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Nata

Client: NT

LumCAT: 11-0161-S

Luminaire: 69-0030-1

Report No: 20260803-B010

Ballast type: DC

Test No: 20260803-C010

Voltage(V): 22.100

LampCAT: LUXEON 2835*2

Current(A): 0.454

Lamp flux(lm): 1126.0

Power (W): 10.033

Number of Lamps: 1

PF: 0.000

Length(mm): 280

Width(mm): 40

Phm Type: C

Height(mm): 20

Photometric Results

Lumens(lm): 1005.40, Efficiency(%): 89.29% , Luminous Efficacy(lm/W): 100.21

Central intensity(cd): 953.724, Maximum intensity(cd): 956.093

Angle of maximum intensity: C=22.5 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=62.1

[C90/270]Total=62.2

Field angle(10%Imax): [C0/180]Total=90.9

[C90/270]Total=92.0

Maximum s/h(1/2): C0_180=0.97 C90_270=0.95

Maximum s/h(1/4): C0_180=0.96 C90_270=0.94

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 89.14%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 98.408%

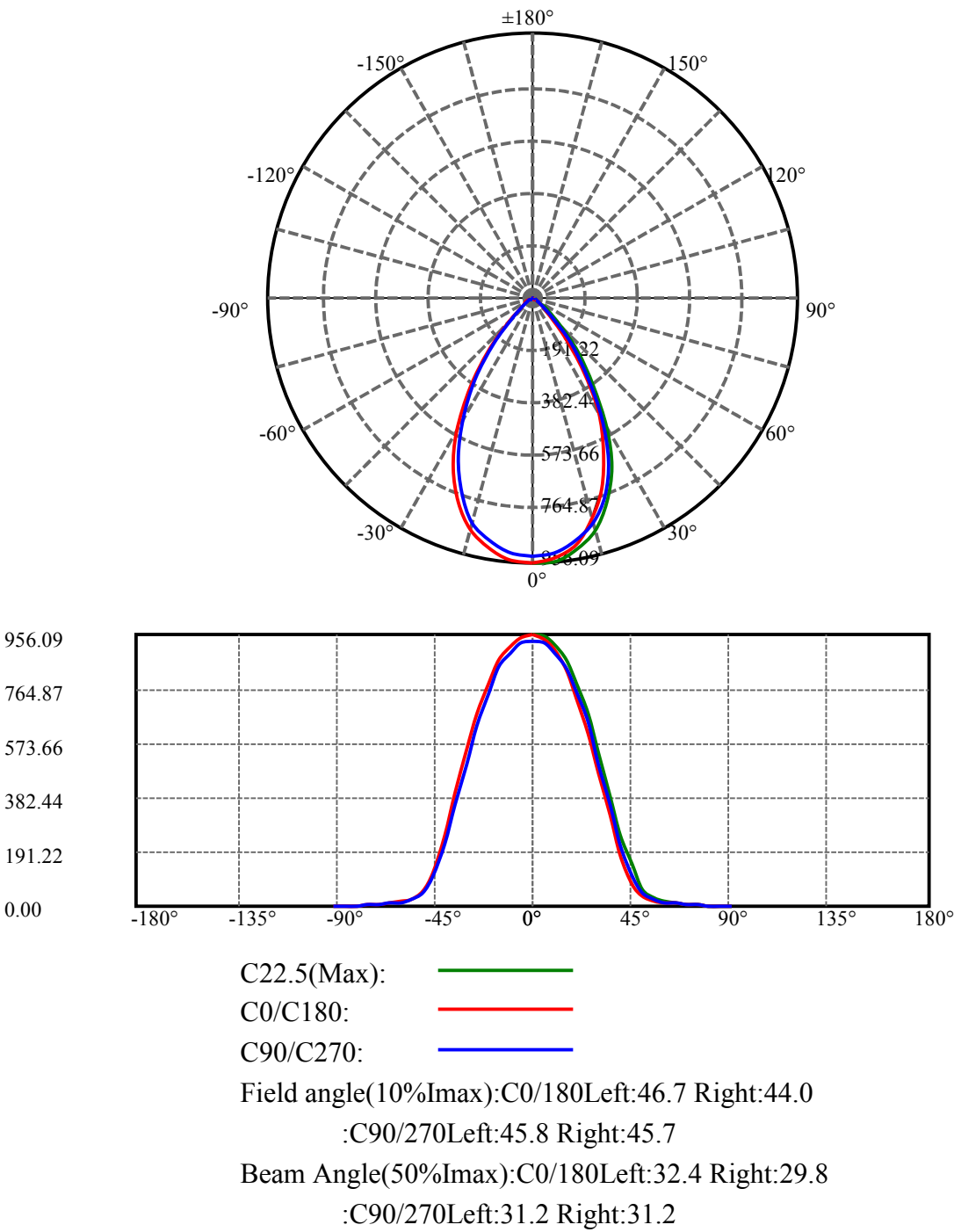
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	946.772	0.000	0	0.00%	0.00%
5.0	936.515	22.514	22.514	2.00%	2.24%
10.0	904.008	65.841	88.355	5.85%	8.79%
15.0	845.797	103.797	192.153	9.22%	19.11%
20.0	758.464	132.214	324.366	11.74%	32.26%
25.0	644.703	147.166	471.533	13.07%	46.90%
30.0	510.564	146.200	617.733	12.98%	61.44%
35.0	369.141	129.543	747.276	11.50%	74.33%
40.0	238.923	101.451	848.727	9.01%	84.42%
45.0	131.340	68.557	917.284	6.09%	91.24%
50.0	63.163	39.302	956.586	3.49%	95.14%
55.0	30.243	20.309	976.895	1.80%	97.16%
60.0	16.695	10.850	987.745	0.96%	98.24%
65.0	10.982	6.728	994.473	0.60%	98.91%
70.0	7.332	4.637	999.111	0.41%	99.37%
75.0	4.428	3.074	1002.184	0.27%	99.68%
80.0	2.301	1.800	1003.985	0.16%	99.86%
85.0	1.032	0.906	1004.89	0.08%	99.95%
90.0	0.846	0.514	1005.405	0.05%	100.00%

