



SGSO

Address: LIT by CARDI

Client:

LumCAT: 0017440228 KAI 25W 3000K 3000lm

Luminaire:

Report No:

Voltage(V): 230.1500

Test No: KYZ-A251030009-01-003

Current(A): 0.1150

LampCAT: LED

Power (W): 25.0000

Lamp flux(lm): -1.0

PF: 0.9442

Number of Lamps: 1

Ballast type:

Length(mm): -249

Width(mm): -249

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 3000.00

Efficiency(%): 100.00%

Lumens(lm)/Power(W): 120.00

Central intensity(cd): 1535.236

Maximum intensity(cd): 1548.859

Angle of maximum intensity: C=90.0 γ =5.0

Beam Angle(50%Imax): [C0/180]Total=84.3

[C90/270]Total=84.1

Field angle(10%Imax): [C0/180]Total=141.1

[C90/270]Total=140.7

Maximum s/h(1/2): C0_180=1.14 C90_270=1.14

Maximum s/h(1/4): C0_180=1.20 C90_270=1.20

Up flux rate of lamp(%): 0.48%

Down flux rate of lamp(%): 99.52%

Up flux rate of LUM(%): 0.48%

Down flux rate of LUM(%): 99.52%

CIE Type : Direct lighting

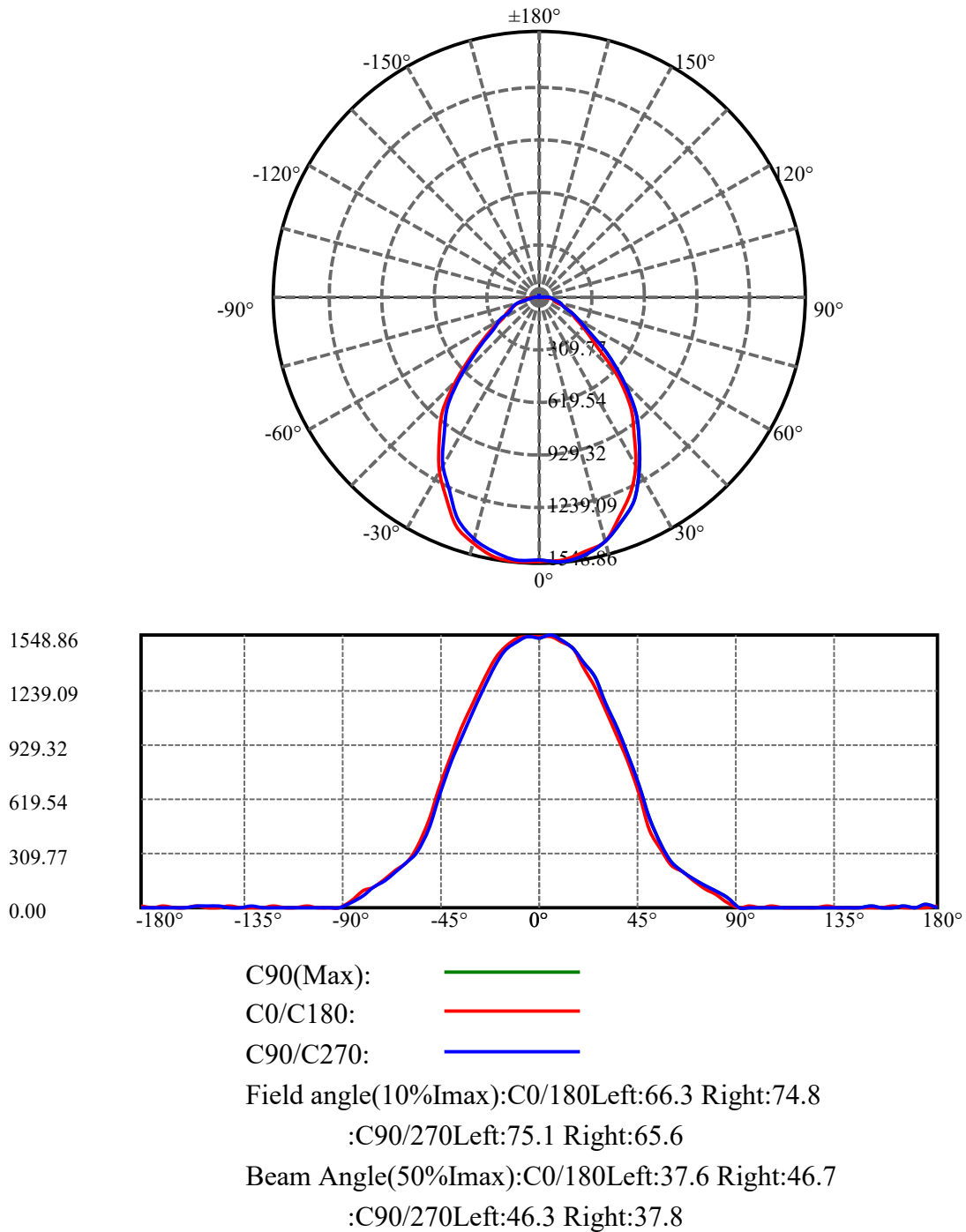
Output flux ratio in π solid angle : 86.852%

