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Nata

Client:

LumCAT: LM01D03040AE

Luminaire:

Report No: GC2019091909

Voltage(V): 220.5000

Test No: NATA07

Current(A): 0.0440

LampCAT: BRIDGELUX V4-HD

Power (W): 8.8800

Lamp flux(lm): 656.0

PF: 0.9060

Number of Lamps: 1

Ballast type: AC

Length(mm): 30

Width(mm): 30

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 607.22, Efficiency(%): 92.56% , Luminous Efficacy(lm/W): 68.38

Central intensity(cd): 1153.517, Maximum intensity(cd): 1153.517

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=36.2

[C90/270]Total=36.2

Field angle(10%Imax): [C0/180]Total=69.4

[C90/270]Total=69.4

Maximum s/h(1/2): C0_180=0.59 C90_270=0.59

Maximum s/h(1/4): C0_180=0.61 C90_270=0.61

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 92.56%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 94.974%

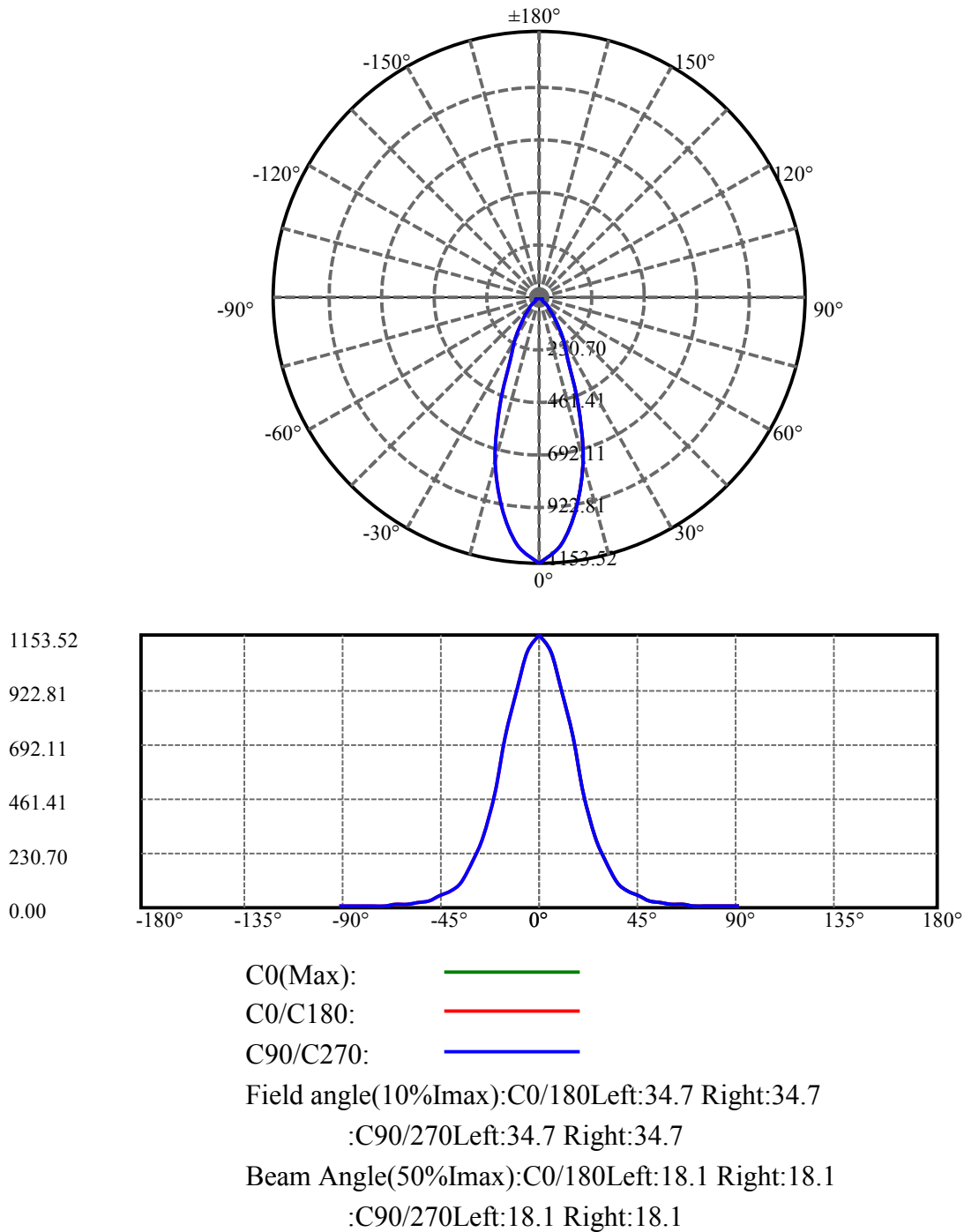
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	1153.518	0.000	0	.000%	.000%
5.0	1079.754	26.698	26.698	4.070%	4.397%
10.0	927.667	71.812	98.51	10.947%	16.223%
15.0	724.983	98.034	196.544	14.944%	32.368%
20.0	489.555	100.095	296.639	15.258%	48.852%
25.0	298.078	82.608	379.247	12.593%	62.456%
30.0	201.791	63.259	442.506	9.643%	72.874%
35.0	109.477	45.836	488.342	6.987%	80.422%
40.0	70.922	30.098	518.44	4.588%	85.379%
45.0	47.146	21.861	540.301	3.332%	88.979%
50.0	31.432	15.878	556.179	2.420%	91.594%
55.0	22.163	11.654	567.833	1.776%	93.513%
60.0	16.201	8.868	576.701	1.352%	94.974%
65.0	11.676	6.777	583.478	1.033%	96.090%
70.0	9.814	5.442	588.919	.830%	96.986%
75.0	8.654	4.827	593.746	.736%	97.781%
80.0	8.370	4.555	598.302	.694%	98.531%
85.0	8.295	4.528	602.83	.690%	99.277%
90.0	7.744	4.391	607.221	.669%	100.000%

