
Client:

LumCAT: 1407-S

Luminaire: 92.70.043.00

Report No: nt0100

Test No: GC2019120510

LampCAT: LUMINUS CXM-4-AC40

Lamp flux(lm): 598.0

Number of Lamps: 1

Length(mm): 0

Phm Type: C

Voltage(V): 34.5900

Current(A): 0.1470

Power (W): 5.0800

PF: 1.0000

Ballast type: DC

Width(mm): 0

Height(mm): 0

Photometric Results

Lumens(lm): 510.45, Efficiency(%): 85.36% , Luminous Efficacy(lm/W): 100.48

Central intensity(cd): 611.874, Maximum intensity(cd): 611.874

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=43.8

[C90/270]Total=43.8

Field angle(10%Imax): [C0/180]Total=94.8

[C90/270]Total=94.8

Maximum s/h(1/2): C0_180=0.67 C90_270=0.67

Maximum s/h(1/4): C0_180=0.77 C90_270=0.77

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 85.36%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 94.364%

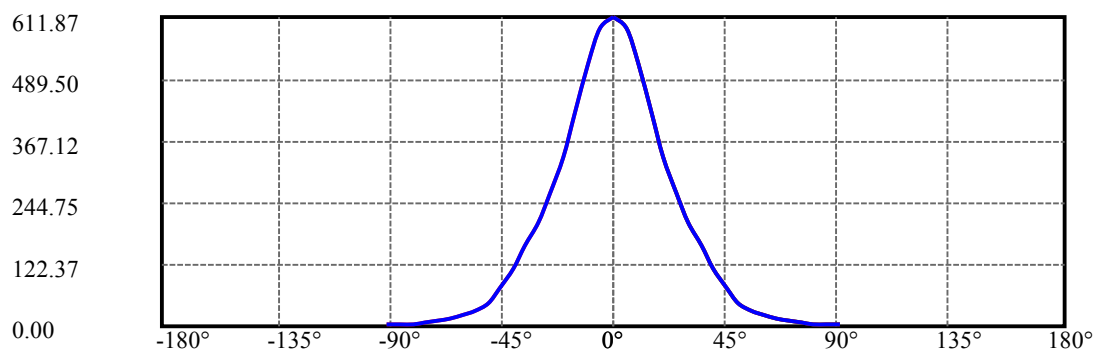
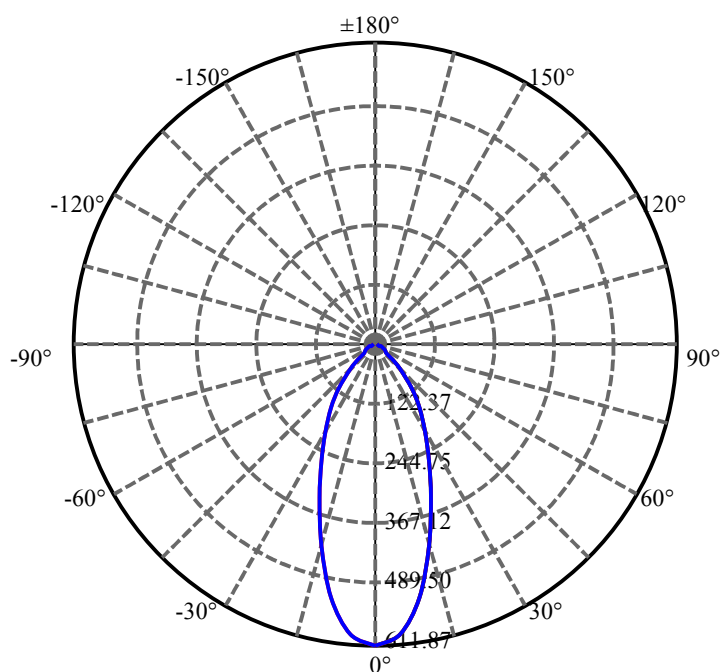
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	611.873	0.000	0	.000%	.000%
5.0	589.268	14.359	14.359	2.401%	2.813%
10.0	520.854	39.713	54.072	6.641%	10.593%
15.0	422.044	55.932	110.004	9.353%	21.550%
20.0	333.091	62.234	172.238	10.407%	33.742%
25.0	260.360	62.242	234.48	10.408%	45.936%
30.0	206.346	59.062	293.542	9.877%	57.506%
35.0	158.126	53.671	347.213	8.975%	68.020%
40.0	115.474	45.648	392.861	7.633%	76.963%
45.0	74.215	35.122	427.983	5.873%	83.844%
50.0	47.250	24.544	452.527	4.104%	88.652%
55.0	30.797	16.970	469.497	2.838%	91.976%
60.0	21.923	12.186	481.683	2.038%	94.364%
65.0	15.891	9.193	490.876	1.537%	96.165%
70.0	11.644	6.972	497.848	1.166%	97.530%
75.0	8.065	5.152	502.999	.861%	98.540%
80.0	5.351	3.590	506.589	.600%	99.243%
85.0	3.284	2.346	508.935	.392%	99.702%
90.0	2.264	1.519	510.454	.254%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	293.54	49.09%	57.51%
0-40	392.86	65.70%	76.96%
0-60	481.68	80.55%	94.36%
0-90	508.94	85.11%	99.70%
0-120	508.94	85.11%	99.70%
0-180	510.45	85.36%	100.00%
60-90	39.44	6.59%	7.73%
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%
0-42.21	408.36	68.29%	80.00%