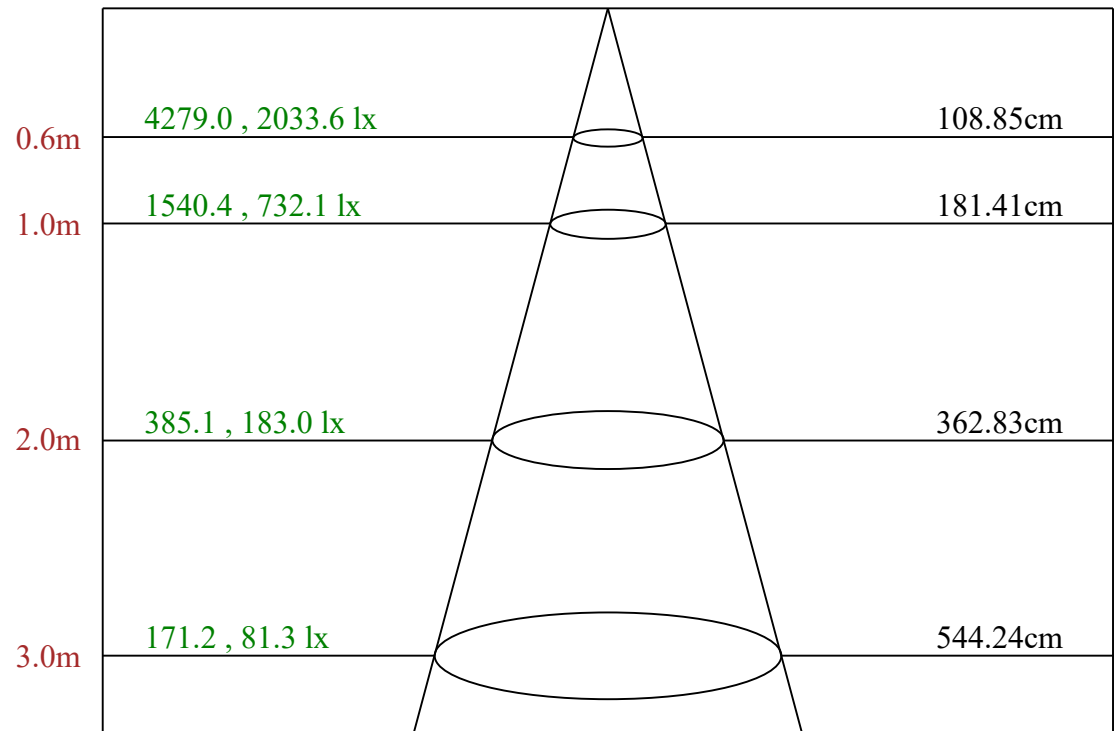
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	1538.200	0.000	0	.000%	.000%
5.0	1542.945	36.761	36.761	.000%	1.225%
10.0	1515.643	109.197	145.958	.000%	4.865%
15.0	1473.517	176.961	322.919	.000%	10.764%
20.0	1391.504	235.647	558.565	.000%	18.619%
25.0	1279.629	279.593	838.159	.000%	27.939%
30.0	1143.758	306.069	1144.228	.000%	38.141%
35.0	1000.848	315.178	1459.406	.000%	48.647%
40.0	852.712	308.635	1768.041	.000%	58.935%
45.0	668.743	281.147	2049.189	.000%	68.306%
50.0	489.573	233.587	2282.776	.000%	76.092%
55.0	346.449	181.416	2464.192	.000%	82.140%
60.0	266.409	141.378	2605.57	.000%	86.852%
65.0	210.685	115.751	2721.321	.000%	90.711%
70.0	157.894	93.140	2814.461	.000%	93.815%
75.0	120.940	72.737	2887.198	.000%	96.240%
80.0	83.666	54.638	2941.836	.000%	98.061%
85.0	37.487	32.855	2974.691	.000%	99.156%
90.0	2.293	10.870	2985.561	.000%	99.519%
95.0	1.333	0.991	2986.552	.000%	99.552%
100.0	2.400	1.012	2987.564	.000%	99.585%
105.0	2.346	1.267	2988.831	.000%	99.628%
110.0	1.173	0.918	2989.75	.000%	99.658%
115.0	0.427	0.404	2990.154	.000%	99.672%
120.0	2.240	0.647	2990.801	.000%	99.693%
125.0	1.813	0.935	2991.736	.000%	99.724%
130.0	4.319	1.331	2993.066	.000%	99.769%
135.0	2.240	1.323	2994.389	.000%	99.813%
140.0	4.053	1.163	2995.552	.000%	99.852%
145.0	2.346	1.065	2996.617	.000%	99.887%
150.0	4.320	0.980	2997.597	.000%	99.920%
155.0	2.986	0.923	2998.519	.000%	99.951%
160.0	2.133	0.536	2999.055	.000%	99.968%
165.0	2.133	0.351	2999.406	.000%	99.980%
170.0	2.773	0.290	2999.696	.000%	99.990%
175.0	2.346	0.183	2999.879	.000%	99.996%
180.0	7.892	0.122	3000.001	.000%	100.000%

