



SGSO

Address: LIT by CARDI

Client:

LumCAT: 0017440224 KAI 10W 3000K 1200lm

Luminaire:

Report No:

Voltage(V): 230.4500

Test No: KYZ-A251030009-05-003

Current(A): 0.0458

LampCAT: LED

Power (W): 10.0000

Lamp flux(lm): -1.0

PF: 0.9472

Number of Lamps: 1

Ballast type:

Length(mm): -80

Width(mm): -80

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 1200.00

Efficiency(%): 100.00%

Lumens(lm)/Power(W): 120.00

Central intensity(cd): 589.680

Maximum intensity(cd): 589.680

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=84.8

[C90/270]Total=86.5

Field angle(10%Imax): [C0/180]Total=139.2

[C90/270]Total=142.4

Maximum s/h(1/2): C0_180=1.16 C90_270=1.15

Maximum s/h(1/4): C0_180=1.19 C90_270=1.18

Up flux rate of lamp(%): 0.74%

Down flux rate of lamp(%): 99.26%

Up flux rate of LUM(%): 0.74%

Down flux rate of LUM(%): 99.26%

CIE Type : Direct lighting

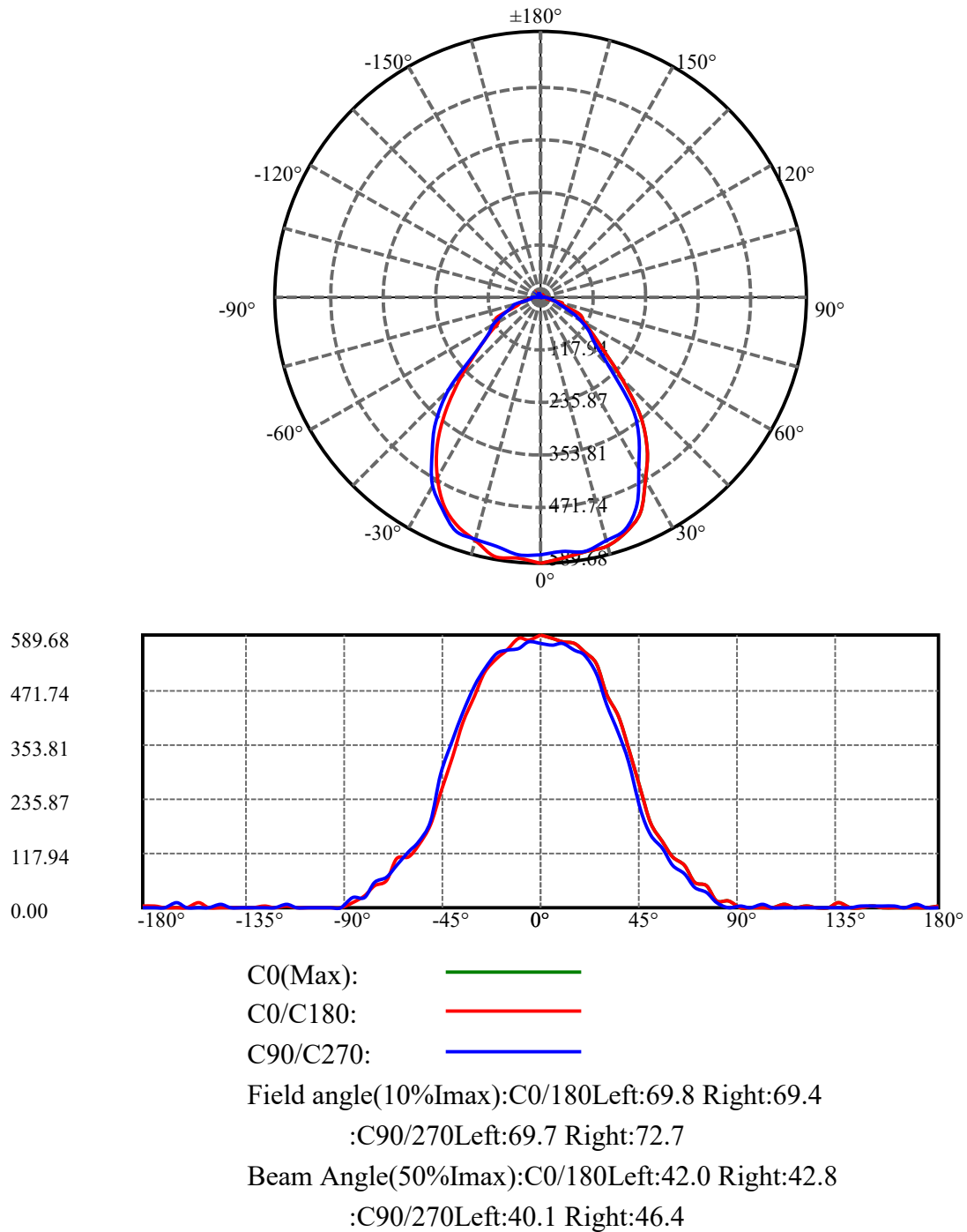
Output flux ratio in π solid angle : 86.773%