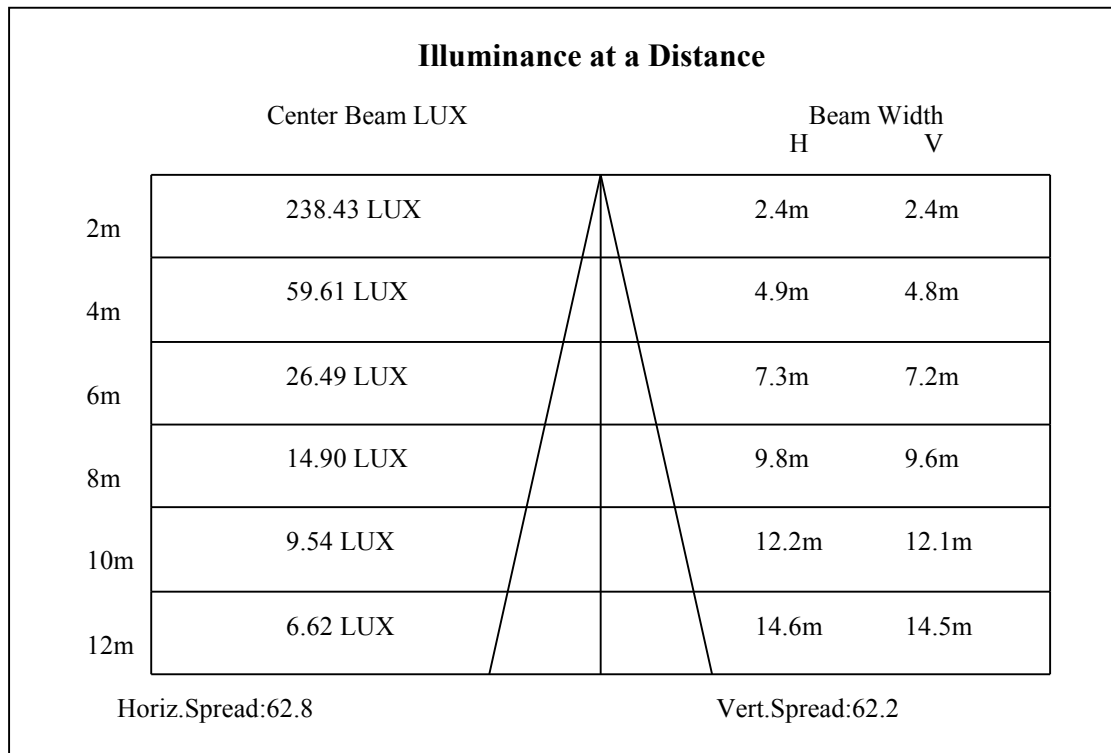
ZONAL LUMEN SUMMARY

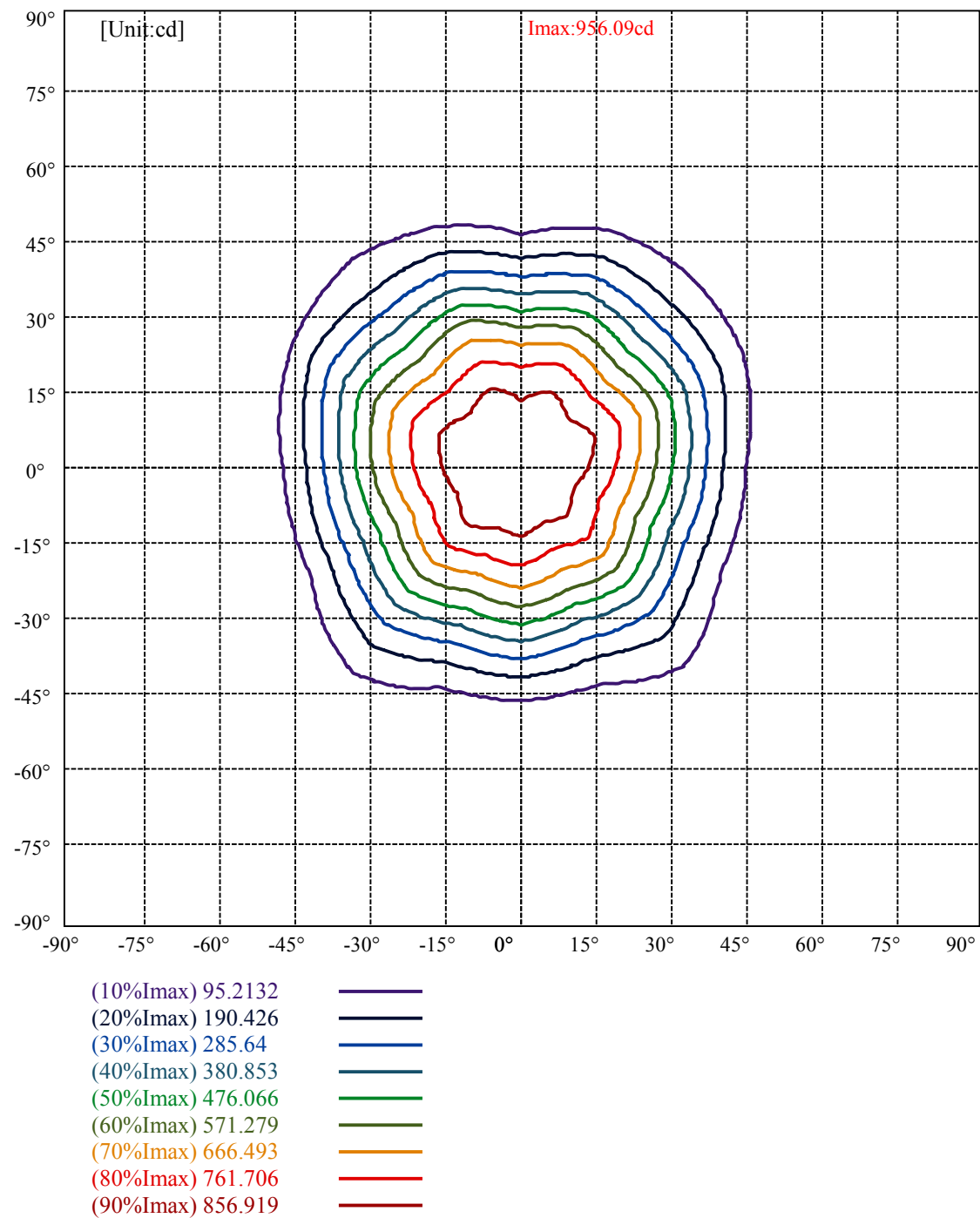
Zone	Lumens	%Lamp	%Fixt
0-30	617.73	54.86%	61.44%
0-40	848.73	75.38%	84.42%
0-60	987.74	87.72%	98.24%
0-90	1004.89	89.24%	99.95%
0-120	1004.89	89.24%	99.95%
0-180	1005.40	89.29%	100.00%
60-90	17.15	1.52%	1.71%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-37.81	804.32	71.43%	80.00%

