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Nata

Client:

LumCAT: 1405-N

Luminaire: 92.70.046.00

Report No: NT2018040601

Test No: nata-0100

LampCAT: CREE 1512

Lamp flux(lm): 1248.2

Number of Lamps: 1

Length(mm): 39

Phm Type: C

Voltage(V): 35.5000

Current(A): 0.3500

Power (W): 12.4250

PF: 0.0000

Ballast type: DC

Width(mm): 39

Height(mm): 0

Photometric Results

Lumens(lm): 1039.42, Efficiency(%): 83.27% , Luminous Efficacy(lm/W): 83.66

Central intensity(cd): 2313.607, Maximum intensity(cd): 2313.607

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=24.8

[C90/270]Total=24.8

Field angle(10%Imax): [C0/180]Total=78.2

[C90/270]Total=78.2

IES Classification : TypeI

Longitudinal Classification : VeryShort

Cut Off Classification : FullCutoff

Max Cd(At 90°Vert) : 4.280635

Max Cd(80 to 90°Vert) : 17.21201

Street Side UpWard Lumens: - -of Lamp 0.00%of Luminaire

Street Side DownWard Lumens: 42.15%of Lamp 50.00%of Luminaire

House Side UpWard Lumens: - -of lamp 0.00%of Luminaire

House Side DownWard Lumens: 42.15%of Lamp 50.00%of Luminaire

SLI: 6.153 (C Flash Area: 0.000)

Throw: 92.0 (long), Spread: 4.1 (narrow), Control: 6.153 (tight)

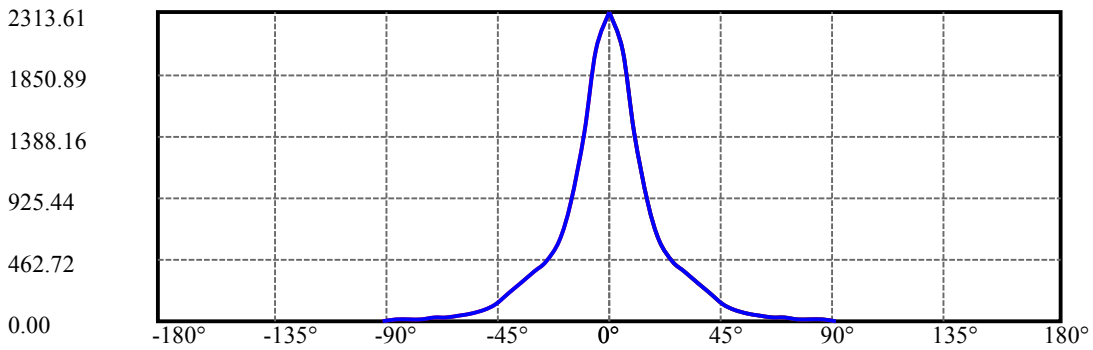
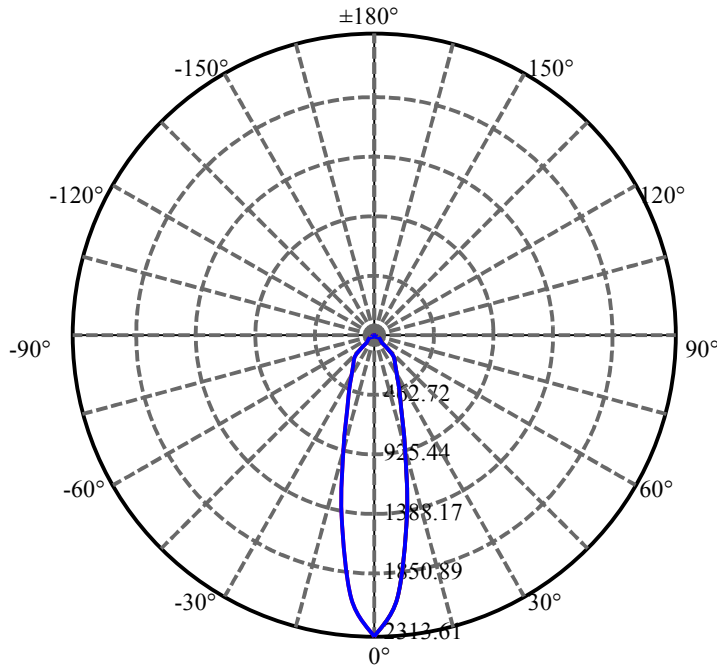
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	2313.608	13.836	13.836	1.108%	1.331%
5.0	2029.172	96.940	110.776	7.766%	10.657%
10.0	1401.667	133.415	244.191	10.688%	23.493%
15.0	897.715	127.357	371.549	10.203%	35.746%
20.0	598.539	112.210	483.759	8.990%	46.541%
25.0	450.616	104.386	588.145	8.363%	56.584%
30.0	366.930	100.564	688.71	8.057%	66.259%
35.0	288.874	90.822	779.531	7.276%	74.996%
40.0	218.333	76.927	856.458	6.163%	82.397%
45.0	135.349	52.460	908.918	4.203%	87.444%
50.0	84.635	35.538	944.456	2.847%	90.863%
55.0	54.038	24.263	968.72	1.944%	93.198%
60.0	38.767	18.403	987.122	1.474%	94.968%
65.0	28.939	14.376	1001.499	1.152%	96.351%
70.0	22.835	11.762	1013.26	.942%	97.483%
75.0	20.440	10.822	1024.082	.867%	98.524%
80.0	17.212	9.291	1033.373	.744%	99.418%
85.0	8.933	4.878	1038.251	.391%	99.887%
90.0	4.281	1.173	1039.424	.094%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	688.71	55.17%	66.26%
0-40	856.46	68.61%	82.40%
0-60	987.12	79.08%	94.97%
0-90	1038.25	83.18%	99.89%
0-120	1038.25	83.18%	99.89%
0-180	1039.42	83.27%	100.00%
60-90	69.53	5.57%	6.69%
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%
0-38.38	831.54	66.62%	80.00%

