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Nata

Client: NT

LumCAT: 11-0161-S2

Luminaire: 69-0030-1

Report No: 20260803-B007

Ballast type: DC

Test No: 20260803-C007

LampCAT: LUXEON 2835*2

Lamp flux(lm): 1126.0

Number of Lamps: 1

Length(mm): 280

Phm Type: C

Voltage(V): 22.140

Current(A): 0.454

Power (W): 10.051

PF: 0.000

Width(mm): 40

Height(mm): 20

Photometric Results

Lumens(lm): 918.63, Efficiency(%): 81.58% , Luminous Efficacy(lm/W): 91.40

Central intensity(cd): 927.231, Maximum intensity(cd): 930.194

Angle of maximum intensity: C=22.5 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=61.5

[C90/270]Total=61.4

Field angle(10%Imax): [C0/180]Total=88.3

[C90/270]Total=89.4

Maximum s/h(1/2): C0_180=0.95 C90_270=0.94

Maximum s/h(1/4): C0_180=0.96 C90_270=0.93

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 81.49%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 99.787%

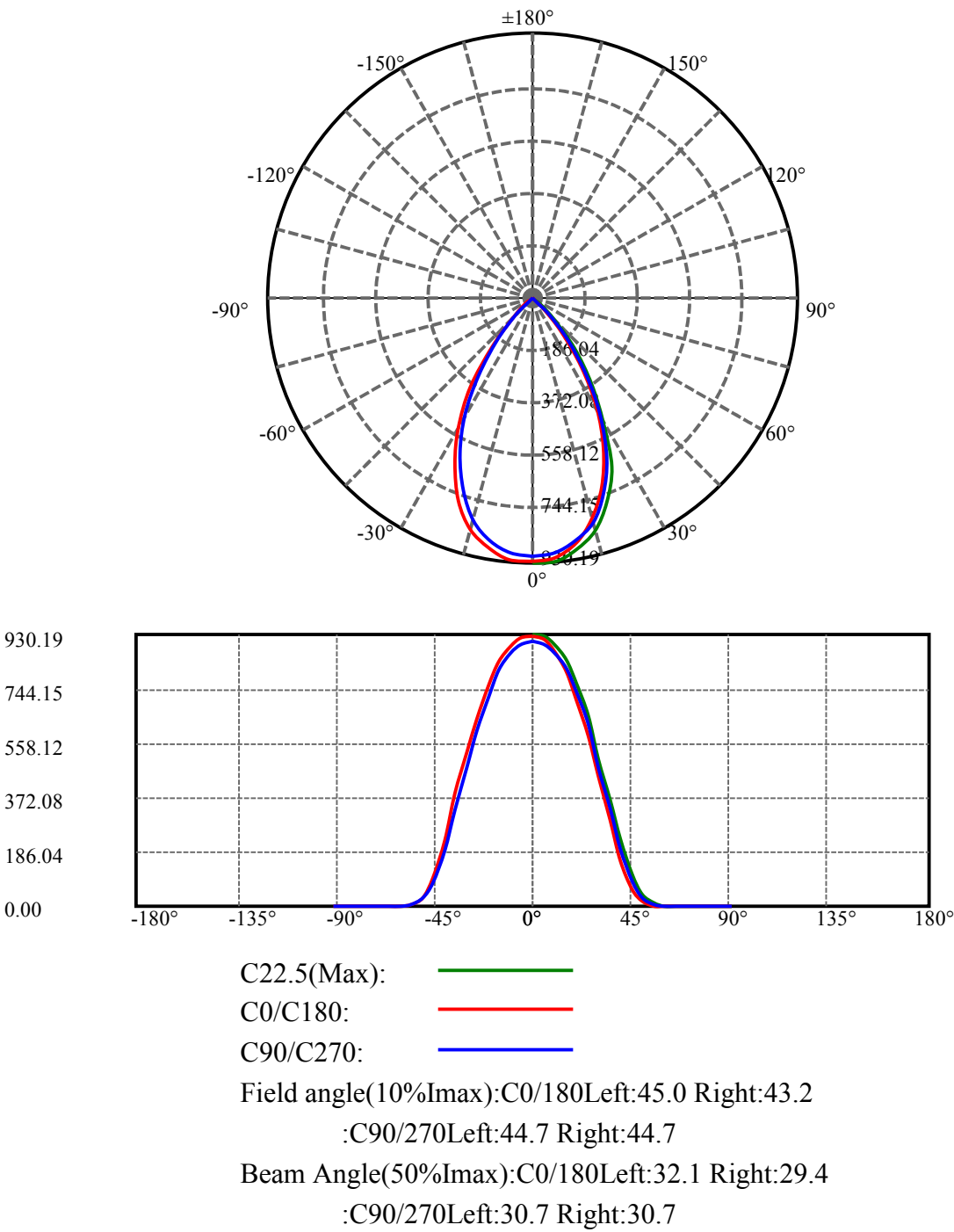
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	919.656	0.000	0	0.00%	0.00%
5.0	909.224	21.864	21.864	1.94%	2.38%
10.0	877.177	63.905	85.769	5.68%	9.34%
15.0	817.776	100.543	186.312	8.93%	20.28%
20.0	731.210	127.658	313.971	11.34%	34.18%
25.0	617.581	141.463	455.434	12.56%	49.58%
30.0	483.003	139.280	594.714	12.37%	64.74%
35.0	343.342	121.685	716.399	10.81%	77.99%
40.0	214.250	93.030	809.429	8.26%	88.11%
45.0	108.895	59.833	869.262	5.31%	94.63%
50.0	42.748	30.642	899.904	2.72%	97.96%
55.0	12.855	12.090	911.994	1.07%	99.28%
60.0	2.846	3.629	915.623	0.32%	99.67%
65.0	0.963	0.926	916.549	0.08%	99.77%
70.0	0.804	0.447	916.996	0.04%	99.82%
75.0	0.762	0.409	917.405	0.04%	99.87%
80.0	0.751	0.405	917.81	0.04%	99.91%
85.0	0.751	0.408	918.218	0.04%	99.96%
90.0	0.756	0.413	918.631	0.04%	100.00%

