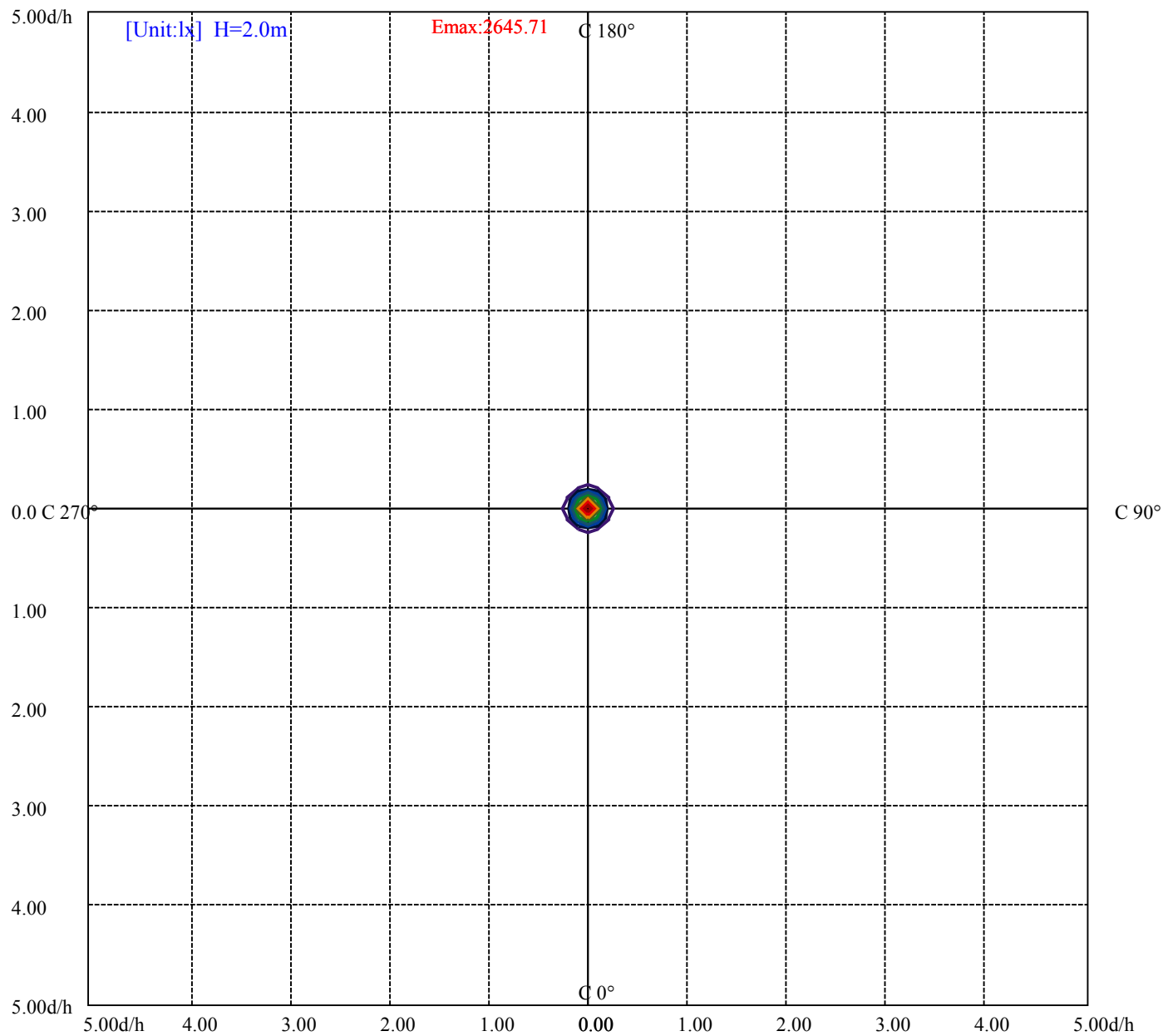
House

[Unit:cd]

