
Client:

LumCAT: CT01D03524AF

Luminaire:

Report No: nt0100

Voltage(V): 34.9400

Test No: GC2019122016

Current(A): 0.1970

LampCAT: LUMINUS CXM-6-AC40

Power (W): 6.8800

Lamp flux(lm): 861.0

PF: 1.0000

Number of Lamps: 1

Ballast type: DC

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 786.66, Efficiency(%): 91.37% , Luminous Efficacy(lm/W): 114.34

Central intensity(cd): 2907.984, Maximum intensity(cd): 2907.984

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=22.4

[C90/270]Total=22.4

Field angle(10%Imax): [C0/180]Total=52.8

[C90/270]Total=52.8

Maximum s/h(1/2): C0_180=0.38 C90_270=0.38

Maximum s/h(1/4): C0_180=0.43 C90_270=0.43

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 91.37%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 92.771%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	2907.984	0.000	0	.000%	.000%
1.0	2892.445	2.775	2.775	.322%	.353%
2.0	2842.383	8.231	11.007	.956%	1.399%
3.0	2758.992	13.397	24.403	1.556%	3.102%
4.0	2651.695	18.111	42.515	2.104%	5.404%
5.0	2520.352	22.250	64.764	2.584%	8.233%
6.0	2345.344	25.571	90.335	2.970%	11.483%
7.0	2171.672	28.037	118.372	3.256%	15.047%
8.0	1997.016	29.835	148.206	3.465%	18.840%
9.0	1811.461	30.866	179.072	3.585%	22.764%
10.0	1630.055	31.144	210.217	3.617%	26.723%
11.0	1477.969	31.056	241.272	3.607%	30.670%
12.0	1334.454	30.744	272.016	3.571%	34.579%
13.0	1198.920	30.065	302.081	3.492%	38.400%
14.0	1084.943	29.233	331.314	3.395%	42.117%
15.0	996.026	28.568	359.882	3.318%	45.748%
16.0	903.333	27.831	387.713	3.232%	49.286%
17.0	813.157	26.730	414.444	3.105%	52.684%
18.0	740.271	25.613	440.056	2.975%	55.940%
19.0	669.691	24.530	464.587	2.849%	59.058%
20.0	603.190	23.297	487.884	2.706%	62.020%
21.0	543.938	22.027	509.911	2.558%	64.820%
22.0	487.779	20.733	530.644	2.408%	67.455%
23.0	439.931	19.466	550.11	2.261%	69.930%
24.0	392.885	18.208	568.318	2.115%	72.244%
25.0	349.910	16.890	585.208	1.962%	74.391%
26.0	305.888	15.480	600.688	1.798%	76.359%
27.0	270.014	14.090	614.777	1.636%	78.150%
28.0	229.880	12.656	627.434	1.470%	79.759%
29.0	202.296	11.307	638.741	1.313%	81.197%
30.0	170.466	10.064	648.805	1.169%	82.476%
31.0	142.193	8.701	657.506	1.011%	83.582%
32.0	119.721	7.504	665.009	.871%	84.536%
33.0	100.322	6.483	671.492	.753%	85.360%
34.0	83.060	5.550	677.042	.645%	86.065%
35.0	68.752	4.715	681.756	.548%	86.665%
36.0	56.855	3.999	685.756	.464%	87.173%
37.0	47.588	3.406	689.162	.396%	87.606%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	40.402	2.937	692.099	.341%	87.979%
39.0	34.812	2.567	694.666	.298%	88.306%
40.0	30.720	2.285	696.952	.265%	88.596%
41.0	27.682	2.080	699.031	.242%	88.861%
42.0	25.291	1.925	700.956	.224%	89.105%
43.0	23.477	1.807	702.763	.210%	89.335%
44.0	22.170	1.723	704.485	.200%	89.554%
45.0	21.213	1.667	706.153	.194%	89.766%
46.0	20.299	1.623	707.776	.189%	89.972%
47.0	19.716	1.591	709.368	.185%	90.175%
48.0	19.202	1.573	710.941	.183%	90.375%
49.0	18.724	1.557	712.498	.181%	90.573%
50.0	18.506	1.552	714.051	.180%	90.770%
51.0	18.478	1.565	715.615	.182%	90.969%
52.0	18.436	1.584	717.199	.184%	91.170%
53.0	18.366	1.601	718.8	.186%	91.374%
54.0	18.035	1.604	720.405	.186%	91.578%
55.0	17.620	1.592	721.996	.185%	91.780%
56.0	17.339	1.580	723.576	.183%	91.981%
57.0	17.044	1.572	725.148	.183%	92.181%
58.0	16.727	1.562	726.71	.181%	92.379%
59.0	16.425	1.550	728.26	.180%	92.576%
60.0	16.088	1.536	729.796	.178%	92.771%
61.0	15.750	1.519	731.315	.176%	92.965%
62.0	15.455	1.504	732.819	.175%	93.156%
63.0	15.195	1.491	734.309	.173%	93.345%
64.0	14.899	1.477	735.786	.172%	93.533%
65.0	14.625	1.461	737.247	.170%	93.719%
66.0	14.421	1.449	738.696	.168%	93.903%
67.0	14.154	1.437	740.133	.167%	94.086%
68.0	13.859	1.419	741.552	.165%	94.266%
69.0	13.627	1.402	742.954	.163%	94.444%
70.0	13.437	1.390	744.344	.161%	94.621%
71.0	13.648	1.400	745.744	.163%	94.799%
72.0	14.168	1.446	747.19	.168%	94.983%
73.0	15.173	1.534	748.725	.178%	95.178%
74.0	16.615	1.671	750.396	.194%	95.390%
75.0	18.457	1.853	752.249	.215%	95.626%

