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Nata

Client:

LumCAT: 2-2010-M

Luminaire: 92.70.131.00

Report No: GC2019091909

Test No: NATA07

LampCAT: BRIDGELEX V13B

Lamp flux(lm): 1760.0

Number of Lamps: 1

Length(mm): 70

Phm Type: C

Voltage(V): 220.5000

Current(A): 0.0690

Power (W): 14.0200

PF: 0.9160

Ballast type: AC

Width(mm): 70

Height(mm): 0

Photometric Results

Lumens(lm): 1545.39, Efficiency(%): 87.81% , Luminous Efficacy(lm/W): 110.23

Central intensity(cd): 1616.507, Maximum intensity(cd): 1616.507

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=63.6

[C90/270]Total=63.6

Field angle(10%Imax): [C0/180]Total=83.6

[C90/270]Total=83.6

Maximum s/h(1/2): C0_180=0.98 C90_270=0.98

Maximum s/h(1/4): C0_180=0.94 C90_270=0.94

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 87.81%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 99.648%

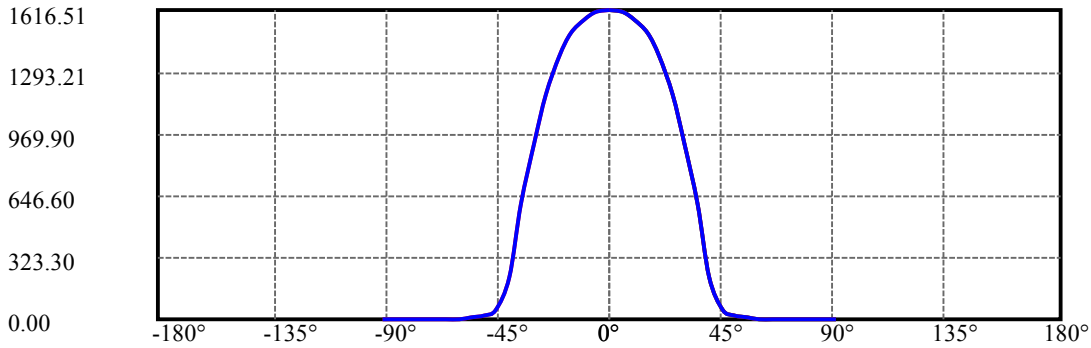
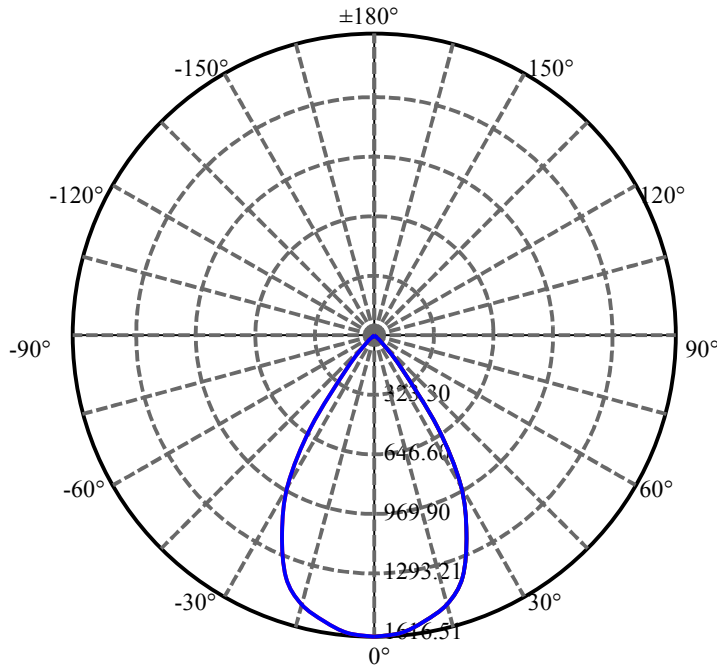
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	1616.507	0.000	0	.000%	.000%
5.0	1604.616	38.508	38.508	2.188%	2.492%
10.0	1561.867	113.275	151.783	6.436%	9.822%
15.0	1493.654	181.251	333.034	10.298%	21.550%
20.0	1378.168	236.678	569.713	13.448%	36.865%
25.0	1170.803	267.340	837.052	15.190%	54.165%
30.0	927.208	265.505	1102.557	15.086%	71.345%
35.0	597.675	224.550	1327.107	12.759%	85.875%
40.0	223.589	137.022	1464.129	7.785%	94.742%
45.0	53.660	51.335	1515.464	2.917%	98.064%
50.0	19.739	14.831	1530.295	.843%	99.023%
55.0	9.513	6.360	1536.655	.361%	99.435%
60.0	4.762	3.300	1539.955	.187%	99.648%
65.0	2.390	1.739	1541.693	.099%	99.761%
70.0	1.392	0.958	1542.651	.054%	99.823%
75.0	1.259	0.693	1543.344	.039%	99.868%
80.0	1.253	0.672	1544.016	.038%	99.911%
85.0	1.235	0.676	1544.692	.038%	99.955%
90.0	1.305	0.696	1545.388	.040%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1102.56	62.65%	71.35%
0-40	1464.13	83.19%	94.74%
0-60	1539.95	87.50%	99.65%
0-90	1544.69	87.77%	99.95%
0-120	1544.69	87.77%	99.95%
0-180	1545.39	87.81%	100.00%
60-90	8.04	0.46%	0.52%
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%
0-32.98	1236.31	70.24%	80.00%