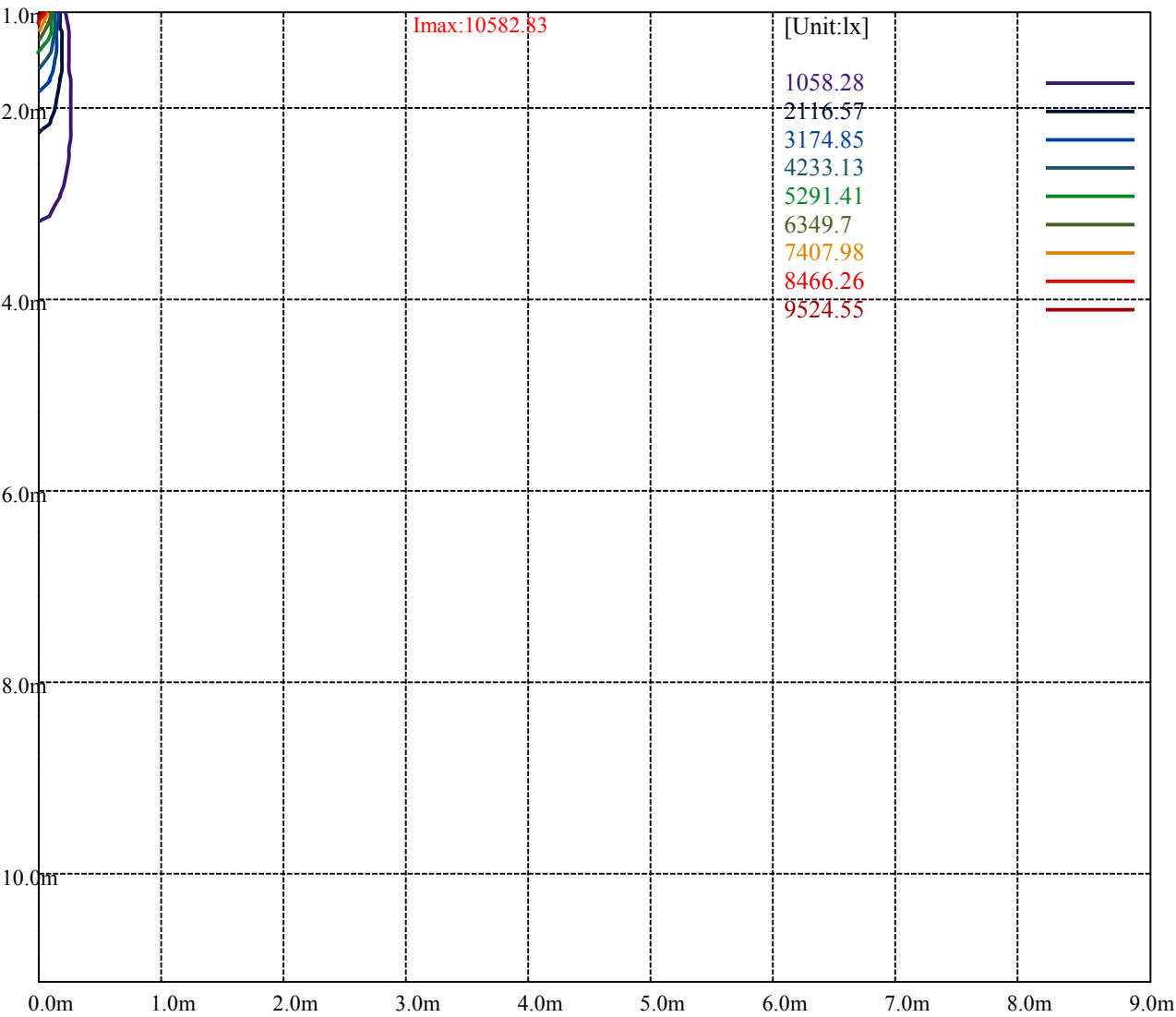
Road

Imax:10582.83

(10%Imax)	1058.28	—
(20%Imax)	2116.57	—
(30%Imax)	3174.85	—
(40%Imax)	4233.13	—
(50%Imax)	5291.41	—
(60%Imax)	6349.7	—
(70%Imax)	7407.98	—
(80%Imax)	8466.26	—
(90%Imax)	9524.55	—



(10%Emax)	264.57	
(20%Emax)	529.14	
(30%Emax)	793.71	
(40%Emax)	1058.28	
(50%Emax)	1322.853	
(60%Emax)	1587.422	
(70%Emax)	1851.993	
(80%Emax)	2116.563	
(90%Emax)	2381.133	



