
Client:

LumCAT: 19042-F

Luminaire:

Report No: GC2019031803

Voltage(V): 217.6000

Test No:

Current(A): 0.5000

LampCAT: OSRAM LED 3030 100W

Power (W): 108.3000

Lamp flux(lm): 10328.0

PF: 0.0000

Number of Lamps: 1

Ballast type:

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 8156.15, Efficiency(%): 78.97% , Luminous Efficacy(lm/W): 75.31

Central intensity(cd): 8409.591, Maximum intensity(cd): 8409.591

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=61.8

[C90/270]Total=61.8

Field angle(10%Imax): [C0/180]Total=88.4

[C90/270]Total=88.4

Maximum s/h(1/2): C0_180=0.89 C90_270=0.89

Maximum s/h(1/4): C0_180=0.91 C90_270=0.91

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 78.97%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 95.938%

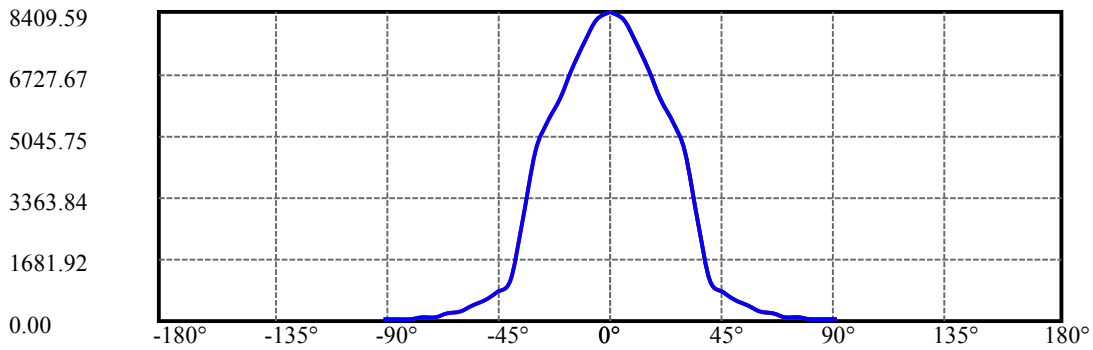
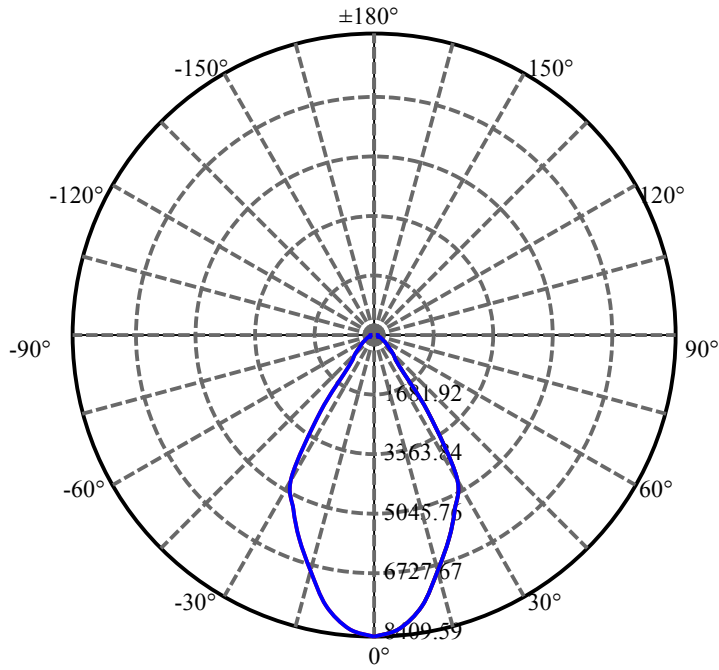
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	8409.590	0.000	0	.000%	.000%
5.0	8212.763	198.715	198.715	1.924%	2.436%
10.0	7652.151	567.538	766.253	5.495%	9.395%
15.0	6839.106	859.612	1625.865	8.323%	19.934%
20.0	6052.419	1062.443	2688.308	10.287%	32.961%
25.0	5380.111	1199.061	3887.369	11.610%	47.662%
30.0	4575.049	1259.834	5147.203	12.198%	63.108%
35.0	2612.633	1058.437	6205.64	10.248%	76.085%
40.0	1109.338	620.983	6826.622	6.013%	83.699%
45.0	792.943	352.223	7178.845	3.410%	88.018%
50.0	575.002	276.413	7455.259	2.676%	91.407%
55.0	398.333	211.635	7666.894	2.049%	94.001%
60.0	284.924	157.933	7824.827	1.529%	95.938%
65.0	184.604	114.143	7938.97	1.105%	97.337%
70.0	127.325	78.982	8017.952	.765%	98.306%
75.0	84.773	55.439	8073.391	.537%	98.985%
80.0	57.630	38.103	8111.495	.369%	99.453%
85.0	37.411	25.825	8137.32	.250%	99.769%
90.0	31.355	18.829	8156.148	.182%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	5147.20	49.84%	63.11%
0-40	6826.62	66.10%	83.70%
0-60	7824.83	75.76%	95.94%
0-90	8137.32	78.79%	99.77%
0-120	8137.32	78.79%	99.77%
0-180	8156.15	78.97%	100.00%
60-90	470.43	4.55%	5.77%
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%
0-37.57	6524.92	63.18%	80.00%