ZONAL LUMEN SUMMARY

0-10	54.07
10-20	118.17
20-30	121.30
30-40	99.32
40-50	59.67
50-60	29.16
60-70	16.16
70-80	8.74
80-90	2.35
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: —————

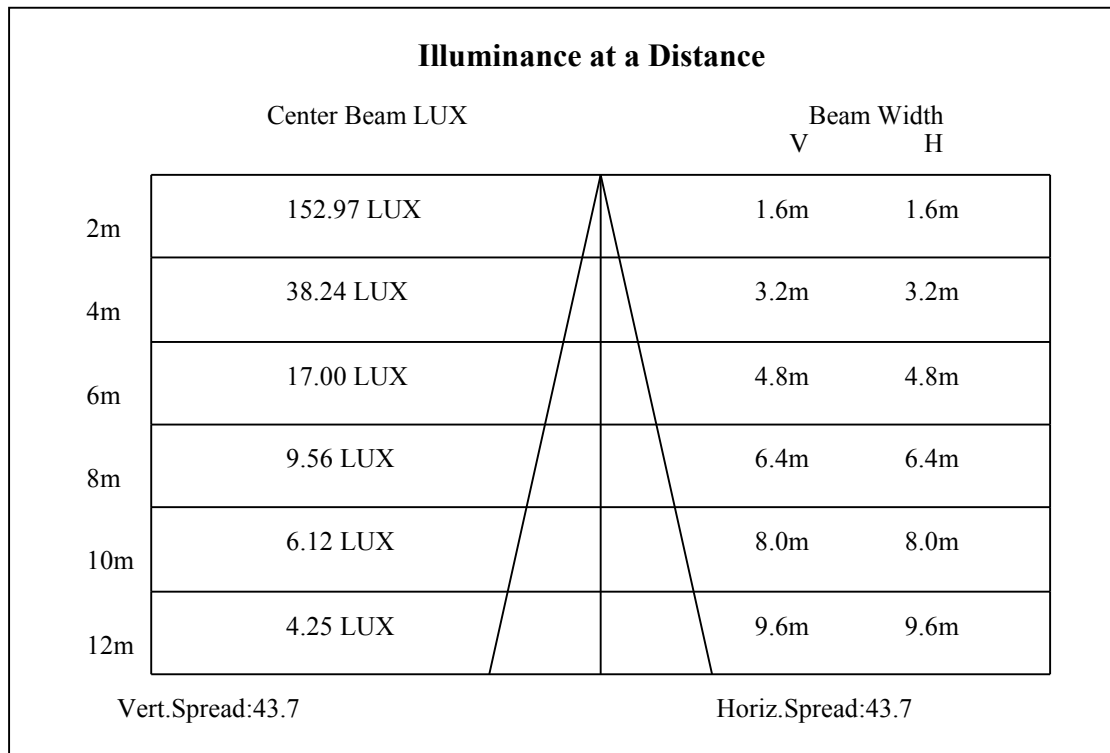
C90/C270: —————

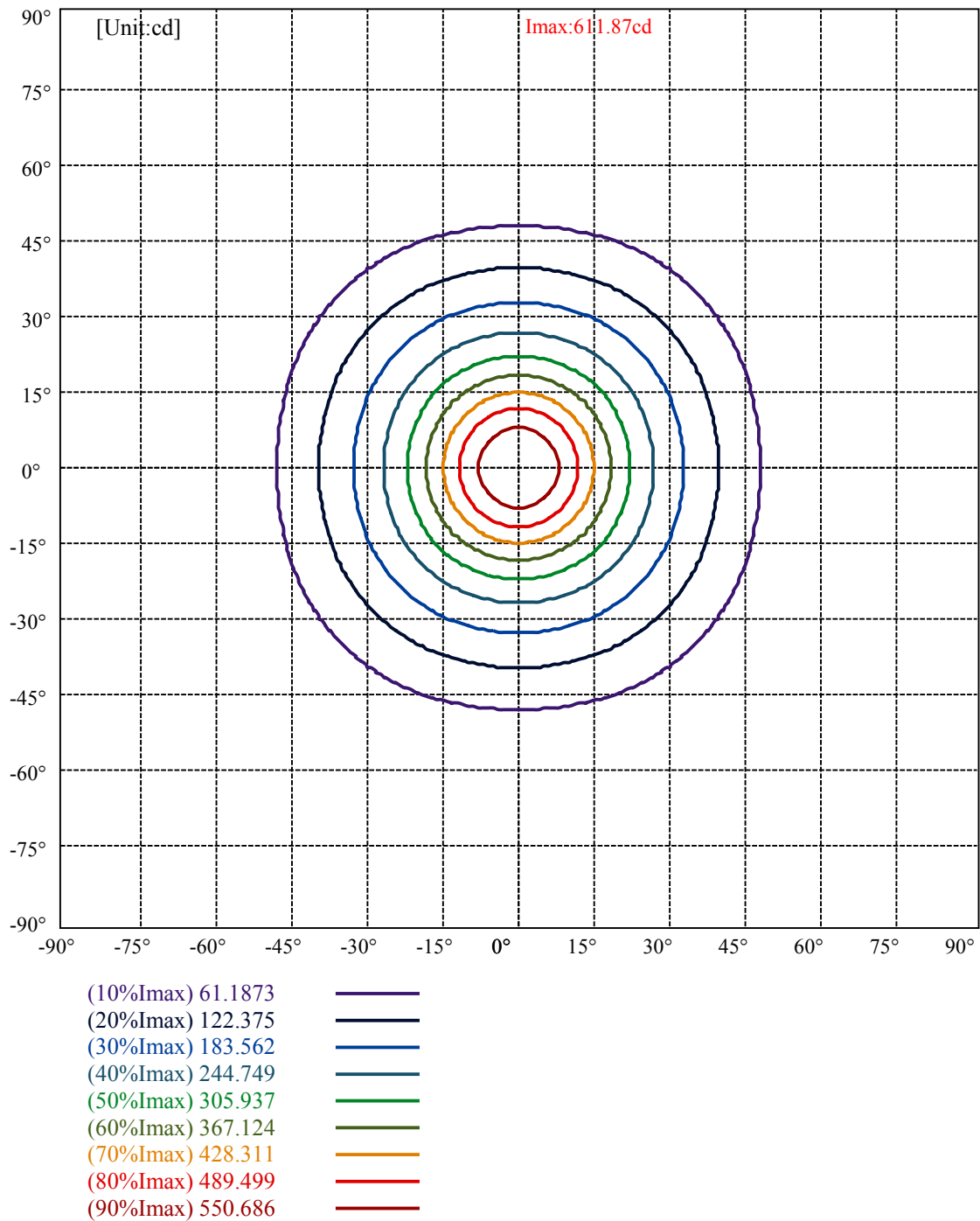
Field angle(10%Imax):C0/180Left:47.4 Right:47.4