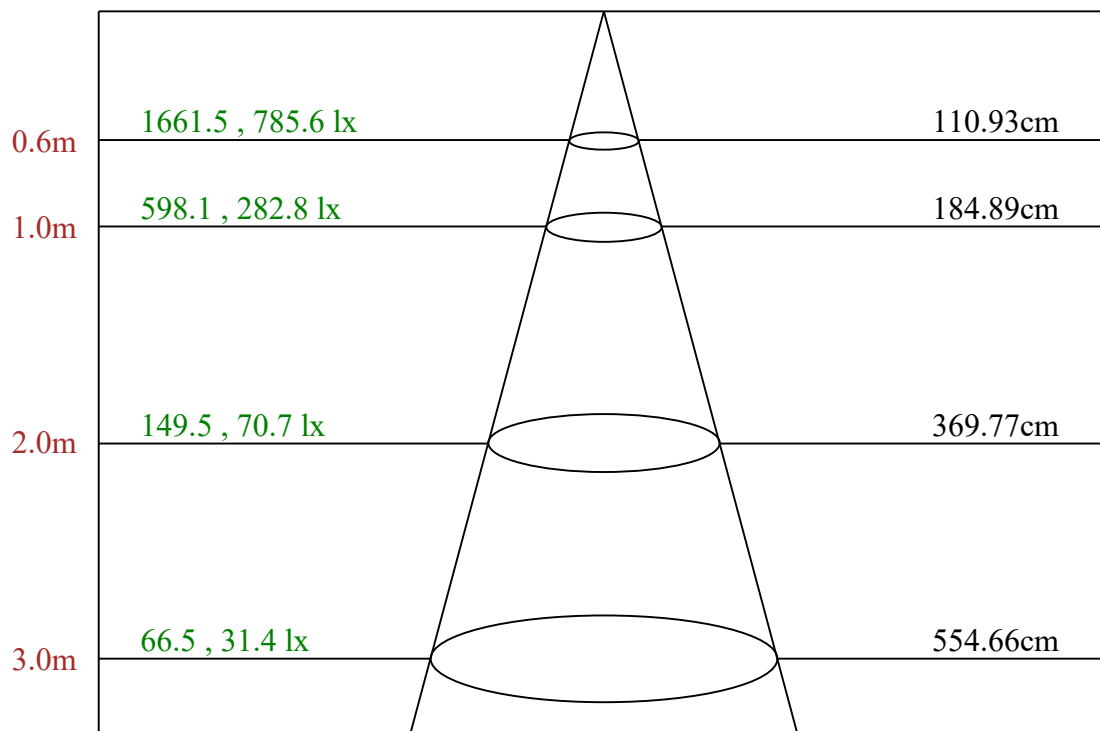
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	585.236	0.000	0	.000%	.000%
5.0	581.079	13.746	13.746	.000%	1.145%
10.0	578.521	40.896	54.642	.000%	4.554%
15.0	569.888	67.160	121.803	.000%	10.150%
20.0	555.447	91.433	213.235	.000%	17.770%
25.0	522.353	111.444	324.679	.000%	27.057%
30.0	468.583	123.632	448.311	.000%	37.359%
35.0	405.114	126.840	575.151	.000%	47.929%
40.0	342.604	122.988	698.139	.000%	58.178%
45.0	266.133	111.120	809.259	.000%	67.438%
50.0	203.729	93.601	902.86	.000%	75.238%
55.0	155.289	76.959	979.819	.000%	81.652%
60.0	114.415	61.460	1041.28	.000%	86.773%
65.0	91.873	49.440	1090.72	.000%	90.893%
70.0	64.375	39.004	1129.724	.000%	94.144%
75.0	48.281	29.030	1158.754	.000%	96.563%
80.0	24.727	19.259	1178.013	.000%	98.168%
85.0	11.831	9.793	1187.806	.000%	98.984%
90.0	0.480	3.323	1191.129	.000%	99.261%
95.0	0.373	0.230	1191.359	.000%	99.280%
100.0	1.652	0.542	1191.902	.000%	99.325%
105.0	1.279	0.773	1192.675	.000%	99.390%
110.0	1.812	0.796	1193.471	.000%	99.456%
115.0	1.492	0.825	1194.296	.000%	99.525%
120.0	1.439	0.702	1194.999	.000%	99.583%
125.0	1.492	0.668	1195.667	.000%	99.639%
130.0	1.013	0.537	1196.204	.000%	99.684%
135.0	2.718	0.743	1196.947	.000%	99.746%
140.0	0.160	0.525	1197.472	.000%	99.789%
145.0	2.291	0.403	1197.875	.000%	99.823%
150.0	2.025	0.627	1198.502	.000%	99.875%
155.0	2.292	0.539	1199.04	.000%	99.920%
160.0	0.799	0.320	1199.36	.000%	99.947%
165.0	2.292	0.251	1199.611	.000%	99.968%
170.0	1.919	0.246	1199.857	.000%	99.988%
175.0	0.746	0.094	1199.951	.000%	99.996%
180.0	3.411	0.049	1200	.000%	100.000%