ZONAL LUMEN SUMMARY

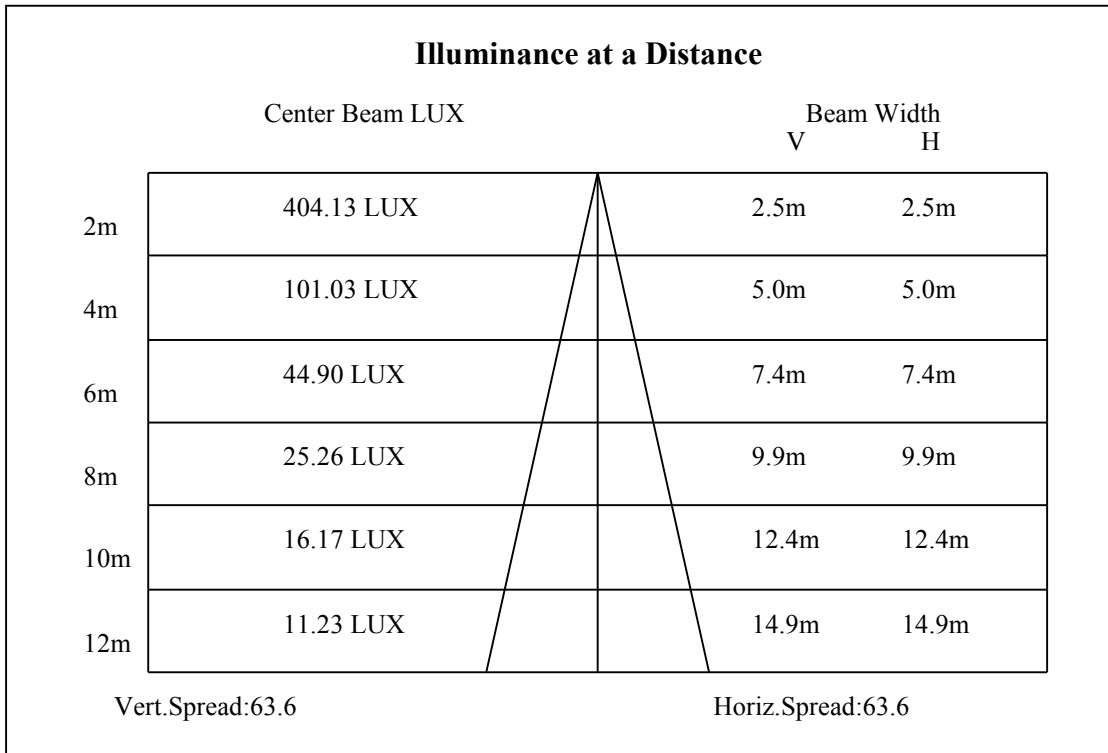
0-10	151.78
10-20	417.93
20-30	532.84
30-40	361.57
40-50	66.17
50-60	9.66
60-70	2.70
70-80	1.36
80-90	0.68
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

