
Nata

Client:

LumCAT: 3-1700.N

Luminaire: 92.70.045.00+92.70.089.00

Report No: nata-0100

Voltage(V): 36.2000

Test No: GC2018052903

Current(A): 0.5000

LampCAT: NICHIA NFDWJ130B-V3

Power (W): 18.1000

Lamp flux(lm): 2390.3

PF: 0.0000

Number of Lamps: 1

Ballast type: DC

Length(mm): 77

Width(mm): 77

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 1877.00, Efficiency(%): 78.53% , Luminous Efficacy(lm/W): 103.70

Central intensity(cd): 3857.389, Maximum intensity(cd): 3857.389

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=37.6

[C90/270]Total=37.6

Field angle(10%Imax): [C0/180]Total=67.0

[C90/270]Total=67.0

Maximum s/h(1/2): C0_180=0.62 C90_270=0.62

Maximum s/h(1/4): C0_180=0.60 C90_270=0.60

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 79.42%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 96.958%

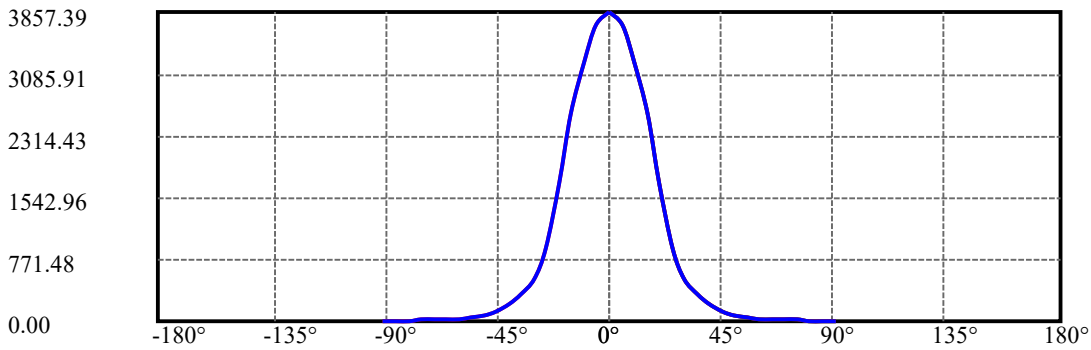
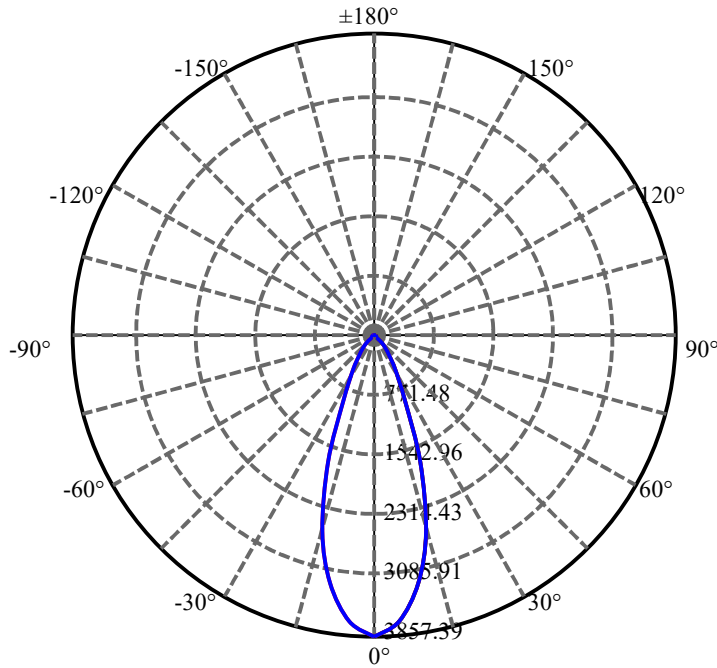
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	3857.389	23.068	23.068	.965%	1.229%
5.0	3682.516	175.926	198.994	7.360%	10.602%
10.0	3226.787	307.135	506.129	12.849%	26.965%
15.0	2589.991	367.438	873.567	15.372%	46.541%
20.0	1717.416	321.971	1195.538	13.470%	63.694%
25.0	914.666	211.885	1407.423	8.864%	74.983%
30.0	519.684	142.429	1549.852	5.959%	82.571%
35.0	327.737	103.040	1652.892	4.311%	88.060%
40.0	217.982	76.803	1729.695	3.213%	92.152%
45.0	125.350	48.584	1778.28	2.033%	94.741%
50.0	74.395	31.238	1809.518	1.307%	96.405%
55.0	42.676	19.162	1828.68	.802%	97.426%
60.0	24.968	11.852	1840.532	.496%	98.057%
65.0	18.272	9.077	1849.609	.380%	98.541%
70.0	15.106	7.781	1857.39	.326%	98.955%
75.0	12.766	6.759	1864.149	.283%	99.315%
80.0	10.805	5.833	1869.982	.244%	99.626%
85.0	8.981	4.904	1874.886	.205%	99.887%
90.0	7.708	2.112	1876.998	.088%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1549.85	64.84%	82.57%
0-40	1729.70	72.36%	92.15%
0-60	1840.53	77.00%	98.06%
0-90	1874.89	78.44%	99.89%
0-120	1874.89	78.44%	99.89%
0-180	1877.00	78.53%	100.00%
60-90	46.21	1.93%	2.46%
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%
0-28.31	1501.60	62.82%	80.00%

