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Nata

Client: NT

LumCAT: 11-0161-S6

Luminaire: 69-0030-1

Report No: 20260803-B005

Ballast type: DC

Test No: 20260803-C005

Voltage(V): 22.120

LampCAT: LUXEON 2835*2

Current(A): 0.454

Lamp flux(lm): 1126.0

Power (W): 10.042

Number of Lamps: 1

PF: 0.000

Length(mm): 280

Width(mm): 40

Phm Type: C

Height(mm): 20

Photometric Results

Lumens(lm): 1025.24, Efficiency(%): 91.05% , Luminous Efficacy(lm/W): 102.09

Central intensity(cd): 1031.677, Maximum intensity(cd): 1036.248

Angle of maximum intensity: C=22.5 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=60.8

[C90/270]Total=61.7

Field angle(10%Imax): [C0/180]Total=89.1

[C90/270]Total=89.5

Maximum s/h(1/2): C0_180=0.96 C90_270=0.94

Maximum s/h(1/4): C0_180=0.95 C90_270=0.94

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 90.98%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 99.711%

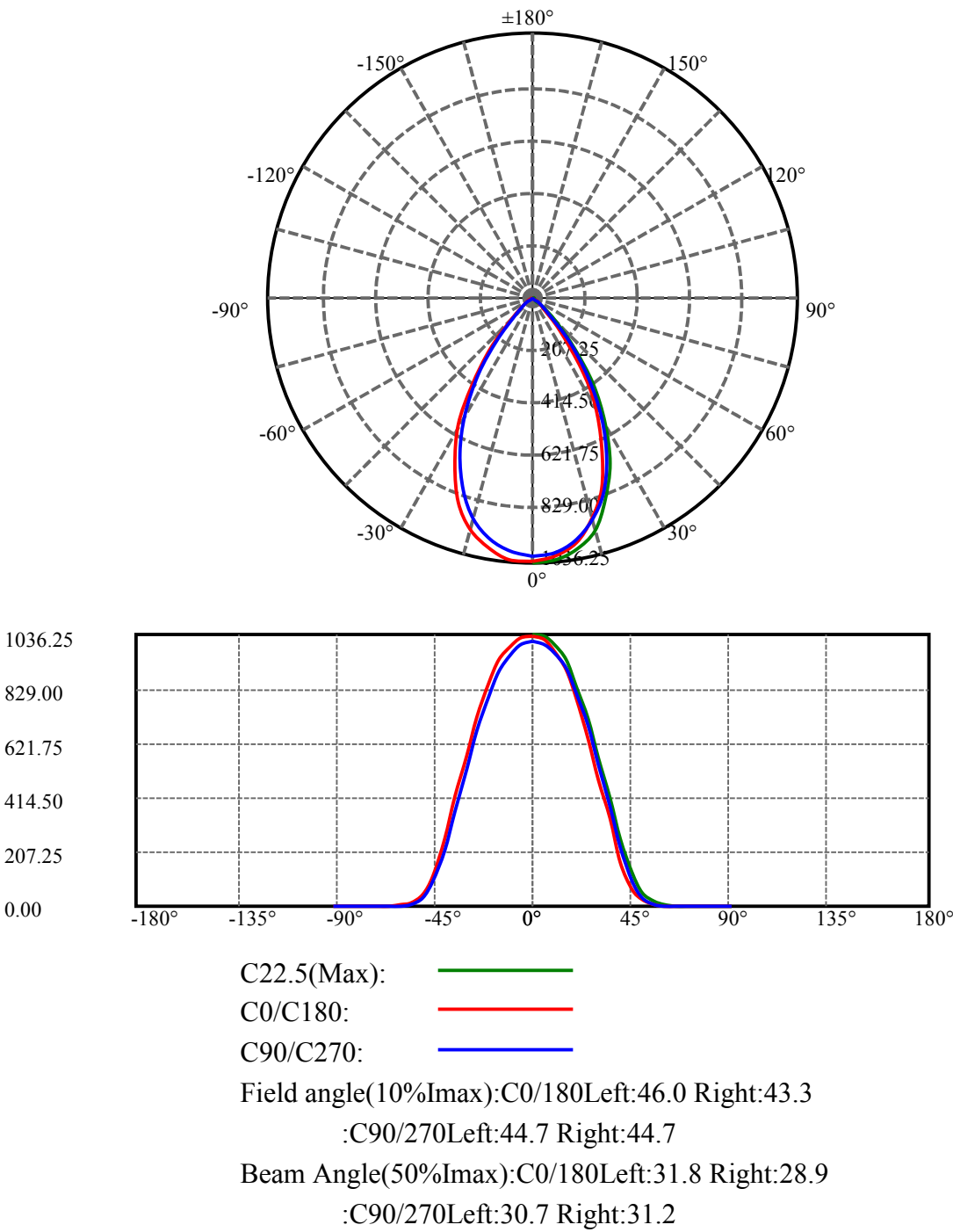
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	1023.858	0.000	0	0.00%	0.00%
5.0	1012.379	24.343	24.343	2.16%	2.37%
10.0	976.137	71.135	95.478	6.32%	9.31%
15.0	911.821	111.992	207.471	9.95%	20.24%
20.0	812.883	142.140	349.61	12.62%	34.10%
25.0	687.584	157.371	506.982	13.98%	49.45%
30.0	535.168	154.740	661.722	13.74%	64.54%
35.0	381.018	134.915	796.637	11.98%	77.70%
40.0	237.304	103.162	899.799	9.16%	87.76%
45.0	122.448	66.611	966.41	5.92%	94.26%
50.0	51.466	35.142	1001.552	3.12%	97.69%
55.0	17.187	14.928	1016.479	1.33%	99.15%
60.0	4.179	4.939	1021.418	0.44%	99.63%
65.0	1.206	1.309	1022.727	0.12%	99.76%
70.0	0.947	0.545	1023.272	0.05%	99.81%
75.0	0.931	0.491	1023.763	0.04%	99.86%
80.0	0.894	0.488	1024.252	0.04%	99.90%
85.0	0.905	0.489	1024.74	0.04%	99.95%
90.0	0.910	0.497	1025.237	0.04%	100.00%