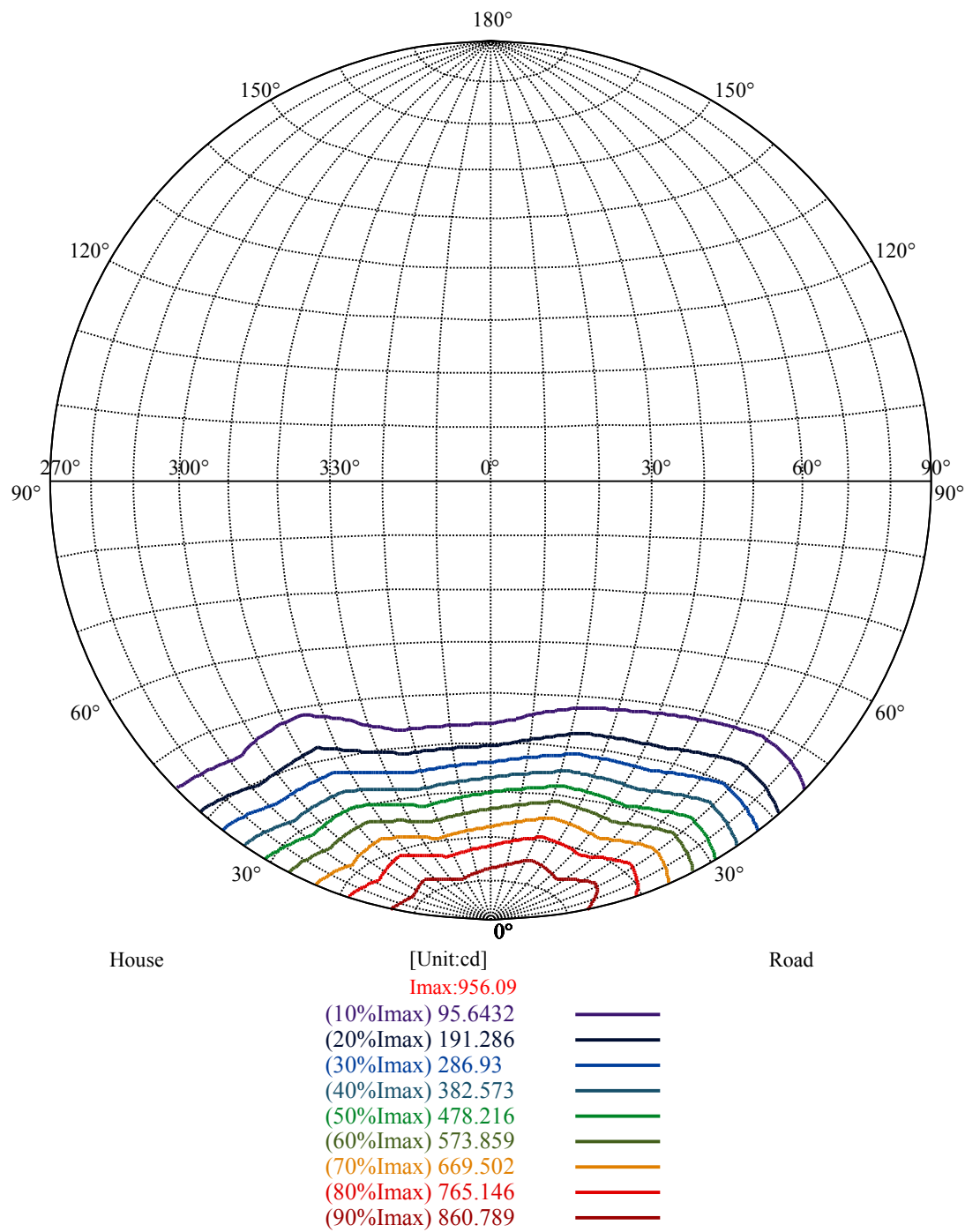
ZONAL LUMEN SUMMARY

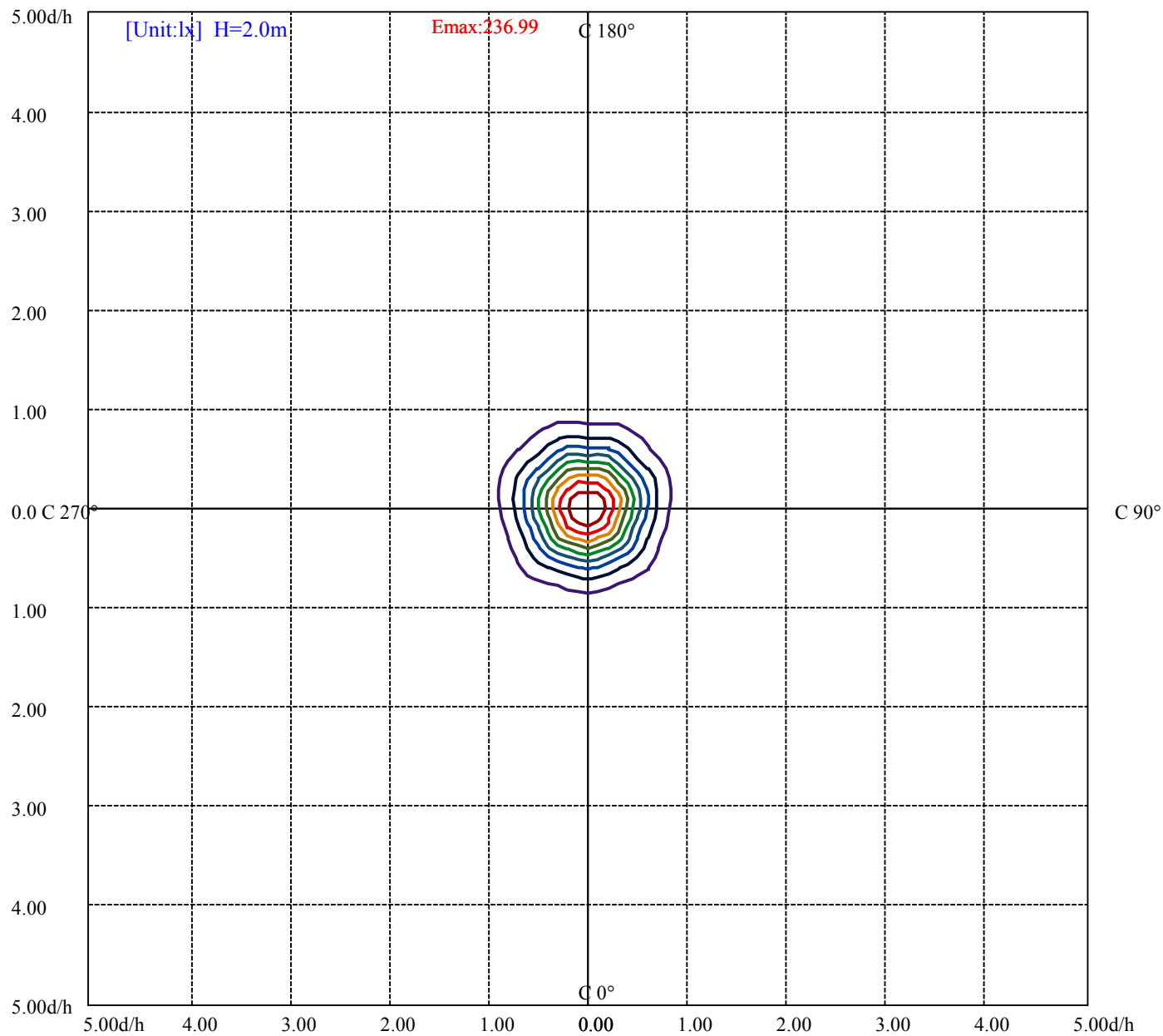
0-10	88.36
10-20	236.01
20-30	293.37
30-40	230.99
40-50	107.86
50-60	31.16
60-70	11.37
70-80	4.87
80-90	0.91
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00



