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Nata

Client: NT

LumCAT: 1-1820-LM

Luminaire: 92.70.458.00

Report No: 20251222-B004

Ballast type: DC

Test No: 20251222-C004

LampCAT: PHILIPS SLM1202

Lamp flux(lm): 869.3

Number of Lamps: 1

Length(mm): 35

Phm Type: C

Voltage(V): 34.010

Current(A): 0.146

Power (W): 4.965

PF: 0.000

Width(mm): 35

Height(mm): 15

Photometric Results

Lumens(lm): 822.82, Efficiency(%): 94.65% , Luminous Efficacy(lm/W): 165.72

Central intensity(cd): 2607.751, Maximum intensity(cd): 2607.751

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=25.0

[C90/270]Total=25.0

Field angle(10%Imax): [C0/180]Total=64.0

[C90/270]Total=64.0

Maximum s/h(1/2): C0_180=0.42 C90_270=0.42

Maximum s/h(1/4): C0_180=0.42 C90_270=0.42

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 94.65%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 98.890%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	2607.751	0.000	0	0.00%	0.00%
1.0	2597.094	2.490	2.49	0.29%	0.30%
2.0	2567.276	7.412	9.903	0.85%	1.20%
3.0	2522.063	12.172	22.075	1.40%	2.68%
4.0	2456.721	16.666	38.74	1.92%	4.71%
5.0	2371.141	20.769	59.51	2.39%	7.23%
6.0	2257.142	24.323	83.832	2.80%	10.19%
7.0	2111.925	27.119	110.951	3.12%	13.48%
8.0	1943.316	29.023	139.974	3.34%	17.01%
9.0	1824.547	30.536	170.51	3.51%	20.72%
10.0	1698.556	31.883	202.393	3.67%	24.60%
11.0	1536.923	32.329	234.722	3.72%	28.53%
12.0	1373.922	31.820	266.542	3.66%	32.39%
13.0	1223.032	30.819	297.361	3.55%	36.14%
14.0	1074.930	29.414	326.775	3.38%	39.71%
15.0	938.260	27.638	354.413	3.18%	43.07%
16.0	801.773	25.496	379.909	2.93%	46.17%
17.0	700.272	23.391	403.3	2.69%	49.01%
18.0	606.650	21.548	424.848	2.48%	51.63%
19.0	531.856	19.808	444.656	2.28%	54.04%
20.0	470.465	18.345	463.001	2.11%	56.27%
21.0	426.943	17.232	480.233	1.98%	58.36%
22.0	406.231	16.743	496.976	1.93%	60.40%
23.0	380.439	16.506	513.483	1.90%	62.41%
24.0	342.934	15.816	529.298	1.82%	64.33%
25.0	327.228	15.238	544.536	1.75%	66.18%
26.0	312.717	15.106	559.642	1.74%	68.02%
27.0	299.832	14.986	574.628	1.72%	69.84%
28.0	288.400	14.893	589.521	1.71%	71.65%
29.0	280.143	14.875	604.396	1.71%	73.45%
30.0	272.586	14.924	619.32	1.72%	75.27%
31.0	266.020	14.989	634.308	1.72%	77.09%
32.0	260.960	15.097	649.405	1.74%	78.92%
33.0	256.299	15.239	664.644	1.75%	80.78%
34.0	251.799	15.377	680.021	1.77%	82.65%
35.0	243.478	15.381	695.402	1.77%	84.51%
36.0	231.723	15.131	710.533	1.74%	86.35%
37.0	215.920	14.600	725.132	1.68%	88.13%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	197.922	13.813	738.946	1.59%	89.81%
39.0	176.349	12.775	751.721	1.47%	91.36%
40.0	152.903	11.483	763.204	1.32%	92.75%
41.0	130.103	10.078	773.282	1.16%	93.98%
42.0	105.689	8.567	781.848	0.99%	95.02%
43.0	84.622	7.050	788.898	0.81%	95.88%
44.0	62.285	5.545	794.443	0.64%	96.55%
45.0	43.910	4.081	798.524	0.47%	97.05%
46.0	29.280	2.862	801.386	0.33%	97.40%
47.0	19.194	1.928	803.314	0.22%	97.63%
48.0	13.510	1.322	804.636	0.15%	97.79%
49.0	11.335	1.020	805.656	0.12%	97.91%
50.0	10.808	0.923	806.58	0.11%	98.03%
51.0	10.377	0.896	807.476	0.10%	98.14%
52.0	9.882	0.869	808.345	0.10%	98.24%
53.0	9.225	0.831	809.176	0.10%	98.34%
54.0	8.429	0.778	809.955	0.09%	98.44%
55.0	7.815	0.725	810.68	0.08%	98.52%
56.0	7.051	0.672	811.351	0.08%	98.61%
57.0	6.642	0.626	811.978	0.07%	98.68%
58.0	6.254	0.596	812.574	0.07%	98.75%
59.0	5.899	0.568	813.142	0.07%	98.82%
60.0	5.544	0.541	813.683	0.06%	98.89%
61.0	5.156	0.511	814.193	0.06%	98.95%
62.0	4.887	0.484	814.677	0.06%	99.01%
63.0	4.597	0.461	815.139	0.05%	99.07%
64.0	4.327	0.438	815.576	0.05%	99.12%
65.0	4.069	0.416	815.992	0.05%	99.17%
66.0	3.875	0.396	816.388	0.05%	99.22%
67.0	3.725	0.382	816.77	0.04%	99.26%
68.0	3.531	0.368	817.138	0.04%	99.31%
69.0	3.359	0.351	817.489	0.04%	99.35%
70.0	3.176	0.336	817.825	0.04%	99.39%
71.0	3.046	0.322	818.147	0.04%	99.43%
72.0	2.885	0.308	818.455	0.04%	99.47%
73.0	2.788	0.297	818.752	0.03%	99.51%
74.0	2.702	0.289	819.04	0.03%	99.54%
75.0	2.627	0.282	819.322	0.03%	99.57%