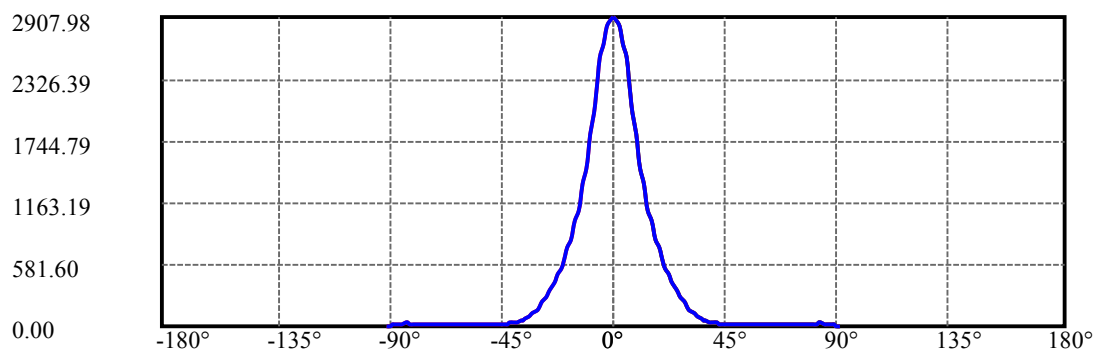
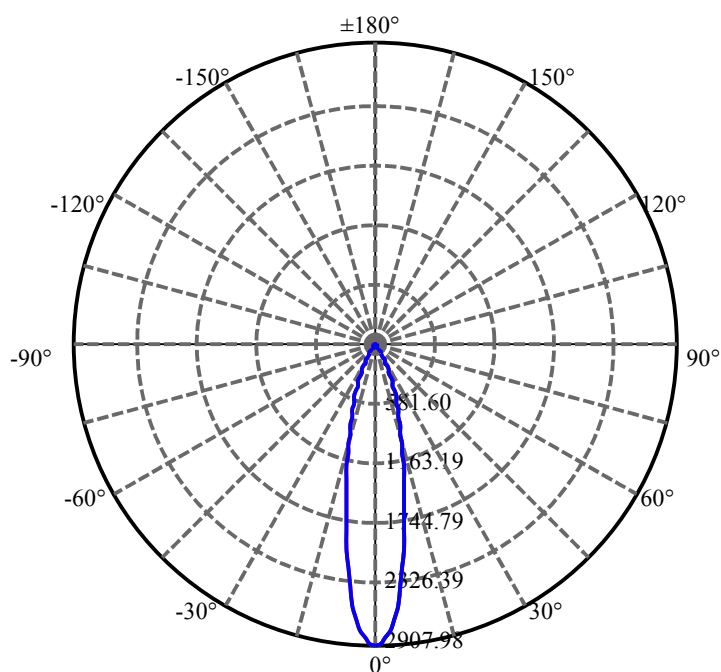
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	19.793	2.030	754.279	.236%	95.884%
77.0	20.939	2.172	756.451	.252%	96.160%
78.0	21.853	2.291	758.742	.266%	96.451%
79.0	22.901	2.405	761.146	.279%	96.757%
80.0	24.638	2.563	763.709	.298%	97.083%
81.0	26.346	2.757	766.466	.320%	97.433%
82.0	27.366	2.913	769.379	.338%	97.803%
83.0	27.260	2.970	772.349	.345%	98.181%
84.0	26.620	2.935	775.284	.341%	98.554%
85.0	25.545	2.847	778.131	.331%	98.916%
86.0	22.732	2.639	780.77	.306%	99.251%
87.0	20.602	2.372	783.141	.275%	99.553%
88.0	11.250	1.745	784.886	.203%	99.775%
89.0	8.009	1.056	785.942	.123%	99.909%
90.0	5.084	0.718	786.66	.083%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	648.81	75.35%	82.48%
0-40	696.95	80.95%	88.60%
0-60	729.80	84.76%	92.77%
0-90	785.94	91.28%	99.91%
0-120	785.94	91.28%	99.91%
0-180	786.66	91.37%	100.00%
60-90	57.68	6.70%	7.33%
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%
0-28.17	629.33	73.09%	80.00%

ZONAL LUMEN SUMMARY

0-10	210.22
10-20	277.67
20-30	160.92
30-40	48.15
40-50	17.10
50-60	15.74
60-70	14.55
70-80	19.37
80-90	22.23
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



C0(Max):

C0/C180:

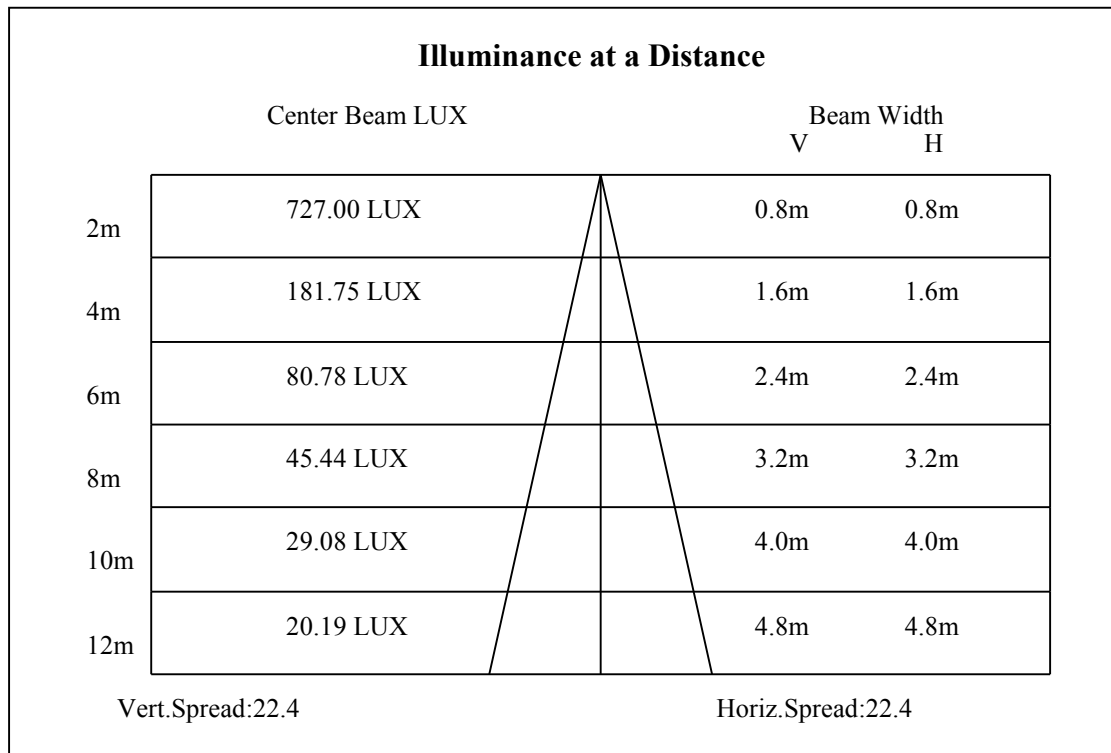
C90/C270:

