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Nata

Client:

LumCAT: 2-1682-M

Luminaire: 92.70.125.00

Report No: NT2018010509

Test No: GC2018010509

LampCAT: BXRV-DR-1830-H-1000-B-13

Lamp flux(lm): 1472.0

Number of Lamps: 1

Length(mm): 70

Phm Type: C

Voltage(V): 35.3000

Current(A): 0.5000

Power (W): 17.6500

PF: 0.0000

Ballast type: DC

Width(mm): 70

Height(mm): 0

Photometric Results

Lumens(lm): 1281.75, Efficiency(%): 87.08% , Luminous Efficacy(lm/W): 72.62

Central intensity(cd): 2801.545, Maximum intensity(cd): 2801.545

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=36.4

[C90/270]Total=36.4

Field angle(10%Imax): [C0/180]Total=68.8

[C90/270]Total=68.8

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

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(%): 88.13%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 97.432%

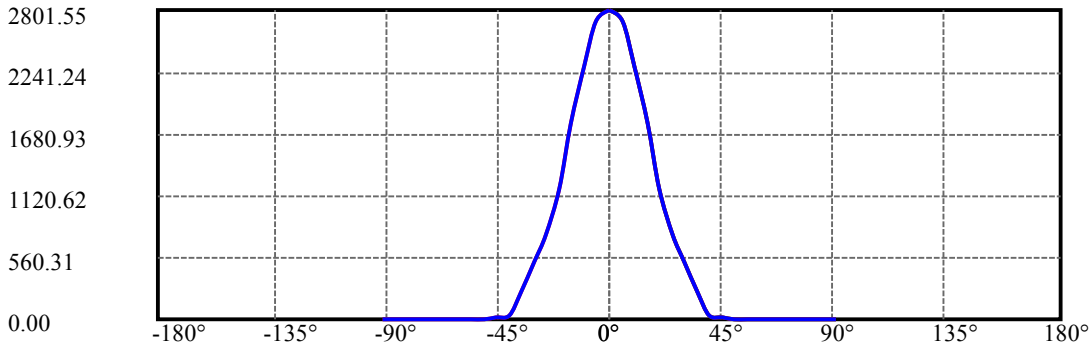
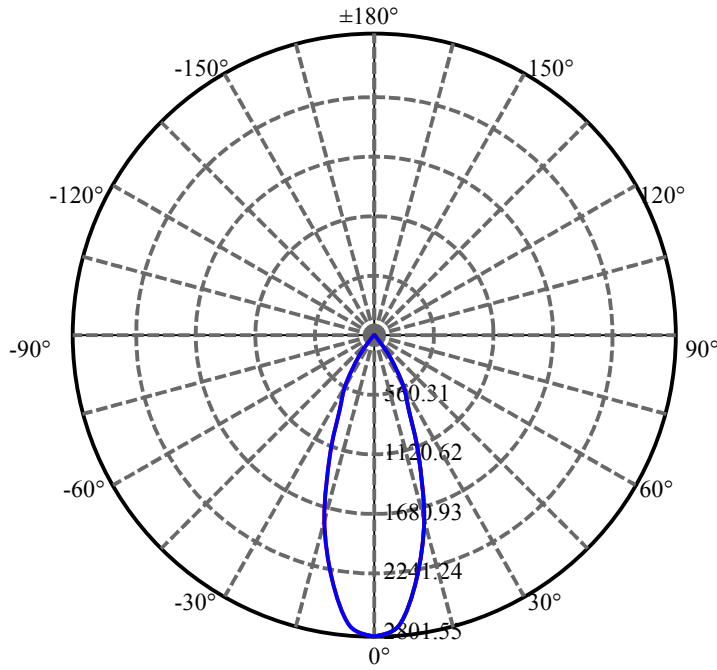
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	2801.545	16.754	16.754	1.138%	1.307%
5.0	2697.007	128.845	145.599	8.753%	11.359%
10.0	2303.078	219.214	364.813	14.892%	28.462%
15.0	1776.119	251.975	616.788	17.118%	48.121%
20.0	1182.735	221.732	838.52	15.063%	65.420%
25.0	764.382	177.071	1015.592	12.029%	79.235%
30.0	527.523	144.578	1160.169	9.822%	90.514%
35.0	247.809	77.911	1238.08	5.293%	96.593%
40.0	33.116	11.668	1249.748	.793%	97.503%
45.0	10.151	3.934	1253.682	.267%	97.810%
50.0	8.637	3.627	1257.309	.246%	98.093%
55.0	7.591	3.408	1260.717	.232%	98.359%
60.0	6.868	3.260	1263.978	.221%	98.613%
65.0	6.387	3.173	1267.15	.216%	98.861%
70.0	6.159	3.173	1270.323	.216%	99.108%
75.0	6.063	3.210	1273.533	.218%	99.359%
80.0	6.070	3.277	1276.81	.223%	99.614%
85.0	6.063	3.311	1280.121	.225%	99.873%
90.0	5.960	1.633	1281.754	.111%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1160.17	78.82%	90.51%
0-40	1249.75	84.90%	97.50%
0-60	1263.98	85.87%	98.61%
0-90	1280.12	86.96%	99.87%
0-120	1280.12	86.96%	99.87%
0-180	1281.75	87.08%	100.00%
60-90	19.40	1.32%	1.51%
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%
0-25.34	1025.40	69.66%	80.00%

ZONAL LUMEN SUMMARY

0-10	364.81
10-20	473.71
20-30	321.65
30-40	89.58
40-50	7.56
50-60	6.67
60-70	6.35
70-80	6.49
80-90	3.31
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: ———