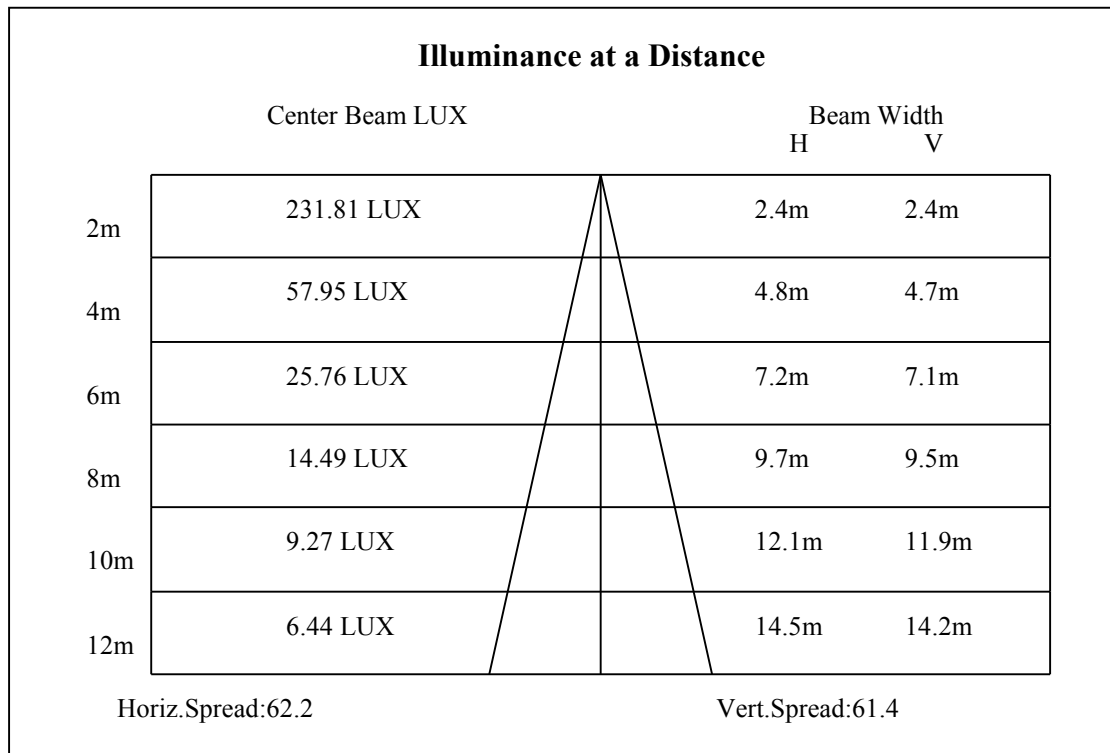
ZONAL LUMEN SUMMARY

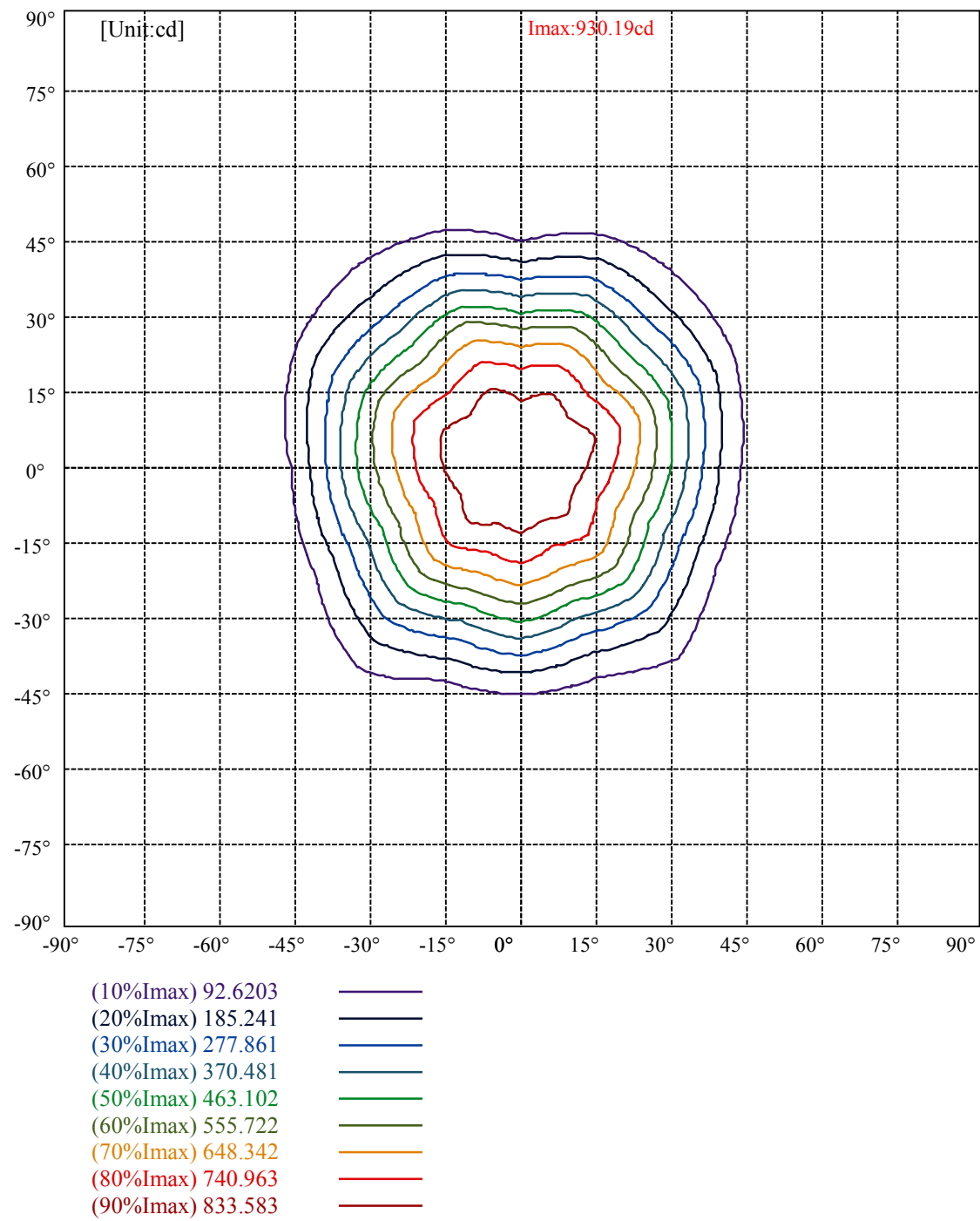
Zone	Lumens	%Lamp	%Fixt
0-30	594.71	52.82%	64.74%
0-40	809.43	71.89%	88.11%
0-60	915.62	81.32%	99.67%
0-90	918.22	81.55%	99.96%
0-120	918.22	81.55%	99.96%
0-180	918.63	81.58%	100.00%
60-90	2.60	0.23%	0.28%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-35.99	734.91	65.27%	80.00%