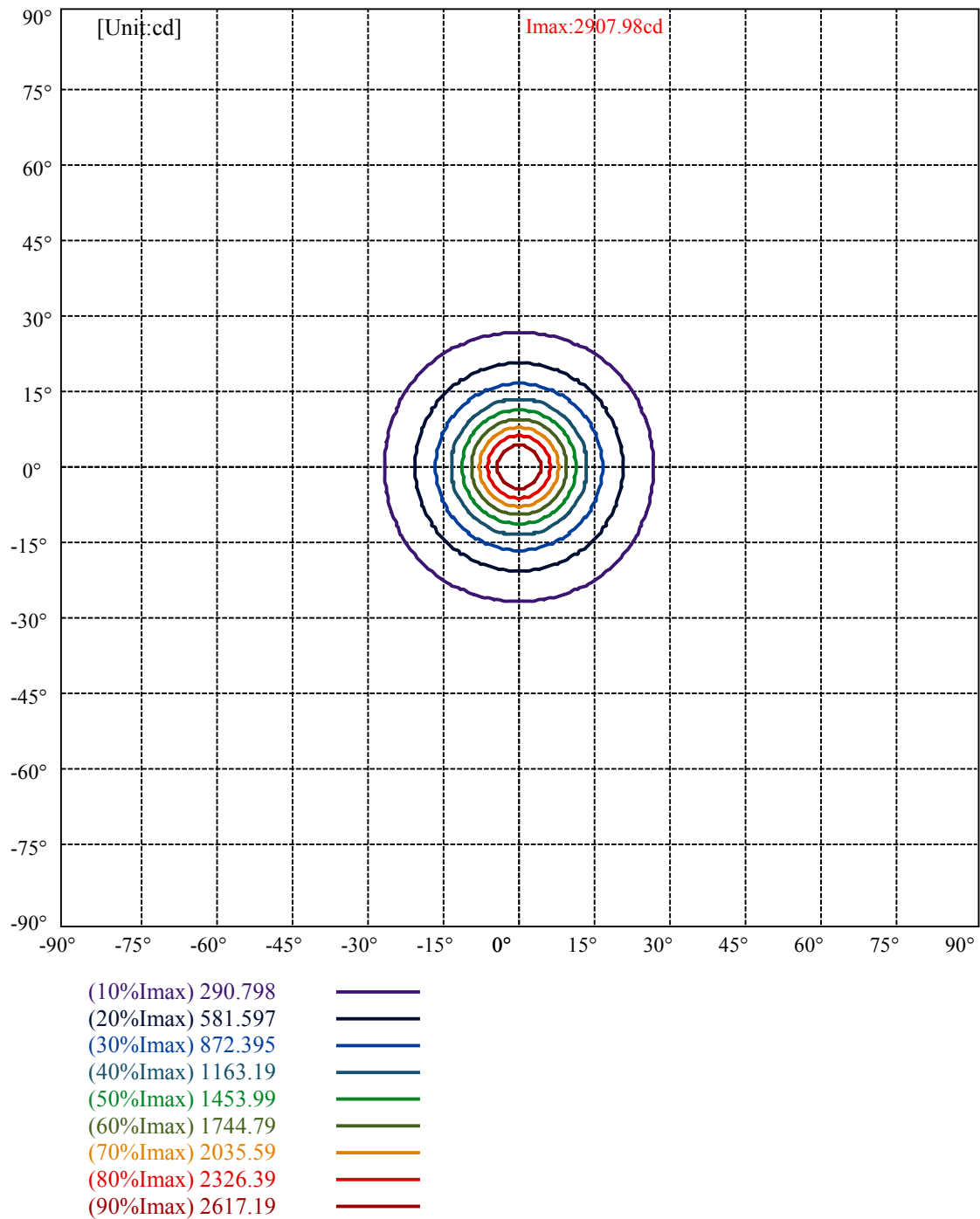
Field angle(10%Imax):C0/180Left:26.4 Right:26.4

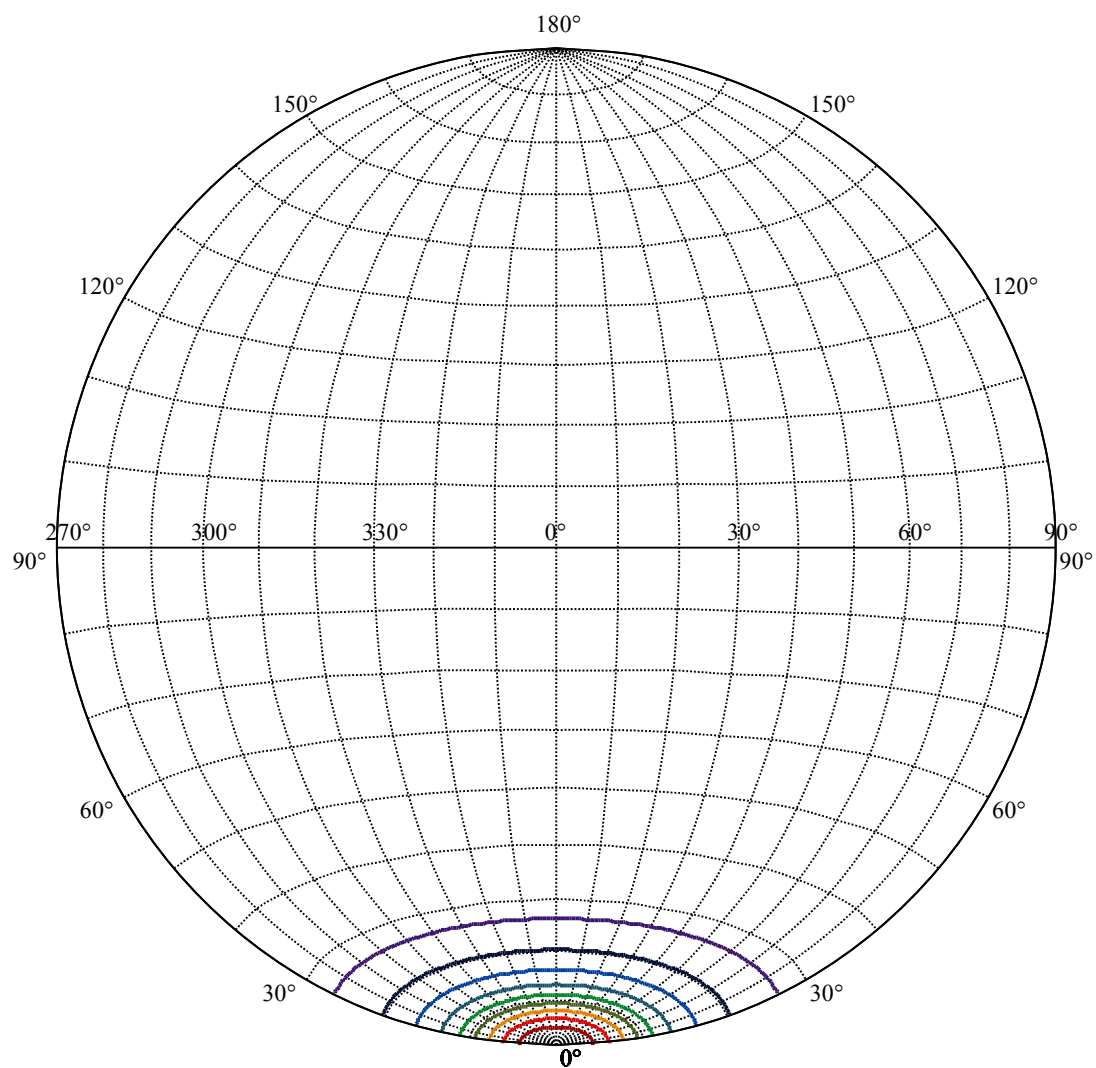
:C90/270Left:26.4 Right:26.4

Beam Angle(50%Imax):C0/180Left:11.2 Right:11.2

:C90/270Left:11.2 Right:11.2







House

[Unit:cd]

