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Nata

Client:

LumCAT: 1680-S

Luminaire: 92.70.064.00

Report No: GC2019091909

Test No: NATA07

LampCAT: TRIDONIC SLE G7 9MM

Lamp flux(lm): 1011.0

Number of Lamps: 1

Length(mm): 32

Phm Type: C

Voltage(V): 220.5000

Current(A): 0.0410

Power (W): 8.2700

PF: 0.8970

Ballast type: AC

Width(mm): 32

Height(mm): 0

Photometric Results

Lumens(lm): 874.44, Efficiency(%): 86.49% , Luminous Efficacy(lm/W): 105.74

Central intensity(cd): 917.789, Maximum intensity(cd): 917.789

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=62.6

[C90/270]Total=62.6

Field angle(10%Imax): [C0/180]Total=83.4

[C90/270]Total=83.4

Maximum s/h(1/2): C0_180=1.00 C90_270=1.00

Maximum s/h(1/4): C0_180=0.92 C90_270=0.92

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 86.49%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 99.014%

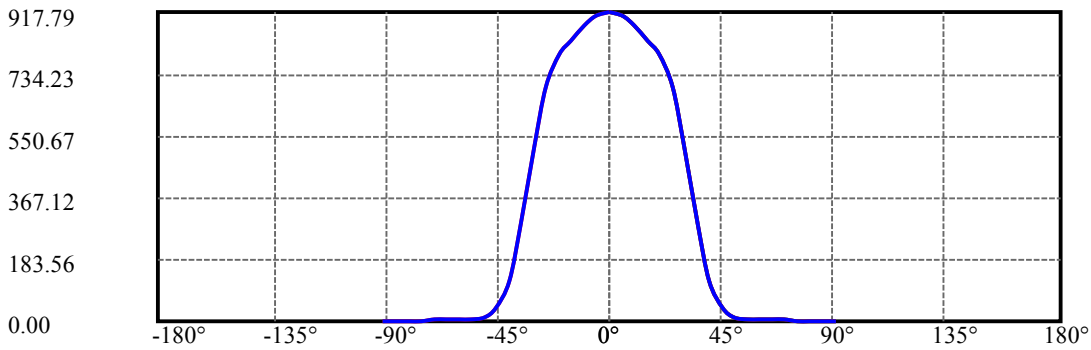
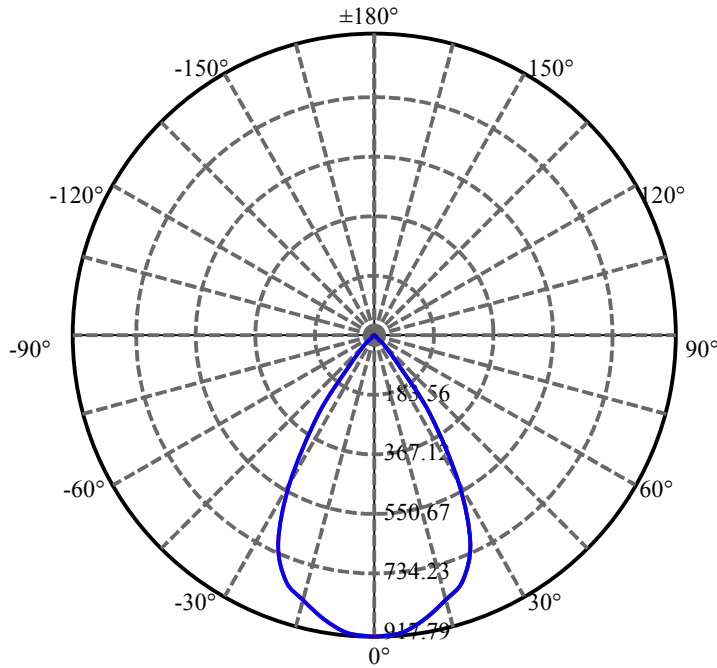
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	917.789	0.000	0	.000%	.000%
5.0	907.429	21.820	21.82	2.158%	2.495%
10.0	876.089	63.802	85.622	6.311%	9.792%
15.0	834.442	101.468	187.09	10.036%	21.395%
20.0	794.228	134.225	321.315	13.276%	36.745%
25.0	697.929	156.500	477.815	15.480%	54.642%
30.0	516.753	153.719	631.534	15.205%	72.221%
35.0	290.926	118.936	750.47	11.764%	85.823%
40.0	118.590	68.325	818.795	6.758%	93.636%
45.0	38.202	29.031	847.826	2.872%	96.956%
50.0	13.793	10.506	858.332	1.039%	98.158%
55.0	7.326	4.592	862.924	.454%	98.683%
60.0	5.215	2.899	865.823	.287%	99.014%
65.0	4.089	2.262	868.085	.224%	99.273%
70.0	3.271	1.864	869.948	.184%	99.486%
75.0	2.599	1.534	871.483	.152%	99.661%
80.0	1.995	1.229	872.712	.122%	99.802%
85.0	1.531	0.958	873.67	.095%	99.912%
90.0	1.293	0.773	874.444	.077%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	631.53	62.47%	72.22%
0-40	818.79	80.99%	93.64%
0-60	865.82	85.64%	99.01%
0-90	873.67	86.42%	99.91%
0-120	873.67	86.42%	99.91%
0-180	874.44	86.49%	100.00%
60-90	10.75	1.06%	1.23%
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%
0-32.86	699.56	69.19%	80.00%

