
Client:

LumCAT: 1408-S

Luminaire: 92.70.043.00

Report No: nt0100

Test No: GC2019120511

LampCAT: LUMINUS CXM-4-AC40

Lamp flux(lm): 598.0

Number of Lamps: 1

Length(mm): 0

Phm Type: C

Voltage(V): 34.6000

Current(A): 0.1470

Power (W): 5.0800

PF: 1.0000

Ballast type: DC

Width(mm): 0

Height(mm): 0

Photometric Results

Lumens(lm): 509.58, Efficiency(%): 85.21% , Luminous Efficacy(lm/W): 100.31

Central intensity(cd): 471.080, Maximum intensity(cd): 471.080

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=57.6

[C90/270]Total=57.6

Field angle(10%Imax): [C0/180]Total=101.2

[C90/270]Total=101.2

Maximum s/h(1/2): C0_180=0.86 C90_270=0.86

Maximum s/h(1/4): C0_180=0.90 C90_270=0.90

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 85.21%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 94.191%

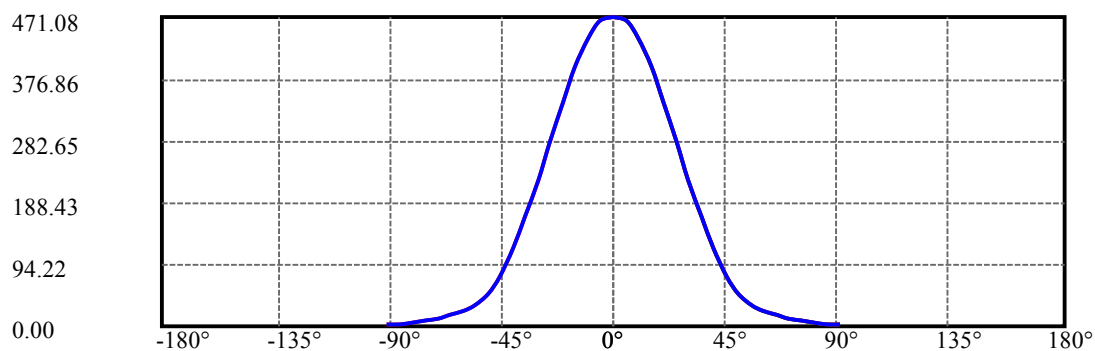
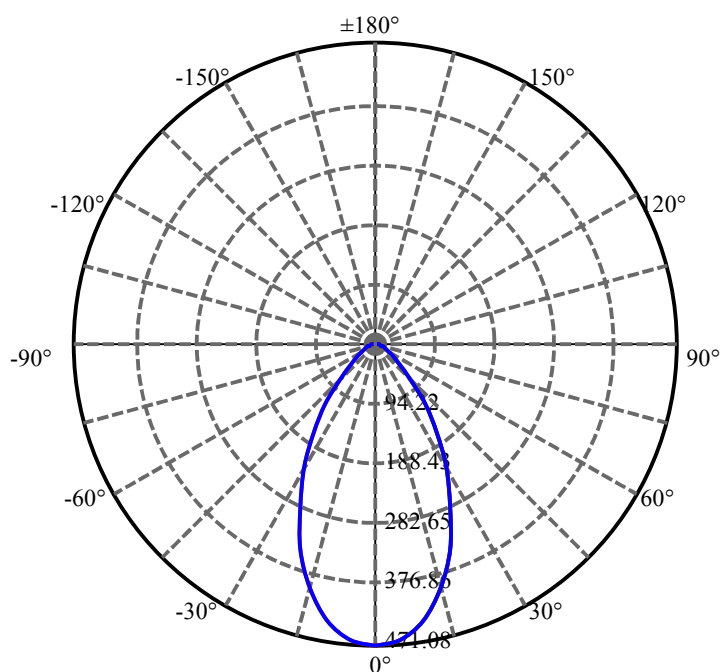
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	471.080	0.000	0	.000%	.000%
5.0	464.280	11.182	11.182	1.870%	2.194%
10.0	439.699	32.338	43.52	5.408%	8.540%
15.0	395.487	49.543	93.063	8.285%	18.263%
20.0	342.795	60.845	153.908	10.175%	30.203%
25.0	279.788	65.297	219.205	10.919%	43.017%
30.0	221.316	63.415	282.62	10.605%	55.461%
35.0	167.189	57.210	339.83	9.567%	66.688%
40.0	120.052	47.924	387.754	8.014%	76.093%
45.0	76.887	36.465	424.219	6.098%	83.249%
50.0	49.177	25.473	449.692	4.260%	88.247%
55.0	31.978	17.646	467.337	2.951%	91.710%
60.0	22.704	12.640	479.977	2.114%	94.191%
65.0	16.404	9.507	489.484	1.590%	96.056%
70.0	12.101	7.218	496.702	1.207%	97.473%
75.0	8.297	5.332	502.033	.892%	98.519%
80.0	5.421	3.671	505.704	.614%	99.239%
85.0	3.263	2.360	508.063	.395%	99.702%
90.0	2.278	1.517	509.58	.254%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	282.62	47.26%	55.46%
0-40	387.75	64.84%	76.09%
0-60	479.98	80.26%	94.19%
0-90	508.06	84.96%	99.70%
0-120	508.06	84.96%	99.70%
0-180	509.58	85.21%	100.00%
60-90	40.73	6.81%	7.99%
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%
0-42.73	407.66	68.17%	80.00%