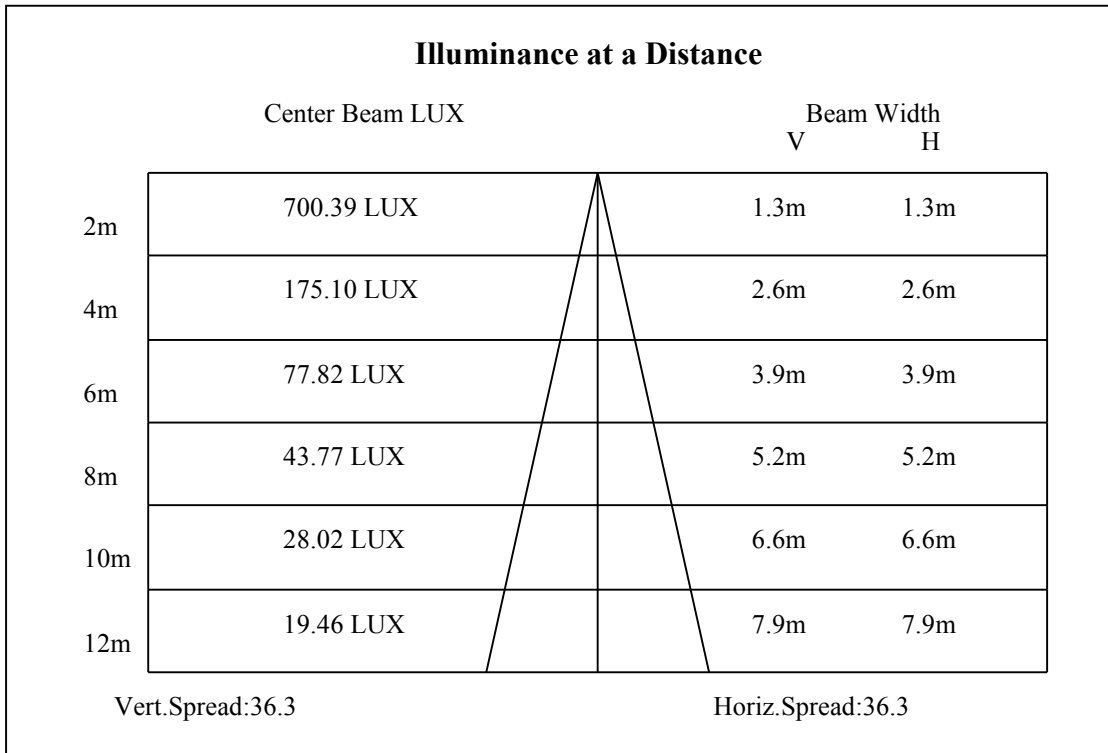
C90/C270: ———

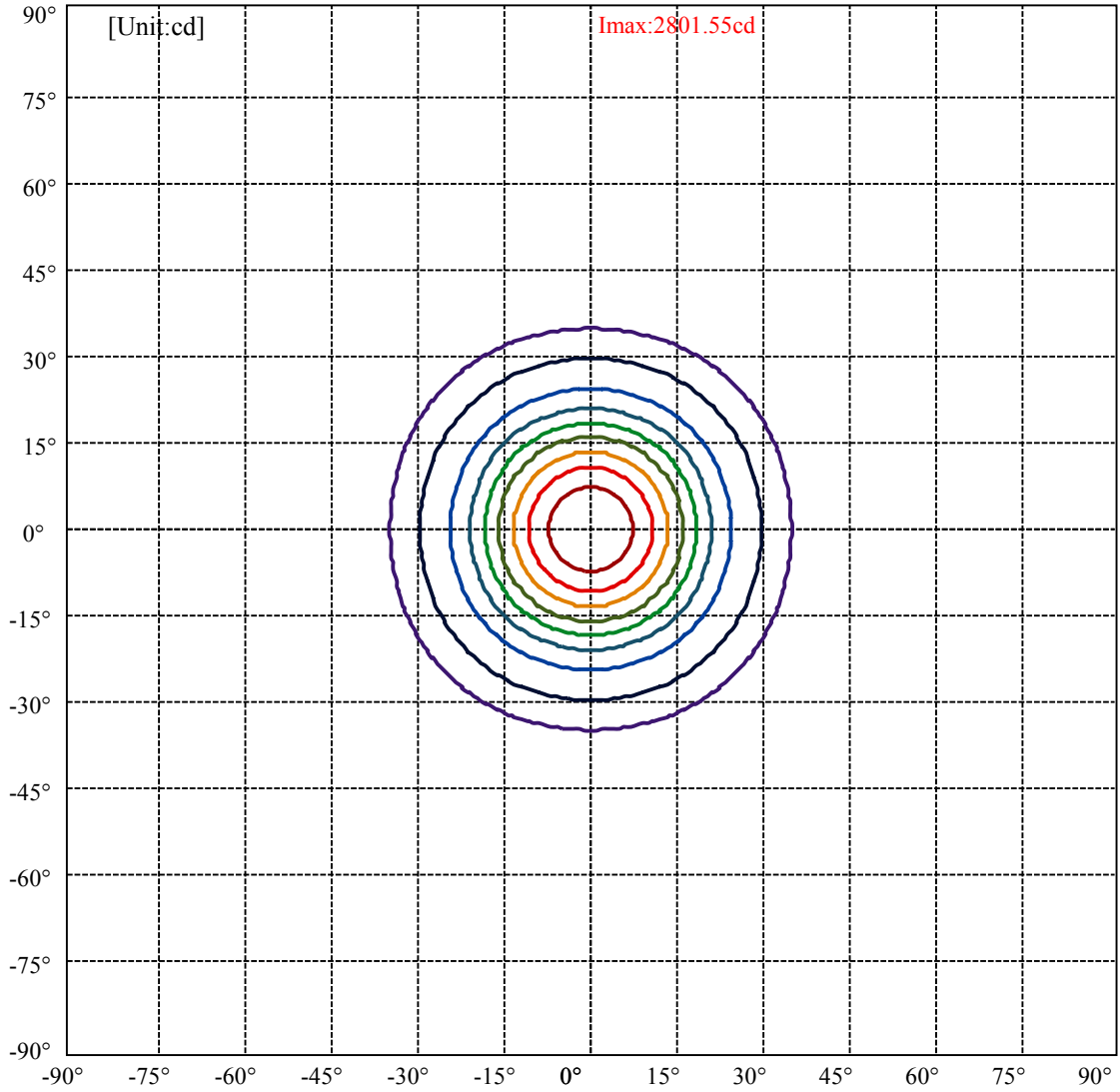
Field angle(10%Imax):C0/180Left:34.4 Right:34.4

