
Client:

LumCAT: 1545-E

Luminaire: 92.70.043.00

Report No: nt0100

Test No: GC2019121809

LampCAT: LUMINUS CXM-6-AC40

Lamp flux(lm): 823.0

Number of Lamps: 1

Length(mm): 0

Phm Type: C

Voltage(V): 34.7700

Current(A): 0.1970

Power (W): 6.8400

PF: 0.0000

Ballast type: DC

Width(mm): 0

Height(mm): 0

Photometric Results

Lumens(lm): 709.87, Efficiency(%): 86.25% , Luminous Efficacy(lm/W): 103.78

Central intensity(cd): 1148.738, Maximum intensity(cd): 1148.738

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=34.4

[C90/270]Total=34.4

Field angle(10%Imax): [C0/180]Total=86.8

[C90/270]Total=86.8

Maximum s/h(1/2): C0_180=0.55 C90_270=0.55

Maximum s/h(1/4): C0_180=0.64 C90_270=0.64

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 86.25%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 97.641%

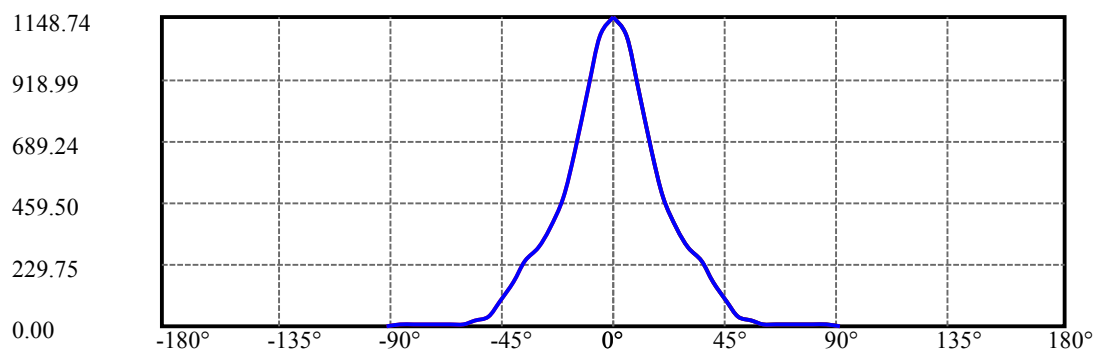
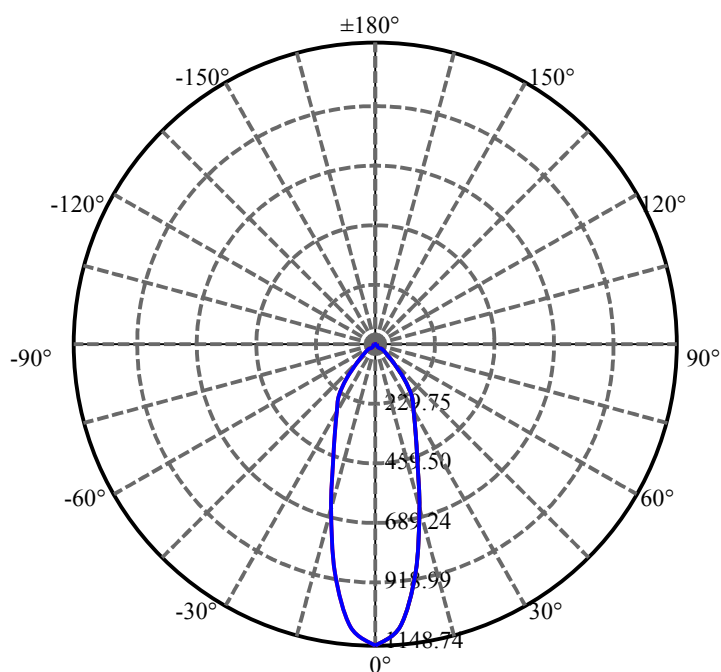
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	1148.738	0.000	0	.000%	.000%
5.0	1078.643	26.628	26.628	3.235%	3.751%
10.0	881.325	70.114	96.742	8.519%	13.628%
15.0	649.132	90.786	187.528	11.031%	26.417%
20.0	481.282	93.162	280.69	11.320%	39.541%
25.0	367.348	89.006	369.695	10.815%	52.079%
30.0	295.777	83.919	453.614	10.197%	63.901%
35.0	240.272	78.937	532.551	9.591%	75.021%
40.0	167.646	68.058	600.609	8.270%	84.609%
45.0	90.485	47.795	648.404	5.807%	91.342%
50.0	35.859	25.530	673.934	3.102%	94.938%
55.0	20.116	12.171	686.105	1.479%	96.653%
60.0	10.238	7.016	693.121	.853%	97.641%
65.0	6.841	4.152	697.273	.504%	98.226%
70.0	5.822	3.206	700.479	.390%	98.678%
75.0	5.077	2.849	703.328	.346%	99.079%
80.0	4.423	2.542	705.87	.309%	99.437%
85.0	3.663	2.197	708.067	.267%	99.746%
90.0	2.911	1.800	709.867	.219%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	453.61	55.12%	63.90%
0-40	600.61	72.98%	84.61%
0-60	693.12	84.22%	97.64%
0-90	708.07	86.03%	99.75%
0-120	708.07	86.03%	99.75%
0-180	709.87	86.25%	100.00%
60-90	21.96	2.67%	3.09%
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%
0-37.60	567.89	69.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	96.74
10-20	183.95
20-30	172.92
30-40	146.99
40-50	73.32
50-60	19.19
60-70	7.36
70-80	5.39
80-90	2.20
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