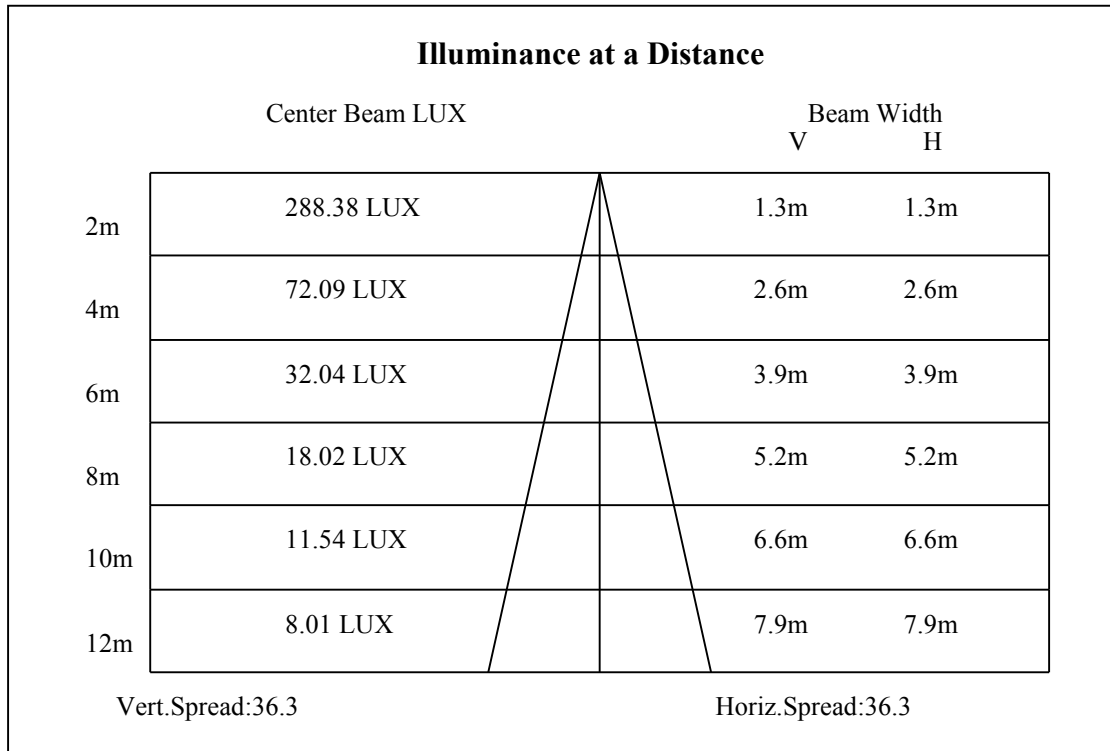
ZONAL LUMEN SUMMARY

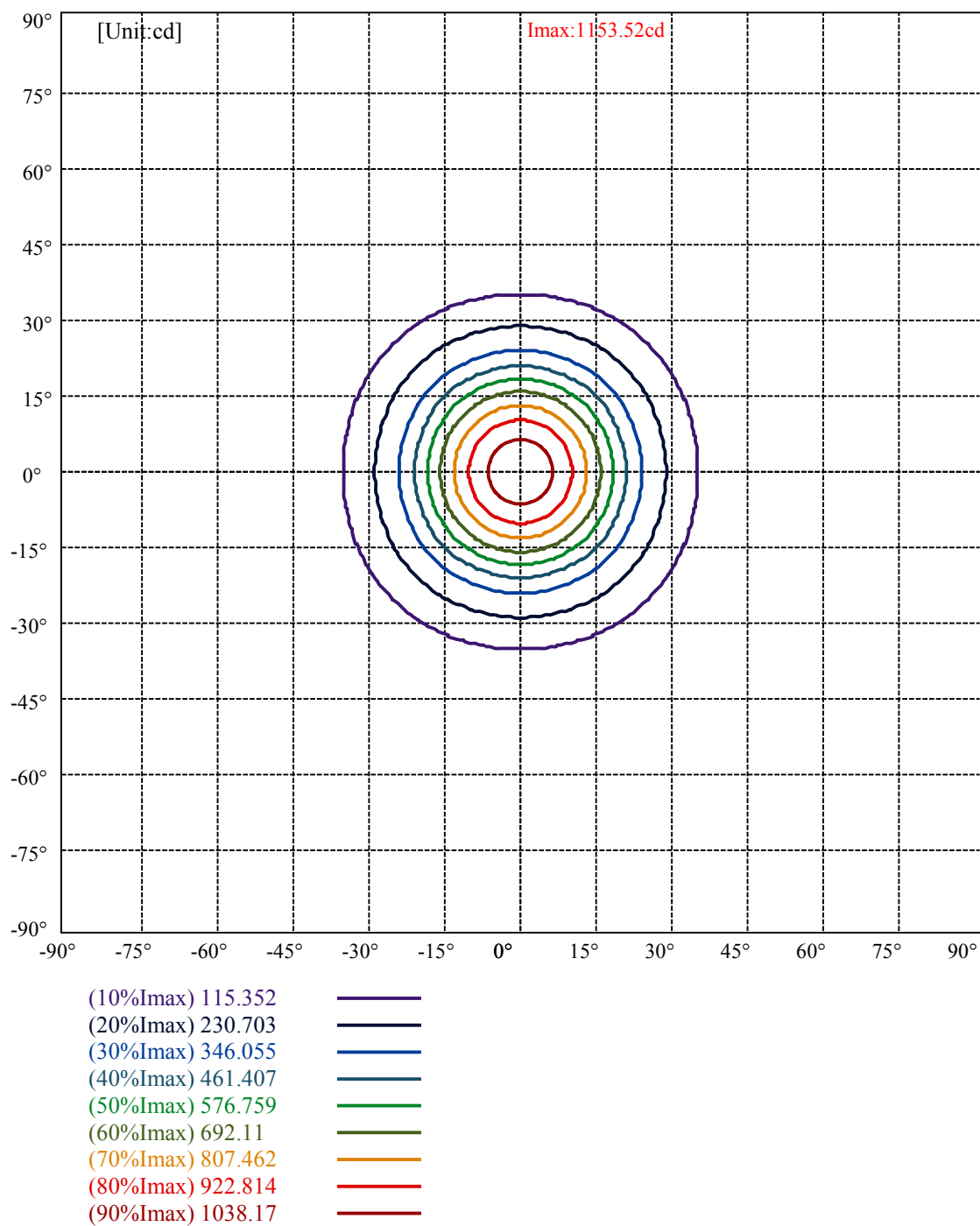
Zone	Lumens	%Lamp	%Fixt
0-30	442.51	67.46%	72.87%
0-40	518.44	79.03%	85.38%
0-60	576.70	87.91%	94.97%
0-90	602.83	91.89%	99.28%
0-120	602.83	91.89%	99.28%
0-180	607.22	92.56%	100.00%
60-90	35.00	5.33%	5.76%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-34.72	485.78	74.05%	80.00%

