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Nata

Client:

LumCAT: 2-1682-M

Luminaire: 92.70.124.00

Report No:

Voltage(V): 33.2900

Test No: GC2019082904

Current(A): 0.2970

LampCAT: XICATO XOB LES 9.8MM

Power (W): 9.8900

Lamp flux(lm): 902.0

PF: 0.0000

Number of Lamps: 1

Ballast type: DC

Length(mm): 70

Width(mm): 70

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 813.47, Efficiency(%): 90.19% , Luminous Efficacy(lm/W): 82.25

Central intensity(cd): 1700.578, Maximum intensity(cd): 1700.578

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=37.0

[C90/270]Total=37.0

Field angle(10%Imax): [C0/180]Total=69.8

[C90/270]Total=69.8

Maximum s/h(1/2): C0_180=0.60 C90_270=0.60

Maximum s/h(1/4): C0_180=0.62 C90_270=0.62

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 90.19%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 98.515%

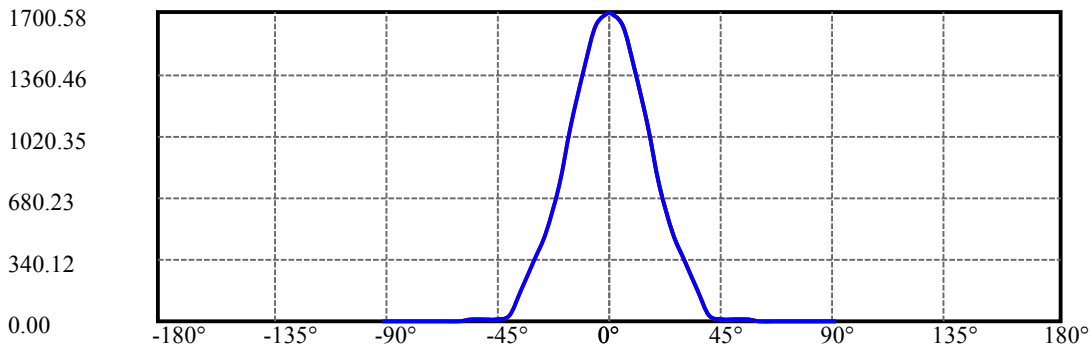
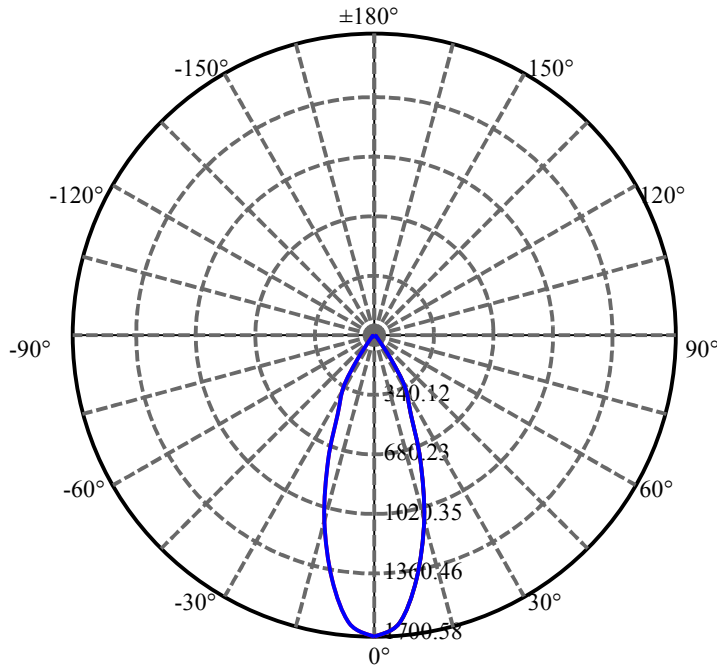
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	1700.578	0.000	0	.000%	.000%
5.0	1628.859	39.802	39.802	4.413%	4.893%
10.0	1394.227	108.145	147.948	11.990%	18.187%
15.0	1078.088	146.656	294.604	16.259%	36.216%
20.0	753.047	150.911	445.515	16.731%	54.767%
25.0	486.091	129.963	575.478	14.408%	70.743%
30.0	336.101	104.049	679.527	11.535%	83.534%
35.0	166.212	73.969	753.496	8.201%	92.627%
40.0	29.201	32.603	786.099	3.615%	96.635%
45.0	8.930	7.060	793.159	.783%	97.503%
50.0	6.820	3.183	796.342	.353%	97.894%
55.0	5.548	2.689	799.031	.298%	98.224%
60.0	4.676	2.363	801.394	.262%	98.515%
65.0	4.099	2.133	803.527	.236%	98.777%
70.0	3.832	2.008	805.535	.223%	99.024%
75.0	3.698	1.968	807.504	.218%	99.266%
80.0	3.670	1.972	809.475	.219%	99.508%
85.0	3.670	1.995	811.47	.221%	99.754%
90.0	3.649	2.004	813.474	.222%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	679.53	75.34%	83.53%
0-40	786.10	87.15%	96.63%
0-60	801.39	88.85%	98.51%
0-90	811.47	89.96%	99.75%
0-120	811.47	89.96%	99.75%
0-180	813.47	90.19%	100.00%
60-90	12.44	1.38%	1.53%
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%
0-28.62	650.78	72.15%	80.00%

ZONAL LUMEN SUMMARY

0-10	147.95
10-20	297.57
20-30	234.01
30-40	106.57
40-50	10.24
50-60	5.05
60-70	4.14
70-80	3.94
80-90	1.99
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: —————