ZONAL LUMEN SUMMARY			
Zone	Lumens	%Lamp	%Fixt
0-30	1144.23	N.A.	38.14%
0-40	1768.04	N.A.	58.93%
0-60	2605.57	N.A.	86.85%
0-90	2985.56	N.A.	99.52%
0-120	2990.80	N.A.	99.69%
0-180	3000.00	N.A.	100.00%
60-90	521.37	N.A.	17.38%
90-120	16.11	N.A.	0.54%
90-130	18.38	N.A.	0.61%
90-150	22.91	N.A.	0.76%
90-180	25.19	N.A.	0.84%
0-53.23	2400.00	N.A.	80.00%

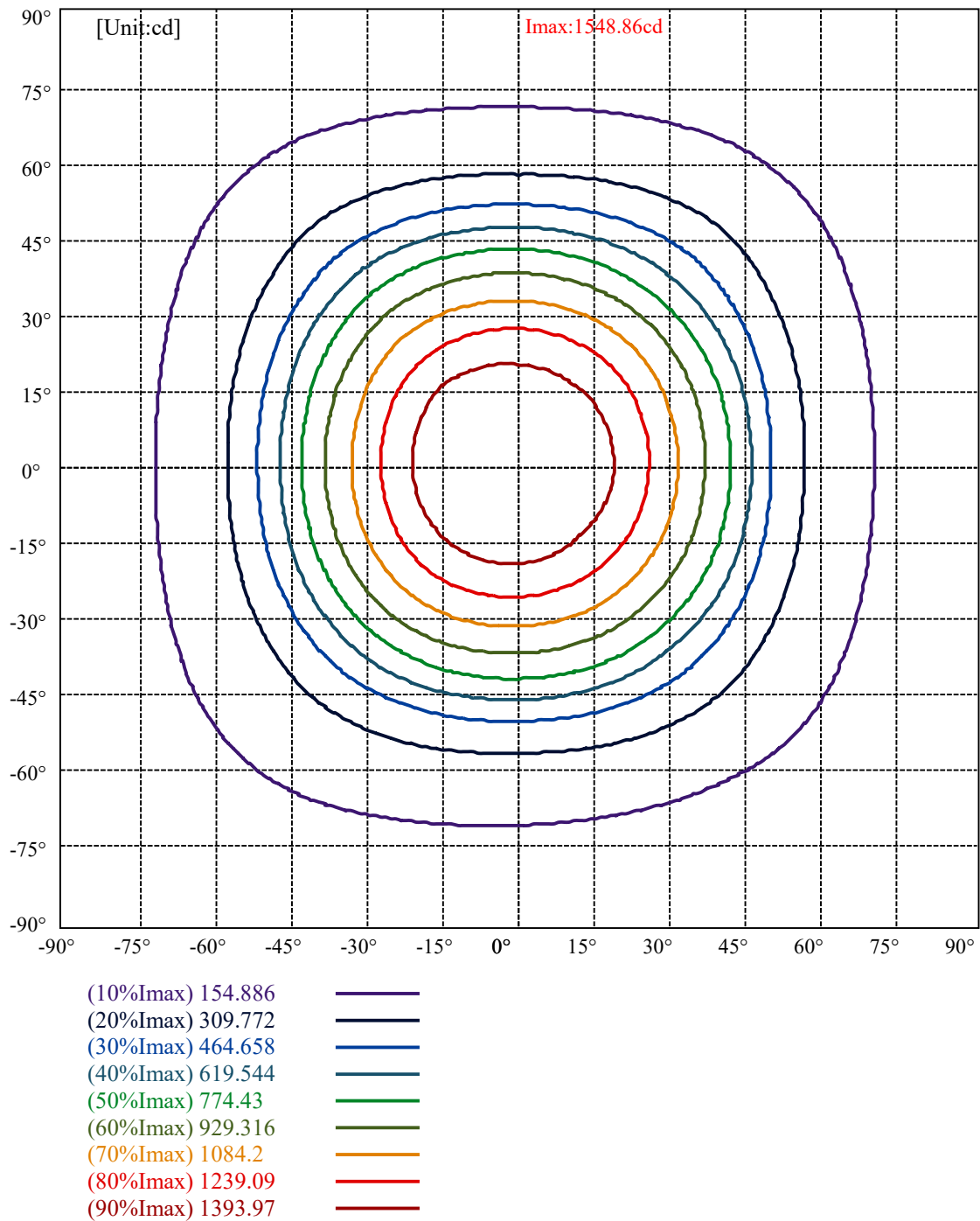
ZONAL LUMEN SUMMARY

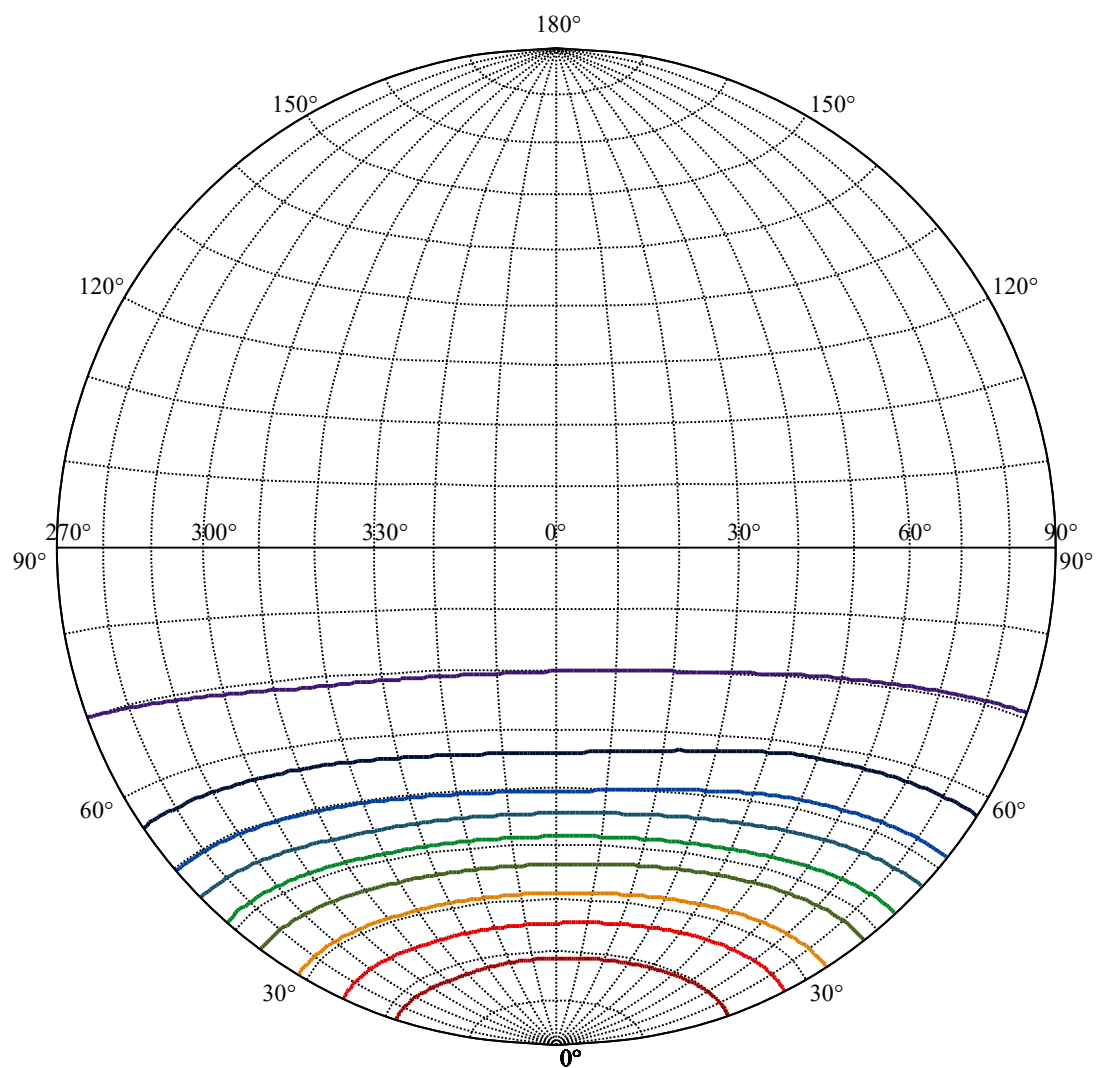
0-10	145.96
10-20	412.61
20-30	585.66
30-40	623.81
40-50	514.73
50-60	322.79
60-70	208.89
70-80	127.38
80-90	43.72
90-100	2.00
100-110	2.19
110-120	1.05
120-130	2.27
130-140	2.49
140-150	2.05
150-160	1.46
160-170	0.64
170-180	0.18