ZONAL LUMEN SUMMARY			
Zone	Lumens	%Lamp	%Fixt
0-30	448.31	N.A.	37.36%
0-40	698.14	N.A.	58.18%
0-60	1041.28	N.A.	86.77%
0-90	1191.13	N.A.	99.26%
0-120	1195.00	N.A.	99.58%
0-180	1200.00	N.A.	100.00%
60-90	211.31	N.A.	17.61%
90-120	7.19	N.A.	0.60%
90-130	8.40	N.A.	0.70%
90-150	10.70	N.A.	0.89%
90-180	12.15	N.A.	1.01%
0-53.71	960.00	N.A.	80.00%

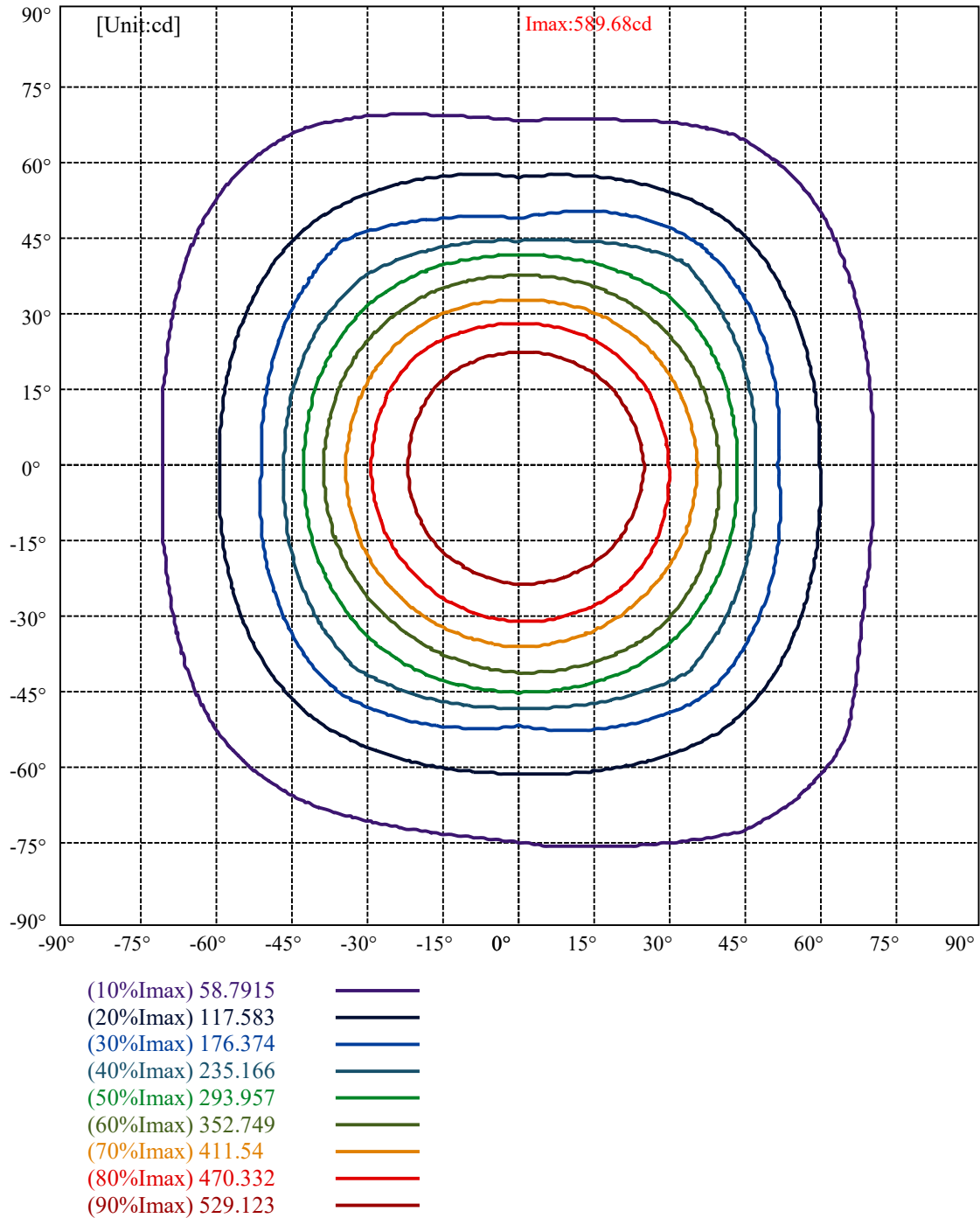
ZONAL LUMEN SUMMARY

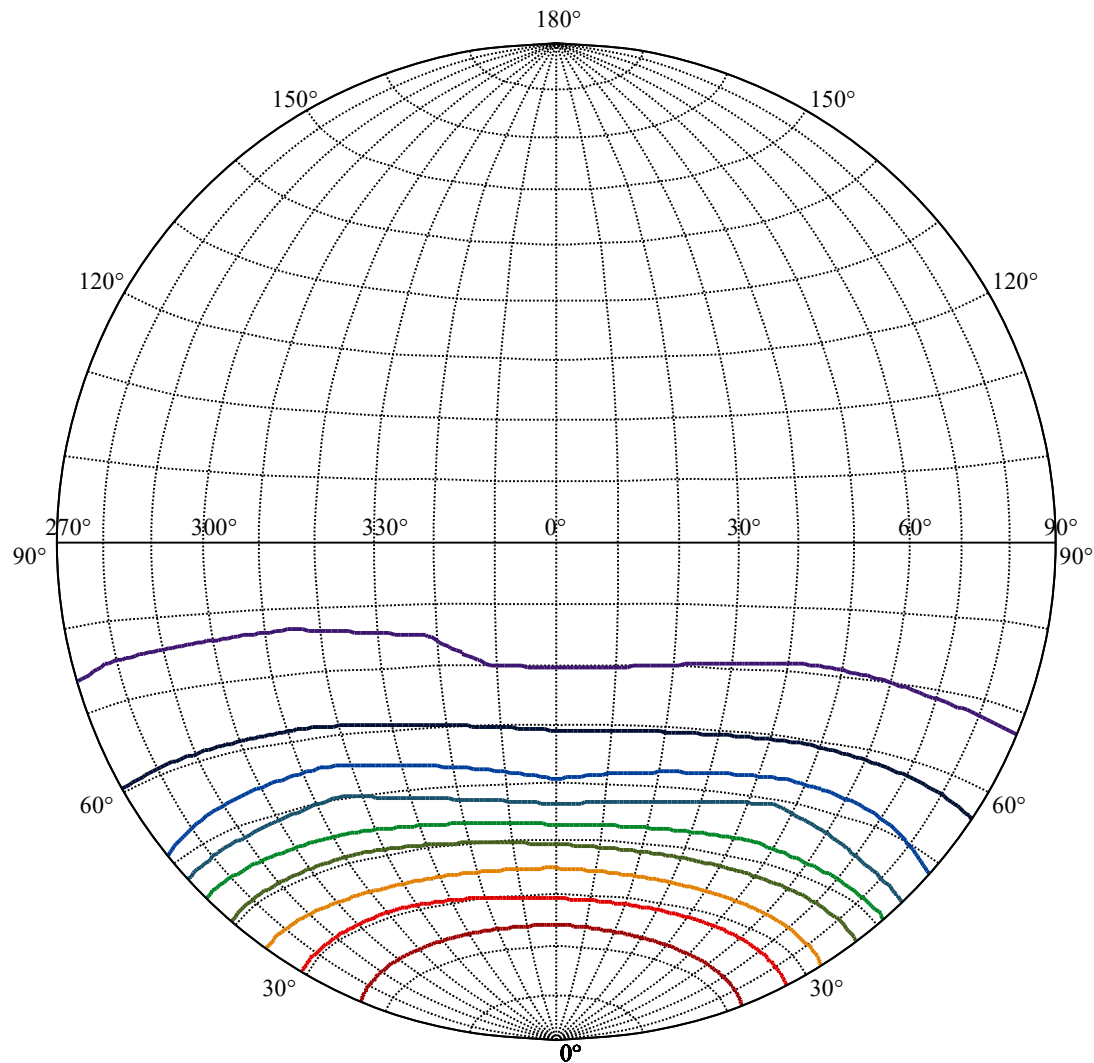
0-10	54.64
10-20	158.59
20-30	235.08
30-40	249.83
40-50	204.72
50-60	138.42
60-70	88.44
70-80	48.29
80-90	13.12
90-100	0.77
100-110	1.57
110-120	1.53
120-130	1.20
130-140	1.27
140-150	1.03
150-160	0.86
160-170	0.50
170-180	0.09





