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Nata

Client: NT

LumCAT: 11-0161-S2

Luminaire: 69-0031-1

Report No: 20260803-B018

Ballast type: DC

Test No: 20260803-C018

Voltage(V): 22.140

LampCAT: LUXEON 2835*2

Current(A): 0.454

Lamp flux(lm): 1126.0

Power (W): 10.051

Number of Lamps: 1

PF: 0.000

Length(mm): 280

Width(mm): 40

Phm Type: C

Height(mm): 20

Photometric Results

Lumens(lm): 869.35, Efficiency(%): 77.21% , Luminous Efficacy(lm/W): 86.49

Central intensity(cd): 568.442, Maximum intensity(cd): 579.361

Angle of maximum intensity: C=22.5 γ =15.0

Beam Angle(50%Imax): [C0/180]Total=78.5

[C90/270]Total=77.8

Field angle(10%Imax): [C0/180]Total=95.3

[C90/270]Total=96.1

Maximum s/h(1/2): C0_180=1.28 C90_270=1.24

Maximum s/h(1/4): C0_180=1.18 C90_270=1.13

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 77.11%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 99.880%

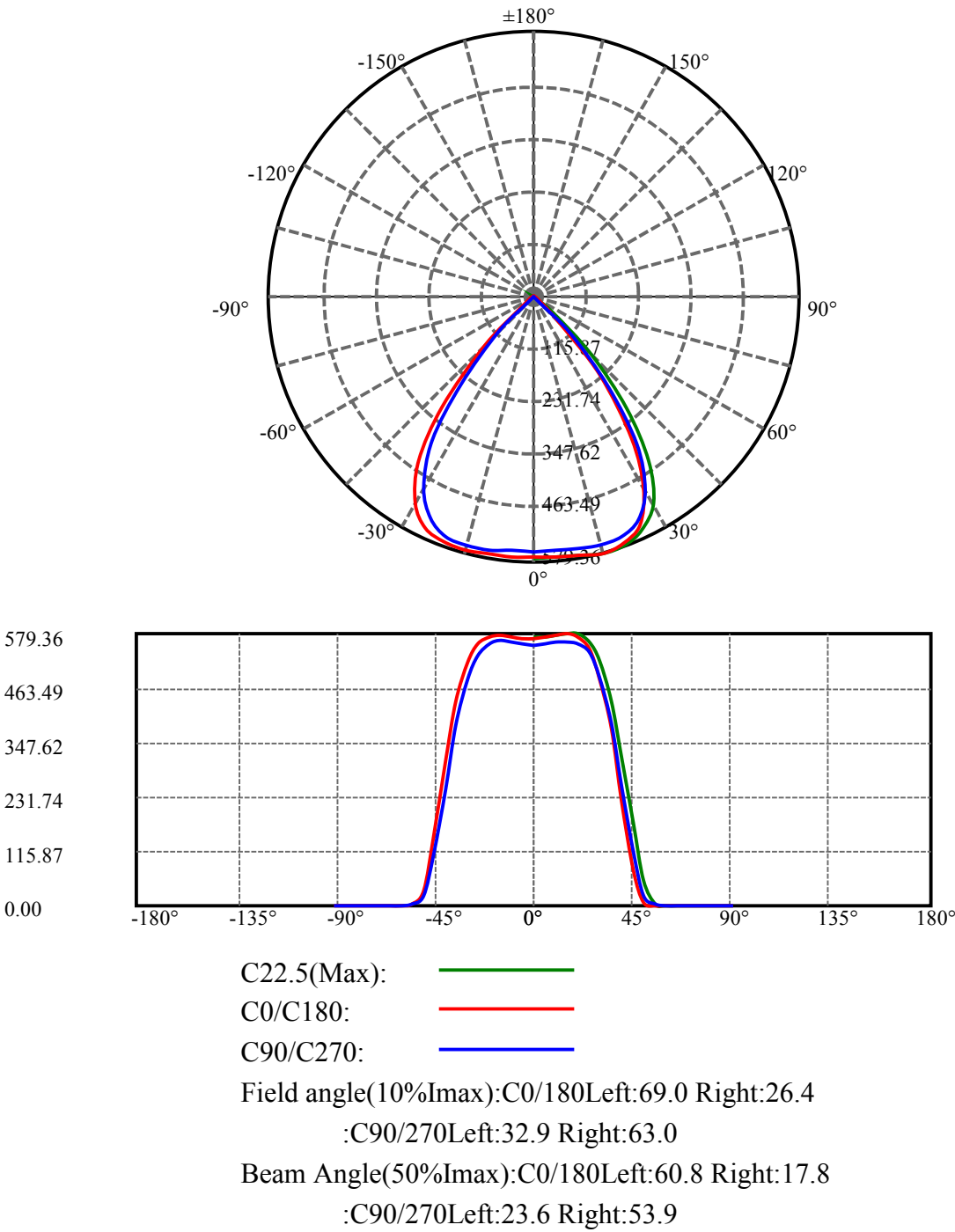
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	565.385	0.000	0	0.00%	0.00%
5.0	566.982	13.537	13.537	1.20%	1.56%
10.0	570.632	40.696	54.233	3.61%	6.24%
15.0	572.695	67.821	122.055	6.02%	14.04%
20.0	567.464	93.965	216.02	8.35%	24.85%
25.0	546.155	116.798	332.818	10.37%	38.28%
30.0	495.848	131.866	464.684	11.71%	53.45%
35.0	409.049	133.252	597.937	11.83%	68.78%
40.0	293.960	117.292	715.228	10.42%	82.27%
45.0	164.683	84.921	800.15	7.54%	92.04%
50.0	63.221	46.051	846.201	4.09%	97.34%
55.0	15.389	17.092	863.293	1.52%	99.30%
60.0	1.571	3.920	867.214	0.35%	99.75%
65.0	0.762	0.567	867.781	0.05%	99.82%
70.0	0.640	0.355	868.136	0.03%	99.86%
75.0	0.577	0.318	868.454	0.03%	99.90%
80.0	0.550	0.301	868.755	0.03%	99.93%
85.0	0.540	0.296	869.051	0.03%	99.97%
90.0	0.534	0.294	869.345	0.03%	100.00%