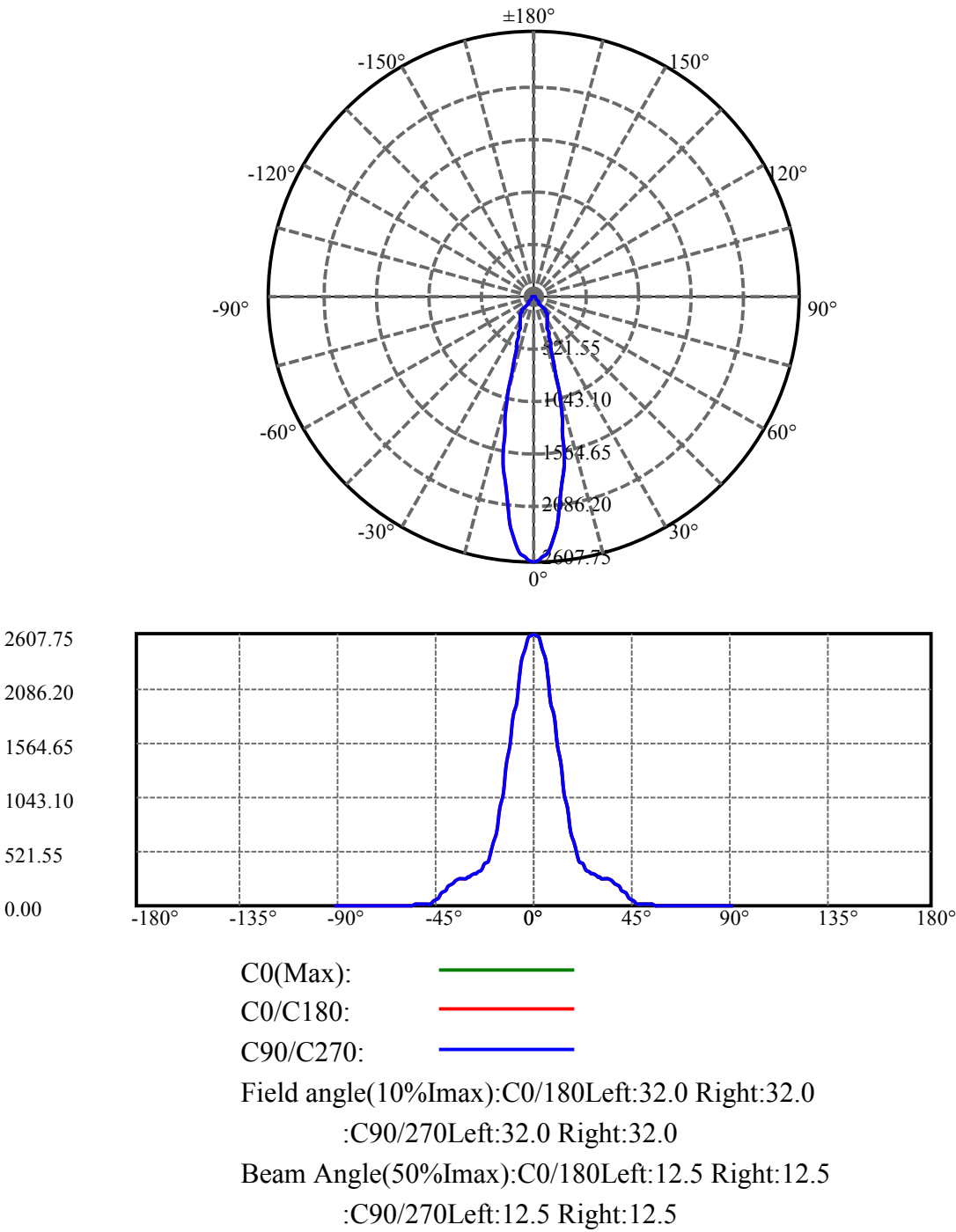
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	2.562	0.275	819.597	0.03%	99.61%
77.0	2.508	0.270	819.868	0.03%	99.64%
78.0	2.433	0.264	820.132	0.03%	99.67%
79.0	2.357	0.257	820.39	0.03%	99.70%
80.0	2.293	0.251	820.64	0.03%	99.74%
81.0	2.228	0.245	820.885	0.03%	99.76%
82.0	2.196	0.240	821.125	0.03%	99.79%
83.0	2.121	0.235	821.359	0.03%	99.82%
84.0	2.067	0.228	821.587	0.03%	99.85%
85.0	2.035	0.224	821.811	0.03%	99.88%
86.0	1.959	0.218	822.03	0.03%	99.90%
87.0	1.884	0.210	822.24	0.02%	99.93%
88.0	1.787	0.201	822.441	0.02%	99.95%
89.0	1.722	0.192	822.633	0.02%	99.98%
90.0	1.669	0.186	822.819	0.02%	100.00%