ZONAL LUMEN SUMMARY

0-10	766.25
10-20	1922.05
20-30	2458.90
30-40	1679.42
40-50	628.64
50-60	369.57
60-70	193.13
70-80	93.54
80-90	25.82
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: —————

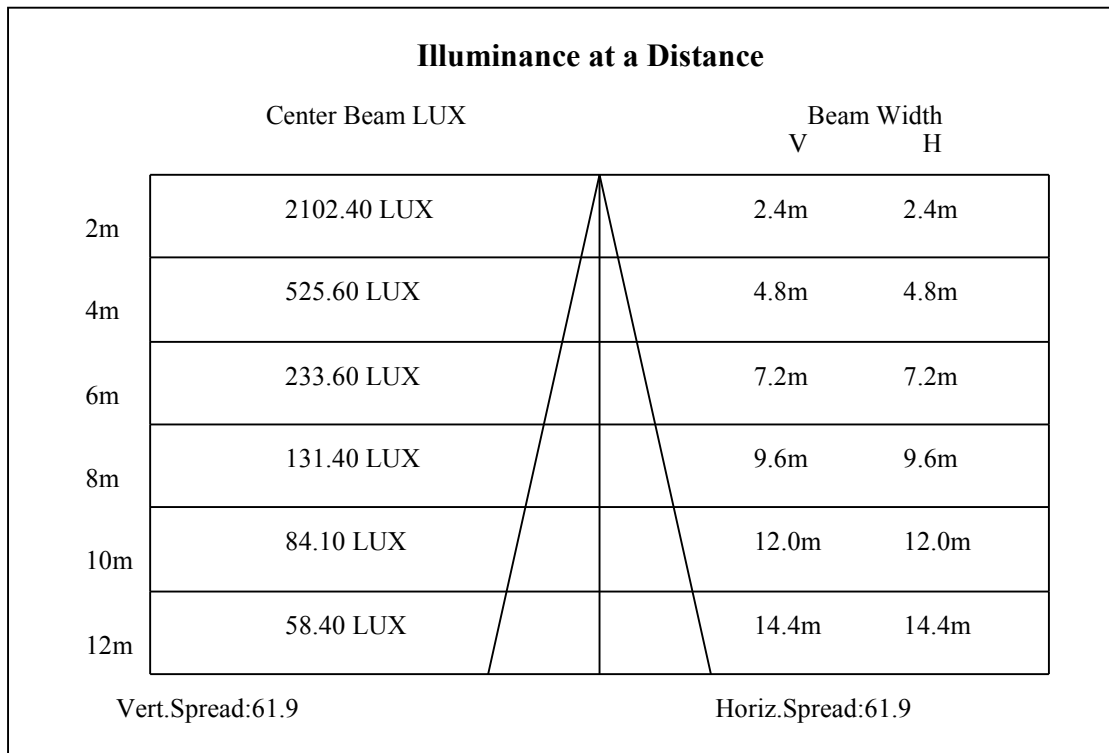
C90/C270: —————

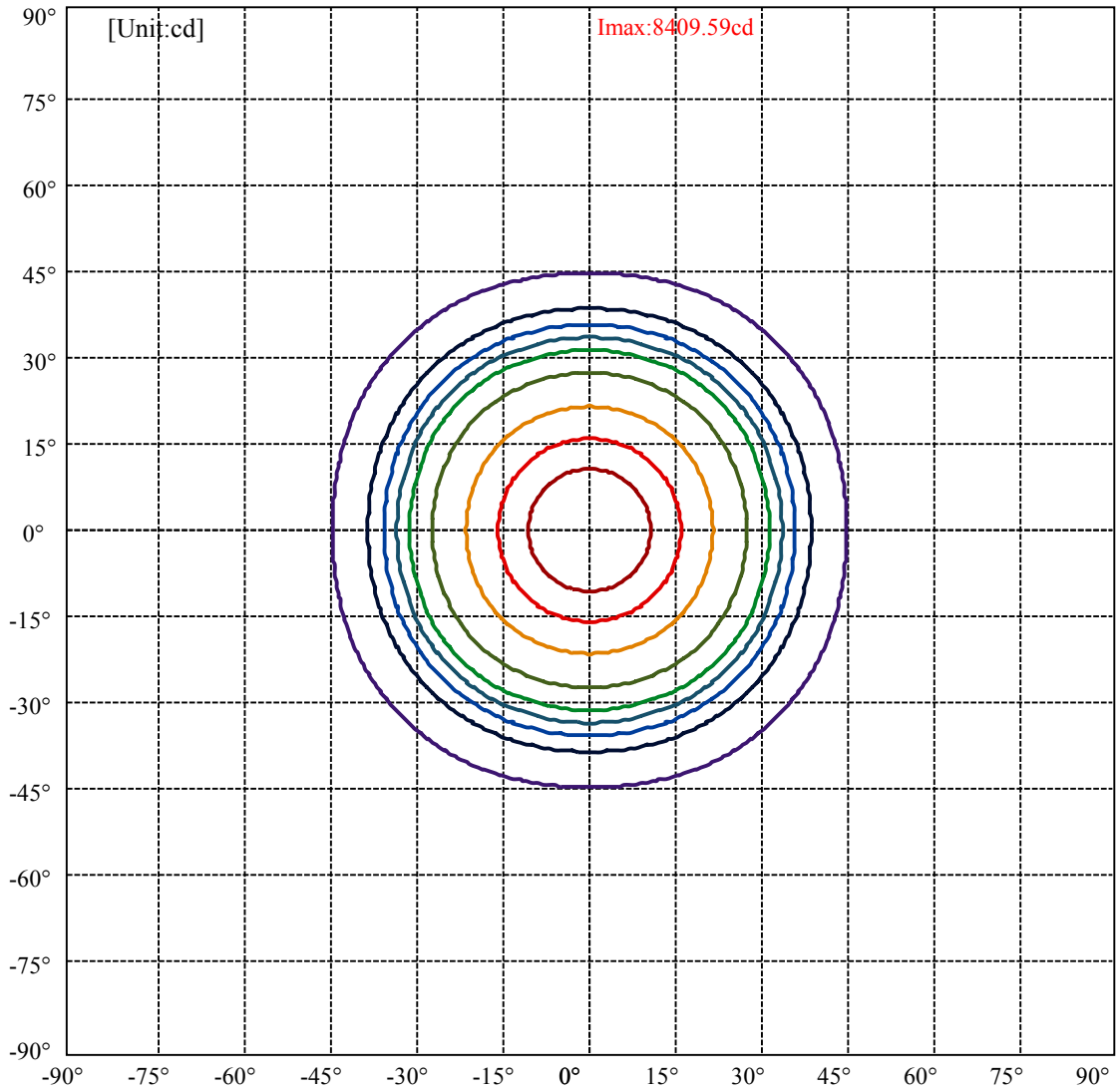
Field angle(10%Imax):C0/180Left:44.2 Right:44.2