ZONAL LUMEN SUMMARY

0-10	43.52
10-20	110.39
20-30	128.71
30-40	105.13
40-50	61.94
50-60	30.29
60-70	16.72
70-80	9.00
80-90	2.36
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



C0(Max): —————

C0/C180: —————

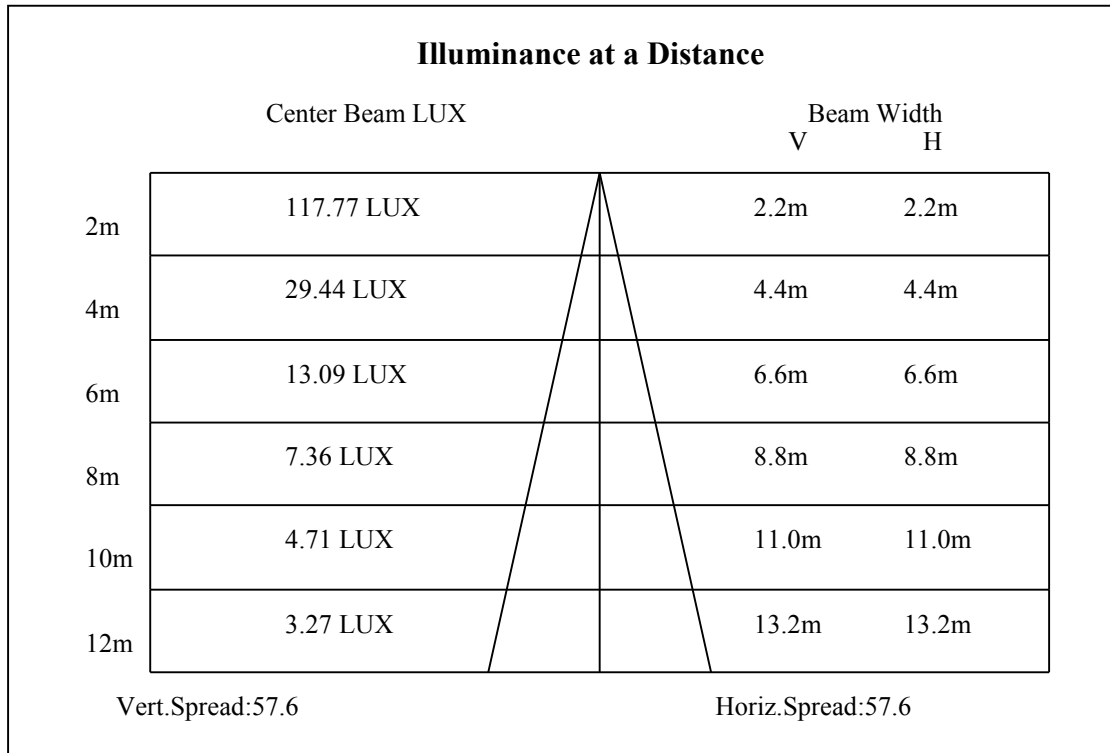
C90/C270: —————

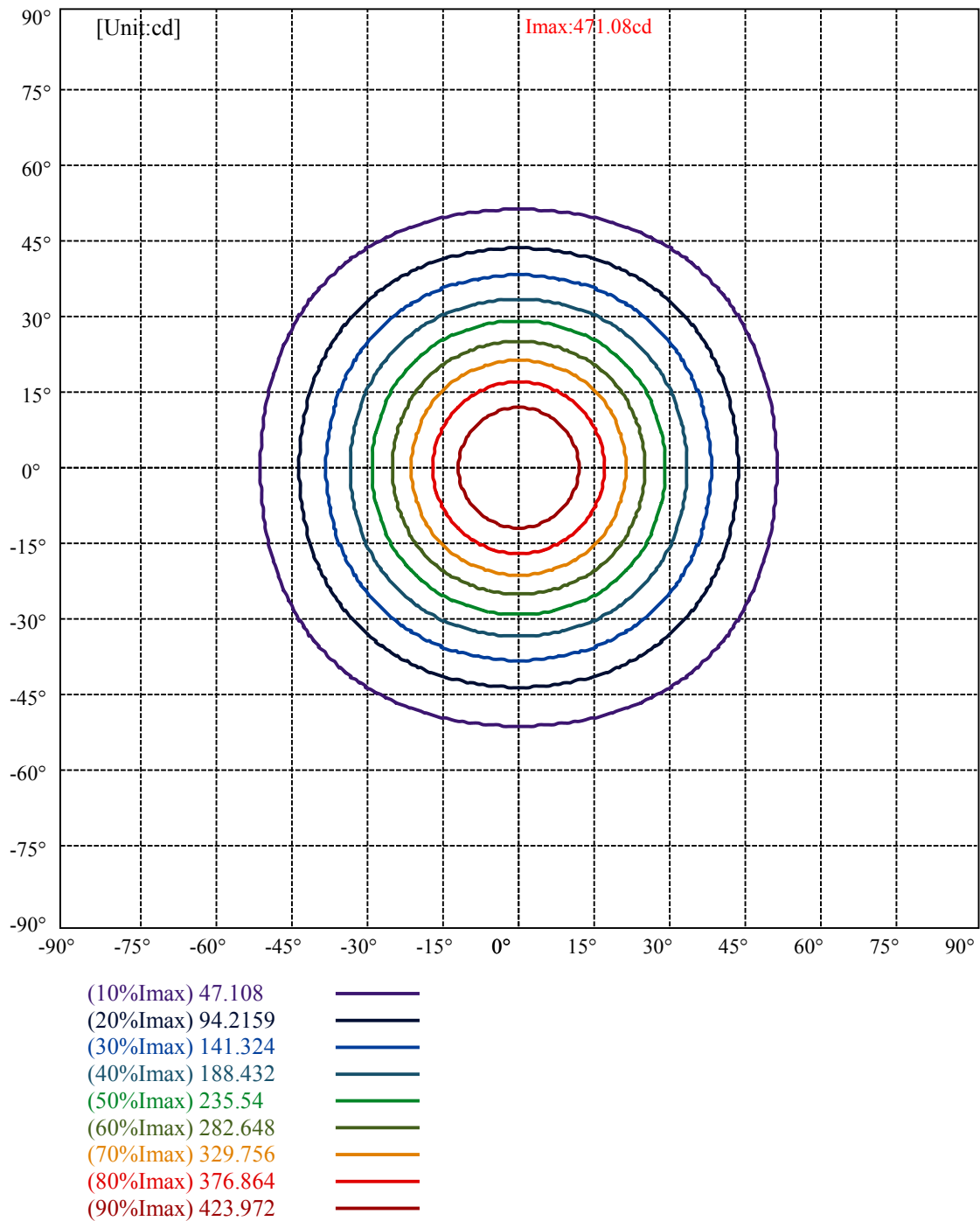
Field angle(10%Imax):C0/180Left:50.6 Right:50.6

