
NATA

LumCAT: 2-1566-M	
Luminaire: 47.319.2344	
Report No: NT2017061701	Voltage(V): 34.4000
Test No: GC2017061701	Current(A): 0.5000
LampCAT: Certaflux SLM 1208 L14 G1	Power (W): 17.2000
Lamp flux(lm): 2401.0	PF: 0.0000
Number of Lamps: 1	Ballast type: DC
Length(mm): 70	Width(mm): 70
Phm Type: C	Height(mm): 44

Photometric Results

Lumens(lm): 2200.91
Efficiency(%): 91.67%
Lumens(lm)/Power(W): 130.38
Central intensity(cd): 7325.116
Maximum intensity(cd): 7325.116
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=18.3
[C90/270]Total=18.3
Field angle(10%Imax): [C0/180]Total=67.3
[C90/270]Total=67.3
Maximum s/h(1/2): C0_180=0.31 C90_270=0.31
Maximum s/h(1/4): C0_180=0.44 C90_270=0.44
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 93.40%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 96.973%

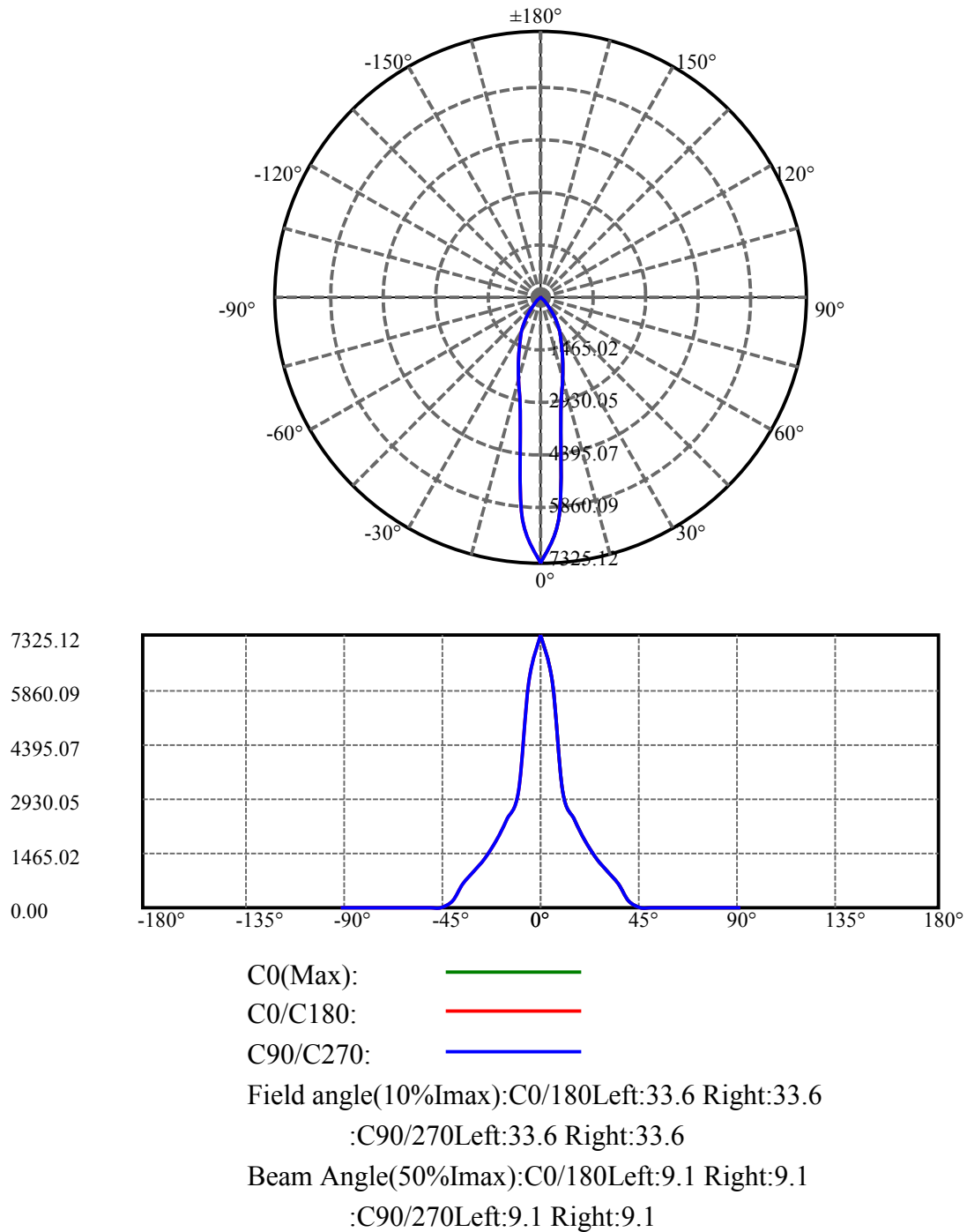
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	7325.116	43.806	43.806	1.824%	1.990%
5.0	6050.010	289.029	332.835	12.038%	15.123%
10.0	3158.242	300.611	633.446	12.520%	28.781%
15.0	2360.681	334.906	968.352	13.949%	43.998%
20.0	1799.381	337.337	1305.689	14.050%	59.325%
25.0	1300.707	301.313	1607.002	12.549%	73.015%
30.0	999.129	273.830	1880.832	11.405%	85.457%
35.0	633.128	199.055	2079.886	8.290%	94.501%
40.0	202.683	71.413	2151.299	2.974%	97.746%
45.0	22.456	8.704	2160.003	.363%	98.142%
50.0	13.117	5.508	2165.51	.229%	98.392%
55.0	10.289	4.620	2170.13	.192%	98.602%
60.0	9.676	4.593	2174.723	.191%	98.810%
65.0	9.298	4.619	2179.342	.192%	99.020%
70.0	9.091	4.683	2184.025	.195%	99.233%
75.0	8.995	4.762	2188.787	.198%	99.449%
80.0	8.940	4.826	2193.613	.201%	99.669%
85.0	8.926	4.874	2198.487	.203%	99.890%
90.0	8.823	2.418	2200.905	.101%	100.000%