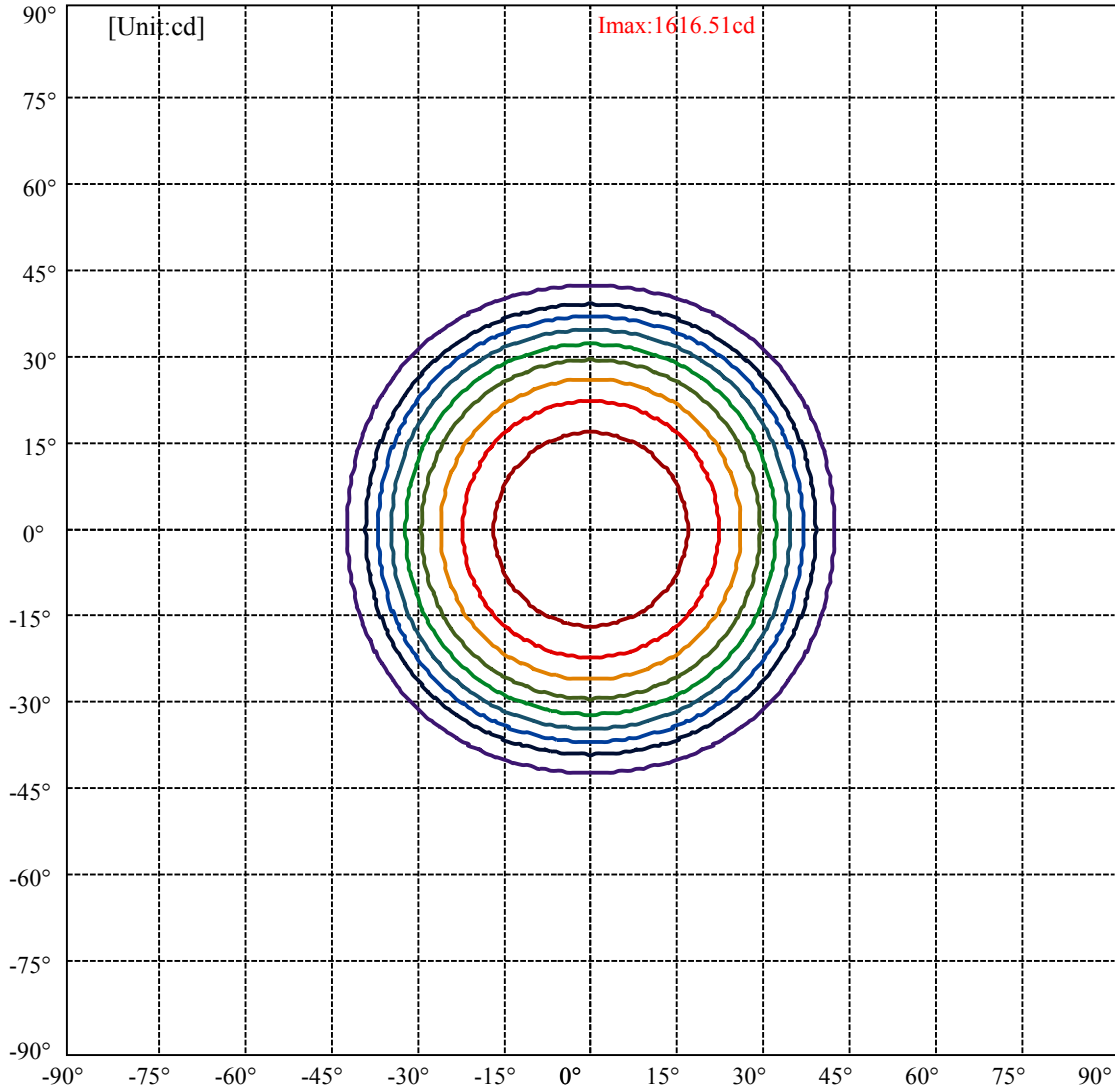


C0(Max): ———
C0/C180: ———
C90/C270: ———

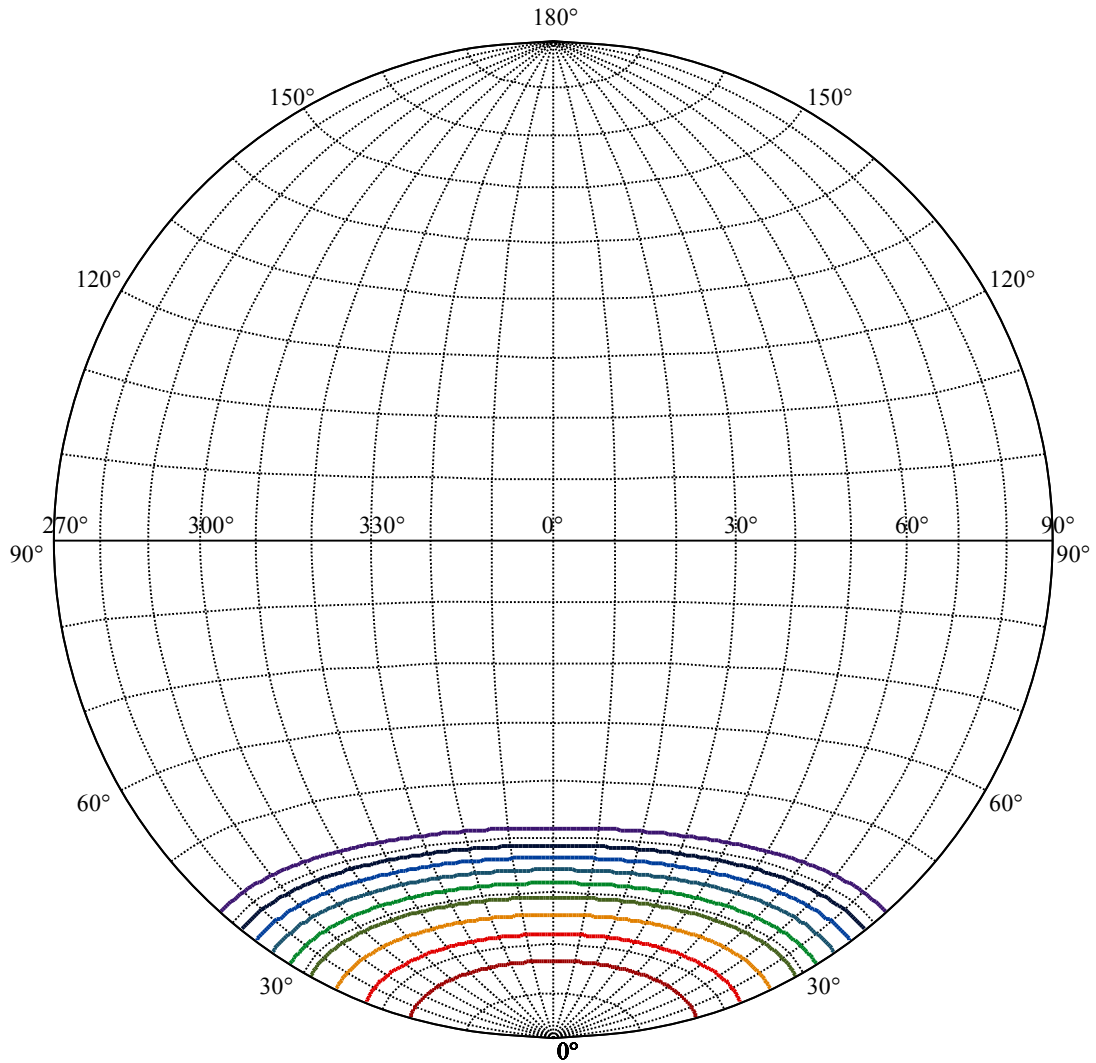
Field angle(10%Imax):C0/180Left:41.8 Right:41.8
:C90/270Left:41.8 Right:41.8