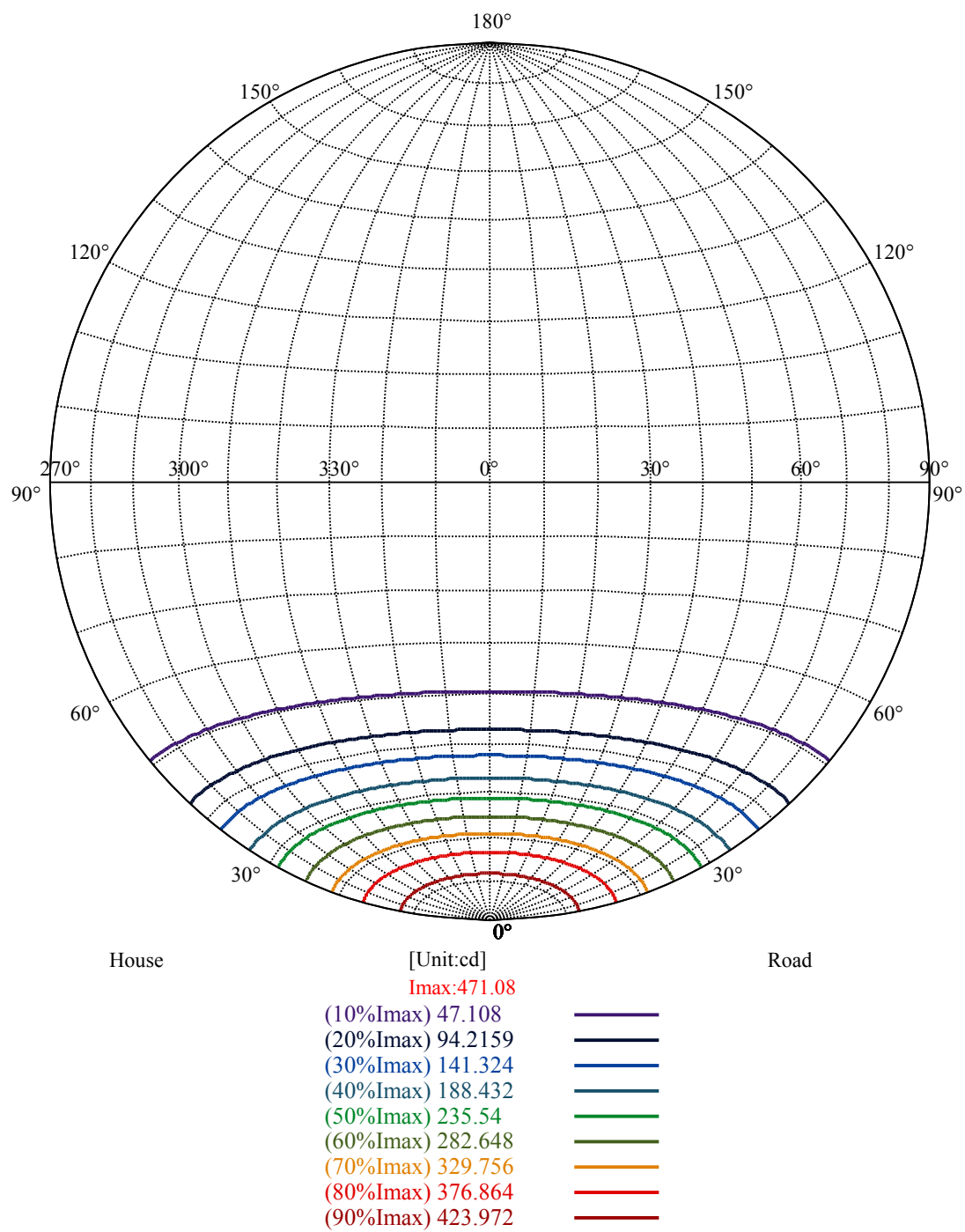
:C90/270Left:50.6 Right:50.6