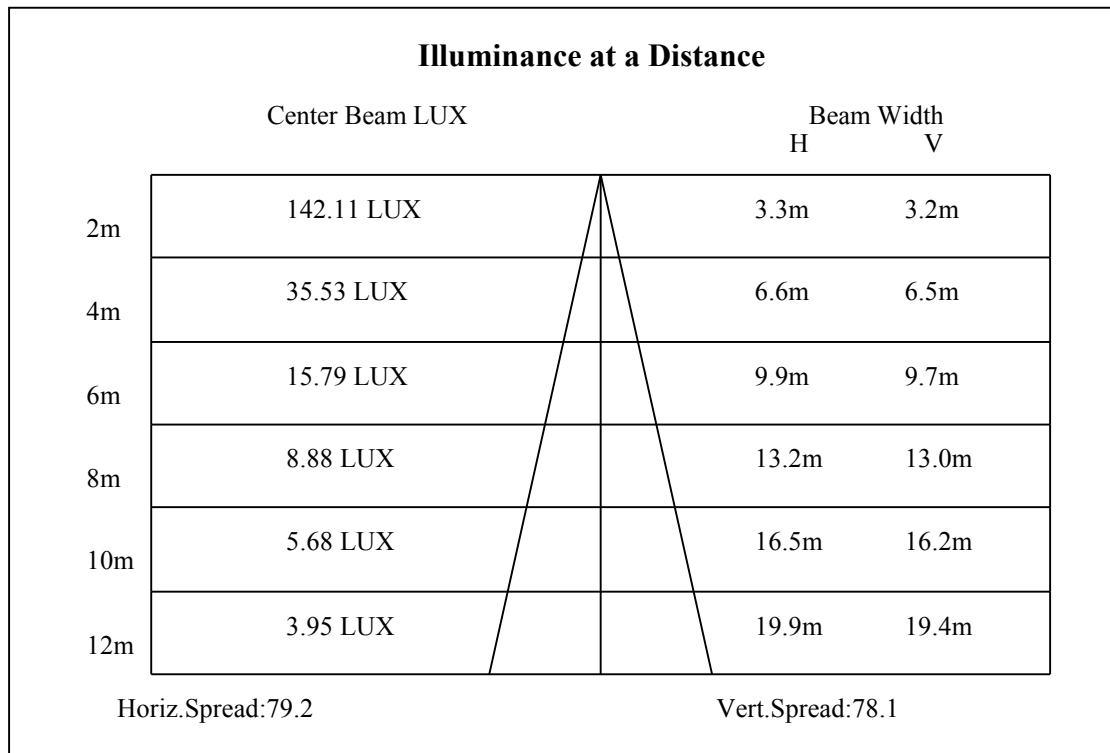
ZONAL LUMEN SUMMARY

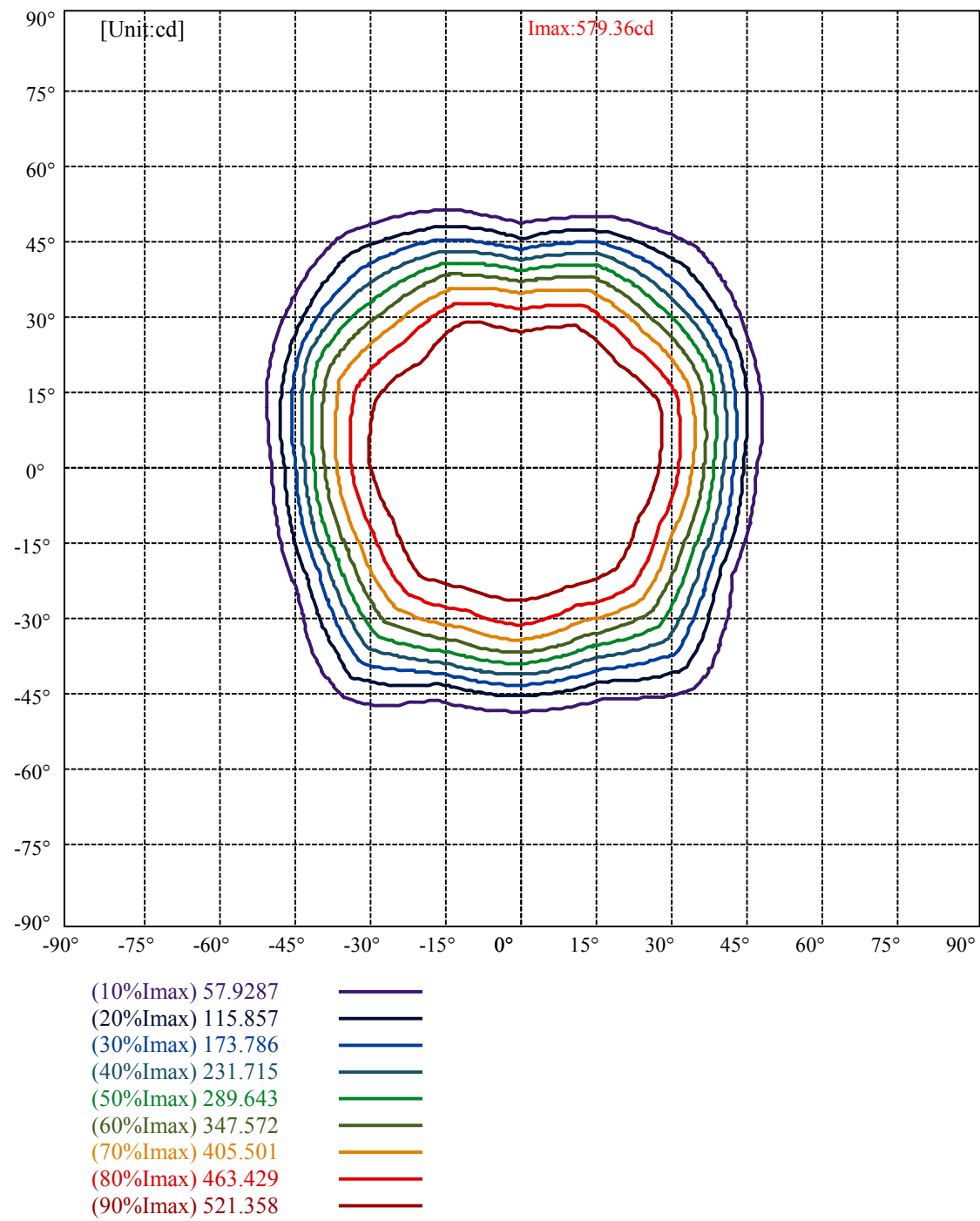
Zone	Lumens	%Lamp	%Fixt
0-30	464.68	41.27%	53.45%
0-40	715.23	63.52%	82.27%
0-60	867.21	77.02%	99.75%
0-90	869.05	77.18%	99.97%
0-120	869.05	77.18%	99.97%
0-180	869.35	77.21%	100.00%
60-90	1.84	0.16%	0.21%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-39.16	695.48	61.77%	80.00%