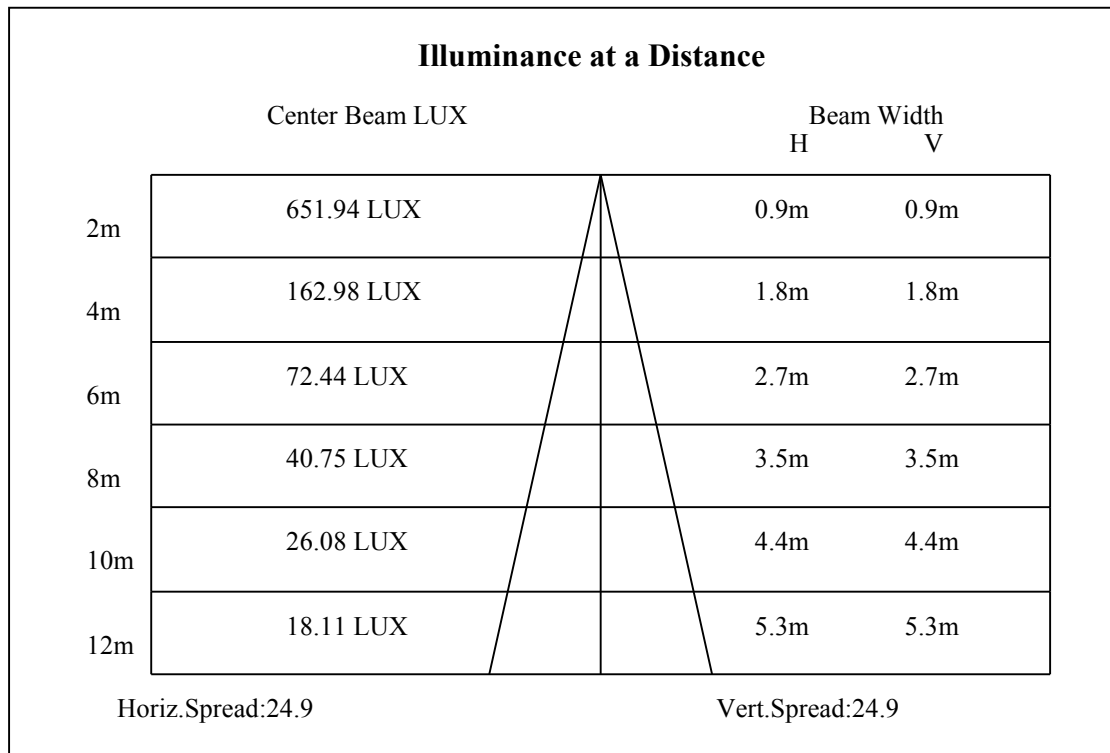
ZONAL LUMEN SUMMARY

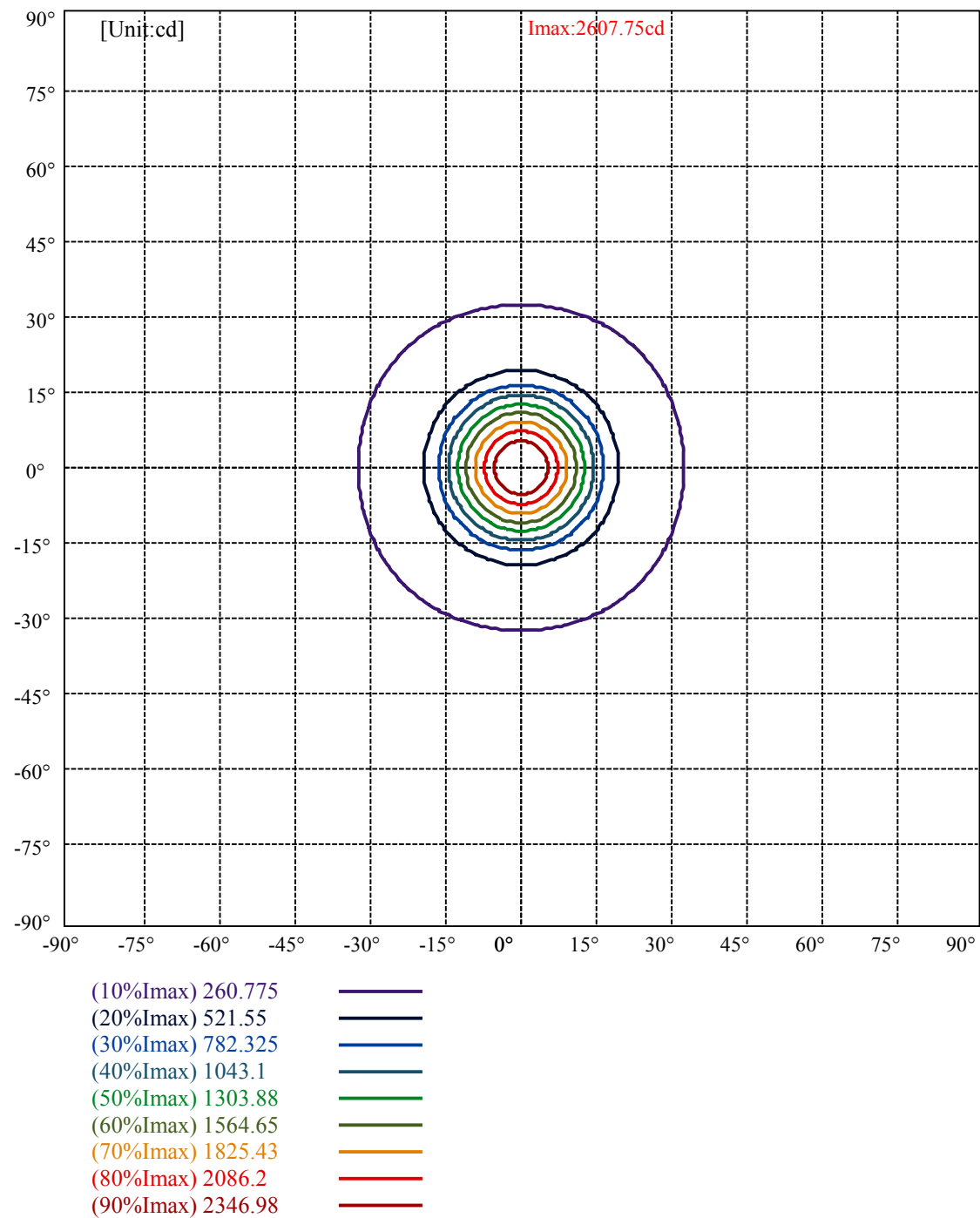
Zone	Lumens	%Lamp	%Fixt
0-30	619.32	71.24%	75.27%
0-40	763.20	87.79%	92.75%
0-60	813.68	93.60%	98.89%
0-90	822.63	94.63%	99.98%
0-120	822.63	94.63%	99.98%
0-180	822.82	94.65%	100.00%
60-90	8.95	1.03%	1.09%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-32.58	658.26	75.72%	80.00%

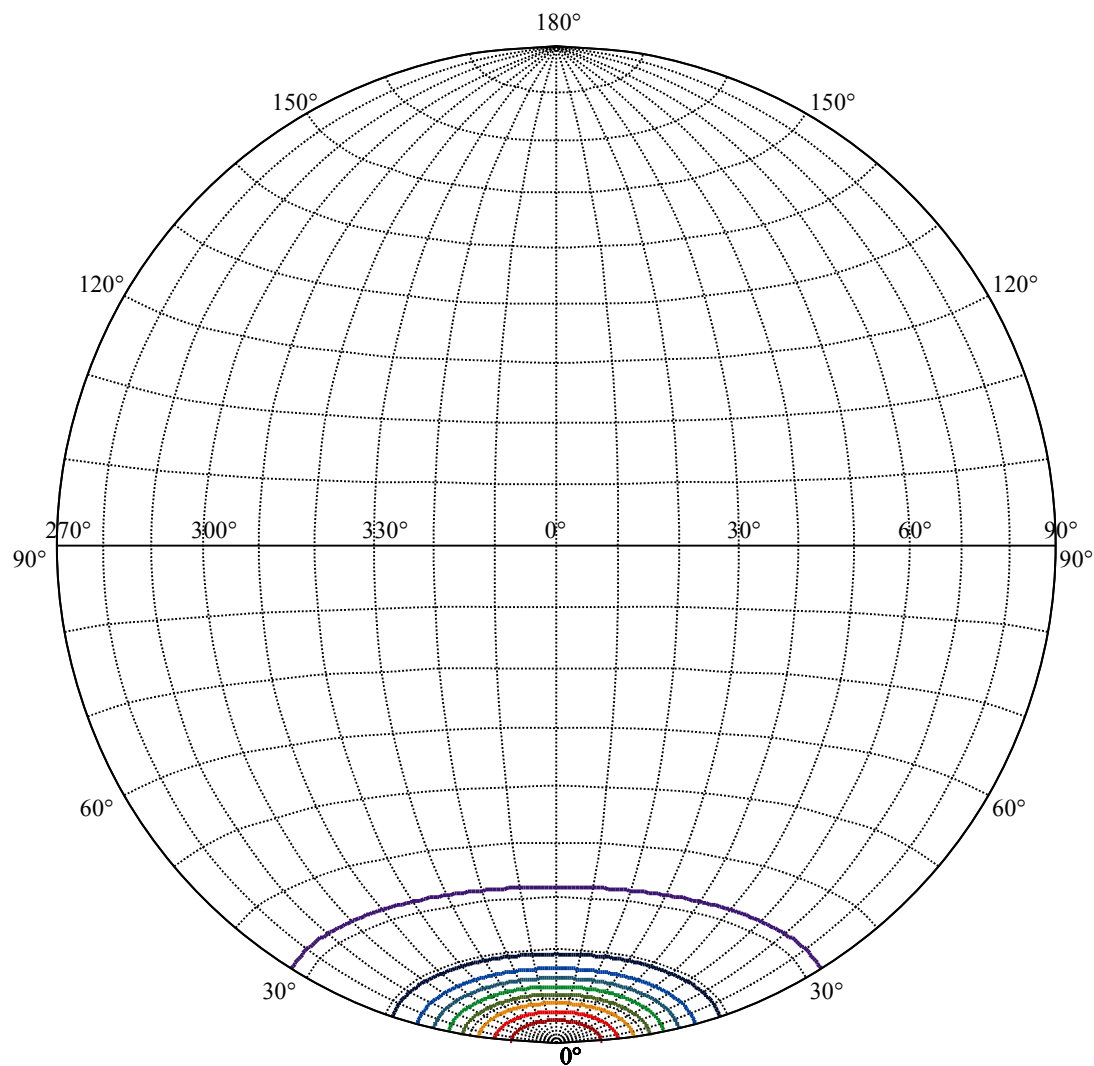
ZONAL LUMEN SUMMARY

0-10	202.39
10-20	260.61
20-30	156.32
30-40	143.88
40-50	43.38
50-60	7.10
60-70	4.14
70-80	2.82
80-90	1.99
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







