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Nata

Client:

LumCAT: LM01D08538BK

Luminaire: 92.70.074.00

Report No:

Voltage(V): 34.7000

Test No: GC2019072306

Current(A): 0.2970

LampCAT: CREE CXA1830

Power (W): 10.3100

Lamp flux(lm): 1109.0

PF: 0.0000

Number of Lamps: 1

Ballast type: DC

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 991.35, Efficiency(%): 89.39% , Luminous Efficacy(lm/W): 96.15

Central intensity(cd): 1723.500, Maximum intensity(cd): 1723.500

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=68.6

[C90/270]Total=68.6

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(%): 89.39%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 92.086%

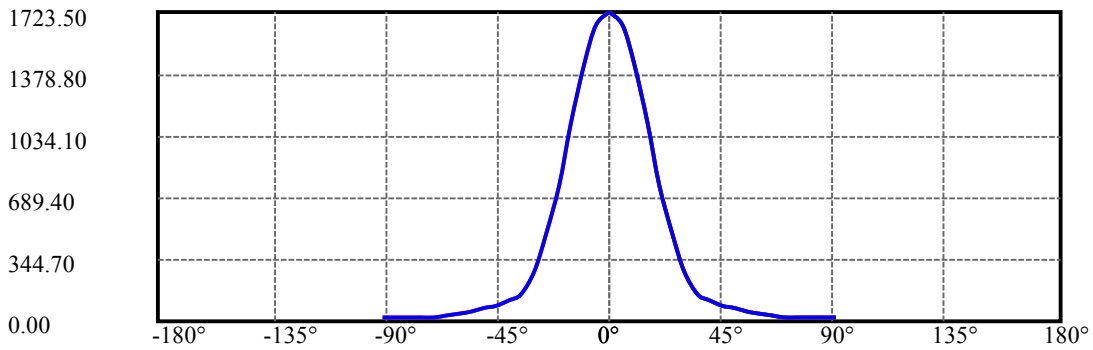
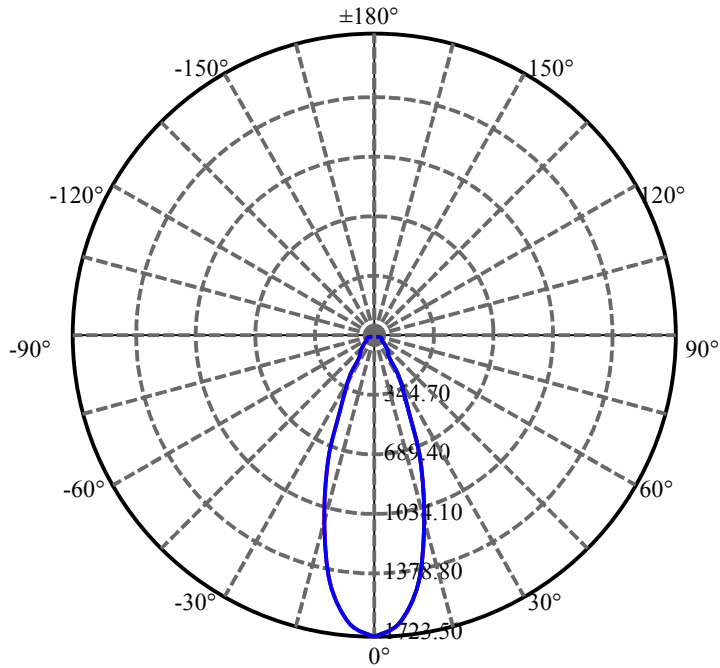
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	1723.500	0.000	0	.000%	.000%
5.0	1649.883	40.328	40.328	3.636%	4.068%
10.0	1434.445	110.336	150.664	9.949%	15.198%
15.0	1098.998	150.282	300.946	13.551%	30.357%
20.0	764.121	153.547	454.493	13.846%	45.846%
25.0	479.208	130.402	584.896	11.759%	59.000%
30.0	280.948	96.198	681.094	8.674%	68.704%
35.0	155.088	64.209	745.303	5.790%	75.181%
40.0	112.528	44.650	789.953	4.026%	79.685%
45.0	89.726	37.449	827.402	3.377%	83.462%
50.0	73.702	33.023	860.425	2.978%	86.794%
55.0	58.099	28.658	889.083	2.584%	89.684%
60.0	44.888	23.805	912.888	2.147%	92.086%
65.0	32.977	18.929	931.817	1.707%	93.995%
70.0	25.566	14.823	946.64	1.337%	95.490%
75.0	21.002	12.172	958.812	1.098%	96.718%
80.0	20.187	11.021	969.833	.994%	97.830%
85.0	20.229	10.982	980.815	.990%	98.938%
90.0	18.232	10.531	991.346	.950%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	681.09	61.42%	68.70%
0-40	789.95	71.23%	79.68%
0-60	912.89	82.32%	92.09%
0-90	980.82	88.44%	98.94%
0-120	980.82	88.44%	98.94%
0-180	991.35	89.39%	100.00%
60-90	91.73	8.27%	9.25%
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%
0-40.42	793.08	71.51%	80.00%

ZONAL LUMEN SUMMARY

0-10	150.66
10-20	303.83
20-30	226.60
30-40	108.86
40-50	70.47
50-60	52.46
60-70	33.75
70-80	23.19
80-90	10.98
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: —————