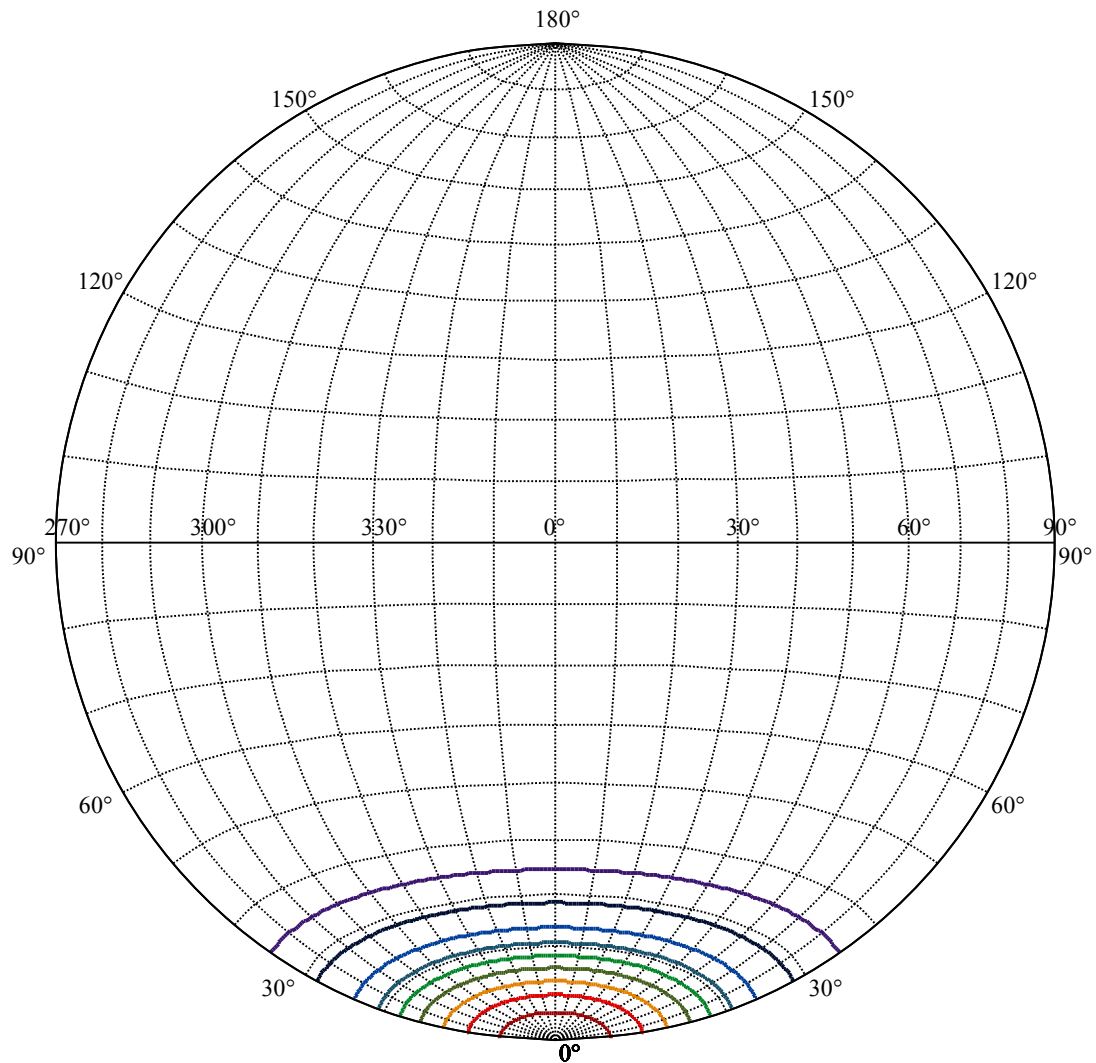
ZONAL LUMEN SUMMARY

0-10	98.51
10-20	198.13
20-30	145.87
30-40	75.93
40-50	37.74
50-60	20.52
60-70	12.22
70-80	9.38
80-90	4.53
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









