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Nata

Client:

LumCAT: LM01D03030AE

Luminaire:

Report No: GC2019091909

Voltage(V): 220.5000

Test No: NATA07

Current(A): 0.0440

LampCAT: BRIDGELUX V4-HD

Power (W): 8.8800

Lamp flux(lm): 656.0

PF: 0.9060

Number of Lamps: 1

Ballast type: AC

Length(mm): 30

Width(mm): 30

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 596.63, Efficiency(%): 90.95% , Luminous Efficacy(lm/W): 67.19

Central intensity(cd): 2122.303, Maximum intensity(cd): 2122.303

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=24.0

[C90/270]Total=24.0

Field angle(10%Imax): [C0/180]Total=50.6

[C90/270]Total=50.6

Maximum s/h(1/2): C0_180=0.40 C90_270=0.40

Maximum s/h(1/4): C0_180=0.45 C90_270=0.45

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 90.95%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 94.735%

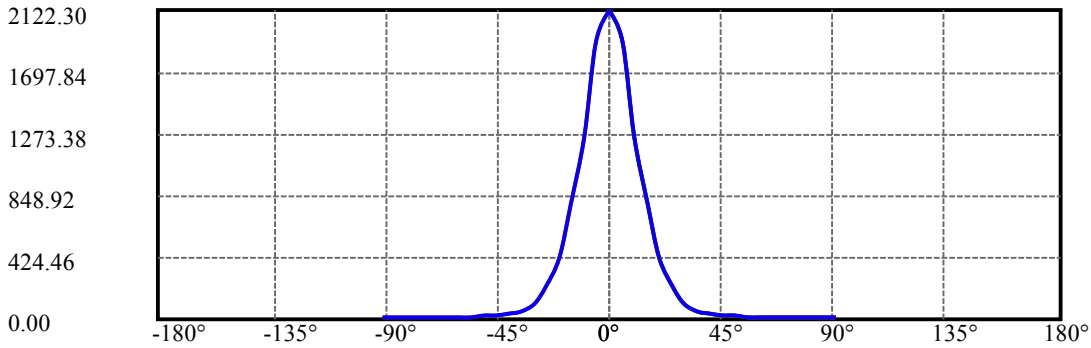
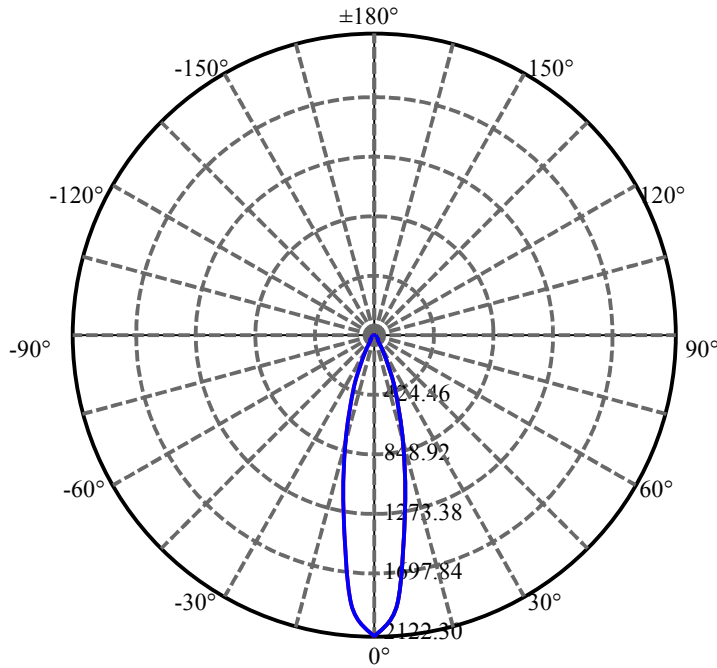
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	2122.303	0.000	0	.000%	.000%
5.0	1894.289	48.017	48.017	7.320%	8.048%
10.0	1248.035	112.411	160.428	17.136%	26.889%
15.0	785.023	120.600	281.028	18.384%	47.102%
20.0	422.247	99.496	380.524	15.167%	63.778%
25.0	220.451	67.407	447.931	10.275%	75.076%
30.0	102.134	40.823	488.754	6.223%	81.919%
35.0	53.874	22.973	511.727	3.502%	85.769%
40.0	35.348	14.886	526.613	2.269%	88.264%
45.0	26.554	11.462	538.075	1.747%	90.185%
50.0	22.535	9.919	547.994	1.512%	91.848%
55.0	19.304	9.097	557.091	1.387%	93.372%
60.0	15.864	8.129	565.22	1.239%	94.735%
65.0	13.213	7.069	572.289	1.078%	95.920%
70.0	10.911	6.108	578.397	.931%	96.943%
75.0	8.973	5.197	583.595	.792%	97.815%
80.0	8.051	4.555	588.15	.694%	98.578%
85.0	8.190	4.413	592.563	.673%	99.318%
90.0	6.676	4.071	596.634	.621%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	488.75	74.51%	81.92%
0-40	526.61	80.28%	88.26%
0-60	565.22	86.16%	94.73%
0-90	592.56	90.33%	99.32%
0-120	592.56	90.33%	99.32%
0-180	596.63	90.95%	100.00%
60-90	35.47	5.41%	5.95%
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%
0-28.60	477.31	72.76%	80.00%

ZONAL LUMEN SUMMARY

0-10	160.43
10-20	220.10
20-30	108.23
30-40	37.86
40-50	21.38
50-60	17.23
60-70	13.18
70-80	9.75
80-90	4.41
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: —————