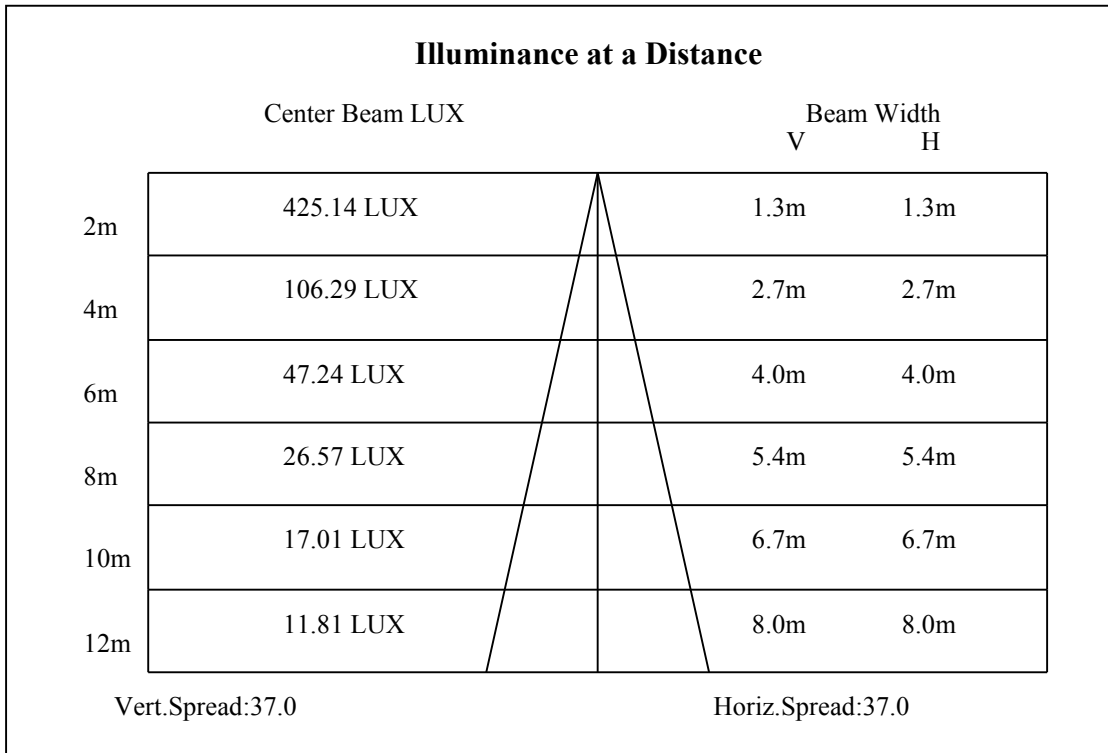
C90/C270: —————

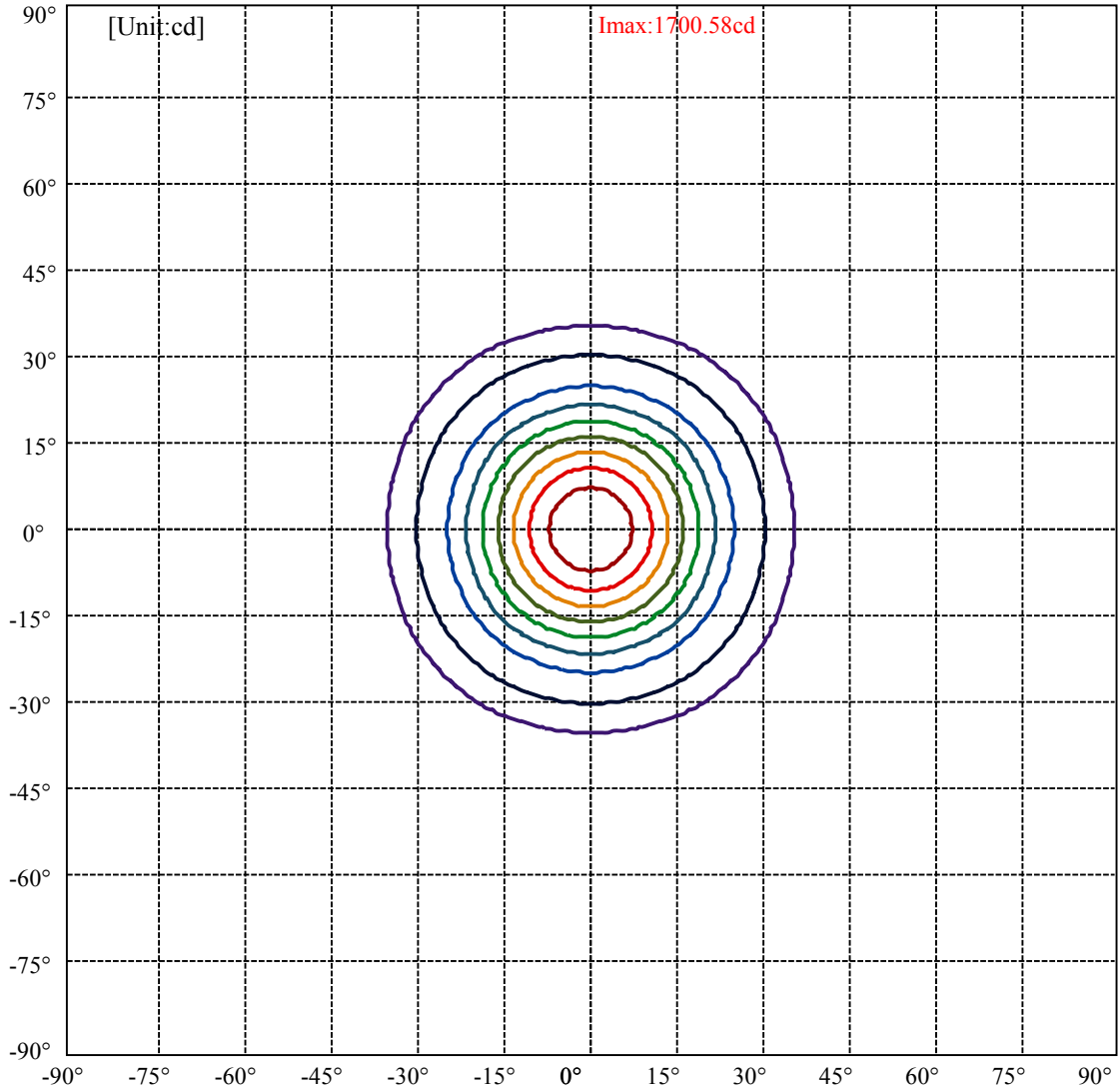
Field angle(10%Imax):C0/180Left:34.9 Right:34.9