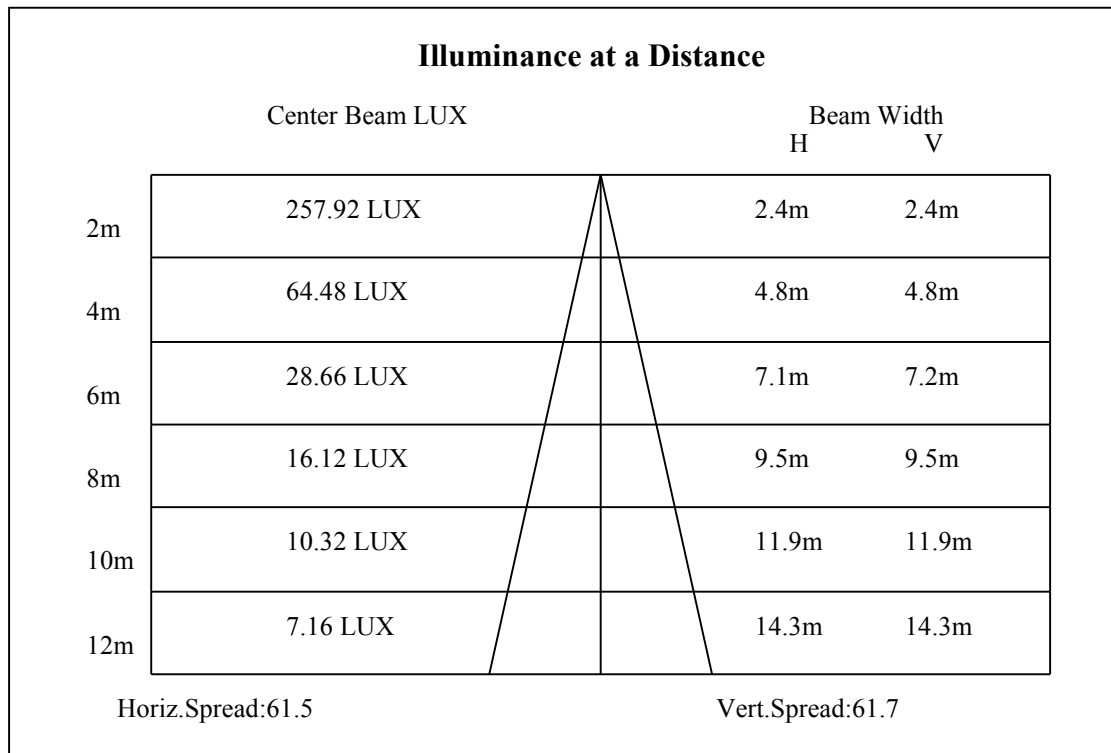
ZONAL LUMEN SUMMARY

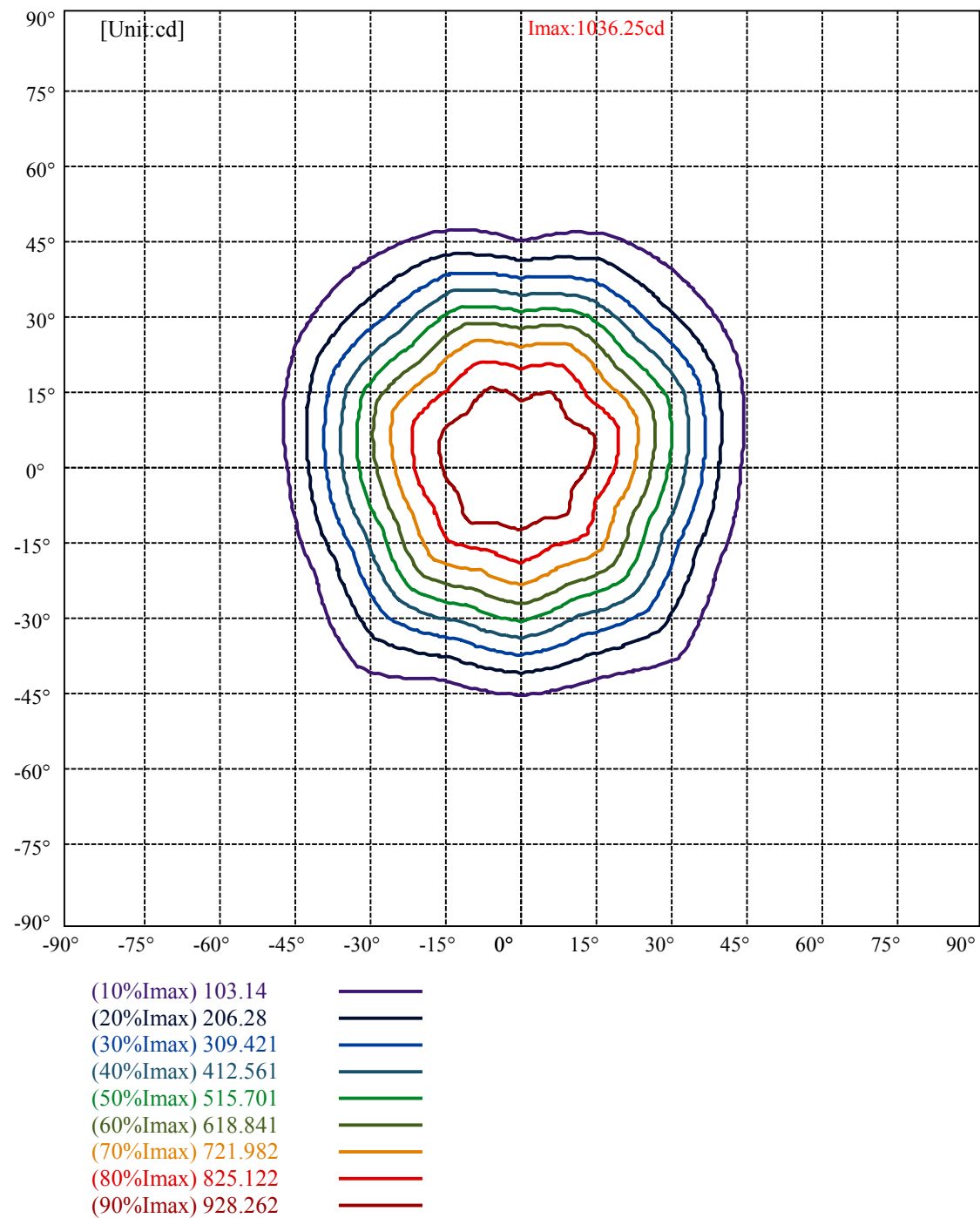
Zone	Lumens	%Lamp	%Fixt
0-30	661.72	58.77%	64.54%
0-40	899.80	79.91%	87.76%
0-60	1021.42	90.71%	99.63%
0-90	1024.74	91.01%	99.95%
0-120	1024.74	91.01%	99.95%
0-180	1025.24	91.05%	100.00%
60-90	3.32	0.30%	0.32%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-36.14	820.19	72.84%	80.00%