Max , Ave Beam angle of C90 plane 84.42





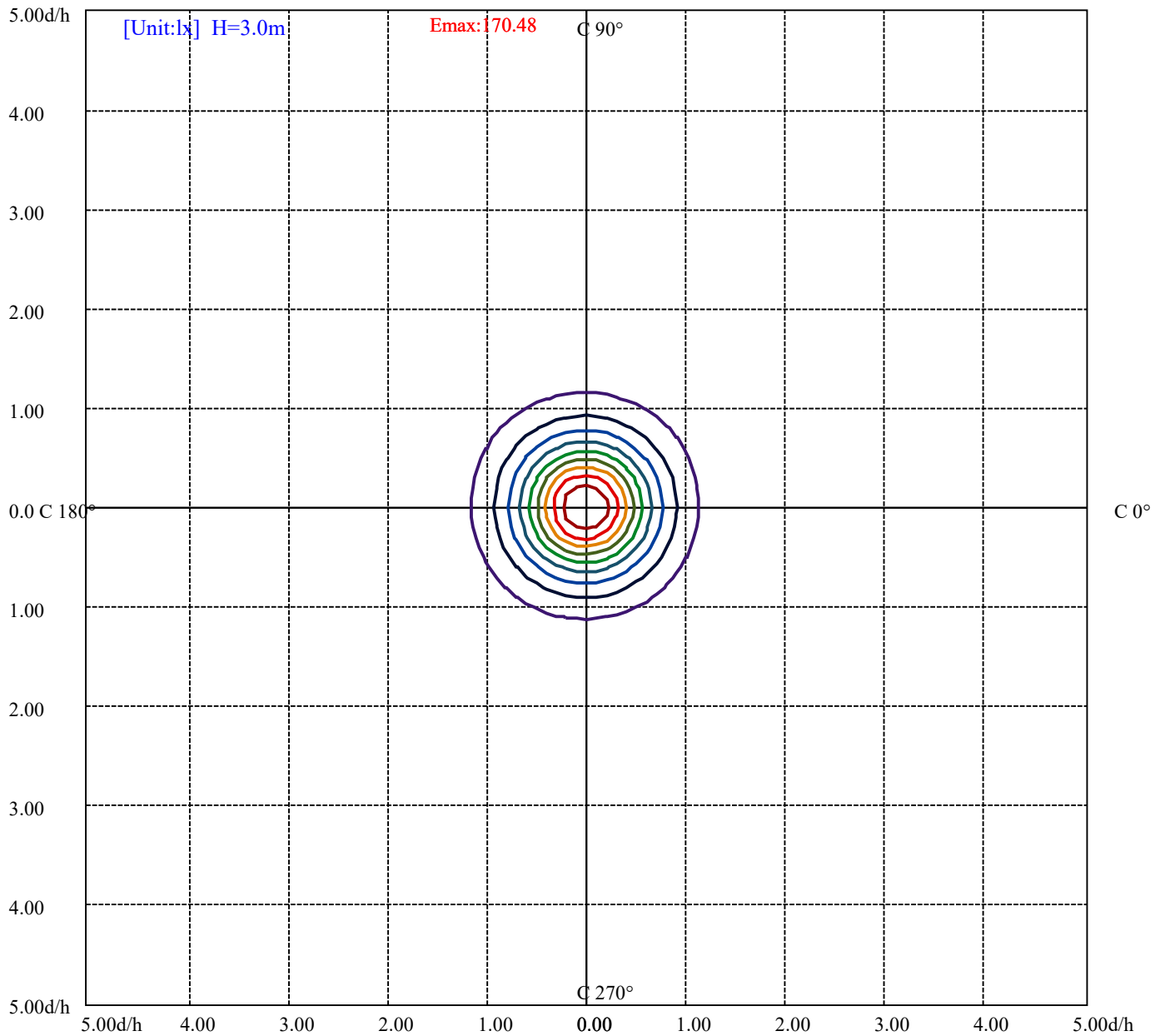
House

[Unit:cd]