ZONAL LUMEN SUMMARY

0-10	244.19
10-20	239.57
20-30	204.95
30-40	167.75
40-50	88.00
50-60	42.67
60-70	26.14
70-80	20.11
80-90	4.88
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



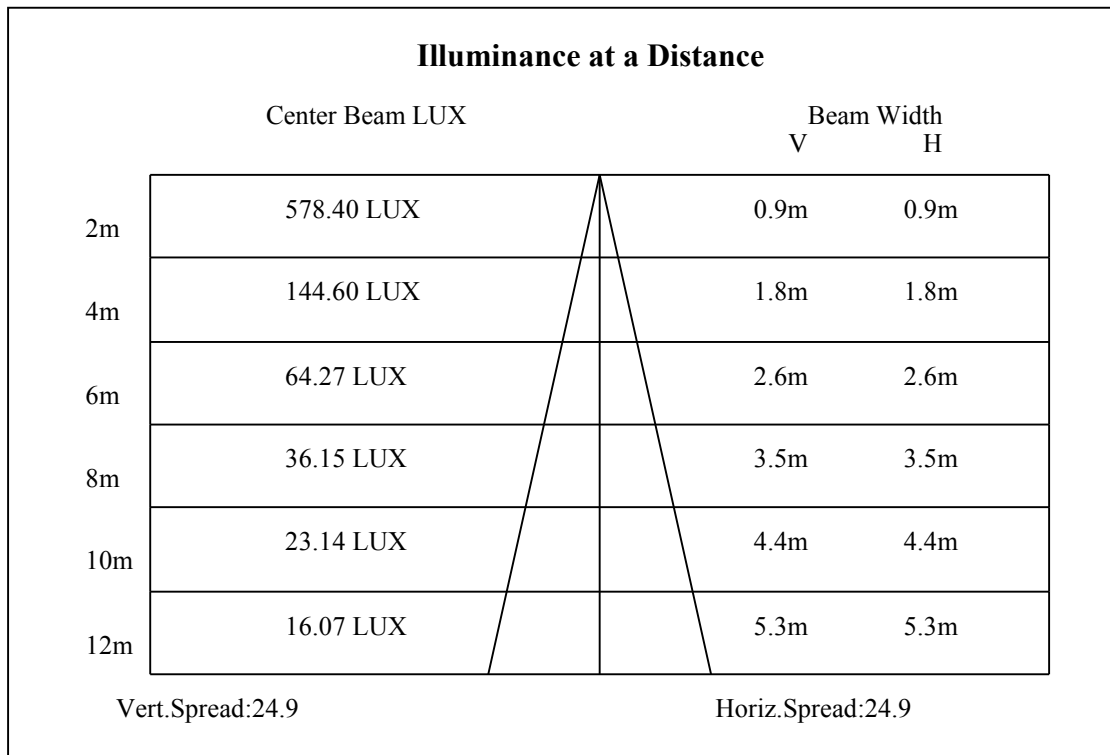