:C90/270Left:34.9 Right:34.9

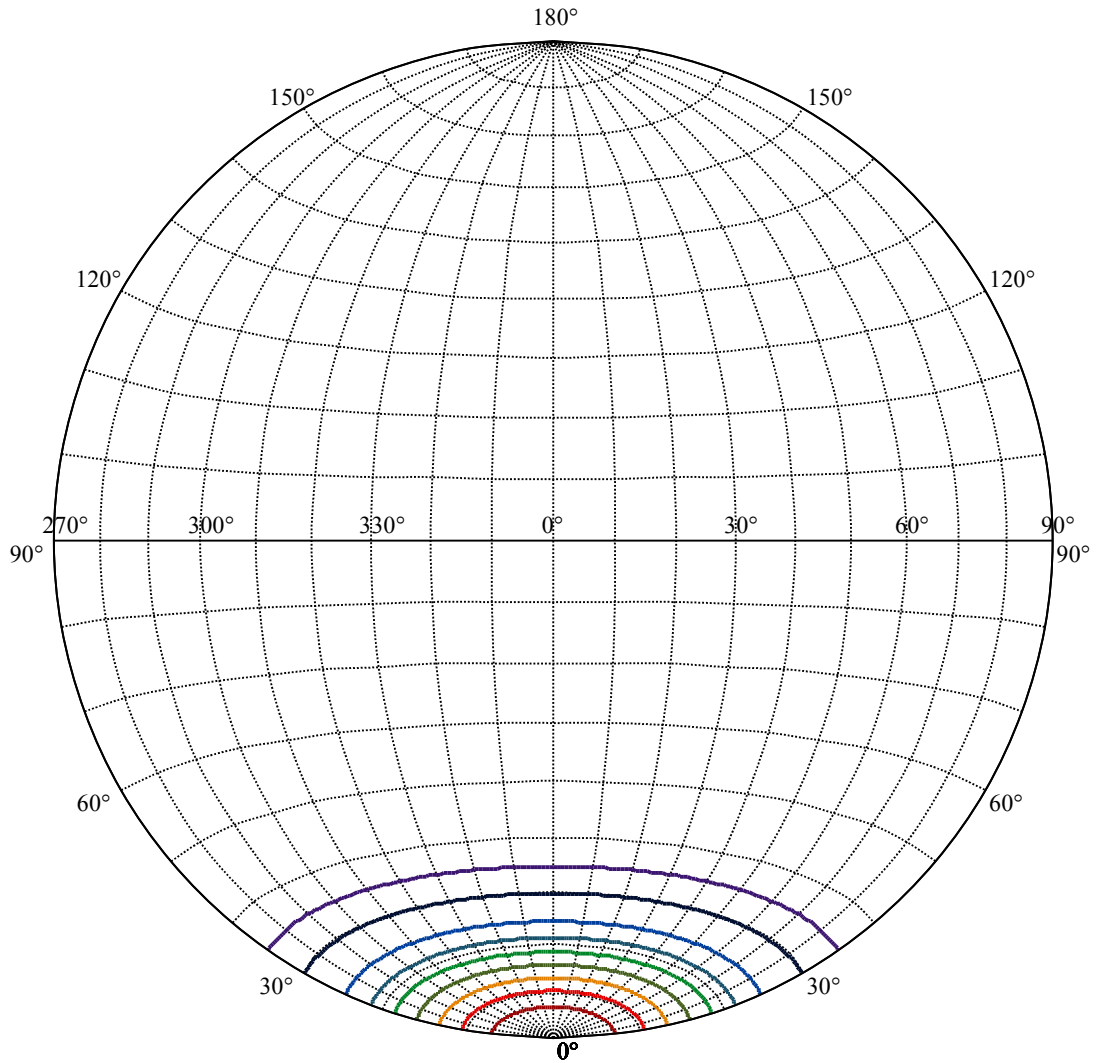
Beam Angle(50%Imax):C0/180Left:18.5 Right:18.5

:C90/270Left:18.5 Right:18.5





(10%Imax) 170.058	—
(20%Imax) 340.116	—
(30%Imax) 510.173	—
(40%Imax) 680.231	—
(50%Imax) 850.289	—
(60%Imax) 1020.35	—
(70%Imax) 1190.4	—
(80%Imax) 1360.46	—
(90%Imax) 1530.52	—