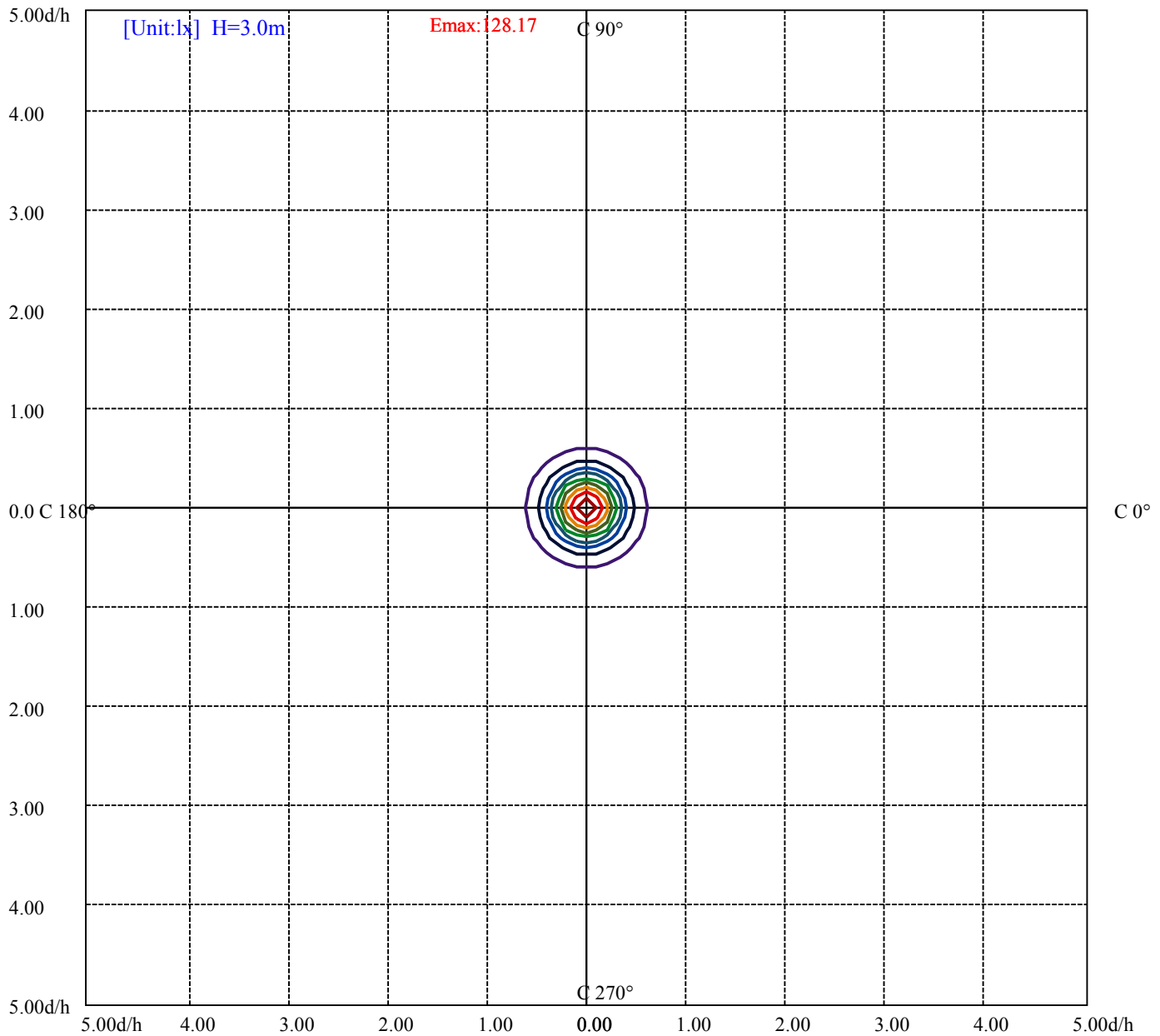
House

[Unit:cd]