C0(Max): —————

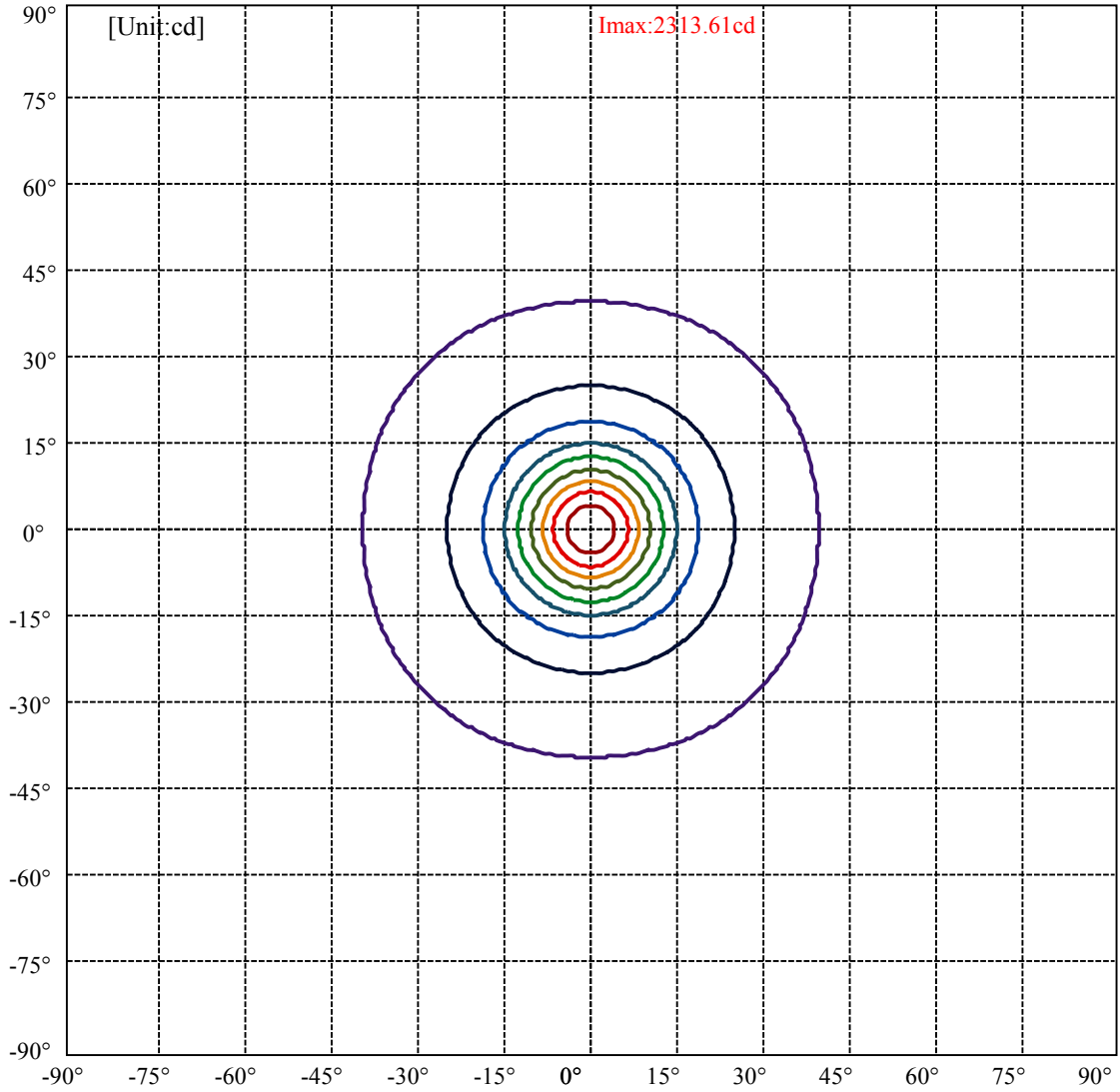
C0/C180: —————

C90/C270: —————

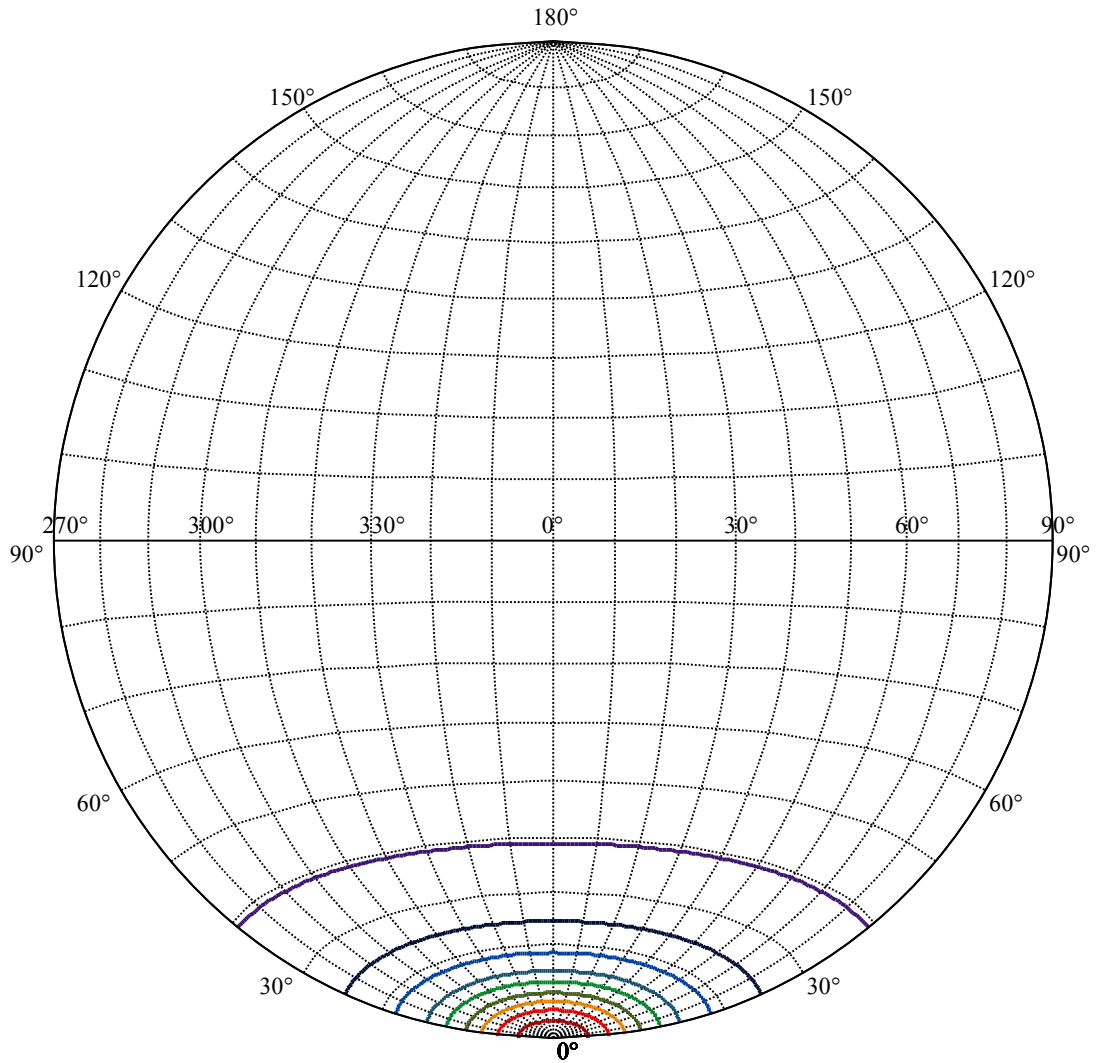
Field angle(10%Imax):C0/180Left:39.1 Right:39.1
:C90/270Left:39.1 Right:39.1