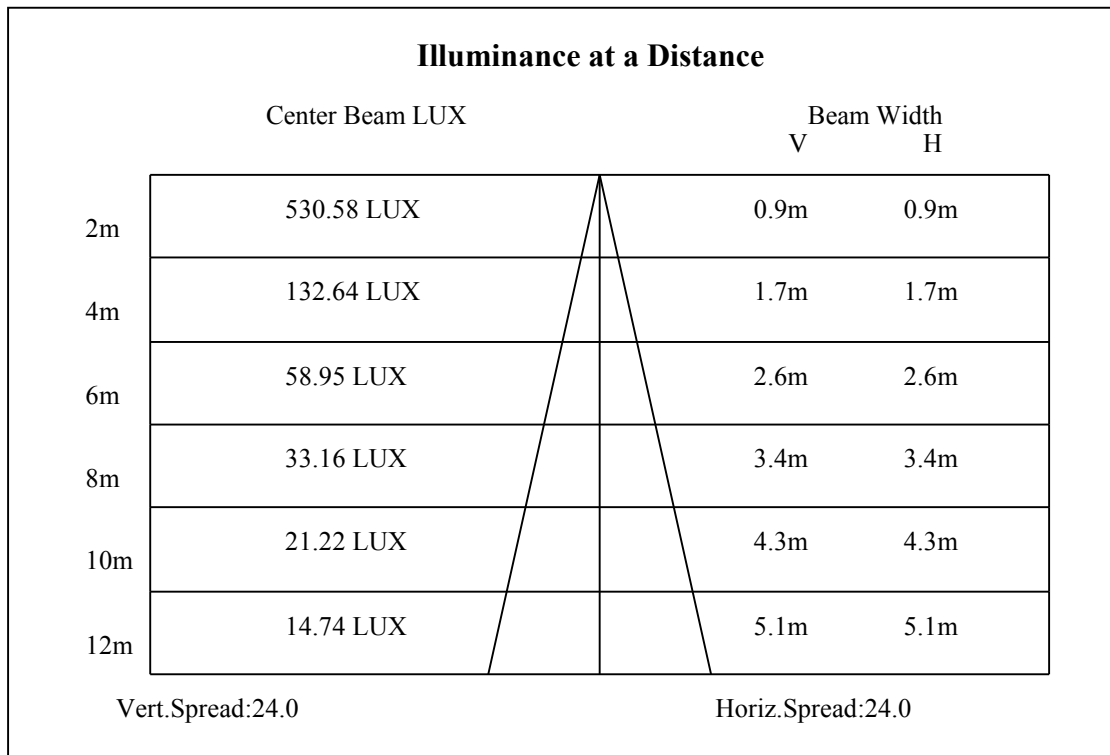
C90/C270: —————

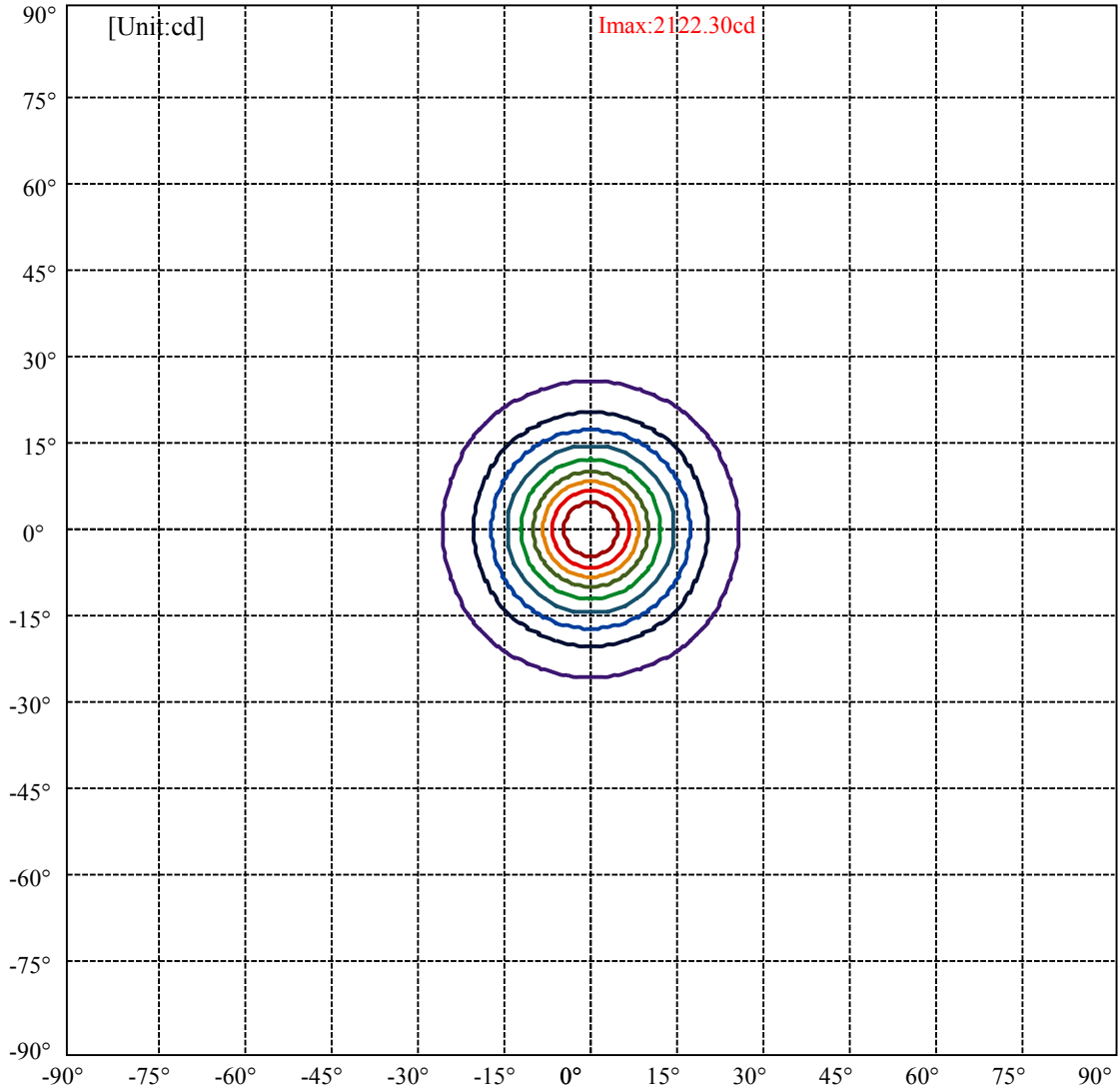
Field angle(10%Imax):C0/180Left:25.3 Right:25.3