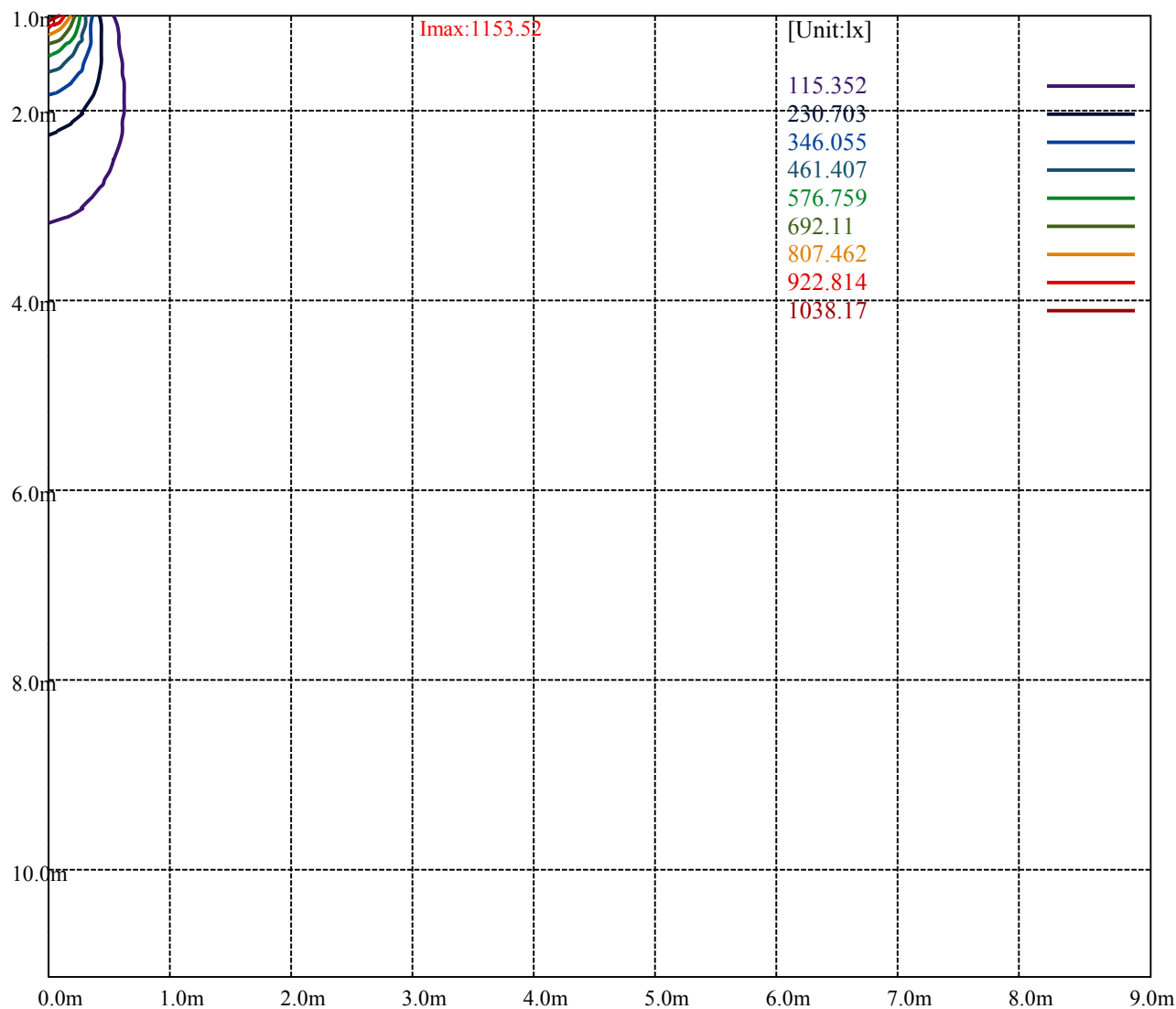
Road

Imax:1153.52

(10%Imax)	115.352	—
(20%Imax)	230.703	—
(30%Imax)	346.055	—
(40%Imax)	461.407	—
(50%Imax)	576.759	—
(60%Imax)	692.11	—
(70%Imax)	807.462	—
(80%Imax)	922.814	—
(90%Imax)	1038.17	—



(10%Emax) 12.81689	—
(20%Emax) 25.63367	—
(30%Emax) 38.45055	—
(40%Emax) 51.26733	—
(50%Emax) 64.08422	—
(60%Emax) 76.901	—
(70%Emax) 89.71789	—
(80%Emax) 102.5347	—
(90%Emax) 115.3511	—



Luminance Table

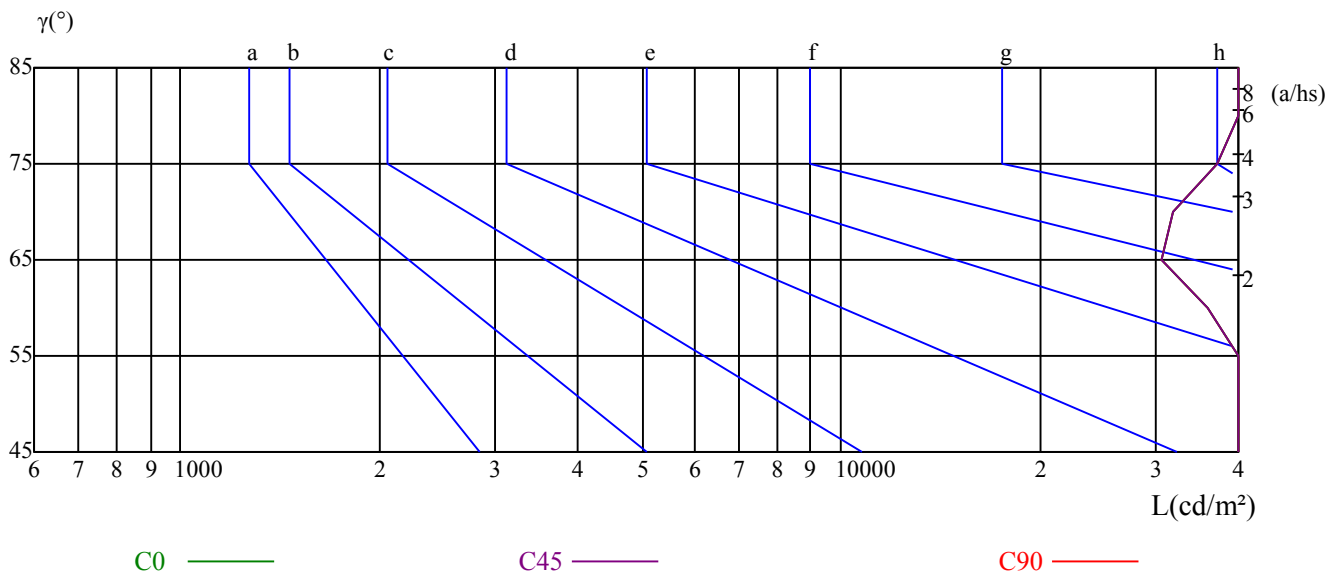
γ	45	50	55	60	65	70	75	80	85
C0	74082	54334	42934	36001	30698	31883	37153	53557	105744
C45	74082	54334	42934	36001	30698	31883	37153	53557	105744
C90	74082	54334	42934	36001	30698	31883	37153	53557	105744