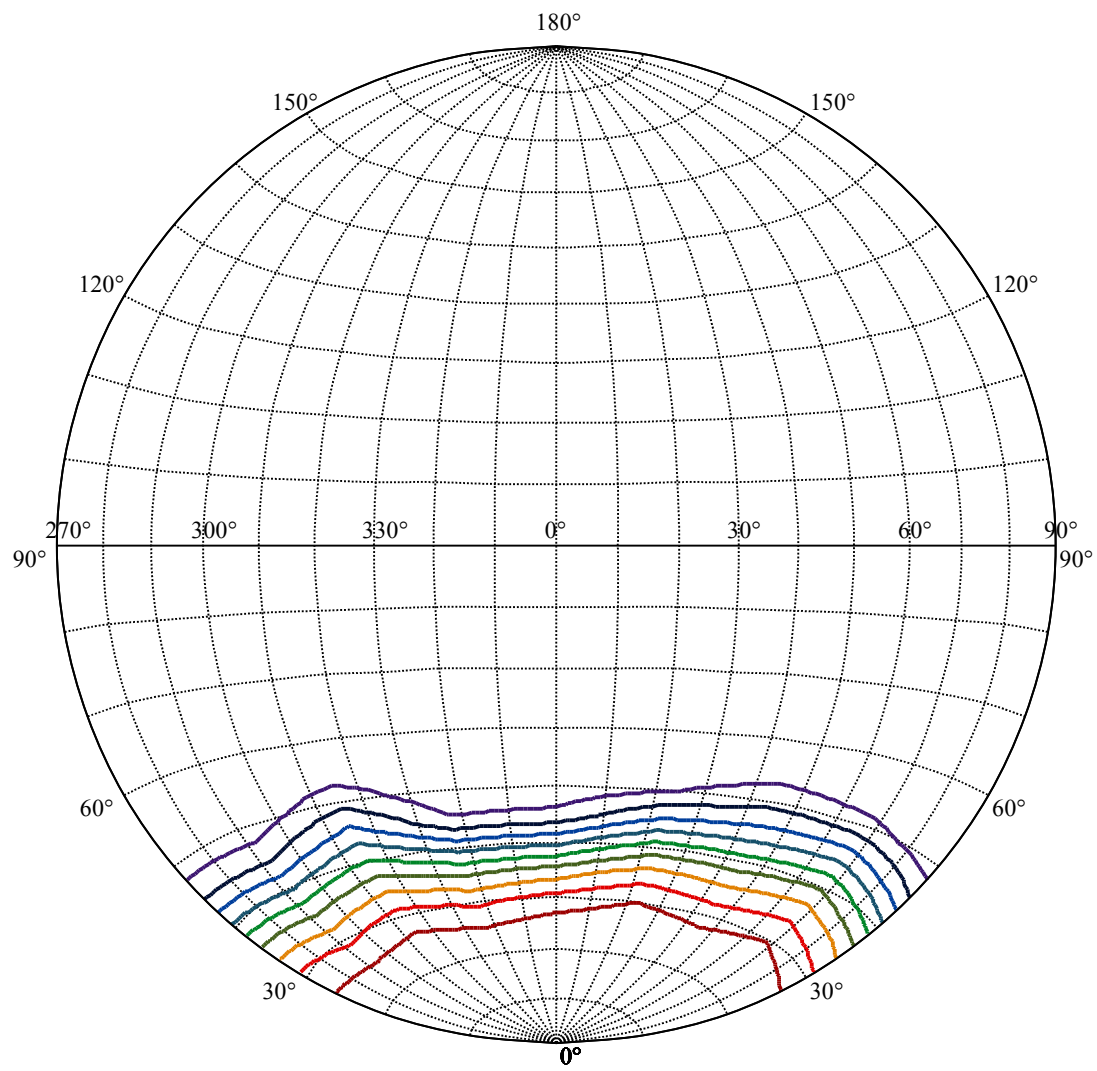
ZONAL LUMEN SUMMARY

0-10	54.23
10-20	161.79
20-30	248.66
30-40	250.54
40-50	130.97
50-60	21.01
60-70	0.92
70-80	0.62
80-90	0.30
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