:C90/270Left:25.3 Right:25.3

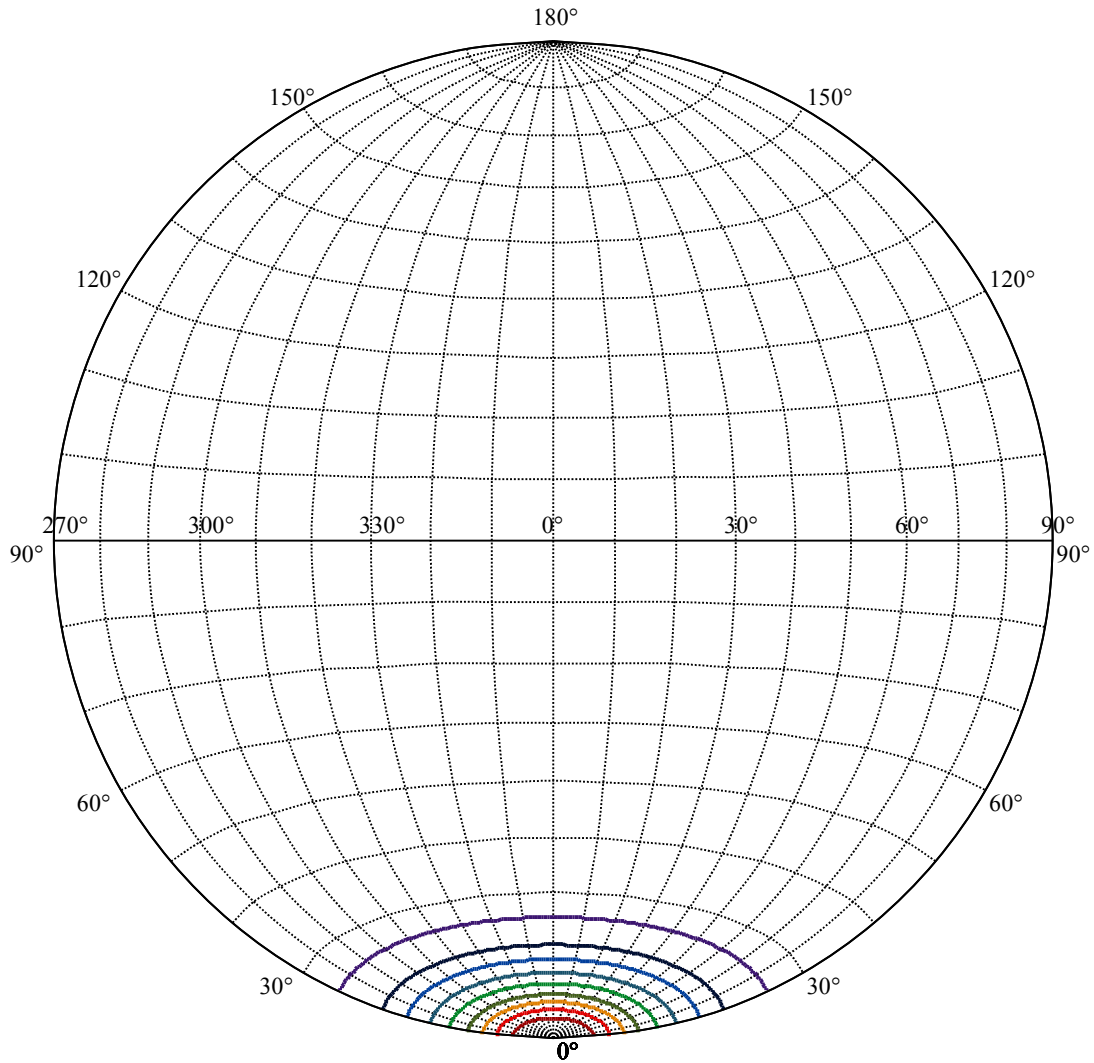
Beam Angle(50%Imax):C0/180Left:12.0 Right:12.0

:C90/270Left:12.0 Right:12.0





(10%Imax) 212.23	—
(20%Imax) 424.461	—
(30%Imax) 636.691	—
(40%Imax) 848.921	—
(50%Imax) 1061.15	—
(60%Imax) 1273.38	—
(70%Imax) 1485.61	—
(80%Imax) 1697.84	—
(90%Imax) 1910.07	—