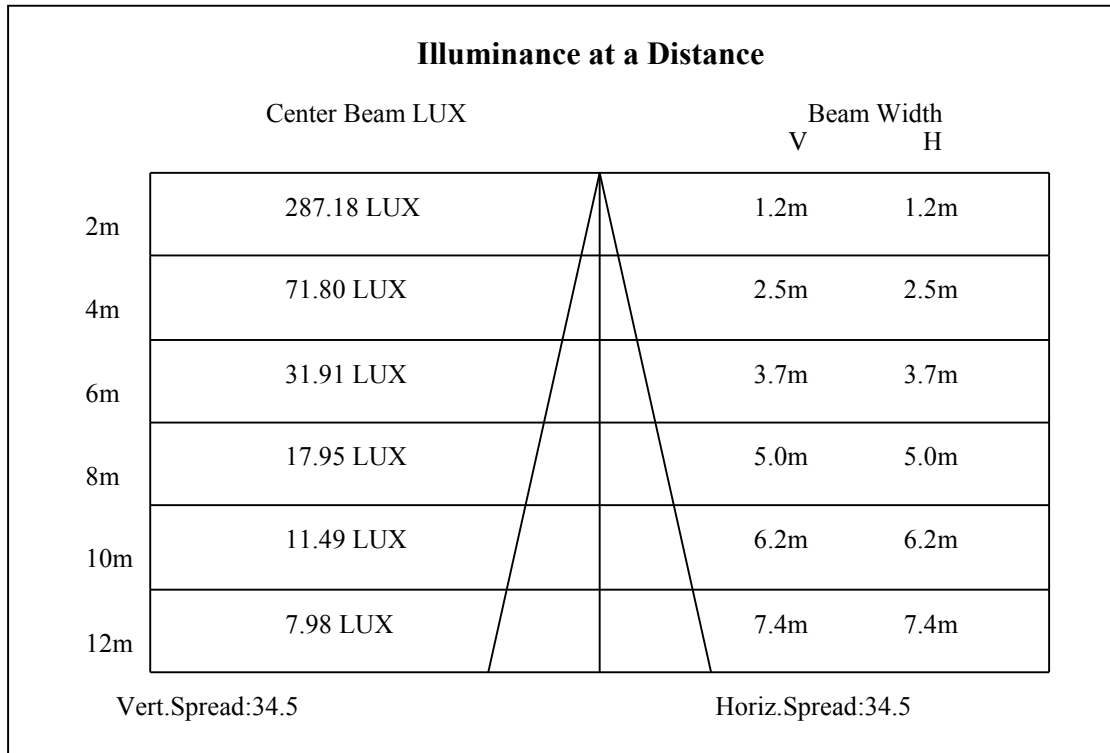
C0(Max): —————C0/C180: —————C90/C270: —————

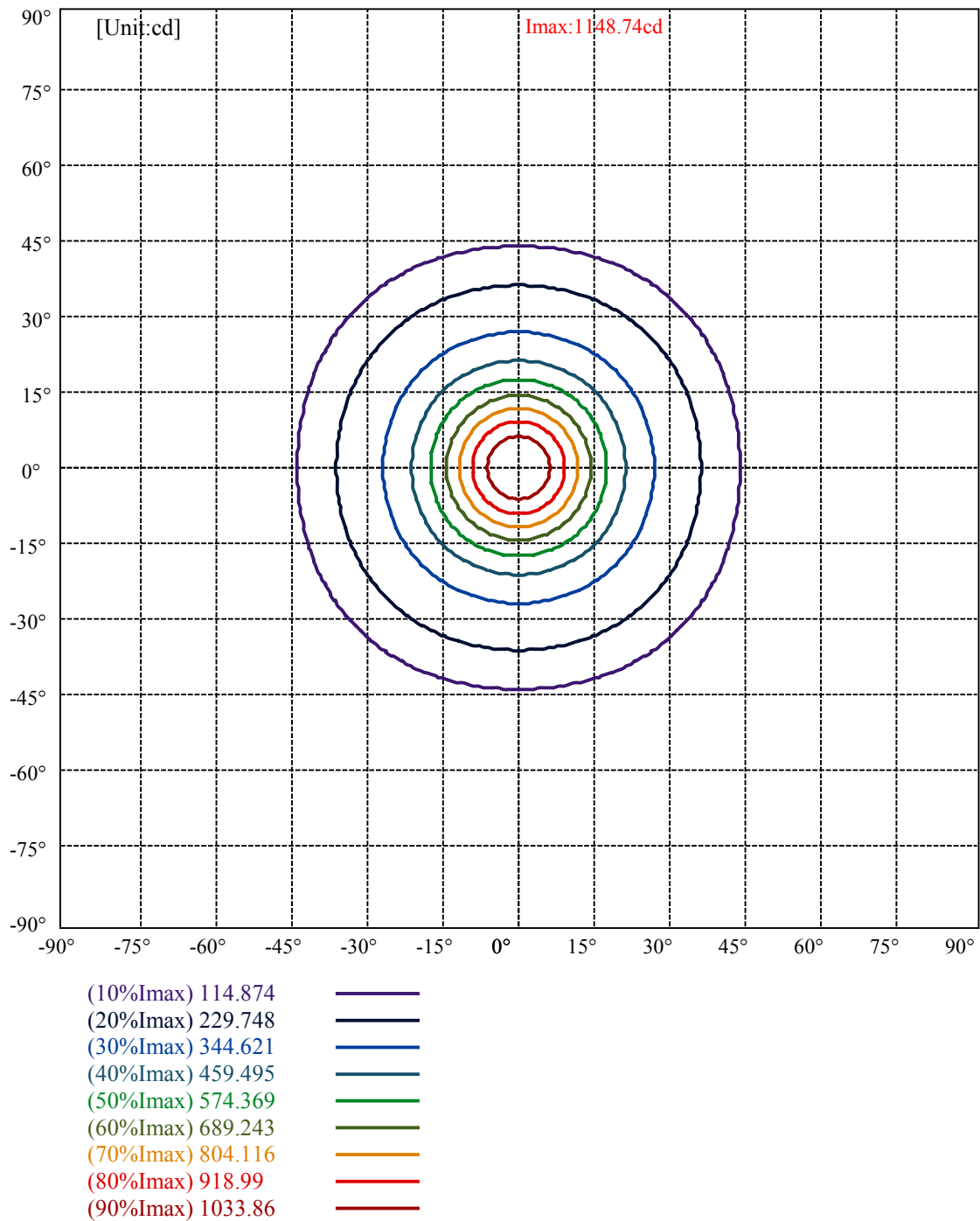
Field angle(10%Imax):C0/180Left:43.4 Right:43.4