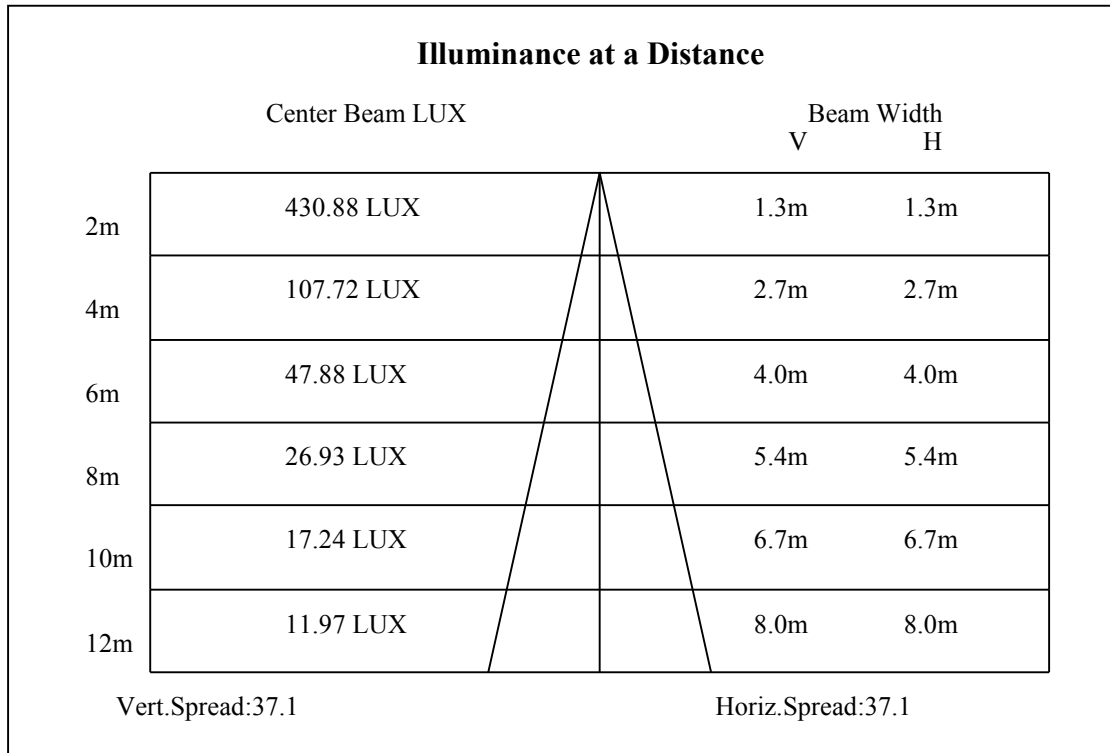
C90/C270: —————

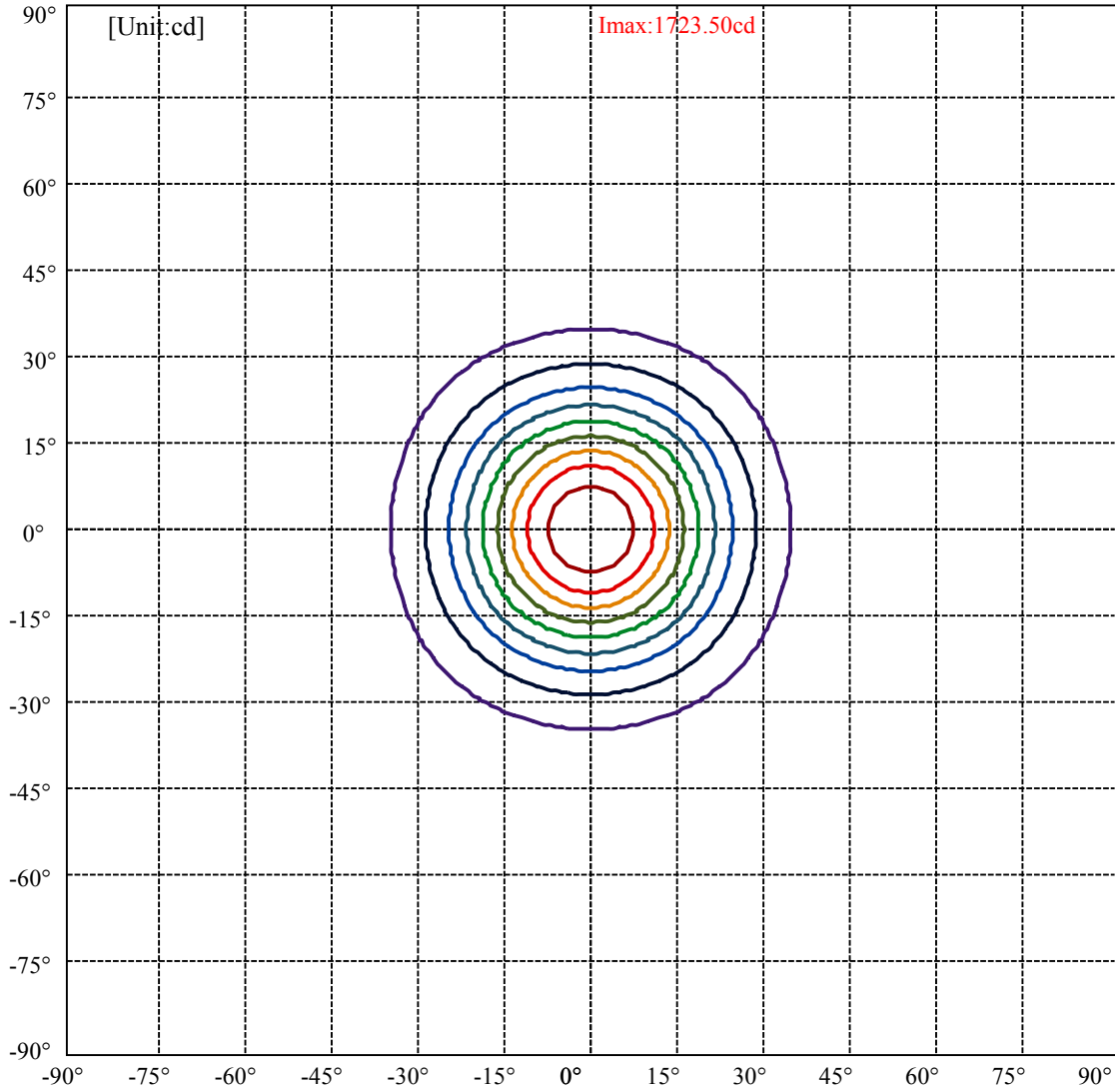
Field angle(10%Imax):C0/180Left:34.3 Right:34.3

