
Nata

LumCAT: 3-1545-A3
Luminaire: TE 2213407-1+92.76.365.00
Report No: GC2015051405
Test No: NT-0010
LampCAT: CREE CXA2530
Lamp flux(lm): 4258.0
Number of Lamps: 1
Length(mm): 84
Phm Type: C

Voltage(V): 38.4000
Current(A): 1.2100
Power (W): 46.4640
PF: 0.0000
Ballast type: DC
Width(mm): 84
Height(mm): 0

Photometric Results

Lumens(lm): 3836.83
Efficiency(%): 90.11%
Lumens(lm)/Power(W): 82.58
Central intensity(cd): 23503.370
Maximum intensity(cd): 23503.370
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=16.6
[C90/270]Total=16.6
Field angle(10%Imax): [C0/180]Total=36.6
[C90/270]Total=36.6
Maximum s/h(1/2): C0_180=0.29 C90_270=0.29
Maximum s/h(1/4): C0_180=0.30 C90_270=0.30
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 90.11%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.702%

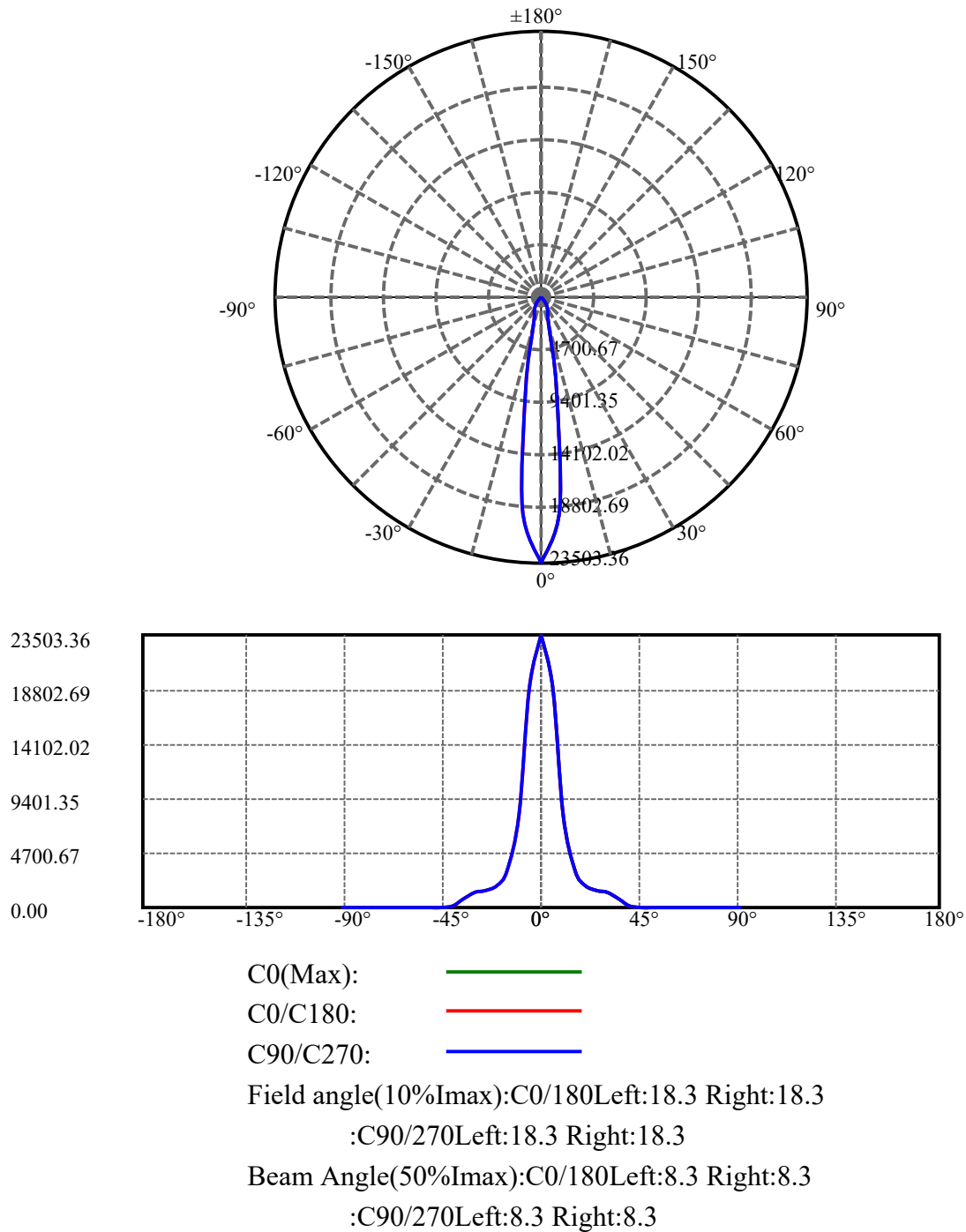
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	23503.363	0.000	0	.000%	.000%
5.0	18791.990	505.629	505.629	11.875%	13.178%
10.0	8067.138	960.836	1466.465	22.565%	38.221%
15.0	3151.546	665.485	2131.949	15.629%	55.565%
20.0	1929.589	418.757	2550.706	9.835%	66.480%
25.0	1518.354	361.626	2912.332	8.493%	75.905%
30.0	1313.065	358.318	3270.65	8.415%	85.244%
35.0	772.913	307.175	3577.825	7.214%	93.250%
40.0	164.543	156.407	3734.233	3.673%	97.326%
45.0	18.890	33.964	3768.197	.798%	98.211%
50.0	14.106	6.667	3774.864	.157%	98.385%
55.0	13.414	5.984	3780.848	.141%	98.541%
60.0	13.239	6.161	3787.009	.145%	98.702%
65.0	14.456	6.733	3793.742	.158%	98.877%
70.0	16.827	7.921	3801.663	.186%	99.083%
75.0	19.212	9.420	3811.083	.221%	99.329%
80.0	19.359	10.320	3821.404	.242%	99.598%
85.0	12.519	8.662	3830.065	.203%	99.824%
90.0	12.183	6.764	3836.829	.159%	100.000%