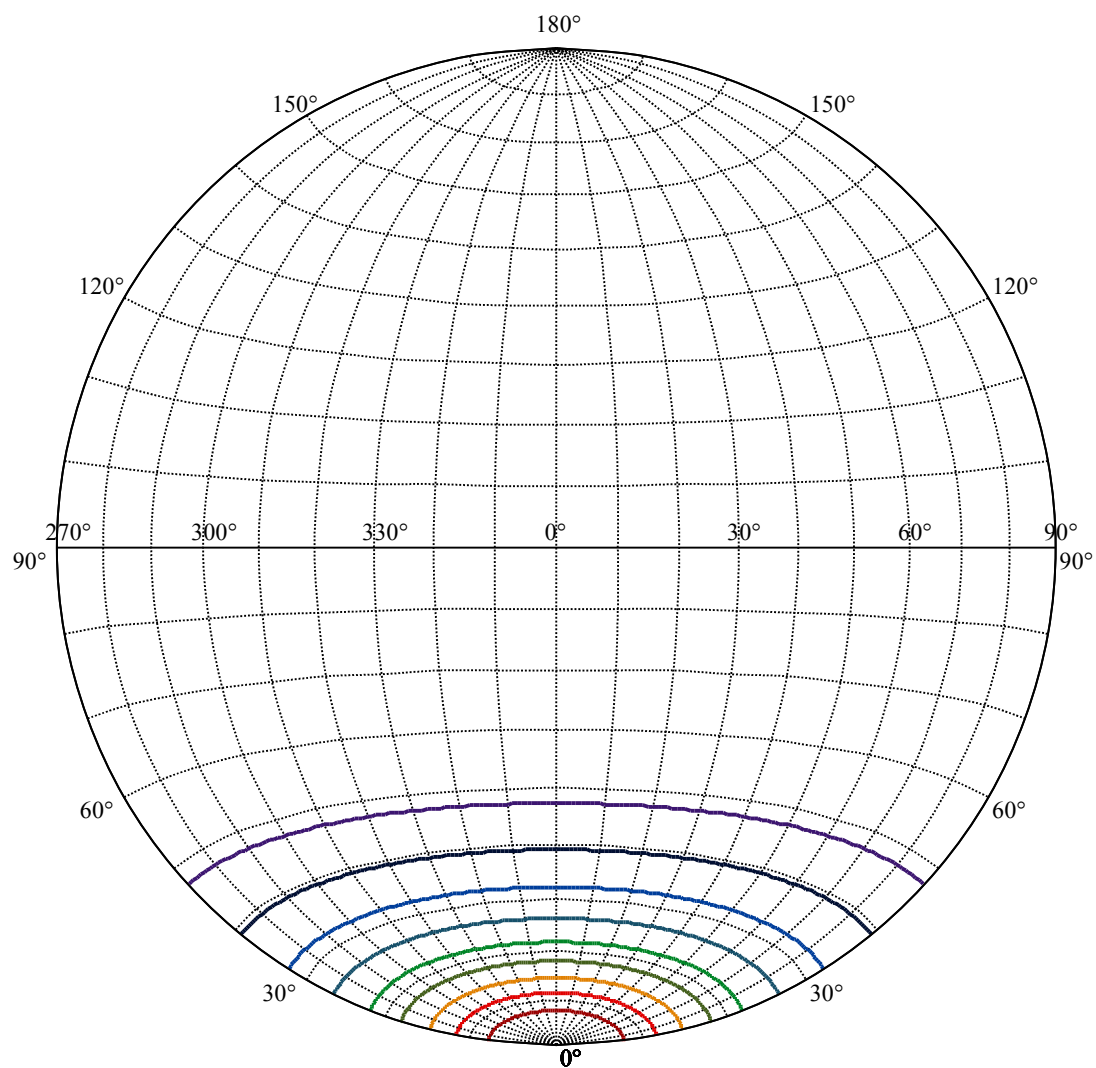
:C90/270Left:47.4 Right:47.4

Beam Angle(50%Imax):C0/180Left:21.9 Right:21.9