:C90/270Left:44.2 Right:44.2

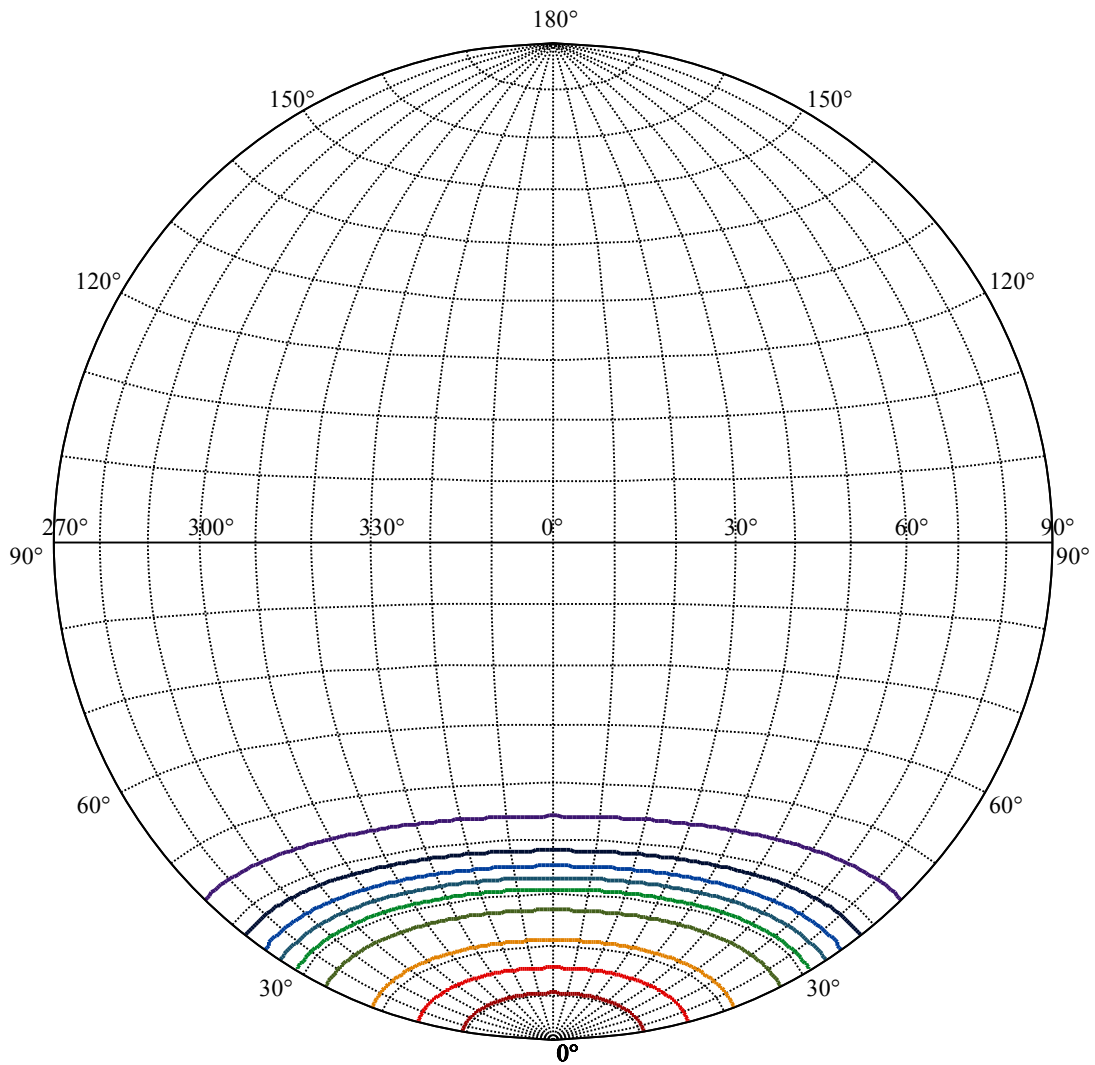
Beam Angle(50%Imax):C0/180Left:30.9 Right:30.9