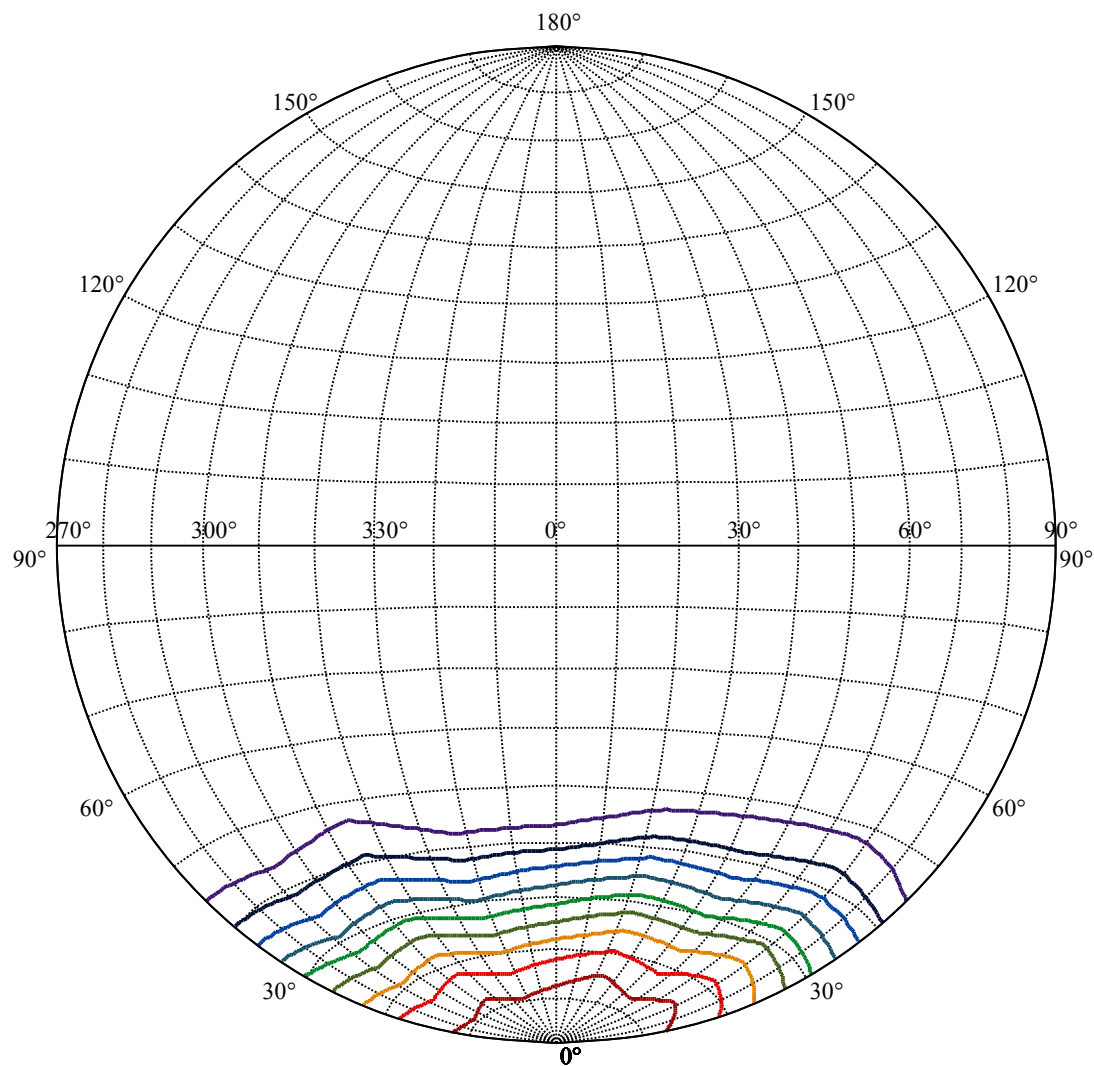
ZONAL LUMEN SUMMARY

0-10	95.48
10-20	254.13
20-30	312.11
30-40	238.08
40-50	101.75
50-60	19.87
60-70	1.85
70-80	0.98
80-90	0.49
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