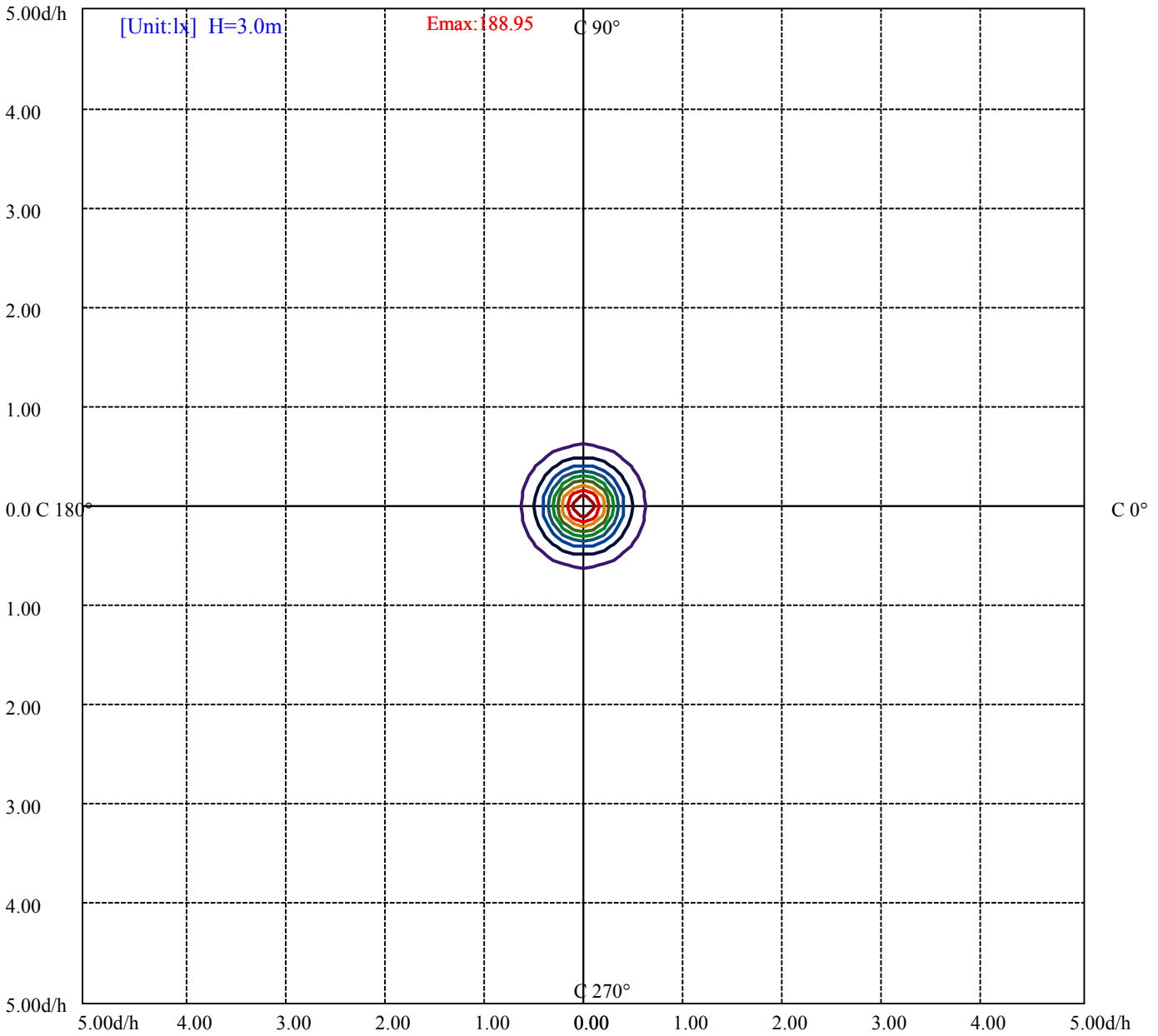
House

[Unit:cd]