ZONAL LUMEN SUMMARY

0-10	85.62
10-20	235.69
20-30	310.22
30-40	187.26
40-50	39.54
50-60	7.49
60-70	4.13
70-80	2.76
80-90	0.96
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



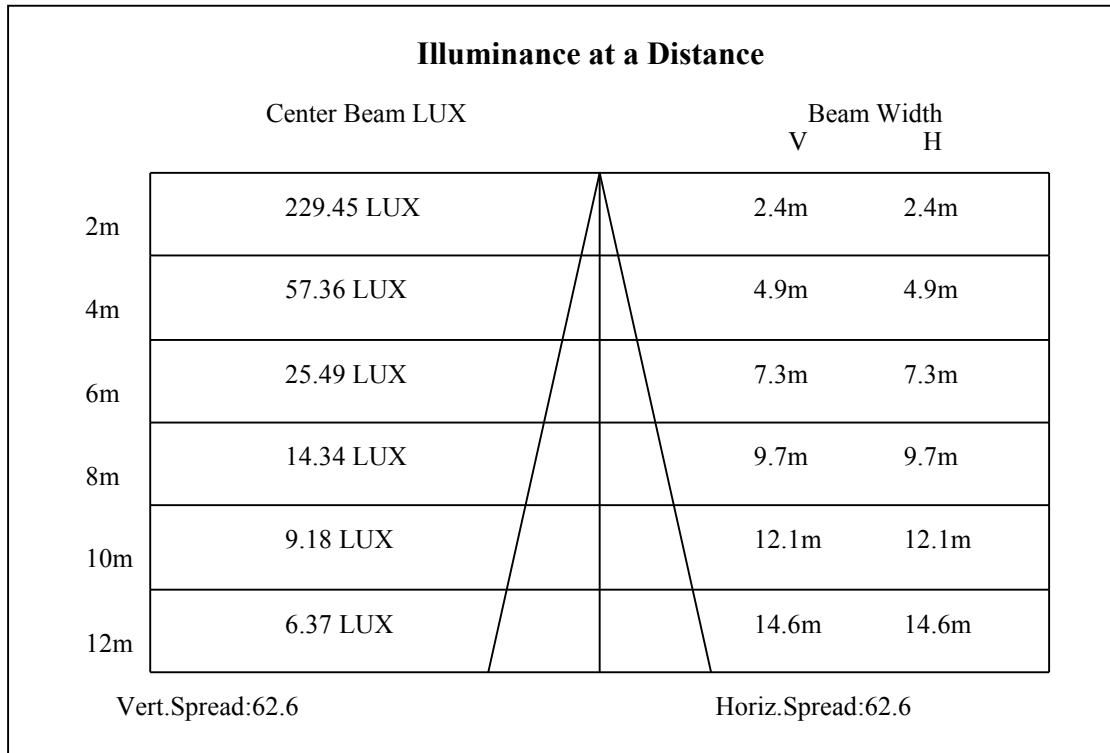