Beam Angle(50%Imax):C0/180Left:31.8 Right:31.8
:C90/270Left:31.8 Right:31.8





(10%Imax) 161.651	—
(20%Imax) 323.301	—
(30%Imax) 484.952	—
(40%Imax) 646.603	—
(50%Imax) 808.253	—
(60%Imax) 969.904	—
(70%Imax) 1131.55	—
(80%Imax) 1293.21	—
(90%Imax) 1454.86	—



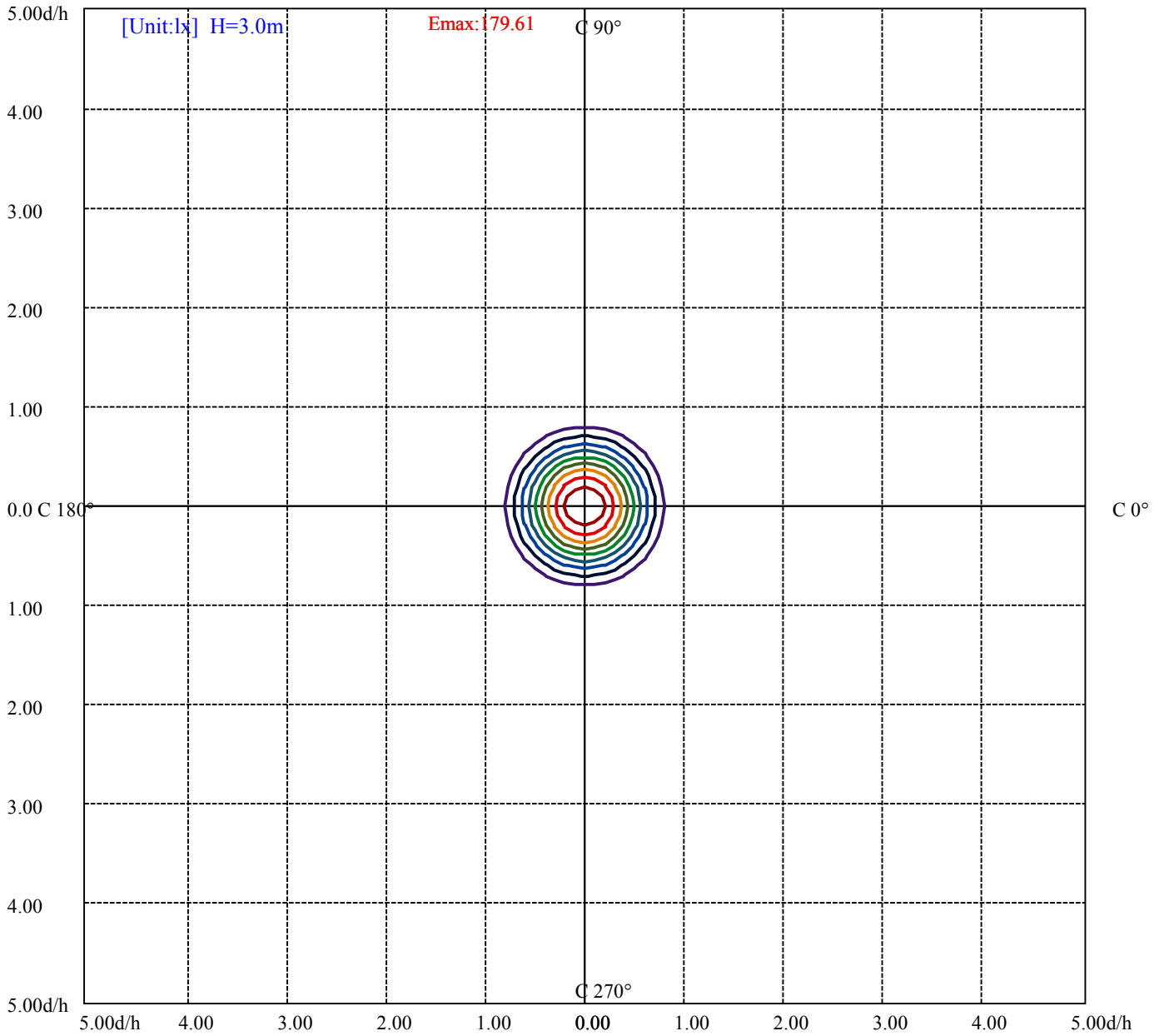
House

[Unit:cd]