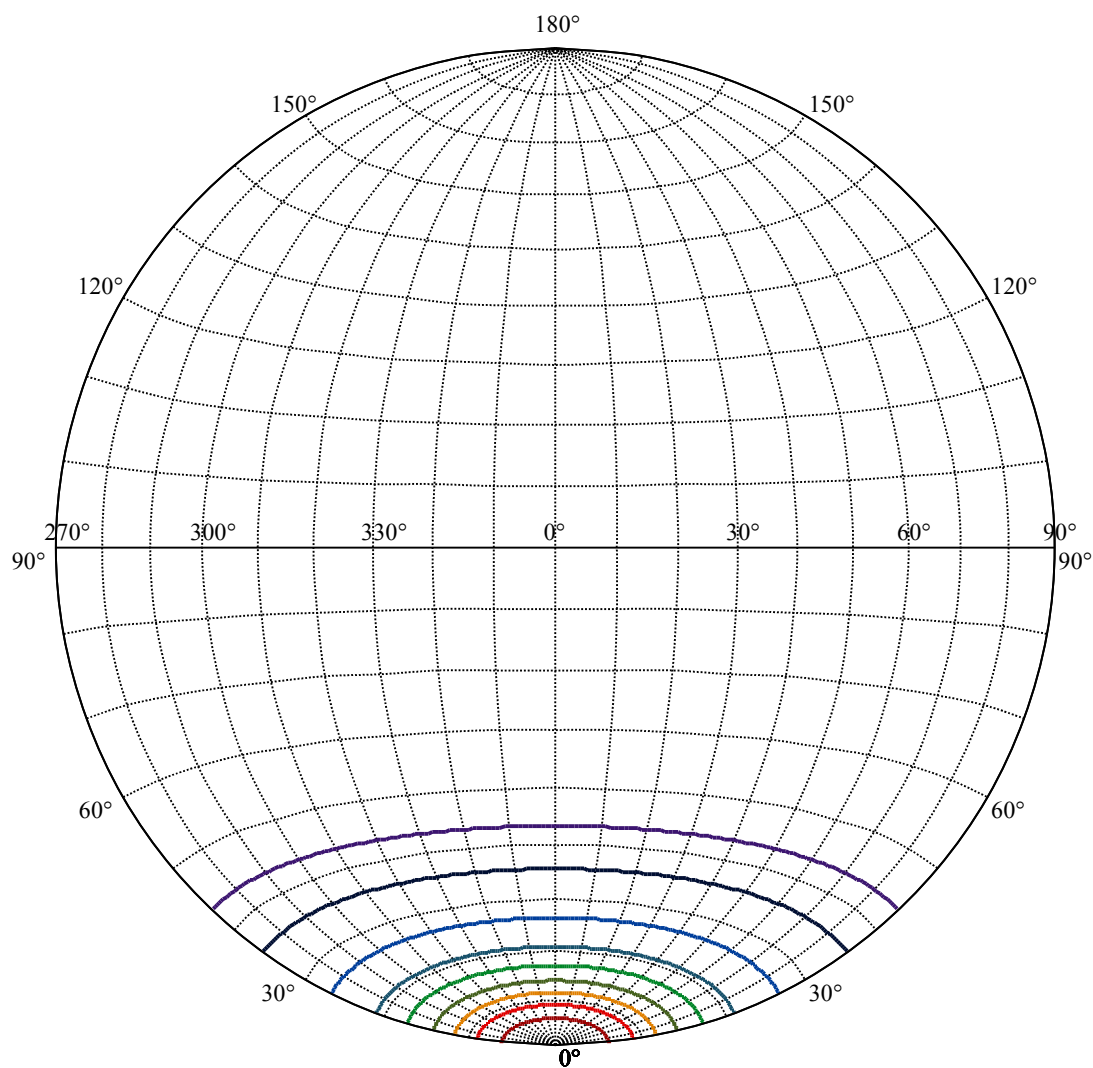
:C90/270Left:43.4 Right:43.4

Beam Angle(50%Imax):C0/180Left:17.2 Right:17.2

:C90/270Left:17.2 Right:17.2







House

[Unit:cd]