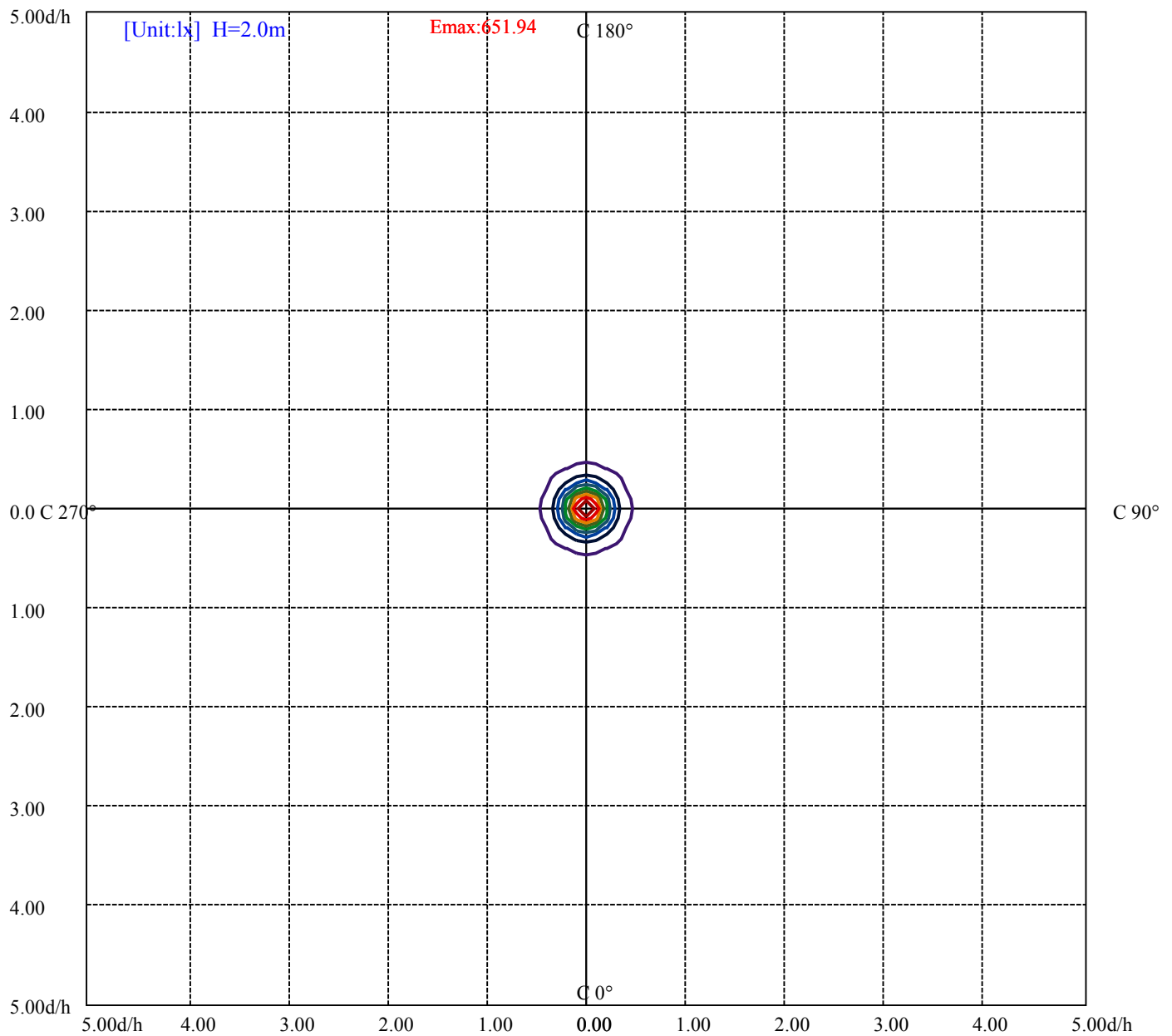


House

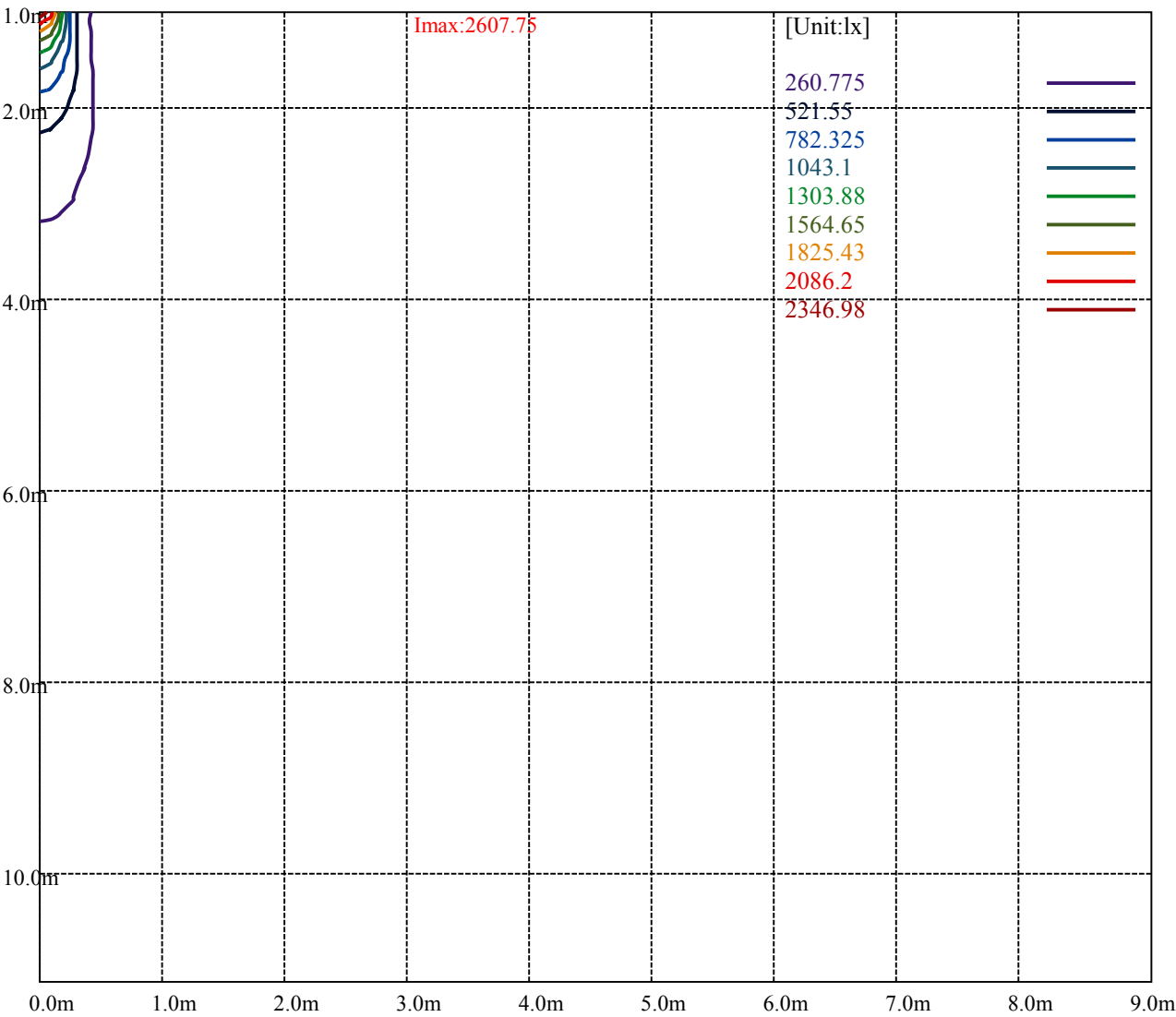
[Unit:cd]