C0(Max): —————

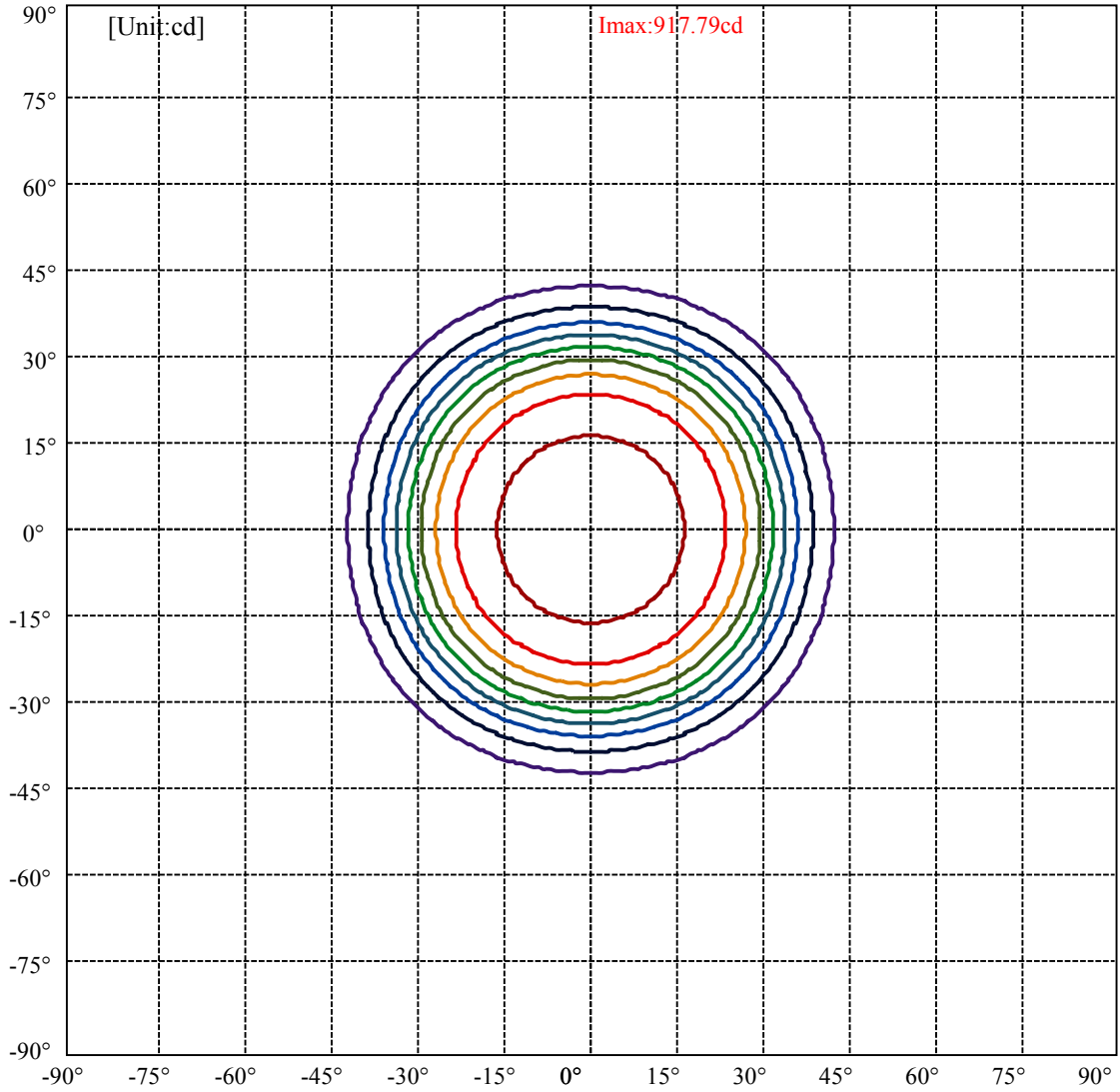
C0/C180: —————

C90/C270: —————

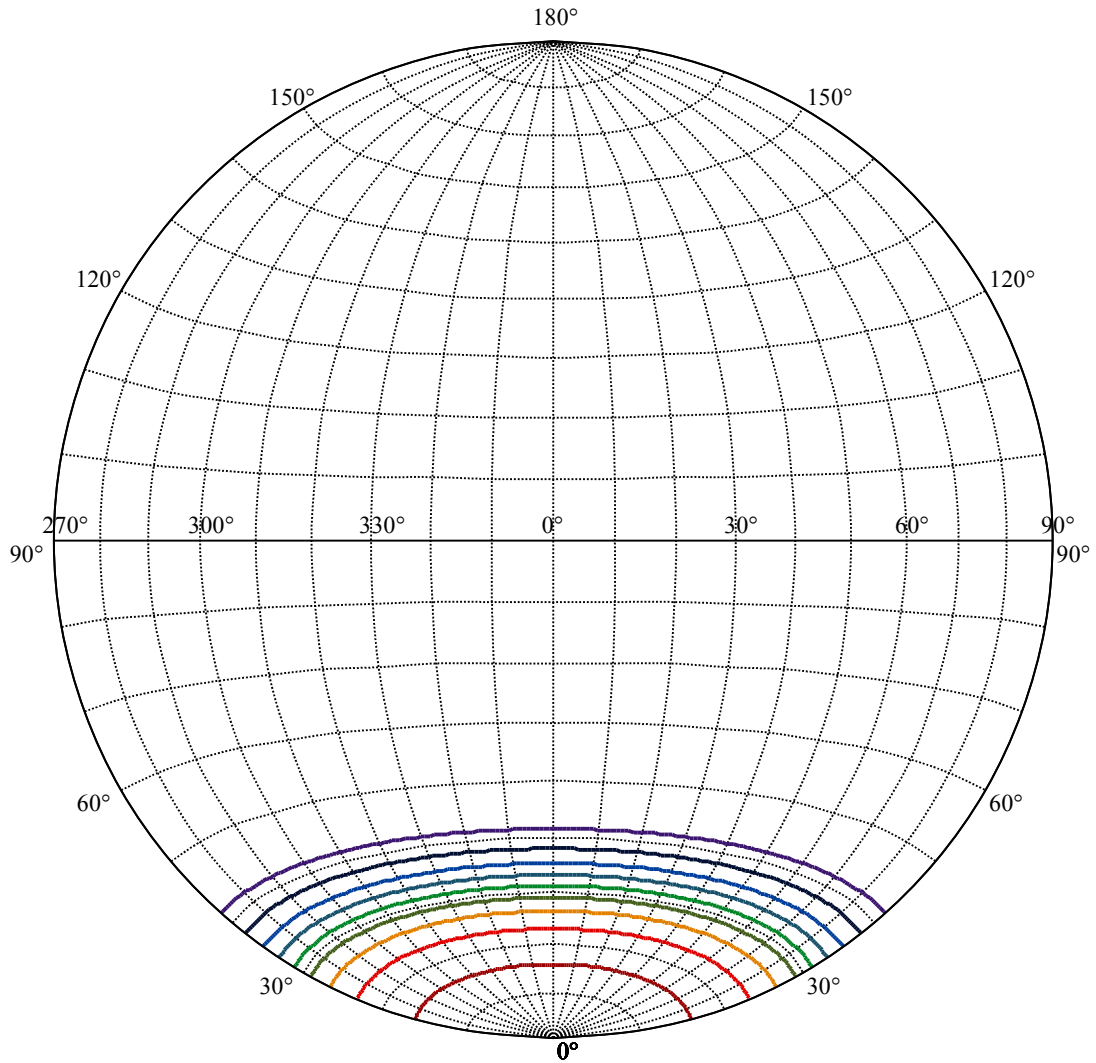
Field angle(10%Imax):C0/180Left:41.7 Right:41.7
:C90/270Left:41.7 Right:41.7