:C90/270Left:34.4 Right:34.4

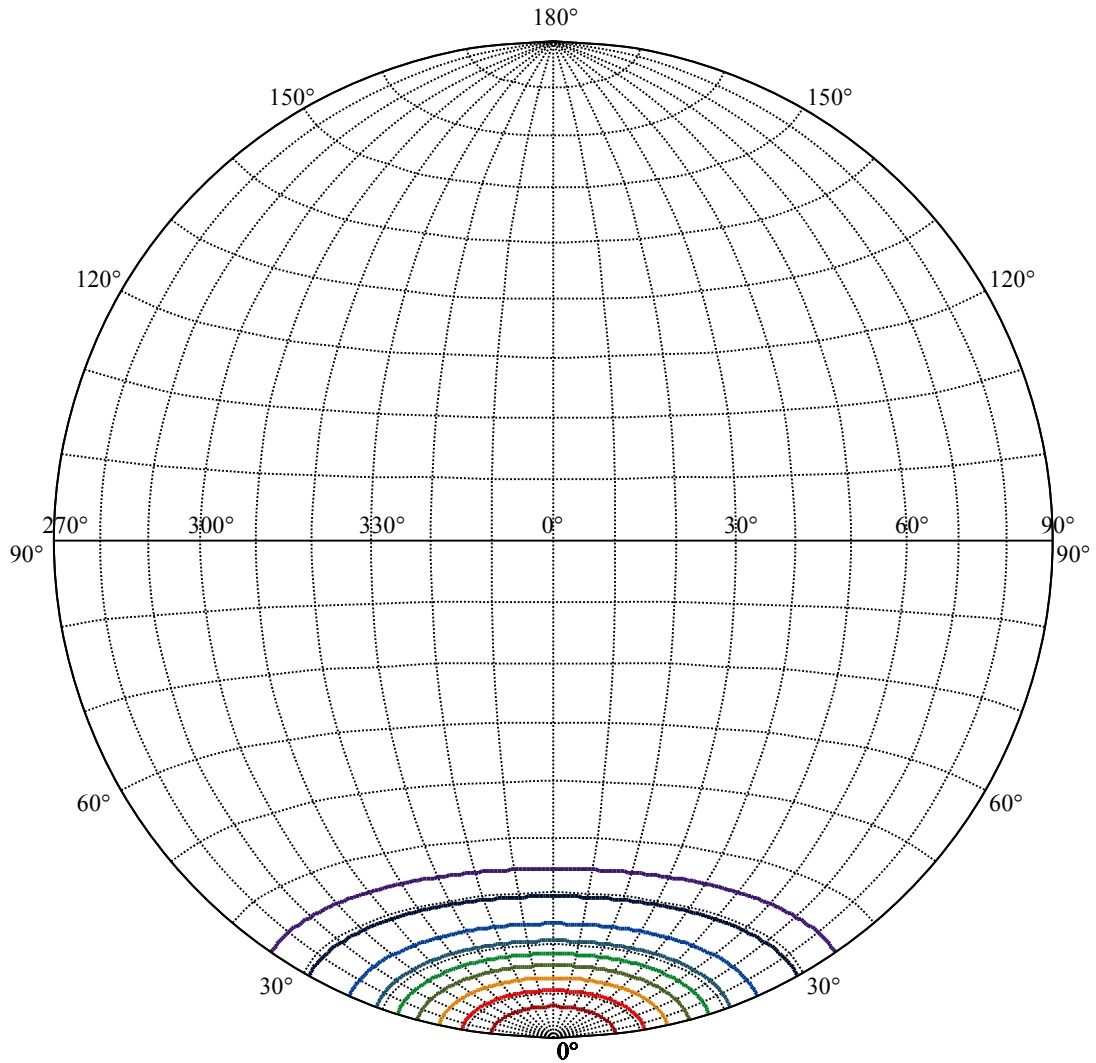
Beam Angle(50%Imax):C0/180Left:18.2 Right:18.2

:C90/270Left:18.2 Right:18.2





(10%Imax) 280.155	—
(20%Imax) 560.309	—
(30%Imax) 840.464	—
(40%Imax) 1120.62	—
(50%Imax) 1400.77	—
(60%Imax) 1680.93	—
(70%Imax) 1961.08	—
(80%Imax) 2241.24	—
(90%Imax) 2521.39	—