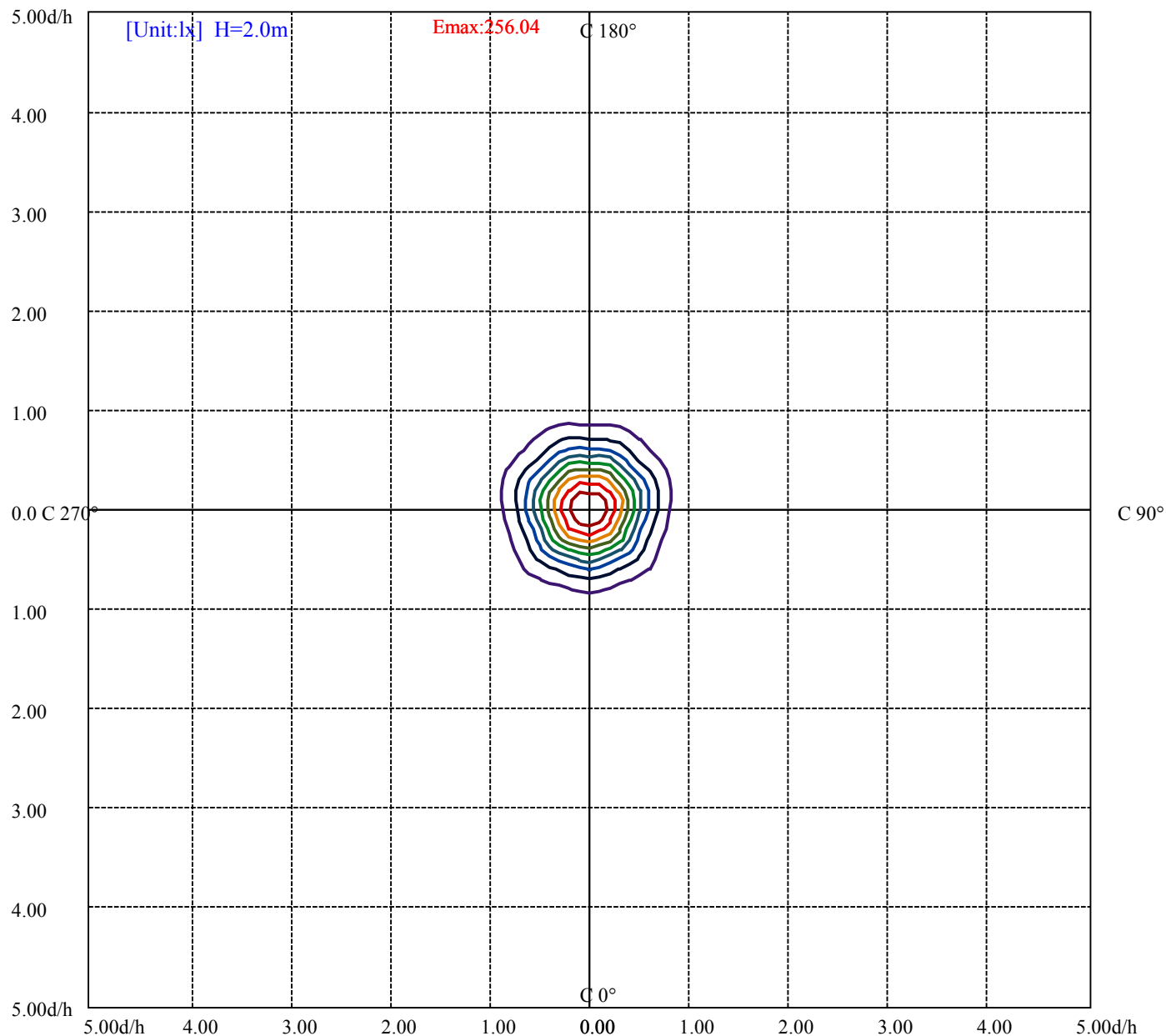


House

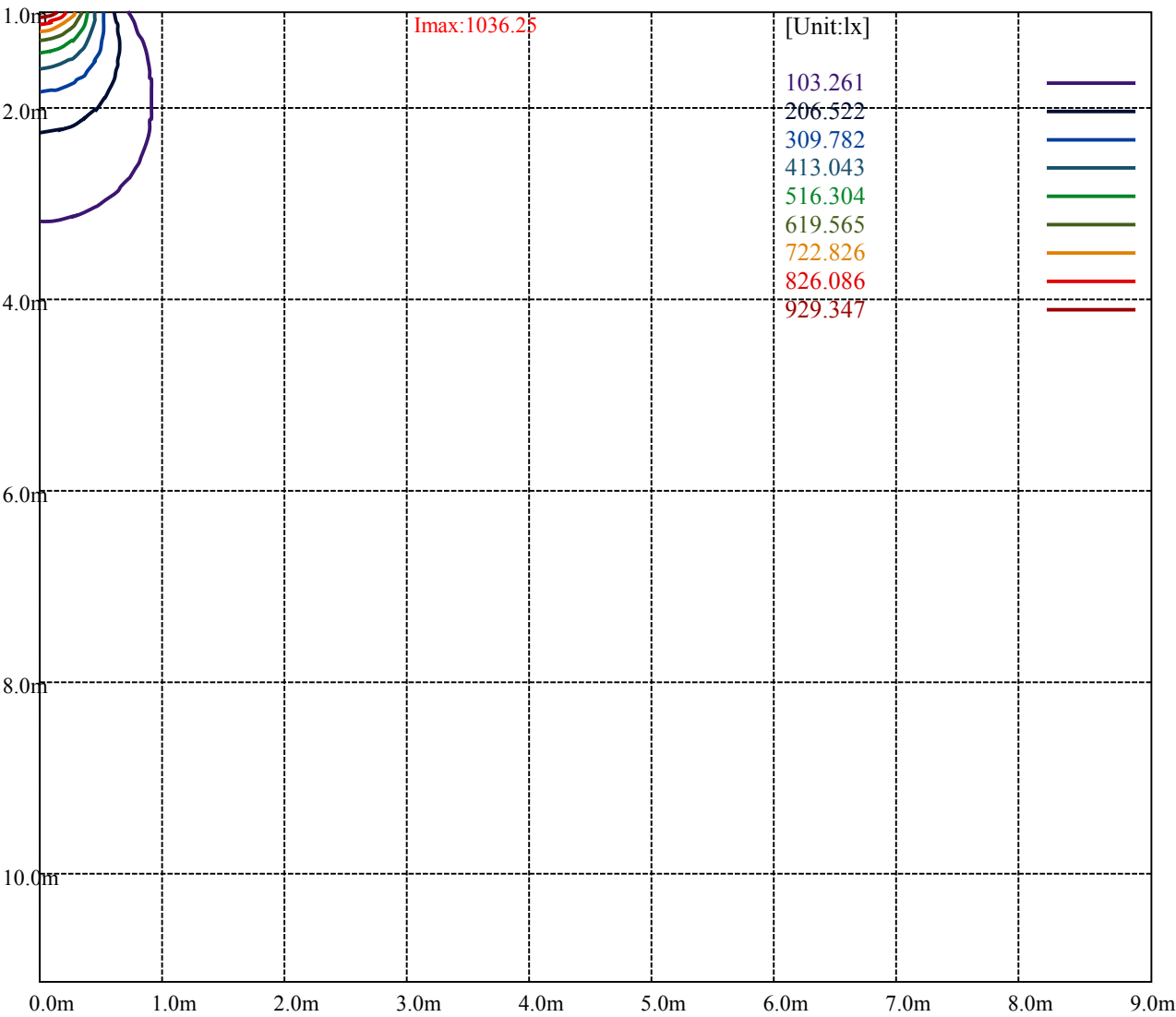
[Unit:cd]

Road

Imax:1036.25	
(10%Imax)	103.617
(20%Imax)	207.233
(30%Imax)	310.85
(40%Imax)	414.467
(50%Imax)	518.083
(60%Imax)	621.7
(70%Imax)	725.317
(80%Imax)	828.933
(90%Imax)	932.55



(10%Emax)	25.6035	
(20%Emax)	51.20725	