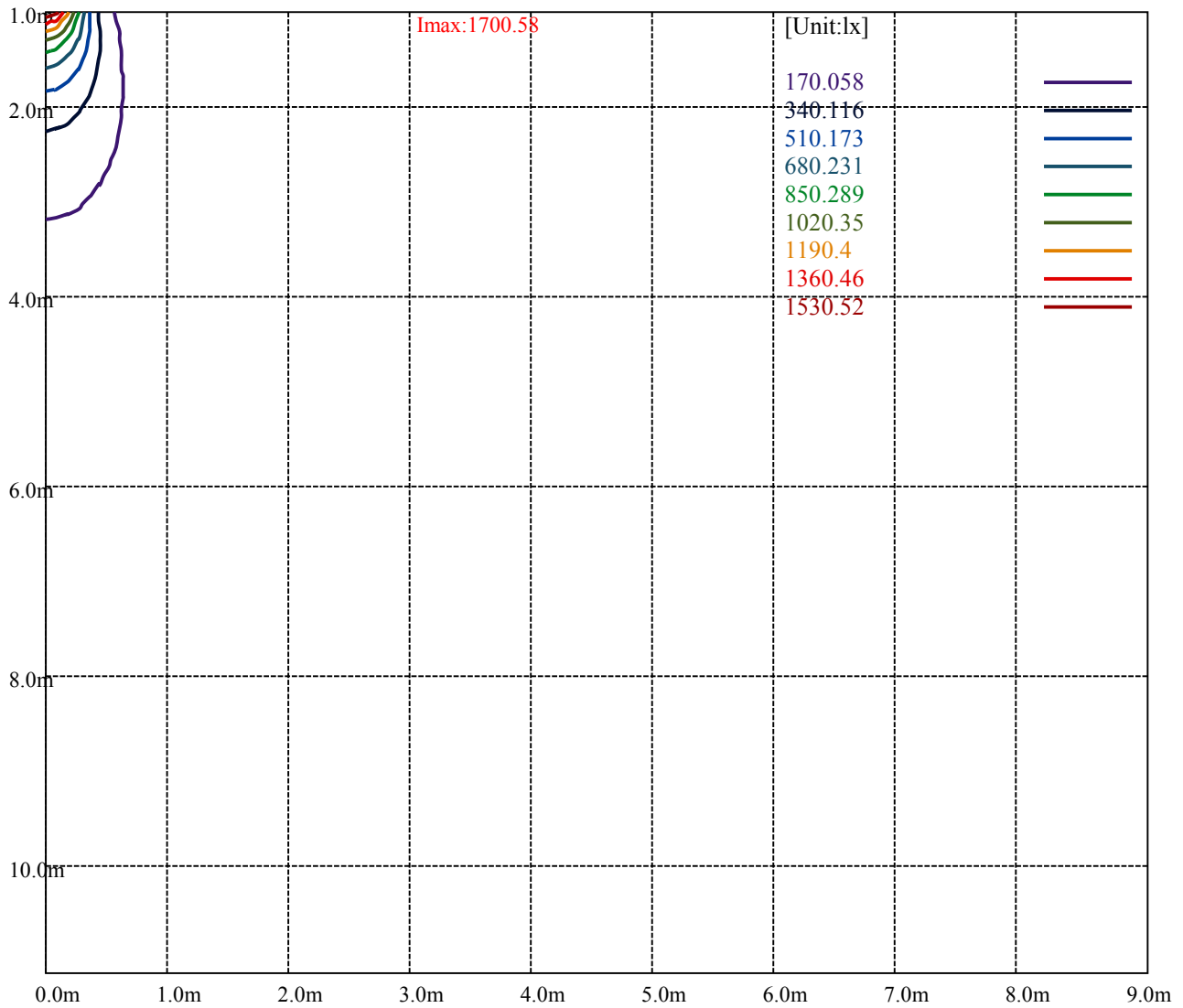
Road

Imax:1700.58

(10%Imax)	170.058	—
(20%Imax)	340.116	—
(30%Imax)	510.173	—
(40%Imax)	680.231	—
(50%Imax)	850.289	—
(60%Imax)	1020.35	—
(70%Imax)	1190.4	—
(80%Imax)	1360.46	—
(90%Imax)	1530.52	—



- (10%Emax) 18.89533
- (20%Emax) 37.79055
- (30%Emax) 56.68589
- (40%Emax) 75.58111
- (50%Emax) 94.47645
- (60%Emax) 113.3722
- (70%Emax) 132.2667
- (80%Emax) 151.1622
- (90%Emax) 170.0578



Luminance Table

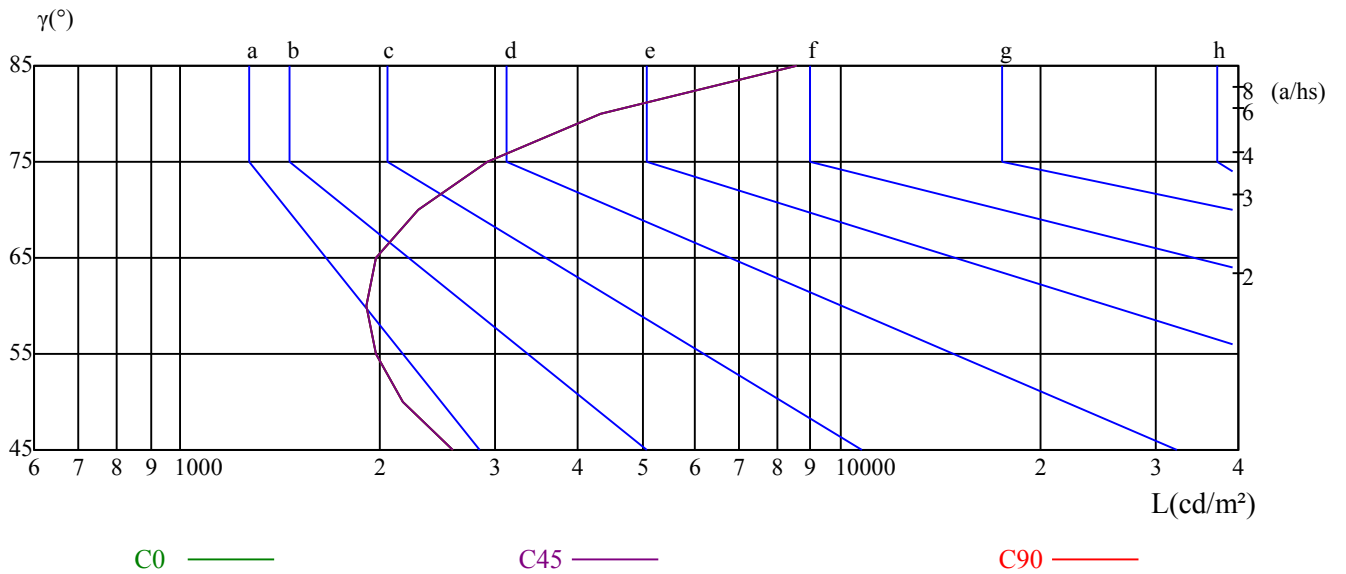
γ	45	50	55	60	65	70	75	80	85
C0	2577	2165	1974	1908	1980	2287	2916	4314	8594
C45	2577	2165	1974	1908	1980	2287	2916	4314	8594
C90	2577	2165	1974	1908	1980	2287	2916	4314	8594