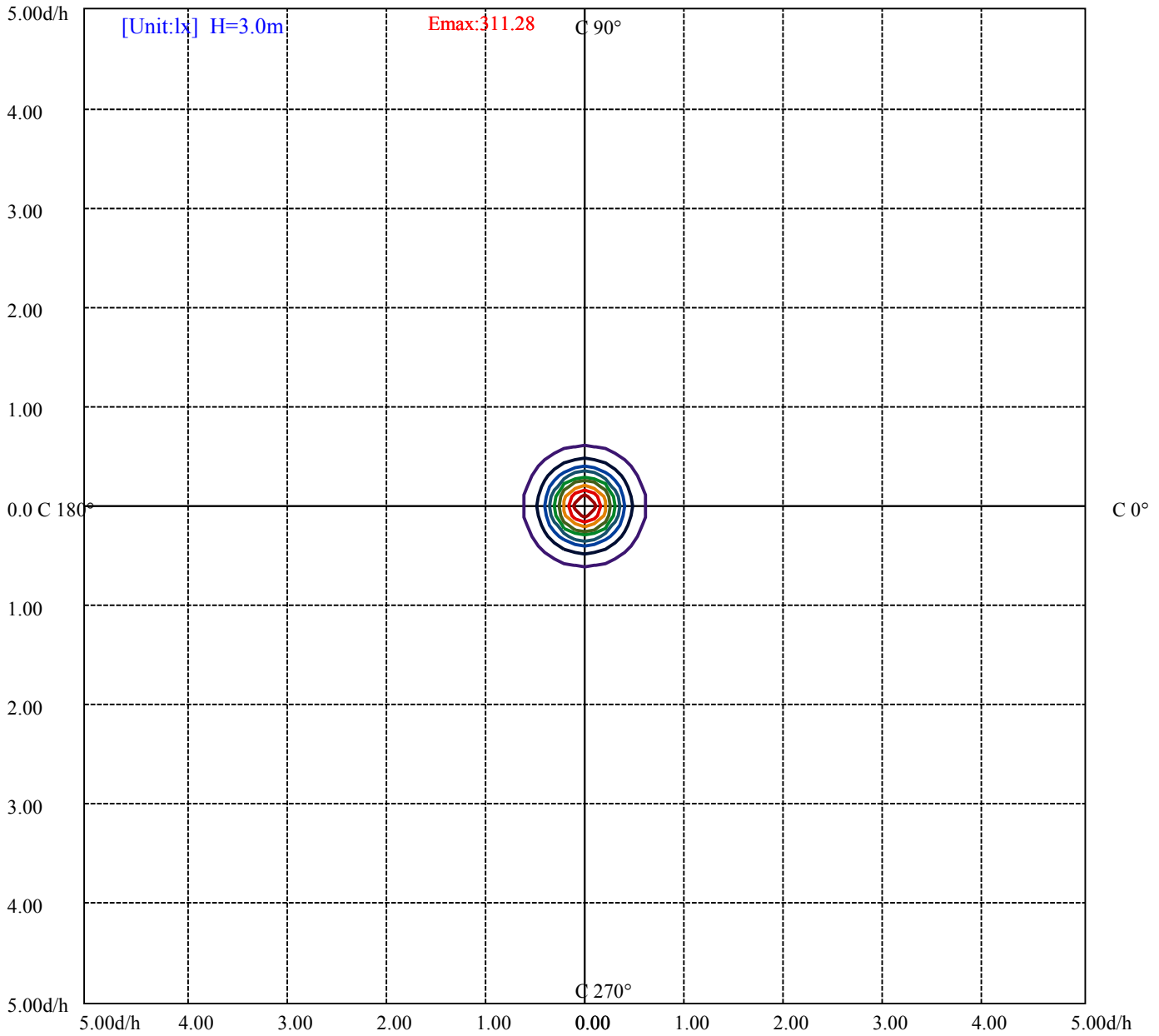
House

[Unit:cd]