Road

Imax:2607.75	
(10%Imax) 260.775	
(20%Imax) 521.55	
(30%Imax) 782.325	
(40%Imax) 1043.1	
(50%Imax) 1303.88	
(60%Imax) 1564.65	
(70%Imax) 1825.43	
(80%Imax) 2086.2	
(90%Imax) 2346.98	



(10%Emax)	65.19375	—
(20%Emax)	130.3875	—
(30%Emax)	195.5813	—
(40%Emax)	260.775	—
(50%Emax)	325.9675	—
(60%Emax)	391.1625	—
(70%Emax)	456.355	—
(80%Emax)	521.55	—
(90%Emax)	586.7425	—



Luminance Table

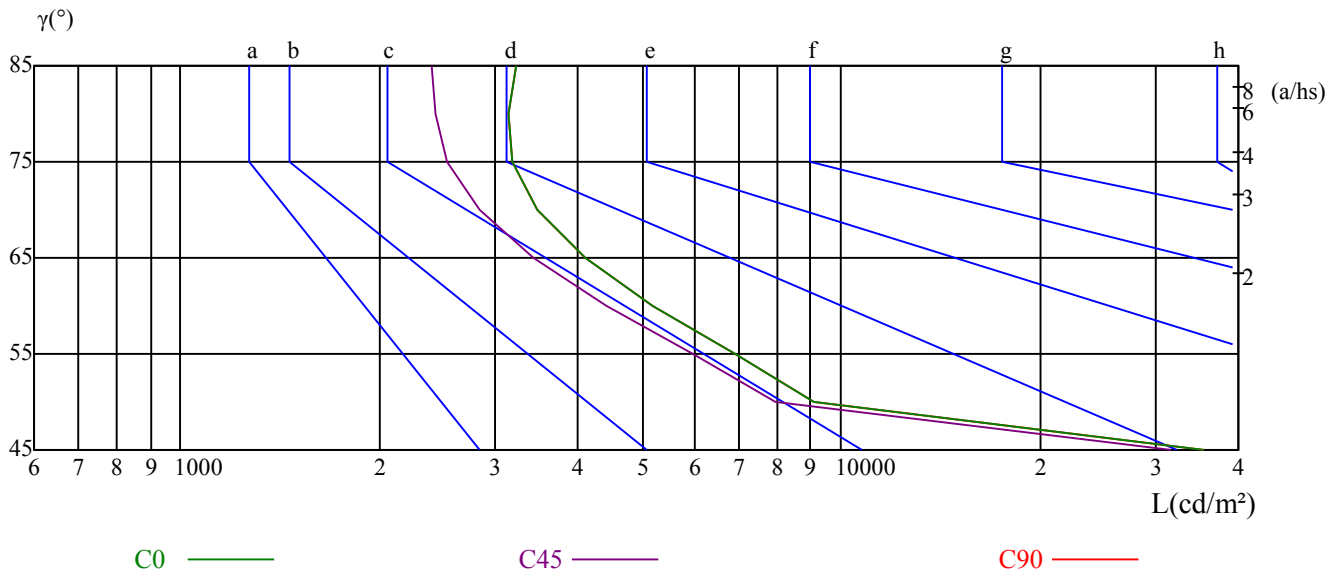
γ	45	50	55	60	65	70	75	80	85
C0	35484	9085	6900	5195	4096	3481	3187	3142	3231
C45	31562	7969	5962	4416	3418	2844	2540	2429	2404
C90	35484	9085	6900	5195	4096	3481	3187	3142	3231

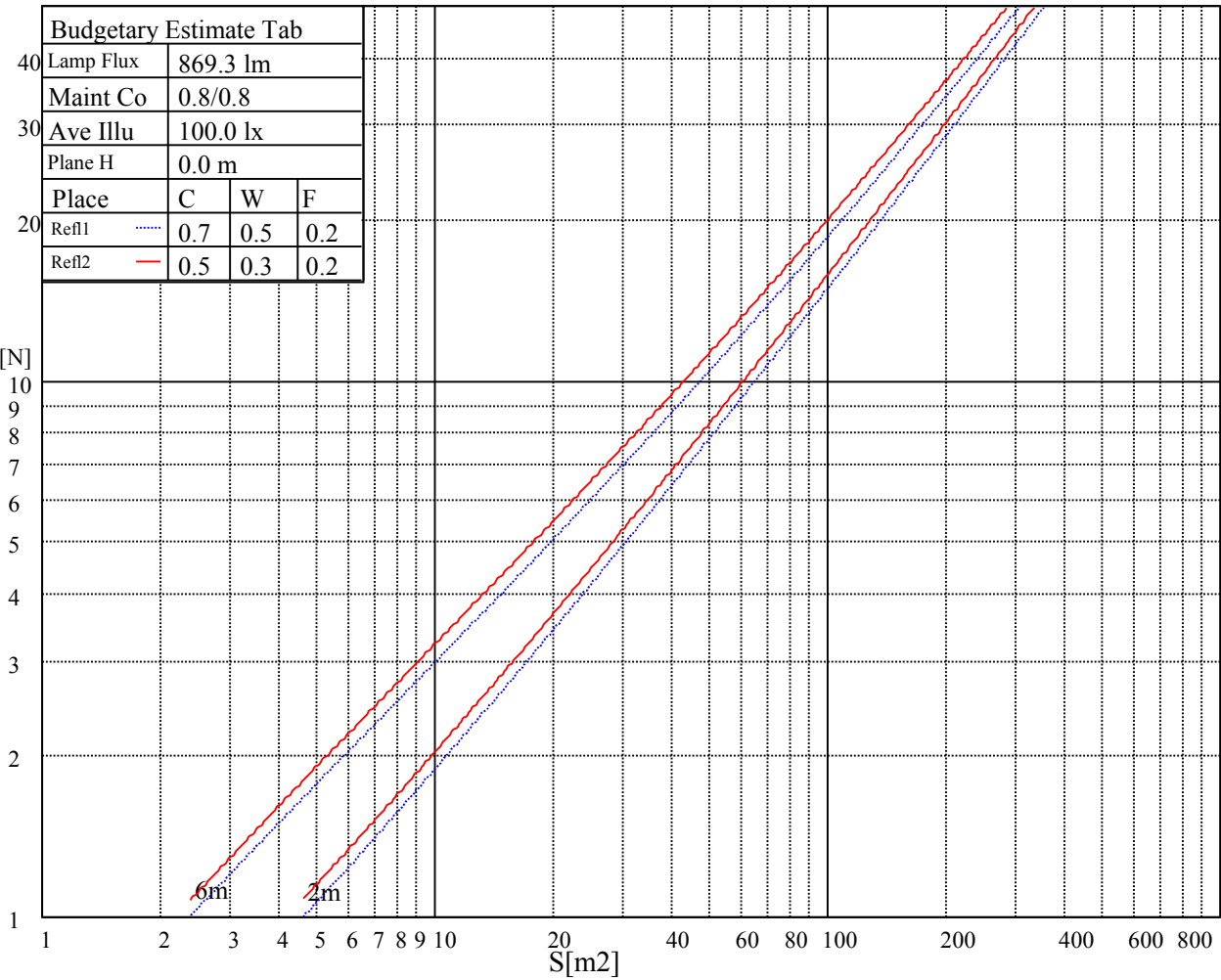
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
7860	7860	7860	8284	8284	8284	19056	19056	19056