Beam Angle(50%Imax):C0/180Left:31.3 Right:31.3
:C90/270Left:31.3 Right:31.3





(10%Imax) 91.7788	—
(20%Imax) 183.558	—
(30%Imax) 275.337	—
(40%Imax) 367.115	—
(50%Imax) 458.894	—
(60%Imax) 550.673	—
(70%Imax) 642.452	—
(80%Imax) 734.231	—
(90%Imax) 826.01	—



House

[Unit:cd]

Road

I_{max}:917.79

(10%I_{max}) 91.7788

(20%I_{max}) 183.558

(30%I_{max}) 275.337

(40%I_{max}) 367.115

(50%I_{max}) 458.894

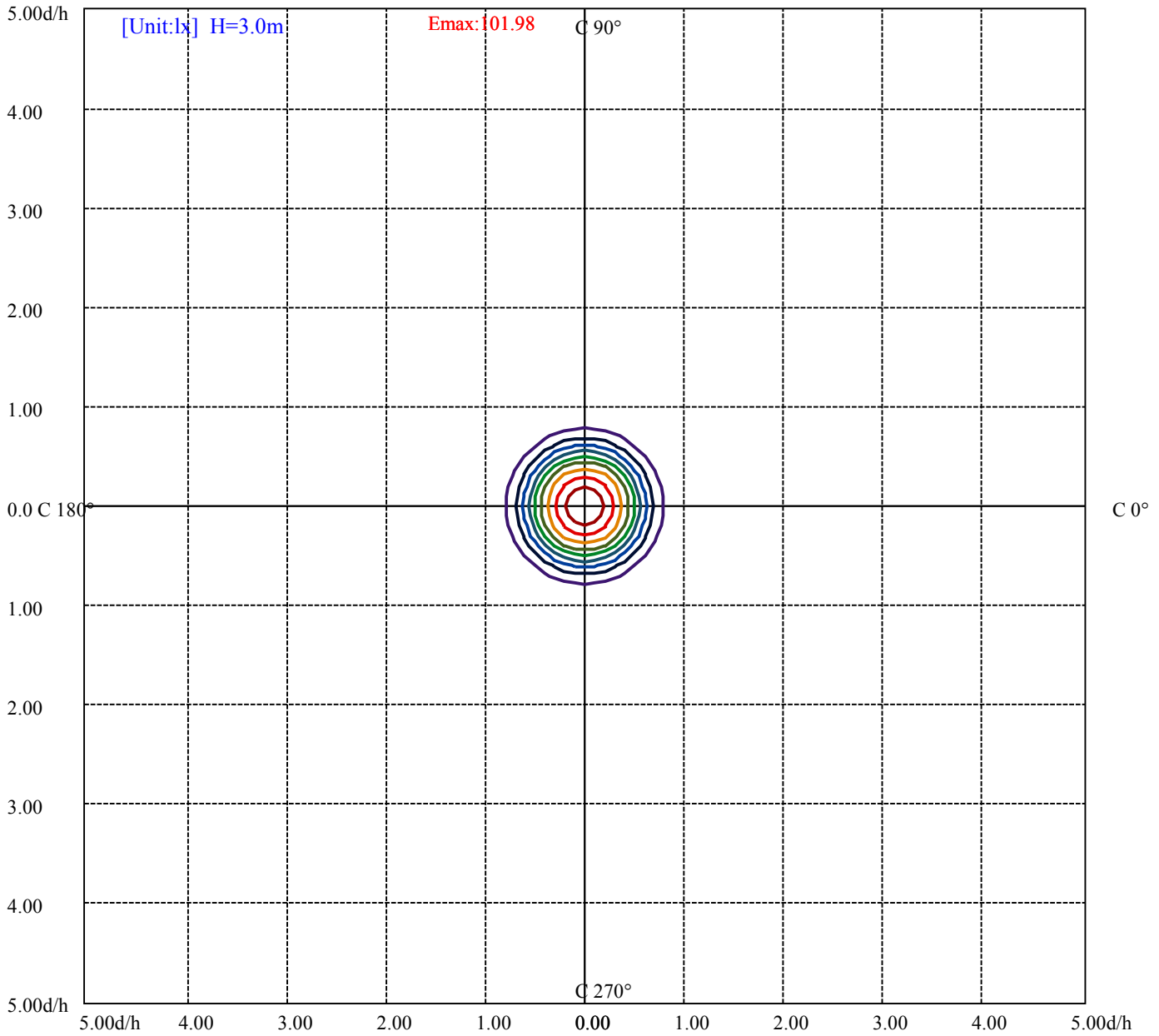
(60%I_{max}) 550.673

(70%I_{max}) 642.452