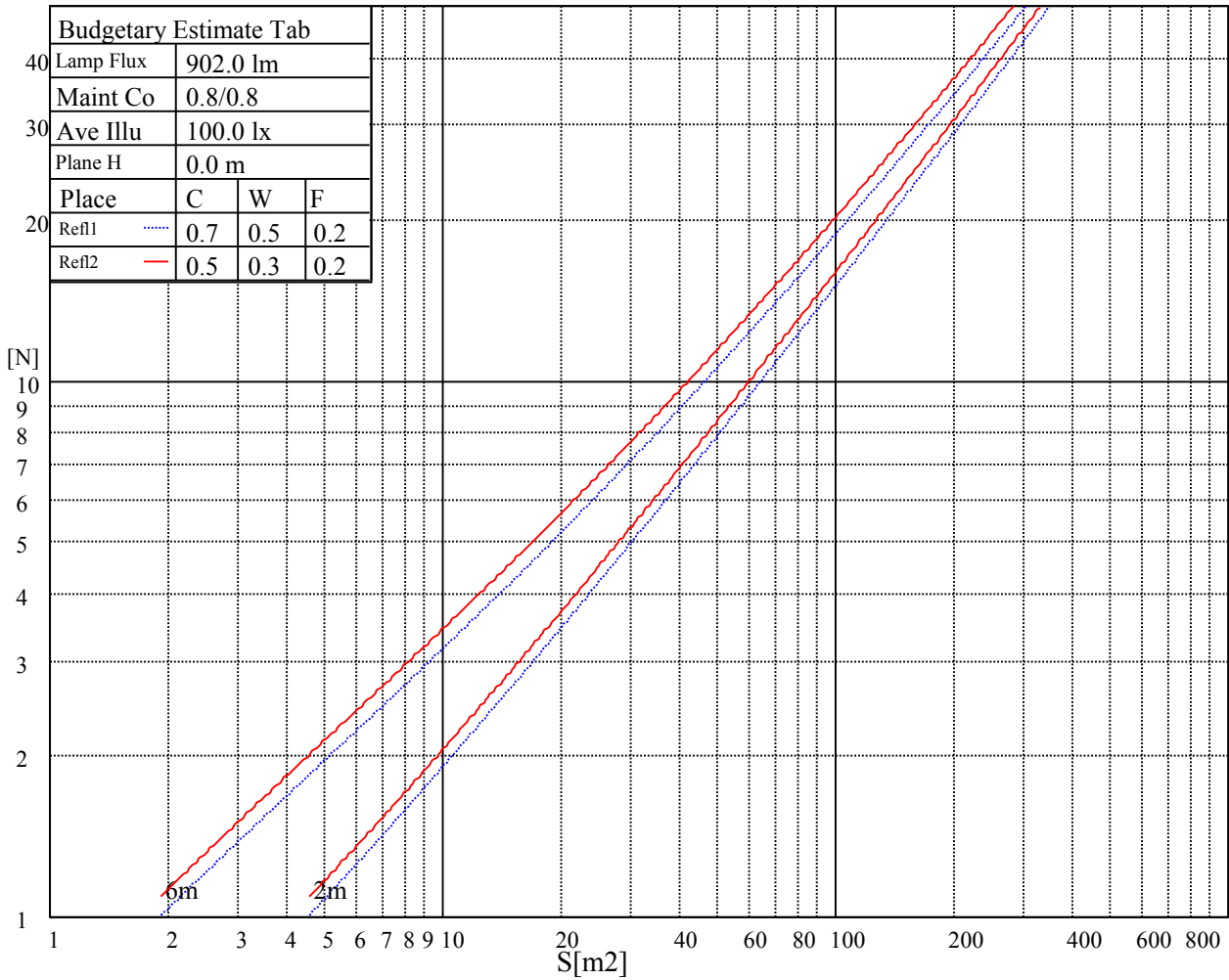
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
1980	1980	1980	2916	2916	2916	8594	8594	8594