Glare Table

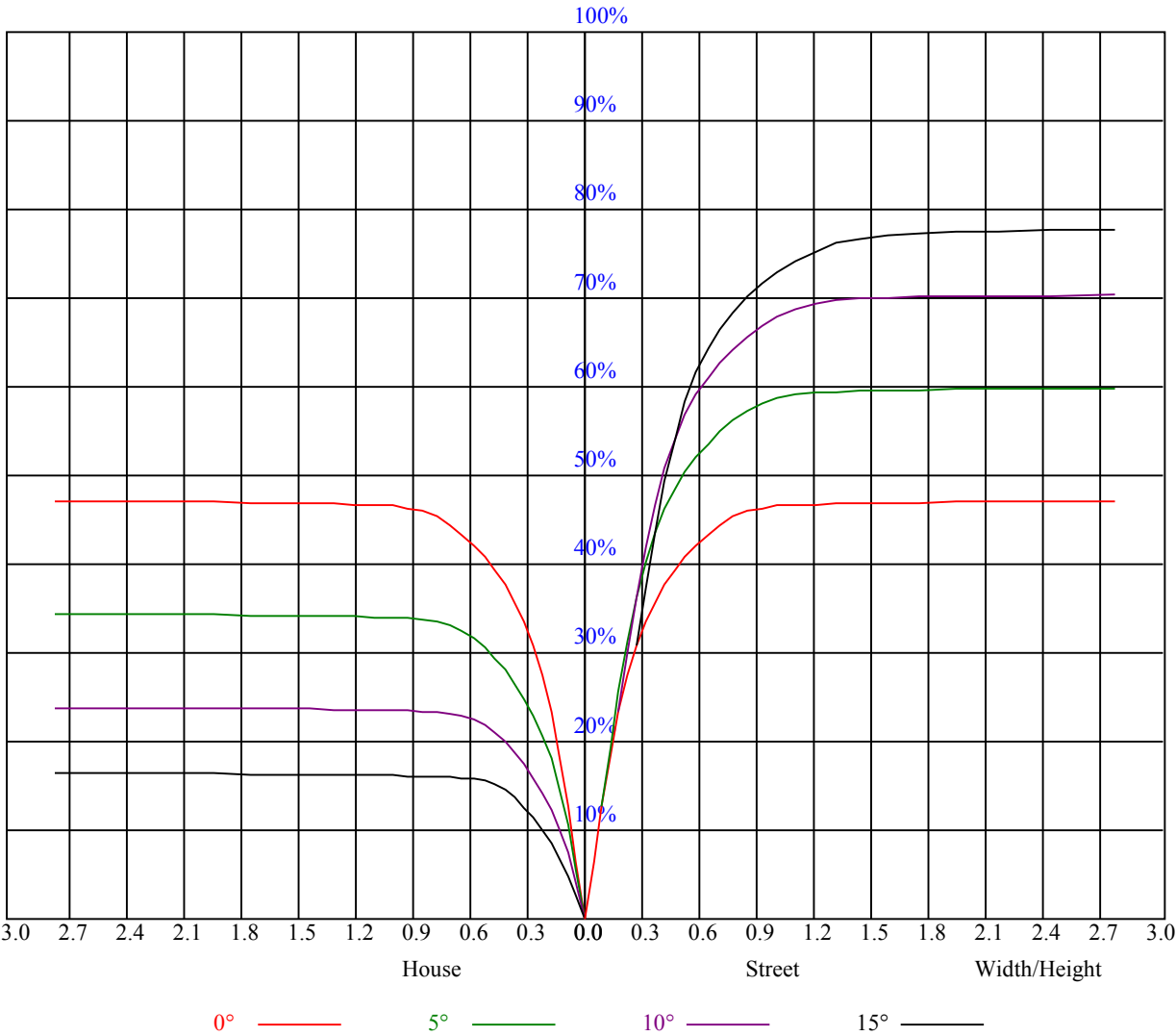
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	≤ 300				
1.5	B		2000	1000	500	≤ 300			
1.85	C			2000	1000	500	≤ 300		
2.2	D				2000	1000	500	≤ 300	
2.55	E					2000	1000	500	≤ 300
		a	b	c	d	e	f	g	h