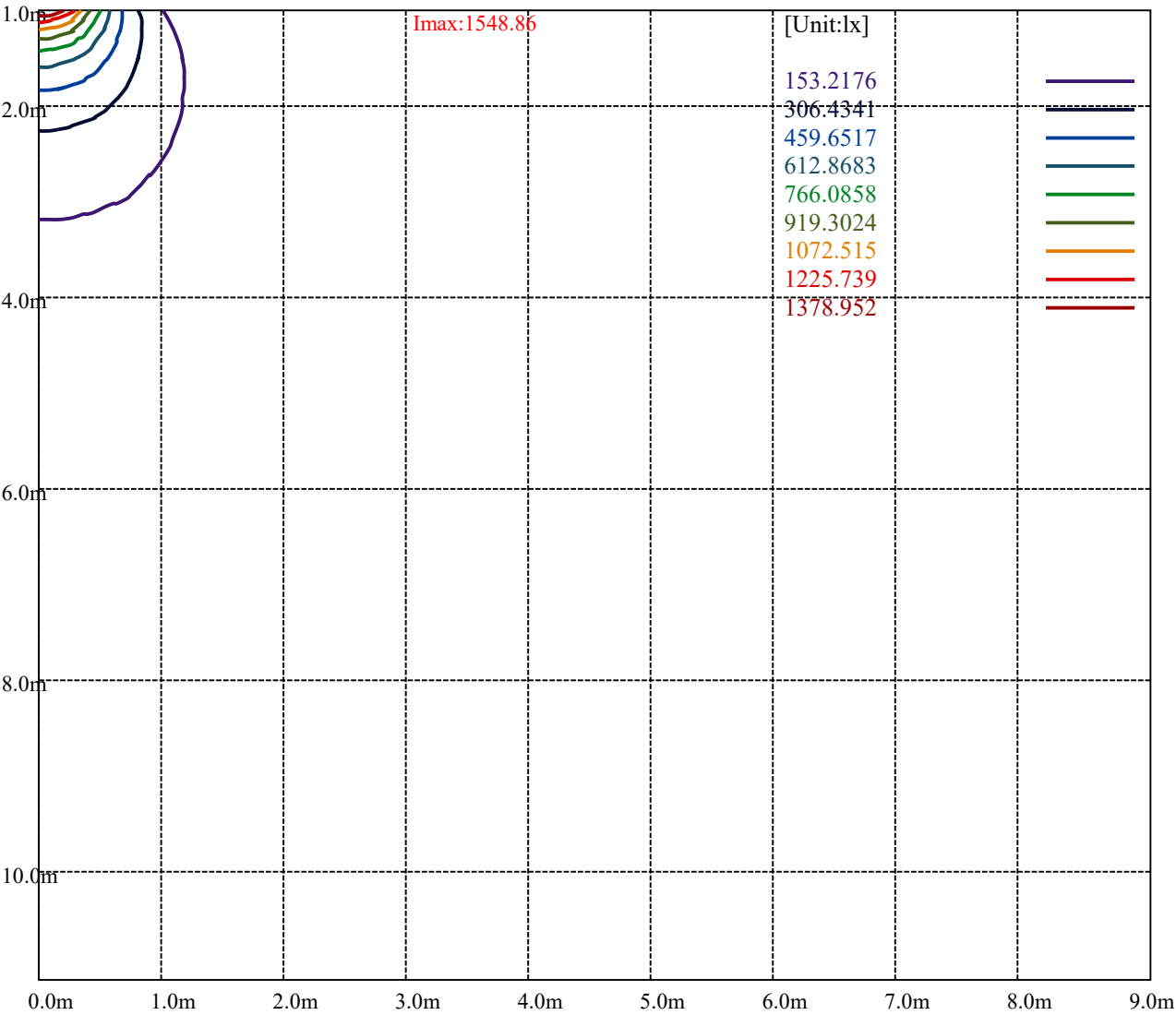
Road

Imax:1548.86
(10%Imax) 154.5769
(20%Imax) 309.1537
(30%Imax) 463.7305
(40%Imax) 618.3074
(50%Imax) 772.8842
(60%Imax) 927.4611
(70%Imax) 1082.036
(80%Imax) 1236.617
(90%Imax) 1391.188





(10%Emax)	17.04768	
(20%Emax)	34.09547	
(30%Emax)	51.14316	
(40%Emax)	68.19084	
(50%Emax)	85.23864	
(60%Emax)	102.2863	
(70%Emax)	119.3336	
(80%Emax)	136.3817	
(90%Emax)	153.4298	



Luminance Table

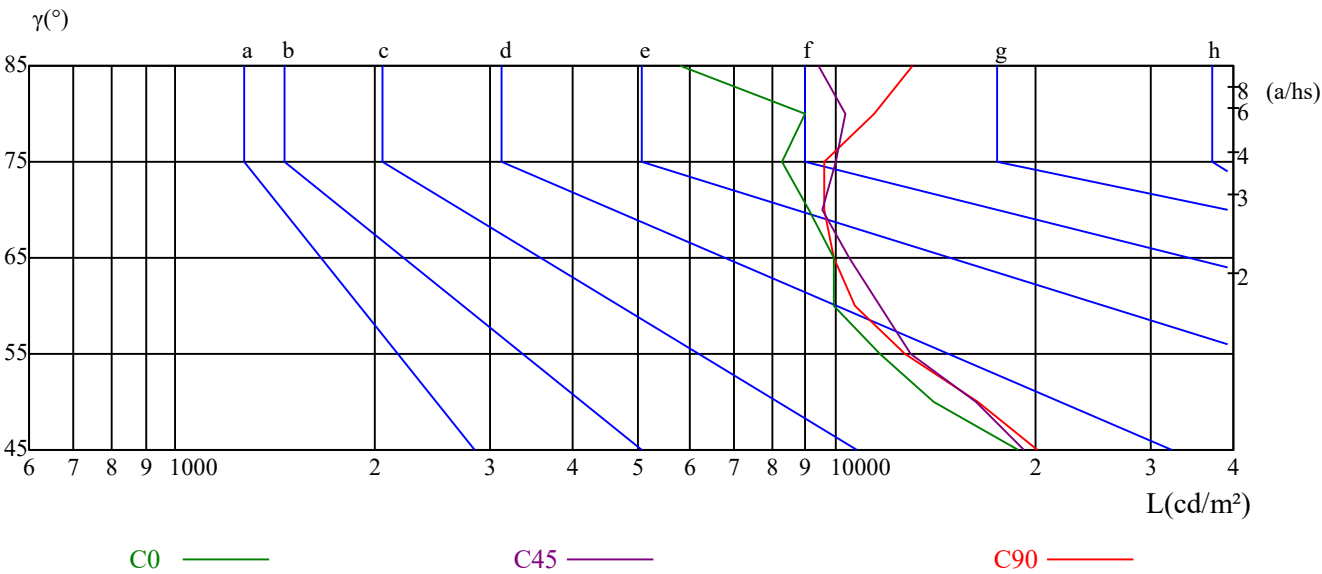
γ	45	50	55	60	65	70	75	80	85
C0	18831	14078	11661	9915	9930	9126	8276	8962	5818
C45	19264	16336	13002	11681	10468	9509	9999	10372	9430
C90	20228	16390	12728	10719	9909	9586	9627	11429	13041

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
10013	9837	10509	8800	9509	9999	7624	9831	8903