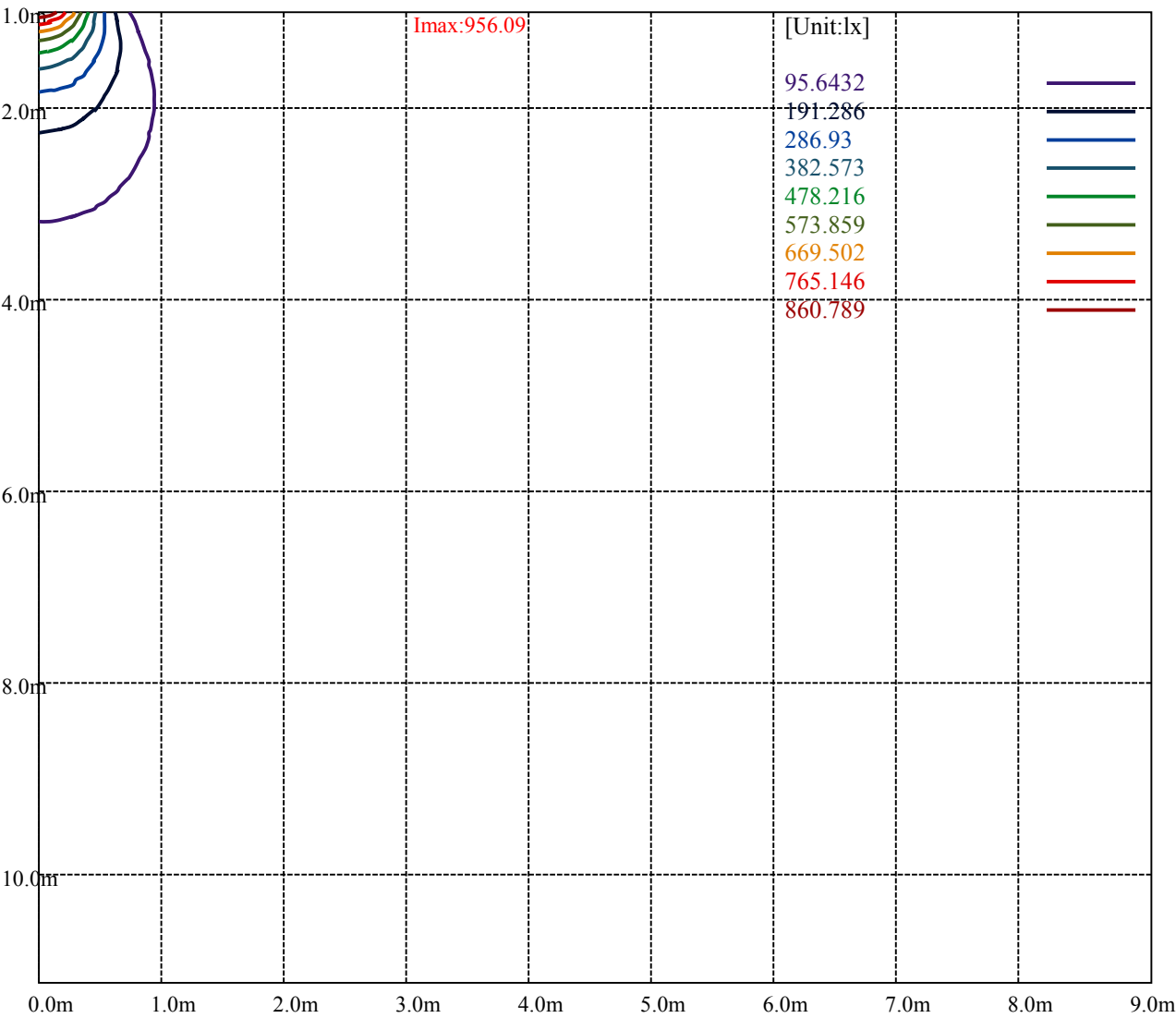








(10%Emax) 23.69917	—
(20%Emax) 47.39825	—
(30%Emax) 71.0975	—
(40%Emax) 94.79675	—
(50%Emax) 118.4958	—
(60%Emax) 142.195	—
(70%Emax) 165.8943	—
(80%Emax) 189.5935	—
(90%Emax) 213.2925	—



Luminance Table

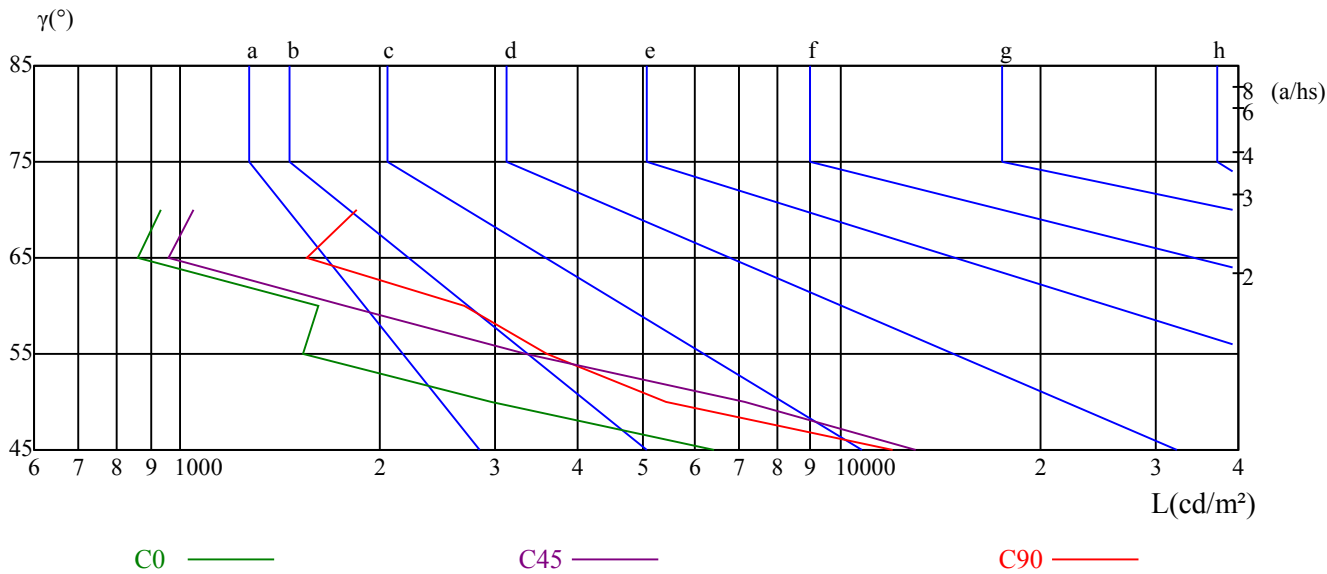
γ	45	50	55	60	65	70	75	80	85
C0	6412	2947	1537	1620	863	931	0	0	0
C45	12940	7142	3342	1778	958	1047	0	0	0
C90	11970	5417	3587	2690	1551	1847	0	0	0