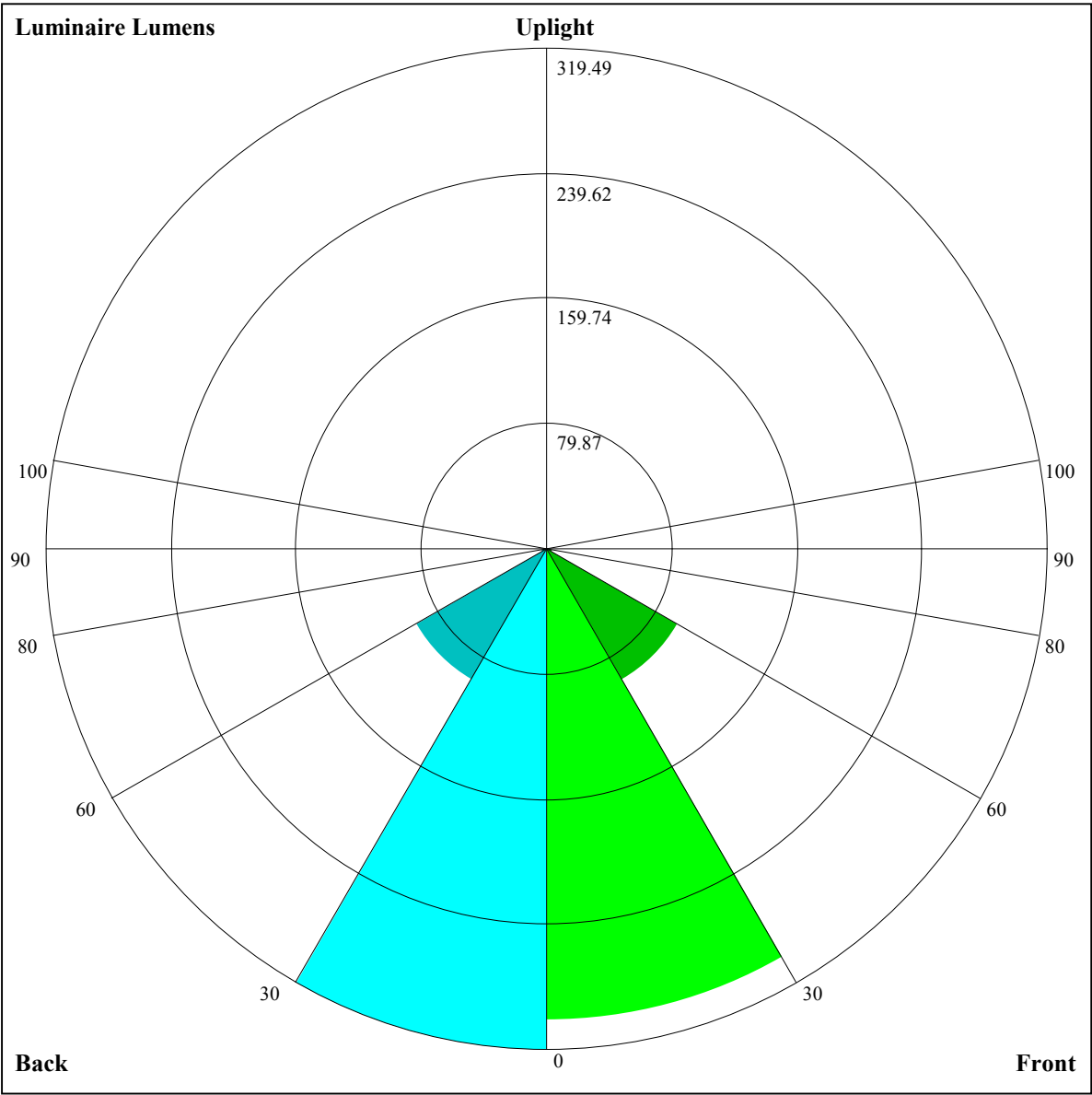
Luminance Limiting Curve





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	1.13	1.13	1.13	1.10	1.10	1.10	1.05	1.05	1.05	1.01	1.01	1.01	0.97	0.97	0.97	0.95
1	1.05	1.03	1.01	1.03	1.01	1.00	1.00	0.98	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.89
2	0.99	0.95	0.93	0.97	0.94	0.92	0.94	0.92	0.90	0.92	0.89	0.88	0.89	0.87	0.86	0.84
3	0.93	0.89	0.86	0.92	0.88	0.85	0.90	0.86	0.84	0.87	0.85	0.82	0.85	0.83	0.81	0.80
4	0.88	0.83	0.80	0.87	0.83	0.79	0.85	0.81	0.78	0.83	0.80	0.78	0.82	0.79	0.77	0.75
5	0.84	0.79	0.75	0.83	0.78	0.75	0.81	0.77	0.74	0.80	0.76	0.73	0.78	0.75	0.73	0.72
6	0.79	0.74	0.71	0.79	0.74	0.71	0.77	0.73	0.70	0.76	0.72	0.70	0.75	0.72	0.69	0.68
7	0.76	0.71	0.67	0.75	0.70	0.67	0.74	0.70	0.67	0.73	0.69	0.66	0.72	0.69	0.66	0.65
8	0.72	0.67	0.64	0.72	0.67	0.64	0.71	0.67	0.64	0.70	0.66	0.63	0.69	0.66	0.63	0.62
9	0.69	0.64	0.61	0.69	0.64	0.61	0.68	0.64	0.61	0.67	0.63	0.61	0.66	0.63	0.60	0.59
10	0.66	0.62	0.59	0.66	0.62	0.58	0.65	0.61	0.58	0.65	0.61	0.58	0.64	0.61	0.58	0.57





Luminaire Lumens:

FL=301.06,FM=96.81,FH=3.66,FVH=1.08

BL=319.49,BM=97.05,BH=3.56,BVH=1.12

UL=0,UH=0

BUG Rating:B1-U0-G0

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	2606.89	2576.75	2531.11	2471.68	2398.48	2279.64	2170.27	2046.26	1689.56
45.0	2615.50	2608.61	2576.75	2530.24	2465.66	2361.45	2261.56	2117.74	1988.56
90.0	2606.03	2571.58	2526.80	2467.38	2366.62	2268.44	2128.07	1905.03	1715.65
135.0	2602.58	2606.89	2595.69	2562.11	2517.33	2455.32	2352.84	2252.94	2140.13
180.0	2606.89	2612.06	2601.72	2576.75	2521.63	2456.18	2347.67	2243.47	2128.07
225.0	2615.50	2606.89	2575.89	2531.97	2469.10	2388.15	2263.28	2147.88	2016.98
270.0	2606.03	2616.36	2608.61	2574.17	2530.24	2472.55	2392.46	2266.72	2150.46
315.0	2602.58	2577.61	2521.63	2462.21	2384.70	2287.39	2140.99	1915.36	1717.11
360.0	2606.89	2576.75	2531.11	2471.68	2398.48	2279.64	2170.27	2046.26	1689.56
C/ γ (°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	1689.56	1579.67	1389.18	1239.67	1096.37	930.60	814.42	710.91	625.99
45.0	1849.91	1706.95	1518.35	1367.65	1218.66	1076.57	943.08	796.68	695.06
90.0	1715.65	1531.44	1383.58	1236.32	1097.15	964.18	817.09	712.63	622.98
135.0	1984.25	1851.63	1712.98	1532.99	1384.87	1241.05	1099.82	934.47	817.35
180.0	1966.17	1823.21	1675.95	1486.49	1336.64	1191.96	1054.18	895.72	782.04
225.0	1692.05	1692.05	1546.34	1398.05	1215.30	1077.69	946.96	795.82	688.69
270.0	2020.42	1879.19	1693.17	1539.88	1385.73	1197.99	1055.04	892.27	777.74
315.0	1678.36	1524.30	1375.83	1190.33	1049.52	919.40	775.50	675.68	592.32
360.0	1689.56	1579.67	1389.18	1239.67	1096.37	930.60	814.42	710.91	625.99
C/ γ (°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	541.94	488.46	448.76	419.14	391.06	373.41	356.87	339.39	326.82
45.0	592.58	527.13	476.32	436.71	436.71	371.86	347.83	331.64	317.52
90.0	534.45	478.99	436.45	396.49	371.77	347.83	332.16	317.52	304.60
135.0	710.56	619.28	527.99	470.29	436.71	436.71	360.23	342.58	324.24
180.0	679.56	591.72	503.88	448.76	436.71	388.91	347.32	331.81	316.49
225.0	597.66	505.95	447.90	404.15	371.43	342.23	323.20	309.25	296.16
270.0	672.67	584.83	502.16	448.76	437.57	437.57	346.02	328.80	313.82
315.0	523.77	458.49	420.26	391.24	367.90	344.99	329.83	316.83	302.10
360.0	541.94	488.46	448.76	419.14	391.06	373.41	356.87	339.39	326.82
C/ γ (°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	313.13	302.96	296.33	288.41	280.14	274.37	268.86	264.13	255.60
45.0	304.69	290.74	282.55	275.49	269.64	264.04	259.82	256.37	250.60
90.0	290.22	281.35	273.00	266.54	259.39	254.82	250.17	243.80	230.37
135.0	311.40	297.45	288.75	282.21	276.70	271.19	268.52	266.54	262.23
180.0	305.46	295.99	286.77	279.20	273.00	268.69	262.23	257.24	250.35
225.0	282.12	271.88	263.35	254.57	249.14	244.06	240.27	235.53	225.29
270.0	300.04	284.97	274.72	263.44	256.12	250.09	243.37	238.81	233.90
315.0	291.60	281.87	275.66	270.84	264.04	260.42	257.15	251.98	239.50
360.0	313.13	302.96	296.33	288.41	280.14	274.37	268.86	264.13	255.60
C/ γ (°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	243.80	227.87	208.58	181.37	158.37	134.69	104.89	82.33	56.32
45.0	242.25	230.11	209.61	190.58	169.48	140.63	117.81	93.70	73.72
90.0	215.04	193.77	175.08	154.32	128.75	108.16	88.79	70.01	49.35
135.0	250.60	237.69	219.69	199.11	172.84	149.24	123.24	100.41	78.71
180.0	239.58	219.95	202.29	182.92	156.74	133.91	104.72	84.40	64.24
225.0	213.14	198.07	181.54	158.11	137.36	116.00	95.33	75.70	53.05
270.0	224.34	212.11	197.13	180.50	157.25	137.79	117.90	98.61	75.10
315.0	225.03	207.80	189.46	163.88	142.44	120.39	92.84	71.82	47.80
360.0	243.80	227.87	208.58	181.37	158.37	134.69	104.89	82.33	56.32