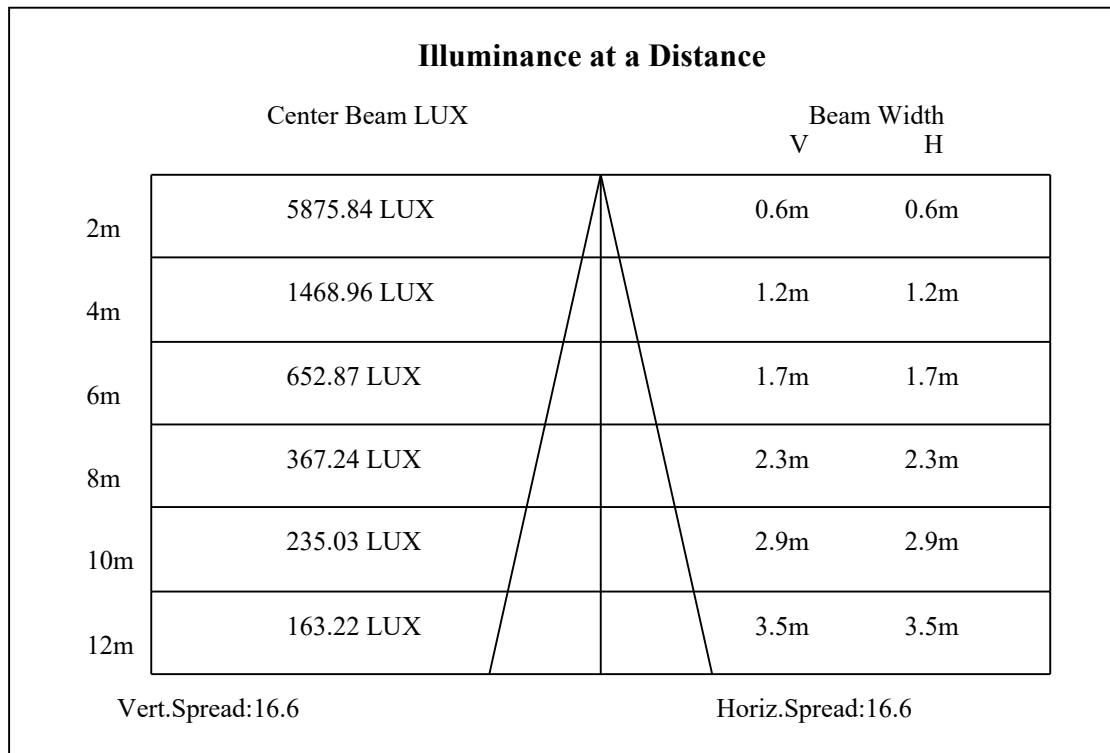
ZONAL LUMEN SUMMARY

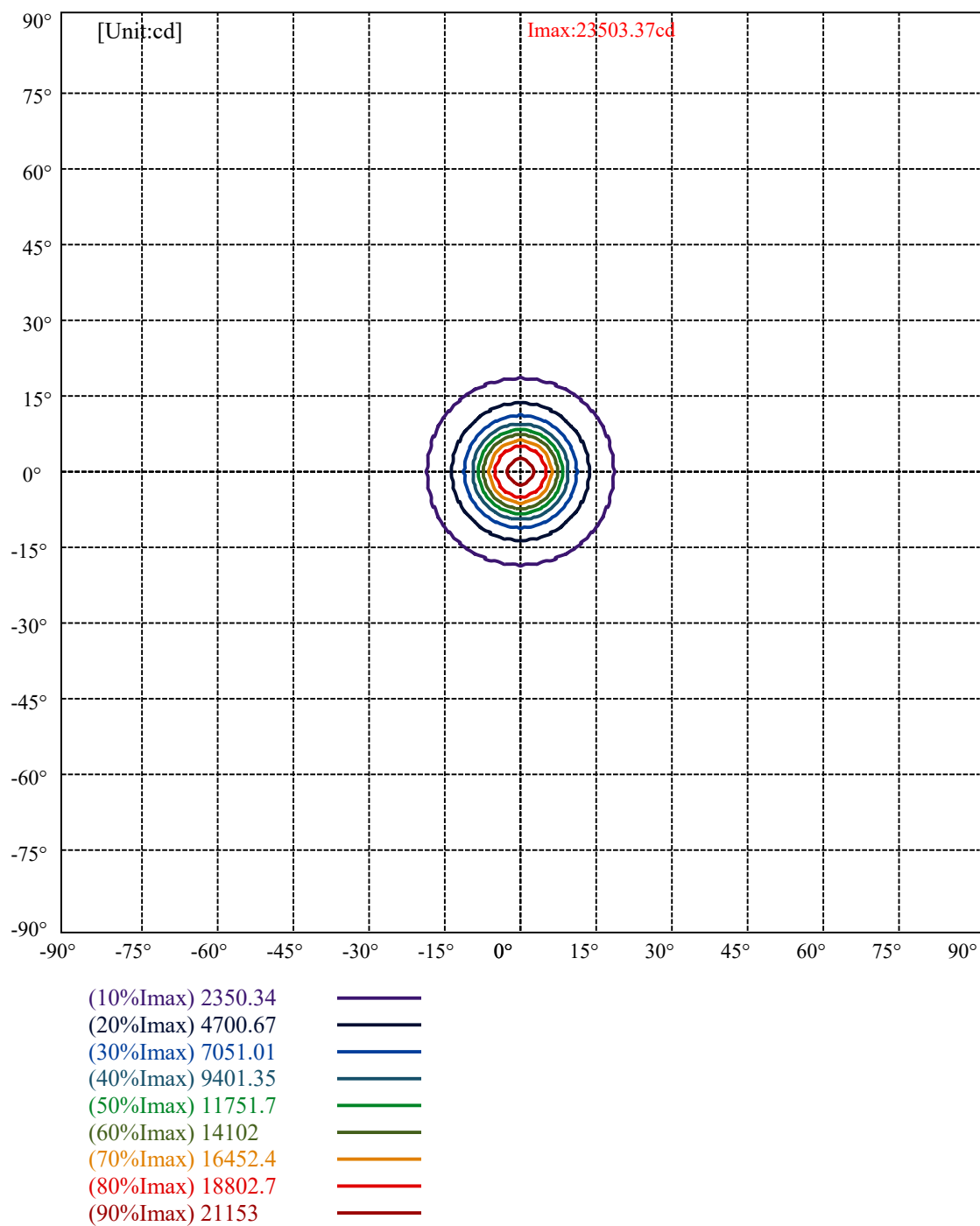
Zone	Lumens	%Lamp	%Fixt
0-30	3270.65	76.81%	85.24%
0-40	3734.23	87.70%	97.33%
0-60	3787.01	88.94%	98.70%
0-90	3830.07	89.95%	99.82%
0-120	3830.07	89.95%	99.82%
0-180	3836.83	90.11%	100.00%
60-90	49.22	1.16%	1.28%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-27.19	3069.46	72.09%	80.00%