ZONAL LUMEN SUMMARY

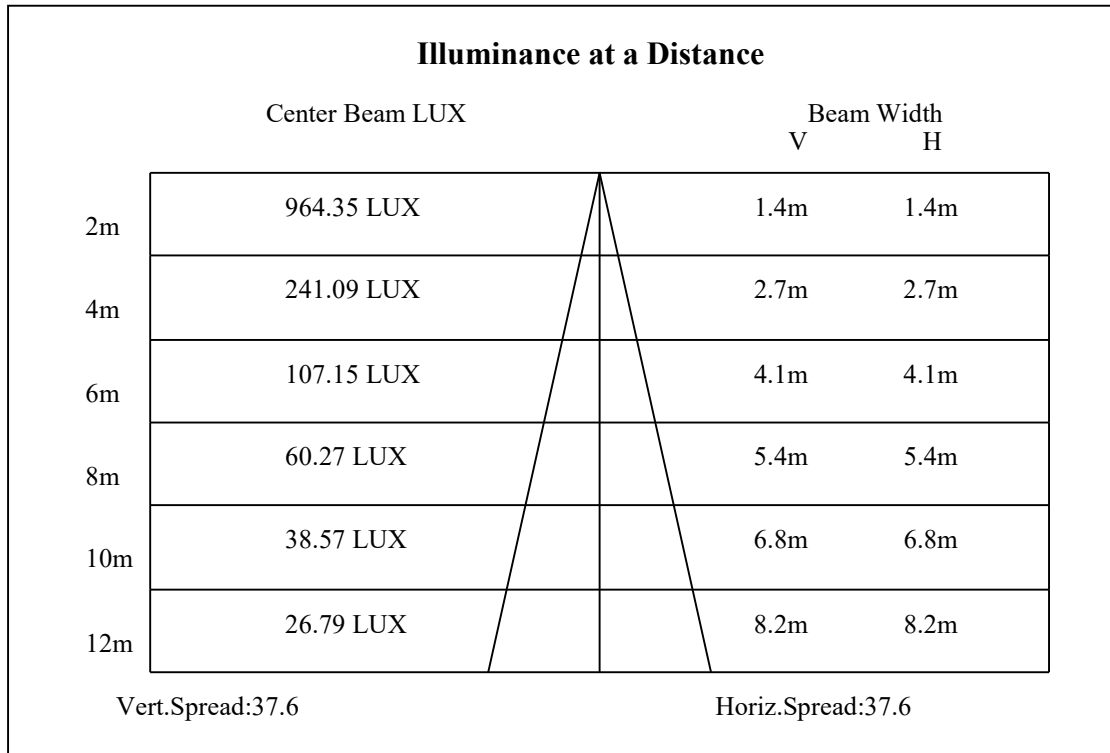
0-10	506.13
10-20	689.41
20-30	354.31
30-40	179.84
40-50	79.82
50-60	31.01
60-70	16.86
70-80	12.59
80-90	4.90
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