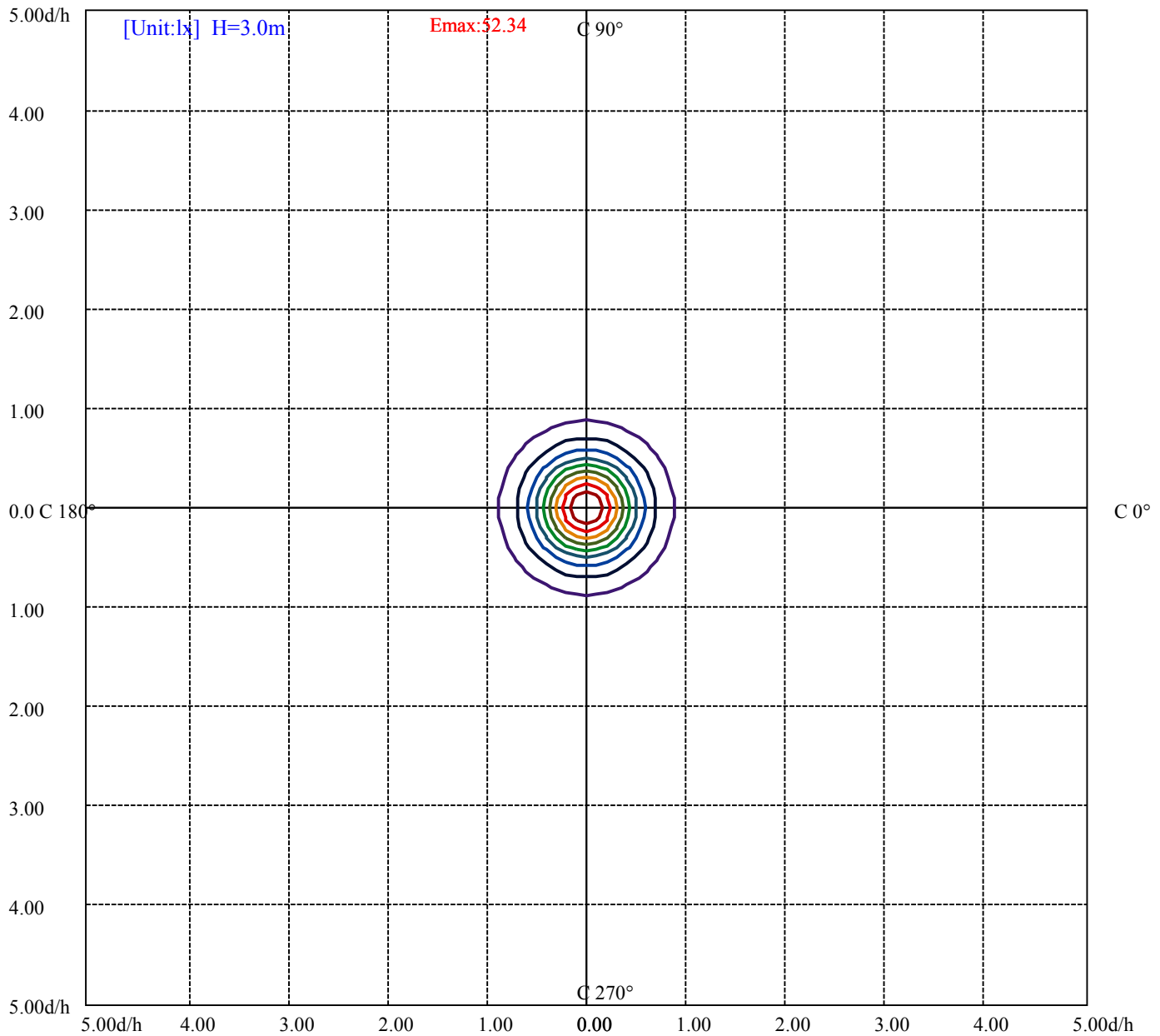
Beam Angle(50%Imax):C0/180Left:28.8 Right:28.8