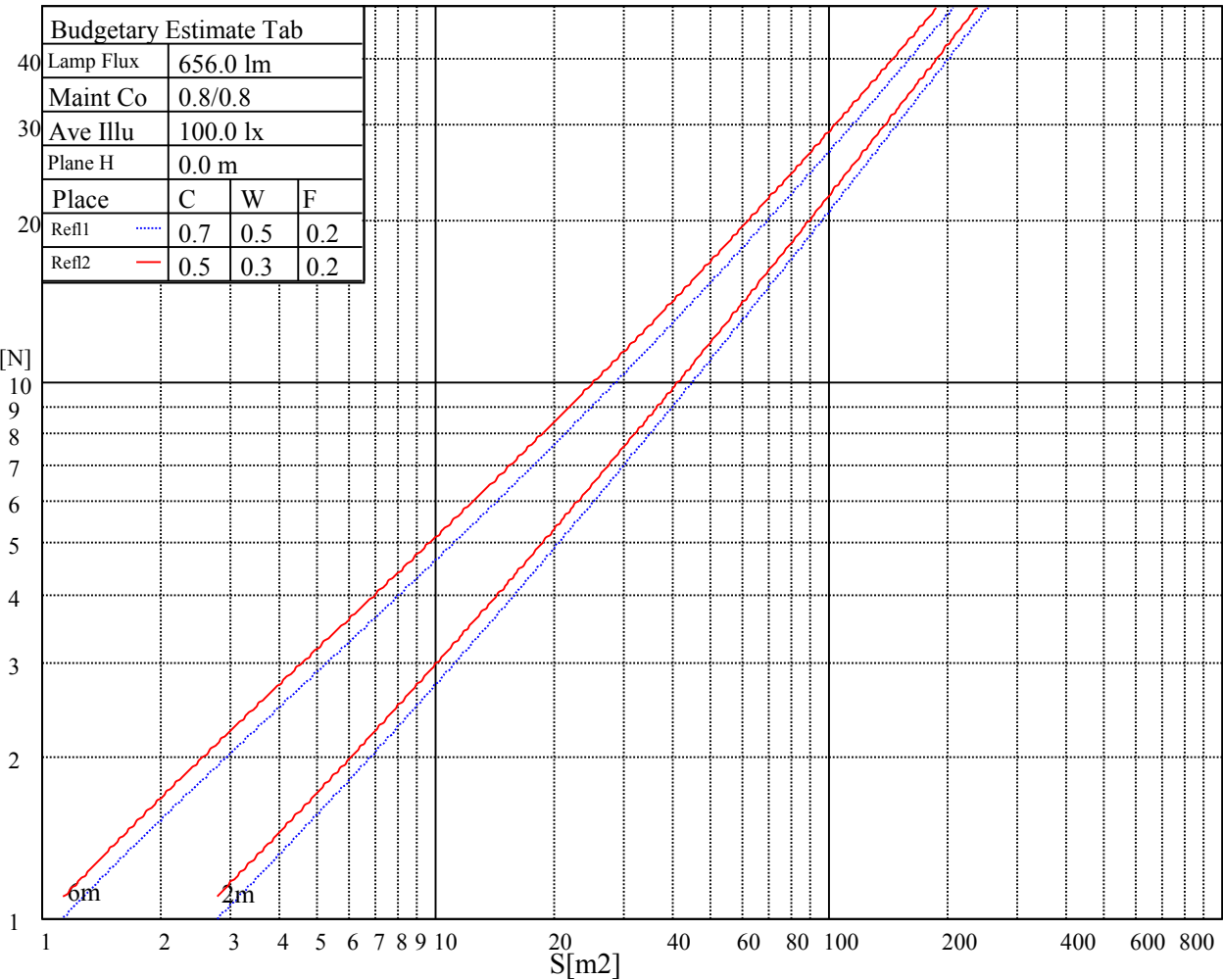
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
30698	30698	30698	37153	37153	37153	105744	105744	105744