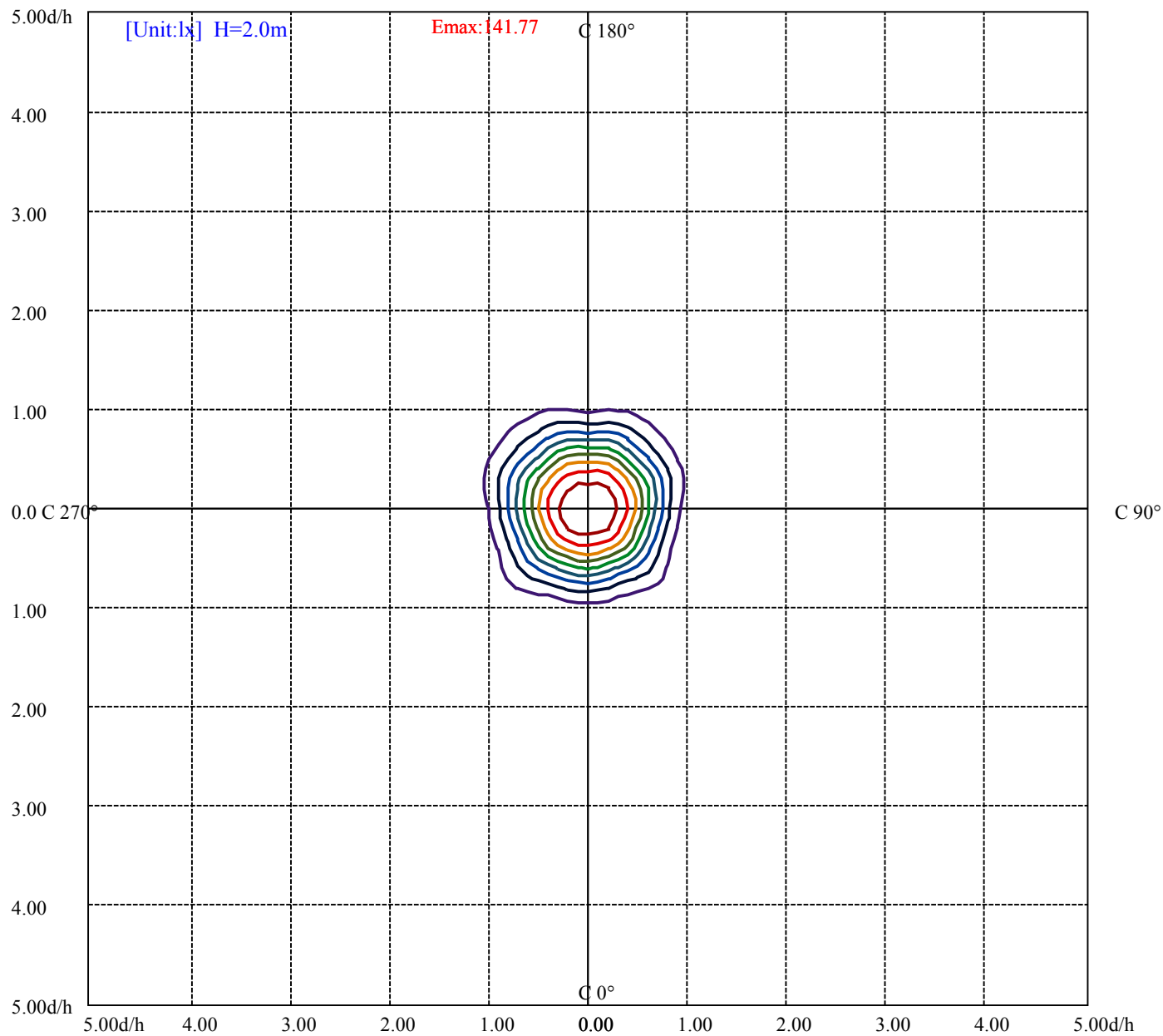


House

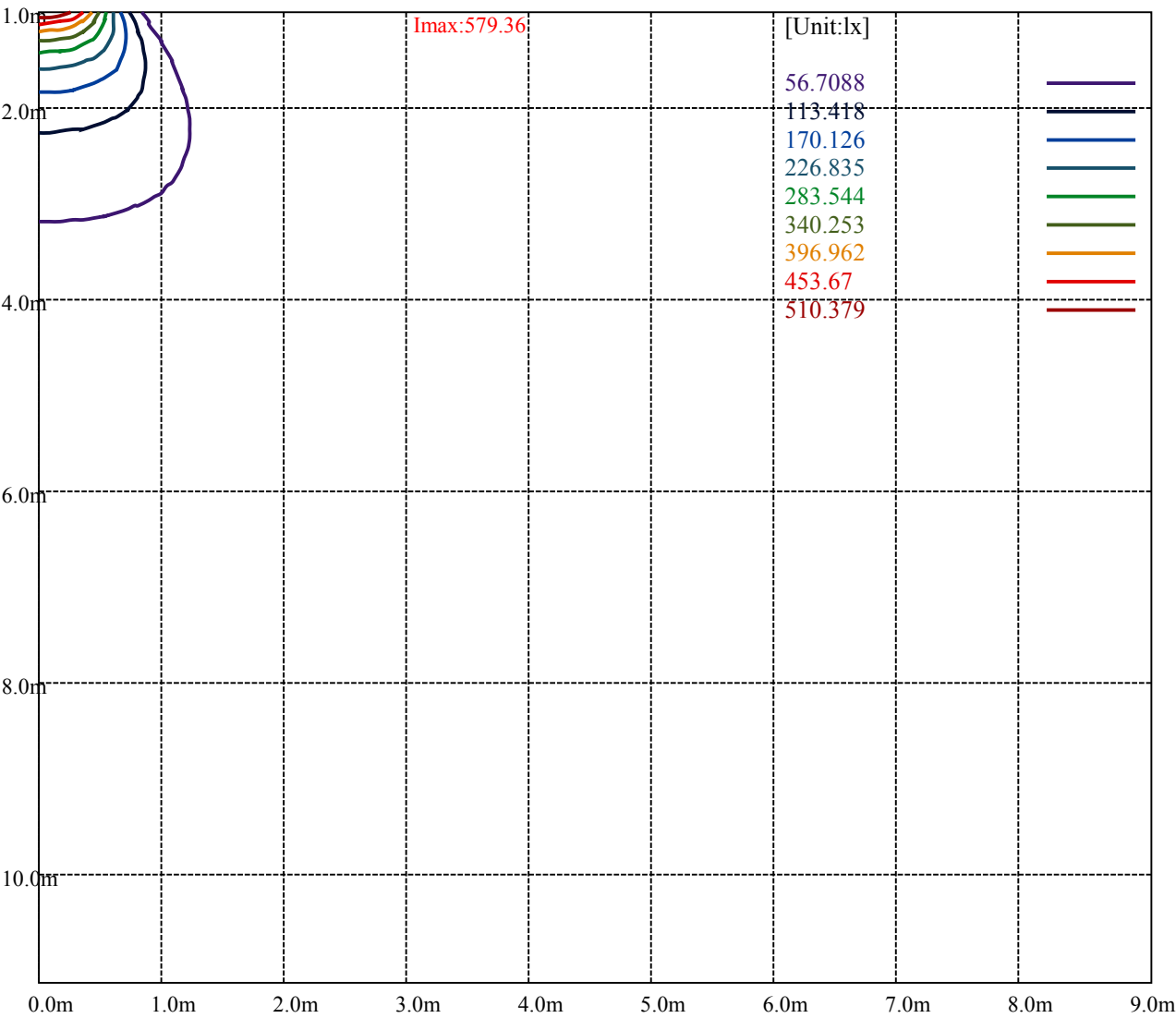
[Unit:cd]

Road

Imax:579.36	
(10%Imax) 57.9276	
(20%Imax) 115.855	
(30%Imax) 173.783	
(40%Imax) 231.71	
(50%Imax) 289.638	
(60%Imax) 347.566	
(70%Imax) 405.493	
(80%Imax) 463.421	
(90%Imax) 521.349	



(10%Emax)	14.17717	
(20%Emax)	28.35425	