(30%Emax)	76.81075	
(40%Emax)	102.4143	
(50%Emax)	128.018	
(60%Emax)	153.6215	
(70%Emax)	179.225	
(80%Emax)	204.8285	
(90%Emax)	230.4323	



Luminance Table

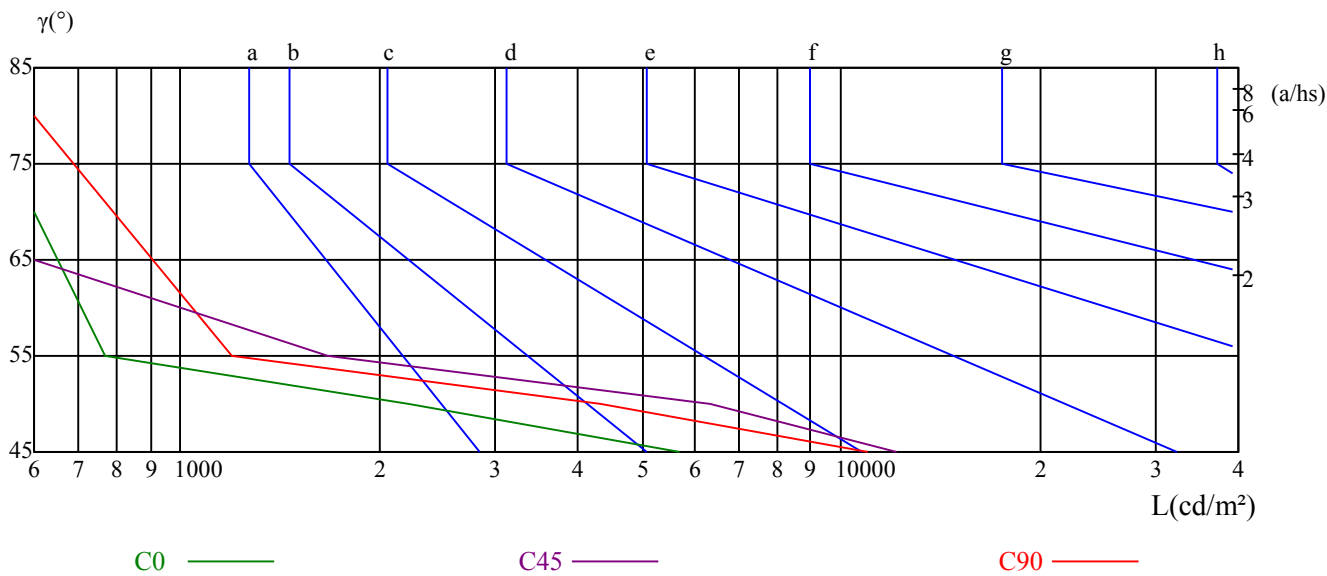
γ	45	50	55	60	65	70	75	80	85
C0	5700	2210	769	0	0	102	112	125	142
C45	12179	6348	1671	0	115	115	128	145	170
C90	10972	4334	1196	0	0	0	0	341	0