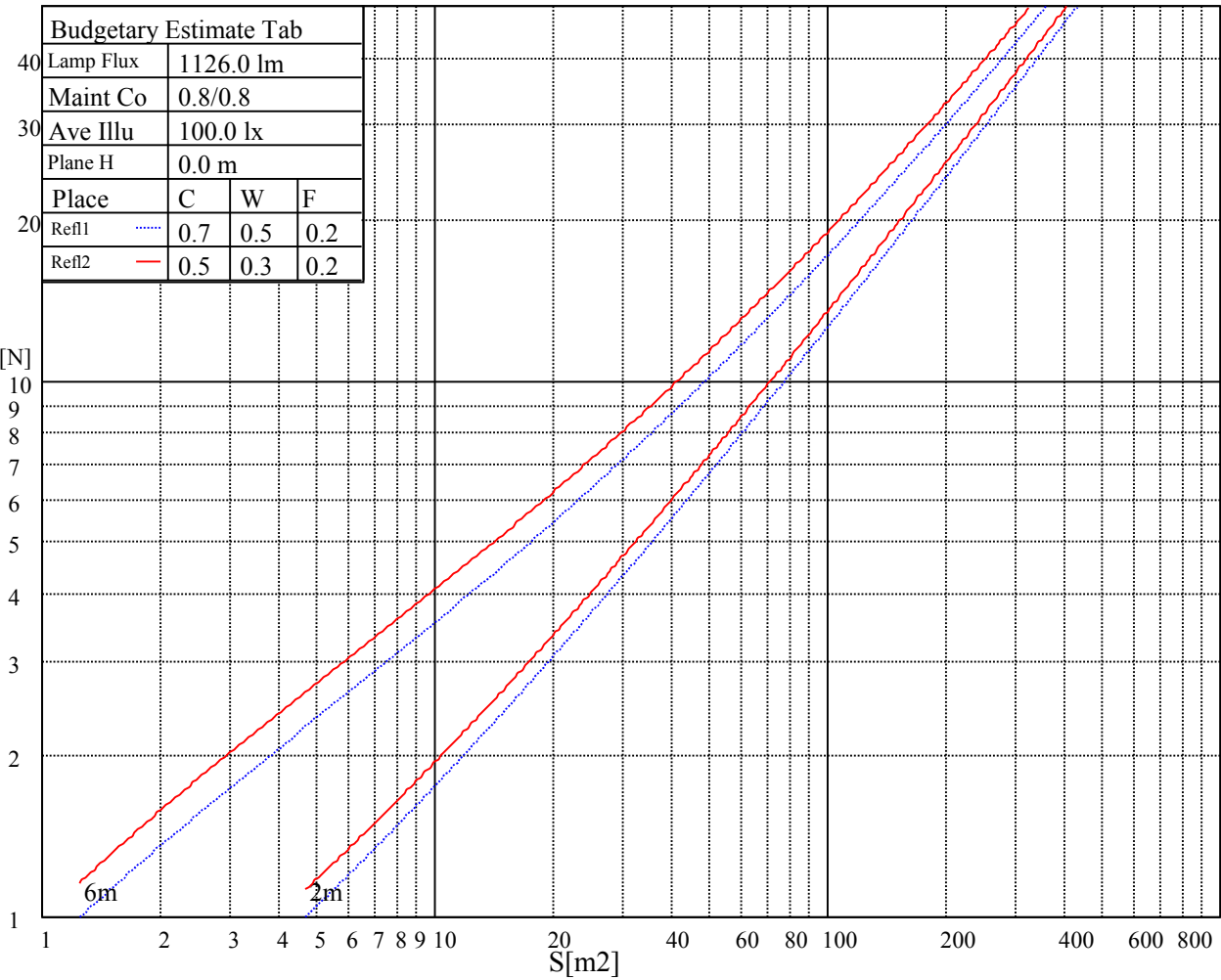
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
1788	1788	1788	1460	0	1460	0	0	217

Glare Table

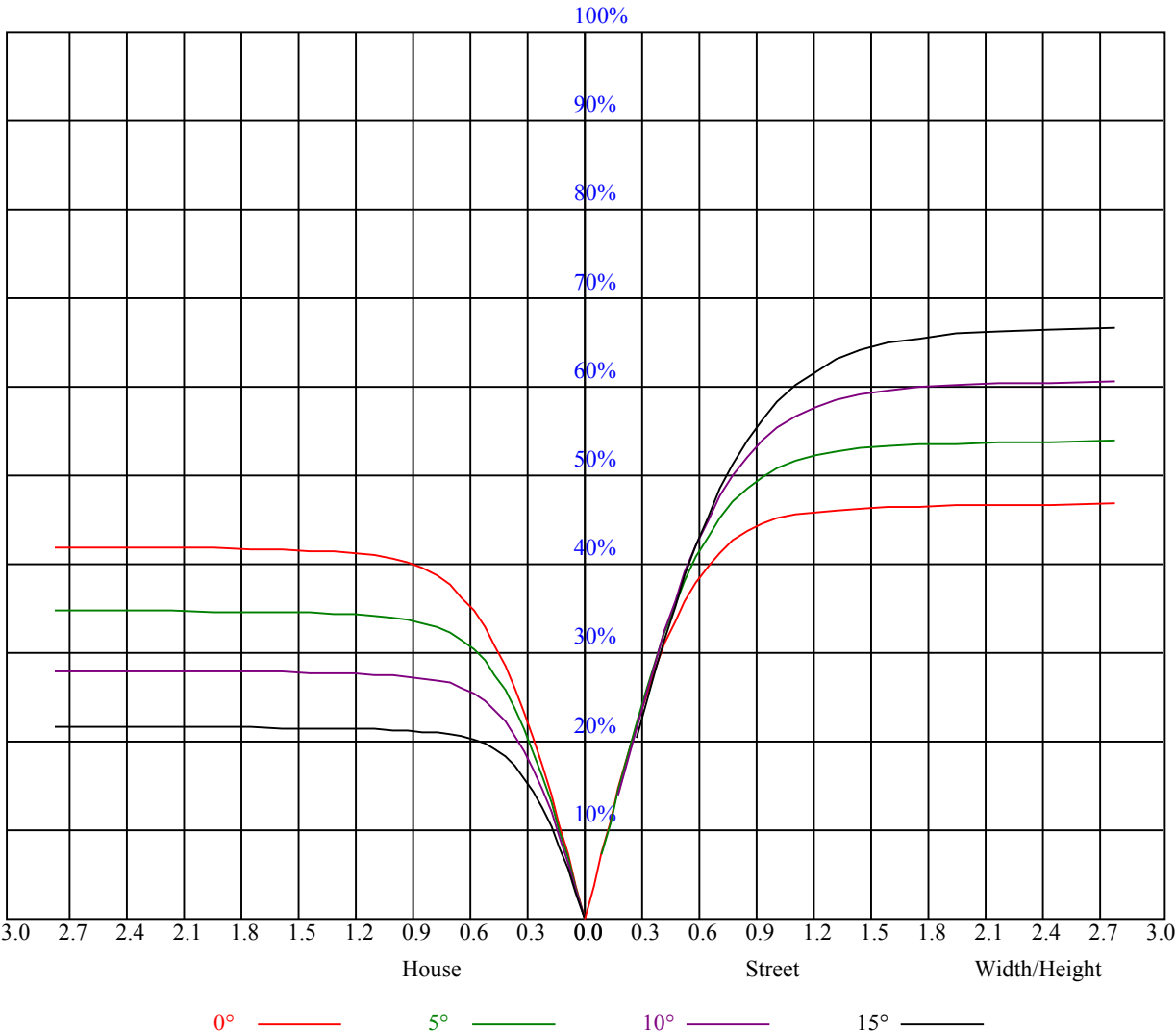
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