(30%Emax)	42.5315	
(40%Emax)	56.70875	
(50%Emax)	70.886	
(60%Emax)	85.063	
(70%Emax)	99.24025	
(80%Emax)	113.4175	
(90%Emax)	127.5947	



Luminance Table

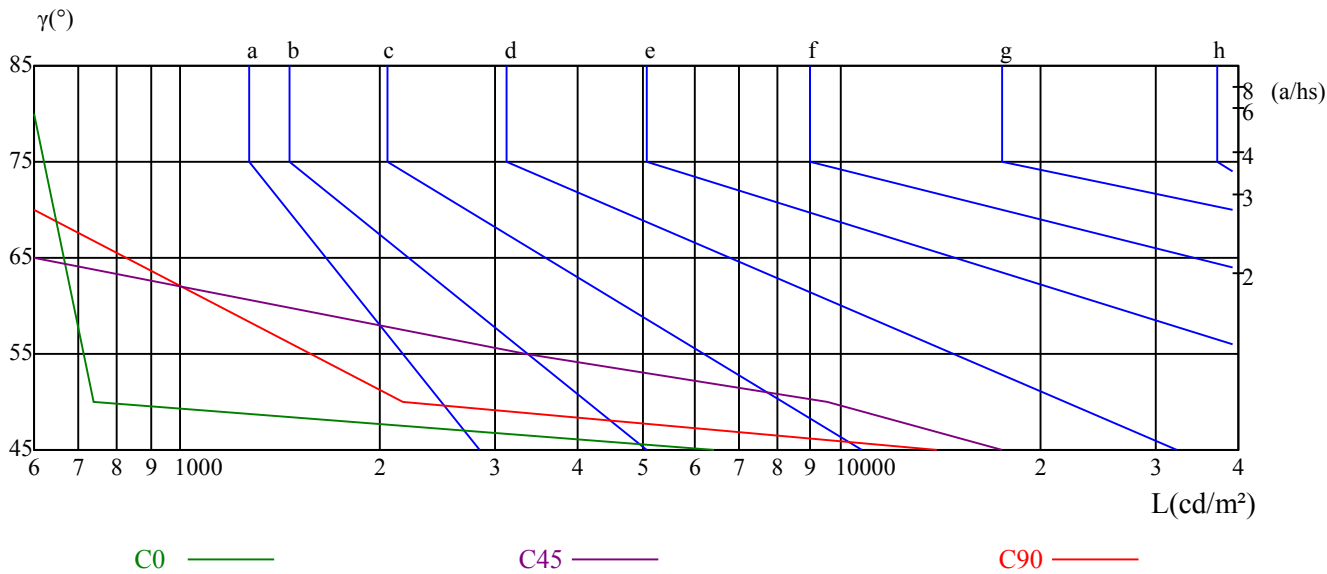
γ	45	50	55	60	65	70	75	80	85
C0	6412	737	0	0	0	0	0	68	77
C45	17507	9523	3342	0	86	0	81	0	93
C90	13965	2167	0	0	0	148	161	217	334