Glare Table

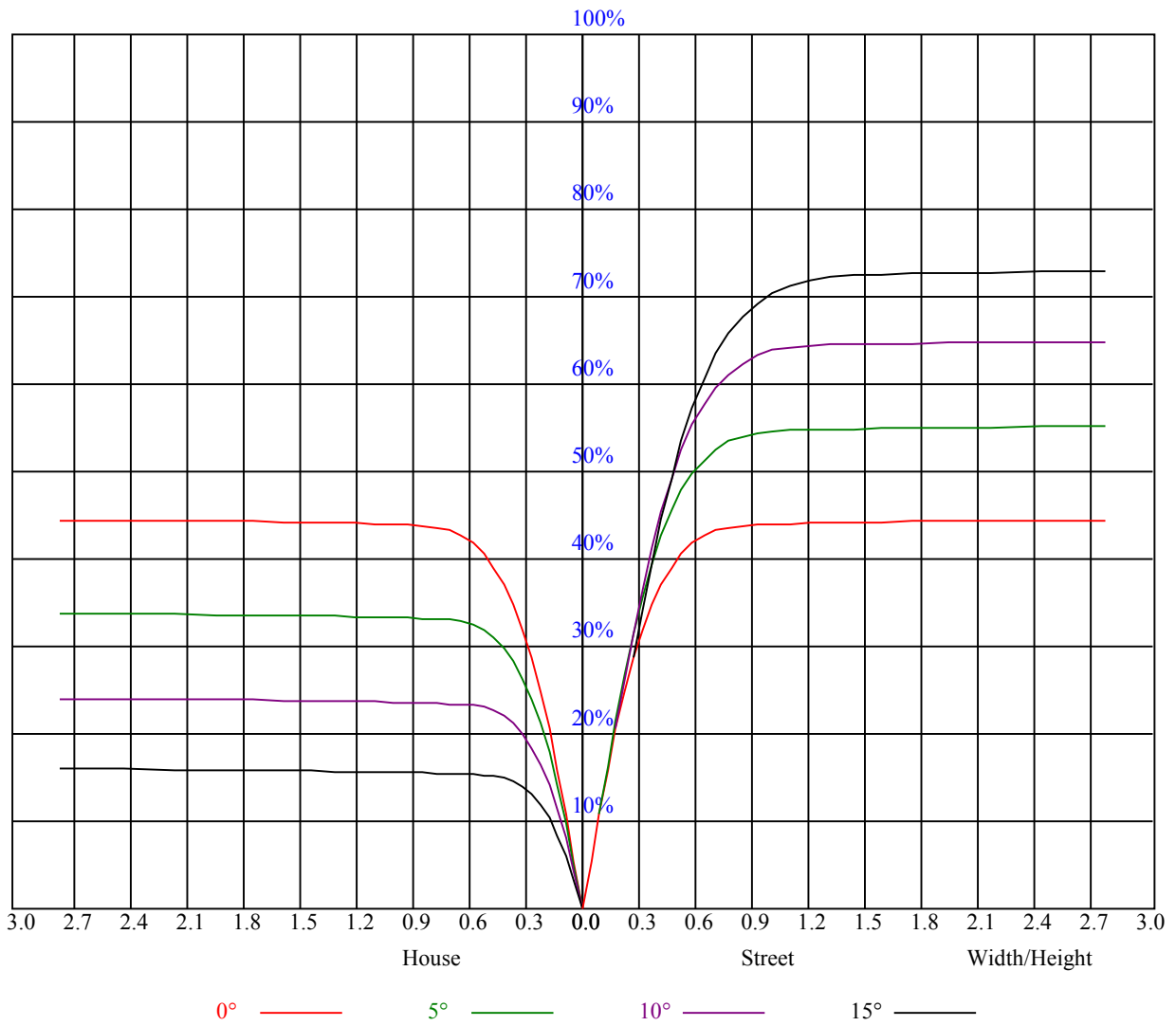
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