Beam Angle(50%Imax):C0/180Left:12.4 Right:12.4
:C90/270Left:12.4 Right:12.4





(10%Imax) 231.361	—
(20%Imax) 462.721	—
(30%Imax) 694.082	—
(40%Imax) 925.443	—
(50%Imax) 1156.8	—
(60%Imax) 1388.16	—
(70%Imax) 1619.53	—
(80%Imax) 1850.89	—
(90%Imax) 2082.25	—



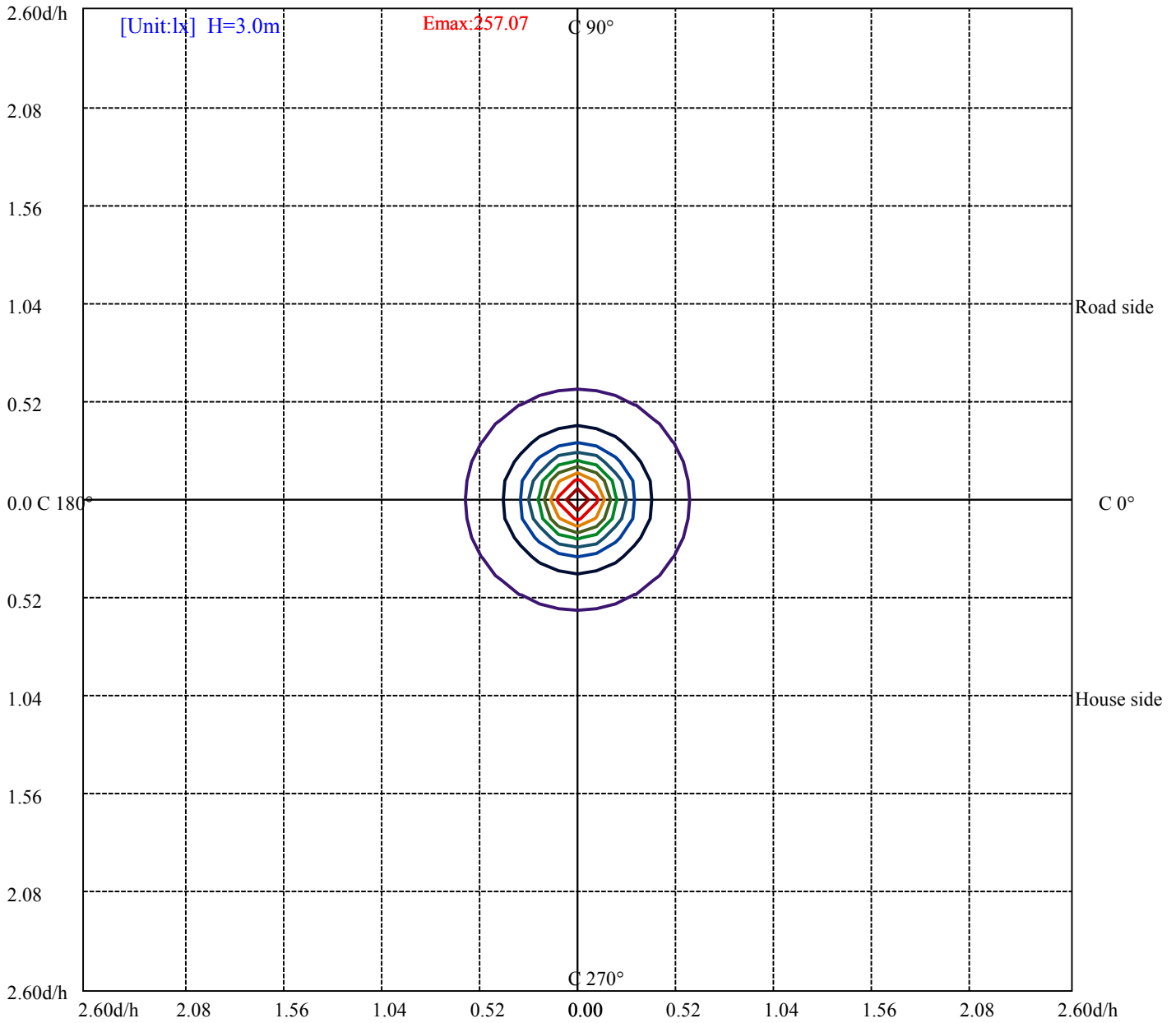
House

[Unit:cd]