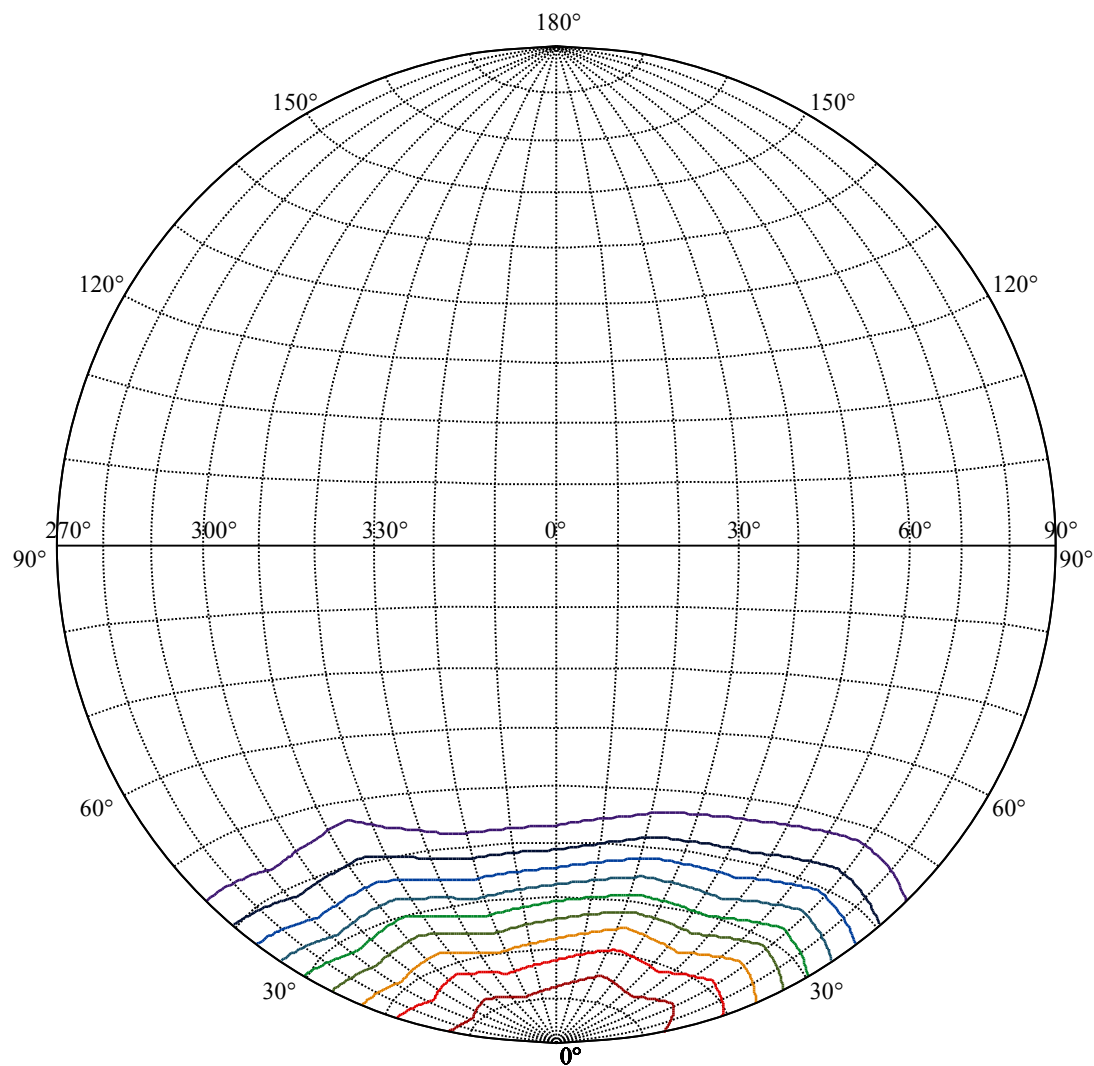
ZONAL LUMEN SUMMARY

0-10	85.77
10-20	228.20
20-30	280.74
30-40	214.72
40-50	90.47
50-60	15.72
60-70	1.37
70-80	0.81
80-90	0.41
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