:C90/270Left:30.9 Right:30.9





(10%Imax) 840.959	—
(20%Imax) 1681.92	—
(30%Imax) 2522.88	—
(40%Imax) 3363.84	—
(50%Imax) 4204.8	—
(60%Imax) 5045.75	—
(70%Imax) 5886.71	—
(80%Imax) 6727.67	—
(90%Imax) 7568.63	—



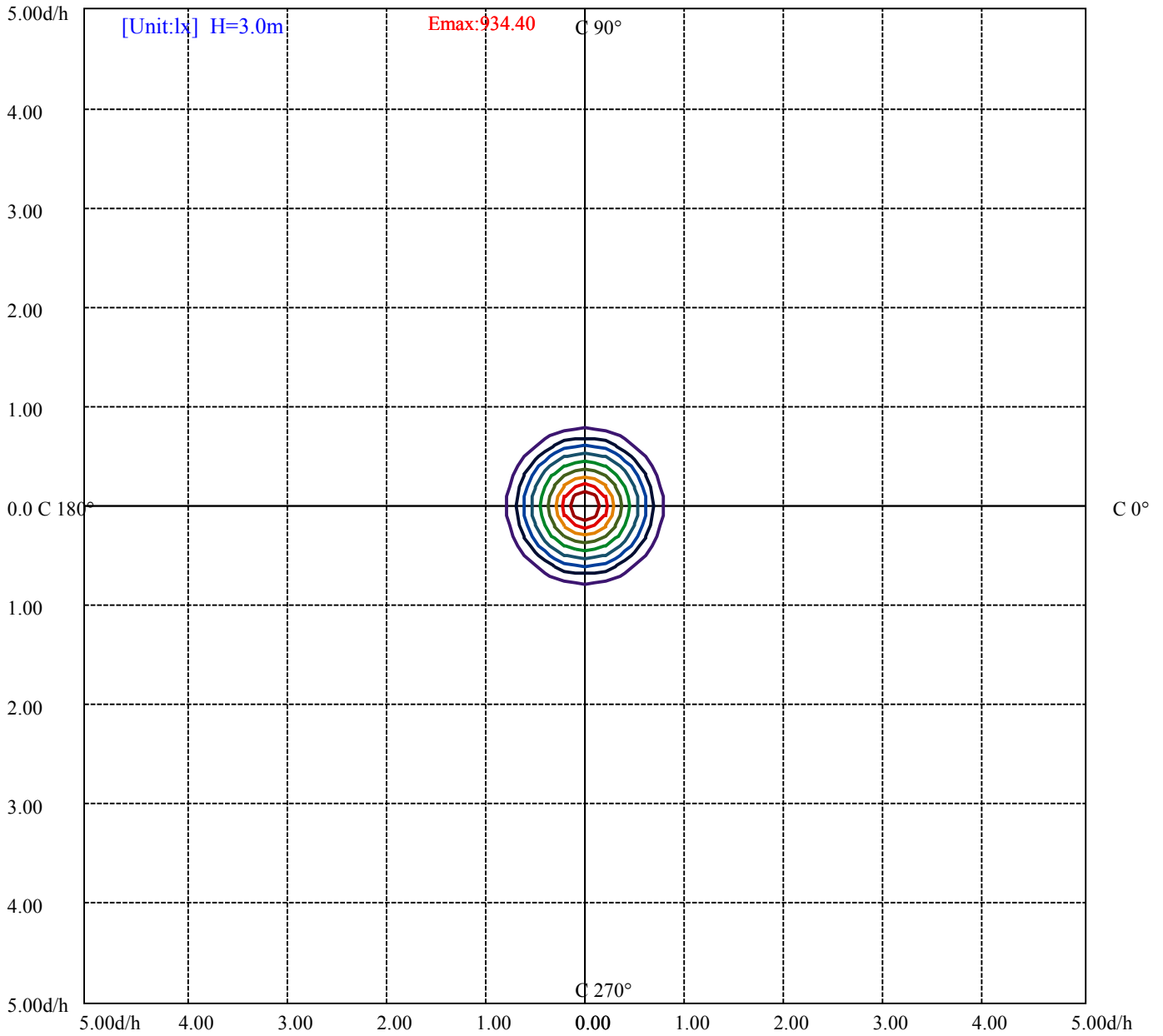
House

[Unit:cd]