Luminance Table

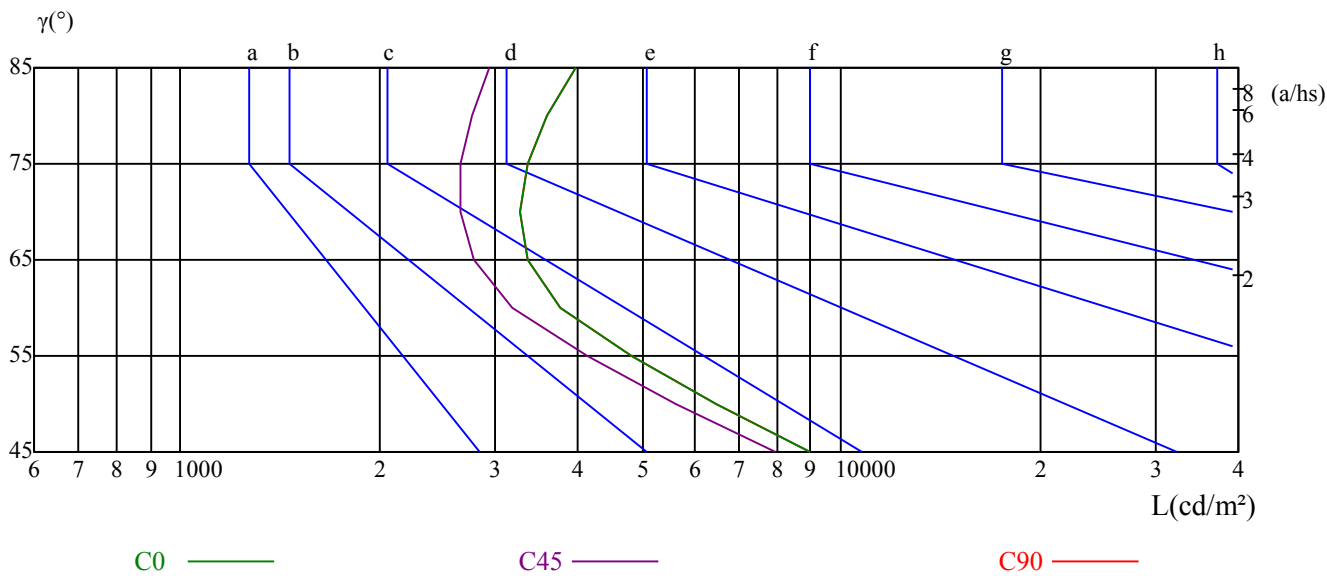
γ	45	50	55	60	65	70	75	80	85
C0	9003	6475	4808	3765	3365	3263	3354	3586	3973
C45	7950	5637	4122	3175	2786	2646	2654	2756	2944
C90	9003	6475	4808	3765	3365	3263	3354	3586	3973