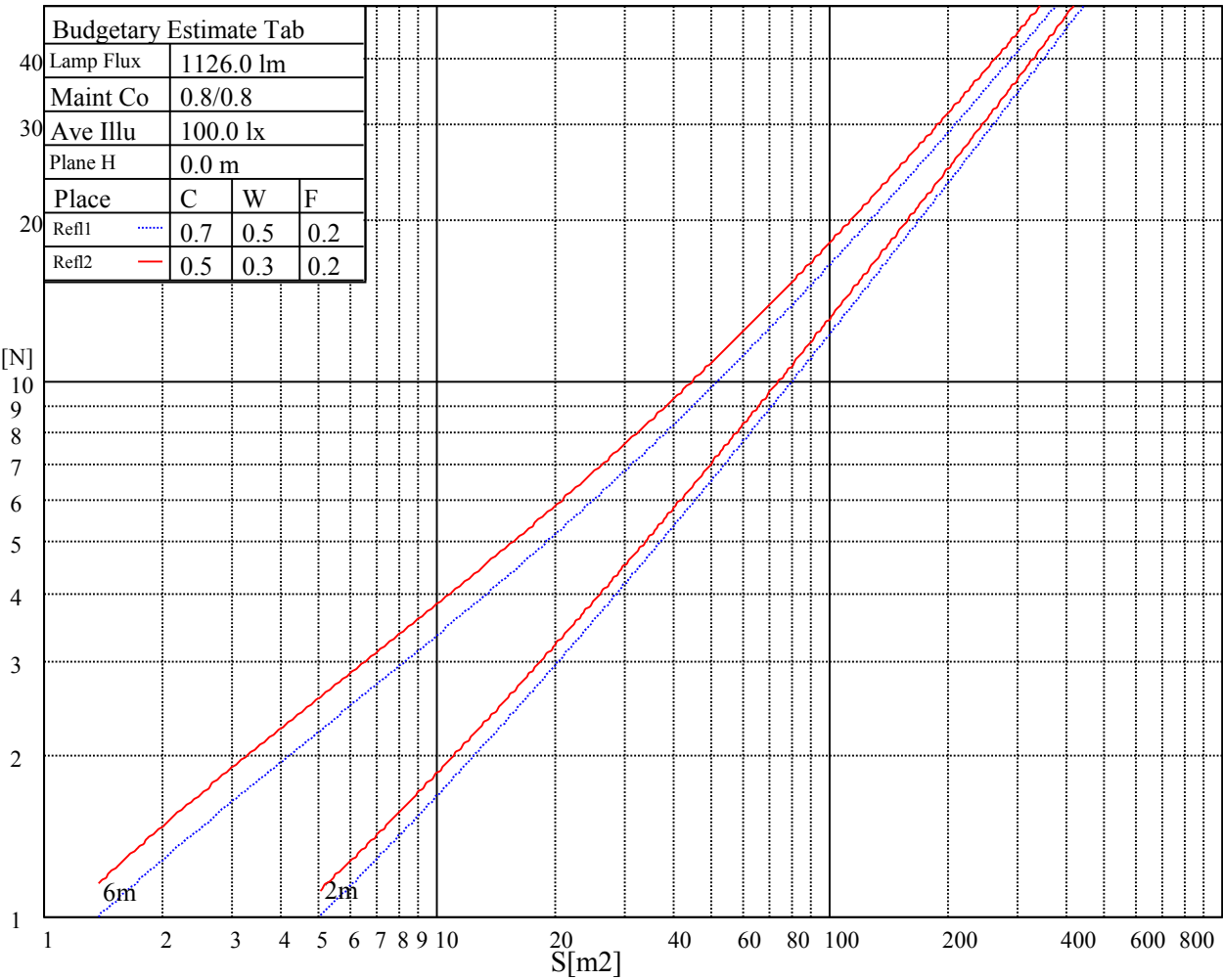
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
0	107	54	321	161	321	910	477	715

Glare Table

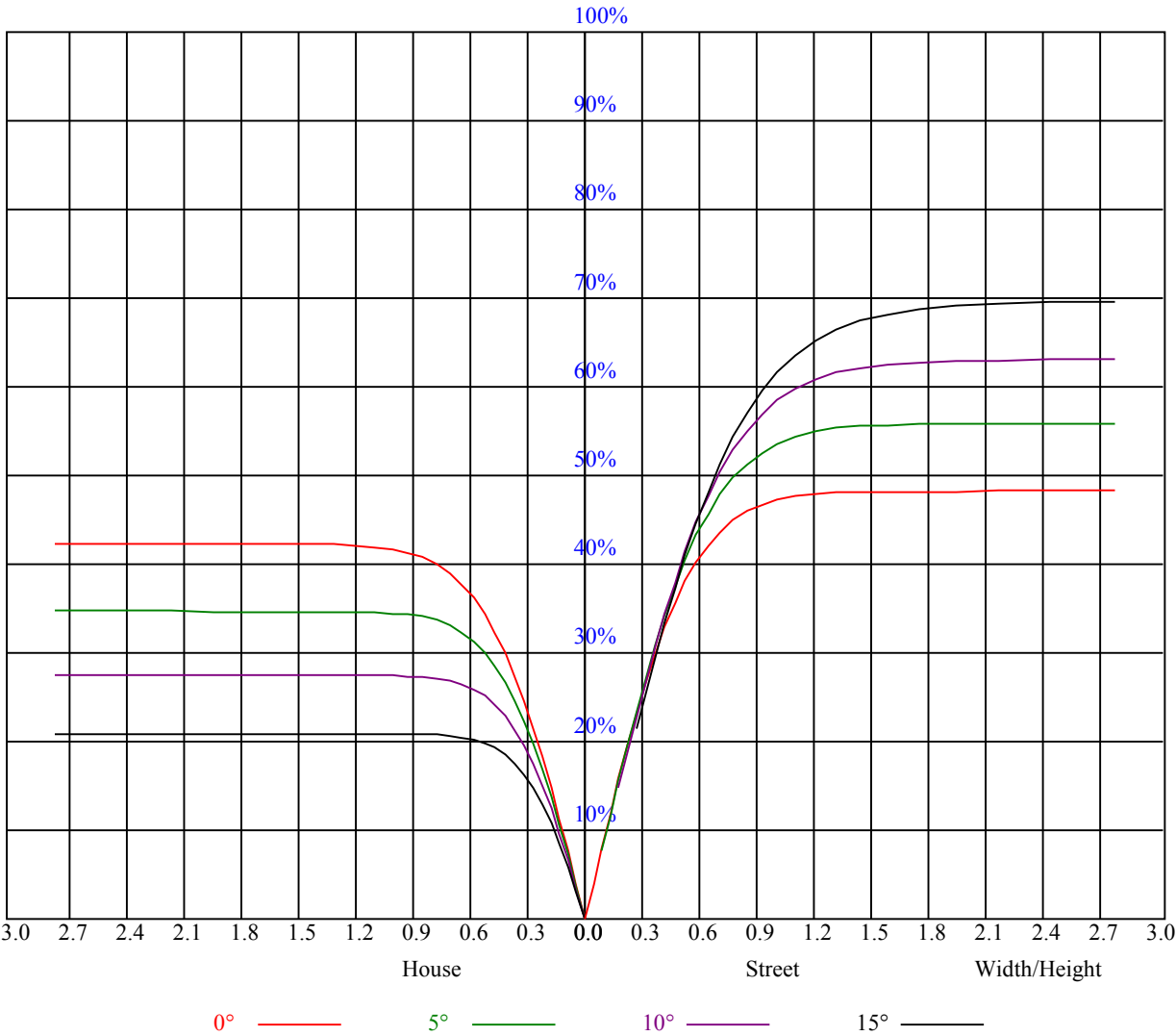
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