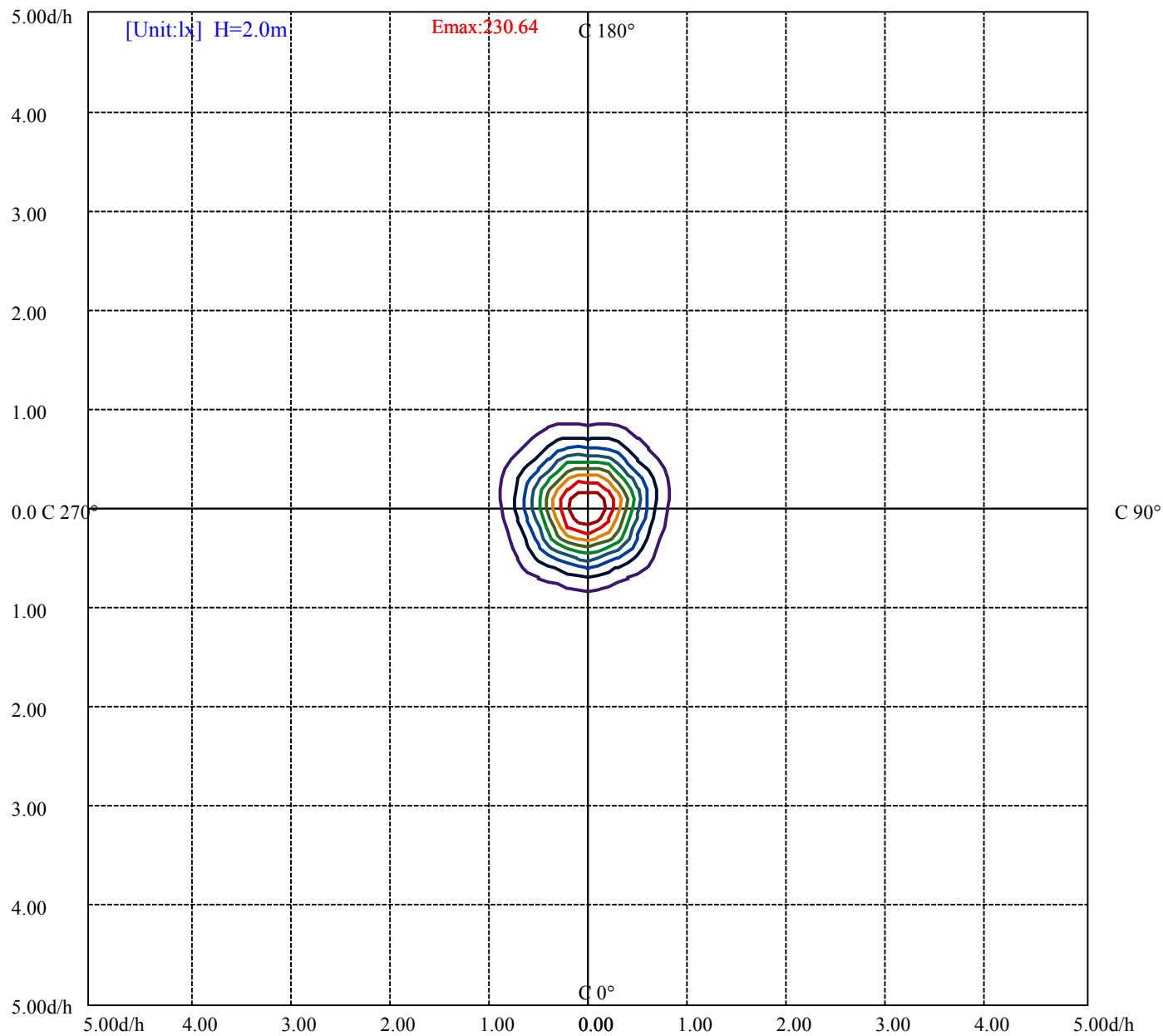


House

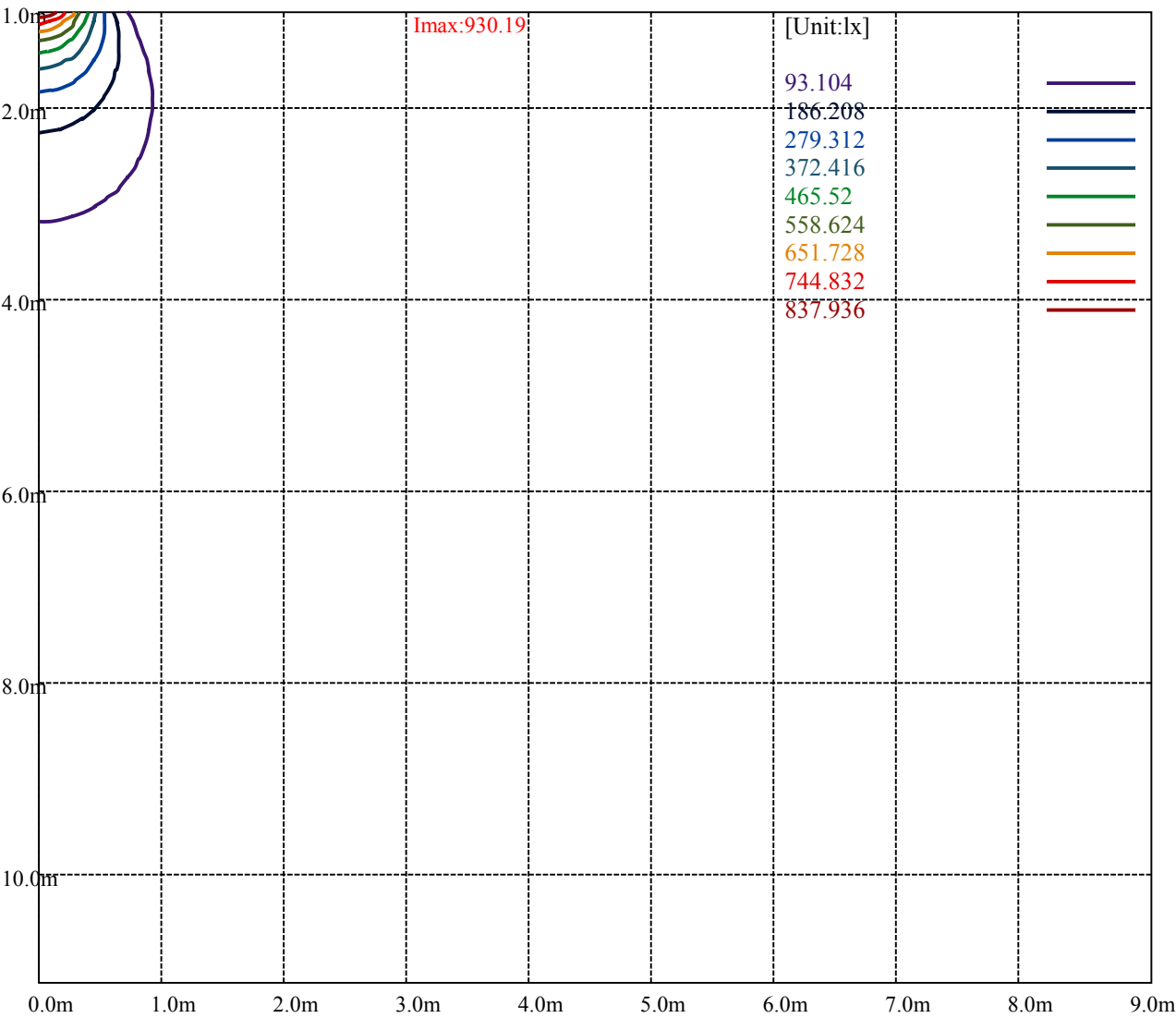
[Unit:cd]