Road

Imax:2907.98

(10%Imax) 290.798

(20%Imax) 581.597

(30%Imax) 872.395

(40%Imax) 1163.19

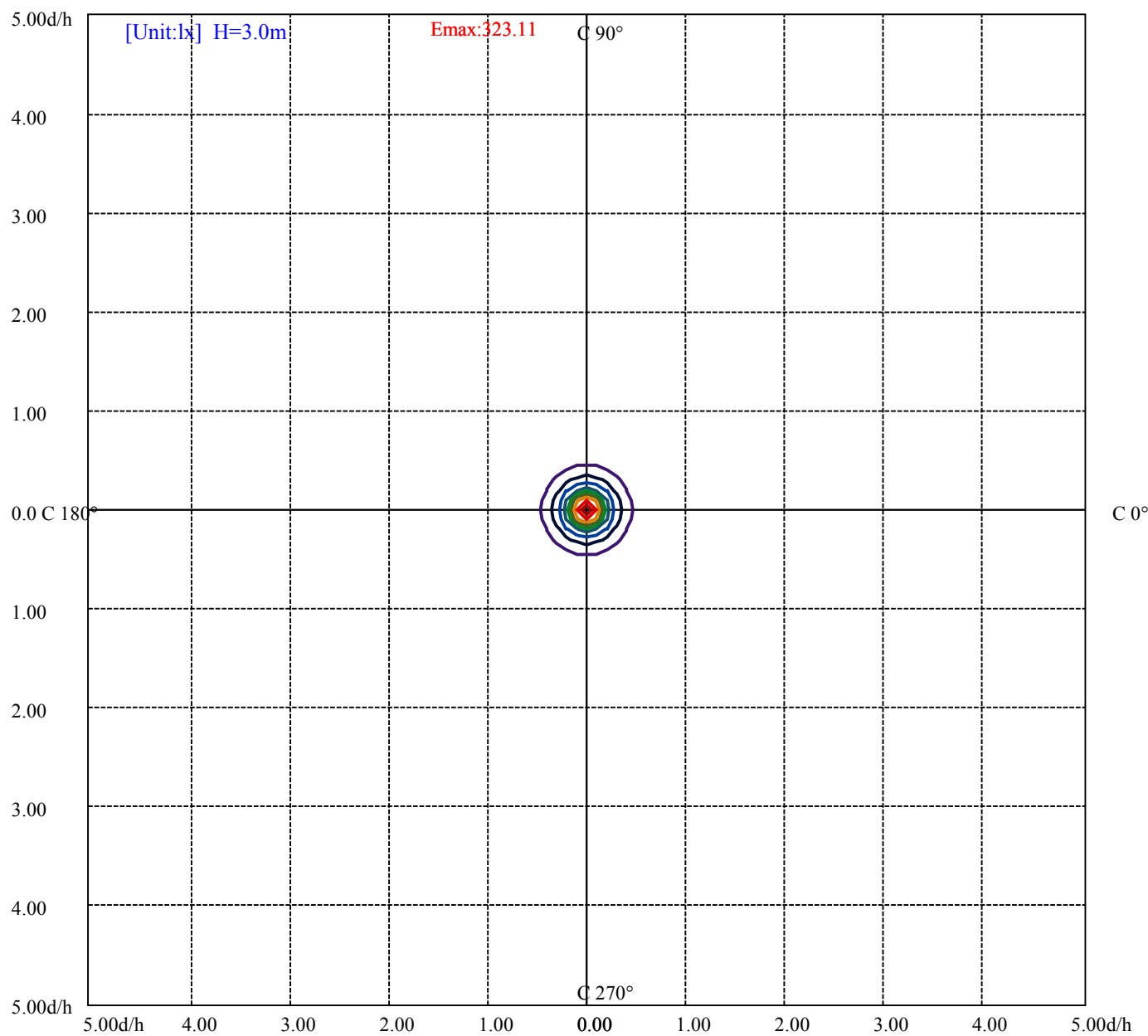
(50%Imax) 1453.99

(60%Imax) 1744.79

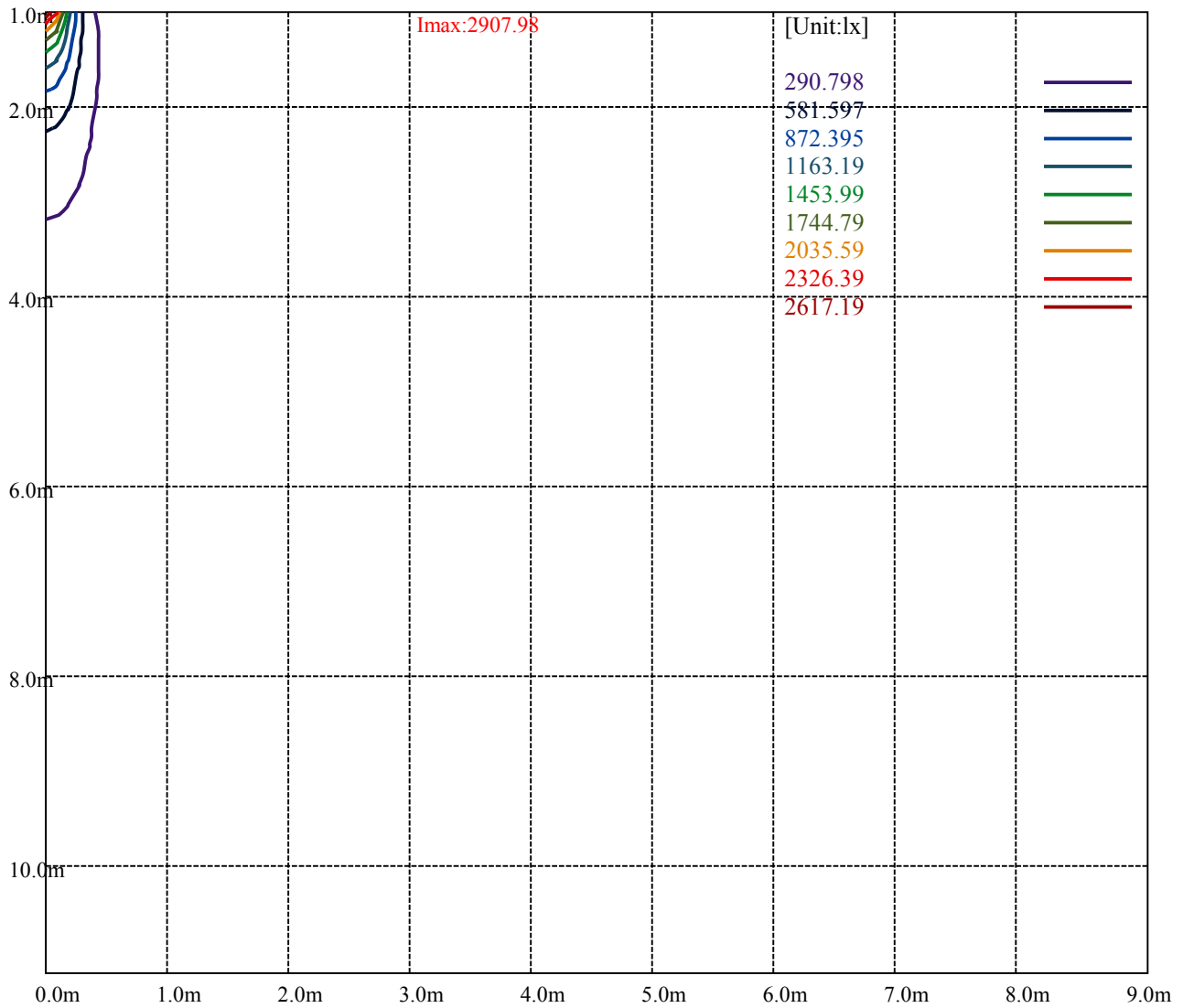
(70%Imax) 2035.59

(80%Imax) 2326.39

(90%Imax) 2617.19



(10%E _{max}) 32.31089	—
(20%E _{max}) 64.62178	—
(30%E _{max}) 96.93278	—
(40%E _{max}) 129.2433	—
(50%E _{max}) 161.5544	—
(60%E _{max}) 193.8656	—
(70%E _{max}) 226.1767	—