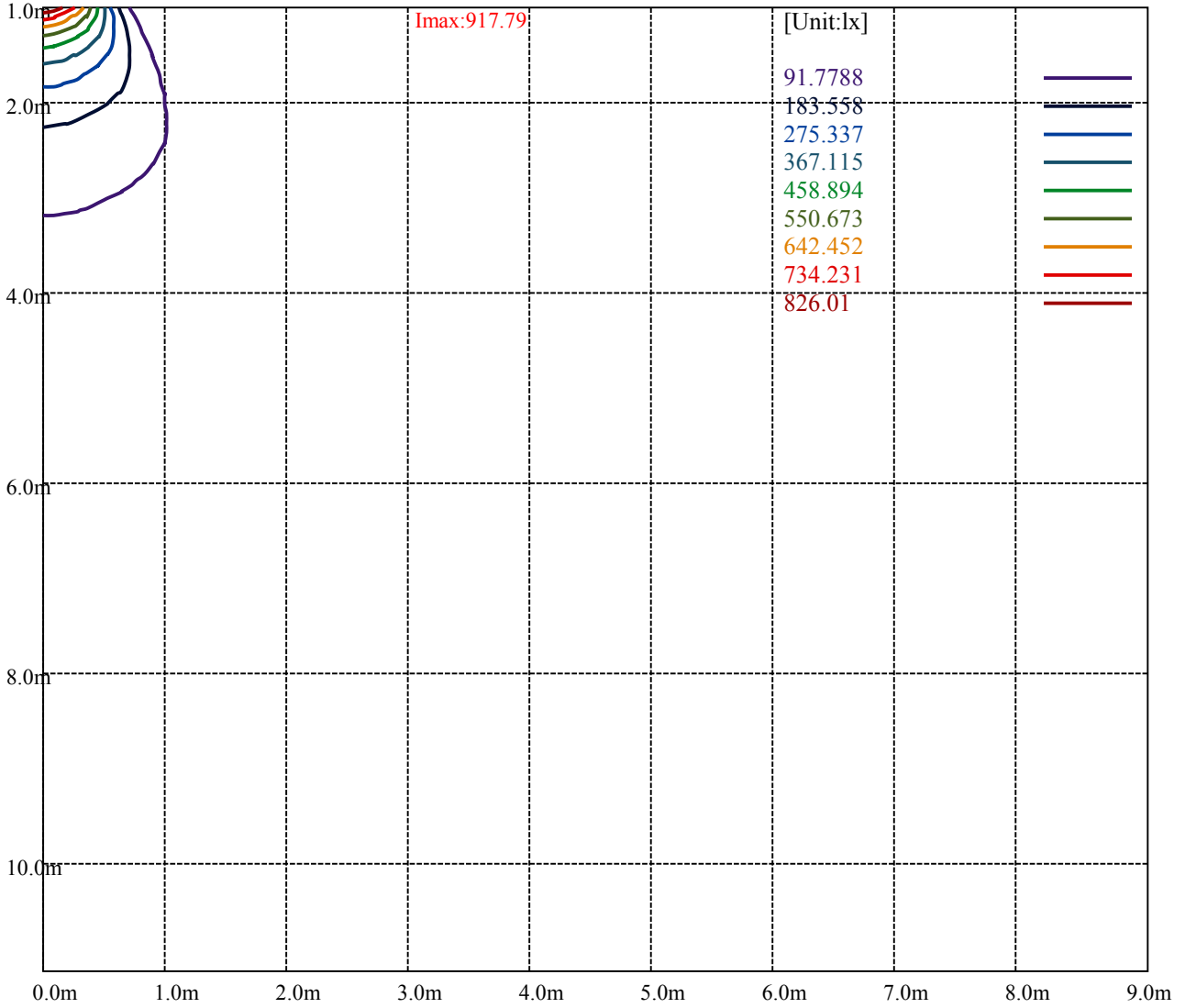
(80%I_{max}) 734.231

(90%I_{max}) 826.01





- (10%Emax) 10.19764
- (20%Emax) 20.39533
- (30%Emax) 30.59289
- (40%Emax) 40.79055
- (50%Emax) 50.98822
- (60%Emax) 61.18589
- (70%Emax) 71.38356
- (80%Emax) 81.58122
- (90%Emax) 91.77878



Luminance Table

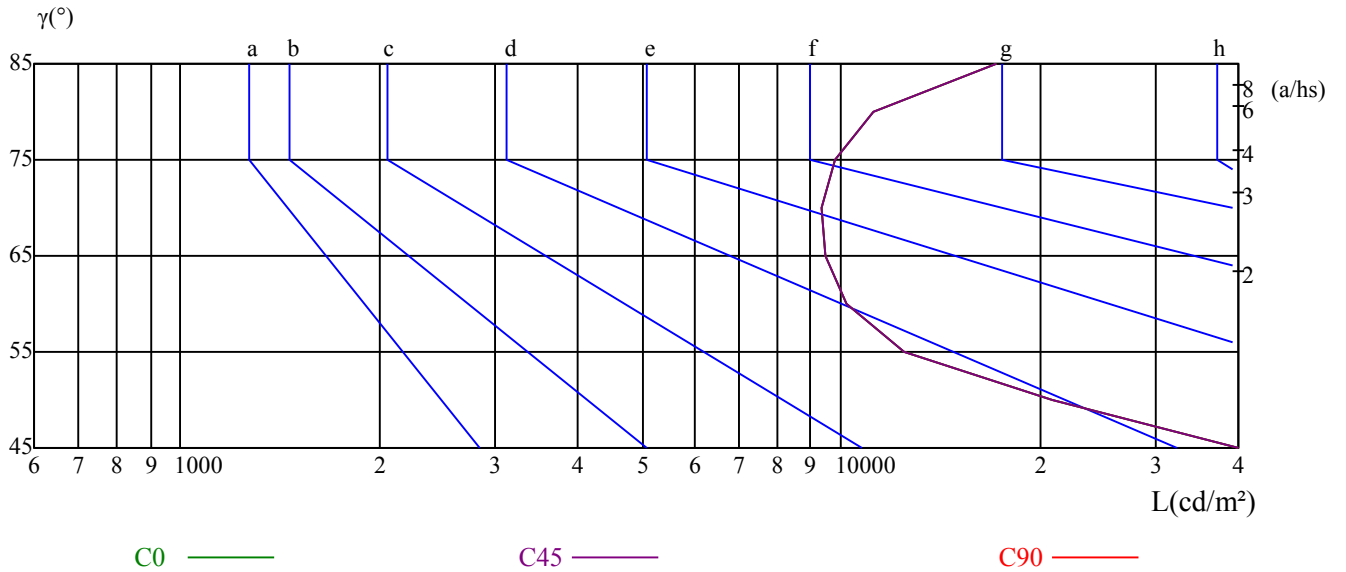
γ	45	50	55	60	65	70	75	80	85
C0	52759	20956	12473	10185	9449	9341	9805	11221	17158
C45	52759	20956	12473	10185	9449	9341	9805	11221	17158
C90	52759	20956	12473	10185	9449	9341	9805	11221	17158