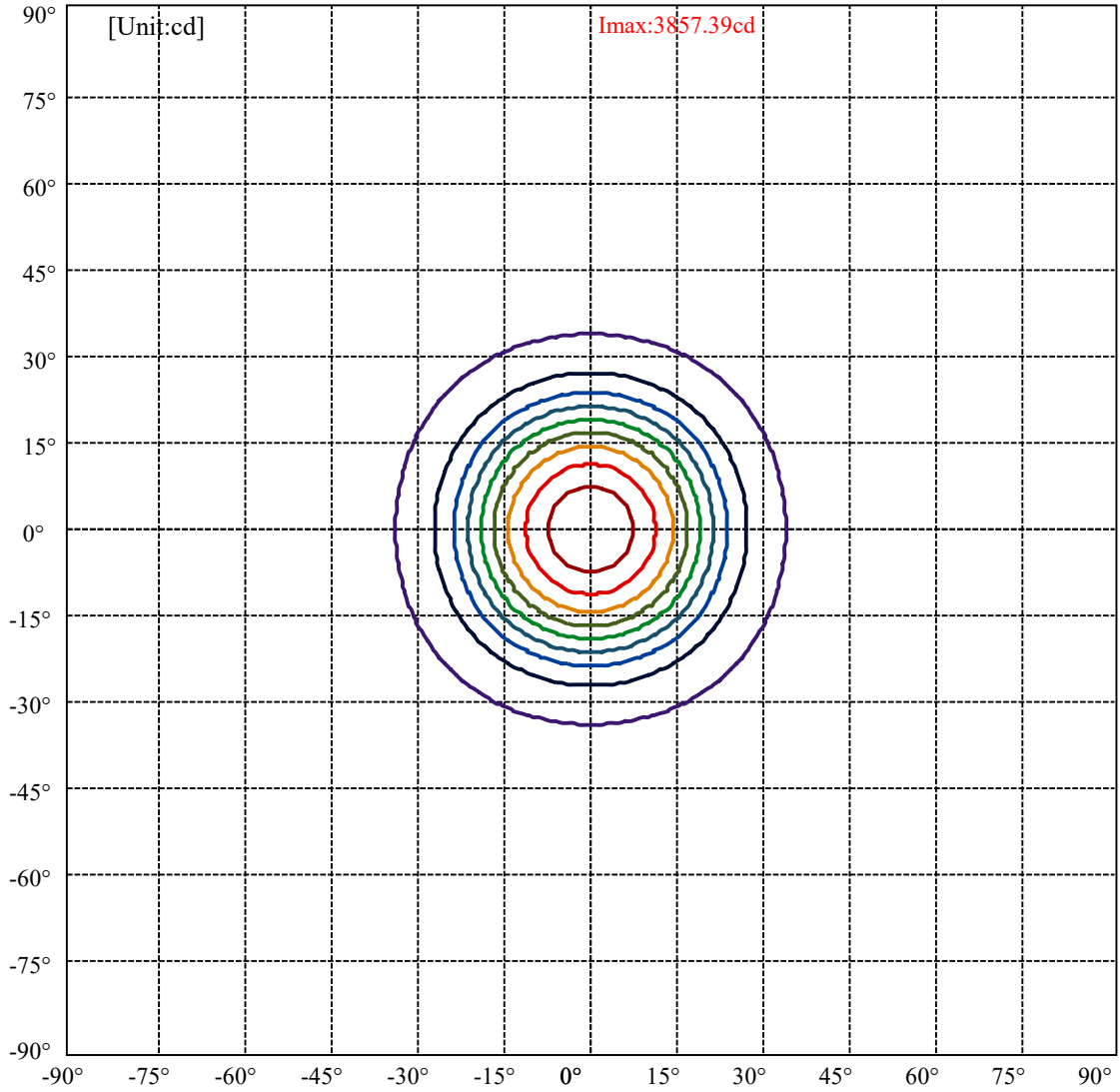


C0(Max): —————
 C0/C180: —————
 C90/C270: —————

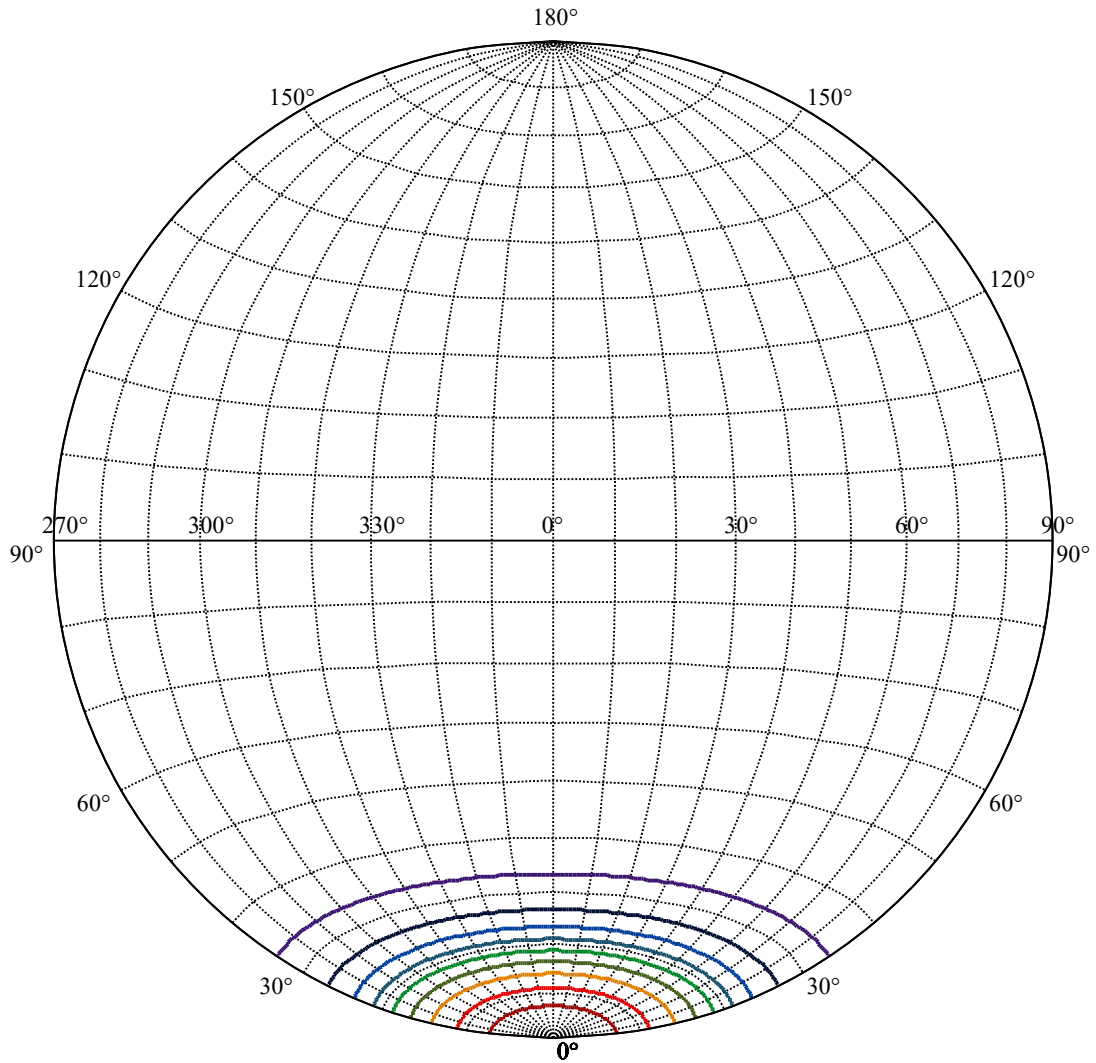
Field angle(10%Imax):C0/180Left:33.5 Right:33.5
 :C90/270Left:33.5 Right:33.5

Beam Angle(50%Imax):C0/180Left:18.8 Right:18.8
 :C90/270Left:18.8 Right:18.8





(10%Imax) 385.739	—
(20%Imax) 771.478	—
(30%Imax) 1157.22	—
(40%Imax) 1542.96	—
(50%Imax) 1928.69	—
(60%Imax) 2314.43	—
(70%Imax) 2700.17	—
(80%Imax) 3085.91	—
(90%Imax) 3471.65	—