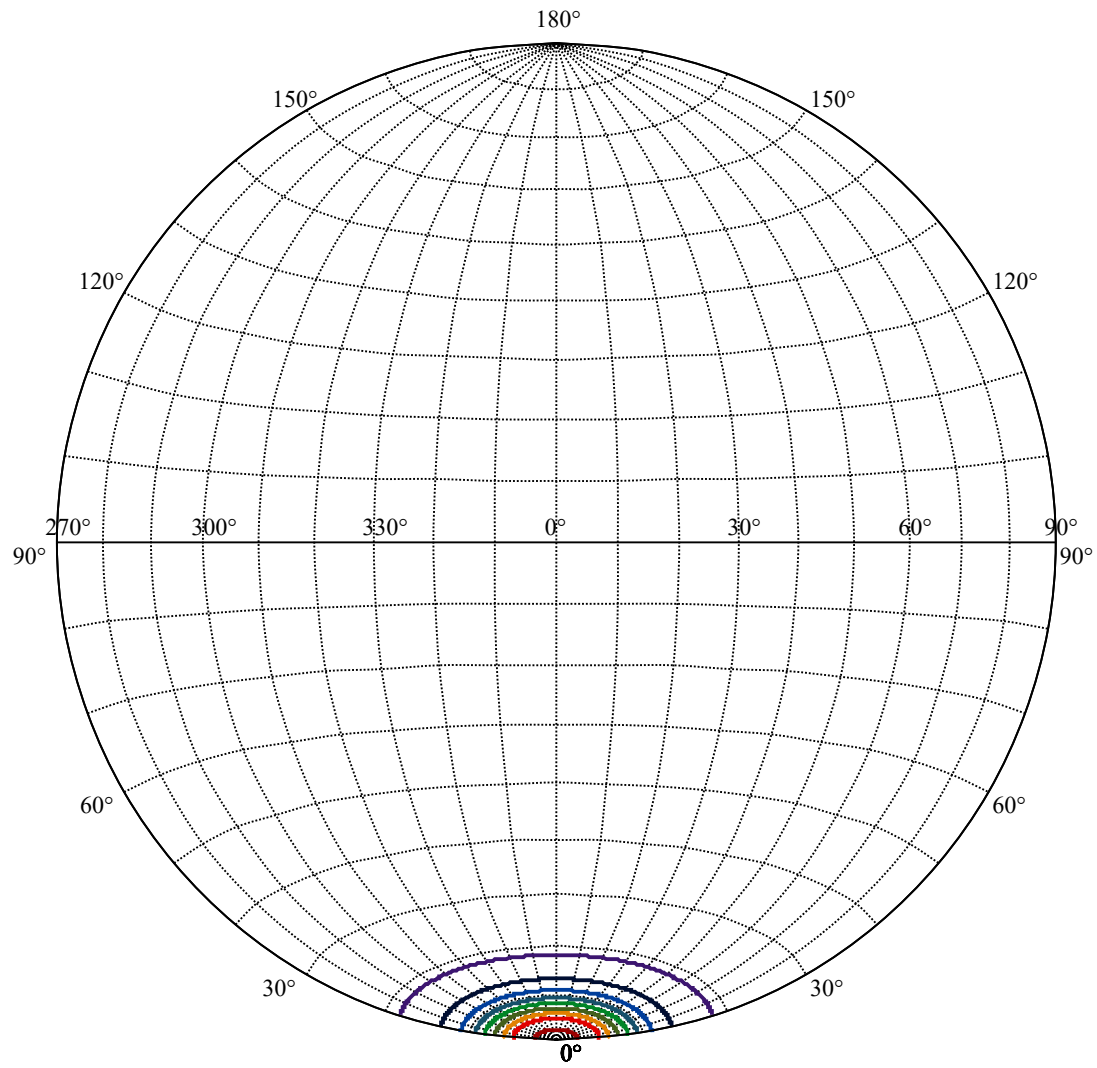
ZONAL LUMEN SUMMARY

0-10	1466.46
10-20	1084.24
20-30	719.94
30-40	463.58
40-50	40.63
50-60	12.14
60-70	14.65
70-80	19.74
80-90	8.66
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