(80%E _{max}) 258.4878	—
(90%E _{max}) 290.7978	—



Luminance Table

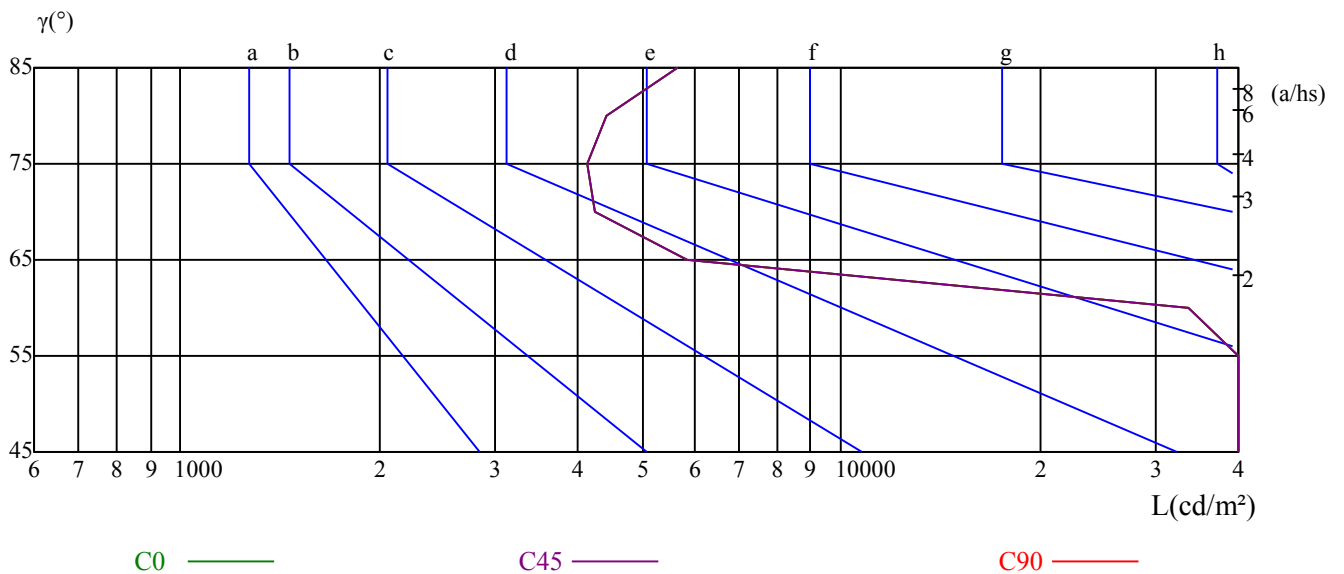
γ	45	50	55	60	65	70	75	80	85
C0	46650	52836	53885	33658	5848	4245	4131	4405	5640
C45	46650	52836	53885	33658	5848	4245	4131	4405	5640
C90	46650	52836	53885	33658	5848	4245	4131	4405	5640

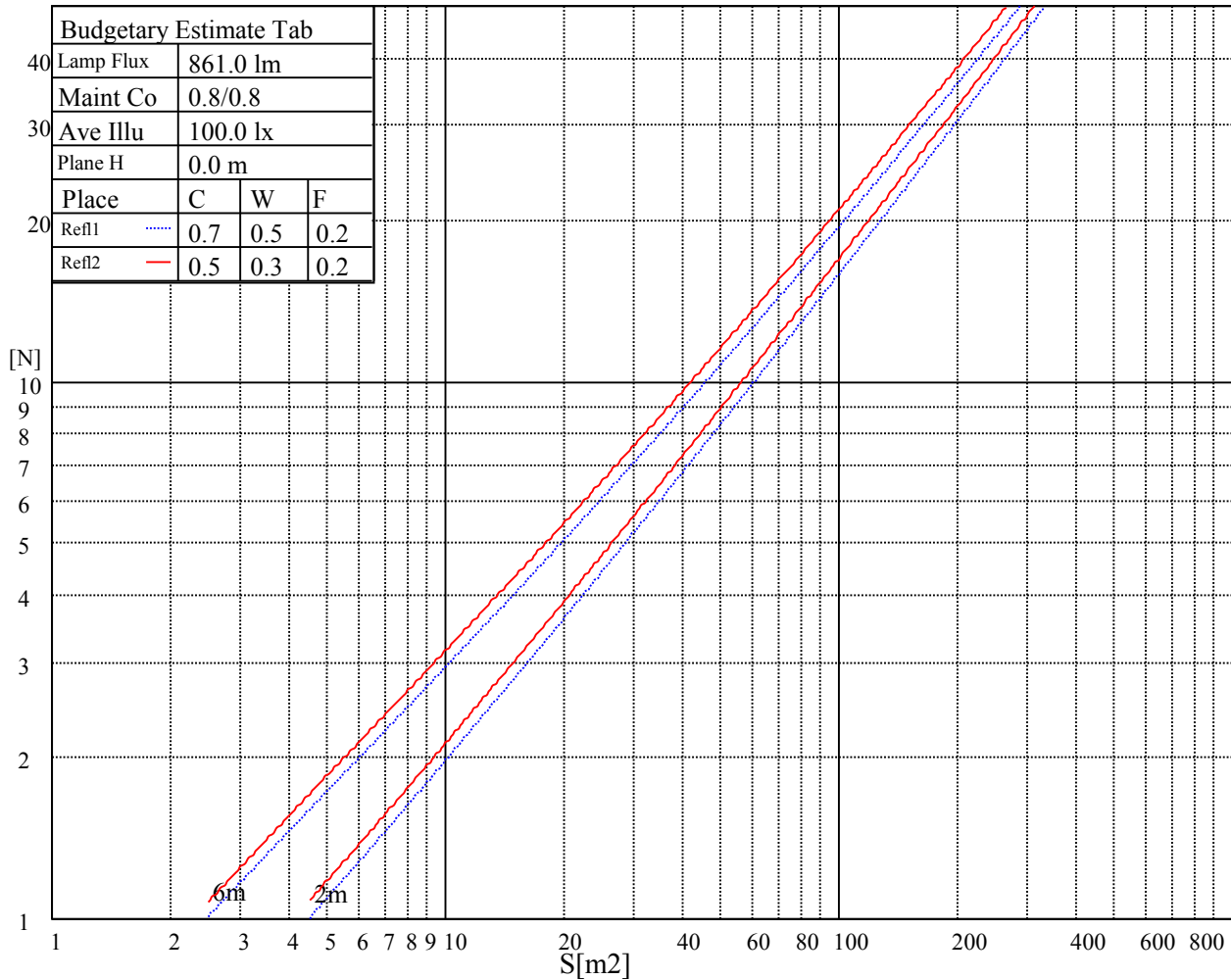
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
5848	5848	5848	4131	4131	4131	5640	5640	5640