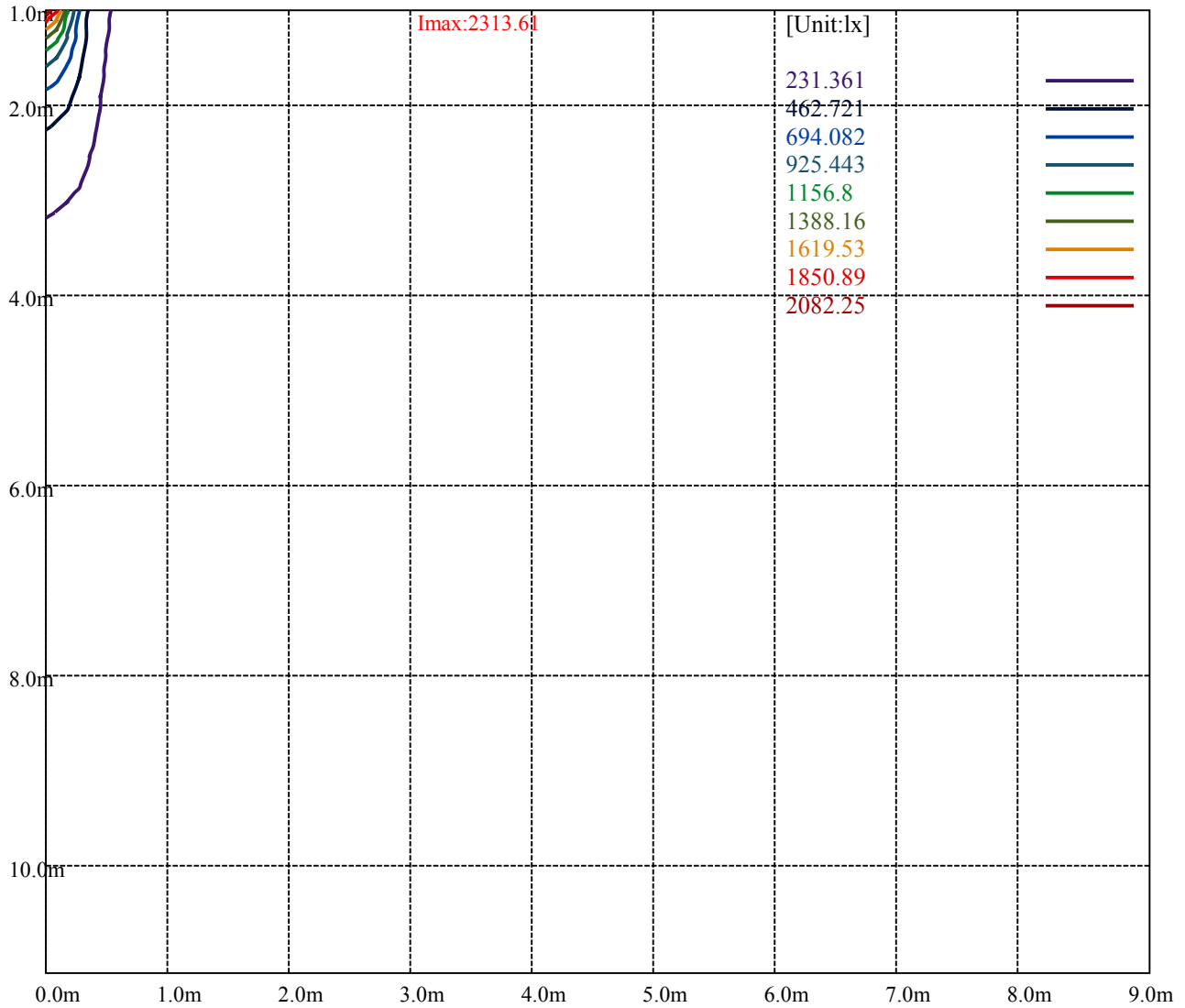
Road

Imax:2313.61

(10%Imax) 231.361	—
(20%Imax) 462.721	—
(30%Imax) 694.082	—
(40%Imax) 925.443	—
(50%Imax) 1156.8	—
(60%Imax) 1388.16	—
(70%Imax) 1619.53	—
(80%Imax) 1850.89	—
(90%Imax) 2082.25	—



(10%Emax) 25.70667	—
(20%Emax) 51.41333	—
(30%Emax) 77.12	—
(40%Emax) 102.8267	—
(50%Emax) 128.5333	—
(60%Emax) 154.24	—
(70%Emax) 179.9467	—
(80%Emax) 205.6533	—
(90%Emax) 231.36	—



Luminance Table

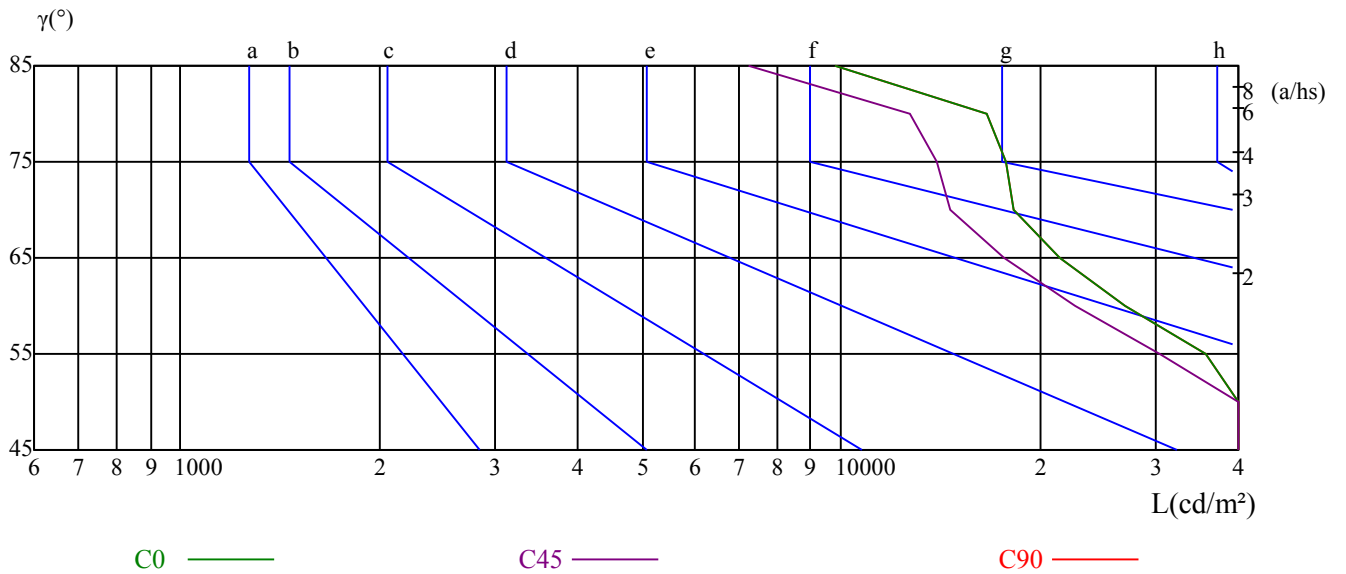
γ	45	50	55	60	65	70	75	80	85
C0	83187	53730	35755	26996	21441	18221	17819	16674	9821
C45	72945	46434	30427	22594	17618	14668	14008	12745	7254
C90	83187	53730	35755	26996	21441	18221	17819	16674	9821