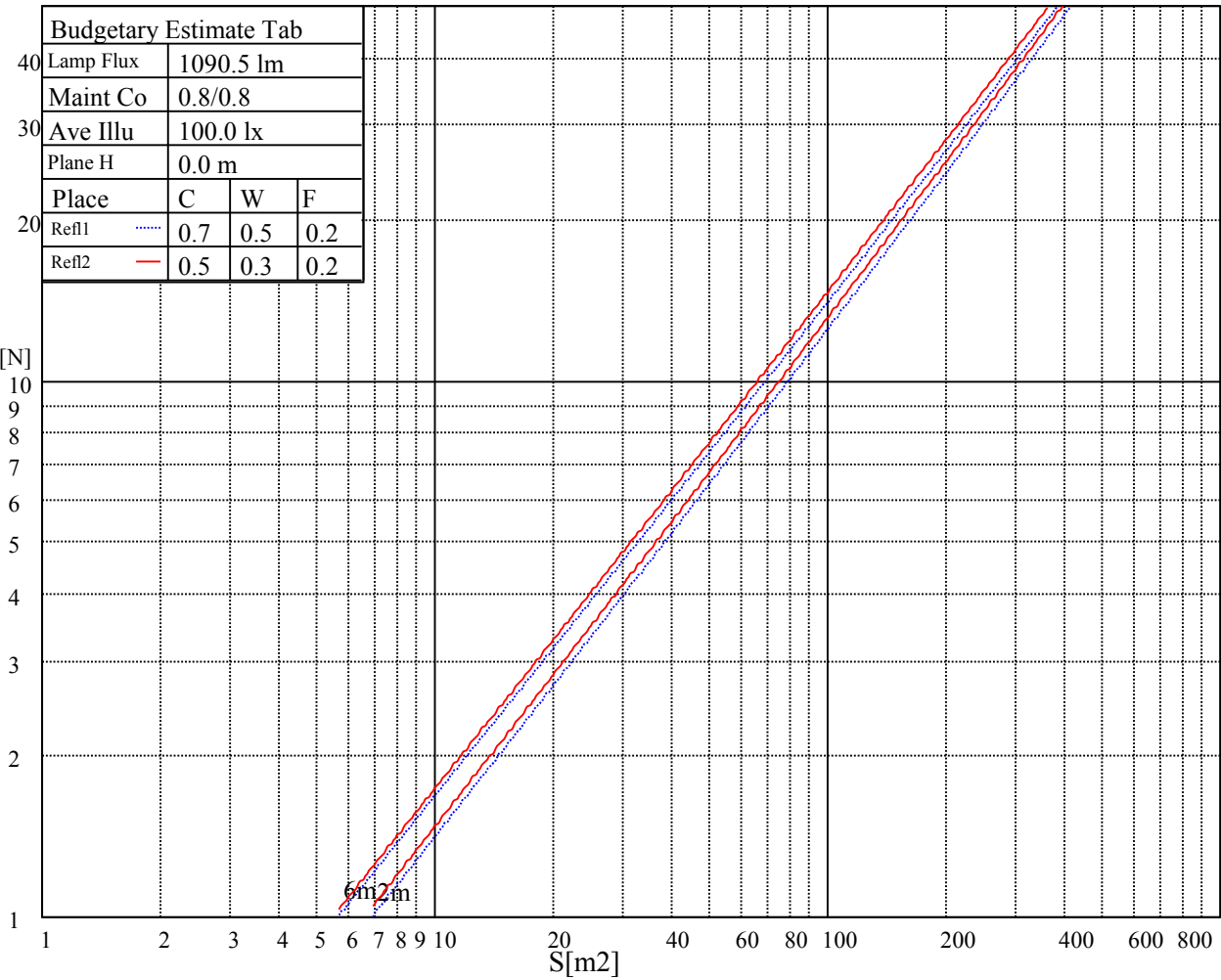
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
6758	6758	6758	9237	9237	9237	25314	25314	25314

Glare Table

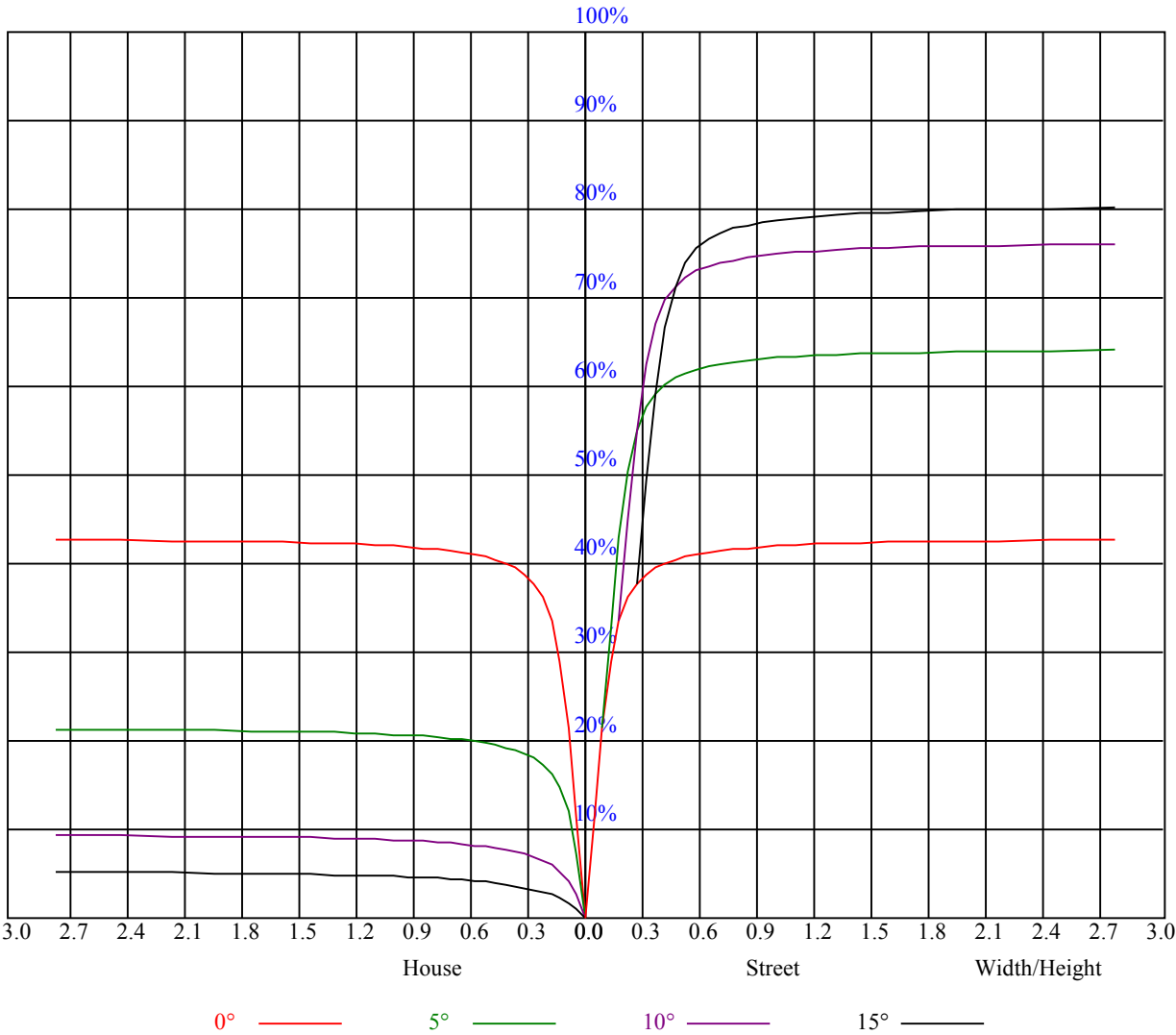
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	≤ 300				
1.5	B		2000	1000	500	≤ 300			
1.85	C			2000	1000	500	≤ 300		
2.2	D				2000	1000	500	≤ 300	
2.55	E					2000	1000	500	≤ 300
		a	b	c	d	e	f	g	h