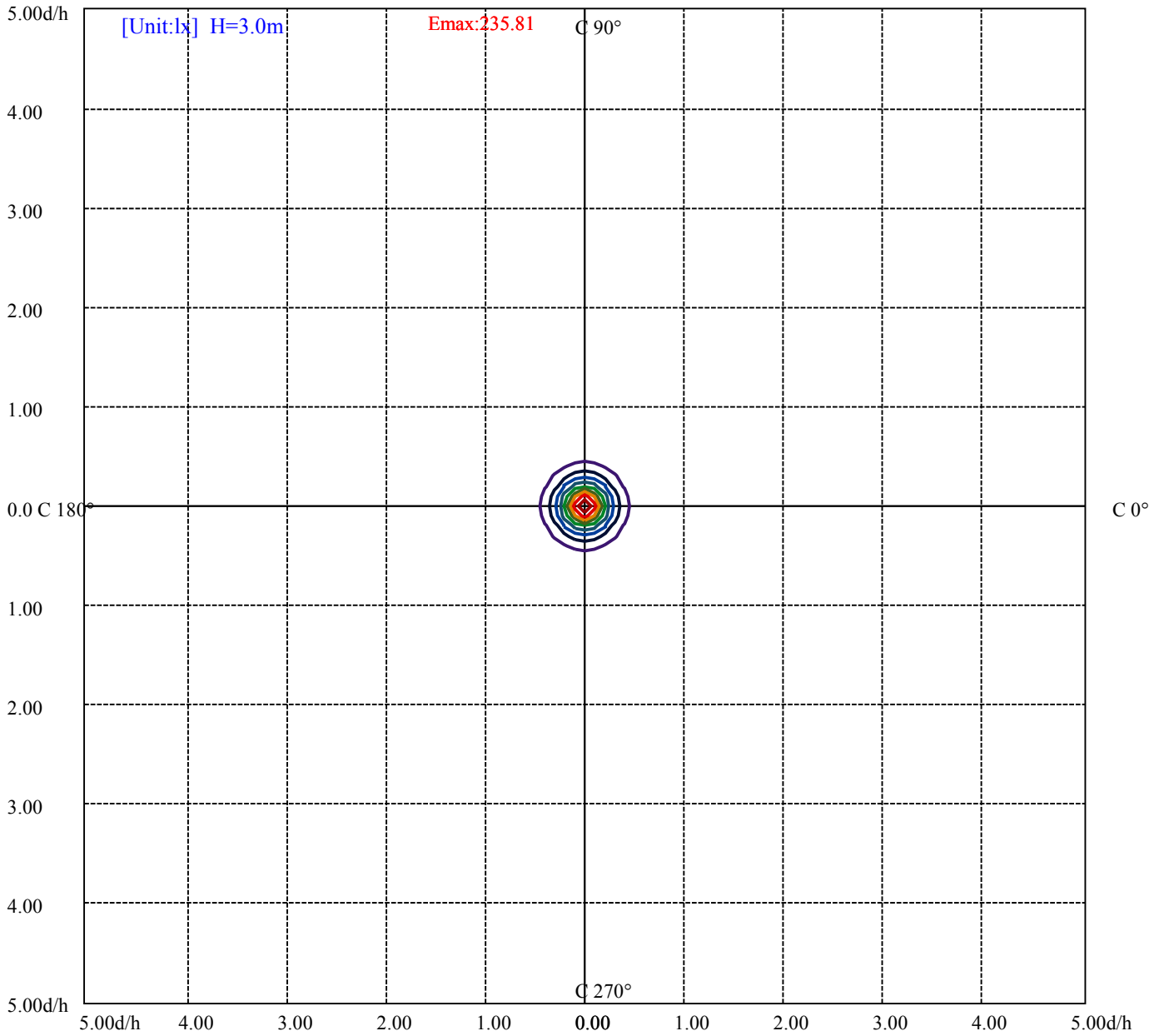
House

[Unit:cd]