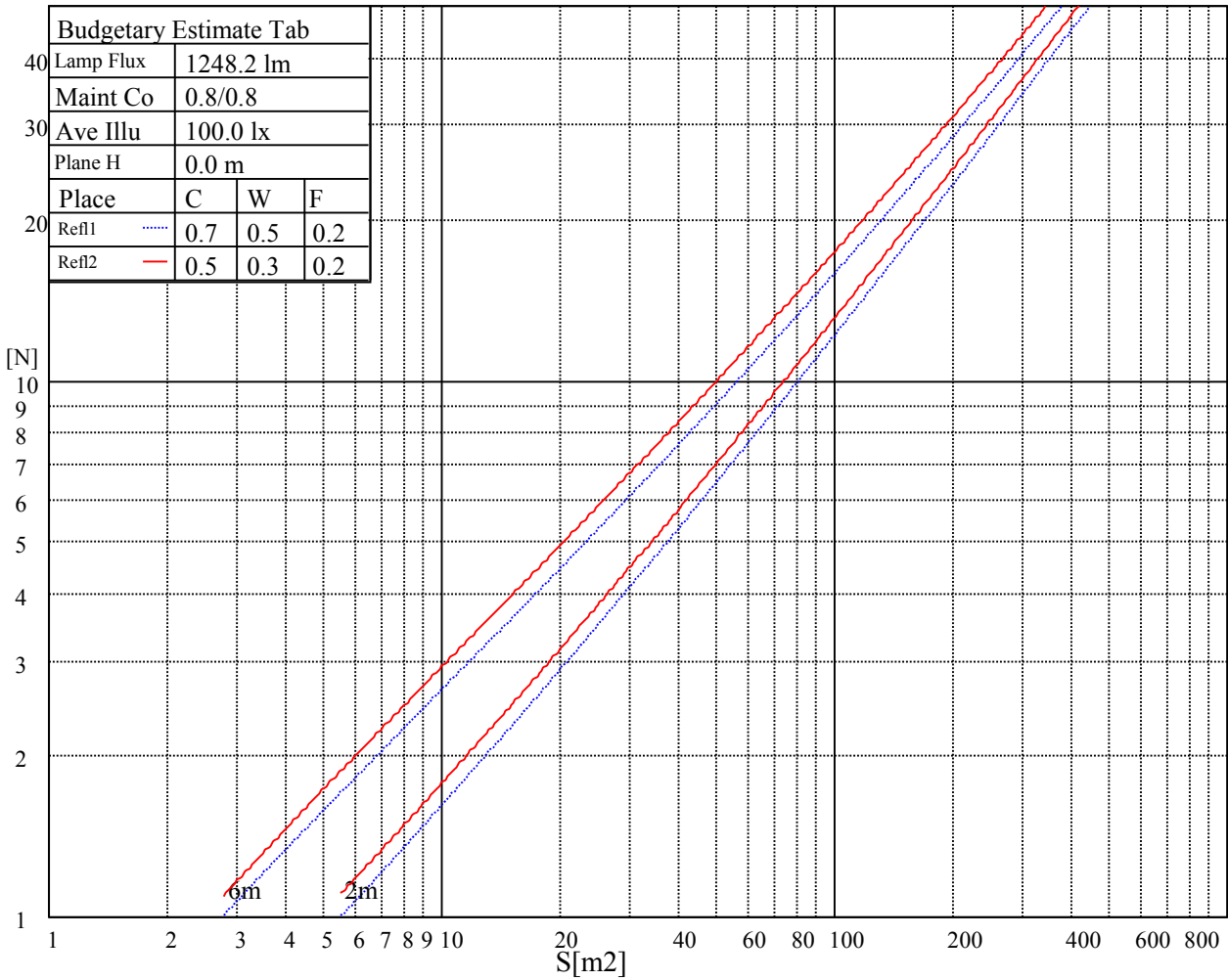
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
45020	45020	45020	51922	51922	51922	67386	67386	67386