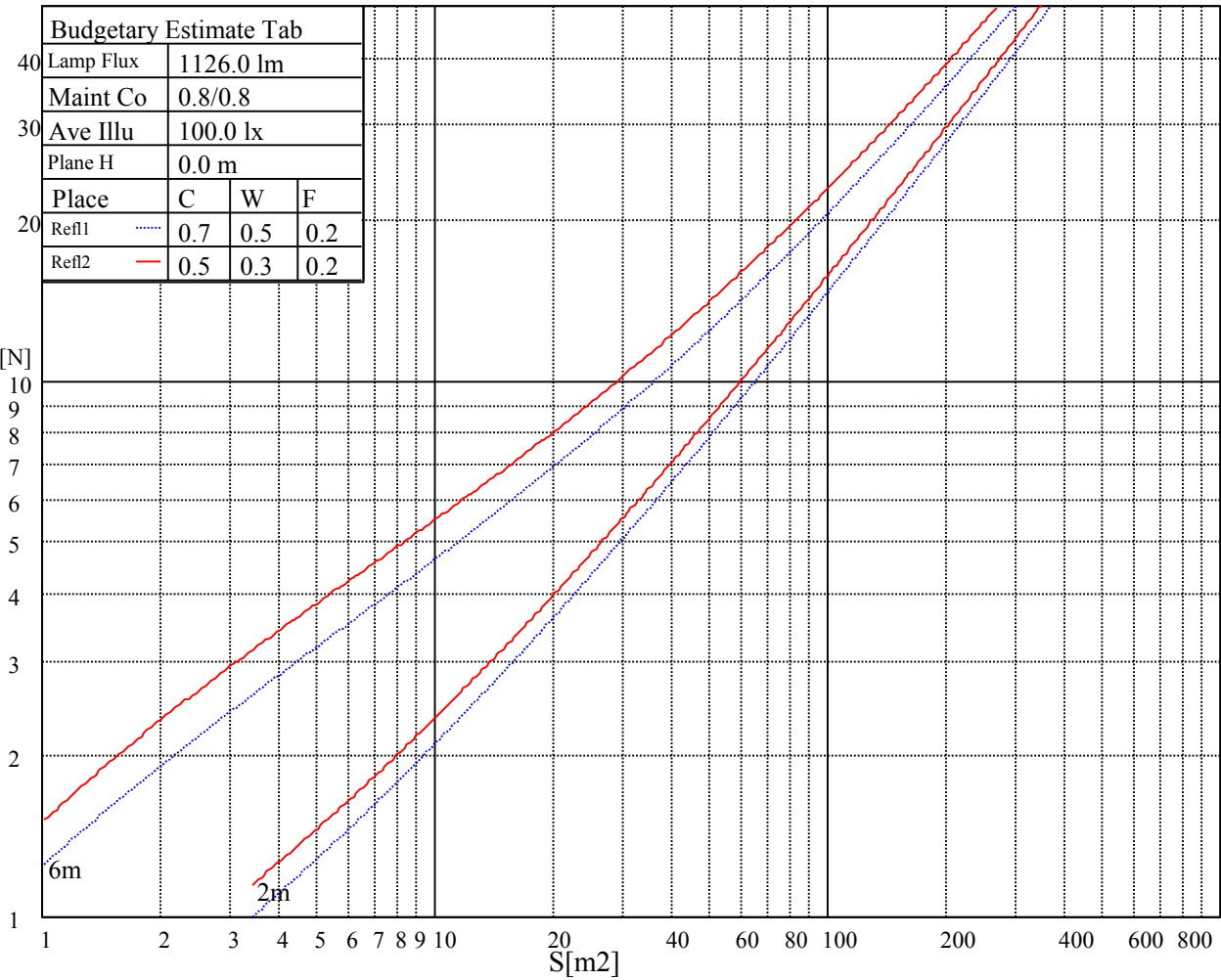
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
0	80	40	102	204	51	520	303	130

Glare Table

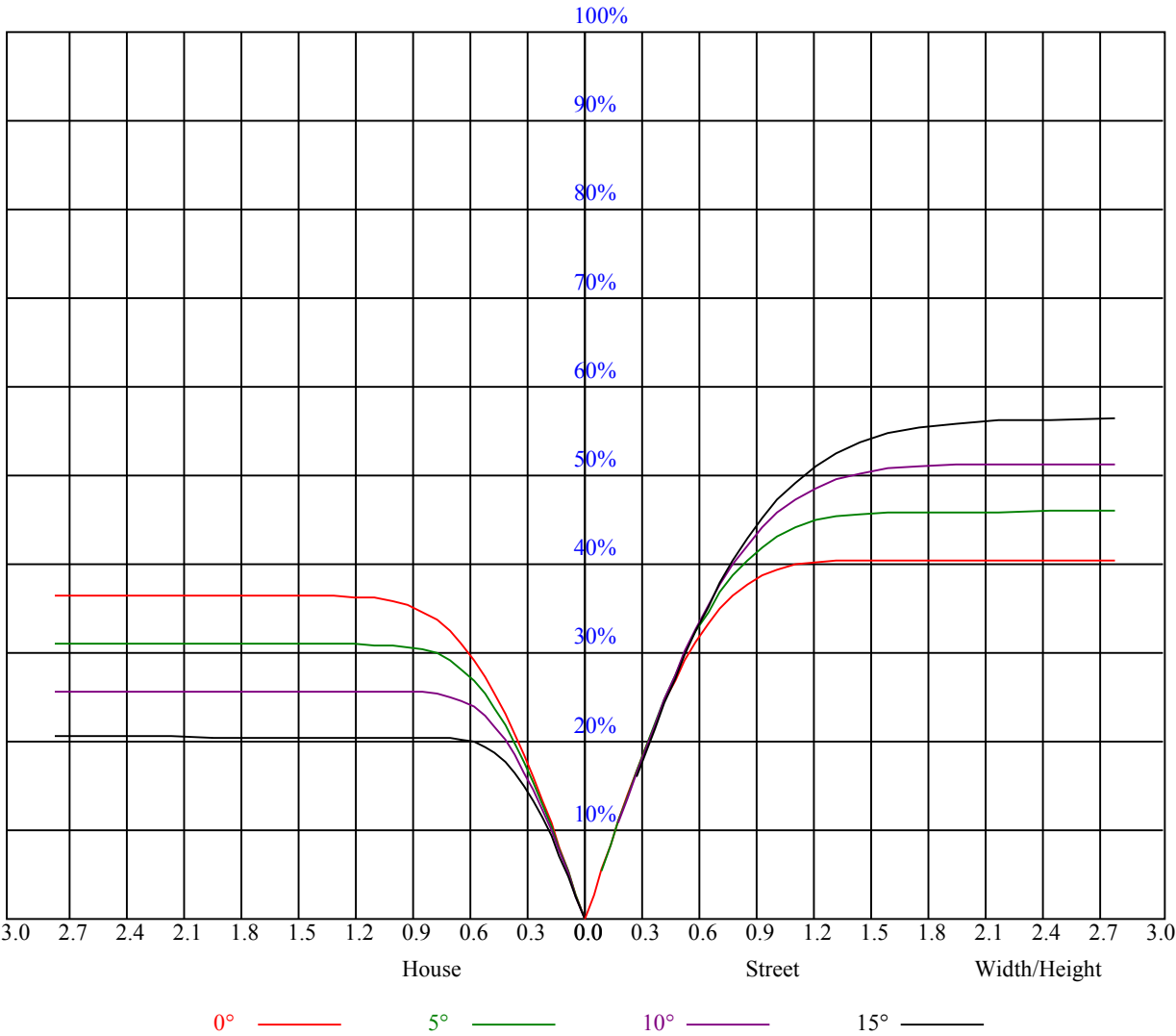
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