Road

Imax:1148.74

(10%Imax) 114.874

(20%Imax) 229.748

(30%Imax) 344.621

(40%Imax) 459.495

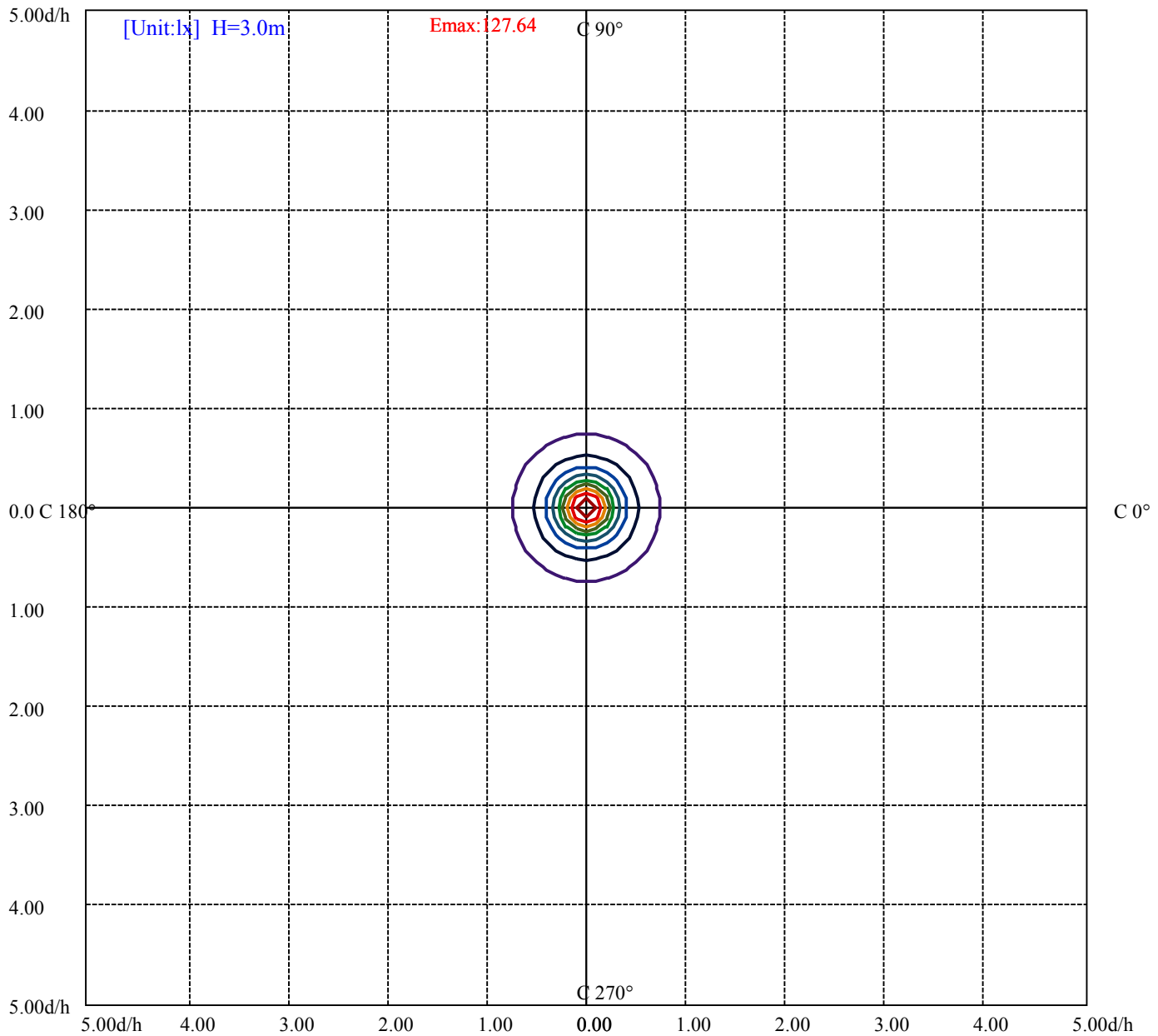
(50%Imax) 574.369

(60%Imax) 689.243

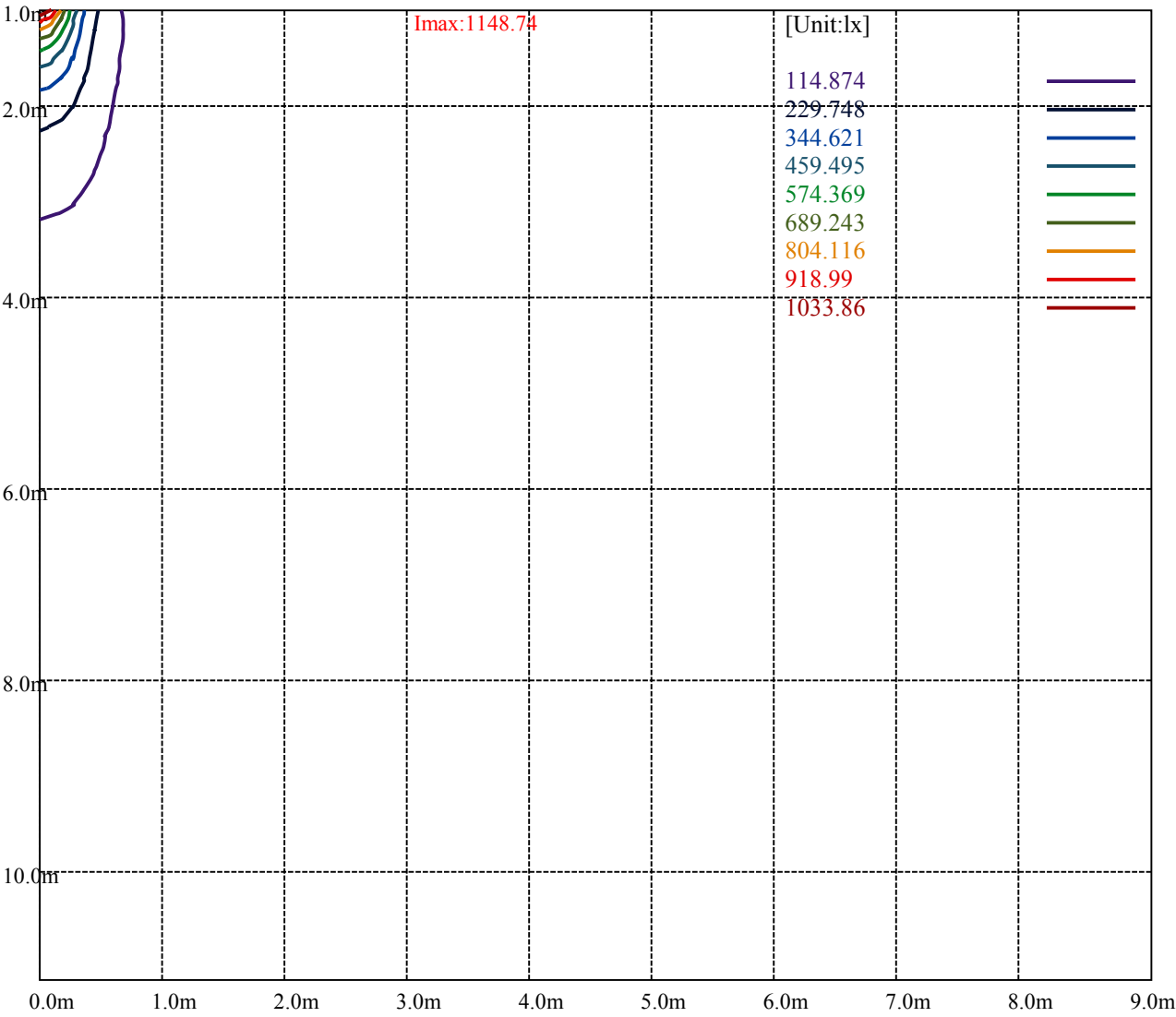
(70%Imax) 804.116

(80%Imax) 918.99

(90%Imax) 1033.86



(10%E _{max}) 12.76378	—
(20%E _{max}) 25.52744	—
(30%E _{max}) 38.29122	—
(40%E _{max}) 51.05489	—