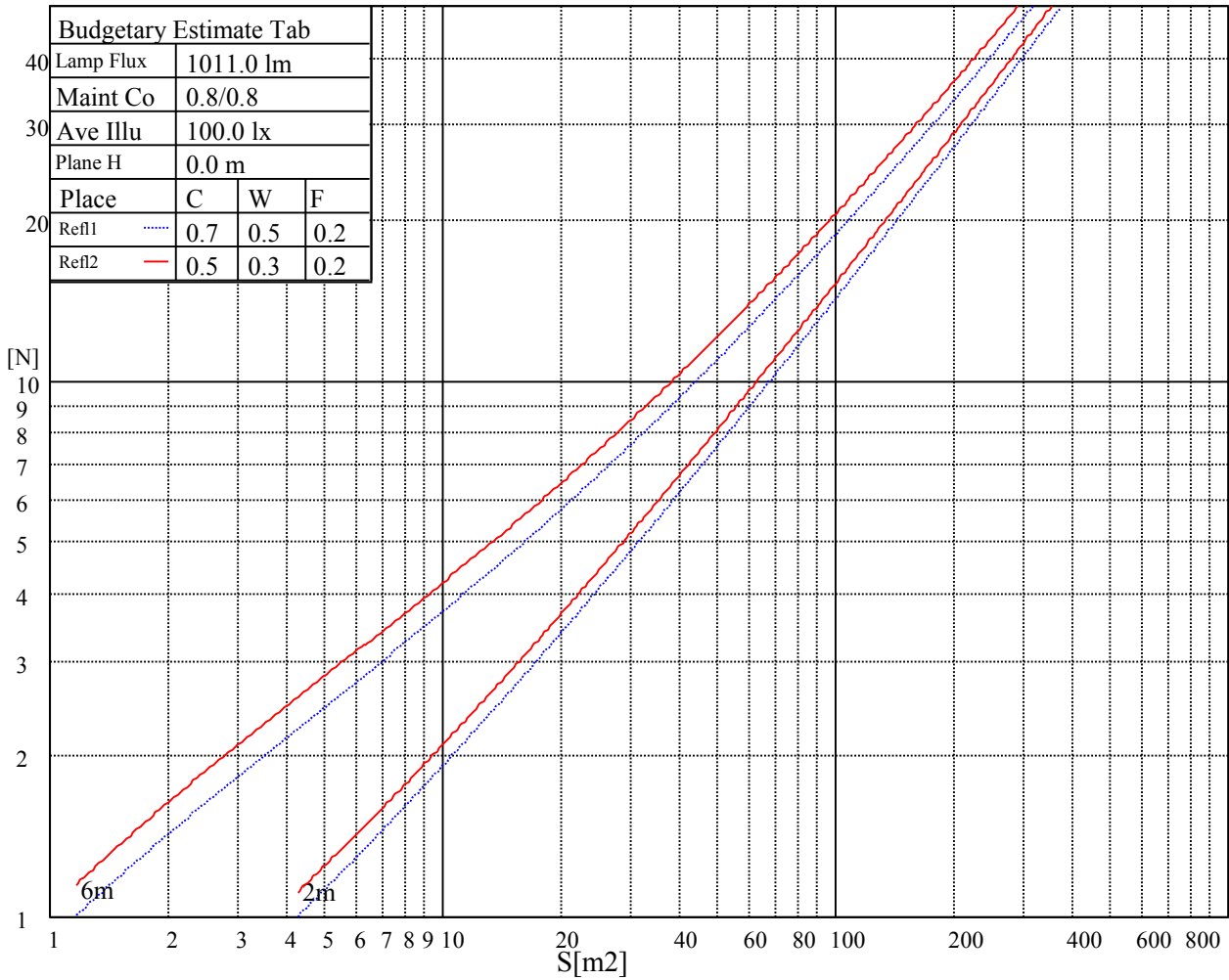
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
9449	9449	9449	9805	9805	9805	17158	17158	17158