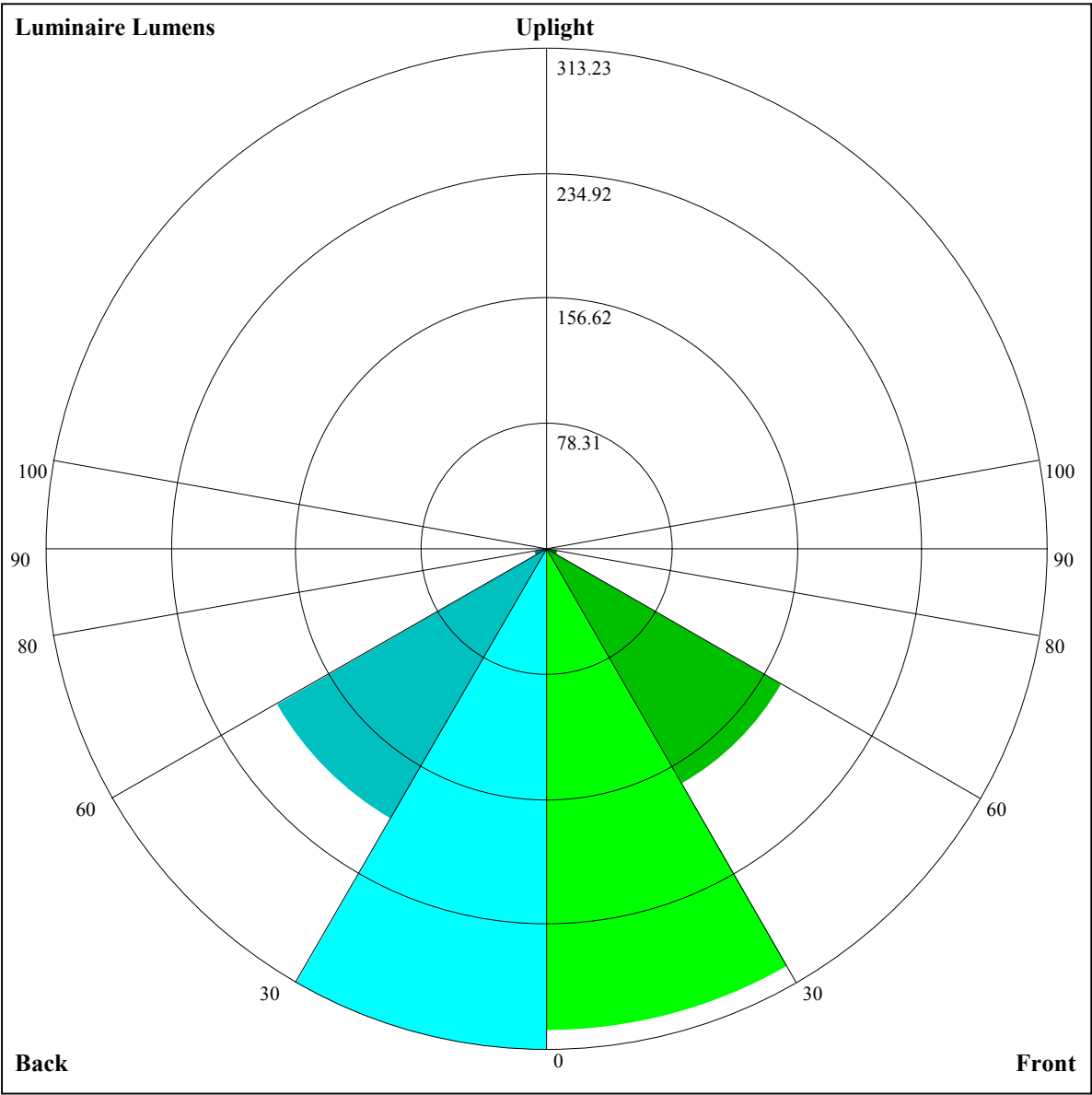
Luminance Limiting Curve





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	COEFFICIENTS OF UTILIZATION RHOFC=20 CU															
0	1.06	1.06	1.06	1.04	1.04	1.04	0.99	0.99	0.99	0.95	0.95	0.95	0.91	0.91	0.91	0.89
1	0.98	0.96	0.94	0.96	0.94	0.92	0.93	0.91	0.89	0.89	0.88	0.87	0.86	0.85	0.84	0.82
2	0.90	0.87	0.83	0.89	0.85	0.82	0.86	0.83	0.81	0.83	0.81	0.79	0.81	0.79	0.77	0.76
3	0.84	0.79	0.75	0.82	0.78	0.74	0.80	0.76	0.73	0.78	0.75	0.72	0.76	0.73	0.71	0.69
4	0.77	0.72	0.68	0.76	0.71	0.68	0.74	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	0.66	0.62	0.69	0.65	0.61	0.68	0.64	0.61	0.66	0.63	0.60	0.59
6	0.67	0.61	0.57	0.66	0.61	0.57	0.65	0.60	0.57	0.64	0.59	0.56	0.62	0.59	0.56	0.54
7	0.63	0.57	0.53	0.62	0.56	0.53	0.61	0.56	0.52	0.60	0.55	0.52	0.59	0.55	0.52	0.50
8	0.59	0.53	0.49	0.58	0.53	0.49	0.57	0.52	0.49	0.56	0.52	0.48	0.55	0.51	0.48	0.47
9	0.55	0.49	0.46	0.55	0.49	0.45	0.54	0.49	0.45	0.53	0.48	0.45	0.52	0.48	0.45	0.44
10	0.52	0.46	0.43	0.51	0.46	0.42	0.51	0.46	0.42	0.50	0.45	0.42	0.49	0.45	0.42	0.41





Luminaire Lumens:

FL=301.94,FM=169.52,FH=7.48,FVH=0.67

BL=313.23,BM=194.88,BH=8.56,BVH=0.75

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	953.72	940.01	902.85	828.63	731.71	607.55	469.84	322.31	180.71
22.5	956.09	950.76	921.90	868.15	784.87	675.17	539.58	387.31	252.06
45.0	951.10	935.86	899.13	837.77	747.29	627.77	491.59	356.59	240.46
67.5	942.55	939.76	912.76	872.22	799.68	686.09	554.48	415.58	279.82
90.0	933.49	923.59	892.27	838.36	757.10	645.21	497.09	354.56	215.32
112.5	945.09	945.26	924.35	882.03	804.00	706.91	592.99	440.30	299.54
135.0	943.48	935.36	908.10	851.82	772.00	664.25	535.52	402.12	280.41
157.5	948.65	951.10	930.96	889.40	821.43	727.57	603.14	468.91	332.21
180.0	953.72	945.77	916.91	864.09	784.36	678.81	552.02	395.69	248.50