(50%E _{max}) 63.81866	—
(60%E _{max}) 76.58234	—
(70%E _{max}) 89.34611	—
(80%E _{max}) 102.1098	—
(90%E _{max}) 114.8733	—



Luminance Table

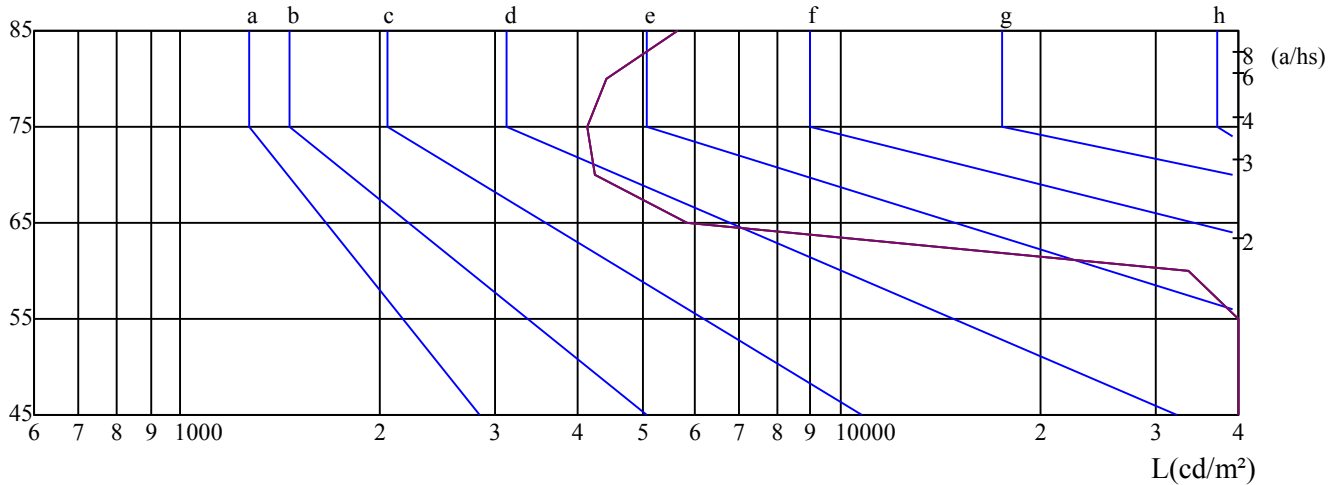
γ	45	50	55	60	65	70	75	80	85
C0	46650	52836	53885	33658	5848	4245	4131	4405	5640
C45	46650	52836	53885	33658	5848	4245	4131	4405	5640
C90	46650	52836	53885	33658	5848	4245	4131	4405	5640