Road

Imax:930.19	
(10%Imax) 93.104	
(20%Imax) 186.208	
(30%Imax) 279.312	
(40%Imax) 372.416	
(50%Imax) 465.52	
(60%Imax) 558.624	
(70%Imax) 651.728	
(80%Imax) 744.832	
(90%Imax) 837.936	



(10%Emax)	23.06437	
(20%Emax)	46.12875	
(30%Emax)	69.193	
(40%Emax)	92.2575	
(50%Emax)	115.3217	
(60%Emax)	138.3862	
(70%Emax)	161.4505	
(80%Emax)	184.515	
(90%Emax)	207.5793	



Luminance Table

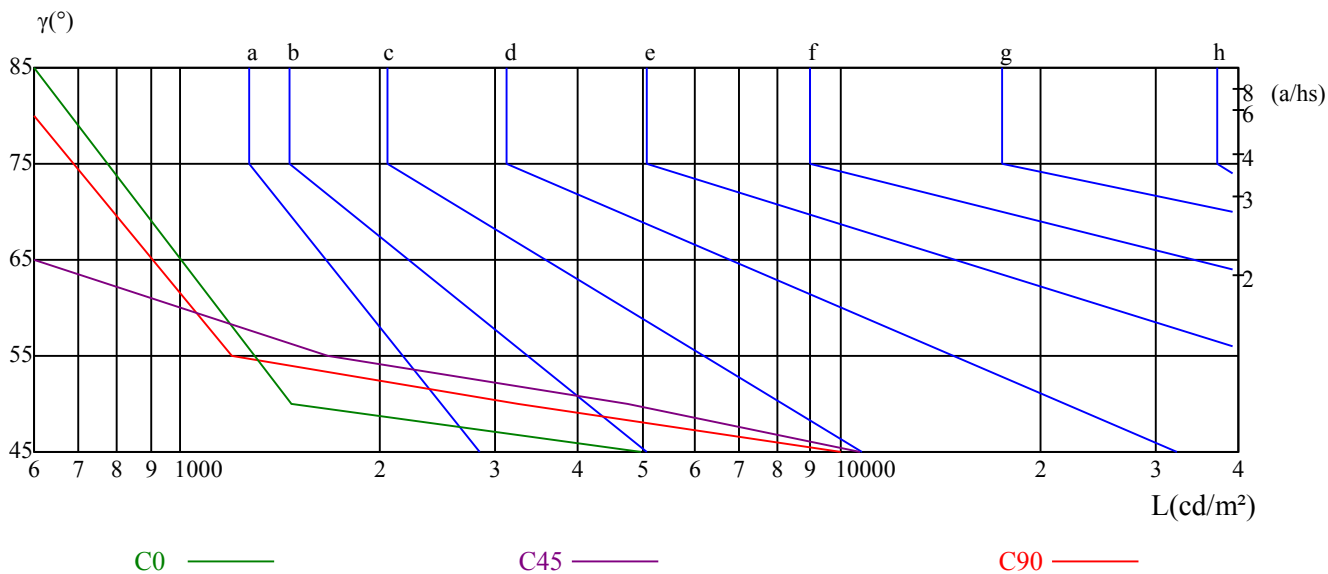
γ	45	50	55	60	65	70	75	80	85
C0	4987	1473	0	0	0	0	0	0	116
C45	10657	4761	1671	0	105	0	105	119	139
C90	9975	3250	1196	0	0	0	0	279	430