202.5	956.09	942.04	905.06	835.74	742.12	623.12	486.51	350.32	221.33
225.0	951.10	944.75	916.06	864.85	781.65	670.86	538.40	405.26	283.46
247.5	942.55	926.38	889.23	826.93	733.07	600.27	464.84	325.19	198.82
270.0	933.49	924.01	893.38	840.48	747.79	633.78	499.46	356.08	217.36
292.5	945.09	925.28	882.88	803.66	698.87	586.98	436.91	300.64	179.94
315.0	943.48	930.70	895.49	834.13	743.31	625.24	489.98	342.37	231.49
337.5	948.65	923.59	872.81	794.52	686.18	555.66	416.68	283.04	161.32
360.0	953.72	940.01	902.85	828.63	731.71	607.55	469.84	322.31	180.71
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	79.48	36.40	19.98	13.29	9.73	6.43	3.89	2.12	0.85
22.5	146.68	59.76	29.20	16.84	12.10	8.46	5.16	2.54	1.10
45.0	142.28	75.75	34.11	17.69	10.41	6.69	3.89	2.03	1.02
67.5	162.68	77.87	35.38	18.62	12.36	8.04	4.99	2.79	1.27
90.0	104.78	45.28	22.51	14.22	10.24	6.86	4.15	2.29	1.18
112.5	177.24	86.16	38.93	19.98	12.53	8.97	5.76	3.13	1.44
135.0	171.06	104.11	49.35	21.75	12.27	7.79	4.74	2.54	1.18
157.5	204.91	89.80	40.80	21.75	14.13	10.16	6.60	3.39	1.44
180.0	117.90	51.46	26.15	16.08	11.93	8.38	5.42	2.79	0.85
202.5	100.21	44.77	24.88	14.64	10.58	7.03	3.98	1.95	0.85
225.0	182.23	99.45	45.62	21.92	12.27	7.79	4.66	2.45	0.93
247.5	98.44	44.61	22.01	13.54	9.48	6.26	3.47	1.69	0.85
270.0	105.63	46.55	22.77	14.22	9.82	6.52	4.06	2.20	1.02
292.5	89.21	40.37	20.40	12.53	8.55	5.76	3.13	1.61	0.85
315.0	151.67	76.51	33.94	17.61	10.50	6.69	3.89	1.86	0.85
337.5	67.03	31.74	17.86	12.44	8.80	5.50	3.05	1.44	0.85
360.0	79.48	36.40	19.98	13.29	9.73	6.43	3.89	2.12	0.85
C/ γ (°)	90.0								
0.0	0.85								
22.5	0.85								
45.0	0.85								
67.5	0.85								
90.0	0.85								
112.5	0.85								
135.0	0.85								
157.5	0.85								
180.0	0.85								
202.5	0.85								
225.0	0.85								
247.5	0.85								
270.0	0.85								
292.5	0.85								
315.0	0.85								
337.5	0.85								
360.0	0.85								