:C90/270Left:21.9 Right:21.9







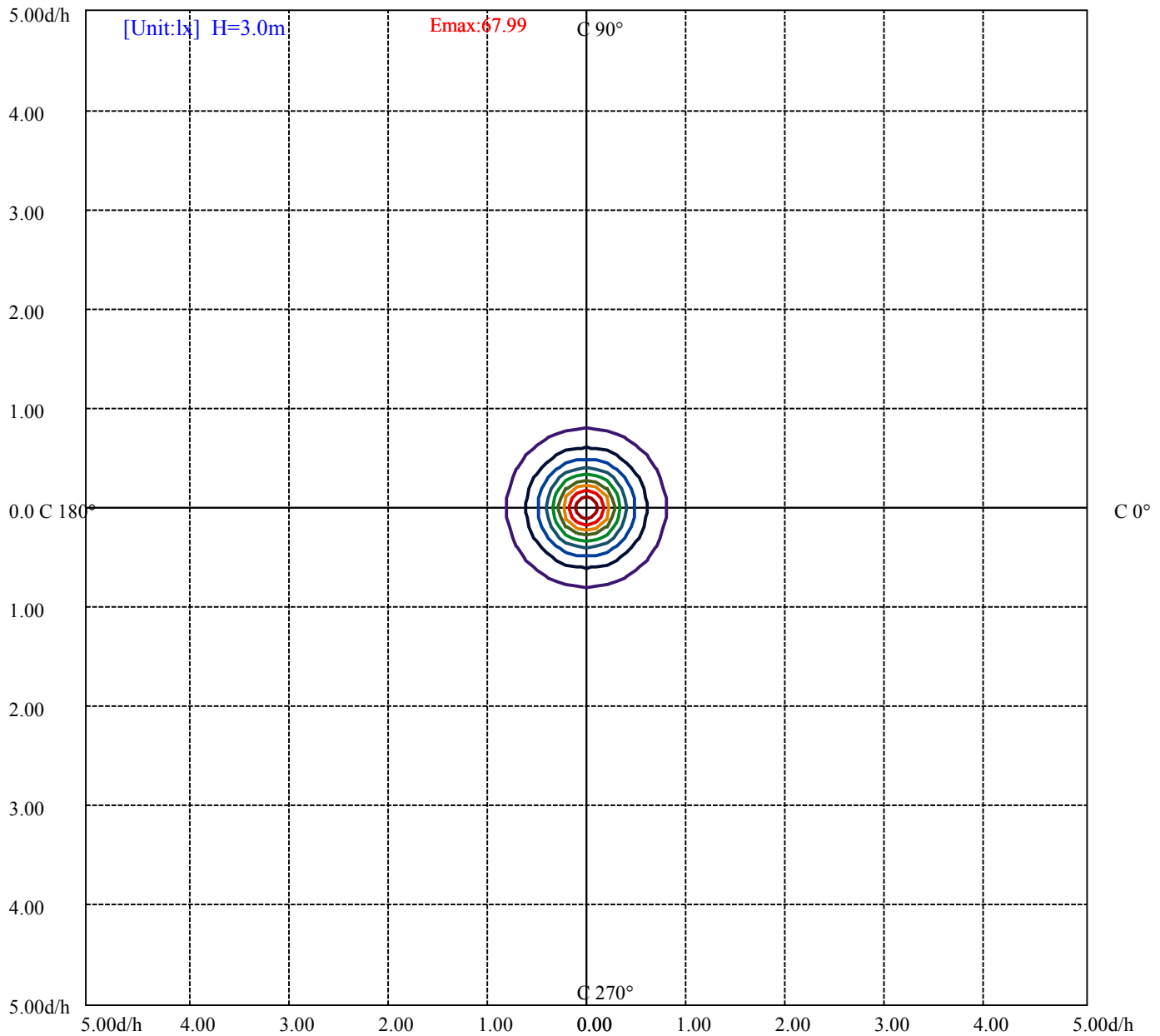
House

[Unit:cd]