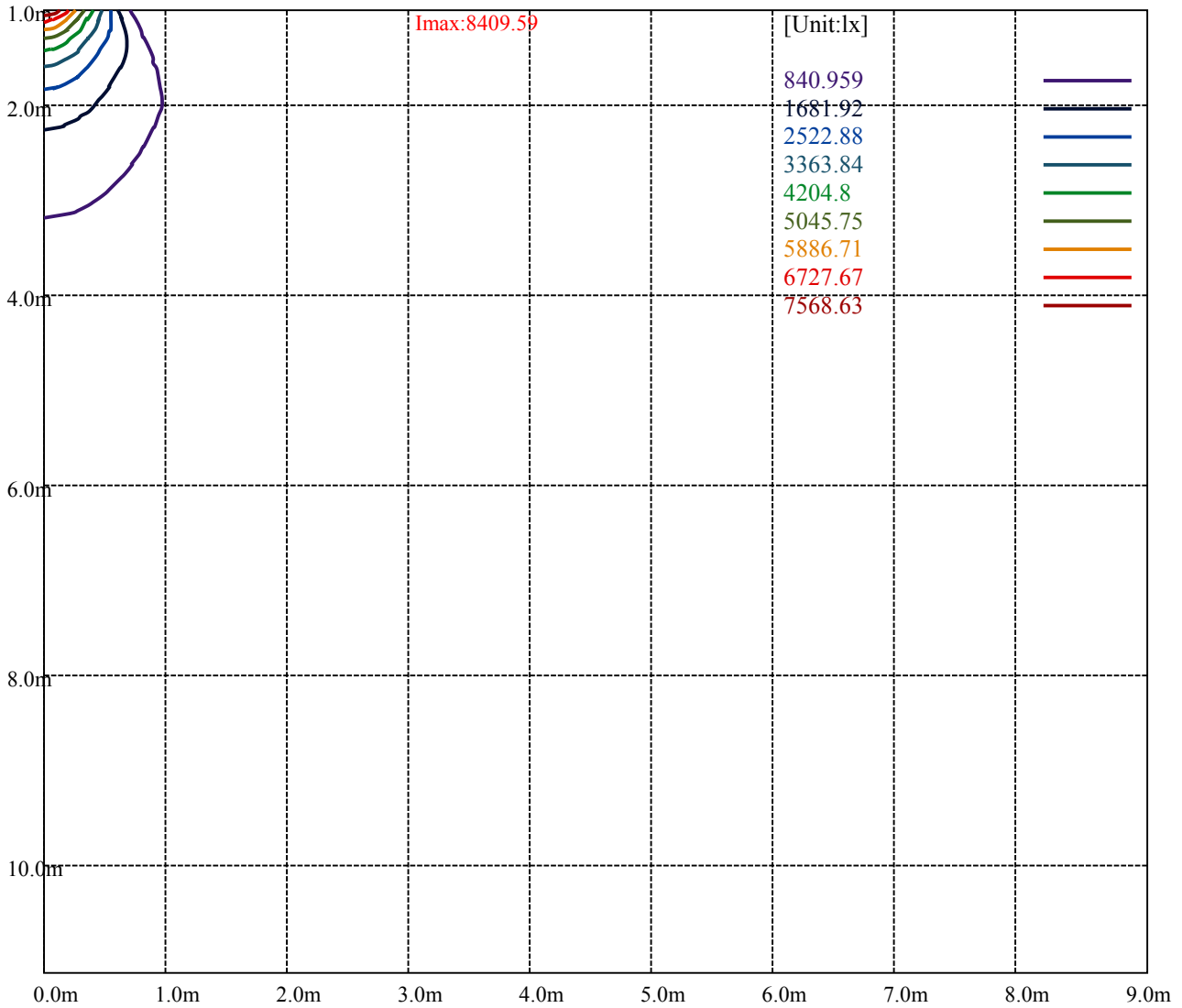
Road

Imax:8409.59

(10%Imax) 840.959	—
(20%Imax) 1681.92	—
(30%Imax) 2522.88	—
(40%Imax) 3363.84	—
(50%Imax) 4204.8	—
(60%Imax) 5045.75	—
(70%Imax) 5886.71	—
(80%Imax) 6727.67	—
(90%Imax) 7568.63	—



- (10%Emax) 93.43978
- (20%Emax) 186.88
- (30%Emax) 280.32
- (40%Emax) 373.7589
- (50%Emax) 467.1989
- (60%Emax) 560.6389
- (70%Emax) 654.0789
- (80%Emax) 747.5189
- (90%Emax) 840.9589



Luminance Table

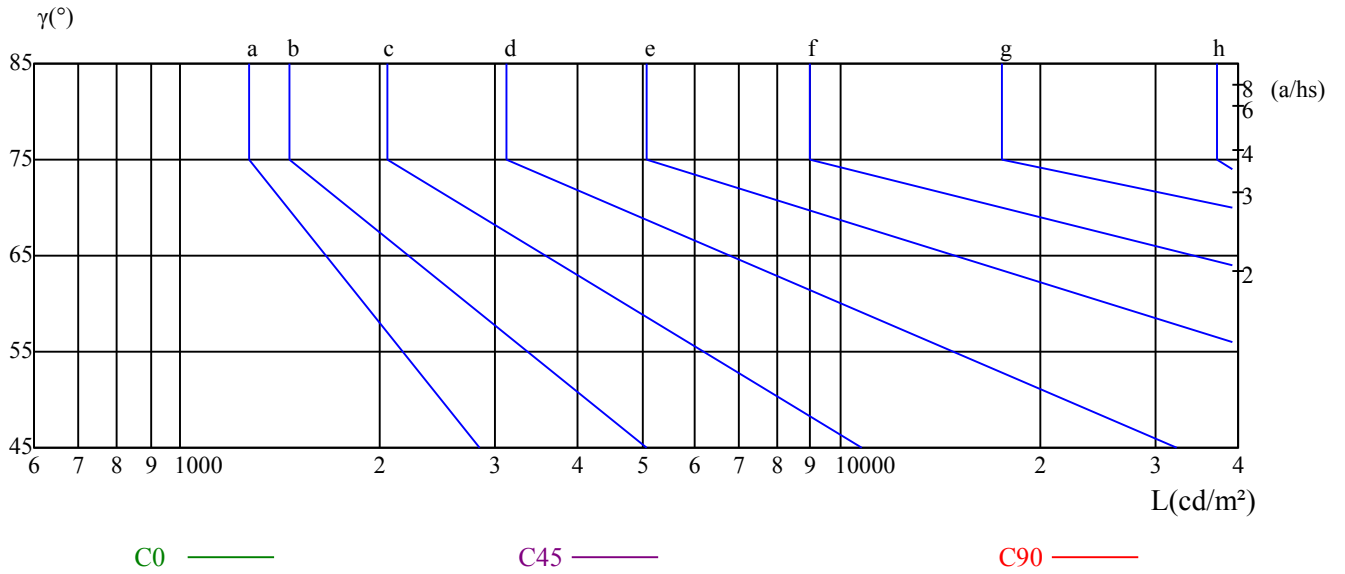
γ	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