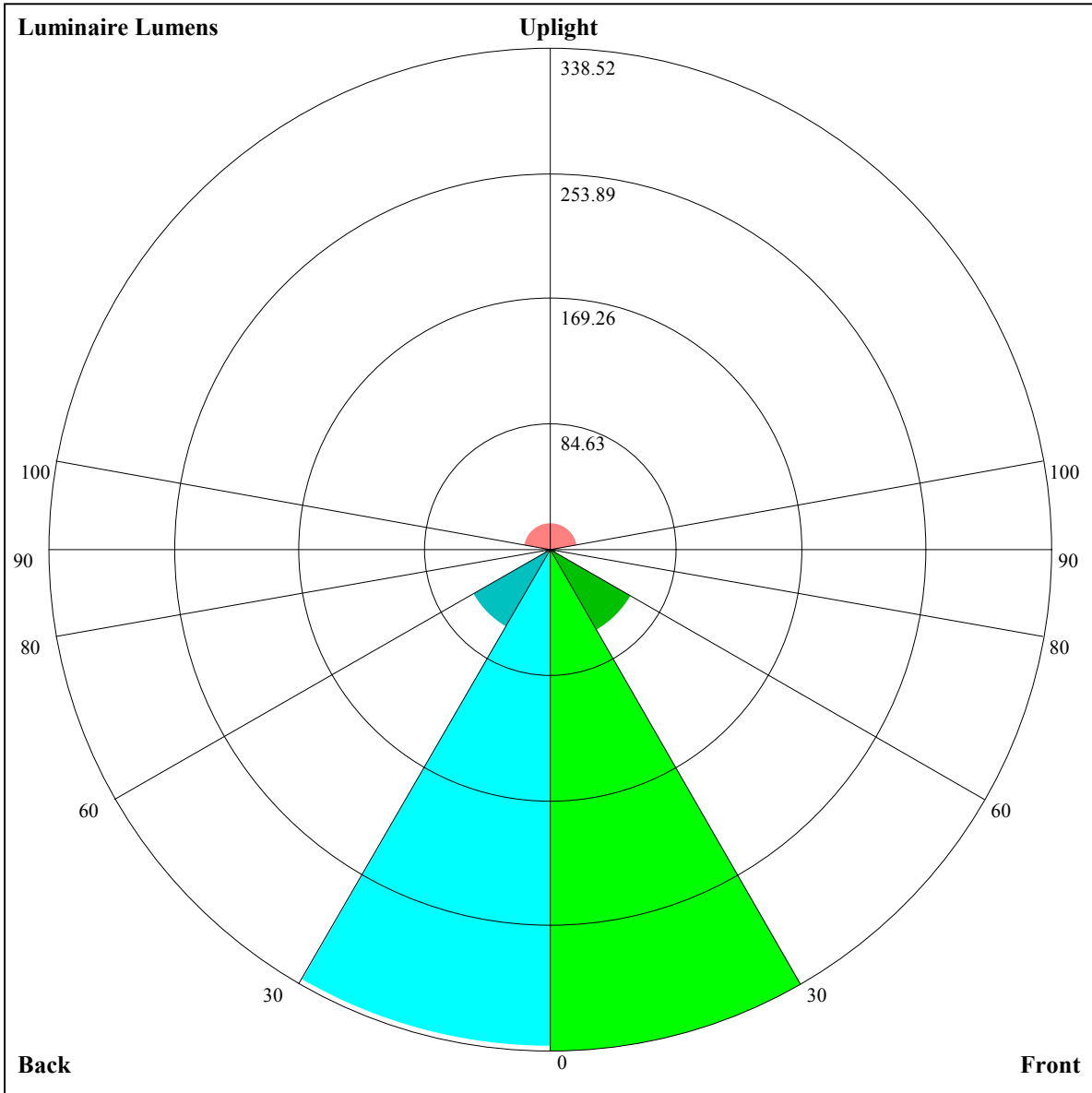
Luminance Limiting Curve





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	1.07	1.07	1.07	1.05	1.05	1.05	1.00	1.00	1.00	0.96	0.96	0.96	0.92	0.92	0.92	0.90
1	1.00	0.98	0.96	0.98	0.97	0.95	0.95	0.93	0.92	0.91	0.90	0.89	0.88	0.87	0.87	0.85
2	0.94	0.91	0.88	0.93	0.90	0.87	0.90	0.87	0.85	0.87	0.85	0.83	0.85	0.83	0.82	0.80
3	0.89	0.85	0.82	0.88	0.84	0.81	0.85	0.82	0.80	0.83	0.81	0.78	0.81	0.79	0.77	0.76
4	0.84	0.80	0.76	0.83	0.79	0.76	0.81	0.78	0.75	0.79	0.76	0.74	0.78	0.75	0.73	0.72
5	0.80	0.75	0.72	0.79	0.75	0.71	0.77	0.74	0.71	0.76	0.73	0.70	0.75	0.72	0.70	0.68
6	0.76	0.71	0.68	0.75	0.71	0.67	0.74	0.70	0.67	0.73	0.69	0.67	0.71	0.68	0.66	0.65
7	0.72	0.67	0.64	0.72	0.67	0.64	0.71	0.67	0.64	0.69	0.66	0.63	0.69	0.65	0.63	0.62
8	0.69	0.64	0.61	0.68	0.64	0.61	0.67	0.63	0.61	0.67	0.63	0.60	0.66	0.62	0.60	0.59
9	0.66	0.61	0.58	0.65	0.61	0.58	0.65	0.61	0.58	0.64	0.60	0.58	0.63	0.60	0.57	0.56
10	0.63	0.58	0.55	0.63	0.58	0.55	0.62	0.58	0.55	0.61	0.58	0.55	0.61	0.57	0.55	0.54





Luminaire Lumens:

FL=338.52,FM=63.04,FH=4.06,FVH=2

BL=335.45,BM=59.85,BH=4.03,BVH=1.99

UL=3.98,UH=18.95

BUG Rating:B1-U2-G0

Intensity data(cd)

C/\u03b3(\u00b0)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	1702.69	1633.50	1411.88	1110.94	779.06	496.69	358.88	176.46	28.74
45.0	1701.56	1610.44	1374.19	1042.31	711.56	466.88	325.69	139.78	21.04
90.0	1693.69	1564.88	1222.88	937.01	626.74	408.66	277.09	92.59	13.84
135.0	1704.38	1607.06	1375.31	1047.94	721.13	460.13	317.25	135.23	16.93
180.0	1702.69	1624.50	1389.94	1059.75	714.94	472.73	320.63	140.12	20.59
225.0	1701.56	1649.81	1434.38	1115.21	775.58	503.61	350.16	173.93	29.42
270.0	1693.69	1690.31	1514.81	1222.88	904.50	578.25	389.25	284.63	68.46
315.0	1704.38	1650.38	1430.44	1088.66	790.88	501.81	349.88	186.98	34.59
360.0	1702.69	1633.50	1411.88	1110.94	779.06	496.69	358.88	176.46	28.74
C/\u03b3(\u00b0)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	9.28	7.03	5.63	4.78	4.16	3.83	3.71	3.66	3.66
45.0	8.55	6.58	5.40	4.61	4.05	3.83	3.71	3.71	3.77
90.0	7.59	6.24	5.12	4.33	3.94	3.71	3.66	3.66	3.66
135.0	7.59	6.24	5.18	4.44	3.99	3.83	3.71	3.66	3.66
180.0	8.38	6.58	5.46	4.56	4.05	3.77	3.66	3.66	3.66
225.0	8.61	6.86	5.57	4.73	4.11	3.83	3.71	3.71	3.66
270.0	11.93	7.48	6.08	5.06	4.33	3.99	3.71	3.66	3.66
315.0	9.51	7.54	5.96	4.89	4.16	3.88	3.71	3.66	3.66
360.0	9.28	7.03	5.63	4.78	4.16	3.83	3.71	3.66	3.66
C/\u03b3(\u00b0)	90.0								
0.0	3.66								
45.0	3.66								
90.0	3.60								
135.0	3.66								
180.0	3.66								
225.0	3.66								
270.0	3.66								
315.0	3.66								
360.0	3.66								