Glare Table

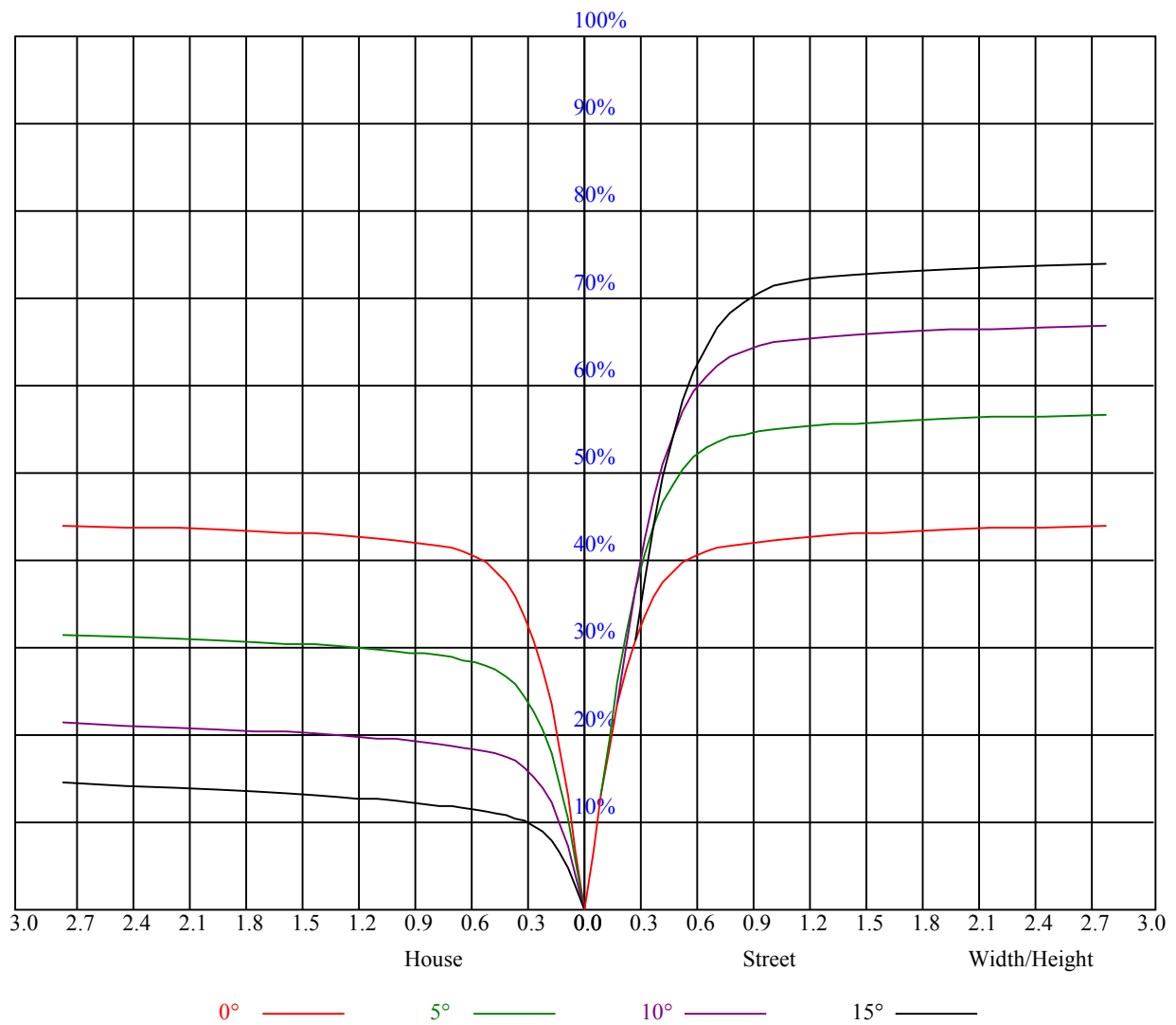
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	≤ 300				
1.5	B		2000	1000	500	≤ 300			
1.85	C			2000	1000	500	≤ 300		
2.2	D				2000	1000	500	≤ 300	
2.55	E					2000	1000	500	≤ 300
		a	b	c	d	e	f	g	h