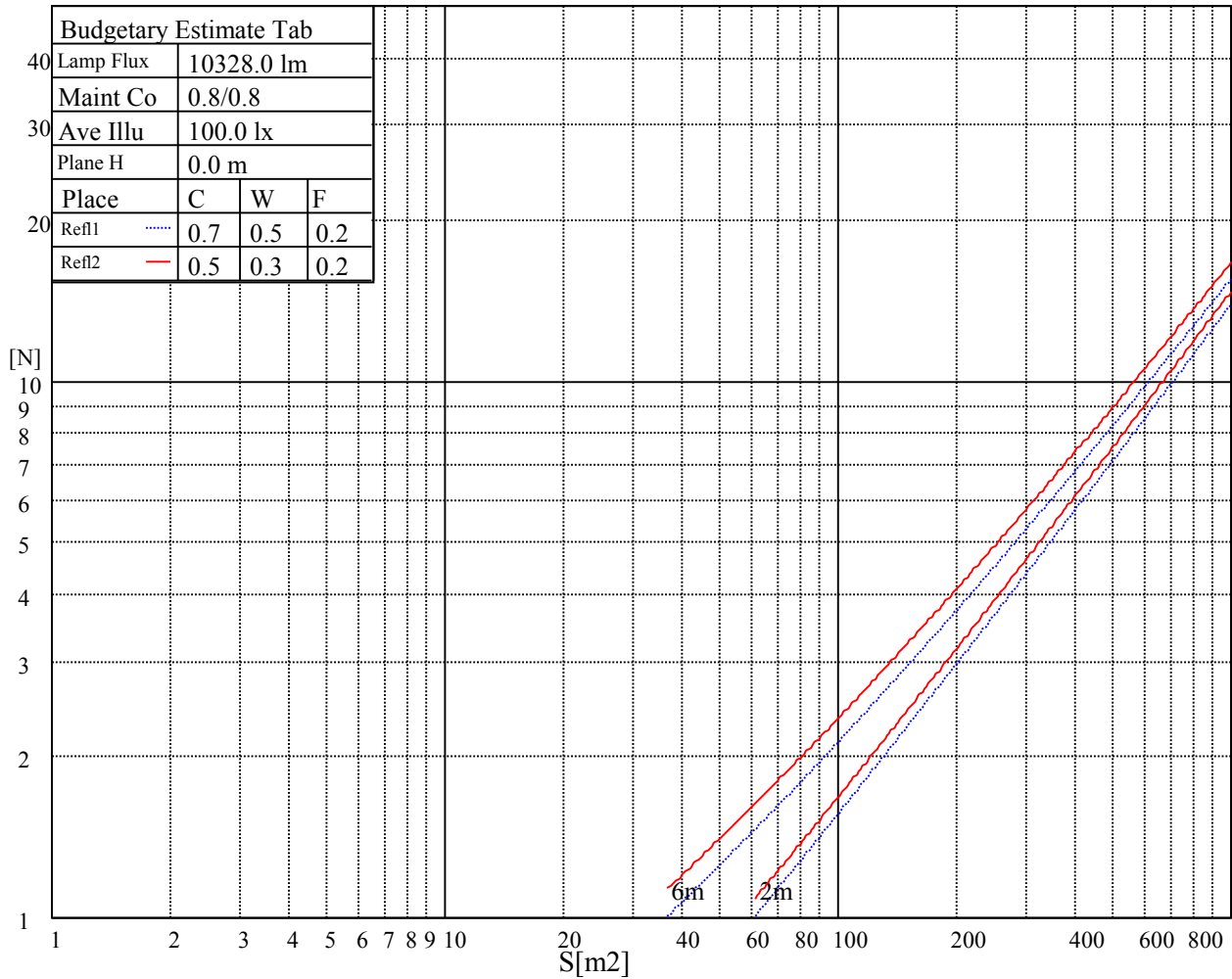
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
0	0	0	0	0	0	0	0	0