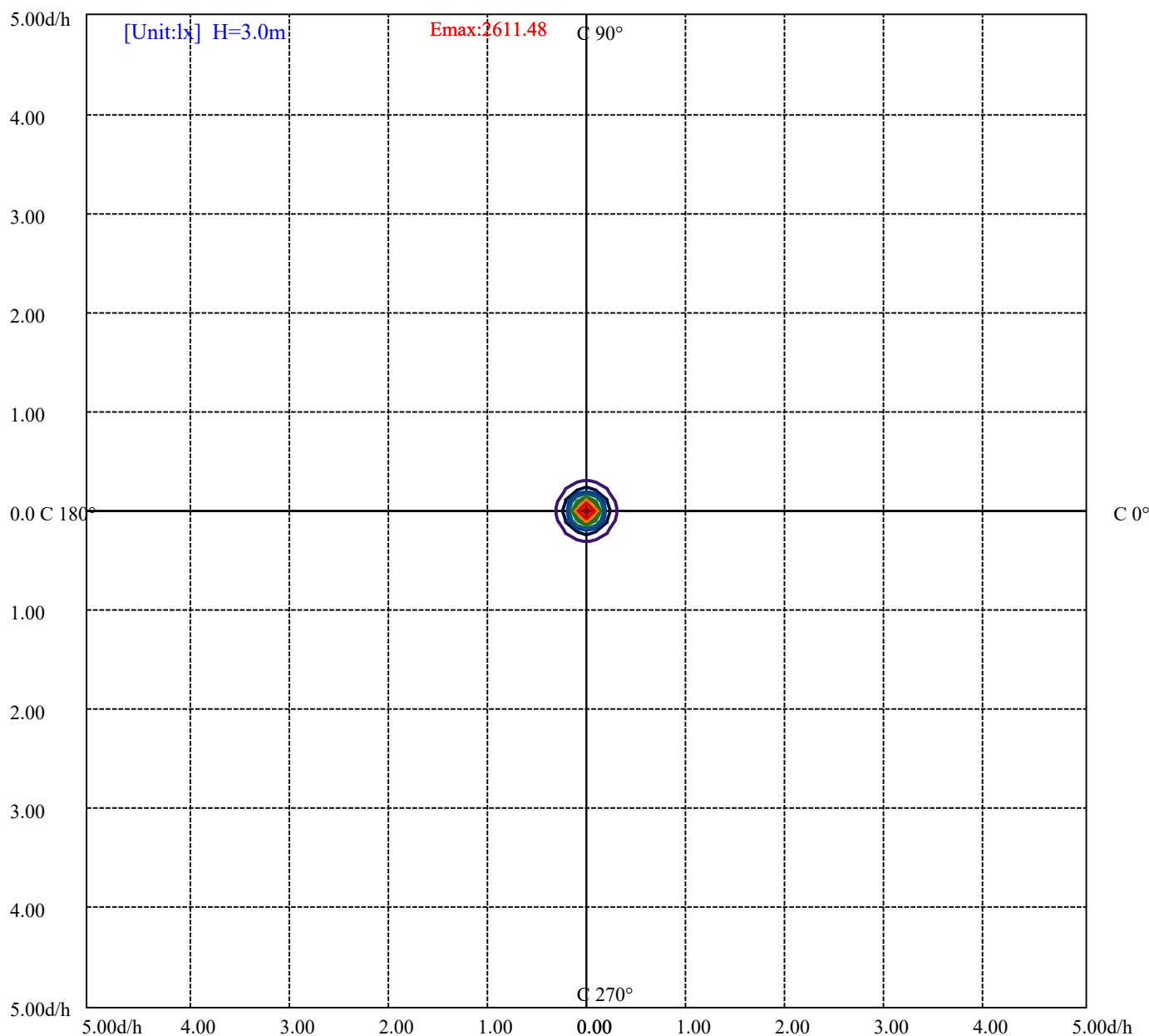


House

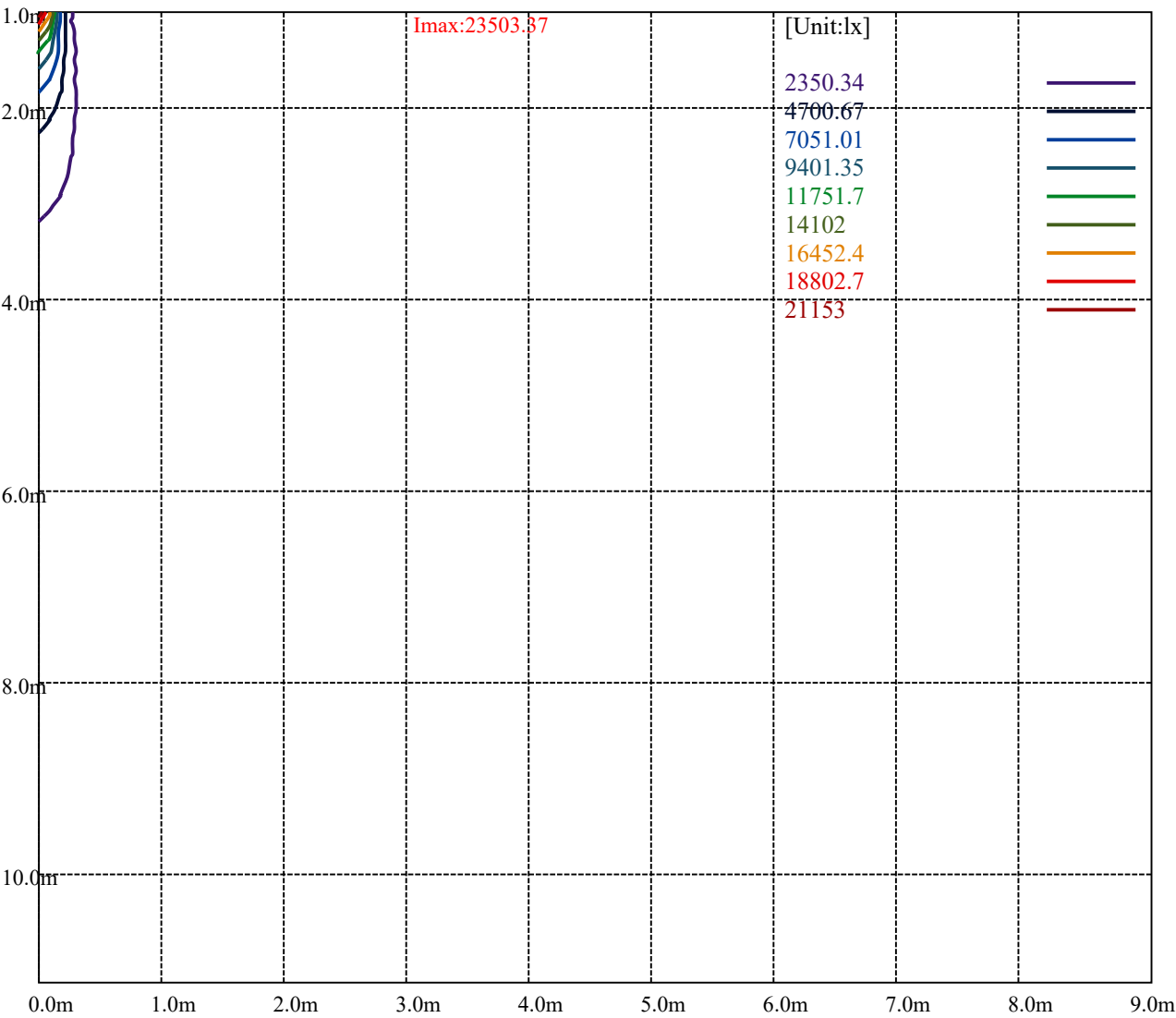
[Unit:cd]

Road

Imax:23503.37	
(10%Imax) 2350.34	
(20%Imax) 4700.67	
(30%Imax) 7051.01	
(40%Imax) 9401.35	
(50%Imax) 11751.7	
(60%Imax) 14102	
(70%Imax) 16452.4	
(80%Imax) 18802.7	
(90%Imax) 21153	