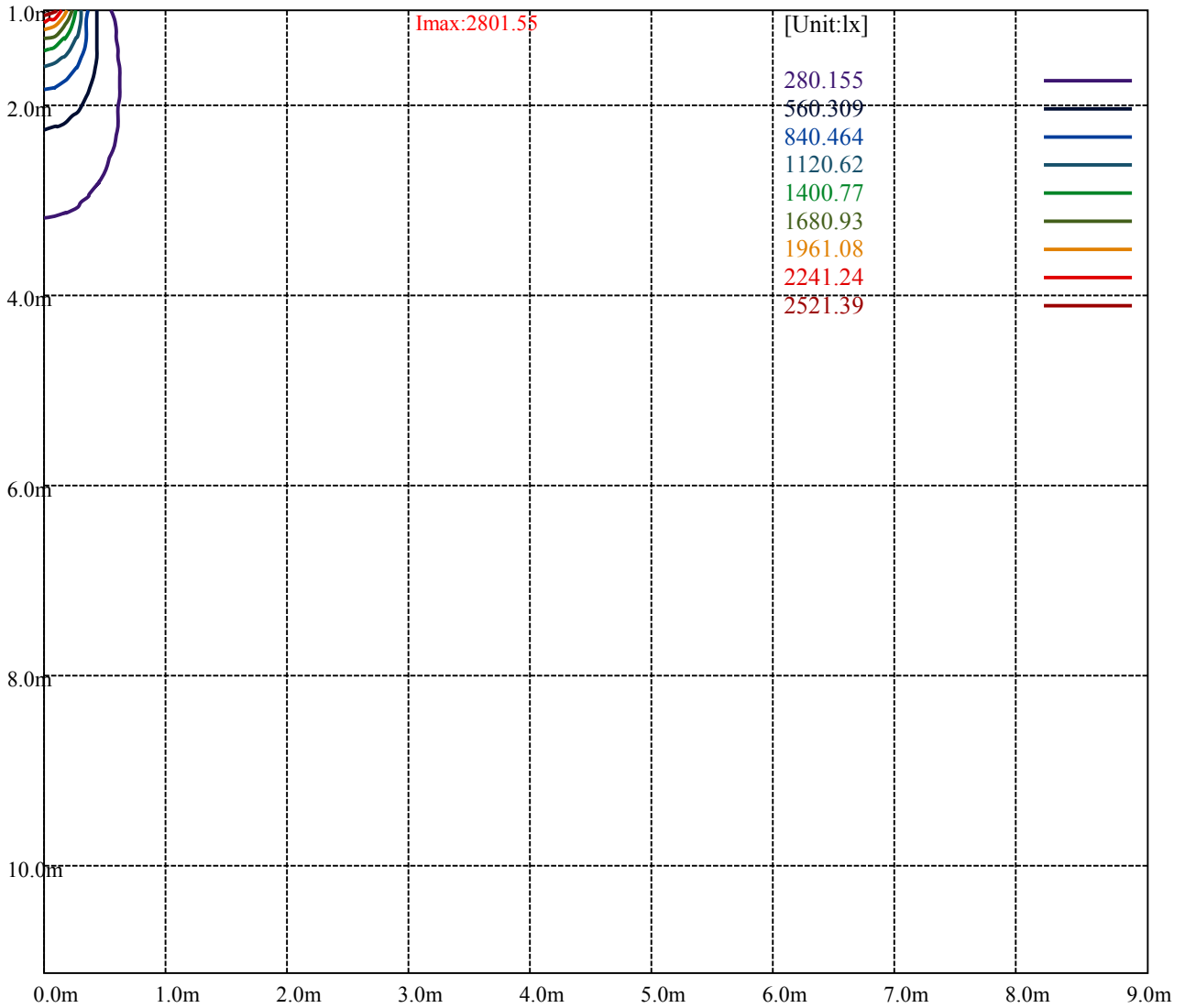
Road

Imax:2801.55

(10%Imax) 280.155	—
(20%Imax) 560.309	—
(30%Imax) 840.464	—
(40%Imax) 1120.62	—
(50%Imax) 1400.77	—
(60%Imax) 1680.93	—
(70%Imax) 1961.08	—
(80%Imax) 2241.24	—
(90%Imax) 2521.39	—



(10%Emax) 31.12822	—
(20%Emax) 62.25644	—
(30%Emax) 93.38478	—
(40%Emax) 124.5133	—
(50%Emax) 155.6411	—
(60%Emax) 186.77	—
(70%Emax) 217.8978	—
(80%Emax) 249.0256	—
(90%Emax) 280.1544	—



Luminance Table

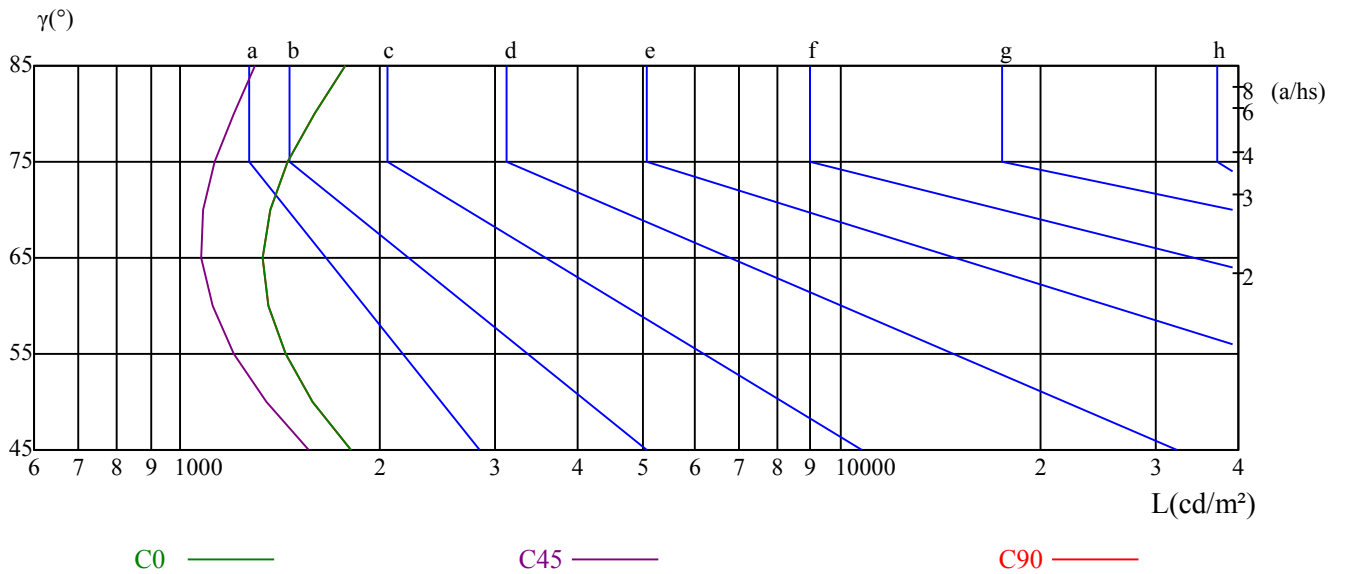
γ	45	50	55	60	65	70	75	80	85
C0	1815	1583	1439	1358	1331	1367	1452	1591	1770
C45	1568	1347	1205	1119	1077	1085	1127	1204	1299
C90	1815	1583	1439	1358	1331	1367	1452	1591	1770