Max , Ave Beam angle of C0 plane 85.50



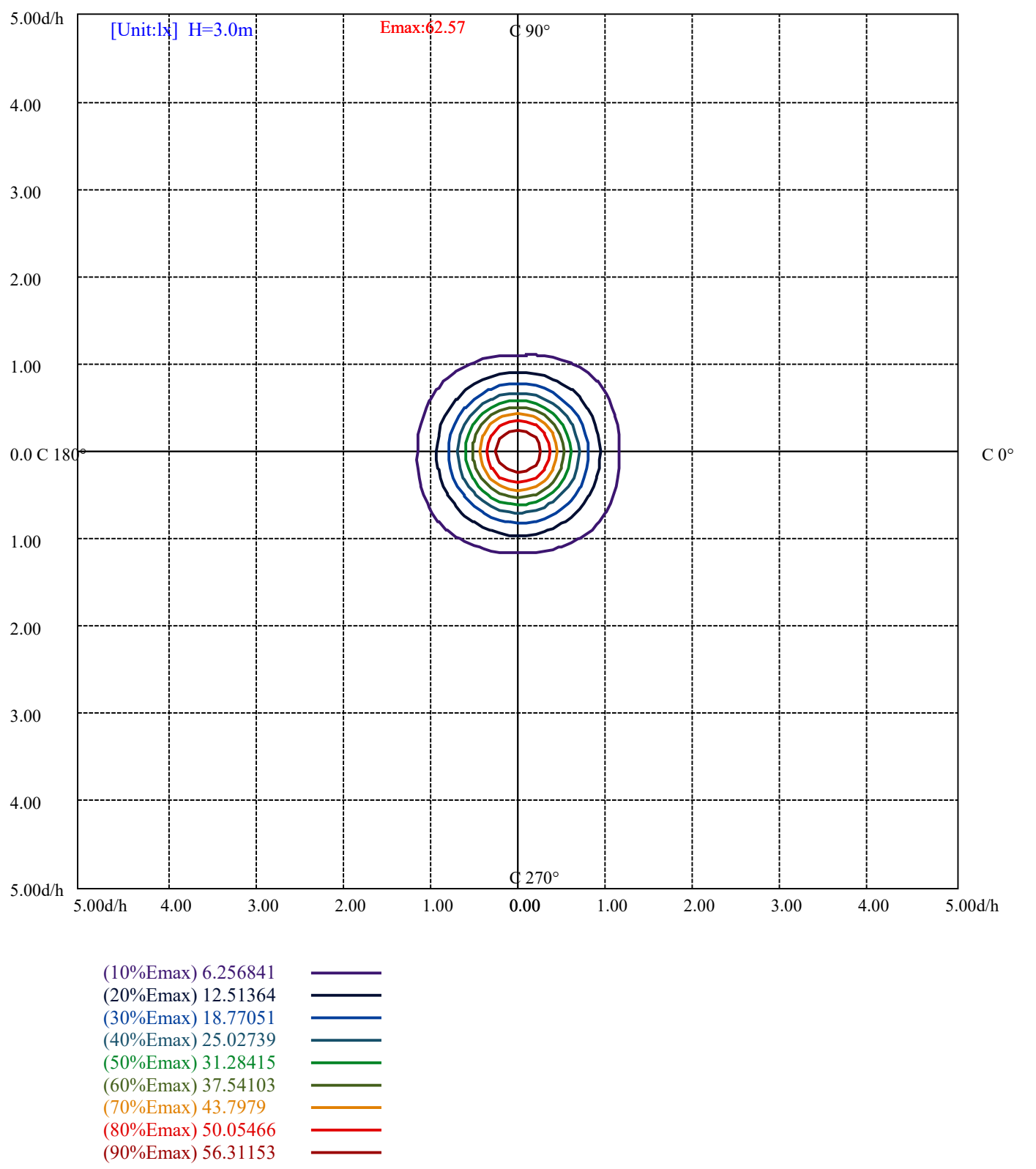


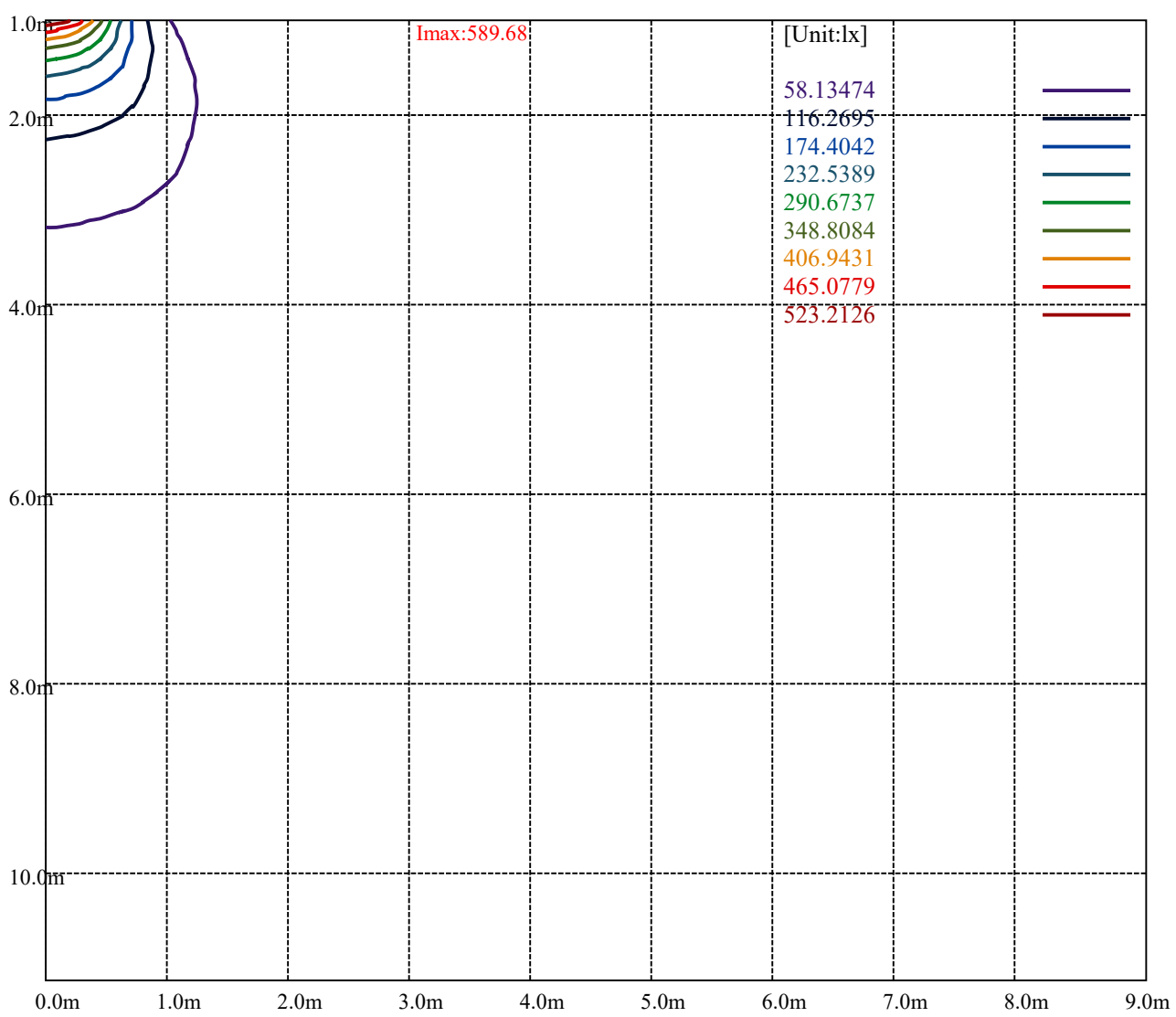
House

[Unit:cd]

Road

I _{max} :589.68	
(10%I _{max}) 58.13474	
(20%I _{max}) 116.2695	
(30%I _{max}) 174.4042	
(40%I _{max}) 232.5389	
(50%I _{max}) 290.6737	
(60%I _{max}) 348.8084	
(70%I _{max}) 406.9431	
(80%I _{max}) 465.0779	
(90%I _{max}) 523.2126	