(10%Emax)	261.1467	—
(20%Emax)	522.2933	—
(30%Emax)	783.4412	—
(40%Emax)	1044.588	—
(50%Emax)	1305.733	—
(60%Emax)	1566.878	—
(70%Emax)	1828.033	—
(80%Emax)	2089.178	—
(90%Emax)	2350.322	—



Luminance Table

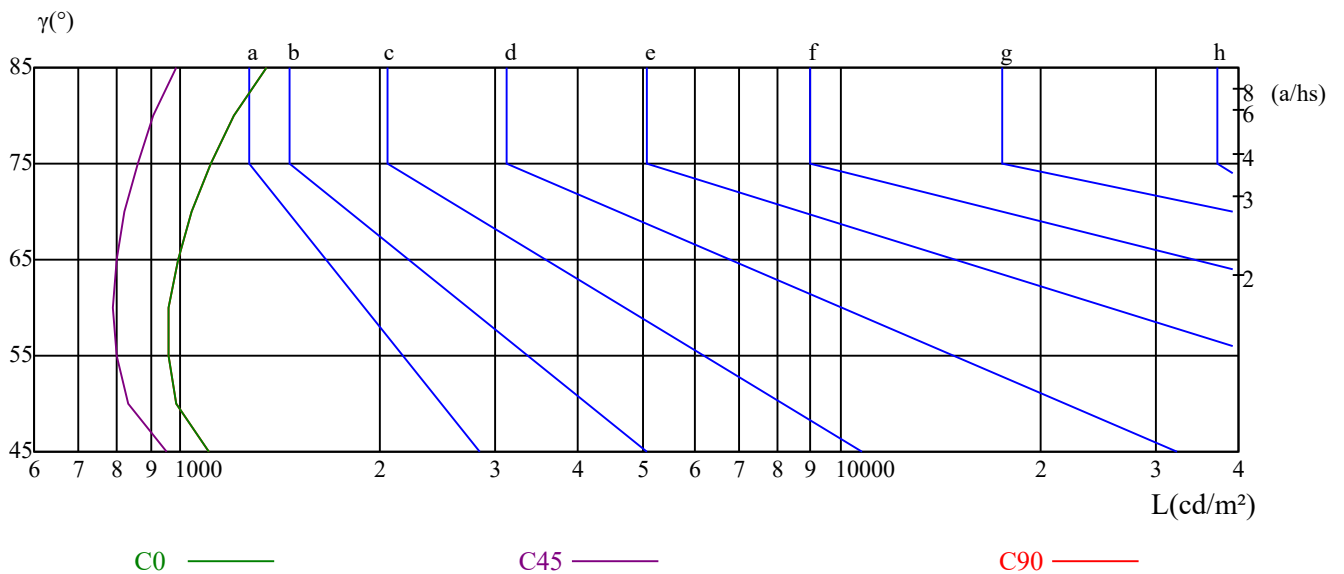
γ	45	50	55	60	65	70	75	80	85
C0	1107	985	960	961	994	1042	1114	1207	1347
C45	951	833	799	788	800	822	861	910	986
C90	1107	985	960	961	994	1042	1114	1207	1347

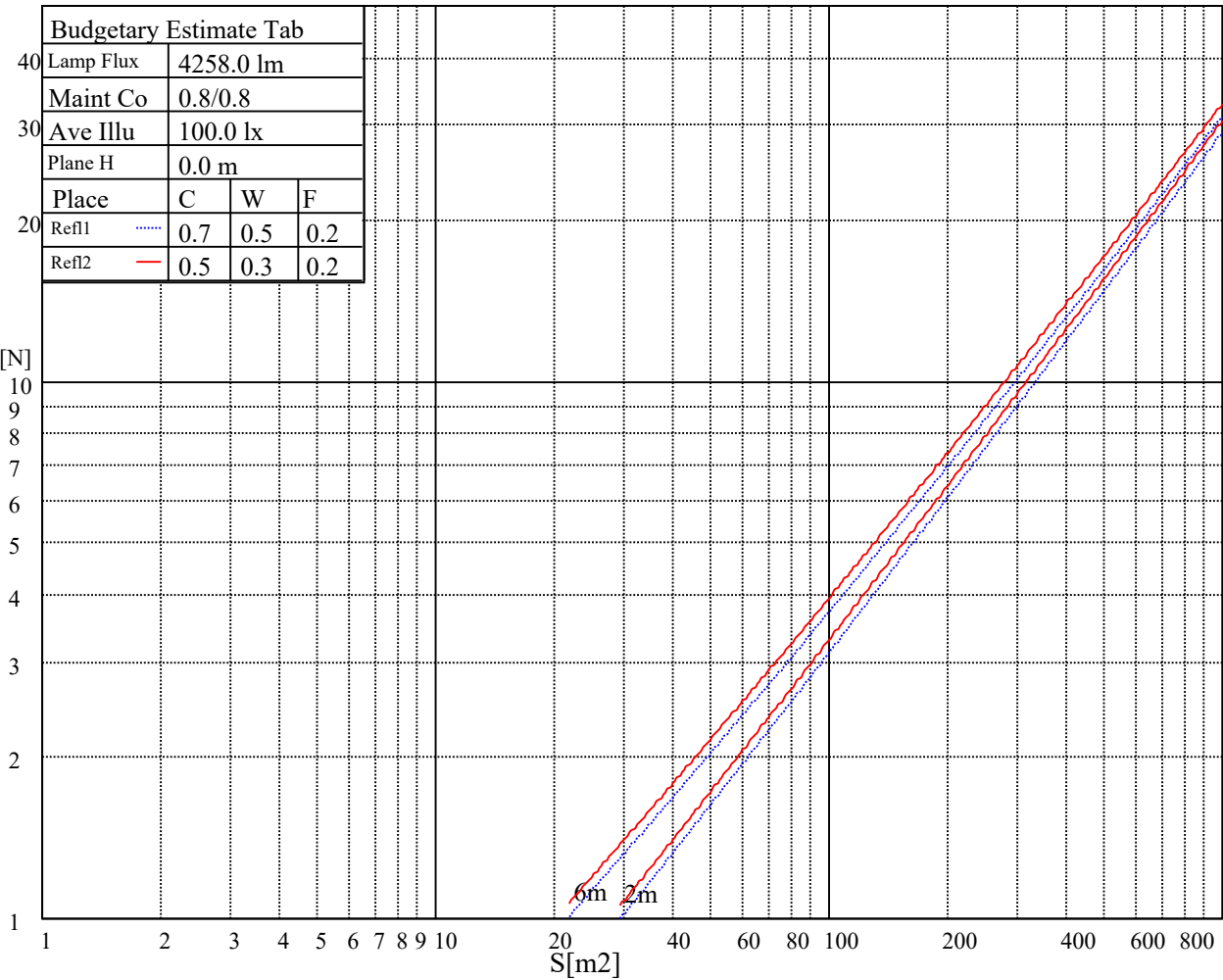
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
2399	2399	2399	3854	3854	3854	11489	11489	11489