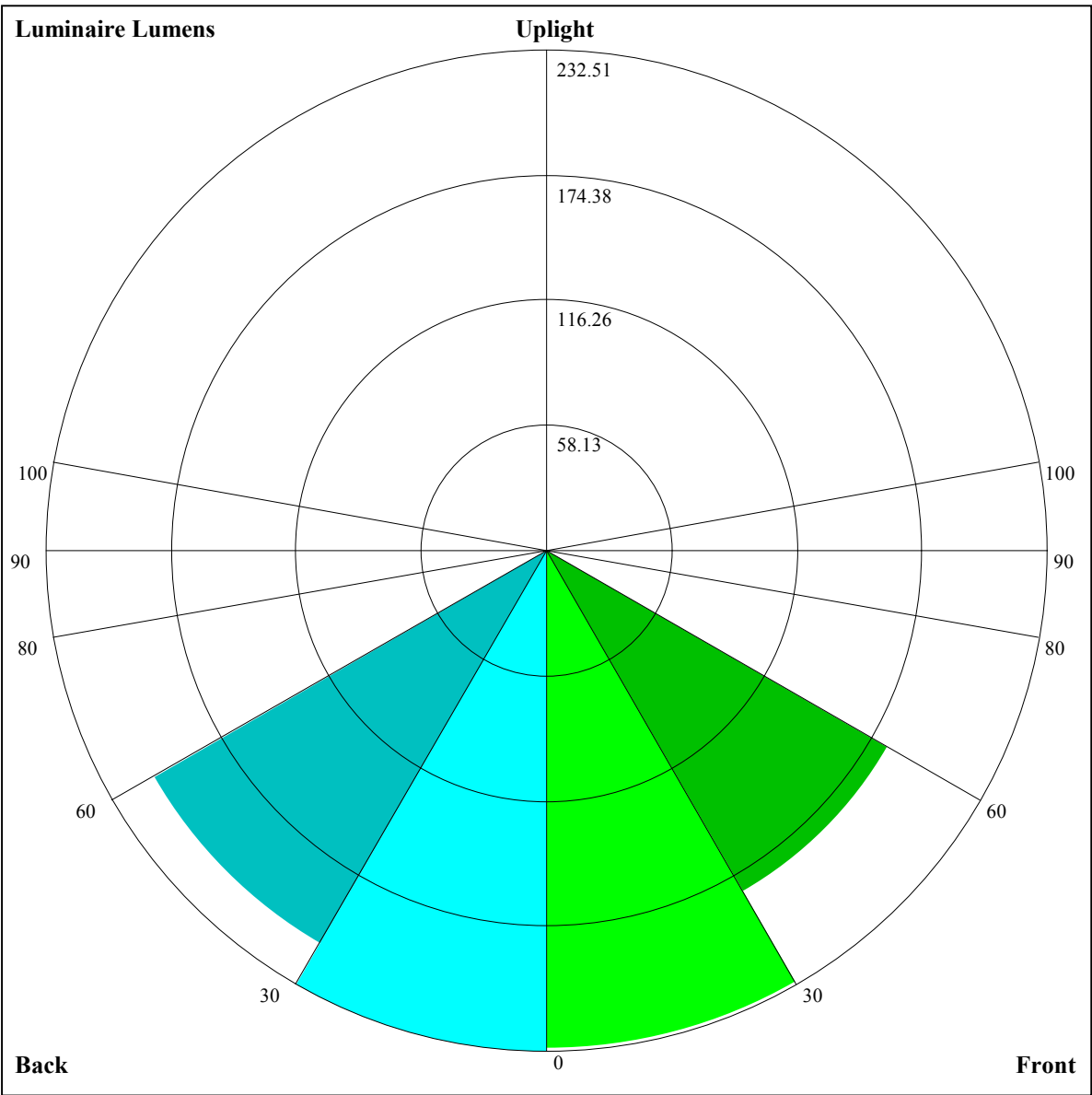
Luminance Limiting Curve





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	0.92	0.92	0.92	0.90	0.90	0.90	0.86	0.86	0.86	0.82	0.82	0.82	0.79	0.79	0.79	0.77
1	0.85	0.83	0.81	0.83	0.81	0.79	0.80	0.78	0.77	0.77	0.76	0.75	0.74	0.73	0.73	0.71
2	0.78	0.74	0.72	0.77	0.73	0.71	0.74	0.71	0.69	0.72	0.70	0.68	0.70	0.68	0.66	0.65
3	0.72	0.67	0.64	0.71	0.67	0.63	0.68	0.65	0.62	0.67	0.64	0.61	0.65	0.62	0.60	0.59
4	0.66	0.61	0.58	0.65	0.61	0.57	0.63	0.60	0.56	0.62	0.58	0.56	0.60	0.57	0.55	0.54
5	0.61	0.56	0.52	0.60	0.55	0.52	0.59	0.55	0.51	0.57	0.54	0.51	0.56	0.53	0.50	0.49
6	0.56	0.51	0.47	0.56	0.51	0.47	0.54	0.50	0.47	0.53	0.49	0.46	0.52	0.49	0.46	0.45
7	0.52	0.47	0.43	0.52	0.47	0.43	0.51	0.46	0.43	0.50	0.46	0.43	0.49	0.45	0.42	0.41
8	0.48	0.43	0.40	0.48	0.43	0.40	0.47	0.43	0.39	0.46	0.42	0.39	0.45	0.42	0.39	0.38
9	0.45	0.40	0.37	0.45	0.40	0.36	0.44	0.39	0.36	0.43	0.39	0.36	0.42	0.39	0.36	0.35
10	0.42	0.37	0.34	0.42	0.37	0.34	0.41	0.37	0.34	0.40	0.36	0.33	0.40	0.36	0.33	0.32





Luminaire Lumens:

FL=230.95,FM=182.91,FH=0.7,FVH=0.29

BL=232.51,BM=210.43,BH=0.83,BVH=0.3

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	568.44	570.98	575.04	579.19	572.34	548.64	483.38	376.22	223.03
22.5	570.81	570.90	574.54	579.36	578.18	562.69	521.47	436.91	317.74
45.0	567.85	569.54	574.20	577.24	572.00	548.89	495.65	412.45	310.37
67.5	562.52	562.09	566.16	569.46	572.93	559.64	519.94	447.49	341.10
90.0	555.49	556.76	560.06	562.69	559.05	539.16	485.75	389.94	254.17
112.5	565.48	566.16	569.29	573.01	570.39	557.19	529.59	455.79	354.56
135.0	563.87	563.11	565.90	568.61	564.29	546.86	506.66	437.84	346.35
157.5	568.61	567.93	570.73	574.28	574.71	565.48	537.46	473.65	392.14
180.0	568.44	568.70	571.40	574.45	571.32	558.12	519.52	435.39	310.71
202.5	570.81	573.18	577.50	577.75	569.46	544.15	488.37	400.26	282.36