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
5848	5848	5848	4131	4131	4131	5640	5640	5640

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

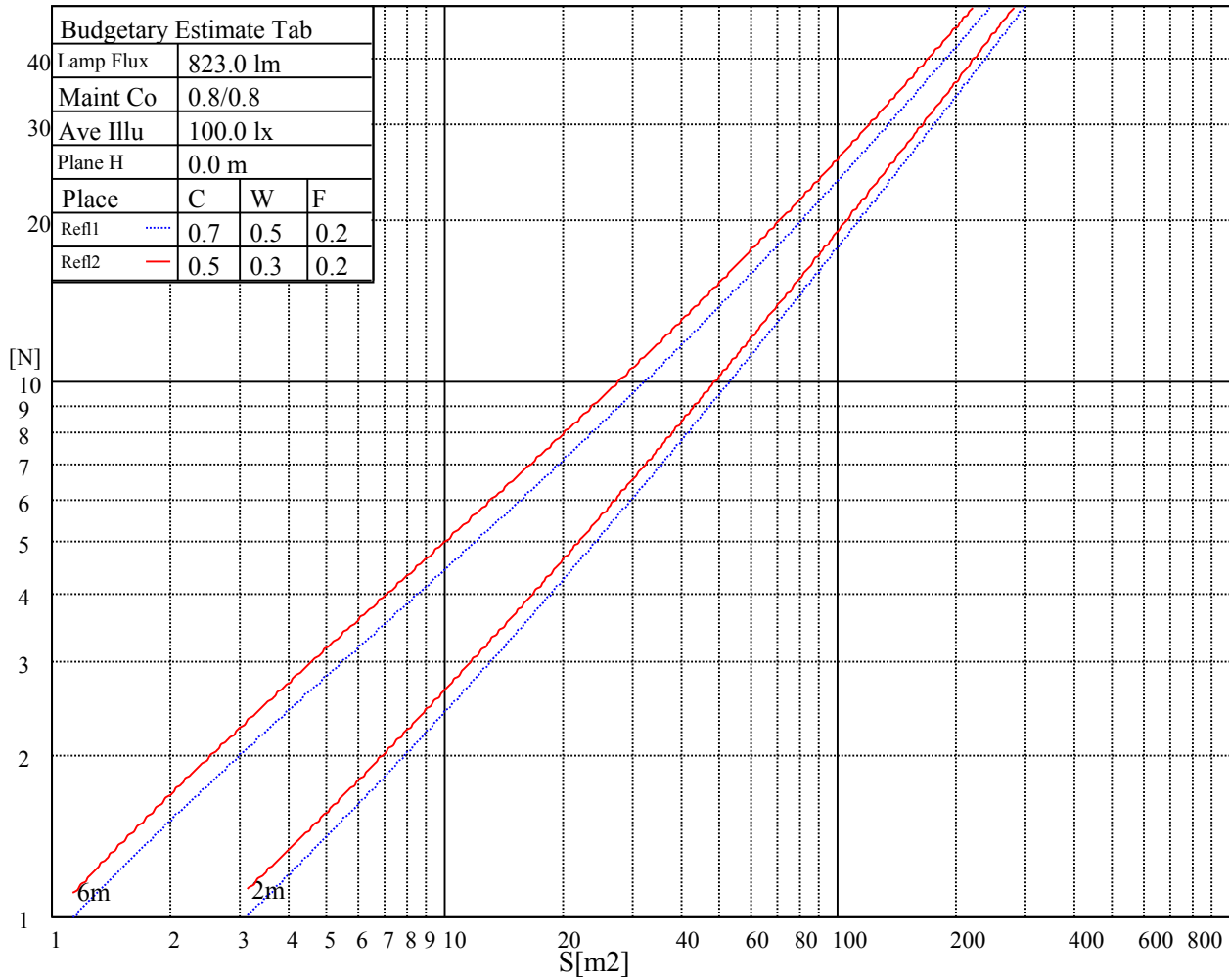
Luminance Limiting Curve

 $\gamma(^{\circ})$ 

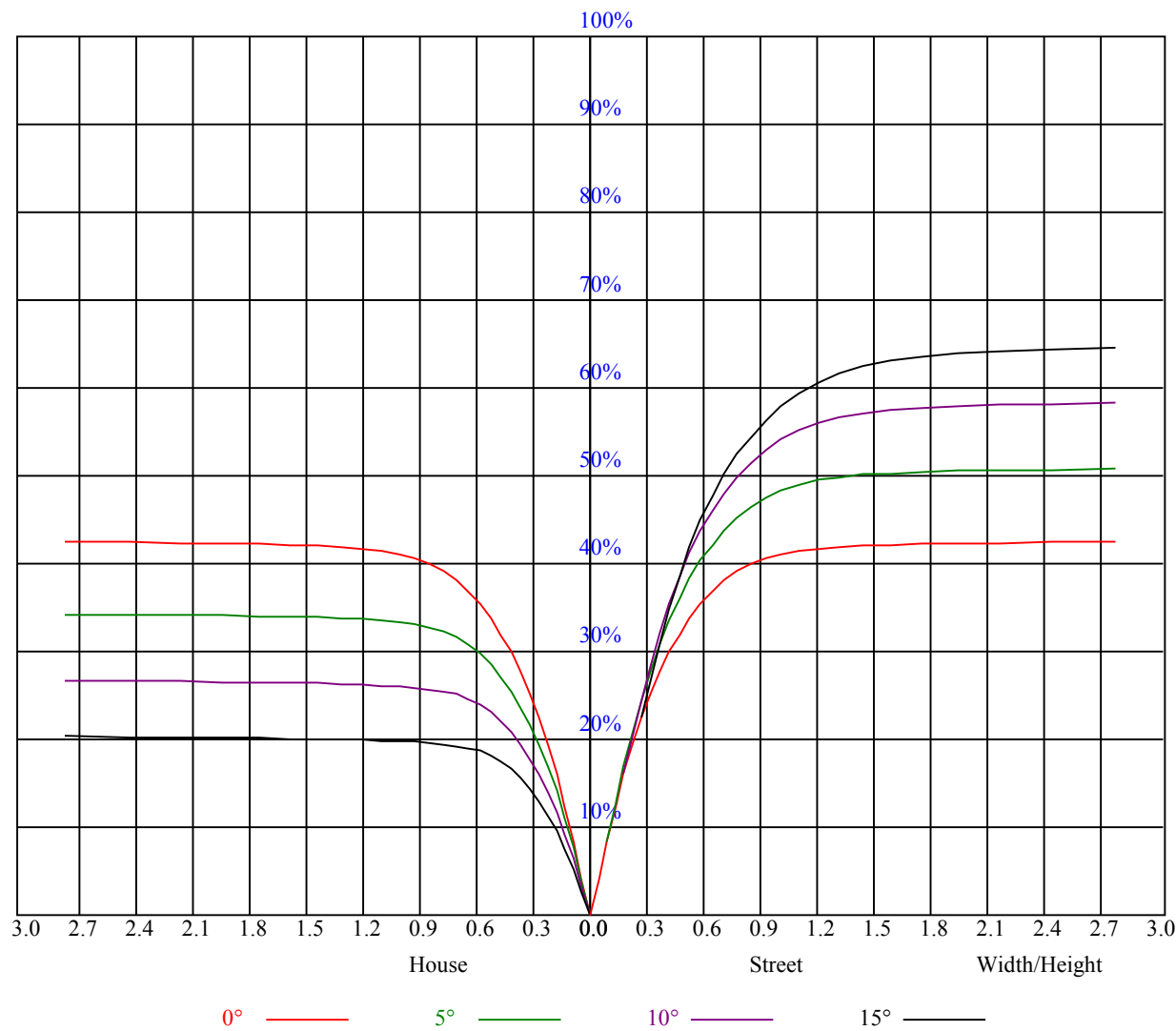
C0 ———

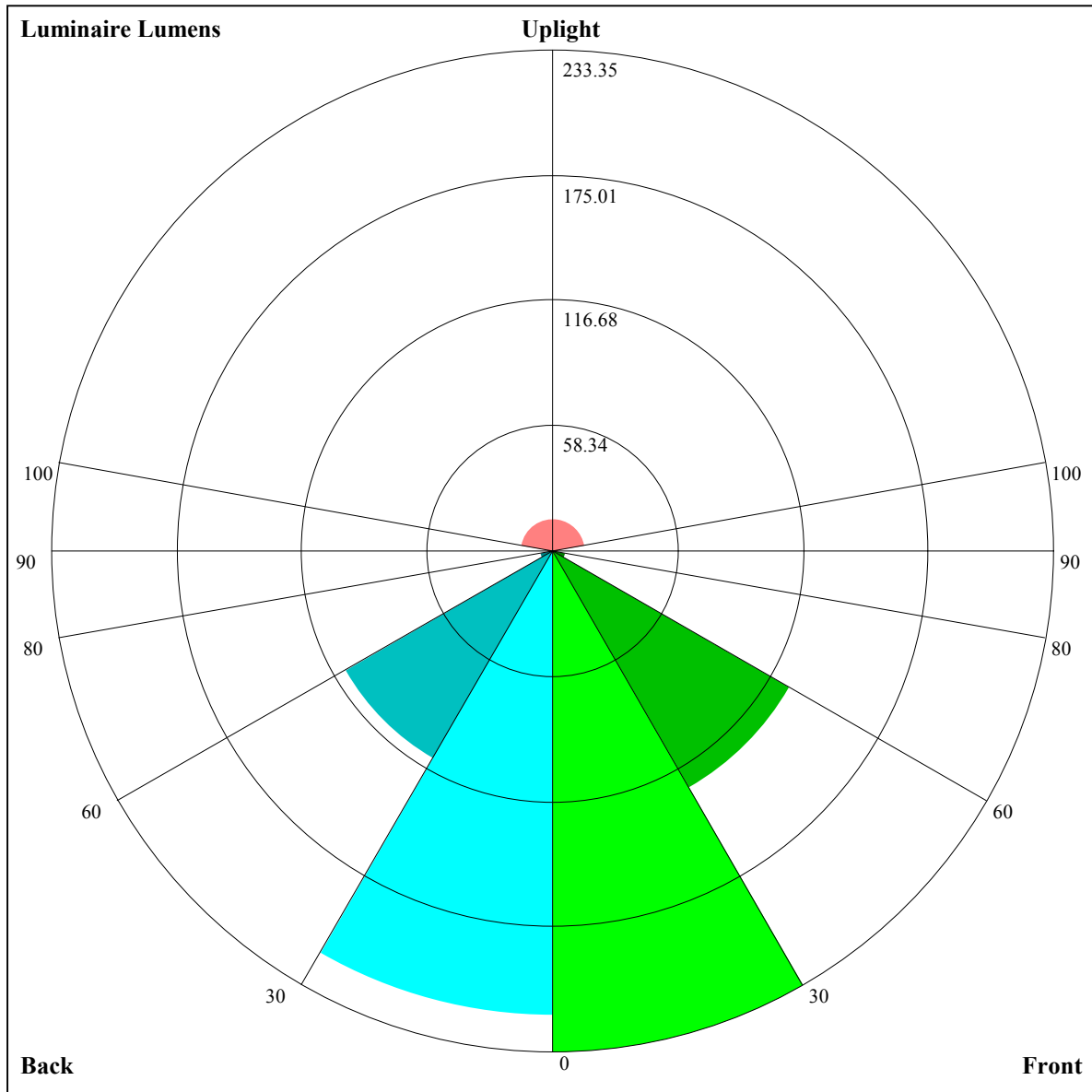
C45 ———

C90 ———



RHOC	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	1.03	1.03	1.03	1.00	1.00	1.00	0.96	0.96	0.96	0.92	0.92	0.92	0.88	0.88	0.88	0.86
1	0.95	0.93	0.90	0.93	0.91	0.89	0.89	0.88	0.86	0.86	0.85	0.84	0.83	0.82	0.81	0.80
2	0.88	0.84	0.81	0.86	0.83	0.80	0.84	0.81	0.78	0.81	0.79	0.77	0.79	0.77	0.75	0.74
3	0.82	0.77	0.73	0.80	0.76	0.73	0.78	0.75	0.72	0.76	0.73	0.70	0.74	0.71	0.69	0.68
4	0.76	0.71	0.67	0.75	0.70	0.67	0.73	0.69	0.66	0.71	0.68	0.65	0.70	0.67	0.64	0.63
5	0.71	0.66	0.62	0.70	0.65	0.62	0.69	0.64	0.61	0.67	0.63	0.60	0.66	0.62	0.60	0.59
6	0.66	0.61	0.57	0.66	0.61	0.57	0.64	0.60	0.57	0.63	0.59	0.56	0.62	0.59	0.56	0.55