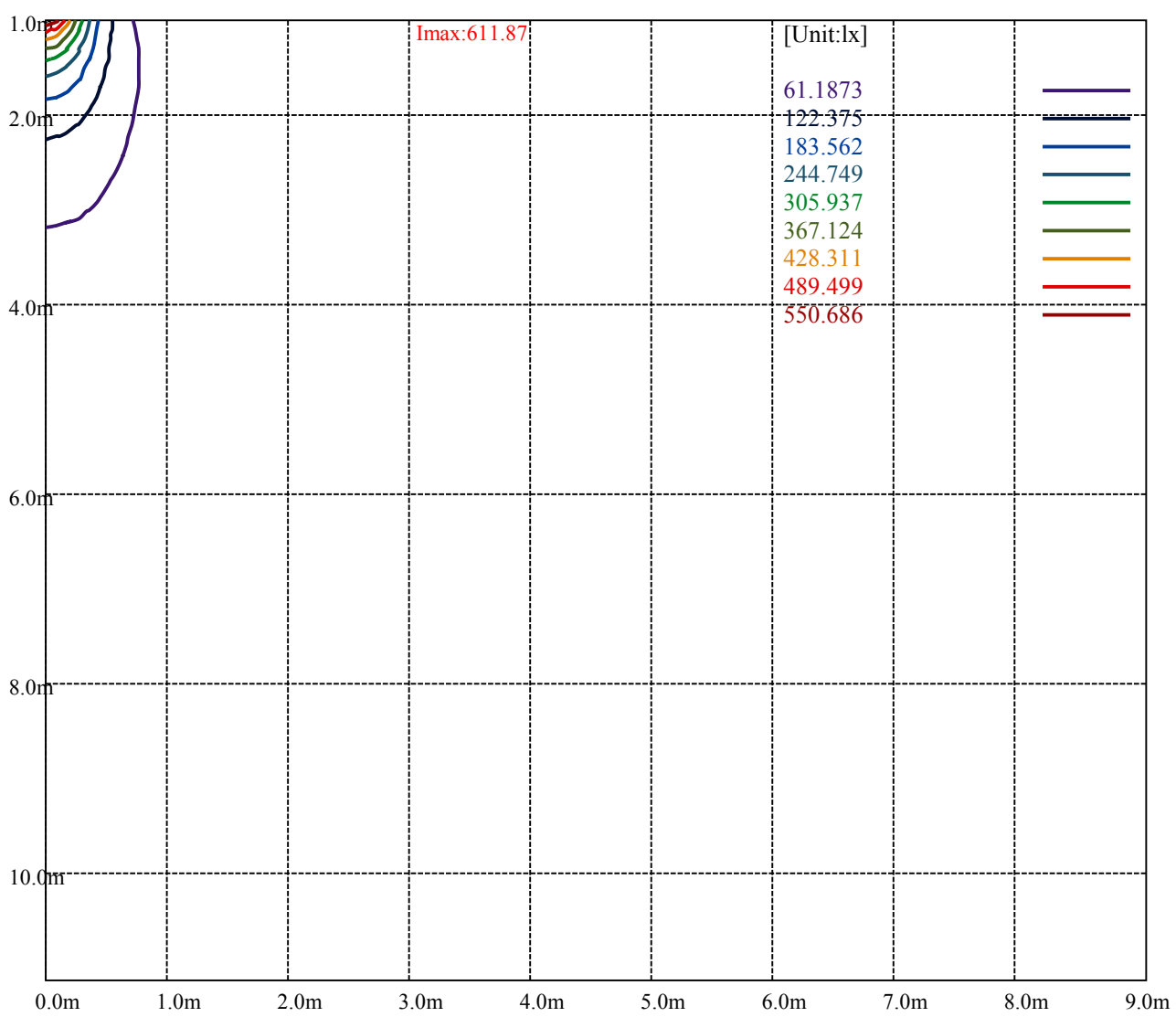
Road

Imax:611.87
(10%Imax) 61.1873
(20%Imax) 122.375
(30%Imax) 183.562
(40%Imax) 244.749
(50%Imax) 305.937
(60%Imax) 367.124
(70%Imax) 428.311
(80%Imax) 489.499
(90%Imax) 550.686





(10%E _{max}) 6.798589	—
(20%E _{max}) 13.59722	—
(30%E _{max}) 20.39578	—
(40%E _{max}) 27.19433	—
(50%E _{max}) 33.99289	—
(60%E _{max}) 40.79155	—
(70%E _{max}) 47.59011	—
(80%E _{max}) 54.38866	—
(90%E _{max}) 61.18733	—



Luminance Table

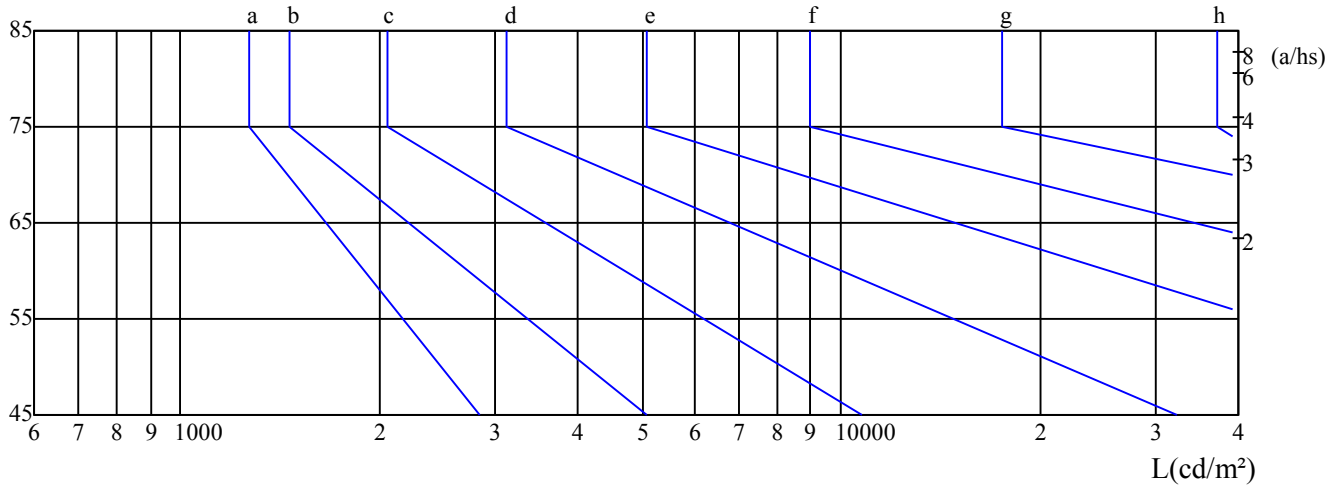
γ	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