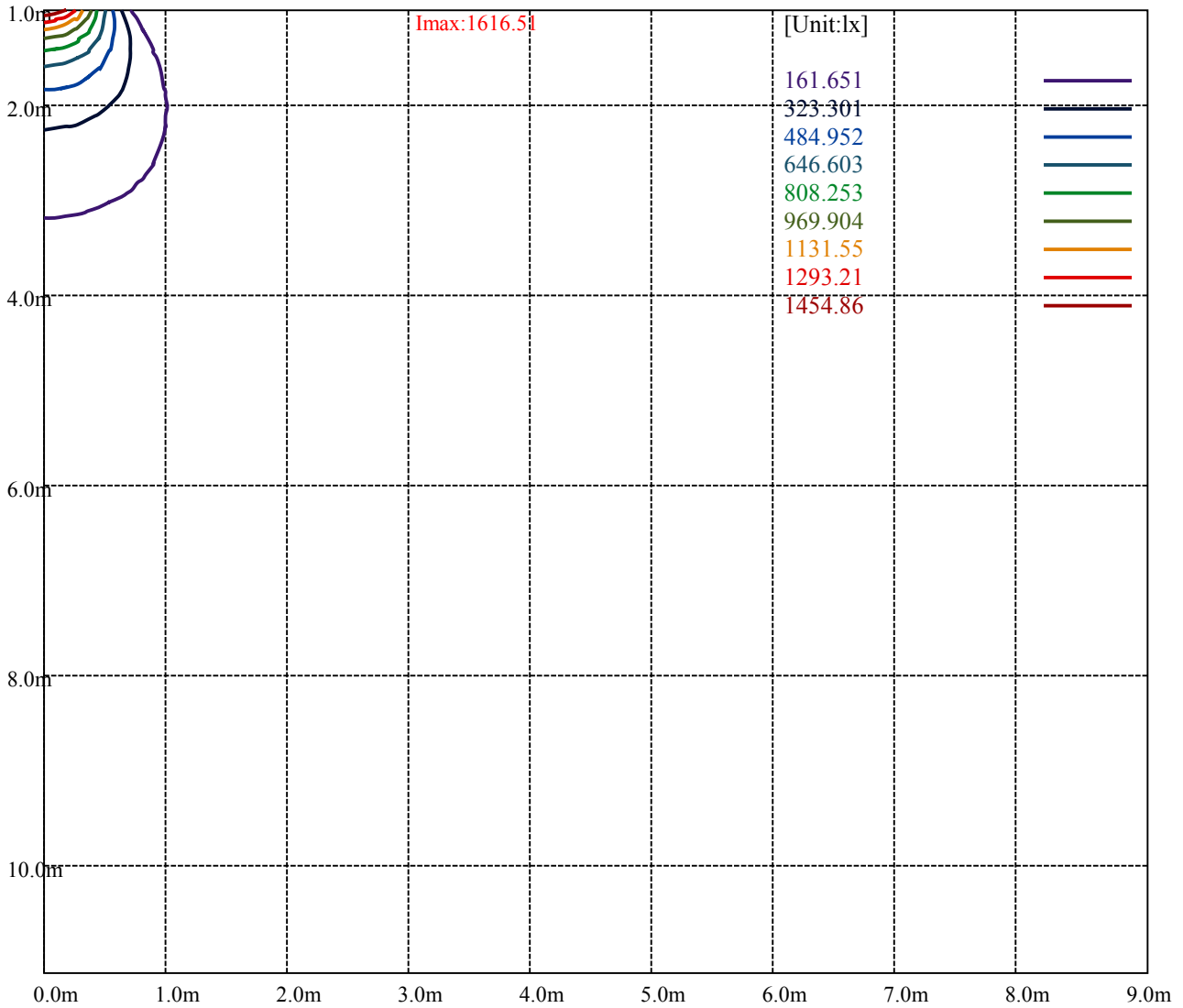
Road

Imax:1616.51

(10%Imax) 161.651	—
(20%Imax) 323.301	—
(30%Imax) 484.952	—
(40%Imax) 646.603	—
(50%Imax) 808.253	—
(60%Imax) 969.904	—
(70%Imax) 1131.55	—
(80%Imax) 1293.21	—
(90%Imax) 1454.86	—



- (10%Emax) 17.96122
- (20%Emax) 35.92233
- (30%Emax) 53.88356
- (40%Emax) 71.84478
- (50%Emax) 89.80589
- (60%Emax) 107.7671
- (70%Emax) 125.7278
- (80%Emax) 143.69
- (90%Emax) 161.6511



Luminance Table

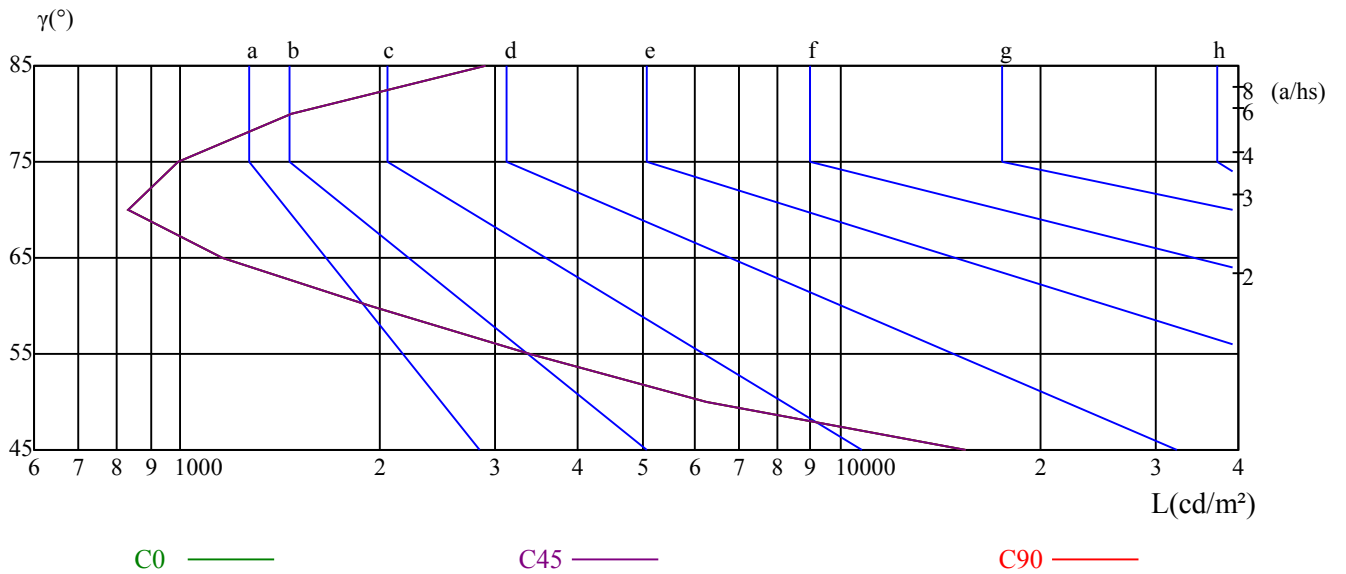
γ	45	50	55	60	65	70	75	80	85
C0	15487	6267	3385	1944	1154	831	992	1472	2893
C45	15487	6267	3385	1944	1154	831	992	1472	2893
C90	15487	6267	3385	1944	1154	831	992	1472	2893