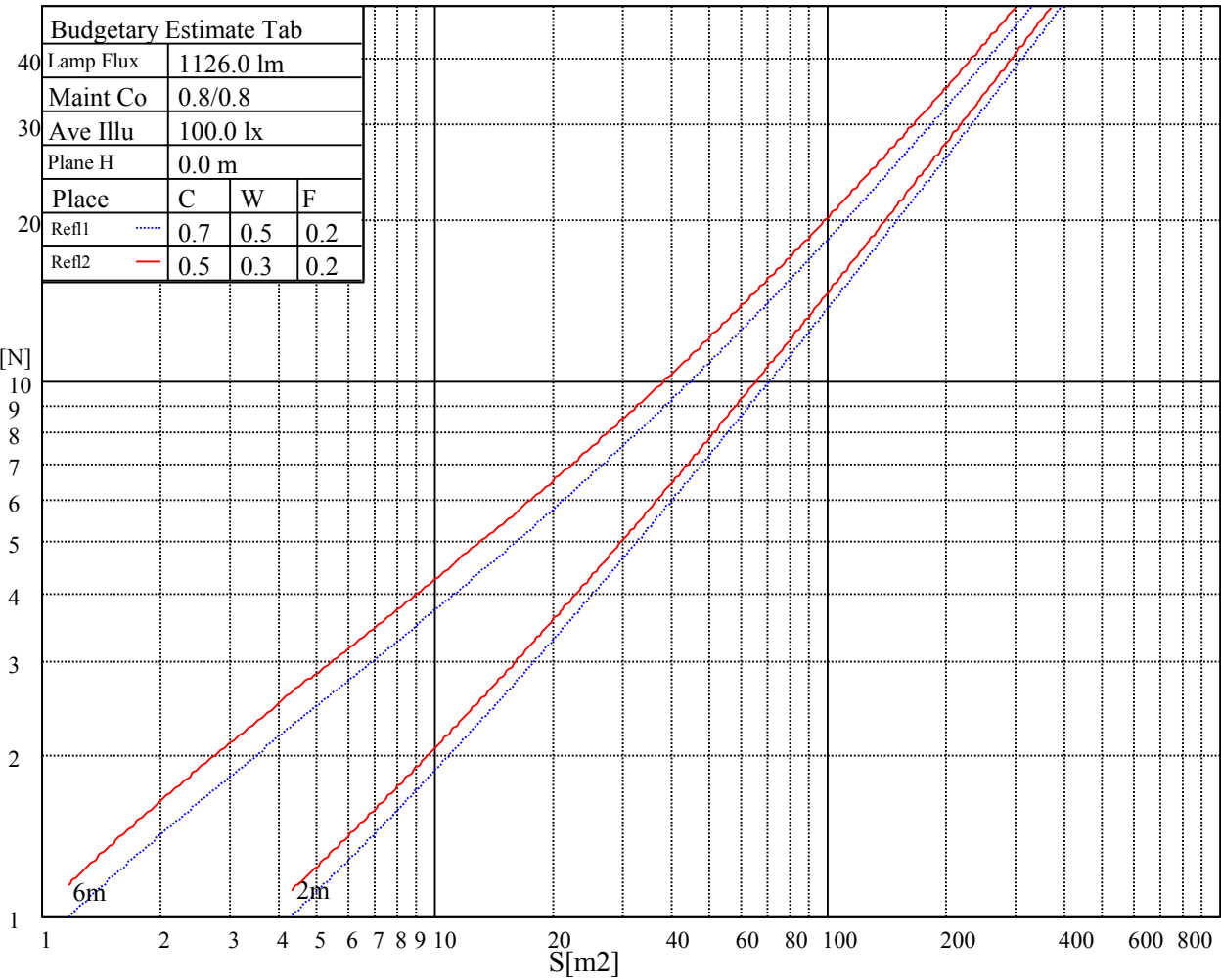
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
0	89	94	131	131	263	390	780	585

Glare Table

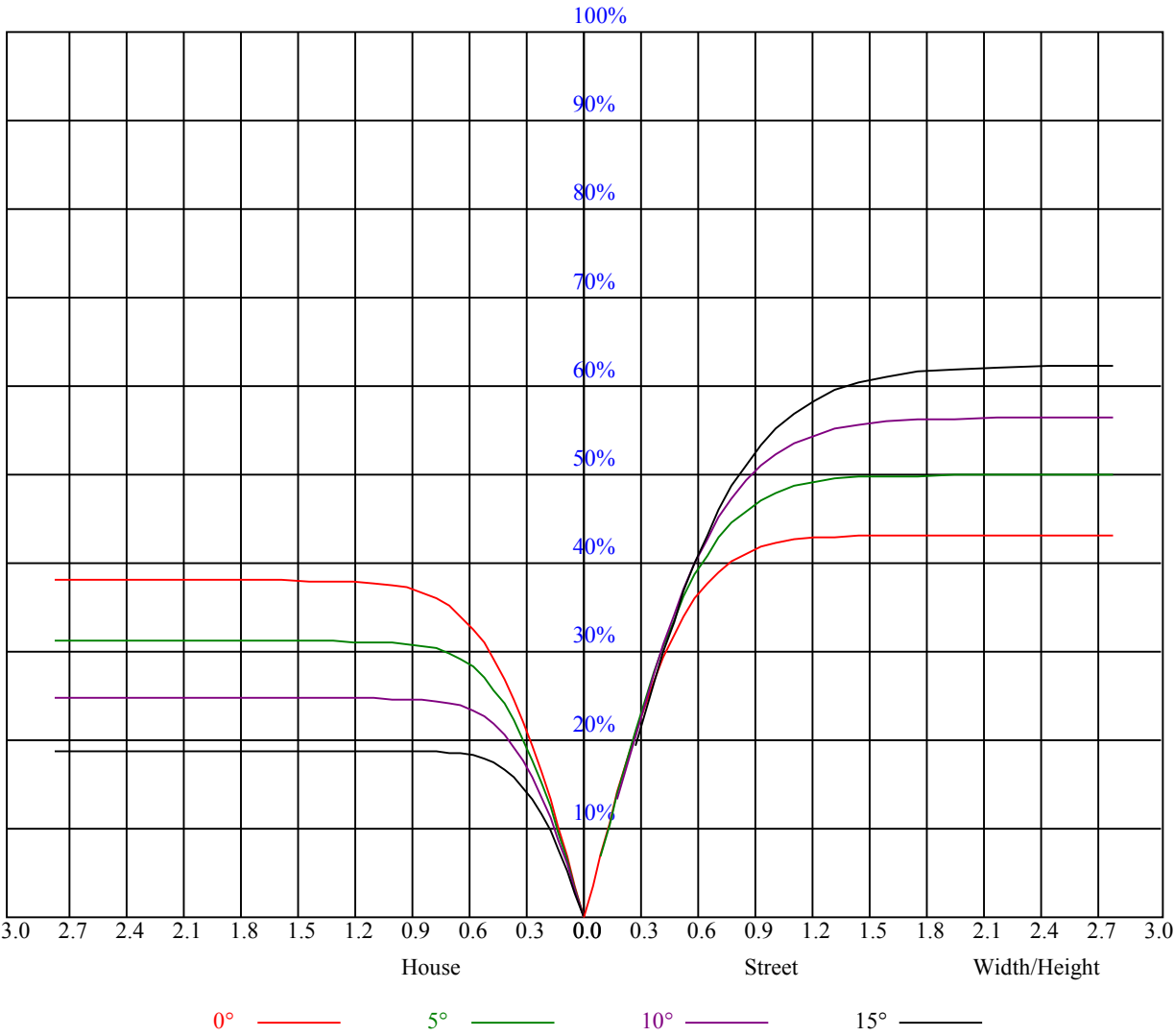
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	≤ 300				
1.5	B		2000	1000	500	≤ 300			
1.85	C			2000	1000	500	≤ 300		
2.2	D				2000	1000	500	≤ 300	
2.55	E					2000	1000	500	≤ 300
		a	b	c	d	e	f	g	h