:C90/270Left:28.8 Right:28.8

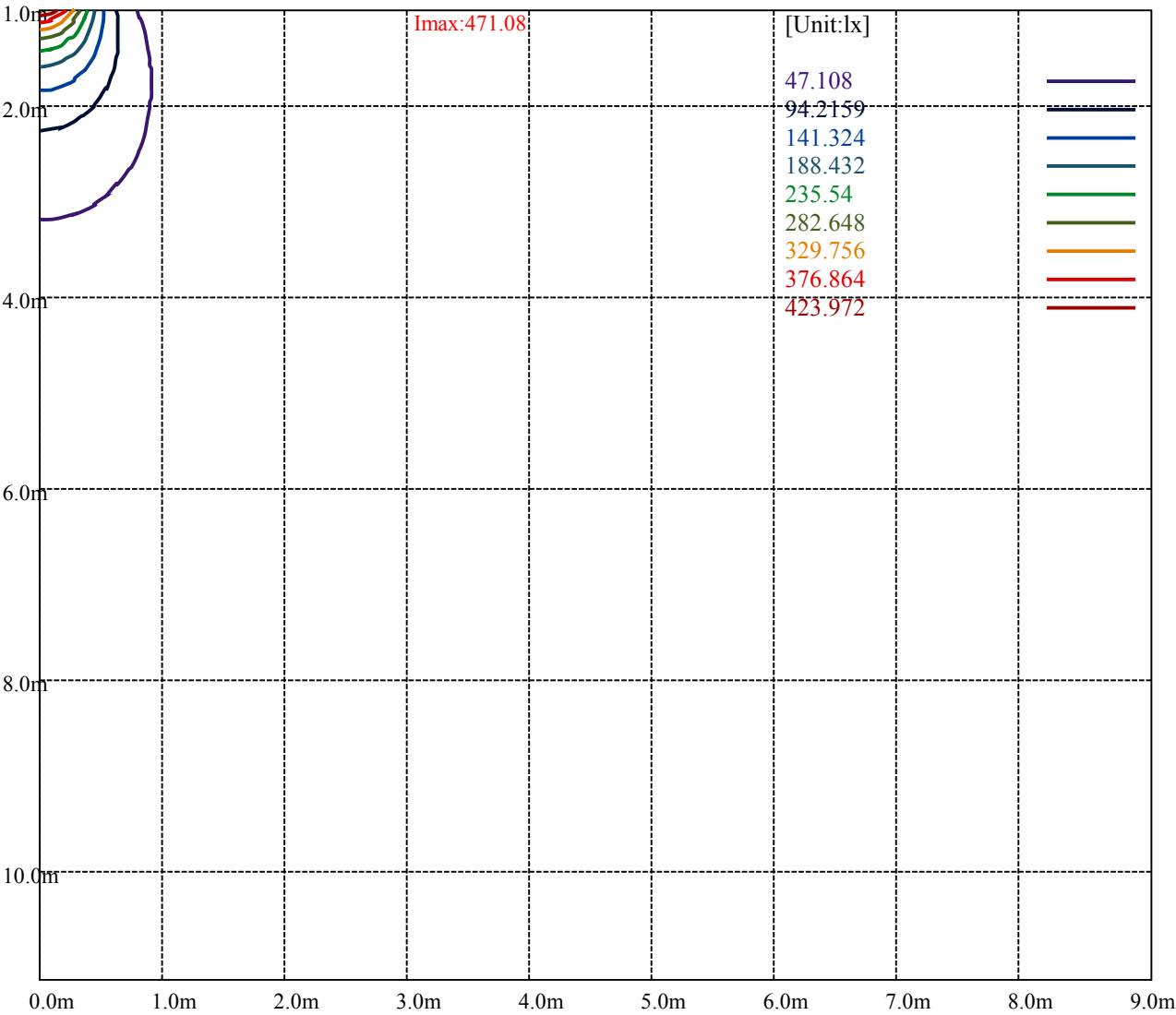








(10%Emax) 5.234211	—
(20%Emax) 10.46843	—
(30%Emax) 15.70267	—
(40%Emax) 20.93689	—
(50%Emax) 26.17111	—
(60%Emax) 31.40533	—
(70%Emax) 36.63956	—
(80%Emax) 41.87378	—
(90%Emax) 47.108	—



Luminance Table

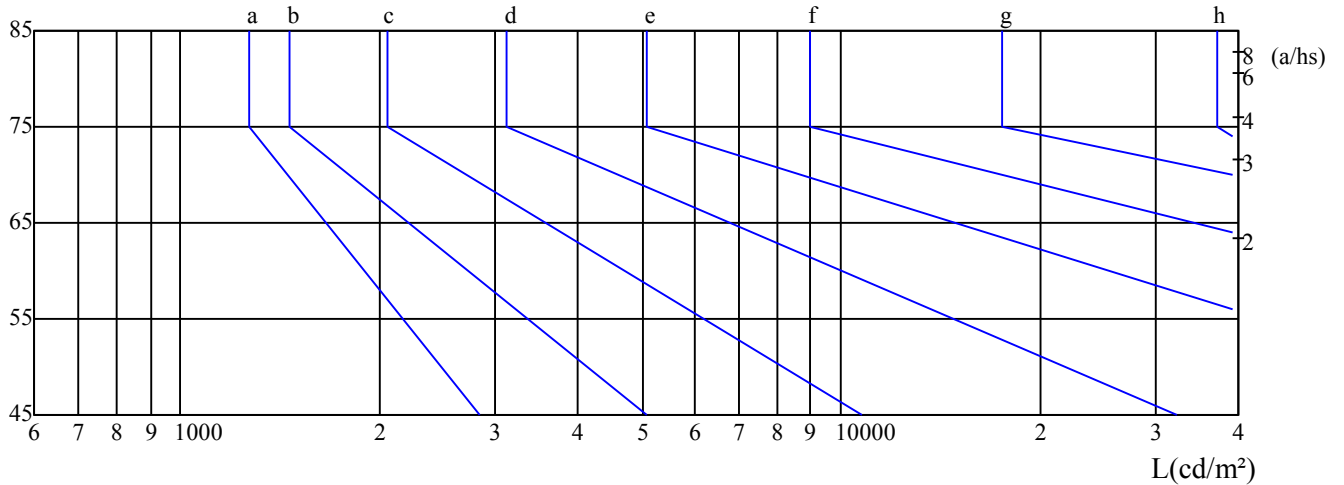
γ	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
0	0	0	0	0	0	0	0	0