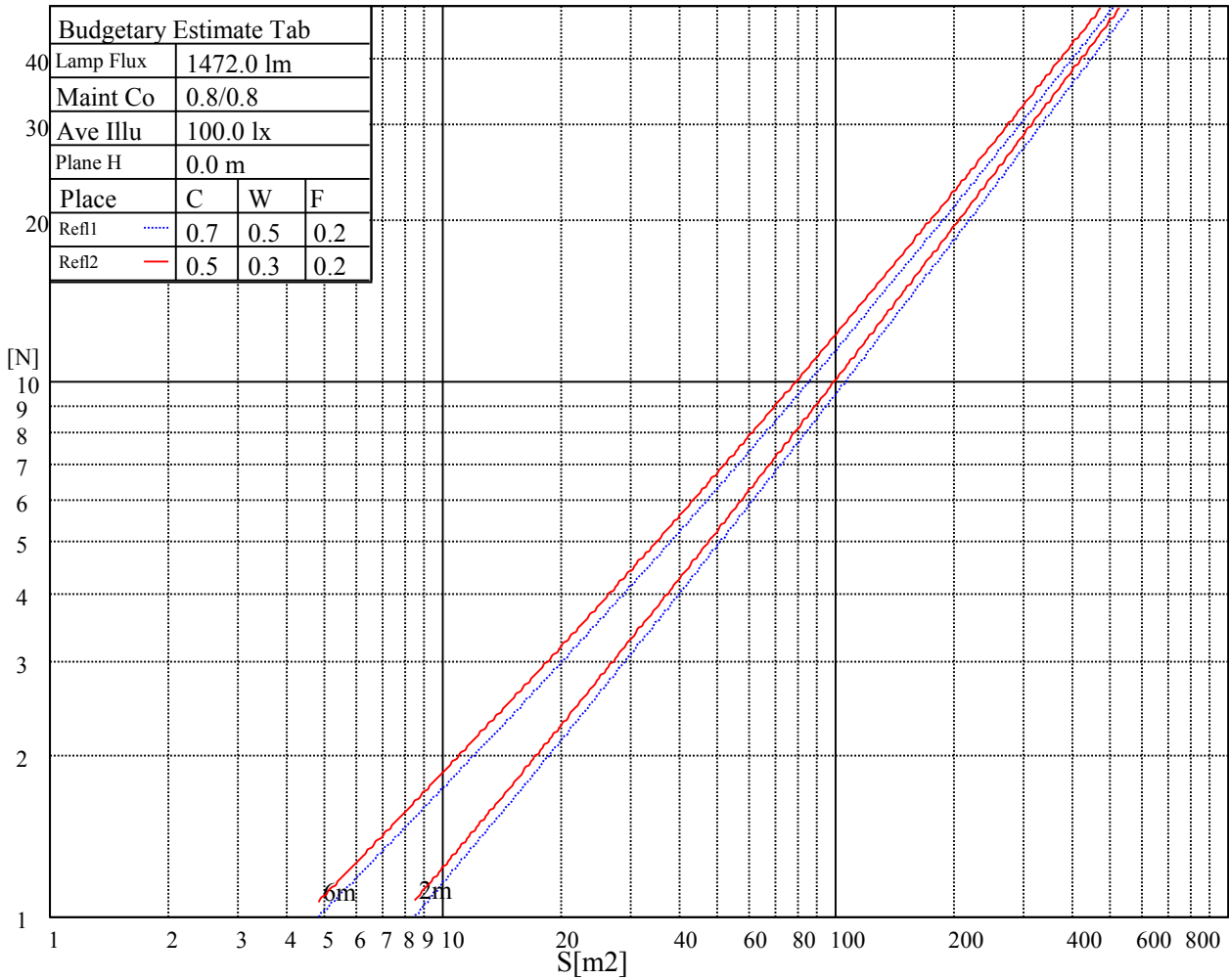
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
3084	3084	3084	4781	4781	4781	14197	14197	14197