Glare Table

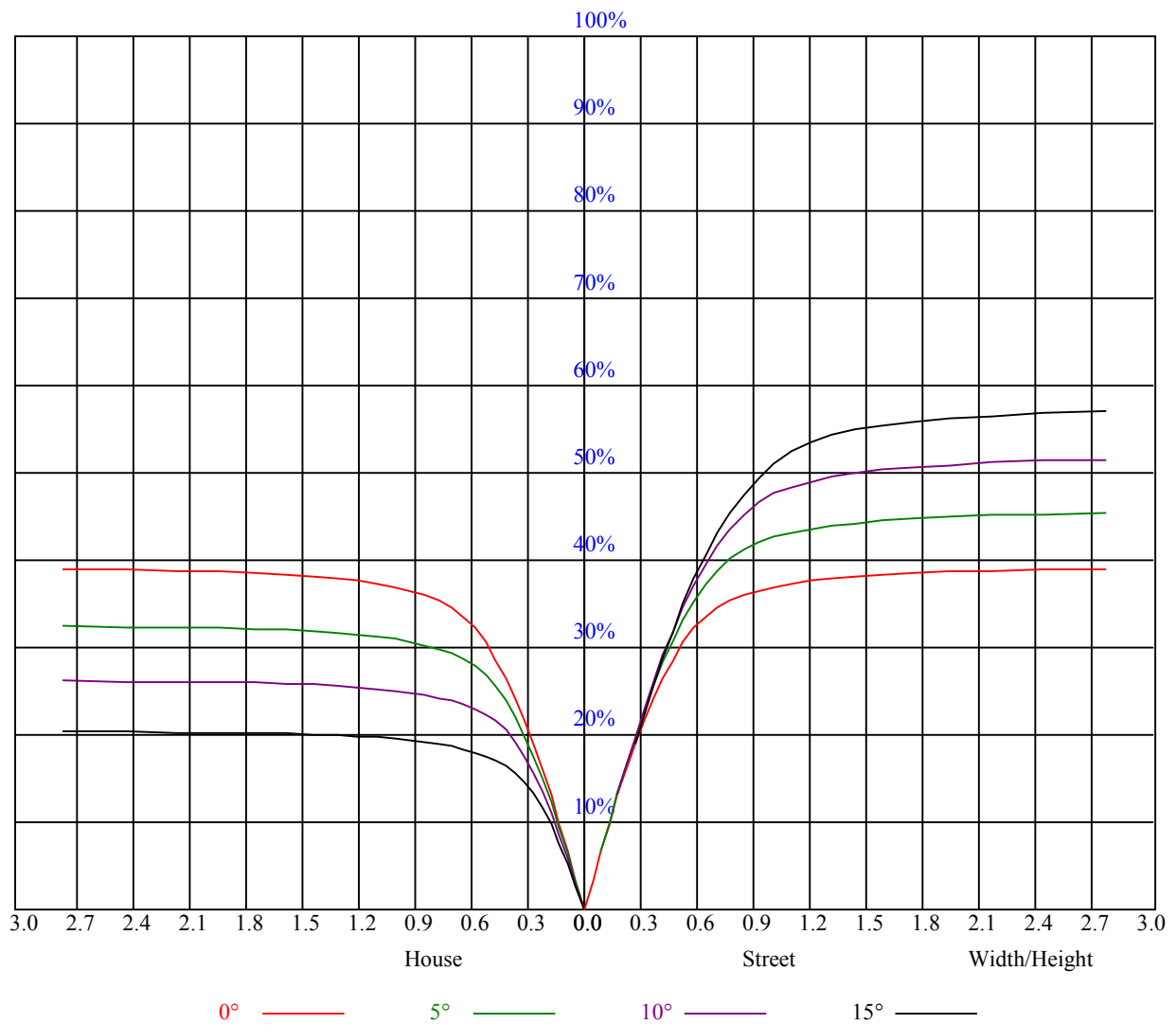
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