Glare Table

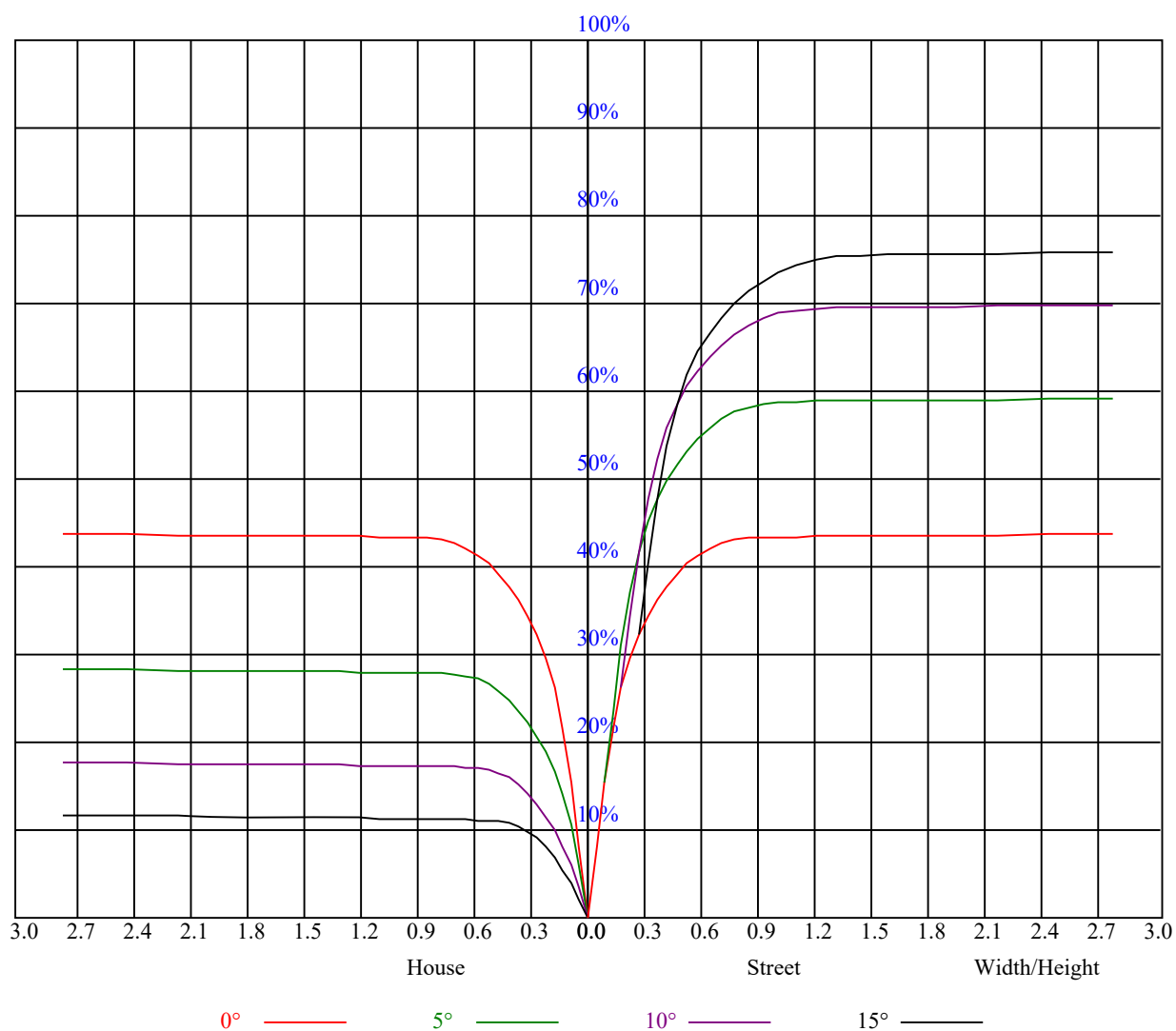
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	≤ 300				
1.5	B		2000	1000	500	≤ 300			
1.85	C			2000	1000	500	≤ 300		
2.2	D				2000	1000	500	≤ 300	
2.55	E					2000	1000	500	≤ 300
		a	b	c	d	e	f	g	h