Glare Table

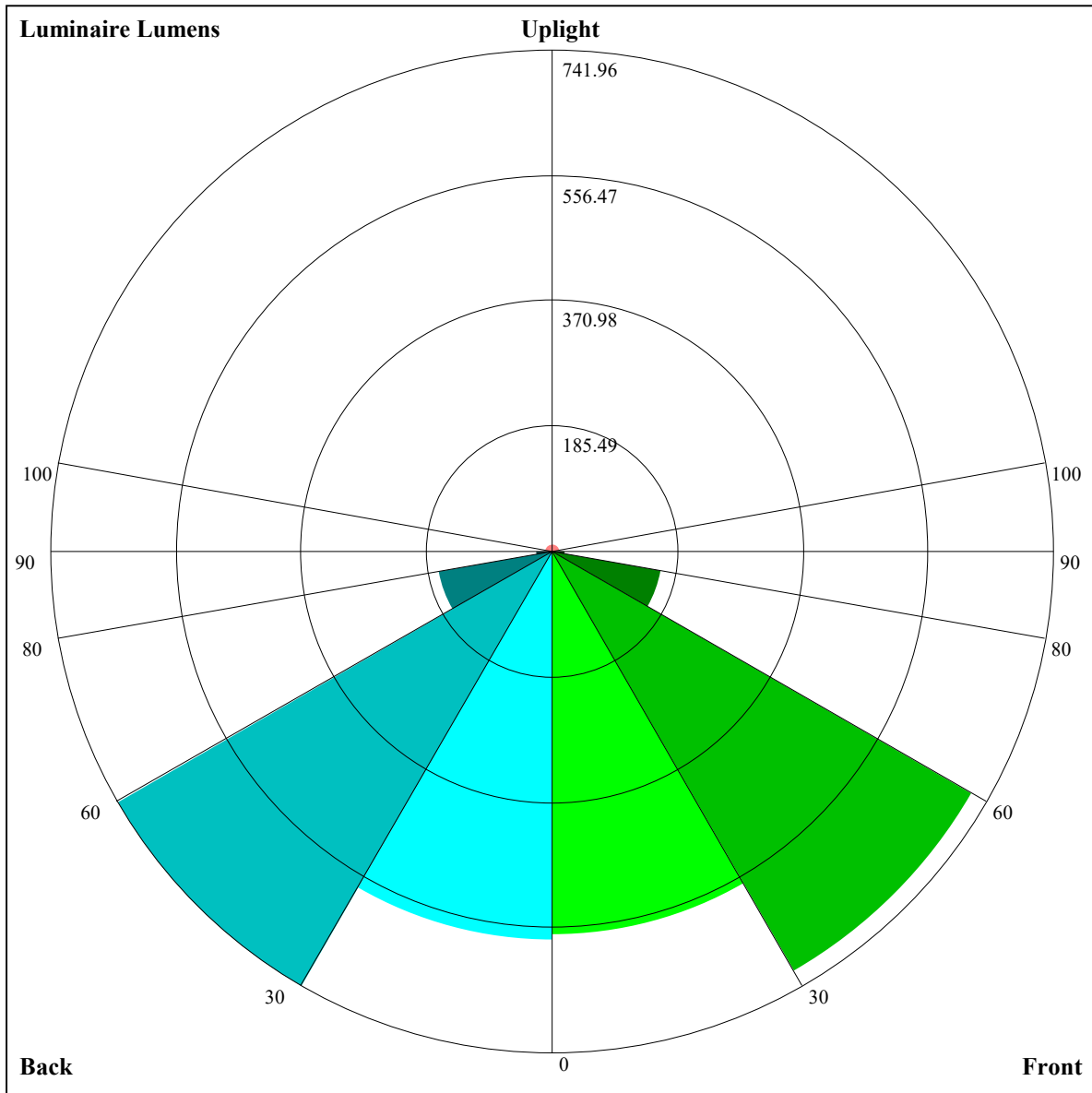
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	15.81	17.25	16.17	17.57	17.90	16.10	17.54	16.47	17.87	18.20
	3H	16.85	18.14	17.24	18.49	18.84	17.10	18.40	17.49	18.75	19.10
	4H	17.27	18.49	17.68	18.85	19.22	17.59	18.81	18.00	19.17	19.54
	6H	17.70	18.82	18.12	19.20	19.61	18.16	19.28	18.57	19.66	20.07
	8H	17.83	18.91	18.25	19.29	19.71	18.40	19.49	18.82	19.87	20.29
	12H	17.87	18.91	18.30	19.30	19.73	18.61	19.65	19.04	20.04	20.47
4H	2H	16.26	17.47	16.66	17.83	18.21	16.50	17.71	16.90	18.08	18.45
	3H	17.49	18.51	17.91	18.91	19.33	17.70	18.72	18.13	19.12	19.54
	4H	18.11	19.01	18.55	19.44	19.89	18.40	19.30	18.84	19.72	20.18
	6H	18.65	19.45	19.12	19.91	20.36	19.09	19.90	19.57	20.35	20.80
	8H	18.86	19.61	19.34	20.07	20.54	19.44	20.19	19.93	20.65	21.13
	12H	18.97	19.67	19.46	20.12	20.64	19.75	20.45	20.24	20.90	21.42
8H	4H	18.38	19.13	18.86	19.58	20.06	18.63	19.38	19.12	19.84	20.32
	6H	19.08	19.71	19.58	20.19	20.70	19.50	20.13	20.00	20.61	21.12
	8H	19.43	19.97	19.95	20.49	20.99	20.00	20.55	20.53	21.07	21.57
	12H	19.60	20.06	20.13	20.58	21.10	20.41	20.87	20.95	21.39	21.91
12H	4H	18.42	19.12	18.91	19.57	20.08	18.66	19.36	19.15	19.81	20.33
	6H	19.22	19.77	19.74	20.29	20.79	19.62	20.16	20.14	20.68	21.18
	8H	19.57	20.03	20.10	20.55	21.07	20.12	20.58	20.66	21.10	21.62
Variation with the observer position at spacings:											
S = 1.0H		0.3/-0.7					0.3/-0.8				
S = 1.5H		0.7/-1.1					0.8/-1.2				
S = 2.0H		1.2/-1.2					1.4/-1.2				
Standard tables:		BK4					BK3				
Uncorrected UGR		6.6					5.6				