Glare Table

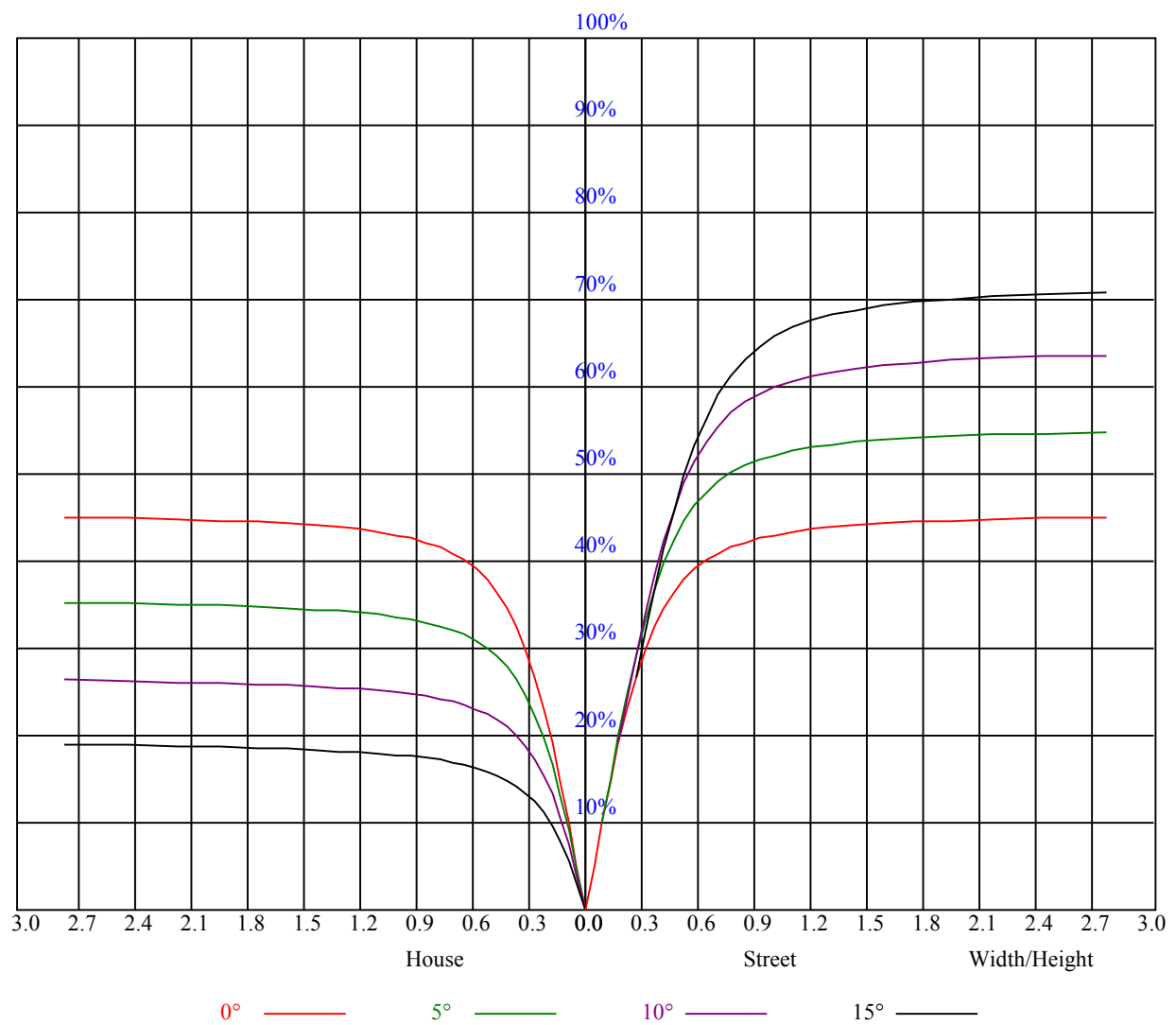
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	≤ 300				
1.5	B		2000	1000	500	≤ 300			
1.85	C			2000	1000	500	≤ 300		
2.2	D				2000	1000	500	≤ 300	
2.55	E					2000	1000	500	≤ 300
		a	b	c	d	e	f	g	h