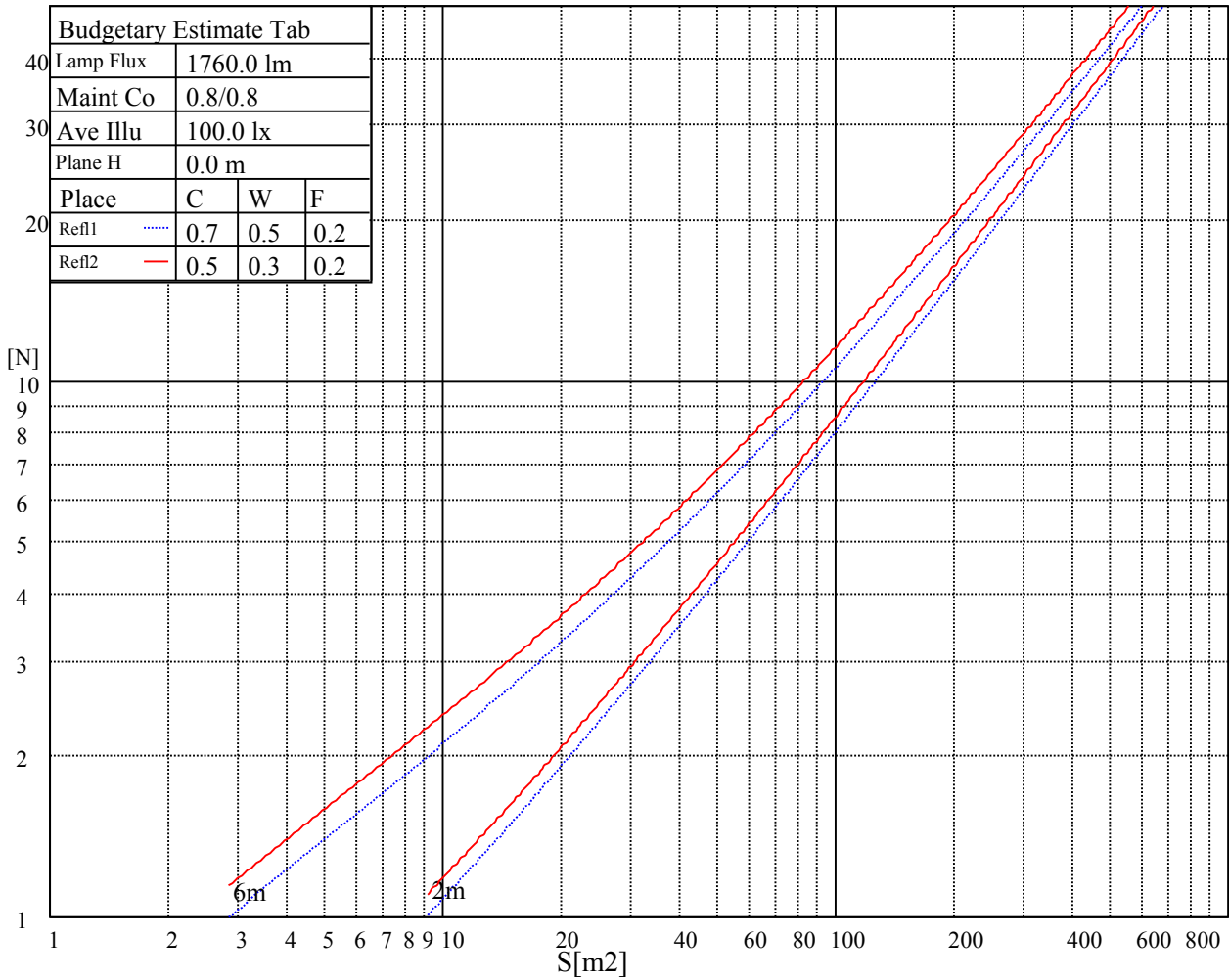
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
1154	1154	1154	992	992	992	2893	2893	2893