:C90/270Left:34.3 Right:34.3

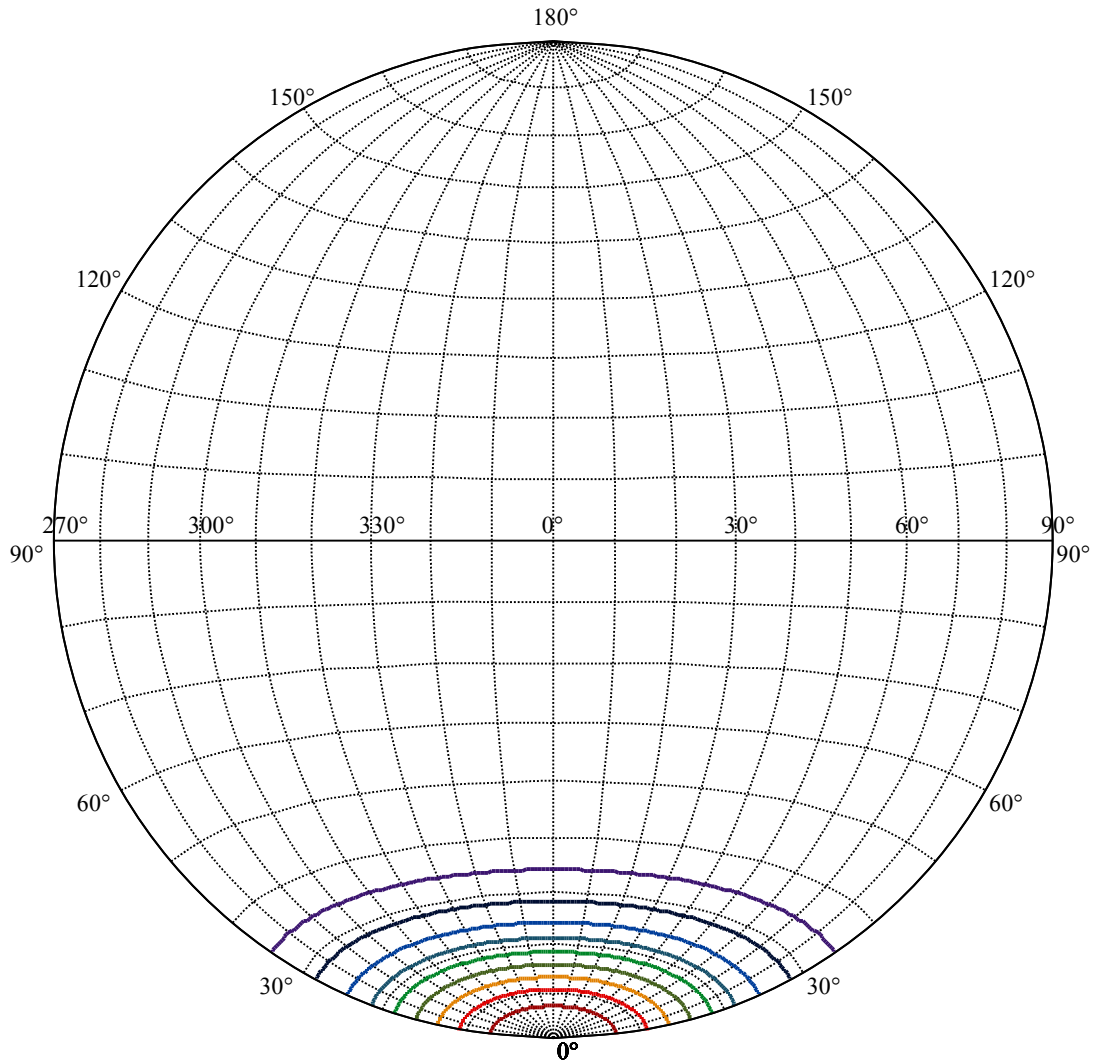
Beam Angle(50%Imax):C0/180Left:18.5 Right:18.5

:C90/270Left:18.5 Right:18.5





(10%Imax) 172.35	—
(20%Imax) 344.7	—
(30%Imax) 517.05	—
(40%Imax) 689.4	—
(50%Imax) 861.75	—
(60%Imax) 1034.1	—
(70%Imax) 1206.45	—
(80%Imax) 1378.8	—
(90%Imax) 1551.15	—