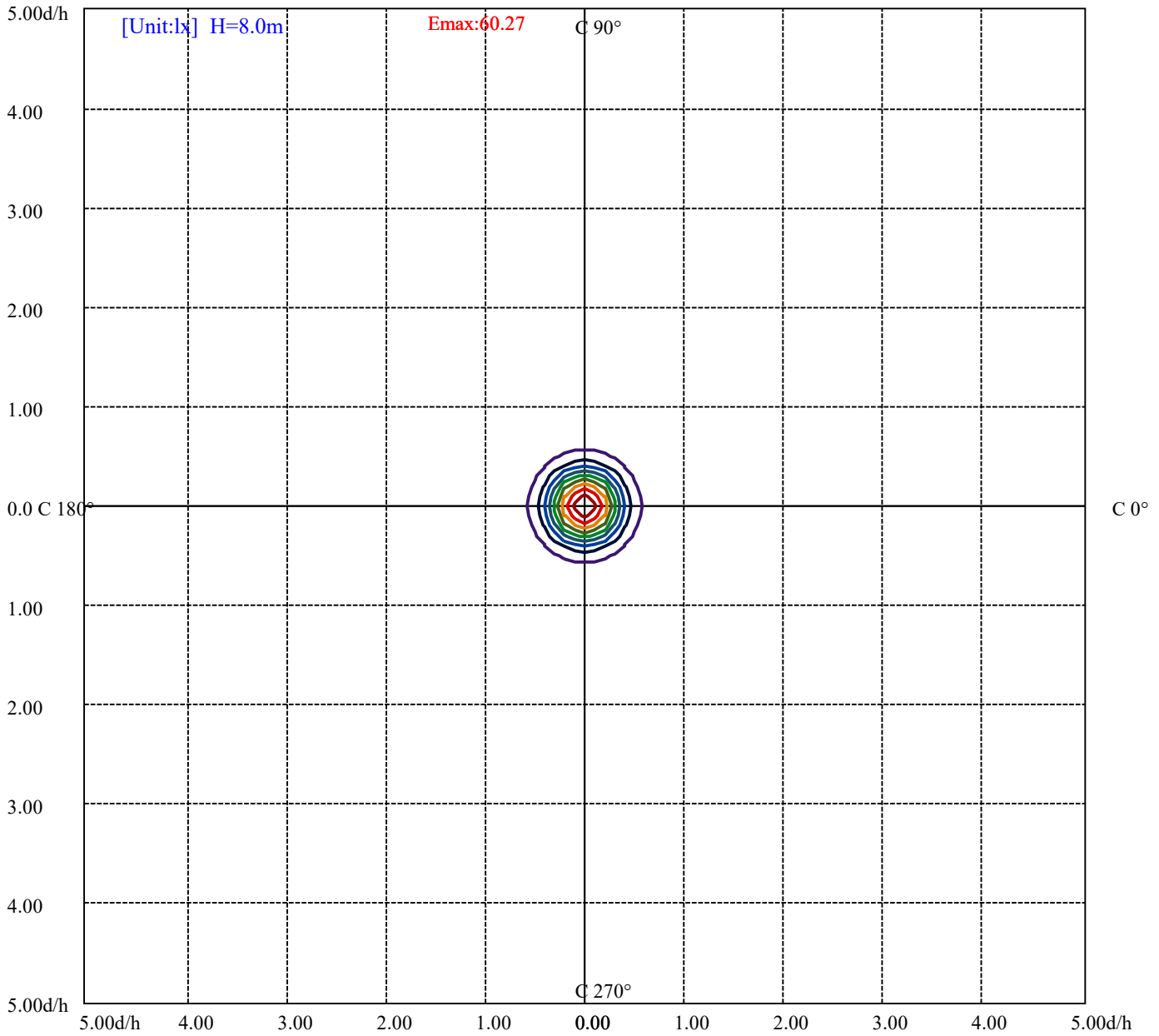
House

[Unit:cd]