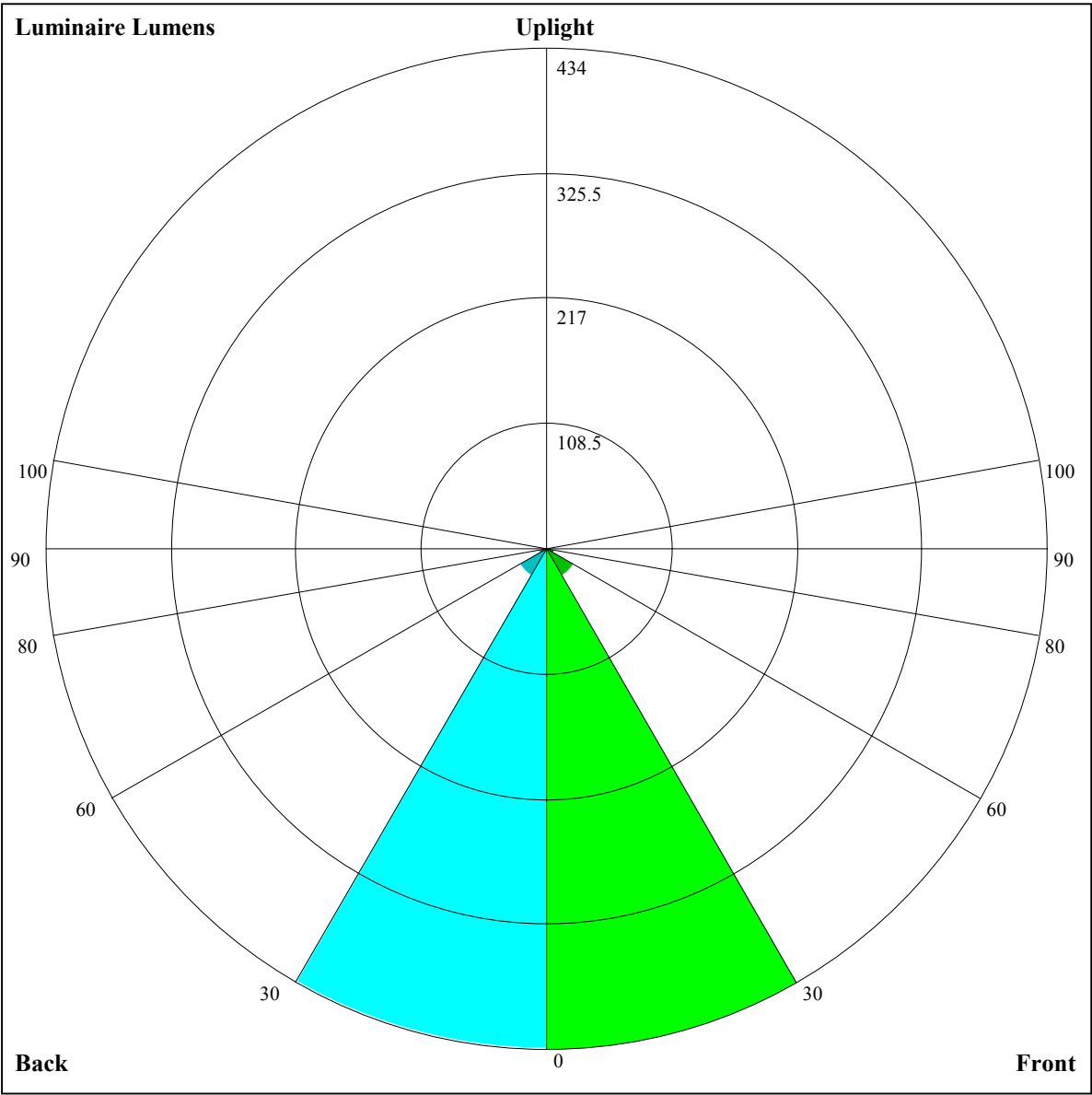
Luminance Limiting Curve





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	1.03	1.03	1.03	1.00	1.00	1.00	0.96	0.96	0.96	0.92	0.92	0.92	0.88	0.88	0.88	0.86
1	0.98	0.96	0.95	0.96	0.94	0.93	0.92	0.91	0.90	0.89	0.88	0.88	0.86	0.86	0.85	0.84
2	0.93	0.91	0.89	0.92	0.90	0.88	0.89	0.88	0.86	0.87	0.86	0.84	0.85	0.84	0.83	0.81
3	0.90	0.87	0.85	0.89	0.86	0.84	0.87	0.85	0.83	0.85	0.83	0.82	0.83	0.82	0.81	0.80
4	0.87	0.84	0.82	0.86	0.84	0.81	0.85	0.82	0.81	0.83	0.81	0.80	0.82	0.80	0.79	0.78
5	0.85	0.82	0.80	0.84	0.81	0.79	0.83	0.80	0.79	0.82	0.80	0.78	0.81	0.79	0.77	0.76
6	0.83	0.80	0.78	0.82	0.79	0.77	0.81	0.79	0.77	0.80	0.78	0.76	0.79	0.77	0.76	0.75
7	0.81	0.78	0.76	0.81	0.78	0.76	0.80	0.77	0.75	0.79	0.77	0.75	0.78	0.76	0.75	0.74
8	0.80	0.77	0.74	0.79	0.76	0.74	0.78	0.76	0.74	0.78	0.75	0.74	0.77	0.75	0.74	0.73
9	0.78	0.75	0.73	0.78	0.75	0.73	0.77	0.75	0.73	0.77	0.74	0.73	0.76	0.74	0.72	0.72
10	0.77	0.74	0.72	0.77	0.74	0.72	0.76	0.74	0.72	0.75	0.73	0.72	0.75	0.73	0.72	0.71





Luminaire Lumens:

FL=434,FM=27.48,FH=6.75,FVH=3.03

BL=432.6,BM=27.29,BH=6.73,BVH=2.98

UL=0,UH=0

BUG Rating:B1-U0-G0

Intensity data(cd)

Appendix Page: 17 Total:19

C/ γ (°)	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0
0.0	10637.69	10416.48	10031.99	9470.17	8726.35	7620.27	6665.19	5659.77	4668.40
45.0	10475.00	10664.03	10565.13	10268.42	9632.86	8938.20	8096.06	7151.51	5873.96
90.0	10651.74	10451.59	10094.60	9574.34	8868.56	7778.28	6818.51	5524.00	4496.34
135.0	10566.88	10625.40	10470.90	10023.79	9469.58	8768.48	7706.30	6740.68	5471.91
180.0	10637.69	10576.24	10300.60	9738.79	9118.45	8361.17	7247.48	6239.73	5234.90
225.0	10475.00	10119.18	9453.20	8747.42	7907.62	6947.26	5639.87	4618.07	3659.47
270.0	10651.74	10559.86	10257.30	9643.98	8962.78	8143.46	7204.18	5892.69	4857.43
315.0	10566.88	10301.77	9705.43	9064.02	8266.36	7341.71	6064.75	5031.82	4052.16
360.0	10637.69	10416.48	10031.99	9470.17	8726.35	7620.27	6665.19	5659.77	4668.40