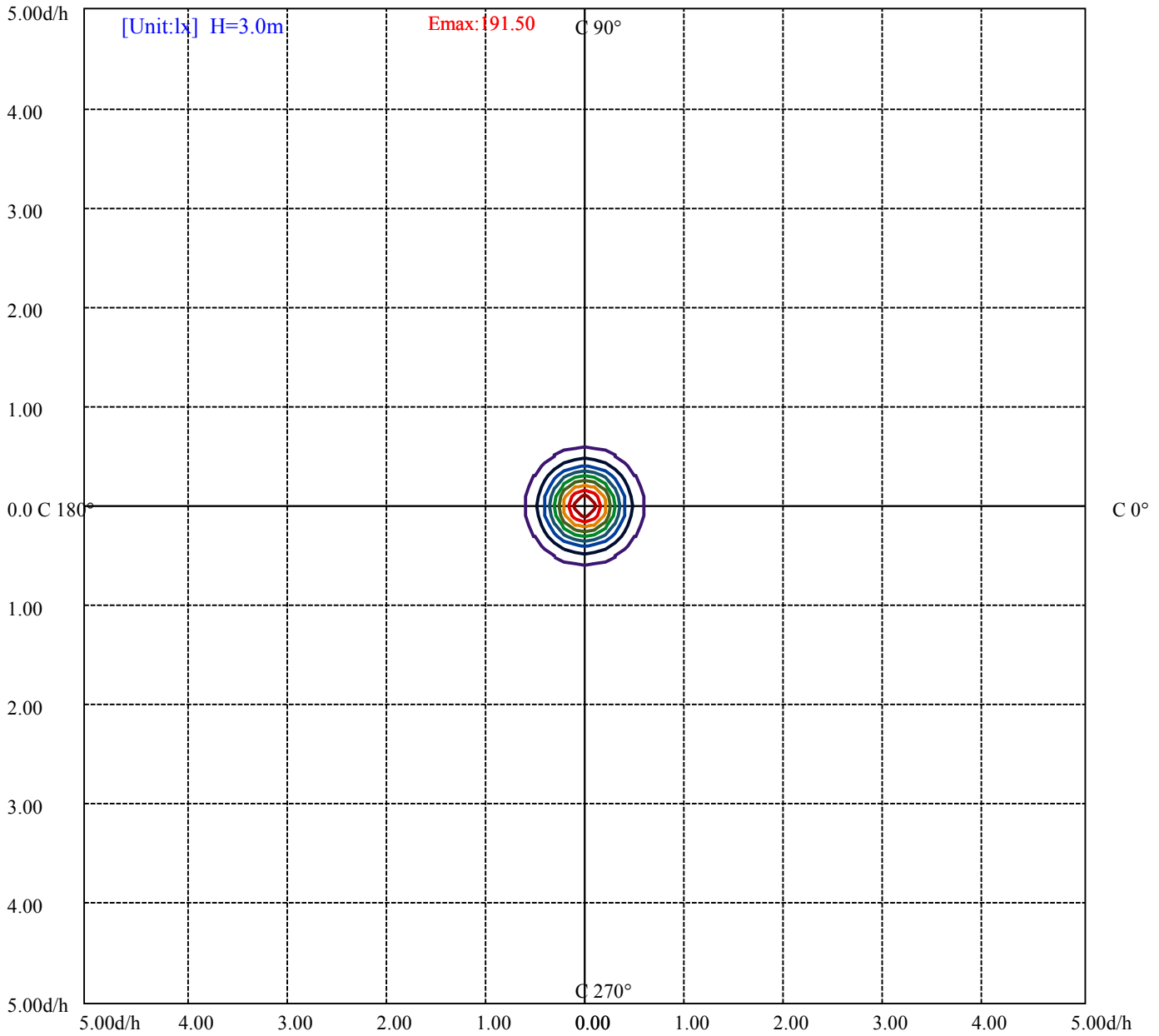
House

[Unit:cd]