Glare Table

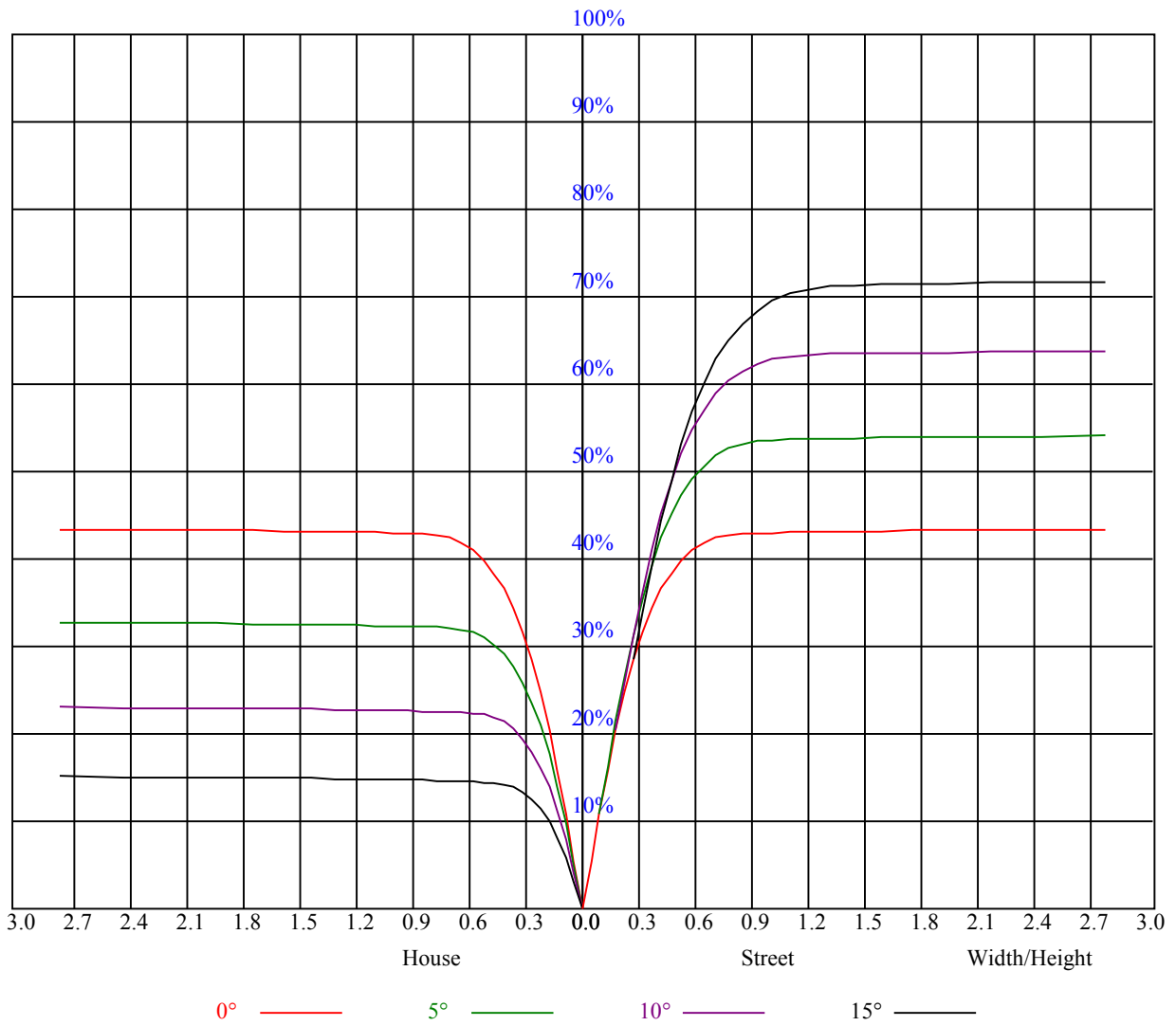
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