Glare Table

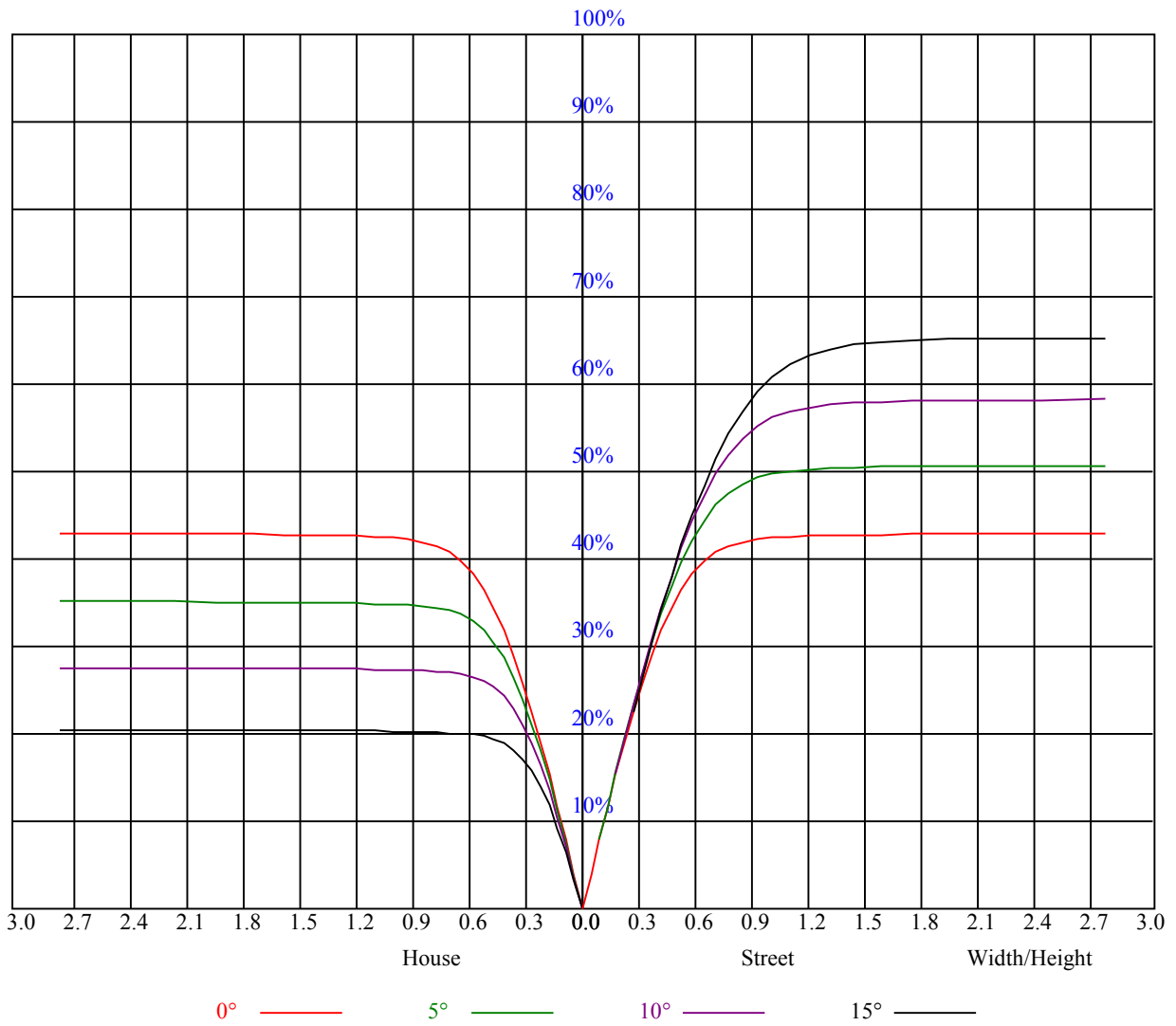
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