7	0.62	0.57	0.53	0.62	0.57	0.53	0.61	0.56	0.53	0.60	0.56	0.53	0.59	0.55	0.52	0.51
8	0.59	0.54	0.50	0.58	0.53	0.50	0.57	0.53	0.50	0.56	0.52	0.49	0.56	0.52	0.49	0.48
9	0.56	0.50	0.47	0.55	0.50	0.47	0.54	0.50	0.47	0.54	0.49	0.46	0.53	0.49	0.46	0.45
10	0.53	0.48	0.44	0.52	0.47	0.44	0.52	0.47	0.44	0.51	0.47	0.44	0.50	0.46	0.44	0.43





Luminaire Lumens:

FL=233.35,FM=127.61,FH=6.55,FVH=2.06

BL=216.8,BM=111.84,BH=6.13,BVH=1.95

UL=3.18,UH=15.11

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	1162.69	1130.06	960.19	725.63	530.44	398.25	311.63	271.91	188.38
45.0	1117.01	1120.50	956.25	731.25	538.88	402.19	325.13	270.39	194.63
90.0	1155.38	1062.84	882.06	647.10	479.81	366.81	297.79	248.74	180.34
135.0	1159.88	1089.00	875.25	632.81	470.25	363.94	293.63	244.46	180.79
180.0	1162.69	1031.40	803.25	584.55	436.67	331.31	262.91	202.89	132.19
225.0	1117.01	1036.69	800.78	572.01	436.89	338.96	273.15	199.69	129.49