Glare Table

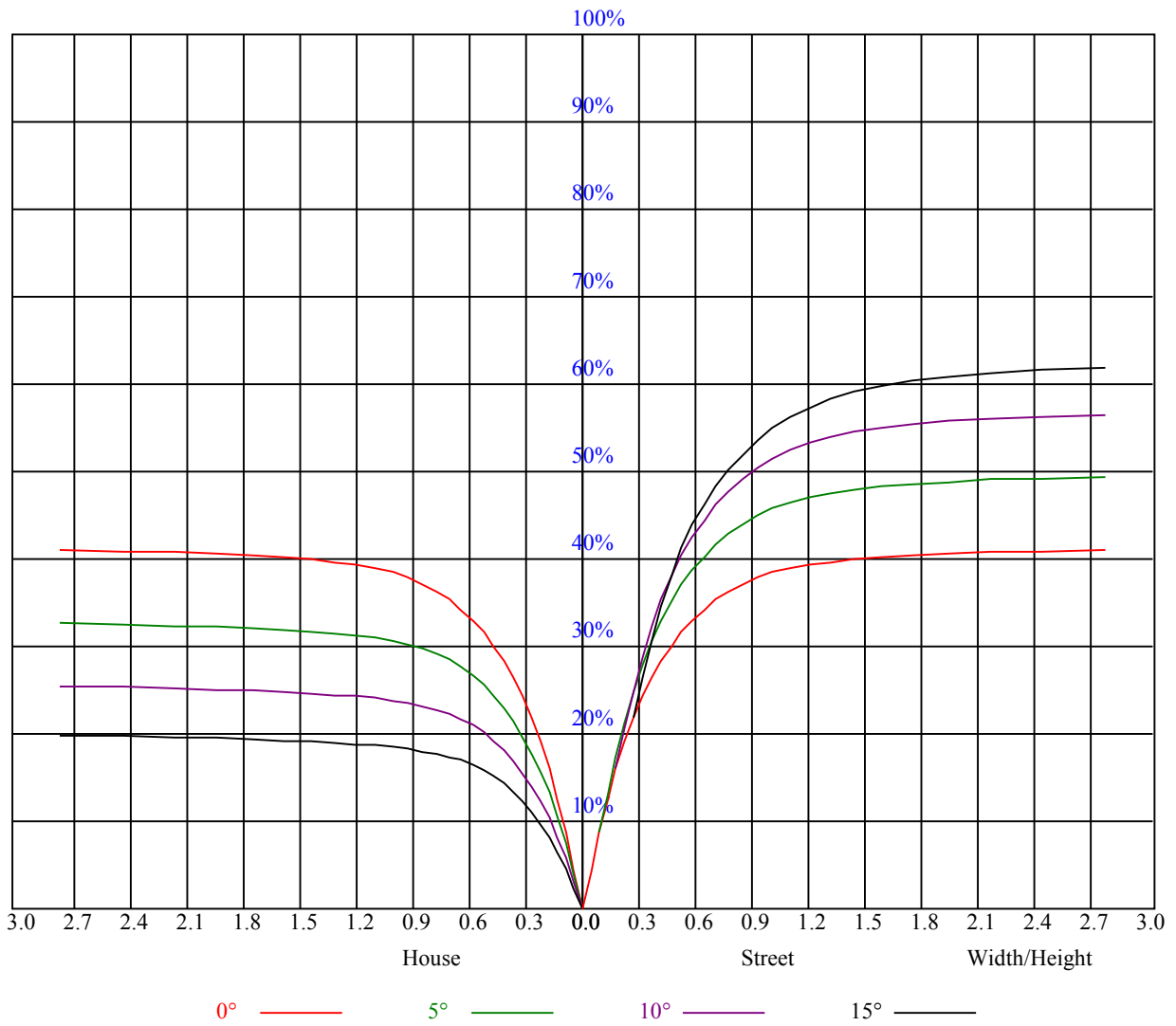
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