Luminance Table

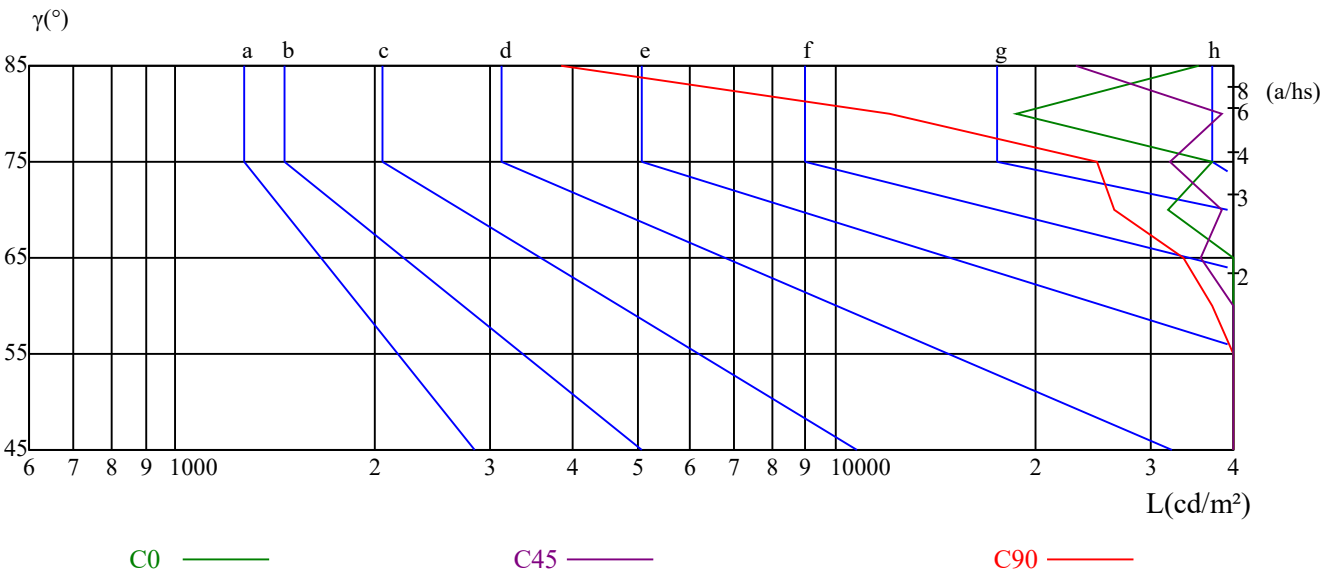
γ	45	50	55	60	65	70	75	80	85
C0	72251	56456	49857	44317	43923	31782	37153	18780	35497
C45	77691	71546	53939	44985	35811	38383	31984	38522	23026
C90	59598	49171	44026	37126	33635	26403	24876	12038	3837

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
47287	38581	42340	36183	34245	37960	30701	24944	25424