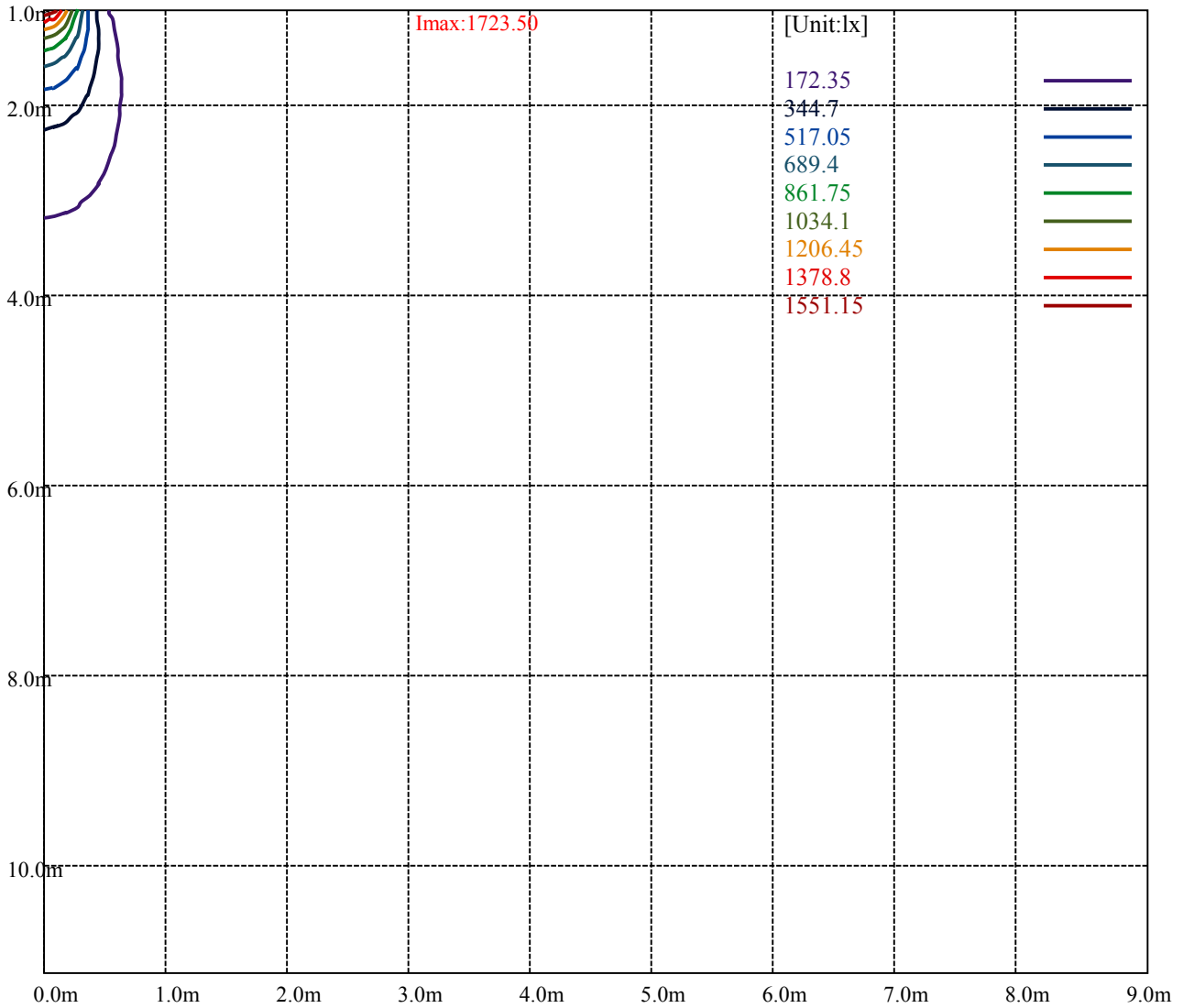
Road

I_{max}:1723.50

(10%I _{max}) 172.35	—
(20%I _{max}) 344.7	—
(30%I _{max}) 517.05	—
(40%I _{max}) 689.4	—
(50%I _{max}) 861.75	—
(60%I _{max}) 1034.1	—
(70%I _{max}) 1206.45	—
(80%I _{max}) 1378.8	—
(90%I _{max}) 1551.15	—



(10%Emax) 19.15	—
(20%Emax) 38.3	—
(30%Emax) 57.44989	—
(40%Emax) 76.59988	—
(50%Emax) 95.74989	—
(60%Emax) 114.9	—
(70%Emax) 134.05	—
(80%Emax) 153.2	—
(90%Emax) 172.35	—



Luminance Table

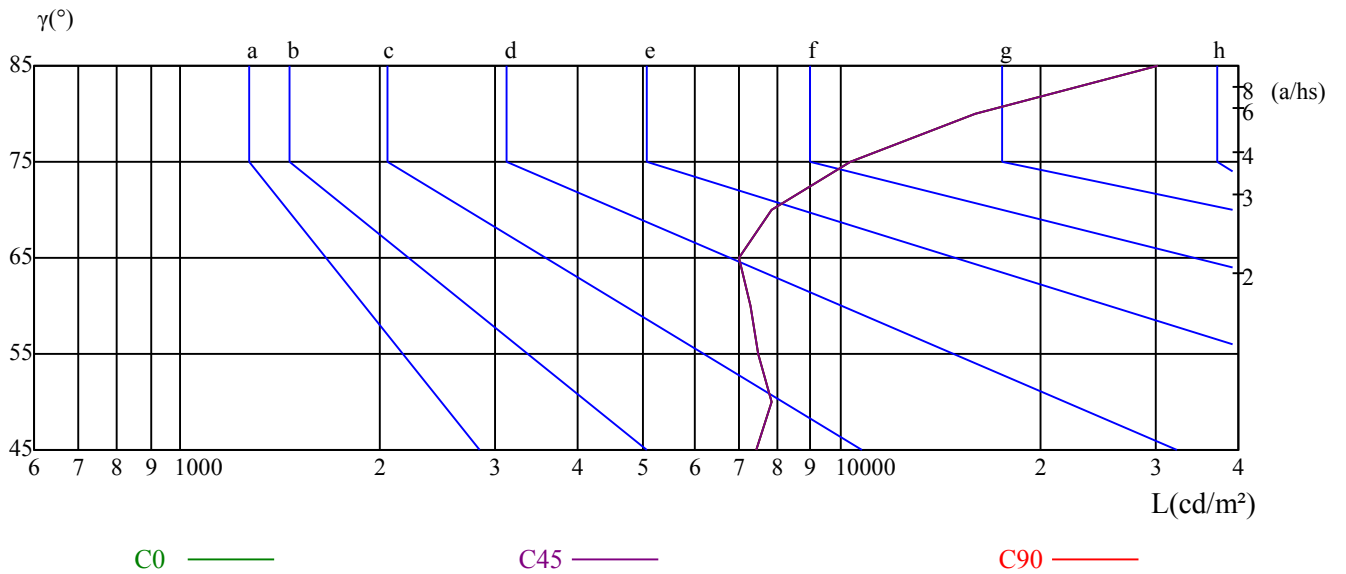
γ	45	50	55	60	65	70	75	80	85
C0	7426	7836	7518	7303	7014	7856	10370	16006	30126
C45	7426	7836	7518	7303	7014	7856	10370	16006	30126
C90	7426	7836	7518	7303	7014	7856	10370	16006	30126