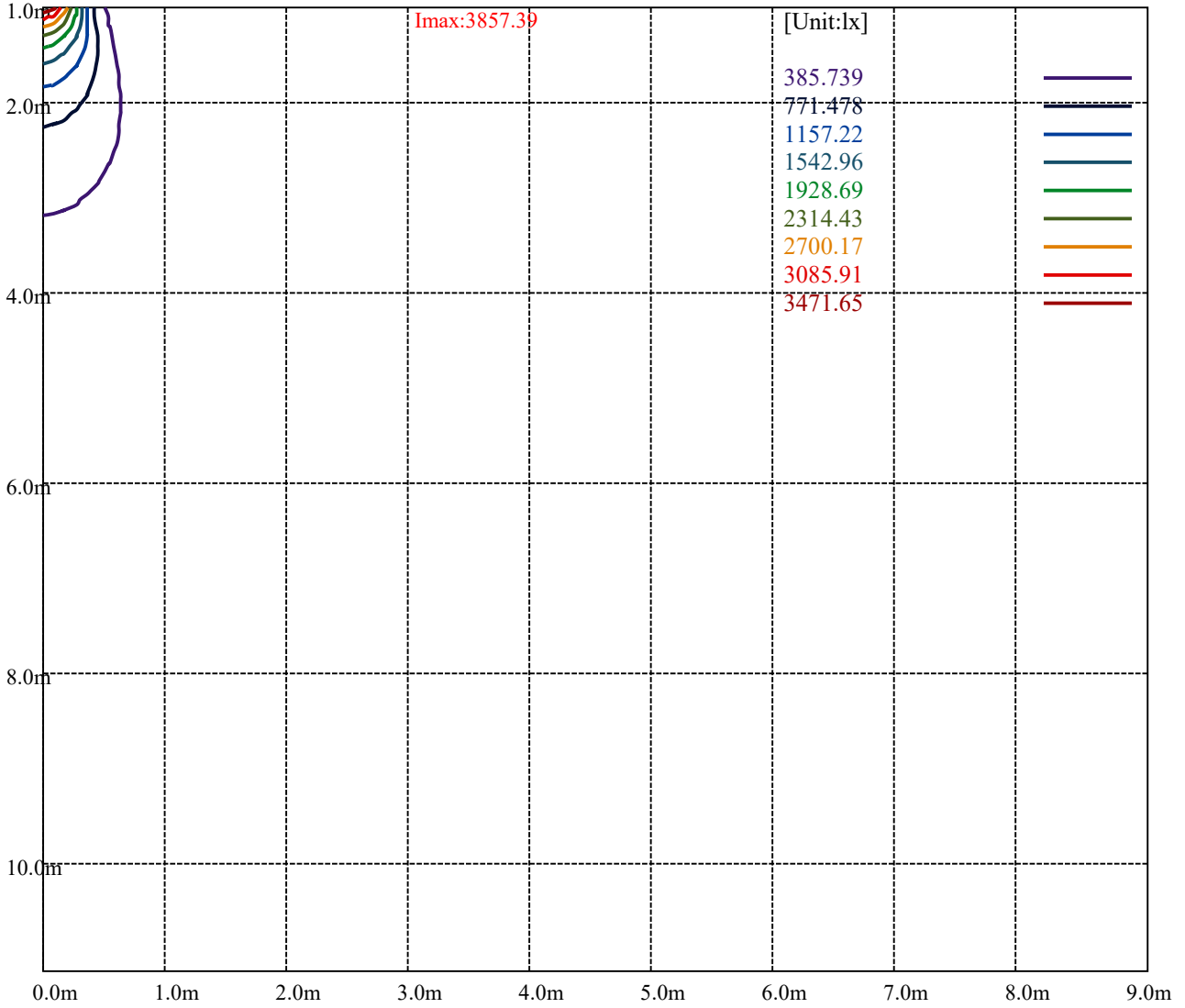
Road

Imax:3857.39

(10%Imax) 385.739	—
(20%Imax) 771.478	—
(30%Imax) 1157.22	—
(40%Imax) 1542.96	—
(50%Imax) 1928.69	—
(60%Imax) 2314.43	—
(70%Imax) 2700.17	—
(80%Imax) 3085.91	—
(90%Imax) 3471.65	—



(10%Emax) 6.027156	—
(20%Emax) 12.05433	—
(30%Emax) 18.08156	—
(40%Emax) 24.10859	—
(50%Emax) 30.13578	—
(60%Emax) 36.16297	—
(70%Emax) 42.19016	—
(80%Emax) 48.21734	—
(90%Emax) 54.24453	—



Luminance Table

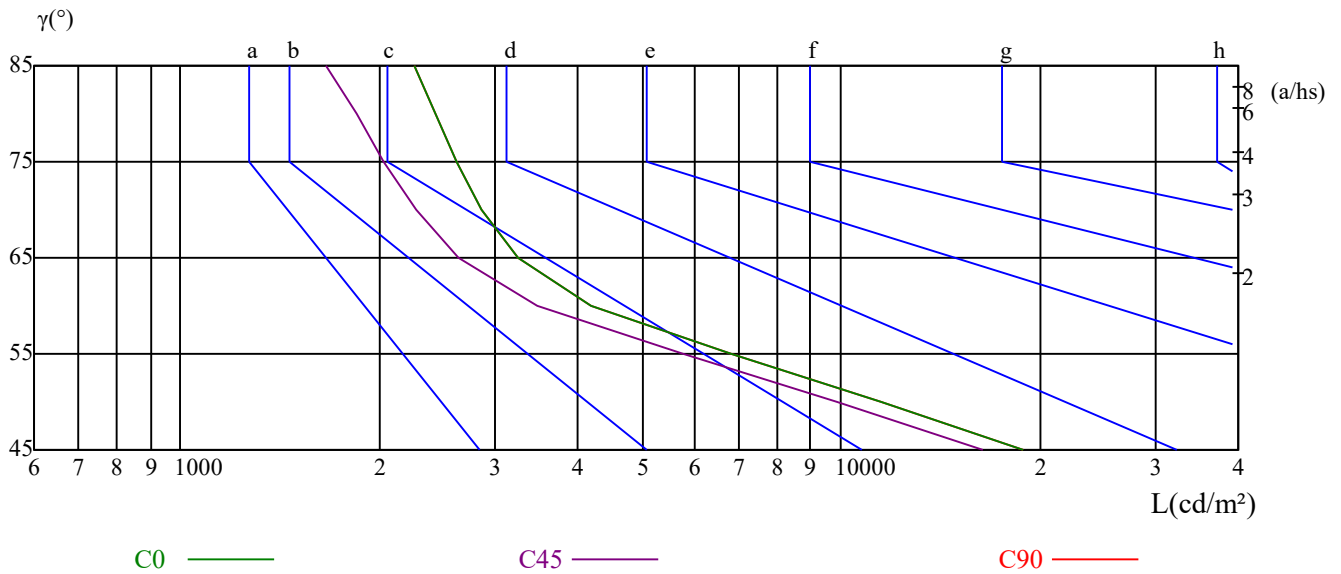
γ	45	50	55	60	65	70	75	80	85
C0	18871	11507	6840	4186	3236	2859	2615	2432	2263
C45	16370	9834	5755	3464	2630	2278	2037	1845	1664
C90	18871	11507	6840	4186	3236	2859	2615	2432	2263