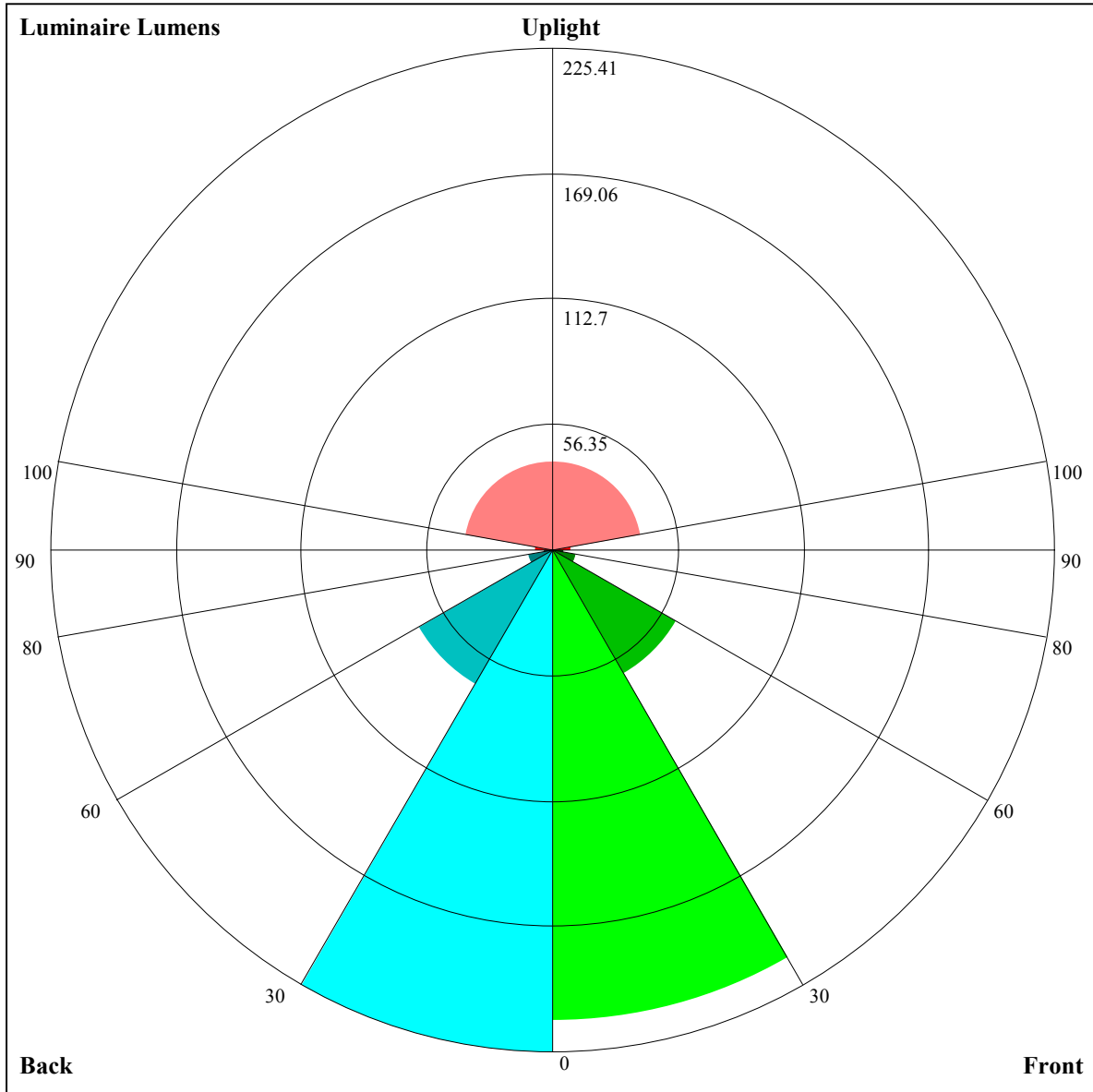
Luminance Limiting Curve





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	1.10	1.10	1.10	1.08	1.08	1.08	1.03	1.03	1.03	0.98	0.98	0.98	0.94	0.94	0.94	0.93
1	1.02	0.99	0.97	0.99	0.97	0.95	0.96	0.94	0.92	0.92	0.91	0.89	0.89	0.88	0.87	0.85
2	0.94	0.90	0.87	0.93	0.89	0.86	0.90	0.87	0.84	0.87	0.84	0.82	0.84	0.82	0.80	0.79
3	0.88	0.83	0.79	0.87	0.82	0.79	0.84	0.80	0.77	0.82	0.79	0.76	0.80	0.77	0.75	0.74
4	0.82	0.77	0.73	0.81	0.76	0.73	0.79	0.75	0.72	0.77	0.74	0.71	0.76	0.73	0.70	0.69
5	0.78	0.72	0.68	0.77	0.72	0.68	0.75	0.71	0.67	0.73	0.70	0.67	0.72	0.69	0.66	0.65
6	0.73	0.68	0.64	0.72	0.67	0.64	0.71	0.67	0.63	0.70	0.66	0.63	0.69	0.65	0.62	0.61
7	0.69	0.64	0.60	0.69	0.64	0.60	0.68	0.63	0.60	0.66	0.62	0.59	0.65	0.62	0.59	0.58
8	0.66	0.60	0.57	0.65	0.60	0.57	0.64	0.60	0.56	0.63	0.59	0.56	0.63	0.59	0.56	0.55
9	0.63	0.57	0.54	0.62	0.57	0.54	0.61	0.57	0.54	0.61	0.56	0.53	0.60	0.56	0.53	0.52
10	0.60	0.55	0.51	0.59	0.54	0.51	0.59	0.54	0.51	0.58	0.54	0.51	0.57	0.54	0.51	0.50





Luminaire Lumens:

FL=211.6,FM=64.02,FH=10.55,FVH=4.79

BL=225.41,BM=69.46,BH=11.24,BVH=4.75

UL=8.45,UH=40.21

BUG Rating:B1-U2-G0

Intensity data(cd)										Appendix Page: 15 Total:15	
C/γ(°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0		
0.0	1153.63	1050.15	906.03	660.92	432.57	252.57	154.85	101.25	64.73		
45.0	1158.27	1097.02	940.64	729.04	496.10	293.32	234.85	107.52	67.24		
90.0	1145.74	913.40	831.87	640.69	391.32	247.38	148.26	91.93	58.33		
135.0	1156.42	1113.73	963.84	736.00	510.02	322.55	255.73	104.27	71.65		
180.0	1153.63	1136.46	995.86	821.85	592.15	355.50	241.34	129.19	86.87		
225.0	1158.27	1104.45	883.19	734.56	480.14	294.71	175.17	104.78	68.58		
270.0	1145.74	1147.14	1001.89	805.14	555.96	355.96	237.17	137.54	82.37		
315.0	1156.42	1075.68	898.00	671.64	458.19	262.64	166.96	99.35	67.61		
360.0	1153.63	1050.15	906.03	660.92	432.57	252.57	154.85	101.25	64.73		
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0		
0.0	43.20	29.23	20.84	14.76	11.18	9.70	8.07	7.38	7.70		
45.0	45.10	31.04	21.53	15.78	11.46	9.28	8.31	7.33	6.54		
90.0	38.98	27.33	19.91	14.71	10.39	9.42	9.00	12.67	7.52		
135.0	49.14	33.27	23.29	17.40	12.62	9.74	9.10	7.80	6.96		
180.0	58.42	39.91	27.89	20.79	14.76	11.14	9.84	8.31	7.52		
225.0	42.88	28.35	20.28	14.85	10.44	9.14	7.66	6.40	5.94		
270.0	55.45	33.74	24.08	17.59	12.30	10.49	9.47	10.30	17.45		
315.0	43.99	28.58	19.49	13.74	10.26	9.61	7.80	6.77	6.73		
360.0	43.20	29.23	20.84	14.76	11.18	9.70	8.07	7.38	7.70		
C/γ(°)	90.0										
0.0	10.16										
45.0	6.40										
90.0	7.15										
135.0	7.38										
180.0	9.19										
225.0	6.13										
270.0	7.93										
315.0	7.61										
360.0	10.16										