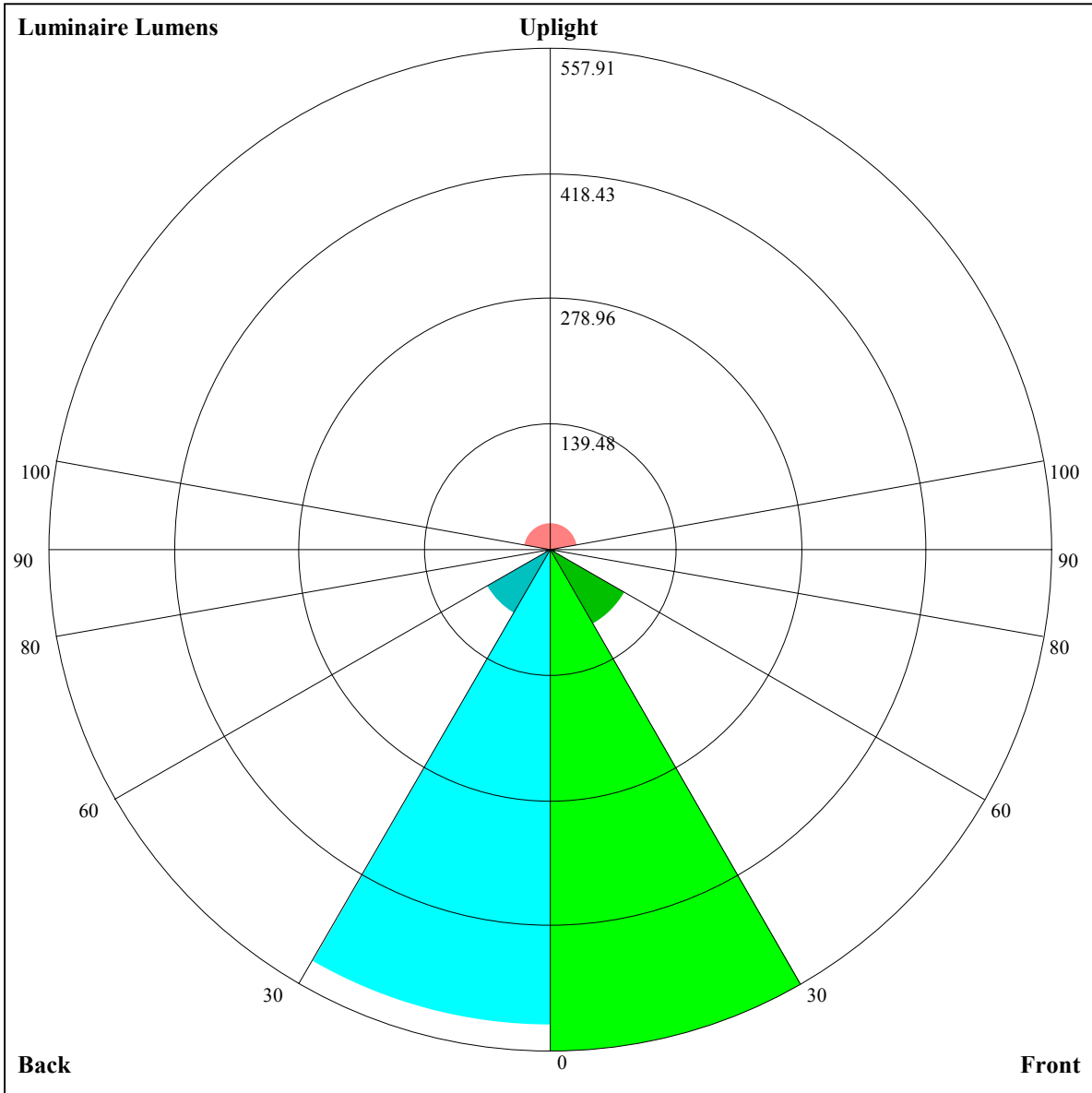
Luminance Limiting Curve





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	0.94	0.94	0.94	0.90	0.90	0.90	0.88
1	0.97	0.95	0.93	0.95	0.93	0.91	0.92	0.90	0.89	0.88	0.87	0.86	0.85	0.84	0.83	0.82
2	0.92	0.89	0.86	0.90	0.87	0.85	0.88	0.85	0.83	0.85	0.83	0.81	0.83	0.81	0.80	0.78
3	0.87	0.83	0.80	0.86	0.82	0.80	0.84	0.81	0.78	0.82	0.79	0.77	0.80	0.78	0.76	0.75
4	0.83	0.79	0.76	0.82	0.78	0.75	0.80	0.77	0.74	0.79	0.76	0.74	0.77	0.75	0.73	0.72
5	0.79	0.75	0.72	0.79	0.75	0.72	0.77	0.74	0.71	0.76	0.73	0.70	0.74	0.72	0.70	0.69
6	0.76	0.72	0.69	0.75	0.71	0.68	0.74	0.71	0.68	0.73	0.70	0.68	0.72	0.69	0.67	0.66
7	0.73	0.69	0.66	0.73	0.68	0.66	0.71	0.68	0.65	0.71	0.67	0.65	0.70	0.67	0.65	0.64
8	0.70	0.66	0.63	0.70	0.66	0.63	0.69	0.65	0.63	0.68	0.65	0.62	0.67	0.64	0.62	0.61
9	0.68	0.64	0.61	0.67	0.63	0.61	0.67	0.63	0.60	0.66	0.63	0.60	0.65	0.62	0.60	0.59
10	0.65	0.61	0.59	0.65	0.61	0.58	0.64	0.61	0.58	0.64	0.60	0.58	0.63	0.60	0.58	0.57





Luminaire Lumens:

FL=557.91,FM=94.73,FH=6.45,FVH=3.31

BL=529.69,BM=82.36,BH=6.37,BVH=3.27

UL=6.5,UH=30.94

BUG Rating:B2-U2-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	2802.92	2755.02	2434.04	1947.90	1391.28	868.79	599.56	316.02	59.85
45.0	2805.67	2702.72	2353.11	1838.33	1271.80	809.33	557.17	279.14	37.22
90.0	2797.97	2637.20	2187.39	1683.07	1094.91	702.02	492.75	181.74	20.32
135.0	2799.62	2679.59	2294.75	1763.46	1191.42	731.70	507.07	281.89	23.62
180.0	2802.92	2656.47	2212.17	1648.39	1054.44	668.88	450.58	169.74	19.99
225.0	2805.67	2684.55	2255.66	1718.31	1093.37	732.64	506.46	204.31	19.99
270.0	2797.97	2737.40	2371.83	1824.02	1292.17	825.85	562.68	289.05	47.73
315.0	2799.62	2723.09	2315.67	1785.48	1072.50	775.85	543.90	260.58	36.23
360.0	2802.92	2755.02	2434.04	1947.90	1391.28	868.79	599.56	316.02	59.85
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	11.34	8.97	7.87	7.16	6.66	6.39	6.28	6.33	6.55
45.0	10.57	8.81	7.71	6.99	6.39	6.17	6.06	6.00	6.00
90.0	9.36	8.37	7.38	6.66	6.28	6.06	6.00	6.00	5.95
135.0	9.58	8.42	7.43	6.77	6.33	6.11	6.00	6.00	6.00
180.0	9.58	8.48	7.49	6.77	6.39	6.22	6.17	6.17	6.00
225.0	9.63	8.42	7.43	6.72	6.28	6.06	5.95	6.00	6.00
270.0	10.90	8.86	7.76	6.99	6.39	6.11	6.00	6.00	5.95
315.0	10.24	8.75	7.65	6.88	6.39	6.17	6.06	6.06	6.06
360.0	11.34	8.97	7.87	7.16	6.66	6.39	6.28	6.33	6.55
C/γ(°)	90.0								
0.0	6.00								
45.0	5.95								
90.0	5.95								
135.0	5.95								
180.0	6.00								
225.0	5.95								
270.0	5.95								
315.0	5.95								
360.0	6.00								