Glare Table

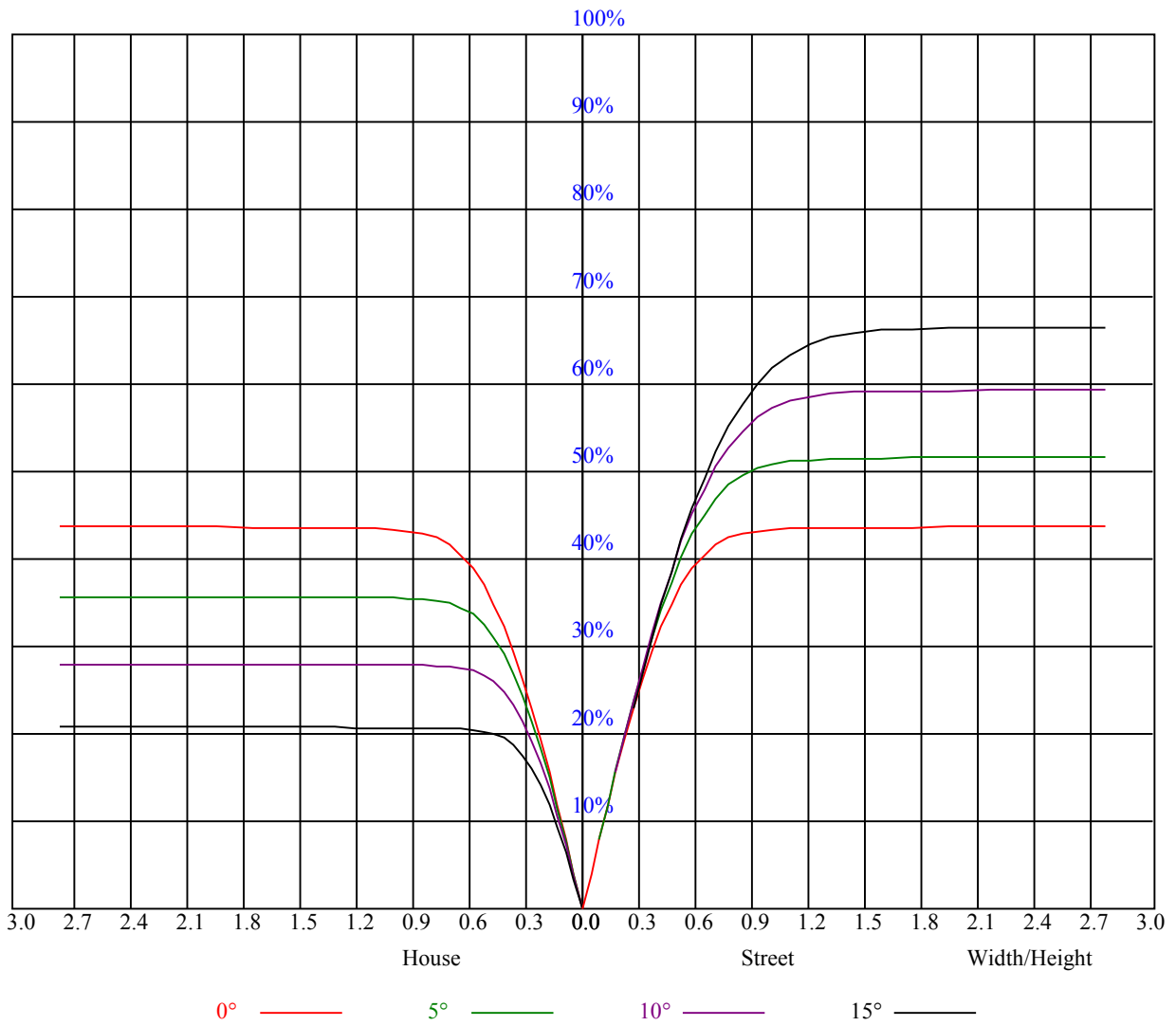
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