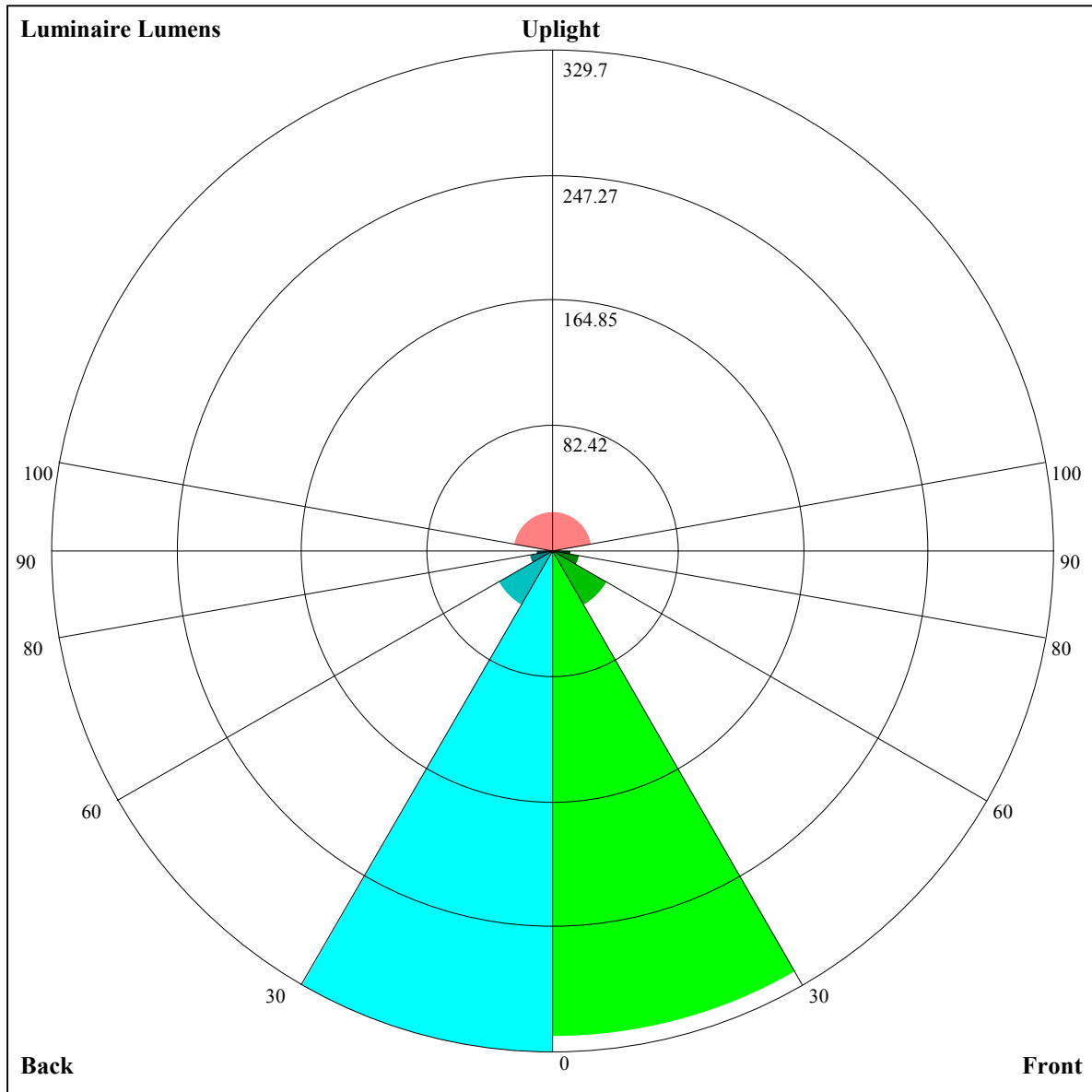
Luminance Limiting Curve





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	1.09	1.09	1.09	1.06	1.06	1.06	1.02	1.02	1.02	0.97	0.97	0.97	0.93	0.93	0.93	0.91
1	1.00	0.98	0.95	0.98	0.96	0.94	0.94	0.93	0.91	0.91	0.89	0.88	0.88	0.87	0.86	0.84
2	0.94	0.90	0.87	0.92	0.89	0.86	0.89	0.86	0.84	0.86	0.84	0.82	0.84	0.82	0.80	0.79
3	0.88	0.84	0.80	0.87	0.83	0.80	0.85	0.81	0.79	0.83	0.80	0.77	0.81	0.78	0.76	0.75
4	0.84	0.79	0.76	0.83	0.78	0.75	0.81	0.77	0.74	0.79	0.76	0.73	0.77	0.75	0.73	0.71
5	0.80	0.75	0.72	0.79	0.75	0.71	0.78	0.74	0.71	0.76	0.73	0.70	0.75	0.72	0.69	0.68
6	0.76	0.72	0.68	0.76	0.71	0.68	0.74	0.70	0.67	0.73	0.70	0.67	0.72	0.69	0.67	0.65
7	0.73	0.69	0.65	0.73	0.68	0.65	0.72	0.68	0.65	0.71	0.67	0.64	0.70	0.66	0.64	0.63
8	0.71	0.66	0.63	0.70	0.66	0.62	0.69	0.65	0.62	0.68	0.65	0.62	0.67	0.64	0.62	0.61
9	0.68	0.63	0.60	0.68	0.63	0.60	0.67	0.63	0.60	0.66	0.62	0.60	0.65	0.62	0.60	0.59
10	0.66	0.61	0.58	0.65	0.61	0.58	0.65	0.61	0.58	0.64	0.60	0.58	0.63	0.60	0.58	0.57





Luminaire Lumens:

FL=319.63,FM=41.37,FH=17.9,FVH=11.94

BL=329.7,BM=41.04,BH=16.22,BVH=11.12

UL=5.55,UH=26.39

BUG Rating:B1-U2-G1

Intensity data(cd)

C/γ(°)	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0
0.0	2911.50	2864.25	2777.06	2664.56	2509.31	2350.13	2153.81	1961.44	1802.25
45.0	2917.13	2887.88	2811.94	2712.38	2571.19	2419.88	2225.81	2024.44	1860.19
90.0	2909.81	2892.94	2840.63	2712.94	2606.63	2465.44	2224.13	2065.50	1884.38
135.0	2893.50	2917.13	2910.38	2874.38	2809.69	2698.88	2557.69	2406.38	2217.38
180.0	2911.50	2922.75	2909.81	2859.19	2782.13	2694.38	2571.75	2415.94	2255.63
225.0	2917.13	2916.56	2885.06	2814.19	2733.19	2626.88	2460.38	2318.06	2156.63
270.0	2909.81	2896.88	2849.06	2795.06	2687.06	2569.50	2427.19	2220.19	2035.13
315.0	2893.50	2841.19	2755.13	2639.25	2514.38	2337.75	2142.00	1961.44	1764.56
360.0	2911.50	2864.25	2777.06	2664.56	2509.31	2350.13	2153.81	1961.44	1802.25

C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	1639.13	1491.19	1371.94	1266.75	1145.81	1056.94	975.94	889.88	812.81
45.0	1696.50	1557.00	1443.94	1343.81	1233.56	1151.44	1074.38	993.94	918.56
90.0	1706.06	1552.50	1433.81	1318.50	1229.06	1116.45	1059.41	979.82	906.69
135.0	2010.94	1829.25	1639.13	1491.75	1344.94	1217.25	1117.69	1030.50	931.50
180.0	2072.25	1829.81	1650.38	1483.88	1317.38	1116.17	1042.48	923.06	815.68
225.0	1918.13	1721.81	1537.88	1332.00	1111.44	1047.04	912.83	805.28	695.98
270.0	1847.25	1624.50	1464.19	1317.94	1154.25	1035.56	927.00	819.56	724.50
315.0	1601.44	1434.38	1282.50	1121.01	1054.91	938.70	858.49	784.63	699.53
360.0	1639.13	1491.19	1371.94	1266.75	1145.81	1056.94	975.94	889.88	812.81

C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	748.13	681.75	619.31	567.00	510.75	464.06	414.00	364.50	322.88
45.0	852.75	783.56	719.44	662.06	596.81	549.00	496.69	447.75	405.00
90.0	845.66	780.64	723.54	662.63	605.76	557.10	510.19	455.18	414.68
135.0	856.69	787.50	709.31	650.25	590.63	542.25	482.06	438.19	394.31
180.0	729.96	642.71	573.75	504.45	443.70	396.51	352.69	301.84	264.99
225.0	601.93	528.86	465.86	398.31	351.68	310.22	272.59	232.26	203.96
270.0	648.56	571.50	501.75	444.94	389.25	343.69	294.75	284.06	211.39
315.0	638.49	581.01	512.55	461.87	413.66	356.63	320.12	275.51	229.89
360.0	748.13	681.75	619.31	567.00	510.75	464.06	414.00	364.50	322.88