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



Luminaire Lumens:

FL=567.88,FM=717.22,FH=163.76,FVH=19.78

BL=576.58,BM=741.96,BH=171.47,BVH=24.19

UL=2.01,UH=12.44

BUG Rating:B2-U2-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	1535.24	1535.66	1505.86	1473.08	1367.07	1252.97	1122.26	971.55	832.33
45.0	1537.36	1534.38	1499.90	1459.88	1383.67	1285.32	1138.44	1006.46	845.53
90.0	1532.26	1548.86	1518.21	1474.78	1397.29	1304.48	1159.30	1020.51	876.18
135.0	1535.66	1541.20	1532.26	1491.81	1432.63	1324.92	1180.16	1047.76	896.62
180.0	1535.24	1541.62	1530.55	1480.31	1413.90	1286.60	1165.26	1015.83	867.67
225.0	1537.36	1548.43	1507.14	1476.06	1392.18	1281.49	1146.10	1006.89	851.06
270.0	1532.26	1538.64	1506.71	1460.30	1372.17	1245.30	1115.45	965.59	823.39
315.0	1535.66	1530.13	1500.32	1448.38	1350.89	1235.51	1104.81	956.22	815.30
360.0	1535.24	1535.66	1505.86	1473.08	1367.07	1252.97	1122.26	971.55	832.33
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	648.41	440.65	325.69	241.40	204.36	151.99	104.31	75.78	24.69
45.0	663.31	511.32	363.16	284.40	215.43	158.38	126.02	87.70	40.02
90.0	696.52	513.02	355.50	260.98	203.93	159.65	121.34	96.64	55.35
135.0	726.75	547.08	380.62	292.91	227.77	166.47	129.85	97.50	49.81
180.0	681.19	501.53	346.13	255.02	207.76	166.89	117.51	95.37	40.02
225.0	670.55	488.33	345.28	271.20	222.66	164.34	129.85	79.61	48.53
270.0	636.49	450.01	319.73	257.15	200.95	155.40	118.36	62.58	28.10
315.0	616.05	456.82	329.95	263.96	199.25	137.52	118.36	72.80	12.77
360.0	648.41	440.65	325.69	241.40	204.36	151.99	104.31	75.78	24.69
C/γ(°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	3.41	10.64	0.00	8.09	0.00	0.00	0.00	0.00	5.53
45.0	2.98	0.00	4.26	0.00	0.00	0.00	0.00	3.83	8.94
90.0	2.13	0.00	4.68	3.41	0.00	3.41	0.00	0.43	0.00
135.0	6.81	0.00	2.55	0.00	0.00	0.00	2.13	0.00	0.00
180.0	2.98	0.00	0.00	5.96	0.00	0.00	5.96	0.00	0.00
225.0	0.00	0.00	0.00	0.00	1.28	0.00	6.39	10.22	11.50
270.0	0.00	0.00	0.00	0.00	1.70	0.00	0.00	0.00	8.09
315.0	0.00	0.00	7.66	1.28	6.39	0.00	3.41	0.00	0.43
360.0	3.41	10.64	0.00	8.09	0.00	0.00	0.00	0.00	5.53
C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	3.83	0.00	0.00	0.00	0.00	8.51	0.00	0.00	0.00
45.0	11.07	11.92	5.11	3.41	0.43	0.00	0.00	12.77	0.00
90.0	0.00	0.00	2.98	6.39	0.00	0.00	6.39	1.28	14.48
135.0	0.00	0.00	1.70	4.26	9.37	0.00	0.00	1.70	0.00
180.0	2.98	12.77	0.00	4.26	6.81	4.68	0.00	6.39	2.13
225.0	0.00	6.81	2.55	5.11	0.00	0.00	1.70	0.00	1.28
270.0	0.00	0.00	6.39	11.07	6.81	0.00	0.00	0.00	0.85
315.0	0.00	0.85	0.00	0.00	0.43	3.83	8.94	0.00	0.00
360.0	3.83	0.00	0.00	0.00	0.00	8.51	0.00	0.00	0.00
C/γ(°)	180.0								
0.0	11.07								
45.0	18.31								
90.0	0.00								
135.0	2.13								
180.0	11.07								
225.0	18.31								
270.0	0.00								
315.0	2.13								
360.0	11.07								