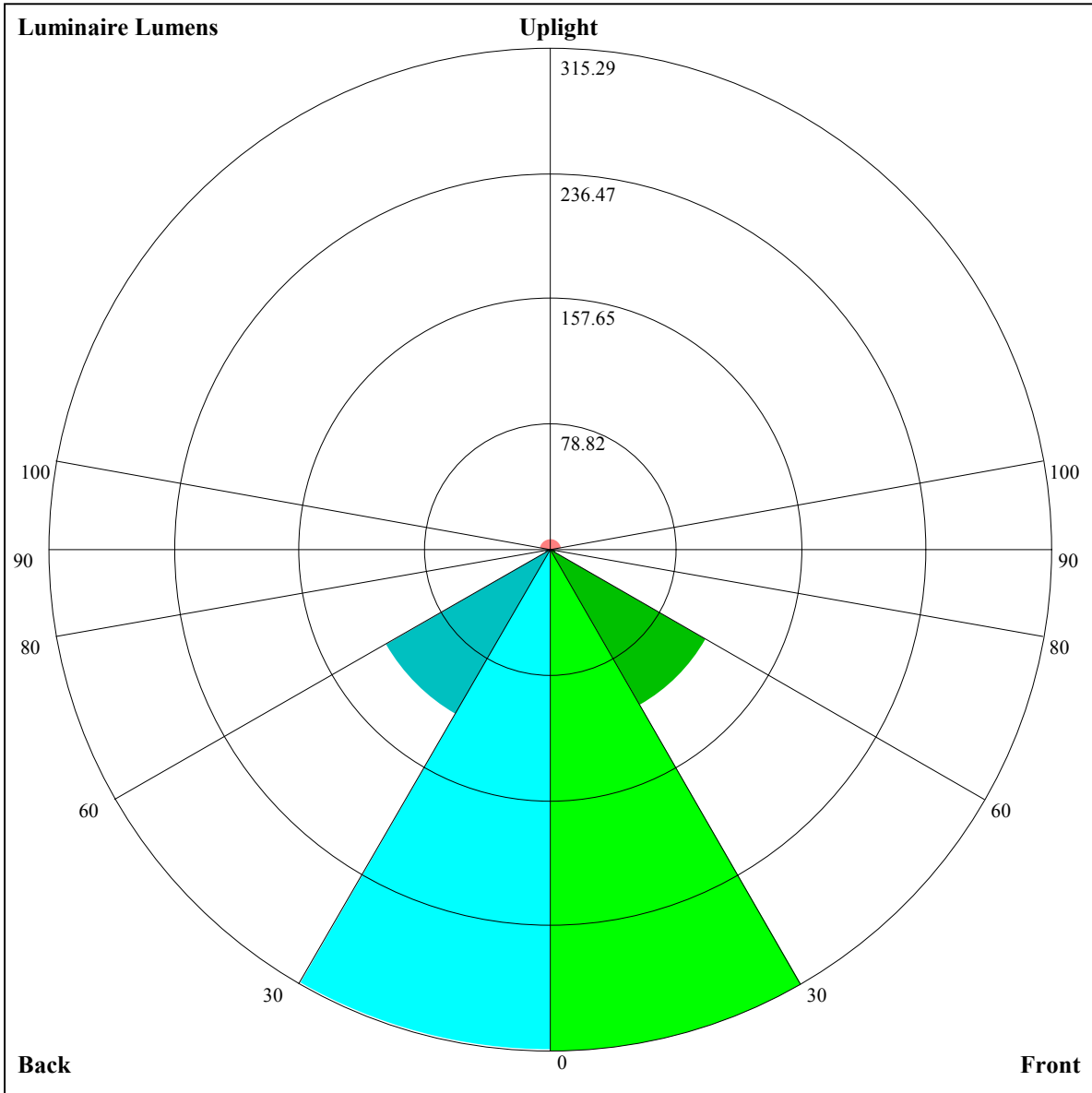
Luminance Limiting Curve





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	1.03	1.03	1.03	1.01	1.01	1.01	0.96	0.96	0.96	0.92	0.92	0.92	0.88	0.88	0.88	0.86
1	0.96	0.93	0.92	0.94	0.92	0.90	0.90	0.89	0.87	0.87	0.86	0.85	0.84	0.83	0.82	0.81
2	0.89	0.85	0.83	0.87	0.84	0.82	0.85	0.82	0.80	0.82	0.80	0.78	0.80	0.78	0.76	0.75
3	0.83	0.79	0.75	0.82	0.78	0.75	0.79	0.76	0.73	0.77	0.75	0.72	0.75	0.73	0.71	0.70
4	0.77	0.73	0.69	0.77	0.72	0.69	0.75	0.71	0.68	0.73	0.70	0.67	0.71	0.69	0.66	0.65
5	0.73	0.67	0.64	0.72	0.67	0.63	0.70	0.66	0.63	0.69	0.65	0.62	0.67	0.64	0.62	0.61
6	0.68	0.63	0.59	0.67	0.62	0.59	0.66	0.62	0.59	0.65	0.61	0.58	0.64	0.60	0.58	0.57
7	0.64	0.59	0.55	0.63	0.58	0.55	0.62	0.58	0.55	0.61	0.57	0.54	0.60	0.57	0.54	0.53
8	0.60	0.55	0.51	0.60	0.55	0.51	0.59	0.54	0.51	0.58	0.54	0.51	0.57	0.53	0.51	0.50
9	0.57	0.52	0.48	0.56	0.52	0.48	0.56	0.51	0.48	0.55	0.51	0.48	0.54	0.50	0.48	0.47
10	0.54	0.49	0.45	0.53	0.49	0.45	0.53	0.48	0.45	0.52	0.48	0.45	0.51	0.48	0.45	0.44





Luminaire Lumens:

FL=315.29,FM=113.11,FH=3.38,FVH=0.89

BL=314.6,BM=119.81,BH=3.43,BVH=0.85

UL=1.41,UH=6.72

BUG Rating:B1-U1-G0

Nata 1680-S

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	918.14	906.12	873.82	844.82	804.40	678.18	496.24	226.96	80.42
45.0	915.03	925.19	901.06	874.47	854.10	796.84	628.07	391.23	176.05
90.0	922.17	923.89	889.37	853.82	824.82	752.62	533.13	307.38	105.52
135.0	915.82	922.27	897.44	860.23	834.01	772.34	604.50	378.93	176.56
180.0	918.14	906.91	881.20	843.47	804.17	713.54	553.78	335.45	137.91
225.0	915.03	882.45	845.38	790.34	734.29	604.08	403.43	191.74	78.33
270.0	922.17	896.23	860.69	804.26	753.92	659.62	497.63	295.77	118.14
315.0	915.82	896.37	859.76	804.12	744.12	606.21	417.26	199.95	75.78
360.0	918.14	906.12	873.82	844.82	804.40	678.18	496.24	226.96	80.42
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	23.39	8.54	5.20	4.18	3.53	2.88	2.32	1.90	1.62
45.0	50.63	13.74	7.42	5.29	4.13	3.29	2.69	2.13	1.72
90.0	26.03	10.02	5.85	4.69	3.53	2.92	2.09	1.81	1.53
135.0	45.85	14.80	7.38	5.57	4.73	4.08	3.20	2.46	1.62
180.0	44.36	15.73	8.35	5.52	4.27	3.43	2.69	1.90	1.25
225.0	34.43	13.87	7.84	5.06	3.62	2.78	2.09	1.53	1.44
270.0	51.79	22.13	10.16	5.99	4.22	3.20	2.51	2.09	1.62
315.0	29.14	11.51	6.40	5.43	4.69	3.57	3.20	2.13	1.44
360.0	23.39	8.54	5.20	4.18	3.53	2.88	2.32	1.90	1.62
C/γ(°)	90.0								
0.0	1.30								
45.0	1.48								
90.0	1.44								
135.0	1.30								
180.0	1.16								
225.0	1.21								
270.0	1.30								
315.0	1.16								
360.0	1.30								