C/ γ (°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	3521.94	2711.99	1583.68	1131.06	1057.74	823.94	634.21	523.07	434.65
45.0	4865.03	3908.19	3031.52	2115.65	1549.73	1148.27	817.03	647.90	527.93
90.0	3544.18	2497.21	1132.12	1132.12	976.33	701.45	562.93	460.40	379.75
135.0	4475.86	3548.86	2716.67	1876.29	1385.87	1040.59	800.65	601.67	490.48
180.0	4024.07	3150.91	2397.73	1786.17	1256.54	968.02	769.04	627.42	494.57
225.0	2819.67	1554.42	1128.14	1128.14	882.40	676.75	555.32	457.88	360.26
270.0	3876.00	2809.72	2091.65	1549.15	1096.77	848.63	679.50	526.76	432.54
315.0	2946.08	2218.06	1157.40	1157.40	892.59	712.69	554.09	456.01	375.48
360.0	3521.94	2711.99	1583.68	1131.06	1057.74	823.94	634.21	523.07	434.65

C/ γ (°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	346.28	289.51	243.63	198.68	170.83	147.59	128.34	108.79	95.68
45.0	414.98	344.76	301.45	301.45	193.42	165.97	138.41	120.91	105.87
90.0	301.62	252.29	212.03	179.84	148.65	128.75	112.25	95.27	83.80
135.0	403.86	318.42	303.21	303.21	183.47	150.70	130.21	109.32	95.33
180.0	408.55	339.49	309.06	309.06	175.45	149.82	129.28	111.49	93.99
225.0	296.65	244.98	194.41	163.51	139.52	116.28	101.07	88.60	76.02
270.0	355.88	307.89	307.89	190.90	161.81	139.87	117.75	102.65	90.12
315.0	310.52	246.79	207.64	177.26	153.21	128.81	112.60	99.08	87.20
360.0	346.28	289.51	243.63	198.68	170.83	147.59	128.34	108.79	95.68

C/ γ (°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	84.57	74.91	65.66	60.04	54.60	50.91	48.11	45.06	42.78
45.0	92.88	79.36	70.64	63.44	56.59	52.38	49.04	45.71	43.66
90.0	71.75	64.02	57.88	53.02	48.34	45.53	43.25	41.08	39.21
135.0	83.63	71.75	64.32	58.58	53.90	49.28	46.35	44.07	42.02
180.0	82.87	73.56	65.90	58.52	53.96	50.27	46.82	44.71	42.78
225.0	67.89	61.16	55.83	51.62	47.52	45.06	43.07	40.67	38.80
270.0	77.54	69.06	60.04	55.01	50.97	47.52	44.24	42.08	40.56
315.0	75.20	67.18	59.40	54.66	50.74	46.99	44.65	42.43	40.20
360.0	84.57	74.91	65.66	60.04	54.60	50.91	48.11	45.06	42.78

C/ γ (°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	40.73	38.98	36.58	34.53	32.54	30.49	28.27	26.57	24.93
45.0	41.96	39.68	37.69	35.76	34.06	32.01	30.43	28.56	26.80
90.0	37.69	36.52	34.82	33.12	31.54	29.38	27.62	25.52	24.17
135.0	39.91	38.22	36.58	34.70	32.36	30.72	28.73	27.15	25.52
180.0	40.79	39.09	37.40	35.17	33.59	32.01	30.14	28.62	27.21
225.0	36.87	35.46	33.71	31.49	29.79	28.09	26.45	24.52	22.94
270.0	39.15	37.04	35.29	33.88	32.42	30.43	28.79	26.69	25.11
315.0	38.68	36.81	35.00	32.77	31.25	29.55	27.80	25.63	23.94
360.0	40.73	38.98	36.58	34.53	32.54	30.49	28.27	26.57	24.93

Intensity data(cd)