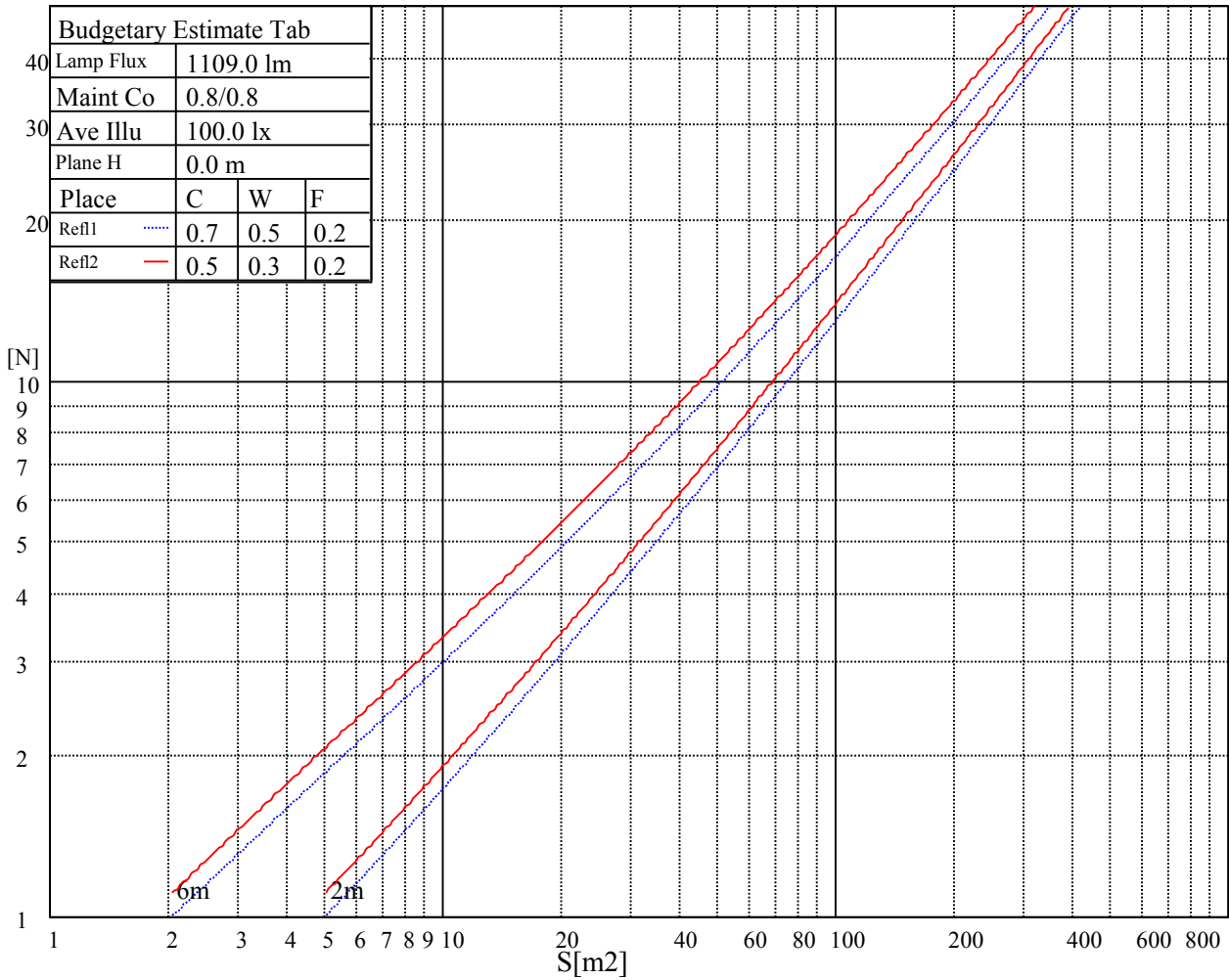
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
7014	7014	7014	10370	10370	10370	30126	30126	30126