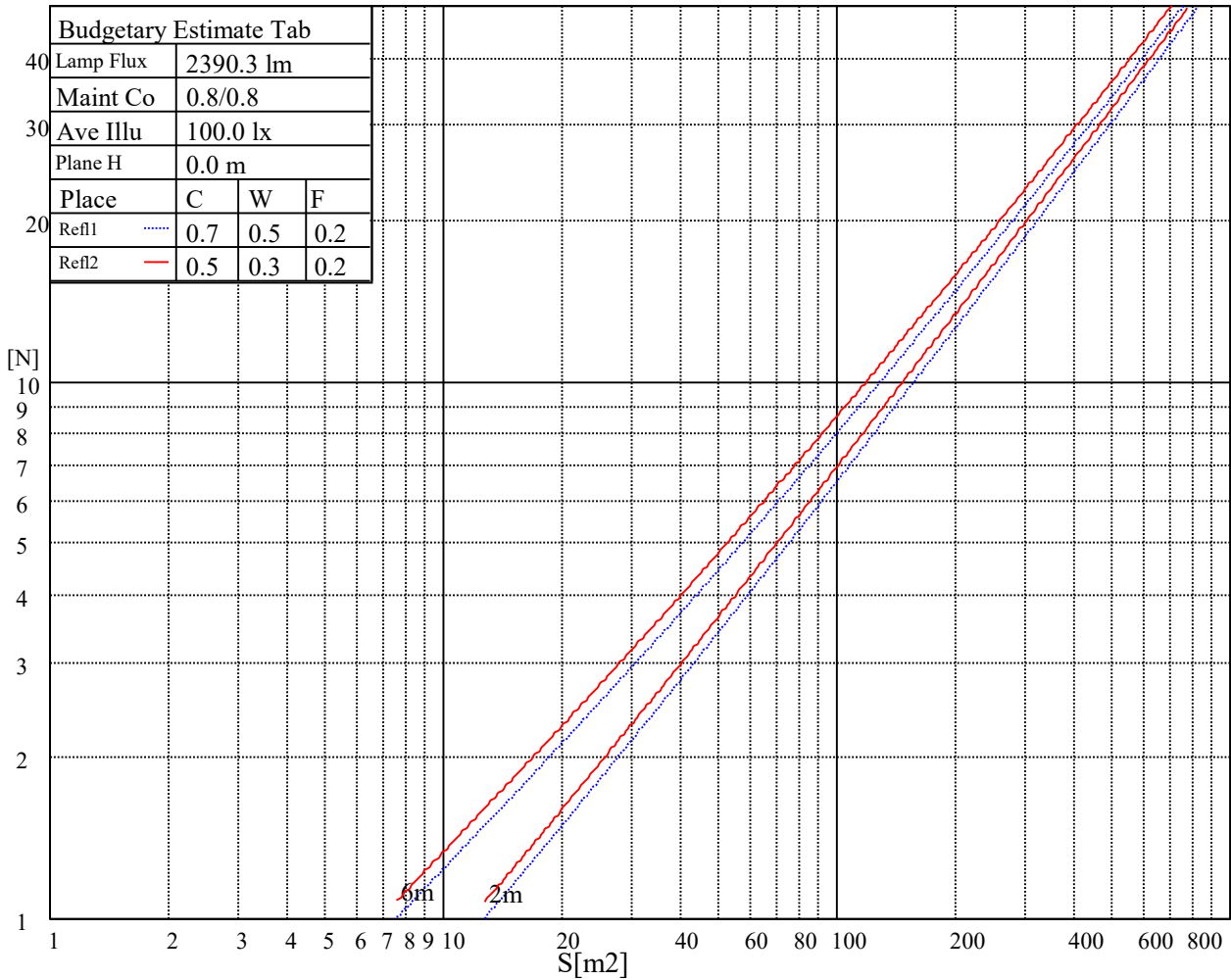
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
7292	7292	7292	8319	8319	8319	17380	17380	17380