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

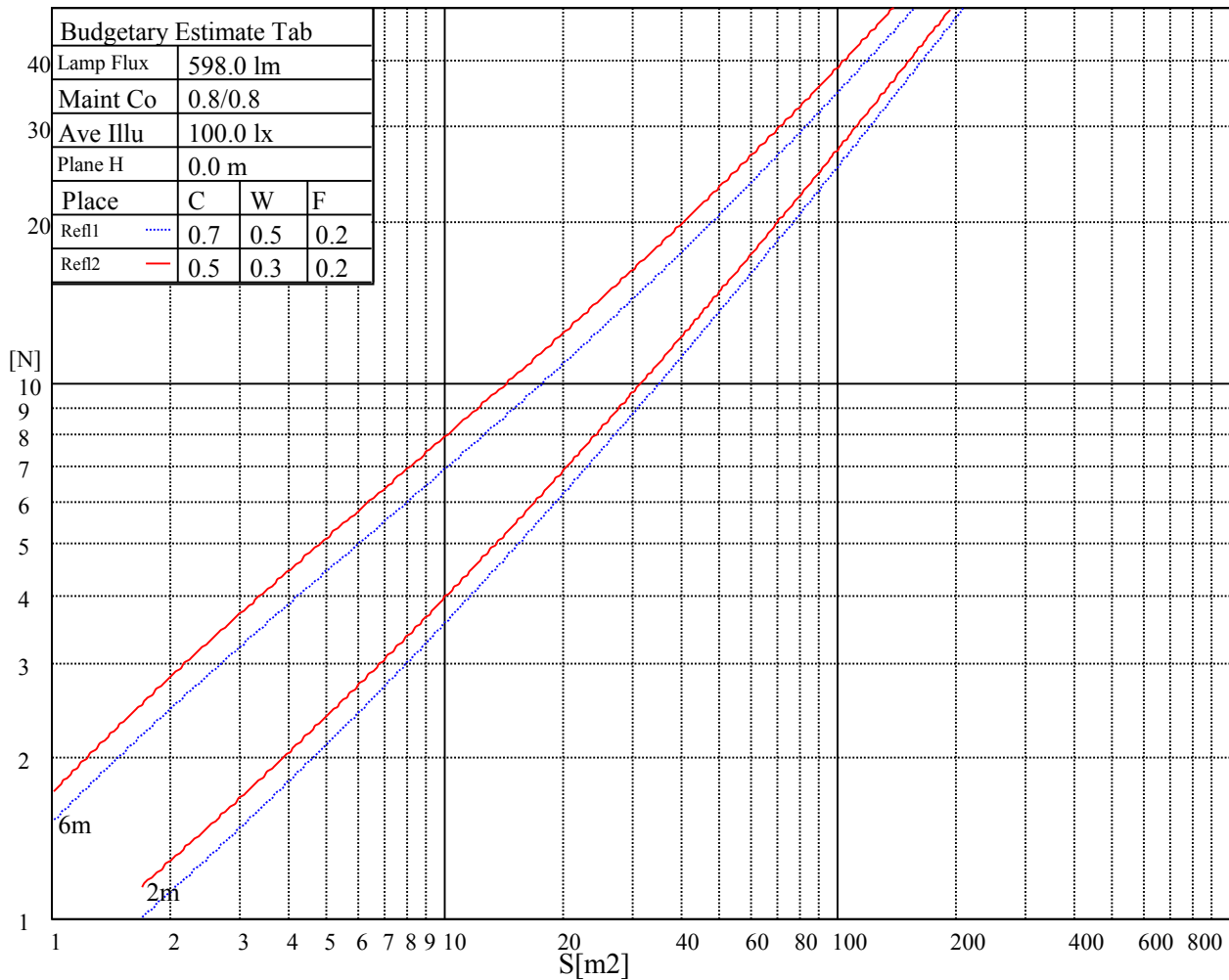
Luminance Limiting Curve

 $\gamma(^{\circ})$ 

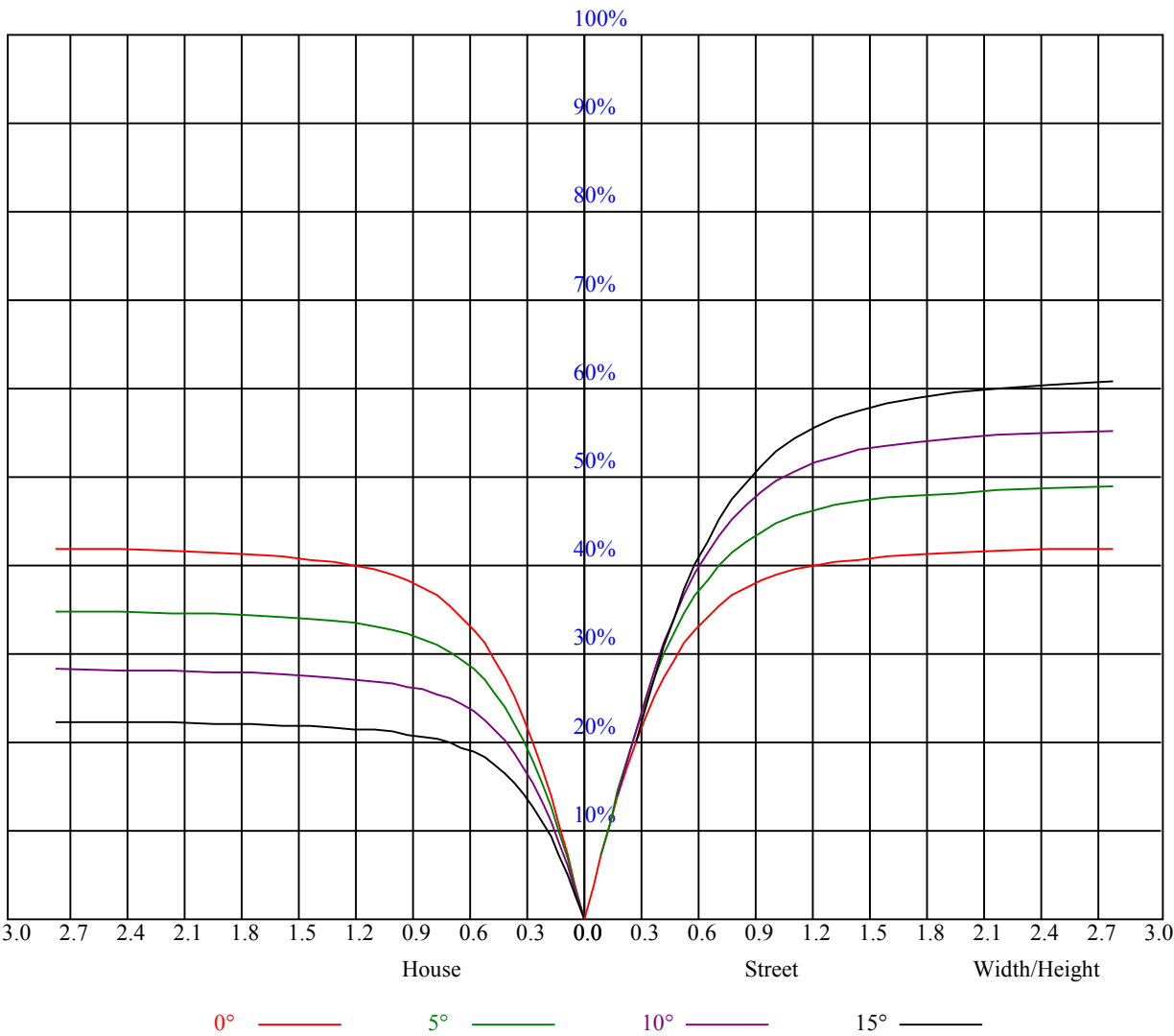
C0 ———

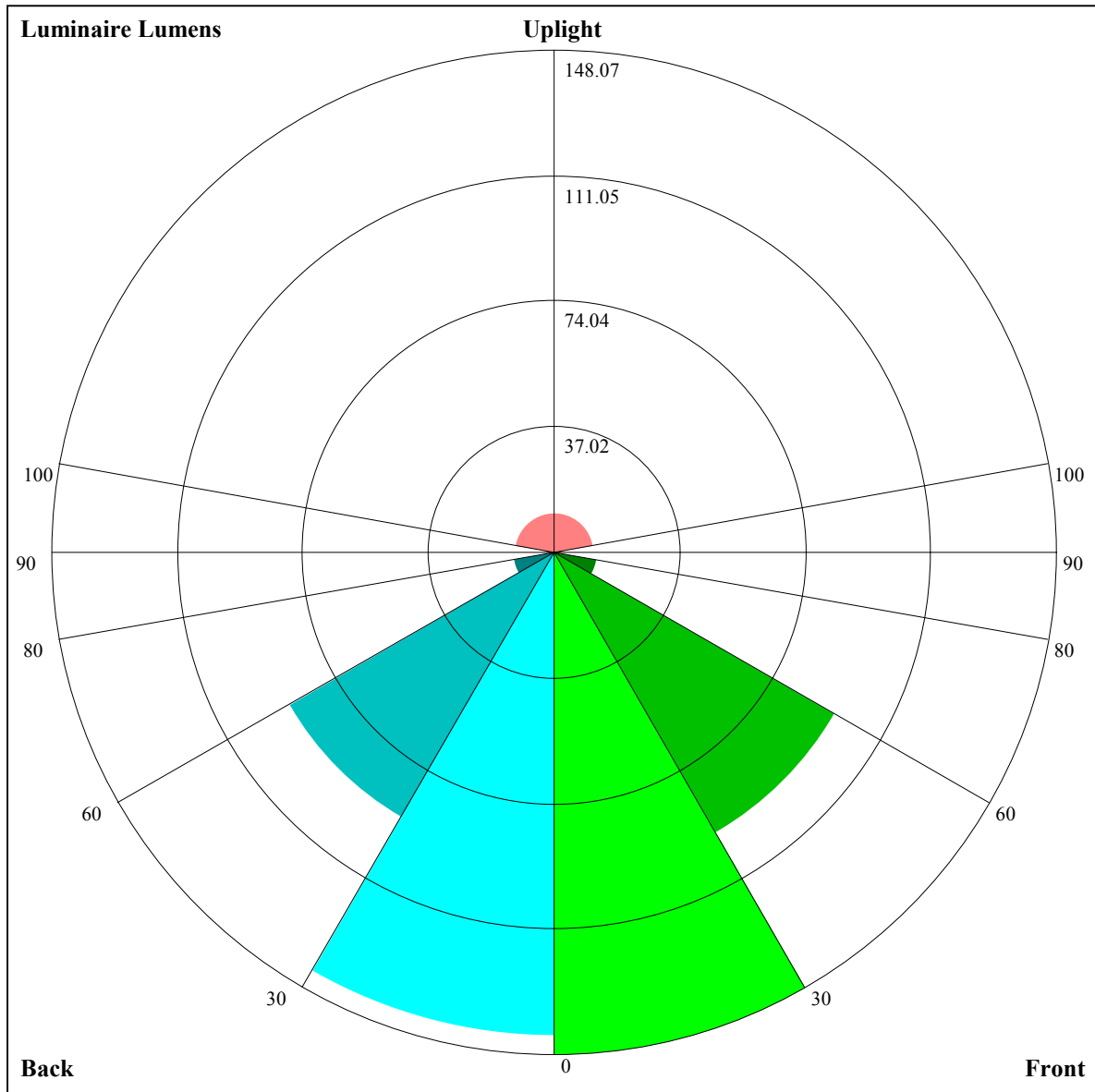
C45 ———

C90 ———



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	1.02	1.02	1.02	0.99	0.99	0.99	0.95	0.95	0.95	0.91	0.91	0.91	0.87	0.87	0.87	0.85
1	0.93	0.90	0.88	0.91	0.89	0.87	0.88	0.86	0.84	0.84	0.83	0.81	0.81	0.80	0.79	0.78
2	0.85	0.81	0.78	0.84	0.80	0.77	0.81	0.78	0.75	0.78	0.76	0.73	0.76	0.74	0.72	0.70
3	0.78	0.73	0.69	0.77	0.72	0.69	0.75	0.71	0.68	0.73	0.69	0.66	0.71	0.68	0.65	0.64
4	0.72	0.67	0.63	0.71	0.66	0.62	0.69	0.65	0.61	0.67	0.64	0.61	0.66	0.63	0.60	0.58
5	0.67	0.61	0.57	0.66	0.61	0.57	0.64	0.60	0.56	0.63	0.59	0.56	0.62	0.58	0.55	0.54
6	0.62	0.56	0.52	0.62	0.56	0.52	0.60	0.55	0.52	0.59	0.55	0.51	0.58	0.54	0.51	0.50
7	0.58	0.52	0.48	0.58	0.52	0.48	0.56	0.52	0.48	0.55	0.51	0.48	0.54	0.50	0.47	0.46