Glare Table

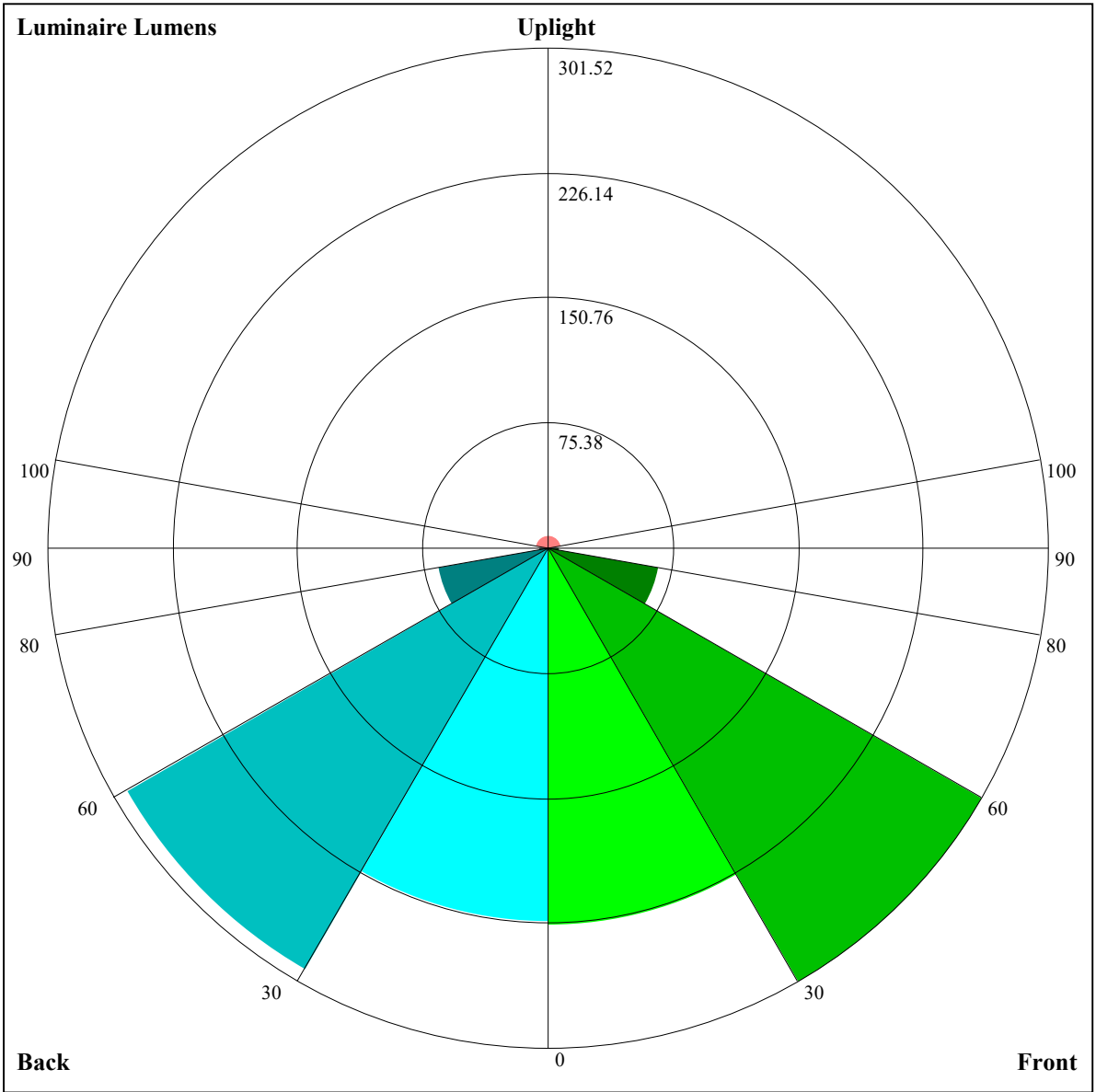
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	≤ 300				
1.5	B		2000	1000	500	≤ 300			
1.85	C			2000	1000	500	≤ 300		
2.2	D				2000	1000	500	≤ 300	
2.55	E					2000	1000	500	≤ 300
		a	b	c	d	e	f	g	h

Luminance Limiting Curve



Illumination assessment according UGR											
Rf of Ceiling	70	70	50	50	30	70	70	50	50	30	
Rf of Wall	50	30	50	30	30	50	30	50	30	30	
Rf of Floor	20	20	20	20	20	20	20	20	20	20	
Room dimensions		Viewed crosswise					Viewed endwise				
X	Y										
2H	2H	20.96	22.40	21.33	22.73	23.06	20.42	21.86	20.79	22.19	22.52
	3H	21.91	23.21	22.30	23.56	23.92	21.20	22.50	21.60	22.85	23.21
	4H	22.33	23.54	22.74	23.91	24.29	21.48	22.70	21.89	23.06	23.44
	6H	22.57	23.69	22.99	24.08	24.49	21.62	22.75	22.04	23.13	23.54
	8H	22.61	23.69	23.03	24.08	24.50	21.60	22.68	22.02	23.07	23.49
	12H	22.68	23.71	23.11	24.11	24.54	21.55	22.58	21.98	22.99	23.41
4H	2H	21.31	22.52	21.72	22.89	23.27	20.86	22.07	21.27	22.44	22.82
	3H	22.45	23.47	22.88	23.88	24.31	21.84	22.87	22.28	23.27	23.70
	4H	23.05	23.95	23.49	24.38	24.84	22.29	23.19	22.73	23.62	24.08
	6H	23.36	24.16	23.83	24.61	25.08	22.49	23.29	22.96	23.74	24.21
	8H	23.46	24.21	23.95	24.67	25.15	22.51	23.26	23.00	23.72	24.20
	12H	23.61	24.30	24.10	24.75	25.28	22.50	23.19	22.99	23.65	24.17
8H	4H	23.21	23.96	23.70	24.42	24.90	22.52	23.27	23.01	23.73	24.21
	6H	23.66	24.28	24.16	24.76	25.28	22.87	23.49	23.37	23.97	24.49
	8H	23.88	24.43	24.41	24.95	25.46	23.00	23.54	23.53	24.06	24.57
	12H	24.10	24.55	24.64	25.08	25.60	23.01	23.46	23.54	23.98	24.51
12H	4H	23.22	23.91	23.71	24.37	24.89	22.55	23.24	23.04	23.69	24.22
	6H	23.76	24.30	24.28	24.82	25.33	23.00	23.54	23.52	24.06	24.57
	8H	23.98	24.43	24.52	24.95	25.48	23.12	23.57	23.66	24.10	24.62
Variation with the observer position at spacings:											
S = 1.0H		0.3/-0.8					0.3/-0.7				
S = 1.5H		0.9/-1.4					1.0/-1.1				
S = 2.0H		2.0/-1.7					1.7/-1.3				
Standard tables:		BK3					BK3				
Uncorrected UGR		9.5					10.3				