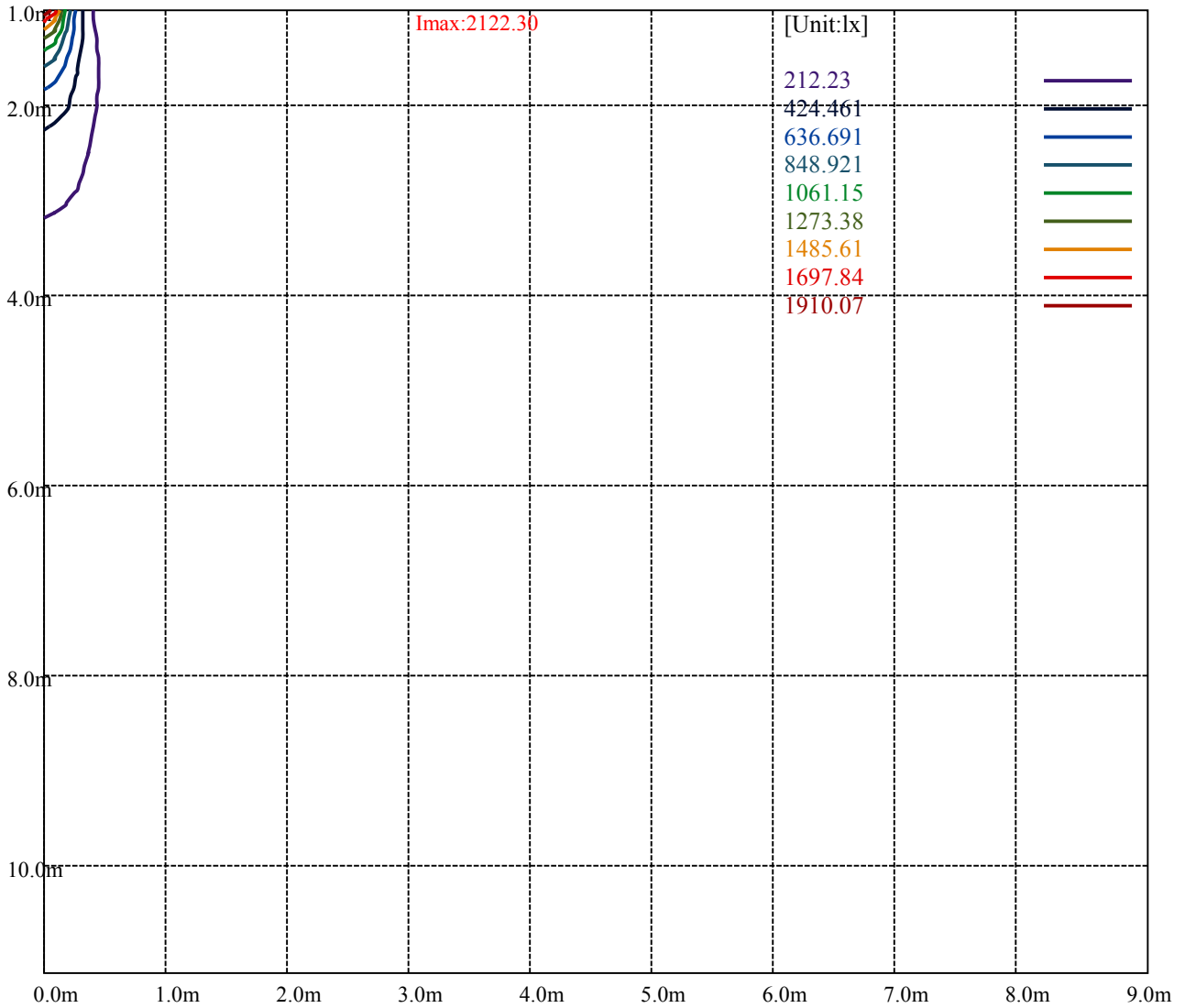
Road

I_{max}:2122.30

(10%I _{max})	212.23	—
(20%I _{max})	424.461	—
(30%I _{max})	636.691	—
(40%I _{max})	848.921	—
(50%I _{max})	1061.15	—
(60%I _{max})	1273.38	—
(70%I _{max})	1485.61	—
(80%I _{max})	1697.84	—
(90%I _{max})	1910.07	—



(10%Emax) 23.58111	—
(20%Emax) 47.16211	—
(30%Emax) 70.74323	—
(40%Emax) 94.32433	—
(50%Emax) 117.9056	—
(60%Emax) 141.4867	—
(70%Emax) 165.0678	—
(80%Emax) 188.6489	—
(90%Emax) 212.23	—



Luminance Table

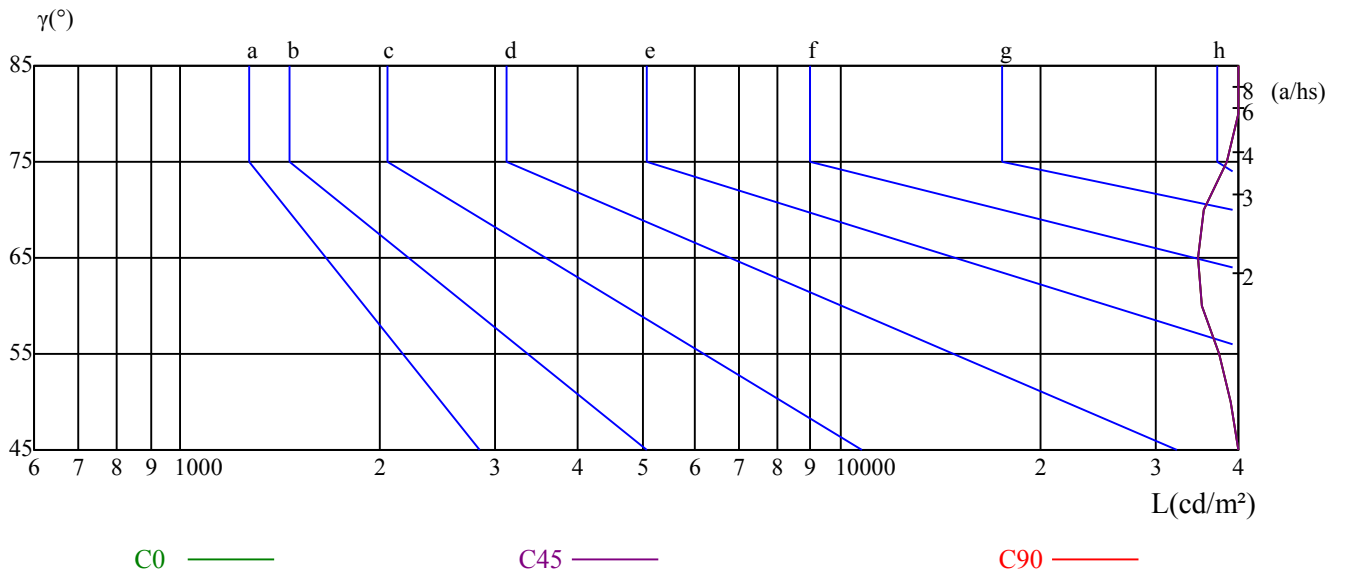
γ	45	50	55	60	65	70	75	80	85
C0	41726	38953	37395	35254	34739	35445	38522	51515	104413
C45	41726	38953	37395	35254	34739	35445	38522	51515	104413
C90	41726	38953	37395	35254	34739	35445	38522	51515	104413