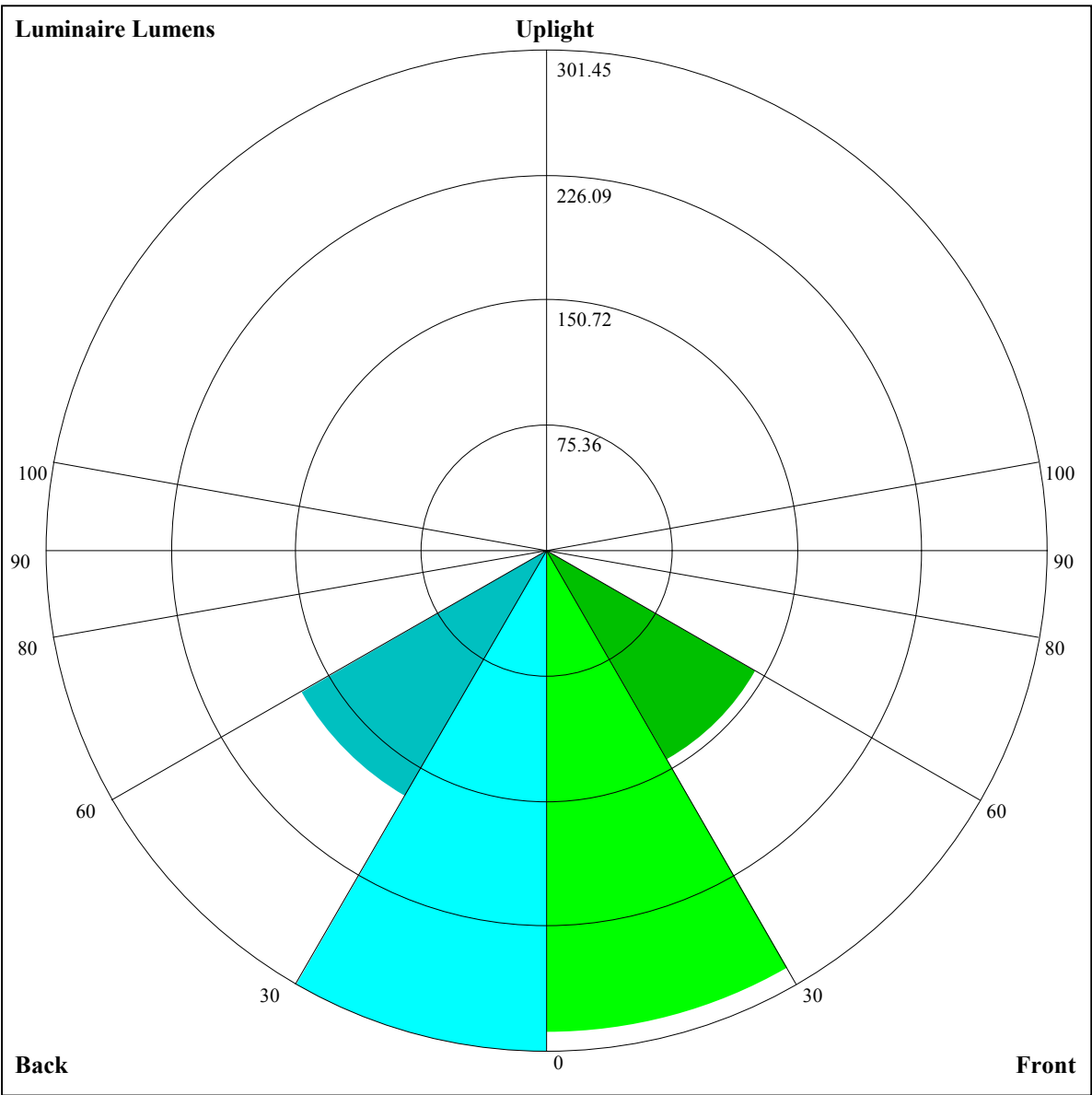
Luminance Limiting Curve





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	0.97	0.97	0.97	0.95	0.95	0.95	0.91	0.91	0.91	0.87	0.87	0.87	0.83	0.83	0.83	0.81
1	0.90	0.88	0.86	0.88	0.86	0.85	0.85	0.83	0.82	0.82	0.81	0.80	0.79	0.78	0.77	0.76
2	0.83	0.80	0.77	0.82	0.79	0.76	0.79	0.77	0.75	0.77	0.75	0.73	0.75	0.73	0.71	0.70
3	0.77	0.73	0.70	0.76	0.72	0.69	0.74	0.71	0.68	0.72	0.69	0.67	0.70	0.68	0.66	0.65
4	0.72	0.67	0.64	0.71	0.67	0.63	0.69	0.66	0.63	0.68	0.64	0.62	0.66	0.63	0.61	0.60
5	0.67	0.62	0.58	0.66	0.62	0.58	0.65	0.61	0.58	0.63	0.60	0.57	0.62	0.59	0.57	0.55
6	0.63	0.58	0.54	0.62	0.57	0.54	0.61	0.56	0.53	0.60	0.56	0.53	0.58	0.55	0.53	0.51
7	0.59	0.53	0.50	0.58	0.53	0.50	0.57	0.53	0.49	0.56	0.52	0.49	0.55	0.52	0.49	0.48
8	0.55	0.50	0.46	0.54	0.50	0.46	0.54	0.49	0.46	0.53	0.49	0.46	0.52	0.48	0.46	0.45
9	0.52	0.47	0.43	0.51	0.46	0.43	0.50	0.46	0.43	0.50	0.46	0.43	0.49	0.45	0.43	0.42
10	0.49	0.44	0.40	0.48	0.44	0.40	0.48	0.43	0.40	0.47	0.43	0.40	0.46	0.43	0.40	0.39





Luminaire Lumens:

FL=290.75,FM=145.03,FH=0.96,FVH=0.41

BL=301.45,BM=170.6,BH=1.17,BVH=0.41

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	927.23	913.18	870.78	803.15	705.64	582.32	444.70	296.92	154.72
22.5	930.19	925.20	897.69	843.95	762.10	653.51	503.35	366.07	230.90
45.0	924.61	910.30	879.58	813.64	723.59	603.99	467.38	332.72	217.27
67.5	914.54	912.17	889.23	843.78	769.80	667.89	536.70	398.49	262.81
90.0	906.16	897.52	867.22	813.31	733.24	621.93	473.81	332.21	194.50
112.5	916.31	919.11	899.64	858.84	781.99	685.25	571.07	419.56	281.17
135.0	917.33	910.22	881.86	825.66	745.76	637.51	509.19	376.06	254.85
157.5	920.88	923.85	903.45	862.57	795.11	701.33	577.58	428.62	294.04
180.0	927.23	919.19	890.41	837.34	757.10	639.03	523.84	384.60	224.13