UGR calculation is based on CIE Publ. 117 ,S/H = 0.25



Luminaire Lumens:

FL=227.98,FM=301.52,FH=68.09,FVH=6.91

BL=225.79,BM=293.47,BH=67.75,BVH=5.94

UL=0.78,UH=8.21

BUG Rating:B1-U1-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	589.68	580.85	573.29	572.45	553.95	527.06	462.75	412.31	342.96
45.0	570.77	582.54	582.54	563.20	548.07	517.39	450.56	393.82	323.63
90.0	571.61	566.56	571.61	558.16	546.39	504.36	437.95	378.27	316.49
135.0	575.81	568.67	565.72	566.14	539.66	514.45	457.71	382.89	321.95
180.0	589.68	578.75	582.11	558.16	538.82	508.14	458.97	397.60	326.99
225.0	570.77	567.82	567.82	552.69	546.81	507.72	462.75	401.39	333.30
270.0	571.61	573.29	561.52	555.64	551.01	517.81	479.14	419.46	362.72
315.0	575.81	564.46	558.16	568.25	556.06	522.85	485.87	409.37	374.07
360.0	589.68	580.85	573.29	572.45	553.95	527.06	462.75	412.31	342.96
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	256.80	182.41	143.74	111.38	93.31	54.64	48.33	16.39	15.55
45.0	276.14	231.16	155.51	113.06	76.07	65.99	41.61	33.62	10.09
90.0	211.83	158.87	126.93	93.31	71.45	45.39	32.36	10.51	1.68
135.0	250.50	197.96	168.54	103.81	91.20	73.97	42.45	17.65	0.00
180.0	248.40	179.05	135.76	110.54	107.60	57.16	45.81	27.32	11.35
225.0	279.92	228.64	169.80	119.37	98.35	72.29	42.87	26.90	20.17
270.0	287.91	186.61	142.48	120.21	92.47	65.99	56.74	23.12	20.17
315.0	287.48	242.09	181.99	130.71	94.15	72.29	70.61	39.51	14.29
360.0	256.80	182.41	143.74	111.38	93.31	54.64	48.33	16.39	15.55
C/γ(°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	0.00	0.00	0.00	0.00	7.99	0.00	3.36	0.00	0.00
45.0	0.00	0.00	0.00	4.20	0.00	0.00	6.30	4.62	0.42
90.0	2.94	0.00	7.15	0.00	0.84	0.00	0.00	0.00	0.00
135.0	0.00	0.00	3.36	0.00	0.00	0.42	0.00	0.00	4.20
180.0	0.00	0.00	0.00	0.00	0.00	3.78	1.68	5.04	0.00
225.0	0.00	0.00	0.00	5.88	5.46	0.00	0.00	2.10	2.10
270.0	0.00	0.00	0.00	0.00	0.00	7.57	0.00	0.00	1.26
315.0	0.84	2.94	2.52	0.00	0.00	0.00	0.00	0.00	0.00
360.0	0.00	0.00	0.00	0.00	7.99	0.00	3.36	0.00	0.00
C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	12.19	1.26	1.26	3.78	0.00	0.00	0.00	0.00	0.00
45.0	5.46	0.00	0.00	1.68	2.52	1.26	0.00	2.10	0.00
90.0	0.00	0.00	5.46	4.20	2.10	3.36	0.00	7.15	0.00
135.0	3.78	0.00	4.20	0.00	2.94	0.00	0.00	0.00	3.78
180.0	0.00	0.00	0.00	0.00	9.67	1.68	0.00	0.00	2.10
225.0	0.00	0.00	0.42	0.00	0.84	0.00	2.10	4.62	0.00
270.0	0.00	0.00	6.72	0.00	0.00	0.00	12.61	1.26	0.00
315.0	0.00	0.00	0.00	6.30	0.00	0.00	3.36	0.00	0.00
360.0	12.19	1.26	1.26	3.78	0.00	0.00	0.00	0.00	0.00
C/γ(°)	180.0								
0.0	4.20								
45.0	7.57								
90.0	0.00								
135.0	1.68								
180.0	4.20								
225.0	7.57								
270.0	0.00								
315.0	1.68								
360.0	4.20								