8	0.54	0.49	0.45	0.54	0.49	0.45	0.53	0.48	0.45	0.52	0.48	0.44	0.51	0.47	0.44	0.43
9	0.51	0.46	0.42	0.51	0.45	0.42	0.50	0.45	0.42	0.49	0.45	0.42	0.48	0.44	0.41	0.40
10	0.48	0.43	0.39	0.48	0.43	0.39	0.47	0.42	0.39	0.46	0.42	0.39	0.46	0.42	0.39	0.38





Luminaire Lumens:

FL=148.07,FM=95.56,FH=12.7,FVH=1.96

BL=142.81,BM=90.32,BH=12.05,BVH=1.87

UL=2.47,UH=11.76

BUG Rating:B1-U2-G0

Intensity data(cd)

Appendix Page: 15 Total:15

C/γ(°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	610.54	601.31	544.84	451.07	360.17	286.59	225.96	172.69	129.04
45.0	612.11	597.94	536.23	438.98	351.45	275.01	218.64	167.40	124.20
90.0	612.34	584.33	511.82	407.53	319.50	244.80	190.41	144.51	104.63
135.0	612.51	590.79	524.31	419.23	324.62	254.03	203.29	159.08	119.81
180.0	610.54	575.44	497.42	401.34	314.94	246.77	198.06	150.58	107.10
225.0	612.11	580.73	506.70	412.76	327.99	258.75	203.85	155.53	110.64