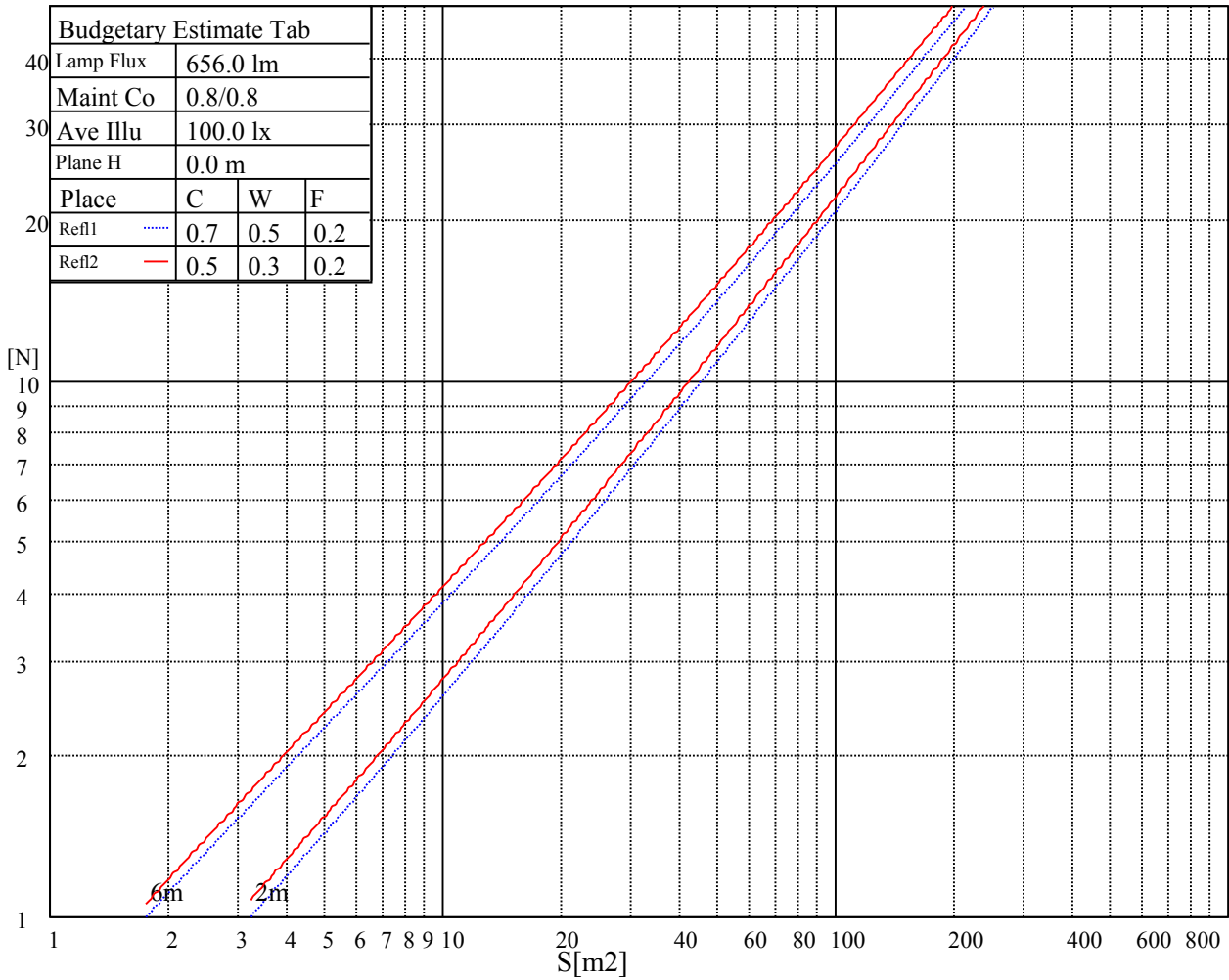
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
34739	34739	34739	38522	38522	38522	104413	104413	104413