202.5	930.19	914.54	876.36	804.93	710.64	591.13	454.86	320.53	194.33
225.0	924.61	915.30	885.50	834.21	751.60	641.49	511.56	376.65	255.53
247.5	914.54	896.17	856.64	791.81	696.25	577.92	428.19	290.91	180.37
270.0	906.16	895.58	864.43	810.77	717.66	602.55	471.87	330.10	191.79
292.5	916.31	895.66	851.65	768.11	676.78	552.53	403.48	268.99	151.42
315.0	917.33	904.38	869.42	806.87	715.04	596.37	462.64	315.62	205.51
337.5	920.88	895.24	850.97	765.48	657.06	526.55	387.82	255.44	134.66
360.0	927.23	913.18	870.78	803.15	705.64	582.32	444.70	296.92	154.72
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	55.69	16.17	2.71	0.93	0.76	0.76	0.68	0.68	0.76
22.5	111.72	38.43	10.75	2.03	0.93	0.85	0.76	0.76	0.76
45.0	120.19	54.93	16.50	3.89	0.93	0.76	0.76	0.76	0.76
67.5	146.34	53.58	15.66	2.71	1.02	0.85	0.85	0.76	0.76
90.0	84.89	26.41	6.01	1.10	0.85	0.76	0.76	0.76	0.76
112.5	160.65	69.07	21.84	4.49	1.02	0.85	0.76	0.76	0.76
135.0	157.52	84.05	32.08	7.11	1.44	0.85	0.76	0.76	0.68
157.5	182.74	70.00	22.09	5.59	1.02	0.85	0.76	0.76	0.76
180.0	95.39	30.72	8.13	1.44	0.93	0.76	0.76	0.68	0.68
202.5	86.08	24.38	7.36	1.18	0.85	0.76	0.76	0.76	0.76
225.0	157.01	77.53	27.51	7.19	1.44	0.85	0.76	0.76	0.76
247.5	72.45	23.61	5.33	1.02	0.85	0.76	0.76	0.76	0.76
270.0	83.03	26.58	5.84	1.02	0.85	0.85	0.76	0.76	0.76
292.5	64.58	20.31	4.32	0.93	0.85	0.85	0.76	0.76	0.76
315.0	119.93	55.69	16.59	3.98	0.85	0.76	0.76	0.76	0.76
337.5	44.10	12.53	2.96	0.93	0.85	0.76	0.76	0.76	0.76
360.0	55.69	16.17	2.71	0.93	0.76	0.76	0.68	0.68	0.76
C/γ(°)	90.0								
0.0	0.76								
22.5	0.76								
45.0	0.76								
67.5	0.76								
90.0	0.76								
112.5	0.76								
135.0	0.76								
157.5	0.76								
180.0	0.76								
202.5	0.76								
225.0	0.76								
247.5	0.76								
270.0	0.76								
292.5	0.76								
315.0	0.68								
337.5	0.76								
360.0	0.76								