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	39.18	25.40	14.98	9.90	9.21	9.04	8.78	8.53	8.18
45.0	49.86	33.41	21.27	13.52	9.82	9.21	8.87	8.35	7.92
90.0	34.71	24.20	17.91	15.24	15.07	14.64	14.21	13.69	12.40
135.0	54.69	37.20	23.85	15.33	10.94	10.42	9.90	9.39	8.70
180.0	46.07	27.39	18.60	12.23	10.25	9.65	9.13	8.70	8.27
225.0	37.55	24.11	16.79	12.31	11.37	10.59	9.99	9.21	8.61
270.0	57.79	42.46	27.39	20.15	14.98	14.21	13.87	13.43	12.49
315.0	31.43	20.07	12.75	9.39	9.04	8.70	8.27	7.75	7.23
360.0	39.18	25.40	14.98	9.90	9.21	9.04	8.78	8.53	8.18
C/ γ (°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	7.41	6.89	6.63	6.46	6.20	5.94	5.77	5.60	5.43
45.0	6.80	6.11	5.68	5.34	4.99	4.65	4.31	4.05	3.88
90.0	11.20	10.59	9.90	9.30	8.70	8.18	7.58	6.98	6.63
135.0	8.27	7.66	6.54	6.20	5.68	5.43	5.17	4.74	4.39
180.0	7.58	7.06	5.94	5.68	5.43	5.17	4.99	4.65	4.39
225.0	8.01	7.23	6.11	5.68	5.34	4.91	4.48	4.22	3.96
270.0	11.88	10.94	9.73	8.70	8.18	7.66	6.98	6.20	5.77
315.0	6.29	6.03	5.86	5.77	5.51	5.25	5.08	4.82	4.65
360.0	7.41	6.89	6.63	6.46	6.20	5.94	5.77	5.60	5.43
C/ γ (°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	5.17	4.91	4.56	4.39	4.05	3.70	3.44	3.19	3.10
45.0	3.70	3.53	3.36	3.27	3.27	3.19	3.10	3.01	3.01
90.0	6.20	5.77	5.43	5.08	4.65	4.22	3.79	3.53	3.27
135.0	4.13	3.88	3.62	3.44	3.27	3.19	3.10	2.93	2.84
180.0	4.22	4.05	3.79	3.53	3.36	3.27	3.10	2.93	2.84
225.0	3.70	3.44	3.27	3.10	3.10	3.01	2.93	2.93	2.84
270.0	5.17	4.82	4.56	4.39	4.48	4.31	4.22	3.88	3.53
315.0	4.48	4.22	3.96	3.79	3.62	3.36	3.19	3.01	2.93
360.0	5.17	4.91	4.56	4.39	4.05	3.70	3.44	3.19	3.10
C/ γ (°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	2.84	2.76	2.58	2.58	2.58	2.50	2.41	2.41	2.24
45.0	2.93	2.84	2.76	2.67	2.67	2.58	2.50	2.41	2.41
90.0	3.10	2.93	2.84	2.76	2.67	2.58	2.50	2.50	2.41
135.0	2.76	2.76	2.67	2.58	2.50	2.50	2.41	2.33	2.33
180.0	2.67	2.58	2.50	2.50	2.41	2.33	2.33	2.24	2.24
225.0	2.76	2.67	2.58	2.58	2.50	2.50	2.41	2.33	2.33
270.0	3.27	3.10	3.10	2.93	2.84	2.76	2.76	2.67	2.50
315.0	2.76	2.67	2.58	2.41	2.33	2.33	2.15	1.98	1.89
360.0	2.84	2.76	2.58	2.58	2.58	2.50	2.41	2.41	2.24
C/ γ (°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	2.24	2.24	2.15	2.15	2.15	1.98	1.89	1.72	1.64
45.0	2.33	2.24	2.15	2.15	2.07	2.07	1.98	1.81	1.72
90.0	2.33	2.33	2.15	2.07	1.98	1.98	1.89	1.81	1.72
135.0	2.24	2.24	2.24	2.15	2.15	2.07	1.98	1.89	1.81
180.0	2.15	2.15	2.07	2.07	2.07	1.98	1.89	1.89	1.81
225.0	2.24	2.24	2.15	2.07	1.98	1.89	1.89	1.72	1.72
270.0	2.50	2.41	2.33	2.15	2.15	2.07	1.89	1.81	1.72
315.0	1.81	1.72	1.72	1.72	1.72	1.64	1.64	1.64	1.64
360.0	2.24	2.24	2.15	2.15	2.15	1.98	1.89	1.72	1.64

Intensity data(cd)

C/ $\gamma(^{\circ})$	90.0
0.0	1.64
45.0	1.64
90.0	1.72
135.0	1.72
180.0	1.72
225.0	1.64
270.0	1.64
315.0	1.64
360.0	1.64