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

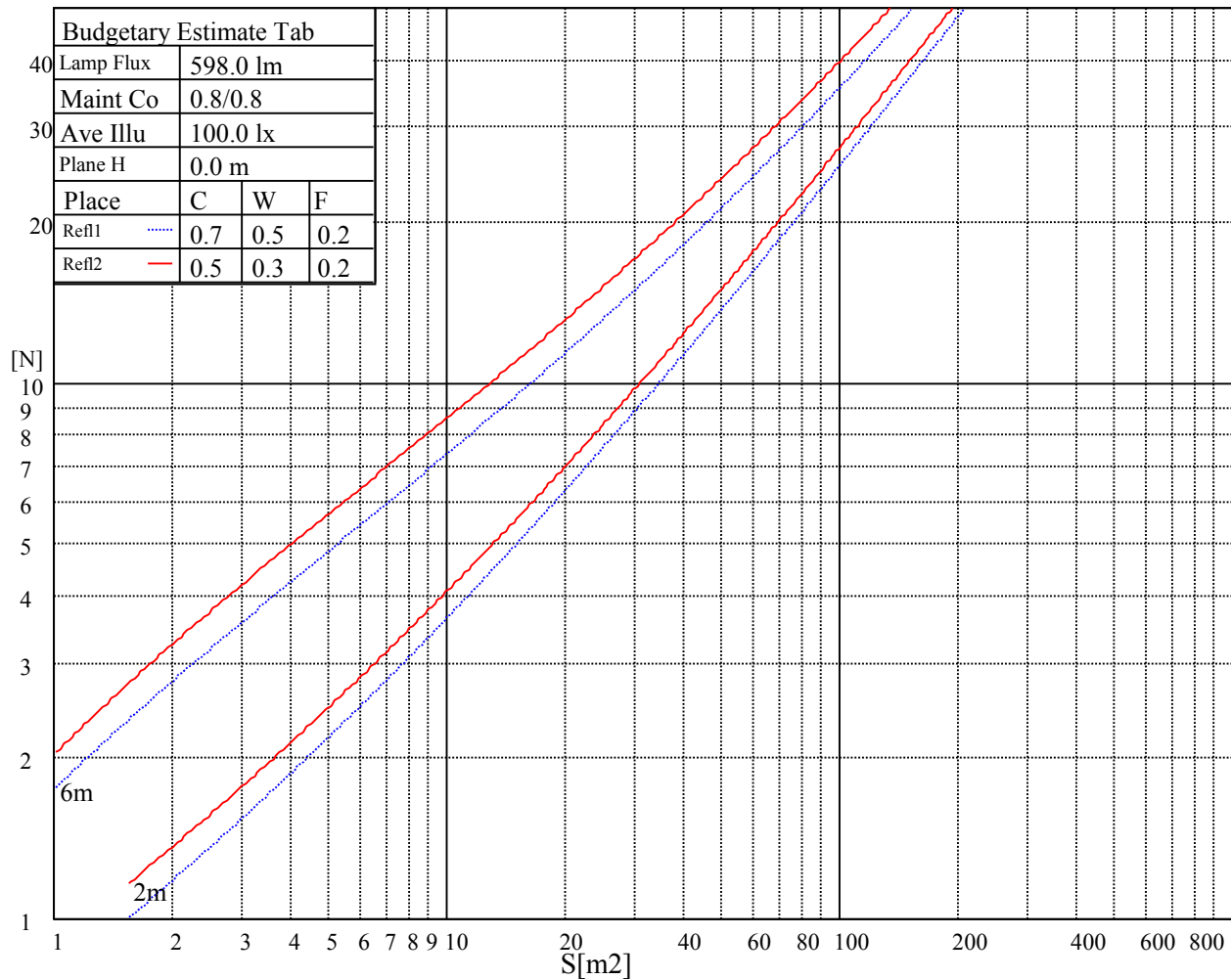
Luminance Limiting Curve

 $\gamma(^{\circ})$ 

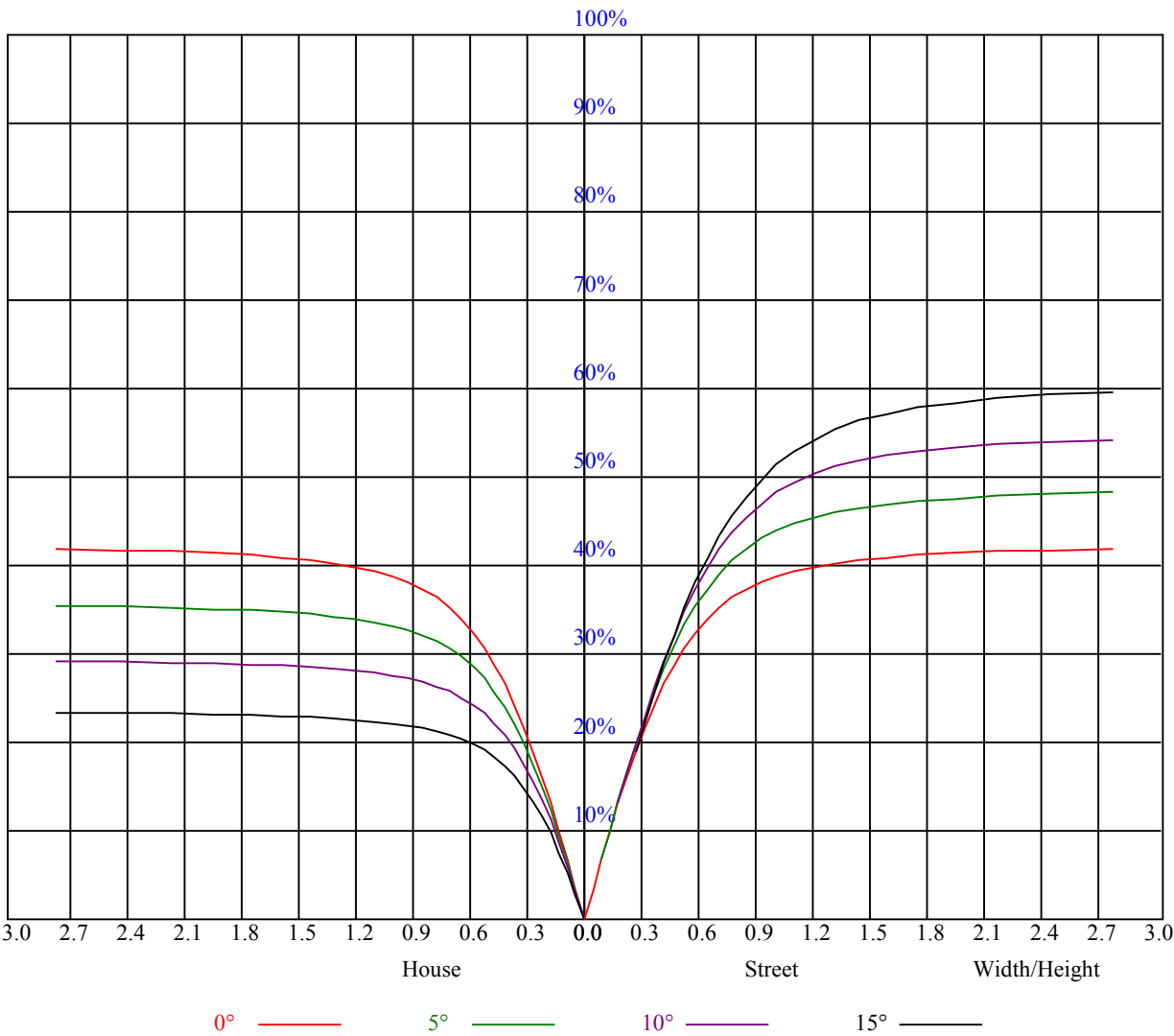
C0 ———

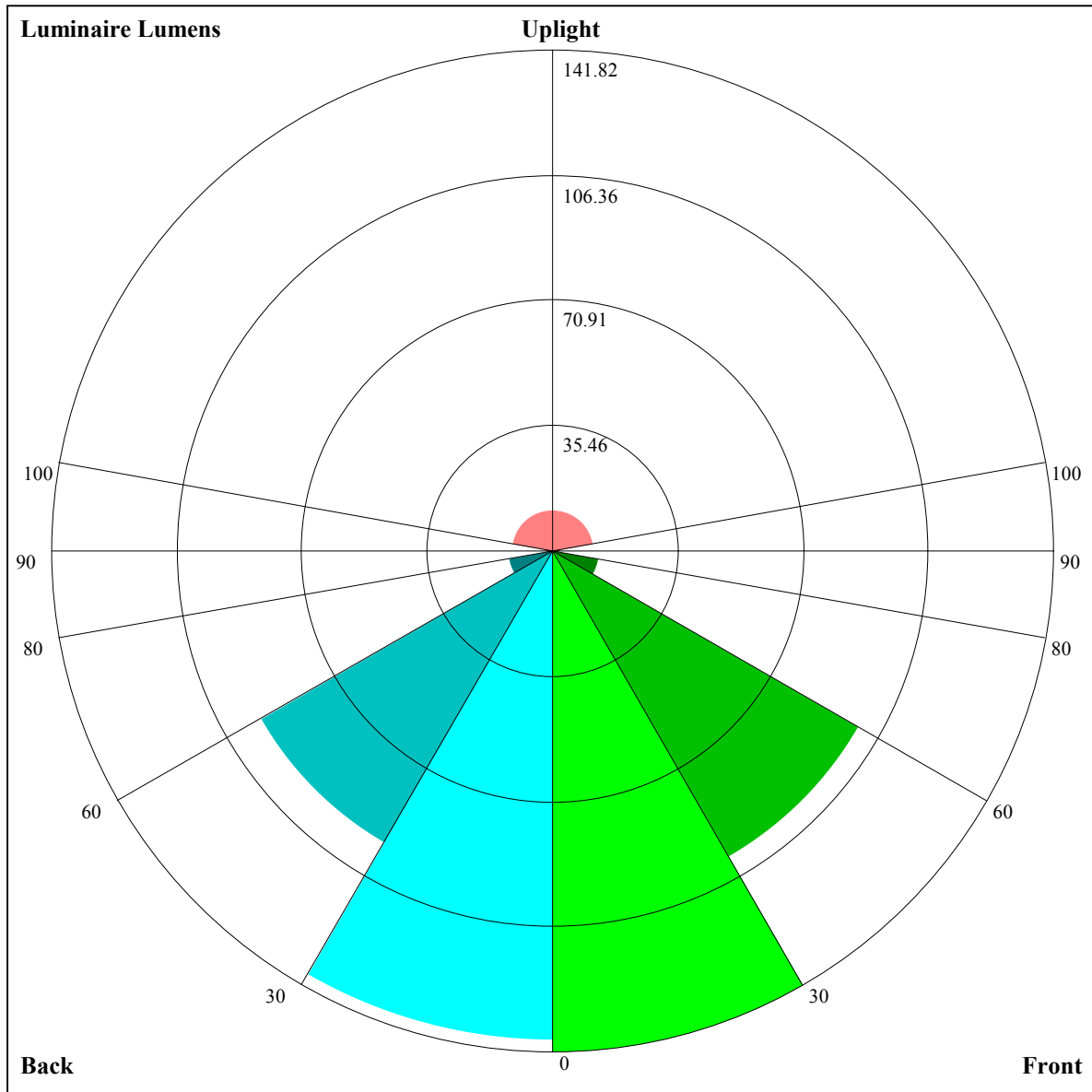
C45 ———

C90 ———



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	1.01	1.01	1.01	0.99	0.99	0.99	0.95	0.95	0.95	0.91	0.91	0.91	0.87	0.87	0.87	0.85
1	0.93	0.90	0.88	0.91	0.88	0.86	0.87	0.85	0.84	0.84	0.82	0.81	0.81	0.80	0.79	0.77
2	0.85	0.80	0.77	0.83	0.79	0.76	0.80	0.77	0.74	0.78	0.75	0.73	0.75	0.73	0.71	0.70
3	0.77	0.72	0.68	0.76	0.72	0.68	0.74	0.70	0.67	0.72	0.68	0.66	0.70	0.67	0.65	0.63
4	0.71	0.66	0.61	0.70	0.65	0.61	0.68	0.64	0.60	0.67	0.63	0.60	0.65	0.62	0.59	0.57
5	0.66	0.60	0.56	0.65	0.60	0.56	0.63	0.59	0.55	0.62	0.58	0.54	0.61	0.57	0.54	0.53
6	0.61	0.55	0.51	0.60	0.55	0.51	0.59	0.54	0.50	0.58	0.53	0.50	0.57	0.53	0.50	0.48