Appendix Page: 18 Total:19

C/γ(°)	45.0	46.0	47.0	48.0	49.0	50.0	51.0	52.0	53.0
0.0	23.00	21.48	20.07	18.55	17.32	16.21	14.92	14.05	13.23
45.0	24.81	23.12	21.59	19.78	18.43	16.97	15.80	14.81	13.87
90.0	22.47	20.95	19.49	17.91	16.80	15.68	14.46	13.58	12.76
135.0	23.70	22.30	20.83	19.49	18.02	16.97	15.98	14.92	13.81
180.0	25.75	23.94	22.47	20.89	19.31	17.26	15.92	14.86	13.75
225.0	21.54	20.25	18.67	17.50	16.39	15.16	14.22	13.05	12.23
270.0	23.47	21.59	20.25	18.79	17.56	16.21	15.16	14.16	12.93
315.0	22.41	20.60	19.20	17.62	16.50	15.39	14.46	13.46	12.35
360.0	23.00	21.48	20.07	18.55	17.32	16.21	14.92	14.05	13.23
C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	12.47	11.65	11.00	10.42	9.83	9.25	8.84	8.43	8.19
45.0	12.82	12.06	11.35	10.71	10.01	9.48	8.90	8.49	8.08
90.0	11.82	11.12	10.53	9.83	9.25	8.72	8.31	7.96	7.72
135.0	12.99	12.23	11.35	10.65	10.01	9.36	8.84	8.43	8.08
180.0	12.93	12.00	11.35	10.77	10.18	9.48	9.01	8.66	8.37
225.0	11.53	10.83	10.07	9.48	8.90	8.49	8.02	7.72	7.49
270.0	12.06	11.35	10.65	9.95	9.31	8.78	8.25	7.90	7.55
315.0	11.59	10.94	10.18	9.60	8.95	8.49	8.13	7.84	7.55
360.0	12.47	11.65	11.00	10.42	9.83	9.25	8.84	8.43	8.19
C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	7.96	7.67	7.43	7.26	7.02	6.91	6.79	6.67	6.55
45.0	7.84	7.61	7.26	7.08	6.85	6.73	6.61	6.44	6.32
90.0	7.49	7.20	7.02	6.85	6.67	6.50	6.38	6.32	6.14
135.0	7.78	7.55	7.26	7.02	6.85	6.73	6.55	6.44	6.32
180.0	8.02	7.78	7.55	7.37	7.20	7.02	6.85	6.73	6.61
225.0	7.20	6.96	6.79	6.61	6.44	6.32	6.20	6.09	6.03
270.0	7.32	7.08	6.91	6.67	6.55	6.44	6.32	6.20	6.14
315.0	7.32	7.08	6.91	6.73	6.61	6.50	6.32	6.26	6.14
360.0	7.96	7.67	7.43	7.26	7.02	6.91	6.79	6.67	6.55
C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	6.50	6.38	6.26	6.14	6.03	5.97	5.91	5.85	5.79
45.0	6.26	6.20	6.09	6.03	6.03	5.97	5.91	5.85	5.79
90.0	6.09	6.03	5.97	5.91	5.85	5.79	5.74	5.68	5.68
135.0	6.20	6.14	6.03	5.97	5.85	5.79	5.74	5.68	5.68
180.0	6.50	6.38	6.32	6.26	6.14	6.03	5.97	5.91	5.85
225.0	5.97	5.91	5.85	5.74	5.68	5.62	5.62	5.56	5.50
270.0	6.03	5.97	5.91	5.85	5.79	5.74	5.68	5.68	5.62
315.0	6.09	6.03	5.97	5.91	5.85	5.79	5.79	5.74	5.74
360.0	6.50	6.38	6.26	6.14	6.03	5.97	5.91	5.85	5.79
C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	5.79	5.74	5.91	5.79	5.56	5.50	5.44	5.38	5.33
45.0	5.79	5.74	5.85	5.85	5.74	5.68	5.62	5.56	5.56
90.0	5.62	5.74	5.68	5.38	5.33	5.27	5.27	5.21	5.09
135.0	5.62	5.56	5.62	5.50	5.38	5.27	5.21	5.15	5.09
180.0	5.85	5.85	5.97	5.97	5.91	5.97	5.79	5.74	5.79
225.0	5.50	5.50	5.33	5.27	5.15	5.09	5.09	4.97	4.97
270.0	5.56	5.62	5.74	5.56	5.44	5.38	5.33	5.21	5.21
315.0	5.68	5.68	5.74	5.68	5.62	5.56	5.50	5.44	5.50
360.0	5.79	5.74	5.91	5.79	5.56	5.50	5.44	5.38	5.33

Intensity data(cd)

C/ $\gamma(^{\circ})$	90.0
0.0	5.33
45.0	5.56
90.0	5.15
135.0	5.09
180.0	5.85
225.0	4.97
270.0	5.15
315.0	5.56
360.0	5.33