270.0	612.34	595.35	527.91	425.98	337.16	260.61	204.24	157.50	113.96
315.0	612.51	588.26	517.61	419.46	328.89	256.33	206.33	157.73	114.41
360.0	610.54	601.31	544.84	451.07	360.17	286.59	225.96	172.69	129.04
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	85.33	53.66	34.48	23.91	17.21	12.54	8.89	5.96	3.60
45.0	79.99	50.91	33.30	23.40	16.71	12.43	8.66	5.74	3.49
90.0	68.23	45.23	29.59	21.15	15.30	11.36	7.76	5.06	3.15
135.0	74.59	45.56	29.53	21.66	15.75	11.59	8.21	5.46	3.26
180.0	66.94	43.99	29.19	21.04	15.36	11.14	7.59	5.12	3.15
225.0	69.75	45.00	29.14	20.70	15.08	10.86	7.48	4.95	3.21
270.0	73.46	46.01	30.32	21.60	15.64	11.53	7.93	5.18	3.15
315.0	75.43	47.64	30.83	21.94	16.09	11.70	7.99	5.34	3.26
360.0	85.33	53.66	34.48	23.91	17.21	12.54	8.89	5.96	3.60
C/γ(°)	90.0								
0.0	2.31								
45.0	2.31								
90.0	2.25								
135.0	2.25								
180.0	2.25								
225.0	2.19								
270.0	2.25								
315.0	2.31								
360.0	2.31								