C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	284.63	236.70	203.57	173.70	141.53	117.96	97.65	78.75	64.18
45.0	361.69	313.88	285.75	238.33	197.33	168.75	142.20	118.41	92.81
90.0	376.03	328.11	290.31	255.15	218.36	183.83	155.31	126.84	105.69
135.0	348.19	305.44	287.44	228.26	193.05	168.86	137.70	115.65	97.20
180.0	232.93	196.65	169.54	144.23	120.38	101.03	85.78	71.66	61.54
225.0	177.47	147.54	126.51	107.78	89.72	74.76	63.17	52.43	44.83
270.0	179.27	145.07	121.61	102.09	82.24	69.30	58.50	48.54	40.28
315.0	199.91	165.66	133.65	114.19	94.95	73.29	62.27	52.20	43.48
360.0	284.63	236.70	203.57	173.70	141.53	117.96	97.65	78.75	64.18

C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	53.04	43.65	36.96	32.57	28.91	26.55	24.58	23.01	21.99
45.0	76.16	62.55	48.88	40.89	34.93	29.81	26.33	24.36	22.73
90.0	84.71	67.73	56.19	46.46	38.76	33.86	30.60	27.79	25.76
135.0	78.81	66.15	55.58	45.68	39.71	35.04	30.54	27.84	25.65
180.0	52.48	44.89	39.66	35.04	31.56	29.03	26.94	24.81	23.40
225.0	38.14	33.24	29.93	27.00	24.75	23.01	21.66	20.14	19.13
270.0	34.54	29.98	27.06	24.64	22.78	21.49	20.31	19.69	19.29
315.0	36.96	32.51	28.97	26.21	24.36	22.67	21.38	20.19	19.41
360.0	53.04	43.65	36.96	32.57	28.91	26.55	24.58	23.01	21.99

Intensity data(cd)

C/γ(°)	45.0	46.0	47.0	48.0	49.0	50.0	51.0	52.0	53.0
0.0	21.38	20.48	20.08	19.74	19.35	19.13	19.18	18.96	18.51
45.0	21.99	21.21	20.59	20.25	20.14	20.14	20.42	20.48	20.25
90.0	24.13	22.78	21.83	21.15	20.59	20.36	20.19	20.31	20.14
135.0	23.68	22.28	21.77	20.76	19.97	19.52	19.18	18.90	18.84
180.0	22.28	20.98	20.42	19.80	19.01	18.51	18.34	18.06	18.00
225.0	18.39	17.83	17.49	17.21	16.82	16.76	16.65	16.65	16.88
270.0	18.79	18.17	17.38	16.76	16.43	16.37	16.43	17.04	17.55
315.0	19.07	18.68	18.17	17.94	17.49	17.27	17.44	17.10	16.76
360.0	21.38	20.48	20.08	19.74	19.35	19.13	19.18	18.96	18.51
C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	18.23	18.06	17.94	17.72	17.38	17.27	16.93	16.59	16.20
45.0	19.97	19.74	19.46	19.18	18.84	18.23	17.78	17.38	16.93
90.0	19.74	19.41	19.24	19.07	18.79	18.45	18.06	17.44	16.99
135.0	18.39	18.06	17.72	17.33	17.10	16.88	16.43	16.09	15.81
180.0	17.72	17.10	16.82	16.43	15.92	15.58	15.30	14.96	14.79
225.0	16.71	16.37	15.98	15.58	15.24	14.96	14.63	14.29	14.01
270.0	17.04	15.98	15.53	15.24	15.08	14.85	14.68	14.51	14.40
315.0	16.48	16.26	16.03	15.81	15.47	15.19	14.91	14.74	14.51
360.0	18.23	18.06	17.94	17.72	17.38	17.27	16.93	16.59	16.20
C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	16.03	15.64	15.36	15.19	14.85	14.51	14.29	14.23	15.36
45.0	16.43	15.98	15.64	15.24	14.91	14.51	14.18	14.06	14.57
90.0	16.54	16.14	15.69	15.36	14.85	14.46	14.18	13.84	13.73
135.0	15.53	15.19	14.85	14.63	14.34	14.06	13.73	13.44	13.28
180.0	14.51	14.23	13.95	13.78	13.61	13.39	13.22	12.99	12.88
225.0	13.84	13.73	13.56	13.50	13.39	13.22	13.05	12.77	12.66
270.0	14.29	14.01	13.84	13.73	13.56	13.28	13.11	12.94	12.77
315.0	14.40	14.29	14.12	13.95	13.73	13.44	13.28	13.22	13.95
360.0	16.03	15.64	15.36	15.19	14.85	14.51	14.29	14.23	15.36
C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	16.54	17.44	19.52	22.39	23.68	24.86	25.14	24.47	24.13
45.0	16.03	17.89	19.86	21.99	23.57	24.69	25.43	26.61	28.74
90.0	14.34	16.09	17.72	19.97	22.33	22.73	24.13	27.45	29.87
135.0	13.16	13.78	15.24	17.27	17.66	18.68	19.63	19.86	21.94
180.0	12.88	13.11	13.78	14.34	15.13	16.31	17.21	18.45	20.25
225.0	12.60	13.39	14.34	15.64	17.10	18.68	19.69	20.36	21.49
270.0	13.05	13.95	14.74	15.69	16.76	18.23	20.59	23.01	25.88
315.0	14.74	15.75	17.72	20.36	22.11	23.34	23.01	23.01	24.81
360.0	16.54	17.44	19.52	22.39	23.68	24.86	25.14	24.47	24.13
C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	26.04	28.69	29.53	28.01	25.76	20.36	19.74	5.68	3.99
45.0	29.64	29.19	28.52	29.08	29.42	23.96	22.05	6.24	4.11
90.0	30.32	29.53	28.63	27.28	25.48	23.23	18.96	7.93	5.01
135.0	24.98	26.61	25.93	24.75	23.29	22.33	21.21	13.16	11.70
180.0	21.32	20.98	19.80	19.52	20.08	19.52	16.20	11.81	8.38
225.0	22.28	23.91	24.98	25.88	26.61	23.46	19.86	15.58	11.25
270.0	27.73	28.80	29.14	29.19	26.55	25.20	23.18	17.89	14.91
315.0	28.46	31.22	31.56	29.25	27.17	23.79	23.63	11.70	4.73
360.0	26.04	28.69	29.53	28.01	25.76	20.36	19.74	5.68	3.99

Intensity data(cd)

Appendix Page: 19 Total:19

C/ γ (°)	90.0
0.0	3.99
45.0	4.05
90.0	4.05
135.0	5.74
180.0	5.74
225.0	6.24
270.0	6.81
315.0	4.05
360.0	3.99