Glare Table

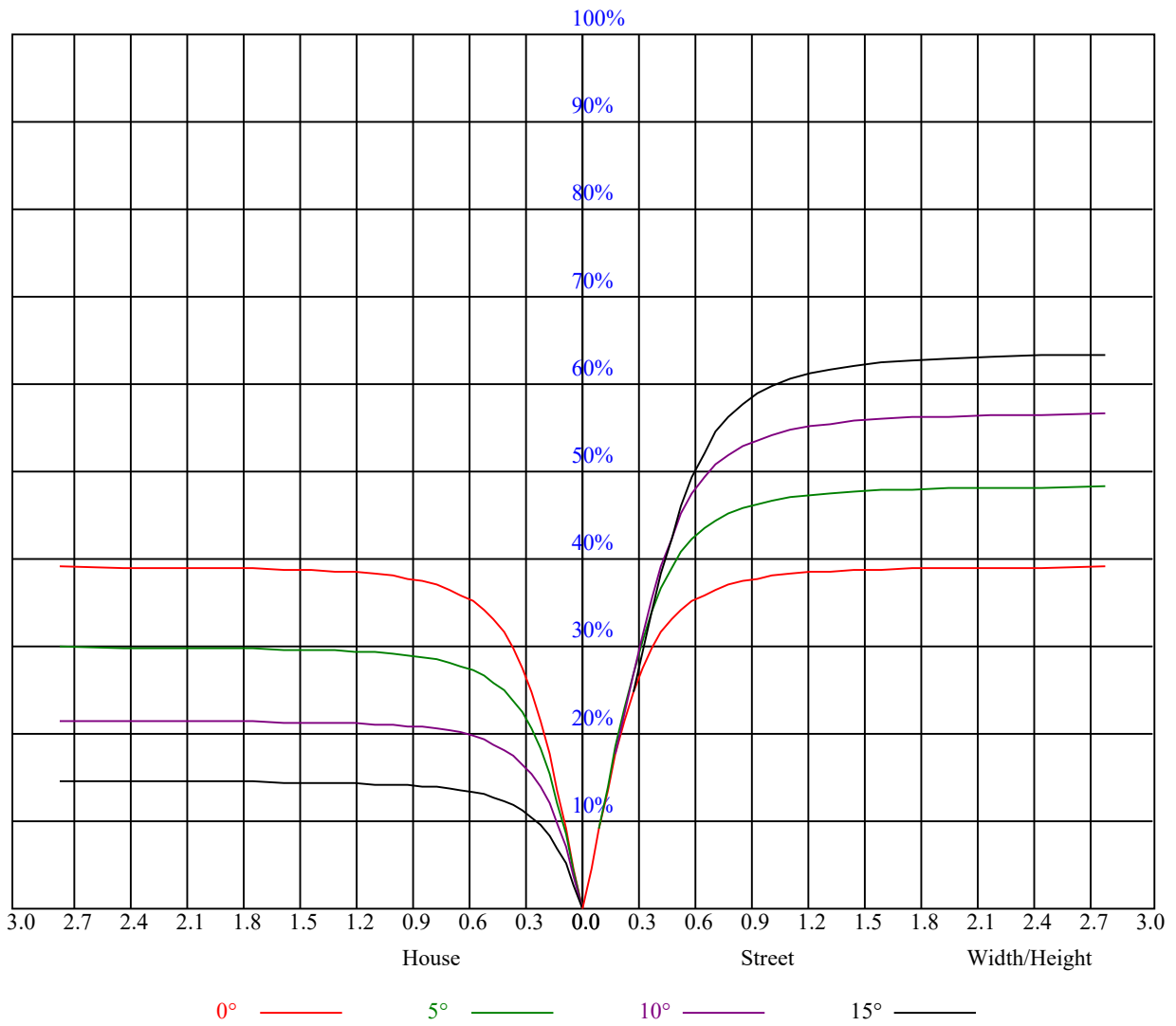
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