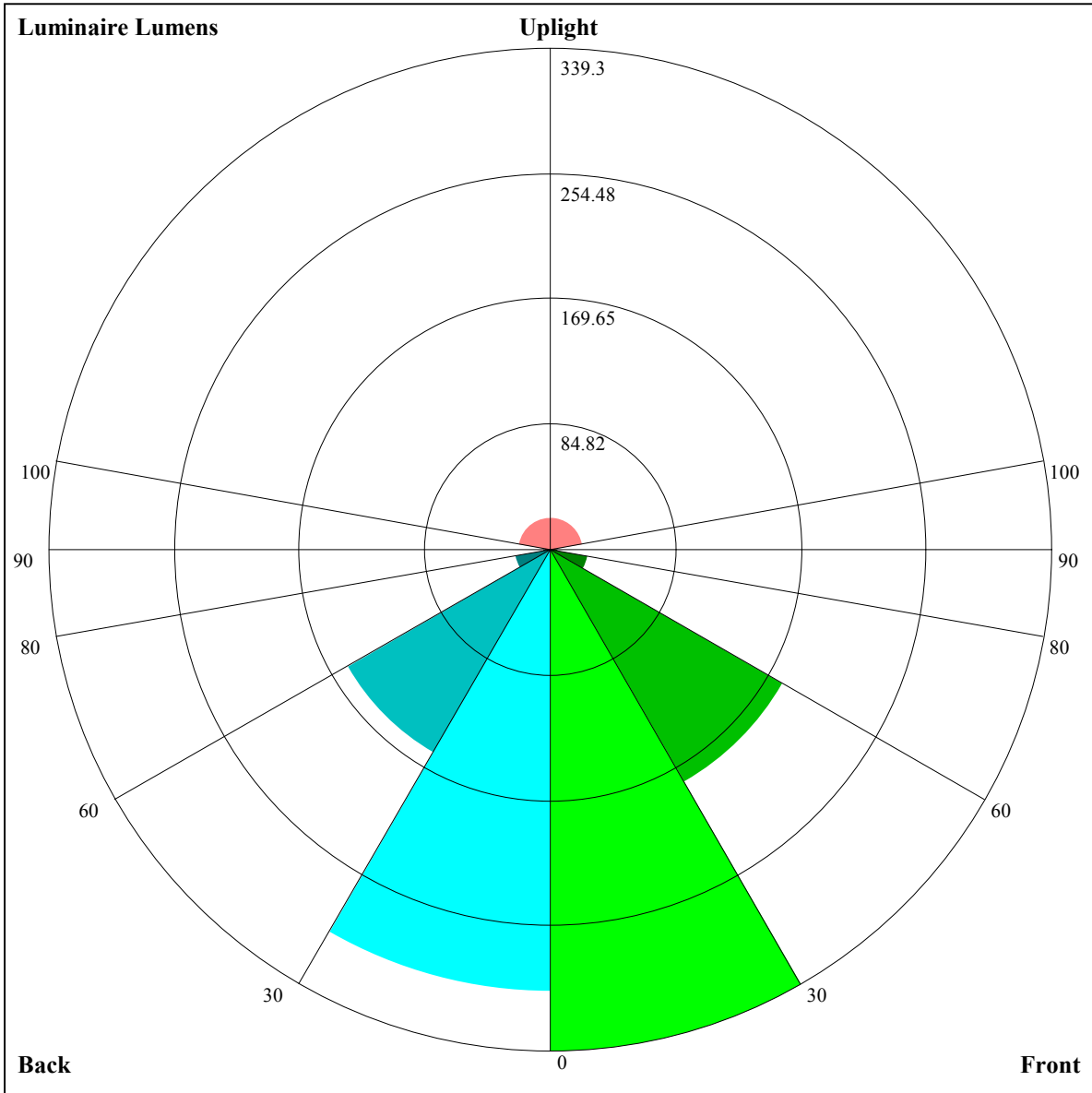
Luminance Limiting Curve





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	1.00	1.00	1.00	0.98	0.98	0.98	0.94	0.94	0.94	0.90	0.90	0.90	0.86	0.86	0.86	0.84
1	0.91	0.89	0.86	0.89	0.87	0.85	0.86	0.84	0.82	0.83	0.81	0.80	0.80	0.79	0.77	0.76
2	0.84	0.80	0.77	0.83	0.79	0.76	0.80	0.77	0.75	0.78	0.75	0.73	0.75	0.73	0.71	0.70
3	0.79	0.74	0.70	0.77	0.73	0.70	0.75	0.71	0.68	0.73	0.70	0.67	0.71	0.68	0.66	0.65
4	0.73	0.68	0.65	0.72	0.68	0.64	0.71	0.67	0.63	0.69	0.65	0.63	0.67	0.64	0.62	0.60
5	0.69	0.64	0.60	0.68	0.63	0.60	0.67	0.62	0.59	0.65	0.61	0.59	0.64	0.61	0.58	0.57
6	0.65	0.60	0.56	0.64	0.59	0.56	0.63	0.59	0.55	0.62	0.58	0.55	0.61	0.57	0.55	0.53
7	0.62	0.56	0.53	0.61	0.56	0.53	0.60	0.55	0.52	0.59	0.55	0.52	0.58	0.54	0.52	0.51
8	0.58	0.53	0.50	0.58	0.53	0.50	0.57	0.53	0.50	0.56	0.52	0.49	0.55	0.52	0.49	0.48
9	0.56	0.51	0.47	0.55	0.51	0.47	0.54	0.50	0.47	0.54	0.50	0.47	0.53	0.49	0.47	0.46
10	0.53	0.48	0.45	0.53	0.48	0.45	0.52	0.48	0.45	0.51	0.48	0.45	0.51	0.47	0.45	0.44





Luminaire Lumens:

FL=339.3,FM=182.08,FH=26.32,FVH=5.71

BL=298.96,BM=159.32,BH=24.56,BVH=5.05

UL=4.67,UH=22.23

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	2305.76	2268.32	1727.12	1071.40	693.71	494.41	399.71	327.04	279.14
45.0	2285.39	2265.02	1726.02	1143.52	703.07	504.87	403.56	324.83	278.03
90.0	2325.03	2051.40	1407.24	866.86	585.14	452.73	371.47	291.74	212.68
135.0	2338.25	1951.20	1357.14	835.76	569.28	449.26	363.92	283.54	209.21
180.0	2305.76	1810.25	1075.47	744.58	523.81	407.64	330.01	251.22	171.61
225.0	2285.39	1810.25	1075.03	762.15	544.01	420.30	342.73	255.63	184.16
270.0	2325.03	2005.15	1398.98	884.21	590.20	442.65	365.02	291.80	211.20
315.0	2338.25	2071.77	1446.33	873.25	579.08	433.07	359.02	285.19	200.63
360.0	2305.76	2268.32	1727.12	1071.40	693.71	494.41	399.71	327.04	279.14
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	171.67	106.97	67.06	45.53	32.81	25.88	20.59	17.18	11.18
45.0	161.76	102.85	62.21	43.16	32.32	25.11	19.93	18.06	10.57
90.0	131.75	80.55	52.52	37.33	27.69	21.75	19.55	17.34	8.59
135.0	128.67	81.48	52.08	37.93	28.19	21.80	21.42	20.21	8.31
180.0	102.29	68.05	45.31	34.08	26.70	21.58	21.47	16.63	8.92
225.0	114.19	70.86	46.91	35.29	26.98	21.69	17.12	9.19	5.95
270.0	142.82	86.88	54.51	38.98	28.68	23.07	22.08	19.55	9.08
315.0	129.66	79.45	51.70	37.82	28.13	21.80	21.36	19.55	8.86
360.0	171.67	106.97	67.06	45.53	32.81	25.88	20.59	17.18	11.18
C/ γ (°)	90.0								
0.0	4.57								
45.0	4.51								
90.0	4.18								
135.0	4.29								
180.0	4.18								
225.0	4.13								
270.0	4.18								
315.0	4.18								
360.0	4.57								