7	0.57	0.51	0.47	0.56	0.51	0.47	0.55	0.50	0.46	0.54	0.50	0.46	0.53	0.49	0.46	0.45
8	0.53	0.47	0.43	0.53	0.47	0.43	0.52	0.47	0.43	0.51	0.46	0.43	0.50	0.46	0.43	0.41
9	0.50	0.44	0.40	0.49	0.44	0.40	0.48	0.44	0.40	0.48	0.43	0.40	0.47	0.43	0.40	0.38
10	0.47	0.41	0.38	0.46	0.41	0.37	0.46	0.41	0.37	0.45	0.40	0.37	0.44	0.40	0.37	0.36





Luminaire Lumens:

FL=141.82,FM=100.12,FH=13.07,FVH=1.93

BL=138.77,BM=95.49,BH=12.61,BVH=1.92

UL=2.49,UH=11.83

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	471.26	468.11	449.49	414.06	367.14	302.34	241.14	186.02	135.23
45.0	470.36	469.74	452.42	406.24	345.94	284.91	226.35	170.89	126.96
90.0	472.73	468.68	442.01	392.57	332.49	268.48	210.83	158.34	112.11
135.0	469.97	466.48	443.03	403.14	356.91	293.91	234.00	176.23	124.31
180.0	471.26	458.33	426.26	379.52	333.51	272.08	210.38	158.23	112.44
225.0	470.36	459.96	430.82	384.86	326.59	263.59	211.11	157.22	111.26
270.0	472.73	463.78	437.46	390.49	337.44	274.22	216.39	163.69	120.66