225.0	567.85	569.46	574.20	577.08	570.98	554.05	511.56	428.79	341.69
247.5	562.52	565.90	570.05	569.97	560.74	531.54	462.64	374.62	250.53
270.0	555.49	557.35	560.23	563.45	558.29	533.66	480.42	383.93	248.84
292.5	565.48	569.80	572.34	568.02	556.34	523.24	449.52	347.96	221.16
315.0	563.87	567.09	572.17	572.76	566.16	542.12	489.90	397.72	298.95
337.5	568.61	572.76	576.31	575.81	562.26	523.08	451.72	345.84	209.65
360.0	568.44	570.98	575.04	579.19	572.34	548.64	483.38	376.22	223.03
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	75.50	8.13	1.27	0.85	0.68	0.59	0.51	0.51	0.51
22.5	177.15	54.00	5.33	1.10	0.76	0.68	0.59	0.51	0.51
45.0	196.70	102.41	32.42	1.35	0.76	0.59	0.59	0.59	0.51
67.5	212.62	79.22	10.16	1.35	0.85	0.68	0.59	0.59	0.59
90.0	114.35	20.65	1.86	0.93	0.76	0.68	0.59	0.59	0.59
112.5	226.41	103.77	19.98	1.52	0.93	0.68	0.68	0.59	0.59
135.0	246.39	147.61	61.45	4.23	0.76	0.68	0.59	0.51	0.51
157.5	271.53	116.04	23.78	2.12	0.93	0.68	0.59	0.51	0.51
180.0	150.15	33.94	2.96	1.02	0.76	0.68	0.59	0.51	0.51
202.5	143.21	36.73	3.05	0.93	0.68	0.59	0.51	0.51	0.51
225.0	239.53	134.24	51.38	4.74	0.76	0.68	0.59	0.59	0.59
247.5	107.58	23.78	1.86	0.93	0.76	0.59	0.59	0.59	0.59
270.0	110.37	21.08	1.86	1.02	0.76	0.68	0.59	0.59	0.51
292.5	100.21	19.30	1.52	0.85	0.68	0.59	0.51	0.59	0.51
315.0	197.80	103.43	26.24	1.44	0.76	0.59	0.59	0.51	0.59
337.5	65.43	7.19	1.10	0.76	0.59	0.59	0.51	0.51	0.51
360.0	75.50	8.13	1.27	0.85	0.68	0.59	0.51	0.51	0.51
C/ γ (°)	90.0								
0.0	0.51								
22.5	0.51								
45.0	0.51								
67.5	0.59								
90.0	0.59								
112.5	0.51								
135.0	0.51								
157.5	0.51								
180.0	0.51								
202.5	0.51								
225.0	0.59								
247.5	0.59								
270.0	0.59								
292.5	0.51								
315.0	0.51								
337.5	0.51								
360.0	0.51								