Glare Table

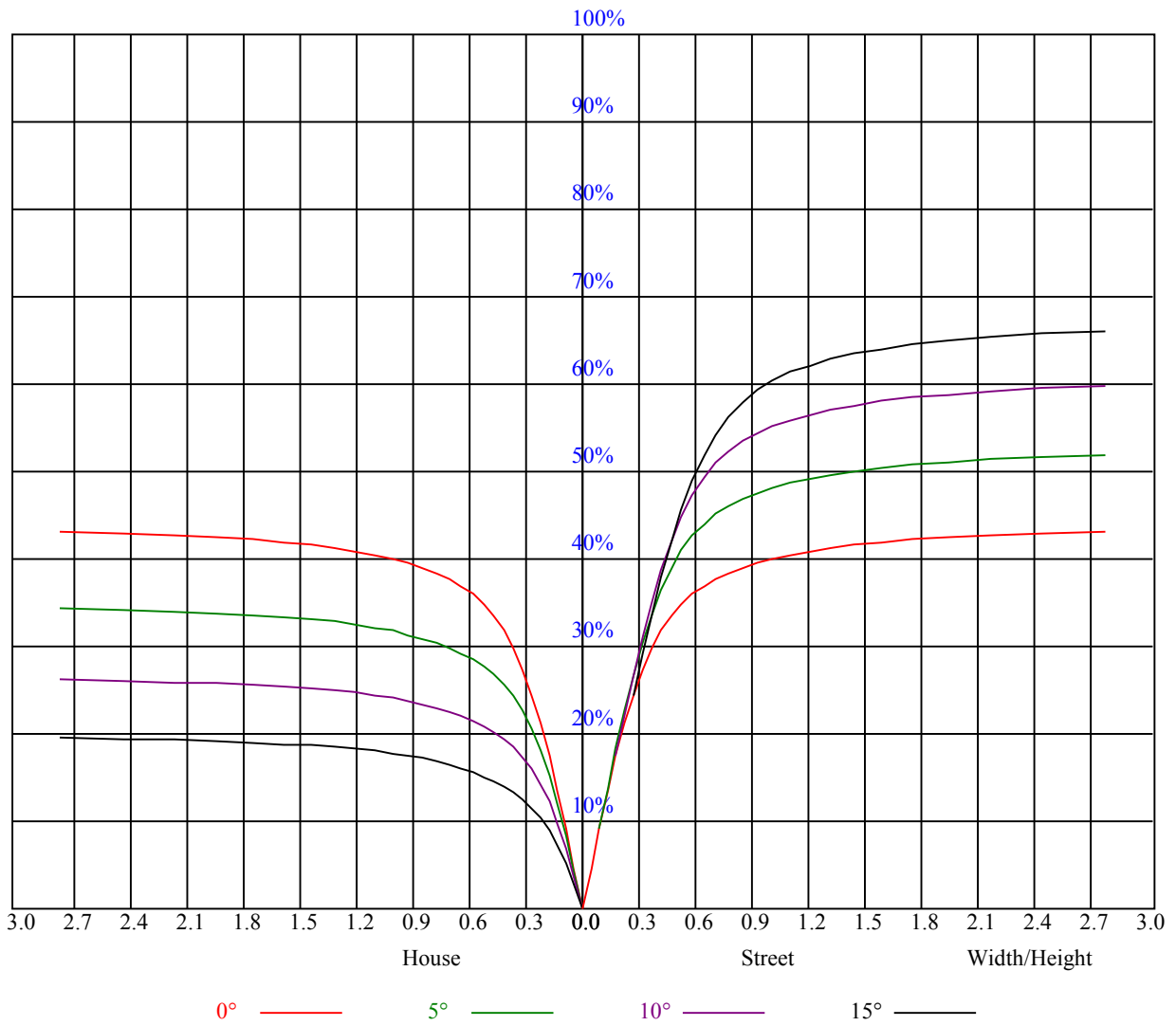
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