315.0	469.97	459.17	436.11	393.02	342.34	278.78	220.33	166.89	117.45
360.0	471.26	468.11	449.49	414.06	367.14	302.34	241.14	186.02	135.23
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	88.43	56.64	35.49	24.86	17.61	13.05	9.00	5.91	3.43
45.0	82.69	52.03	33.64	23.74	16.99	12.54	8.61	5.51	3.15
90.0	70.99	45.79	29.70	21.26	15.64	11.36	7.59	4.84	2.98
135.0	77.91	49.73	31.56	22.39	16.14	12.04	8.38	5.51	3.38
180.0	70.65	44.49	29.70	21.26	15.30	11.36	7.88	5.18	3.32
225.0	71.38	46.74	30.94	21.88	16.37	11.87	8.10	5.46	3.26
270.0	79.82	50.91	33.81	24.08	17.27	12.77	8.72	5.68	3.32
315.0	73.24	47.08	30.99	22.16	15.92	11.81	8.10	5.29	3.26
360.0	88.43	56.64	35.49	24.86	17.61	13.05	9.00	5.91	3.43
C/γ(°)	90.0								
0.0	2.31								
45.0	2.25								
90.0	2.19								
135.0	2.31								
180.0	2.31								
225.0	2.31								
270.0	2.31								
315.0	2.25								
360.0	2.31								