270.0	1155.38	1085.06	887.63	655.88	478.13	373.50	299.81	238.84	168.02
315.0	1159.88	1073.59	885.21	643.84	479.19	363.83	302.18	245.25	167.34
360.0	1162.69	1130.06	960.19	725.63	530.44	398.25	311.63	271.91	188.38
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	108.73	48.09	22.44	13.33	7.48	6.47	5.57	4.78	3.99
45.0	119.08	51.19	21.99	12.38	7.65	6.41	5.57	4.73	3.94
90.0	101.70	39.82	19.74	11.59	6.52	5.46	4.78	4.22	3.66
135.0	101.08	34.59	20.14	11.14	6.30	5.34	4.67	4.05	3.49
180.0	63.28	26.38	16.54	8.27	6.64	5.68	4.89	4.22	3.38
225.0	60.58	25.14	17.27	8.44	6.86	5.85	5.12	4.39	3.32
270.0	82.58	30.43	21.99	8.61	6.75	5.79	5.12	4.61	3.94
315.0	86.85	31.22	20.81	8.16	6.53	5.57	4.89	4.39	3.60
360.0	108.73	48.09	22.44	13.33	7.48	6.47	5.57	4.78	3.99
C/γ(°)	90.0								
0.0	2.98								
45.0	2.98								
90.0	2.98								
135.0	2.87								
180.0	2.87								
225.0	2.87								
270.0	2.87								
315.0	2.87								
360.0	2.98								