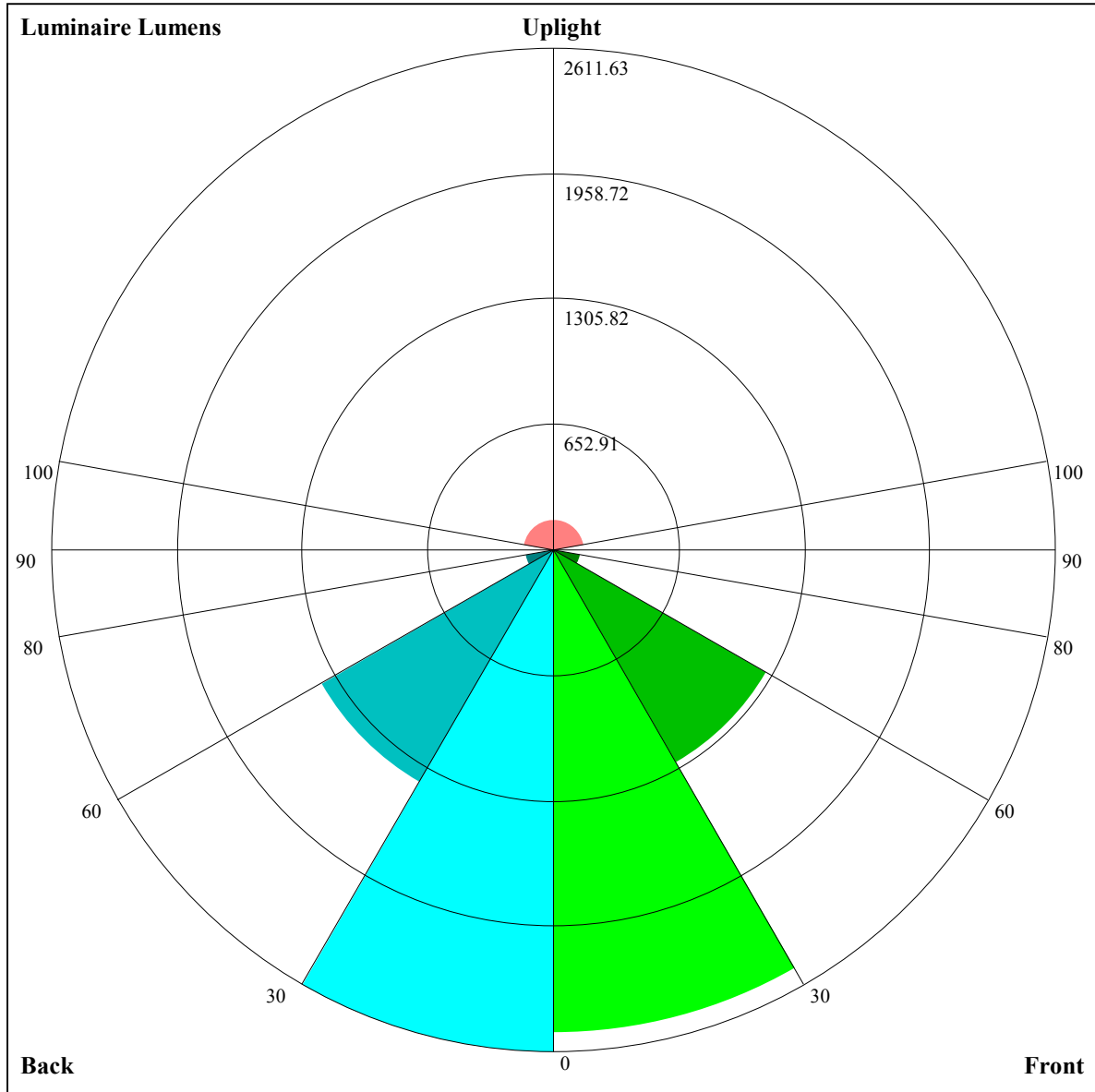
Luminance Limiting Curve





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	0.94	0.94	0.94	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	0.86	0.84	0.82	0.85	0.83	0.81	0.81	0.80	0.78	0.79	0.77	0.76	0.76	0.75	0.74	0.72
2	0.80	0.76	0.73	0.78	0.75	0.72	0.76	0.73	0.70	0.73	0.71	0.69	0.71	0.69	0.68	0.66
3	0.73	0.69	0.66	0.72	0.68	0.65	0.70	0.67	0.64	0.68	0.65	0.63	0.66	0.64	0.62	0.61
4	0.68	0.63	0.59	0.67	0.63	0.59	0.65	0.61	0.58	0.64	0.60	0.58	0.62	0.59	0.57	0.56
5	0.63	0.58	0.54	0.62	0.58	0.54	0.61	0.57	0.54	0.60	0.56	0.53	0.58	0.55	0.53	0.51
6	0.59	0.54	0.50	0.58	0.53	0.50	0.57	0.53	0.50	0.56	0.52	0.49	0.55	0.51	0.49	0.48
7	0.55	0.50	0.46	0.55	0.50	0.46	0.54	0.49	0.46	0.53	0.49	0.46	0.52	0.48	0.45	0.44
8	0.52	0.47	0.43	0.51	0.46	0.43	0.50	0.46	0.43	0.49	0.46	0.43	0.49	0.45	0.42	0.41
9	0.49	0.44	0.40	0.48	0.43	0.40	0.47	0.43	0.40	0.47	0.43	0.40	0.46	0.42	0.40	0.39
10	0.46	0.41	0.38	0.45	0.41	0.38	0.45	0.40	0.38	0.44	0.40	0.37	0.44	0.40	0.37	0.36





Luminaire Lumens:

FL=2519.17,FM=1280.09,FH=140.28,FVH=21.71

BL=2611.63,BM=1395.79,BH=147.67,BVH=23.12

UL=34.21,UH=162.8

BUG Rating:B4-U3-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	8420.33	8081.73	7438.12	6618.88	5853.05	5211.09	4427.64	2318.43	1016.34
45.0	8441.25	8086.13	7359.94	6458.12	5712.10	5109.23	4008.11	1862.56	946.42
90.0	8371.88	8011.26	7271.85	6390.40	5706.60	5082.81	3788.43	1445.23	911.46
135.0	8404.91	8212.21	7742.03	6877.65	6060.06	5371.85	4695.76	2631.15	1028.45
180.0	8420.33	8316.27	7821.31	7021.89	6188.34	5510.04	4889.01	2889.91	1072.61
225.0	8441.25	8421.98	7970.52	7245.42	6406.36	5652.64	5053.63	3432.22	1096.45
270.0	8371.88	8395.00	8001.90	7316.44	6491.70	5739.63	5110.34	3731.72	1708.40
315.0	8404.91	8177.53	7611.55	6784.05	6001.15	5363.59	4627.49	2589.85	1094.58
360.0	8420.33	8081.73	7438.12	6618.88	5853.05	5211.09	4427.64	2318.43	1016.34
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	774.64	548.91	377.69	284.09	174.91	119.75	78.51	54.12	34.19
45.0	690.96	495.51	353.46	278.59	160.93	114.52	74.05	49.39	31.66
90.0	664.04	485.54	333.59	232.39	153.77	110.00	72.67	48.23	31.38
135.0	761.98	551.67	377.69	278.03	177.94	122.28	83.30	56.16	35.84
180.0	809.88	586.24	409.01	281.06	186.15	127.35	86.27	58.36	39.09
225.0	886.24	645.04	447.06	308.48	211.42	144.47	96.46	66.84	44.32
270.0	952.48	709.68	492.75	340.25	227.93	155.75	102.52	71.13	44.82
315.0	803.33	577.43	395.42	276.49	183.78	124.48	84.40	56.82	37.99
360.0	774.64	548.91	377.69	284.09	174.91	119.75	78.51	54.12	34.19
C/ γ (°)	90.0								
0.0	31.22								
45.0	31.55								
90.0	31.38								
135.0	31.27								
180.0	31.11								
225.0	31.66								
270.0	31.38								
315.0	31.27								
360.0	31.22								