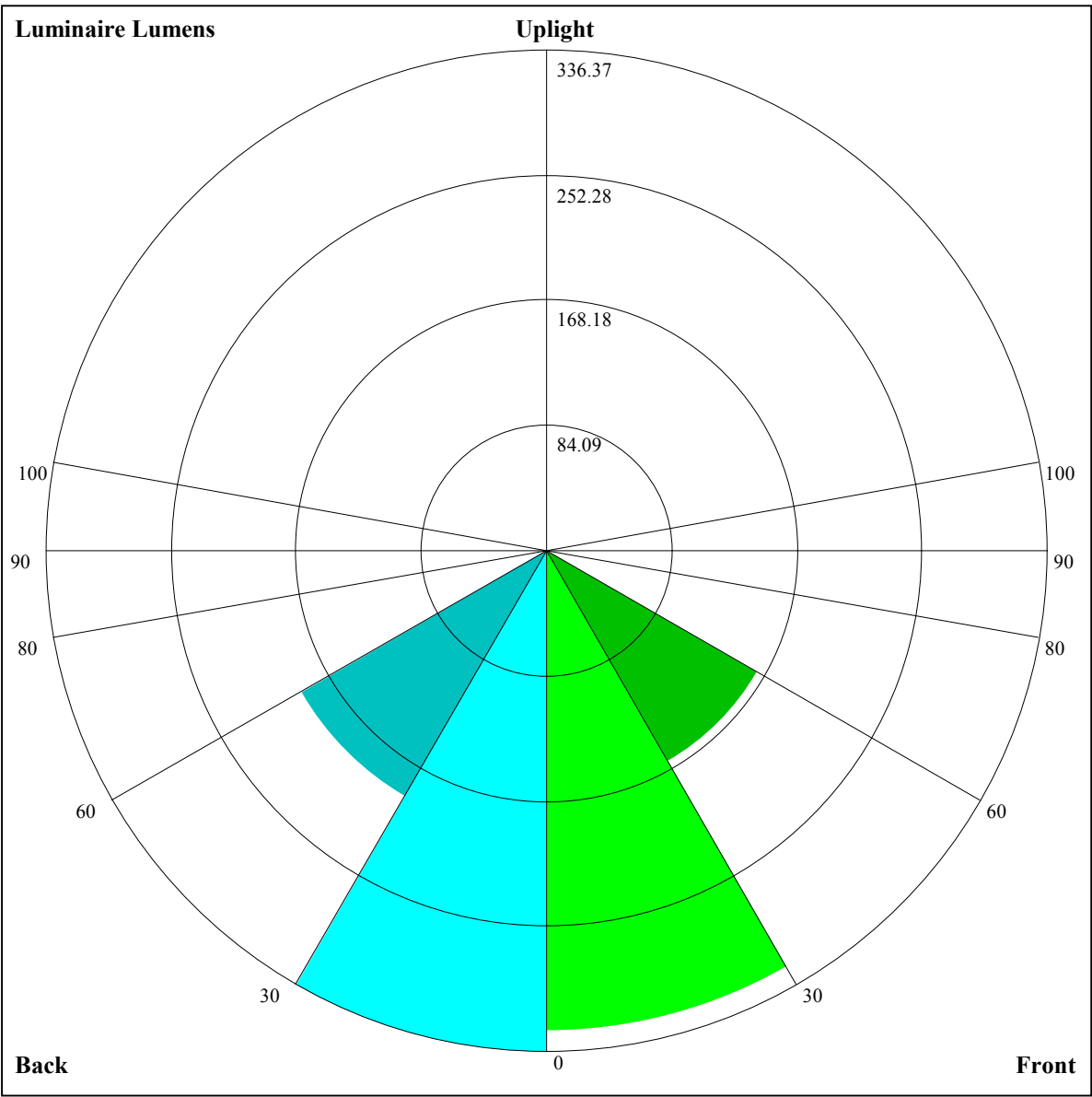
Luminance Limiting Curve





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	1.08	1.08	1.08	1.06	1.06	1.06	1.01	1.01	1.01	0.97	0.97	0.97	0.93	0.93	0.93	0.91
1	1.00	0.98	0.96	0.98	0.96	0.94	0.95	0.93	0.92	0.91	0.90	0.89	0.88	0.87	0.86	0.85
2	0.93	0.89	0.86	0.91	0.88	0.85	0.89	0.86	0.83	0.86	0.83	0.81	0.83	0.81	0.80	0.78
3	0.86	0.82	0.78	0.85	0.81	0.77	0.83	0.79	0.76	0.80	0.77	0.75	0.78	0.76	0.74	0.72
4	0.80	0.75	0.71	0.79	0.74	0.71	0.77	0.73	0.70	0.75	0.72	0.69	0.74	0.71	0.68	0.67
5	0.75	0.69	0.65	0.74	0.69	0.65	0.72	0.68	0.64	0.71	0.67	0.64	0.69	0.66	0.63	0.62
6	0.70	0.64	0.60	0.69	0.64	0.60	0.68	0.63	0.59	0.66	0.62	0.59	0.65	0.61	0.59	0.57
7	0.65	0.60	0.56	0.65	0.59	0.55	0.63	0.59	0.55	0.62	0.58	0.55	0.61	0.57	0.54	0.53
8	0.61	0.56	0.52	0.61	0.55	0.52	0.60	0.55	0.51	0.59	0.54	0.51	0.58	0.54	0.51	0.50
9	0.58	0.52	0.48	0.57	0.52	0.48	0.56	0.51	0.48	0.55	0.51	0.48	0.55	0.51	0.48	0.46
10	0.54	0.49	0.45	0.54	0.49	0.45	0.53	0.48	0.45	0.52	0.48	0.45	0.52	0.48	0.45	0.43





Luminaire Lumens:

FL=322.44,FM=163.11,FH=1.22,FVH=0.5

BL=336.37,BM=191.04,BH=1.54,BVH=0.49

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	1031.68	1014.92	971.67	898.12	791.13	637.85	483.13	336.53	167.59
22.5	1036.25	1030.24	1000.19	942.04	839.46	714.95	564.13	410.08	258.07
45.0	1027.53	1014.24	976.49	900.57	799.68	682.71	514.95	365.73	237.25
67.5	1019.15	1016.53	991.73	942.55	862.99	748.73	601.88	429.29	278.63
90.0	1008.74	999.01	965.32	904.38	813.73	688.97	538.56	378.09	224.72
112.5	1018.81	1022.20	1000.19	960.83	877.63	768.53	623.80	471.95	315.37
135.0	1022.87	1016.19	986.06	929.77	842.93	725.70	567.09	418.71	282.61
157.5	1026.34	1030.07	1009.50	964.90	880.76	787.66	650.46	484.82	331.96