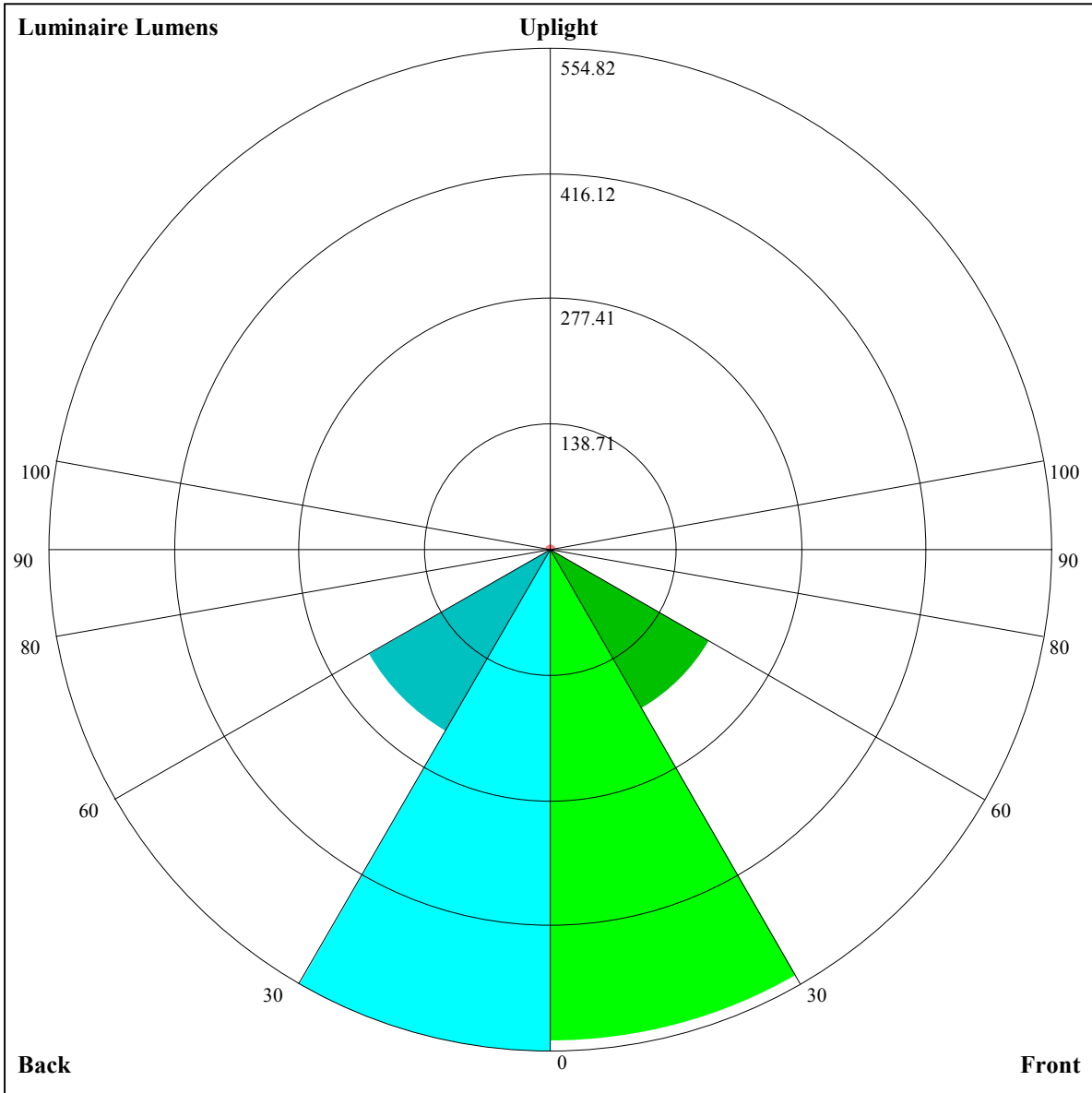
Luminance Limiting Curve





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	1.05	1.05	1.05	1.02	1.02	1.02	0.98	0.98	0.98	0.93	0.93	0.93	0.90	0.90	0.90	0.88
1	0.97	0.95	0.93	0.95	0.93	0.92	0.92	0.90	0.89	0.89	0.87	0.86	0.86	0.85	0.84	0.82
2	0.91	0.87	0.84	0.89	0.86	0.83	0.86	0.84	0.81	0.84	0.81	0.80	0.81	0.79	0.78	0.76
3	0.84	0.80	0.77	0.83	0.79	0.76	0.81	0.78	0.75	0.79	0.76	0.74	0.77	0.75	0.73	0.71
4	0.79	0.74	0.70	0.78	0.73	0.70	0.76	0.72	0.69	0.74	0.71	0.68	0.73	0.70	0.68	0.66
5	0.74	0.69	0.65	0.73	0.68	0.65	0.71	0.67	0.64	0.70	0.66	0.64	0.69	0.66	0.63	0.62
6	0.69	0.64	0.60	0.69	0.64	0.60	0.67	0.63	0.60	0.66	0.62	0.59	0.65	0.62	0.59	0.58
7	0.65	0.60	0.56	0.65	0.60	0.56	0.63	0.59	0.56	0.62	0.58	0.55	0.61	0.58	0.55	0.54
8	0.61	0.56	0.52	0.61	0.56	0.52	0.60	0.55	0.52	0.59	0.55	0.52	0.58	0.54	0.52	0.50
9	0.58	0.53	0.49	0.57	0.52	0.49	0.57	0.52	0.49	0.56	0.52	0.49	0.55	0.51	0.49	0.47
10	0.55	0.50	0.46	0.54	0.49	0.46	0.54	0.49	0.46	0.53	0.49	0.46	0.52	0.48	0.46	0.45





Luminaire Lumens:

FL=544.68,FM=203.83,FH=1.98,FVH=0.69

BL=554.82,BM=232.18,BH=2.13,BVH=0.68

UL=1.42,UH=6.78

BUG Rating:B2-U1-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	1615.81	1596.32	1540.17	1469.64	1339.71	1095.17	842.87	466.35	104.27
45.0	1619.06	1604.67	1552.24	1481.24	1384.72	1168.48	935.54	632.52	284.50
90.0	1610.71	1575.44	1514.65	1440.41	1278.46	1024.63	822.45	372.02	86.54
135.0	1620.45	1596.79	1560.59	1481.24	1388.43	1218.13	971.73	652.01	241.81
180.0	1615.81	1611.17	1578.69	1518.36	1425.56	1247.37	999.57	754.10	354.57
225.0	1619.06	1611.63	1567.55	1497.48	1385.65	1153.63	887.56	613.03	203.94
270.0	1610.71	1624.16	1605.60	1555.95	1452.01	1309.55	1064.54	778.23	384.27
315.0	1620.45	1616.74	1575.44	1504.91	1370.80	1149.46	893.40	513.13	128.82
360.0	1615.81	1596.32	1540.17	1469.64	1339.71	1095.17	842.87	466.35	104.27
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	29.14	13.41	7.38	3.43	1.90	1.30	1.21	1.25	1.21
45.0	46.73	19.68	9.84	4.78	2.37	1.39	1.30	1.25	1.30
90.0	33.32	14.43	7.24	3.67	1.67	1.30	1.25	1.30	1.30
135.0	54.29	24.04	10.02	5.38	2.37	1.39	1.30	1.25	1.25
180.0	59.72	25.61	11.97	5.71	2.88	1.48	1.25	1.21	1.21
225.0	44.64	18.75	9.28	4.50	2.27	1.39	1.21	1.25	1.21
270.0	123.57	25.94	12.67	6.59	3.62	1.58	1.30	1.30	1.21
315.0	37.87	16.06	7.70	4.04	2.04	1.30	1.25	1.21	1.21
360.0	29.14	13.41	7.38	3.43	1.90	1.30	1.21	1.25	1.21
C/ γ (°)	90.0								
0.0	1.35								
45.0	1.35								
90.0	1.30								
135.0	1.25								
180.0	1.39								
225.0	1.25								
270.0	1.25								
315.0	1.30								
360.0	1.35								