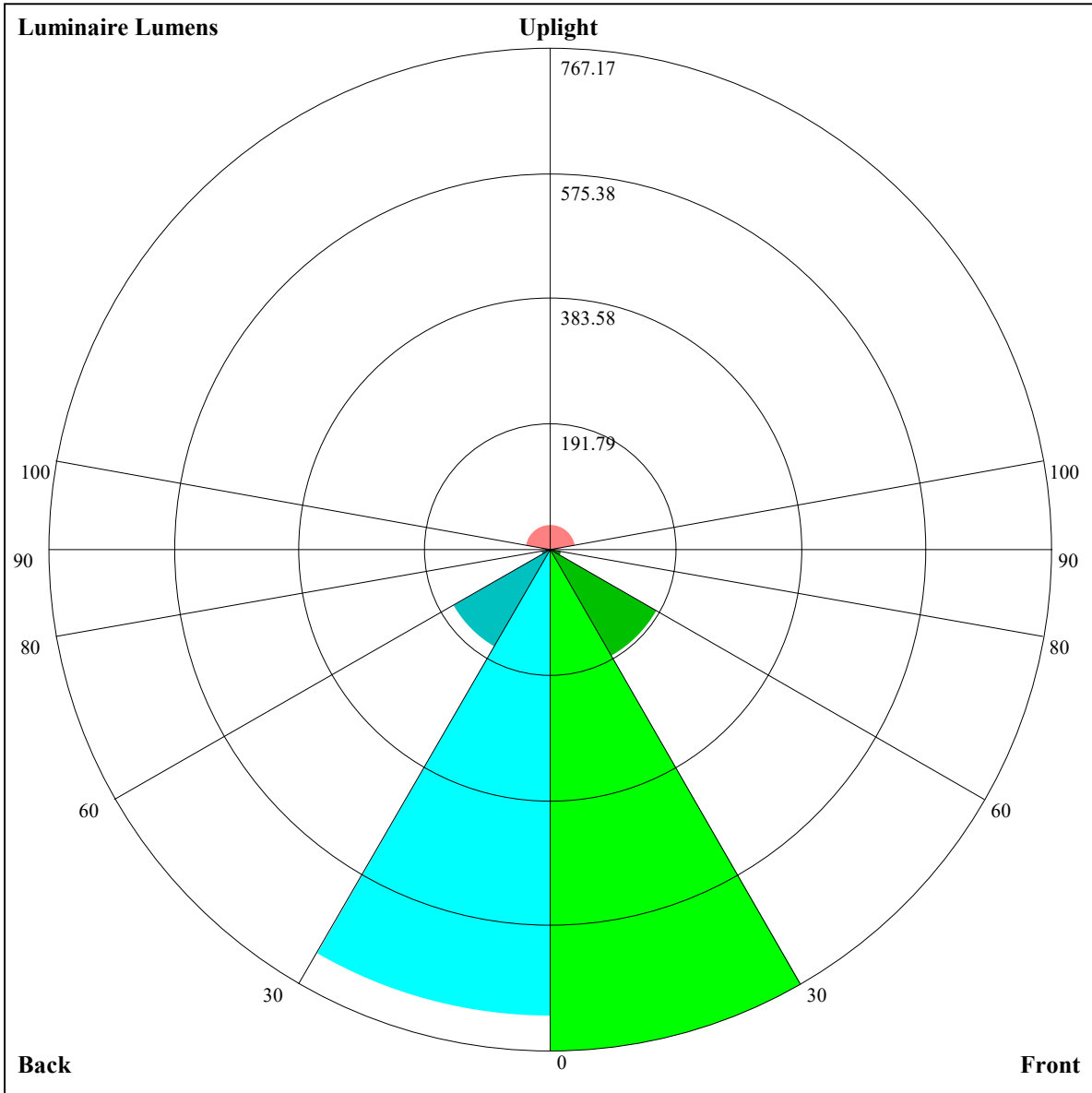
Luminance Limiting Curve





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	0.95	0.95	0.95	0.92	0.92	0.92	0.88	0.88	0.88	0.84	0.84	0.84	0.81	0.81	0.81	0.79
1	0.87	0.85	0.83	0.86	0.84	0.82	0.82	0.81	0.79	0.79	0.78	0.77	0.77	0.76	0.75	0.73
2	0.82	0.79	0.76	0.81	0.78	0.75	0.78	0.76	0.74	0.76	0.74	0.72	0.74	0.72	0.71	0.69
3	0.78	0.74	0.71	0.76	0.73	0.70	0.74	0.72	0.69	0.73	0.70	0.68	0.71	0.69	0.67	0.66
4	0.74	0.70	0.67	0.73	0.69	0.66	0.71	0.68	0.65	0.69	0.67	0.65	0.68	0.66	0.64	0.63
5	0.70	0.66	0.63	0.69	0.65	0.63	0.68	0.65	0.62	0.67	0.64	0.61	0.65	0.63	0.61	0.60
6	0.67	0.63	0.60	0.66	0.62	0.59	0.65	0.62	0.59	0.64	0.61	0.59	0.63	0.60	0.58	0.57
7	0.64	0.60	0.57	0.63	0.60	0.57	0.62	0.59	0.56	0.62	0.58	0.56	0.61	0.58	0.56	0.55
8	0.61	0.57	0.54	0.61	0.57	0.54	0.60	0.57	0.54	0.59	0.56	0.54	0.59	0.56	0.54	0.53
9	0.59	0.55	0.52	0.59	0.55	0.52	0.58	0.54	0.52	0.57	0.54	0.52	0.57	0.54	0.52	0.51
10	0.57	0.53	0.50	0.57	0.53	0.50	0.56	0.52	0.50	0.55	0.52	0.50	0.55	0.52	0.50	0.49





Luminaire Lumens:

FL=767.17,FM=188.48,FH=16.52,FVH=5.01

BL=715.49,BM=171.18,BH=15.94,BVH=4.93

UL=8.41,UH=40.02

BUG Rating:B2-U2-G0

Nata 3-1700.N

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	3851.75	3772.46	3357.89	2792.46	1994.14	1070.30	574.79	362.27	250.07
45.0	3847.89	3804.95	3479.01	2837.06	2015.06	1084.61	597.91	361.72	278.03
90.0	3864.96	3725.67	3252.73	2654.82	1790.43	925.28	537.90	341.24	211.80
135.0	3864.96	3715.76	3284.66	2636.65	1826.22	945.32	529.09	327.04	214.17
180.0	3851.75	3584.17	3072.70	2375.68	1526.71	762.37	453.83	292.02	187.85
225.0	3847.89	3542.33	3047.92	2365.22	1277.86	768.20	447.99	290.26	186.42
270.0	3864.96	3667.86	3177.86	2564.53	1675.37	932.10	520.83	334.74	212.19
315.0	3864.96	3646.94	3141.52	2493.50	1633.52	829.15	495.12	312.61	203.32
360.0	3851.75	3772.46	3357.89	2792.46	1994.14	1070.30	574.79	362.27	250.07

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	138.41	83.80	47.95	27.64	19.16	15.69	13.21	11.34	9.19
45.0	144.03	87.37	49.94	28.85	19.60	15.80	13.49	11.29	9.47
90.0	128.67	76.42	43.27	25.99	18.61	15.09	12.77	10.90	9.30
135.0	129.38	77.30	45.86	26.26	18.94	15.69	13.21	11.23	9.41
180.0	109.45	62.43	36.61	22.24	17.29	14.70	12.33	10.41	8.70
225.0	109.40	64.14	35.73	21.86	17.07	14.37	12.22	10.19	8.53
270.0	124.15	71.85	41.13	23.51	17.67	14.70	12.44	10.57	8.53
315.0	119.31	71.85	40.91	23.40	17.84	14.81	12.44	10.52	8.70
360.0	138.41	83.80	47.95	27.64	19.16	15.69	13.21	11.34	9.19

C/γ(°)	90.0
0.0	7.76
45.0	7.76
90.0	7.71
135.0	7.65
180.0	7.71
225.0	7.71
270.0	7.65
315.0	7.71
360.0	7.76