Glare Table

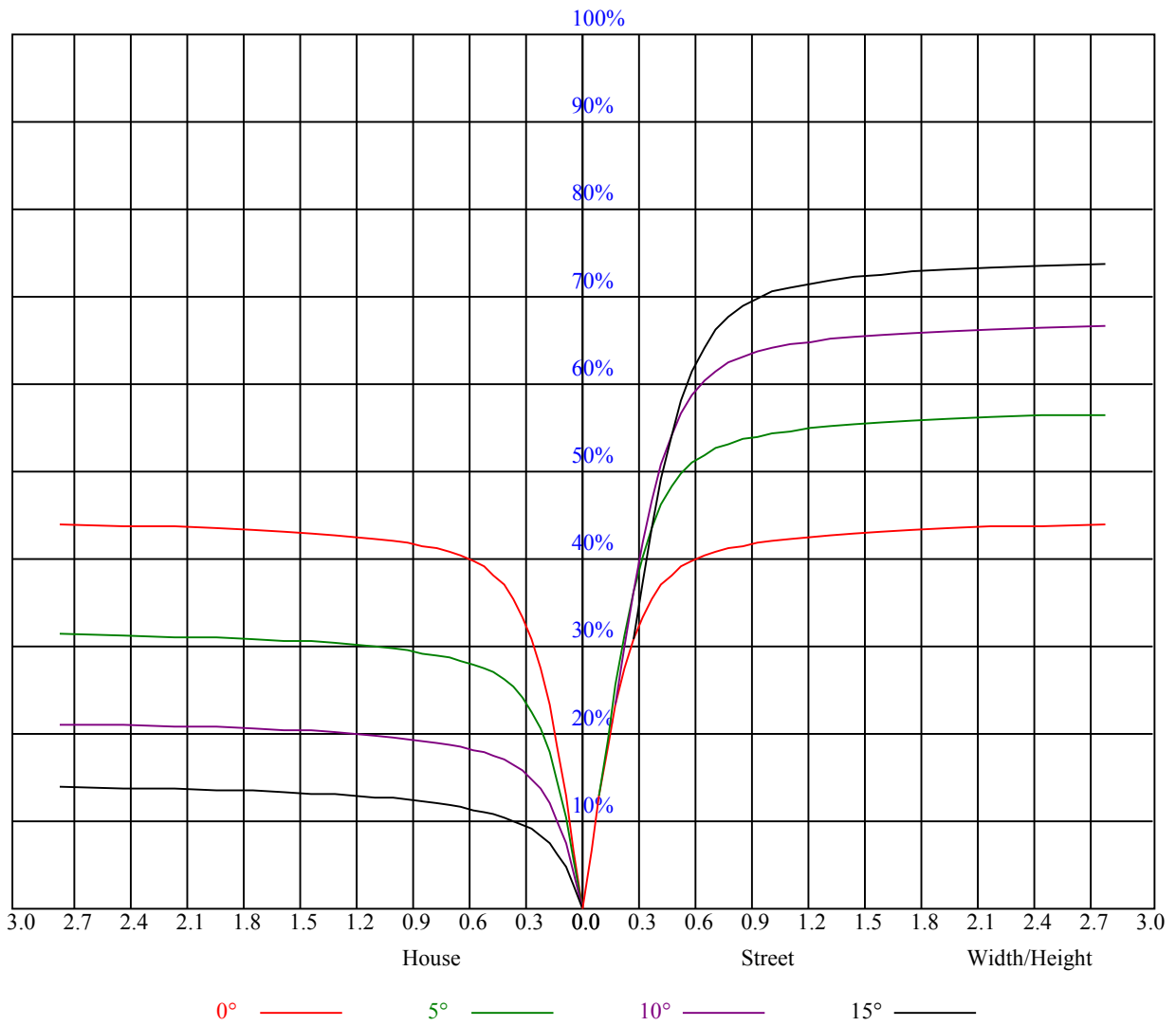
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