180.0	1031.68	1025.84	988.85	937.64	849.87	717.83	574.96	416.77	256.63
202.5	1036.25	1018.30	975.56	904.38	801.63	670.60	502.08	350.92	211.52
225.0	1027.53	1016.36	985.38	929.69	826.68	718.34	574.96	409.40	275.67
247.5	1018.13	999.60	956.86	875.26	766.84	632.85	481.60	327.56	191.88
270.0	1008.74	994.44	957.19	893.88	798.41	670.35	523.33	362.51	213.80
292.5	1018.81	993.67	941.37	857.49	744.15	606.70	437.42	304.03	174.87
315.0	1022.87	1007.47	968.11	900.06	784.95	650.80	500.65	354.05	229.54
337.5	1026.34	999.01	943.74	847.58	725.28	578.77	423.71	275.84	146.77
360.0	1031.68	1014.92	971.67	898.12	791.13	637.85	483.13	336.53	167.59

C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	65.51	23.45	6.69	1.18	0.93	0.93	0.93	0.93	0.93
22.5	131.28	50.02	17.52	4.99	1.02	0.93	0.93	0.93	0.93
45.0	138.05	65.60	20.65	3.98	1.02	0.93	0.93	0.93	0.93
67.5	167.42	65.26	22.01	5.50	1.18	1.02	1.02	0.93	0.93
90.0	93.61	32.76	8.89	1.86	1.10	0.93	0.93	0.93	0.85
112.5	181.72	73.89	25.48	6.52	1.44	1.02	0.93	0.93	0.93
135.0	171.99	90.31	34.19	6.94	1.78	0.93	0.93	0.85	0.93
157.5	193.06	84.64	30.56	10.16	2.54	0.93	0.93	0.85	0.85
180.0	116.55	43.25	13.37	3.81	1.02	0.93	0.93	0.85	0.85
202.5	96.66	35.04	12.02	3.22	0.93	0.93	0.93	0.85	0.85
225.0	166.06	87.35	31.99	8.04	1.44	1.02	0.93	0.93	0.93
247.5	79.39	32.33	9.99	1.69	1.02	0.93	0.93	0.85	0.93
270.0	95.64	31.23	8.89	1.86	1.02	1.02	0.93	0.93	0.93
292.5	71.10	24.97	7.28	1.44	0.93	0.93	0.93	0.85	0.93
315.0	132.88	62.89	19.30	4.66	1.02	0.93	0.93	0.93	0.93
337.5	58.23	20.48	6.18	1.02	0.93	0.85	0.85	0.85	0.85
360.0	65.51	23.45	6.69	1.18	0.93	0.93	0.93	0.93	0.93

C/ γ (°)	90.0
0.0	0.85
22.5	0.93
45.0	0.93
67.5	0.93
90.0	0.93
112.5	0.93
135.0	0.85
157.5	0.85
180.0	0.85
202.5	0.93
225.0	0.93
247.5	0.93
270.0	0.93
292.5	0.93
315.0	0.93
337.5	0.93
360.0	0.85