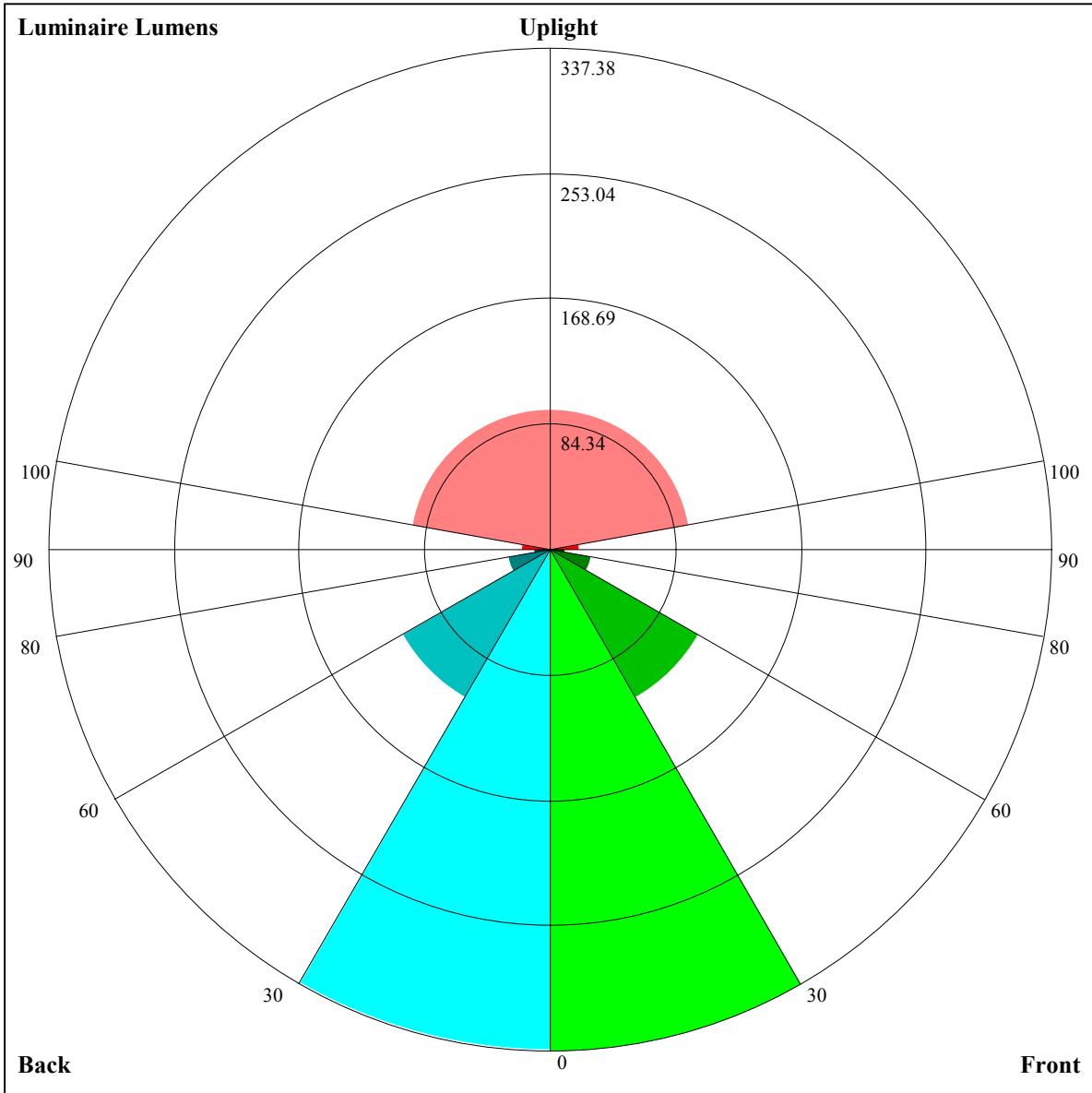
Luminance Limiting Curve





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	1.06	1.06	1.06	1.04	1.04	1.04	0.99	0.99	0.99	0.95	0.95	0.95	0.91	0.91	0.91	0.89
1	0.97	0.94	0.92	0.95	0.93	0.90	0.91	0.89	0.88	0.88	0.86	0.85	0.85	0.84	0.83	0.81
2	0.89	0.85	0.82	0.88	0.84	0.81	0.85	0.82	0.79	0.82	0.80	0.77	0.80	0.78	0.76	0.74
3	0.83	0.78	0.74	0.82	0.77	0.73	0.79	0.75	0.72	0.77	0.74	0.71	0.75	0.72	0.70	0.68
4	0.77	0.72	0.68	0.76	0.71	0.67	0.74	0.70	0.67	0.73	0.69	0.66	0.71	0.68	0.65	0.64
5	0.73	0.67	0.63	0.72	0.66	0.63	0.70	0.65	0.62	0.69	0.65	0.61	0.67	0.64	0.61	0.59
6	0.68	0.63	0.59	0.68	0.62	0.58	0.66	0.62	0.58	0.65	0.61	0.58	0.64	0.60	0.57	0.56
7	0.65	0.59	0.55	0.64	0.59	0.55	0.63	0.58	0.55	0.62	0.57	0.54	0.61	0.57	0.54	0.53
8	0.61	0.56	0.52	0.61	0.55	0.52	0.60	0.55	0.52	0.59	0.54	0.51	0.58	0.54	0.51	0.50
9	0.58	0.53	0.49	0.58	0.53	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	0.47	0.55	0.50	0.47	0.54	0.50	0.47	0.54	0.49	0.46	0.53	0.49	0.46	0.45





Luminaire Lumens:

FL=337.38,FM=114.74,FH=28.11,FVH=10.62

BL=337.08,BM=115.24,BH=28.67,BVH=10.84

UL=19.89,UH=94.66

BUG Rating:B1-U2-G1

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	1723.50	1641.38	1437.75	1107.56	781.88	484.88	286.31	158.01	112.16
45.0	1723.50	1659.94	1465.88	1167.19	817.31	519.75	323.44	167.85	118.74
90.0	1723.50	1638.00	1432.13	1095.98	753.19	479.48	274.50	155.03	108.17
135.0	1723.50	1677.38	1491.19	1173.38	824.63	541.69	320.06	173.14	121.50
180.0	1723.50	1654.88	1425.94	1087.82	763.71	477.90	271.07	155.70	113.46
225.0	1723.50	1640.25	1385.44	1017.51	708.86	430.65	241.09	139.84	108.23
270.0	1723.50	1659.38	1451.25	1100.25	754.88	472.50	284.06	146.81	110.14
315.0	1723.50	1627.88	1386.00	1042.31	708.53	426.83	247.05	144.34	107.83
360.0	1723.50	1641.38	1437.75	1107.56	781.88	484.88	286.31	158.01	112.16

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	88.20	72.73	57.54	44.72	33.24	25.54	20.87	20.08	20.81
45.0	93.32	75.94	59.85	46.63	34.48	26.38	21.15	20.42	19.46
90.0	87.69	71.27	54.45	41.57	31.50	24.64	20.59	20.70	19.63
135.0	94.95	78.13	62.27	48.09	35.10	27.62	21.71	21.26	20.14
180.0	90.56	75.21	59.57	46.35	33.19	26.38	21.60	20.70	20.76
225.0	87.13	71.55	57.09	43.93	32.06	24.75	20.70	19.35	20.64
270.0	88.48	73.46	58.61	46.01	33.41	25.76	21.54	20.25	20.14
315.0	87.47	71.33	55.41	41.79	30.83	23.46	19.86	18.73	20.25
360.0	88.20	72.73	57.54	44.72	33.24	25.54	20.87	20.08	20.81

C/γ(°)	90.0
0.0	17.21
45.0	18.62
90.0	16.88
135.0	19.18
180.0	19.29
225.0	18.84
270.0	18.23
315.0	17.61
360.0	17.21