Luminance Limiting Curve





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	1.07	1.07	1.07	1.05	1.05	1.05	1.00	1.00	1.00	0.96	0.96	0.96	0.92	0.92	0.92	0.90
1	1.01	0.99	0.97	0.99	0.97	0.96	0.96	0.94	0.93	0.92	0.91	0.90	0.89	0.88	0.88	0.86
2	0.96	0.93	0.90	0.94	0.92	0.89	0.91	0.89	0.87	0.89	0.87	0.86	0.86	0.85	0.84	0.82
3	0.91	0.88	0.85	0.90	0.87	0.84	0.88	0.85	0.83	0.86	0.83	0.82	0.84	0.82	0.80	0.79
4	0.87	0.83	0.80	0.86	0.83	0.80	0.84	0.81	0.79	0.83	0.80	0.78	0.81	0.79	0.77	0.76
5	0.84	0.80	0.77	0.83	0.79	0.76	0.81	0.78	0.76	0.80	0.77	0.75	0.79	0.76	0.74	0.73
6	0.80	0.76	0.73	0.80	0.76	0.73	0.79	0.75	0.73	0.77	0.74	0.72	0.76	0.74	0.72	0.71
7	0.78	0.73	0.71	0.77	0.73	0.70	0.76	0.73	0.70	0.75	0.72	0.70	0.74	0.71	0.69	0.68
8	0.75	0.71	0.68	0.74	0.71	0.68	0.74	0.70	0.68	0.73	0.70	0.67	0.72	0.69	0.67	0.66
9	0.73	0.69	0.66	0.72	0.68	0.66	0.71	0.68	0.66	0.71	0.68	0.65	0.70	0.67	0.65	0.64
10	0.70	0.66	0.64	0.70	0.66	0.64	0.69	0.66	0.64	0.69	0.66	0.63	0.68	0.65	0.63	0.62



Intensity data(cd)

Appendix Page: 14 Total:14

C/γ(°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	23303.34	19761.68	7950.55	2970.97	1821.75	1525.21	1371.90	787.22	283.11
45.0	23683.80	18301.38	6490.25	2903.83	1730.55	1491.08	1330.50	637.83	52.76
90.0	23415.24	11058.60	4208.03	2186.54	1594.03	1424.50	1107.65	418.84	24.51
135.0	23611.07	17697.11	6227.28	2881.45	1710.96	1461.42	1270.07	633.92	49.12
180.0	23303.34	18525.18	6896.45	2890.96	1780.90	1482.13	1256.09	732.84	86.39
225.0	23683.80	20270.83	9237.97	3534.95	1965.54	1547.59	1355.68	911.77	191.01
270.0	23415.24	22962.04	13937.24	4565.55	2870.26	1651.10	1436.25	1128.52	415.71
315.0	23611.07	21759.11	9589.34	3278.13	1962.74	1563.81	1376.38	932.36	213.73
360.0	23303.34	19761.68	7950.55	2970.97	1821.75	1525.21	1371.90	787.22	283.11

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	17.40	14.16	13.48	13.09	13.65	15.22	17.57	19.30	12.64
45.0	16.17	14.21	13.82	13.99	17.18	23.28	29.15	30.38	13.15
90.0	15.55	13.93	13.76	14.66	20.70	28.93	34.63	29.04	12.92
135.0	14.88	14.04	13.37	13.32	13.93	16.39	20.03	20.03	12.59
180.0	17.18	14.04	13.26	12.81	12.87	13.09	13.37	15.05	12.20
225.0	19.81	13.93	12.98	12.48	12.14	12.31	12.37	12.76	11.92
270.0	27.25	14.38	13.32	12.76	12.31	12.25	12.37	12.37	12.20
315.0	22.88	14.16	13.32	12.81	12.87	13.15	14.21	15.95	12.53
360.0	17.40	14.16	13.48	13.09	13.65	15.22	17.57	19.30	12.64

C/γ(°)	90.0
0.0	12.48
45.0	12.53
90.0	12.37
135.0	12.14
180.0	12.03
225.0	11.69
270.0	11.86
315.0	12.37
360.0	12.48