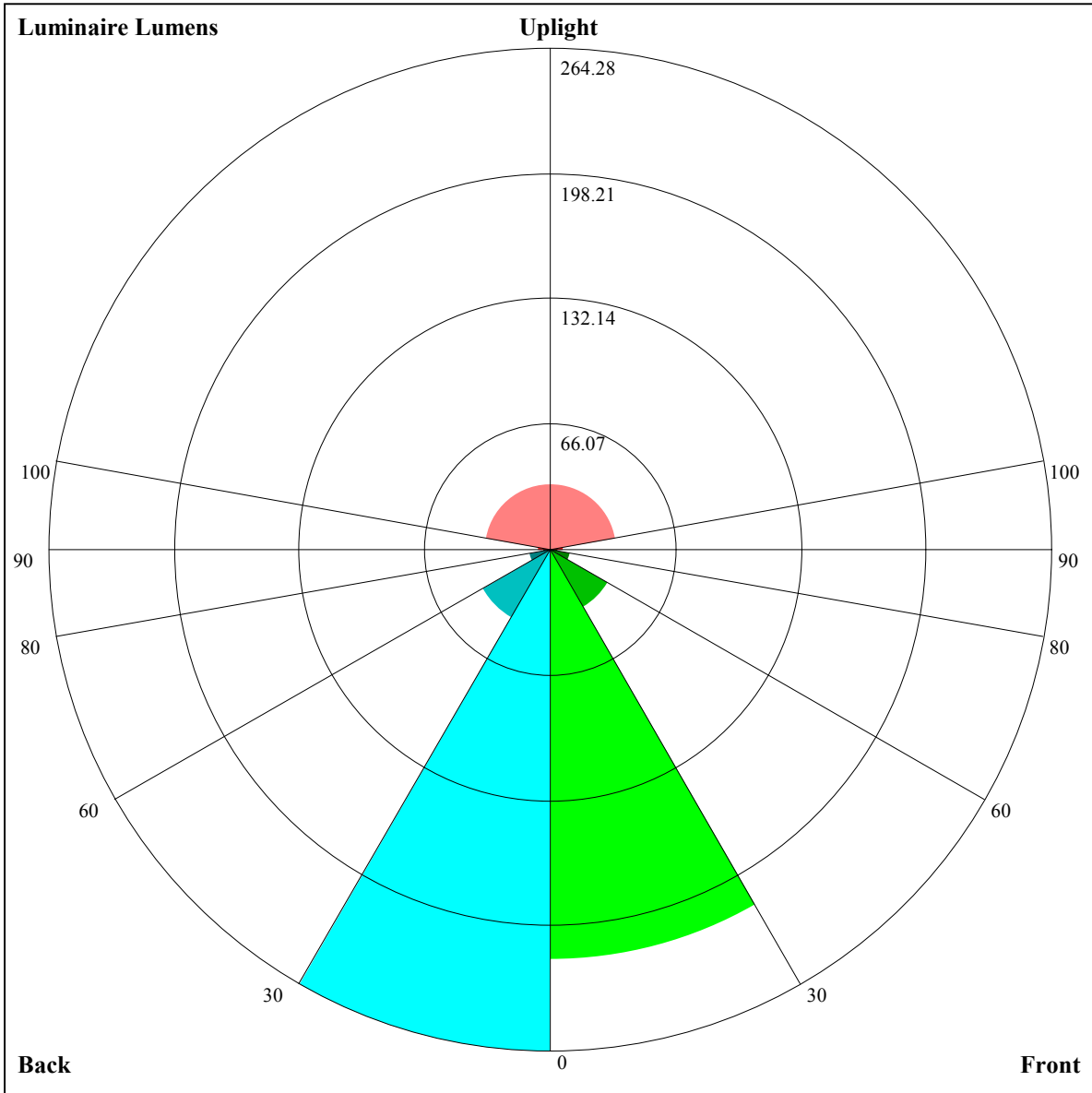
Luminance Limiting Curve





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	1.08	1.08	1.08	1.06	1.06	1.06	1.01	1.01	1.01	0.97	0.97	0.97	0.93	0.93	0.93	0.91
1	1.00	0.98	0.96	0.99	0.96	0.95	0.95	0.93	0.92	0.91	0.90	0.89	0.88	0.87	0.86	0.85
2	0.94	0.91	0.88	0.93	0.89	0.87	0.90	0.87	0.85	0.87	0.85	0.83	0.84	0.83	0.81	0.80
3	0.89	0.85	0.81	0.88	0.84	0.81	0.85	0.82	0.79	0.83	0.80	0.78	0.81	0.79	0.77	0.75
4	0.84	0.80	0.76	0.83	0.79	0.76	0.81	0.78	0.75	0.80	0.76	0.74	0.78	0.75	0.73	0.72
5	0.80	0.75	0.72	0.79	0.75	0.72	0.78	0.74	0.71	0.76	0.73	0.70	0.75	0.72	0.70	0.69
6	0.77	0.72	0.68	0.76	0.71	0.68	0.75	0.71	0.68	0.73	0.70	0.67	0.72	0.69	0.67	0.66
7	0.73	0.69	0.65	0.73	0.68	0.65	0.72	0.68	0.65	0.71	0.67	0.65	0.70	0.67	0.64	0.63
8	0.71	0.66	0.63	0.70	0.66	0.63	0.69	0.65	0.62	0.68	0.65	0.62	0.68	0.64	0.62	0.61
9	0.68	0.63	0.60	0.68	0.63	0.60	0.67	0.63	0.60	0.66	0.62	0.60	0.65	0.62	0.60	0.59
10	0.66	0.61	0.58	0.65	0.61	0.58	0.65	0.61	0.58	0.64	0.60	0.58	0.63	0.60	0.58	0.57





Luminaire Lumens:

FL=216.33,FM=35.35,FH=10.49,FVH=4.31

BL=264.28,BM=41.79,BH=11.99,BVH=4.4

UL=7.28,UH=34.66

BUG Rating:B1-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	2081.70	1623.70	807.88	517.44	244.78	121.30	58.79	33.74	25.89
45.0	2151.31	1920.22	1327.65	712.80	348.54	250.16	79.86	42.51	29.93
90.0	2121.61	1736.46	835.82	551.87	258.56	132.34	65.61	44.13	29.51
135.0	2134.60	1978.68	1425.56	892.85	454.80	273.83	93.09	47.70	30.90
180.0	2081.70	2091.45	1648.76	1030.66	574.06	282.18	132.20	70.63	40.28
225.0	2151.31	1935.99	1399.11	870.85	519.11	237.49	127.56	64.18	42.04
270.0	2121.61	2066.85	1660.82	1010.71	615.35	291.92	177.59	81.30	49.93
315.0	2134.60	1800.96	878.69	692.99	362.78	174.38	82.37	46.82	34.29
360.0	2081.70	1623.70	807.88	517.44	244.78	121.30	58.79	33.74	25.89
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	22.74	20.65	18.65	15.96	13.09	10.35	8.07	7.42	7.15
45.0	21.76	17.91	16.10	13.87	11.69	9.93	8.12	10.44	7.05
90.0	19.49	16.19	14.43	11.83	10.02	8.68	10.26	9.88	7.01
135.0	24.22	22.09	21.53	21.16	18.89	15.55	11.04	7.93	7.75
180.0	31.88	27.84	25.06	21.72	17.49	13.36	10.30	8.26	7.89
225.0	31.37	25.24	18.56	13.83	11.42	9.23	7.47	6.59	8.03
270.0	33.22	25.80	20.14	14.85	11.60	10.53	8.40	6.87	13.41
315.0	27.75	24.55	19.95	13.69	11.51	9.65	8.12	7.01	7.24
360.0	22.74	20.65	18.65	15.96	13.09	10.35	8.07	7.42	7.15
C/ γ (°)	90.0								
0.0	6.59								
45.0	6.73								
90.0	6.68								
135.0	7.01								
180.0	7.75								
225.0	6.03								
270.0	6.17								
315.0	6.45								
360.0	6.59								