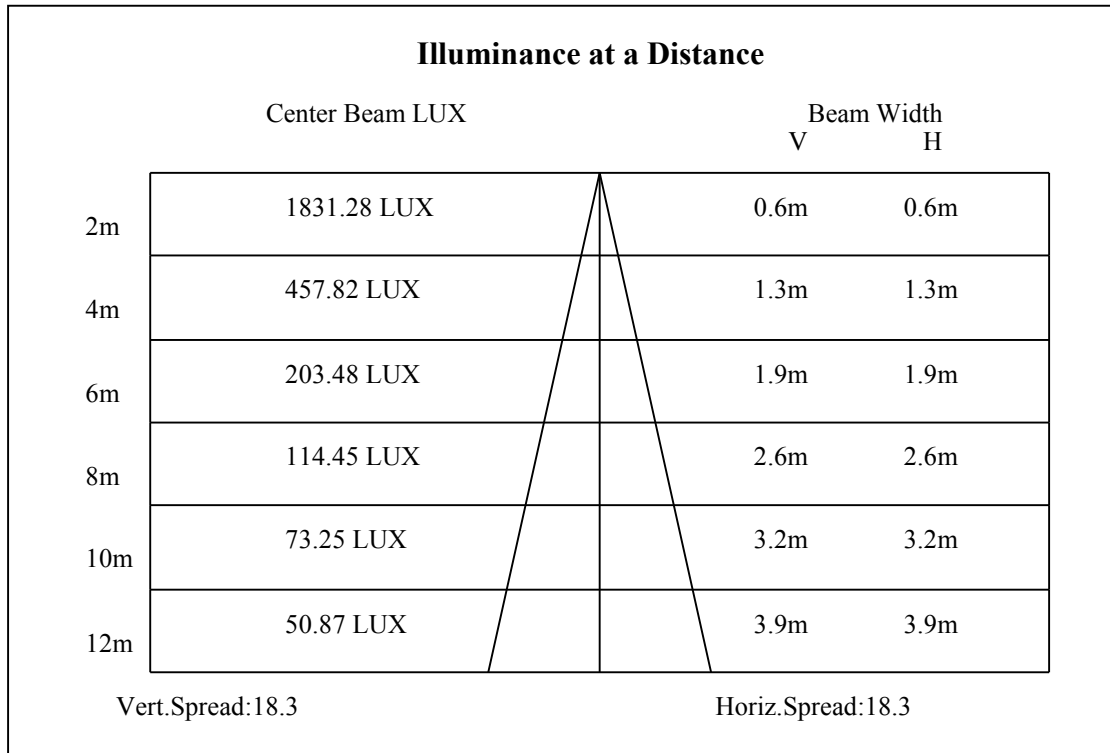
ZONAL LUMEN SUMMARY

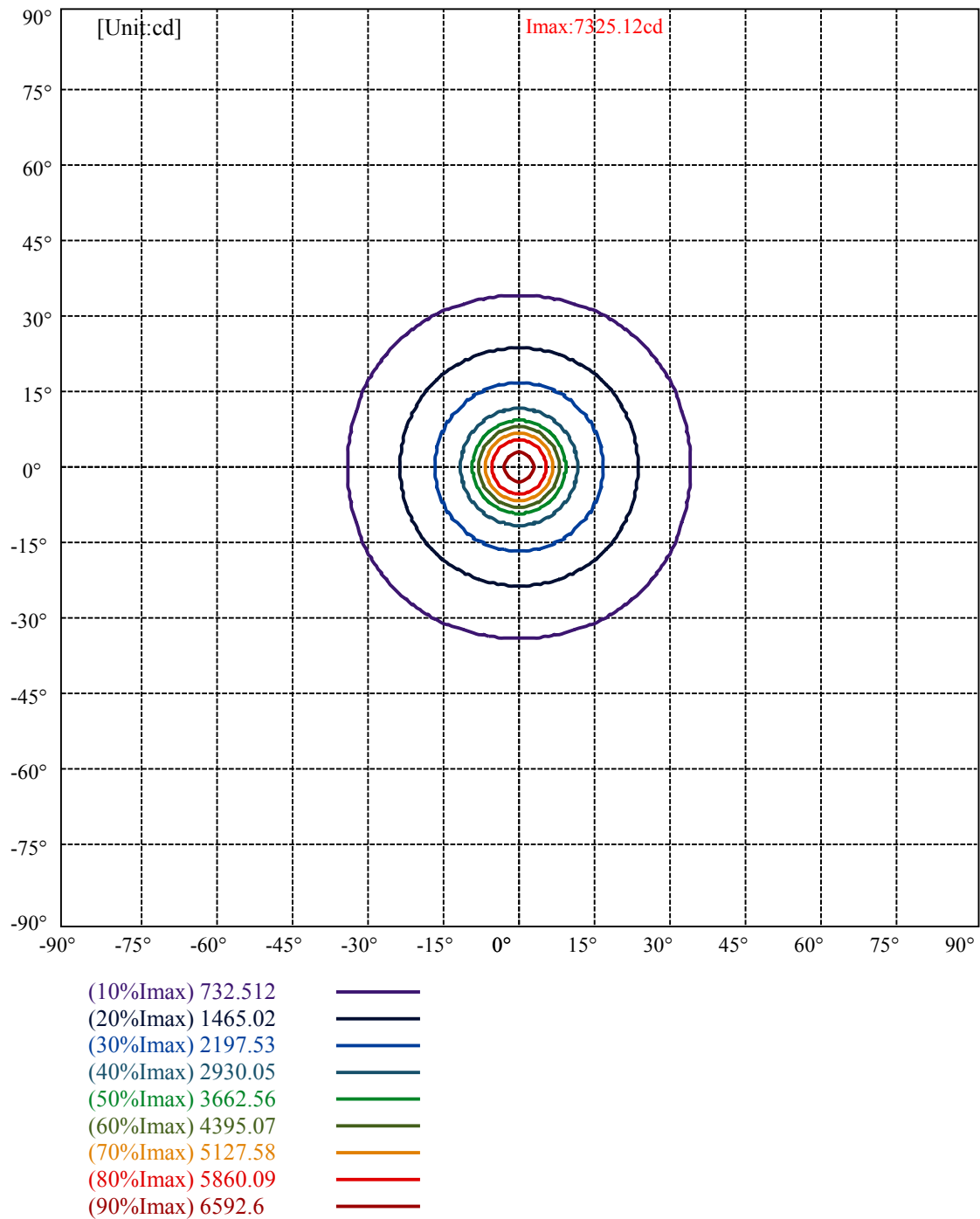
Zone	Lumens	%Lamp	%Fixt
0-30	1880.83	78.34%	85.46%
0-40	2151.30	89.60%	97.75%
0-60	2174.72	90.58%	98.81%
0-90	2198.49	91.57%	99.89%
0-120	2198.49	91.57%	99.89%
0-180	2200.91	91.67%	100.00%
60-90	28.36	1.18%	1.29%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-27.81	1760.72	73.33%	80.00%

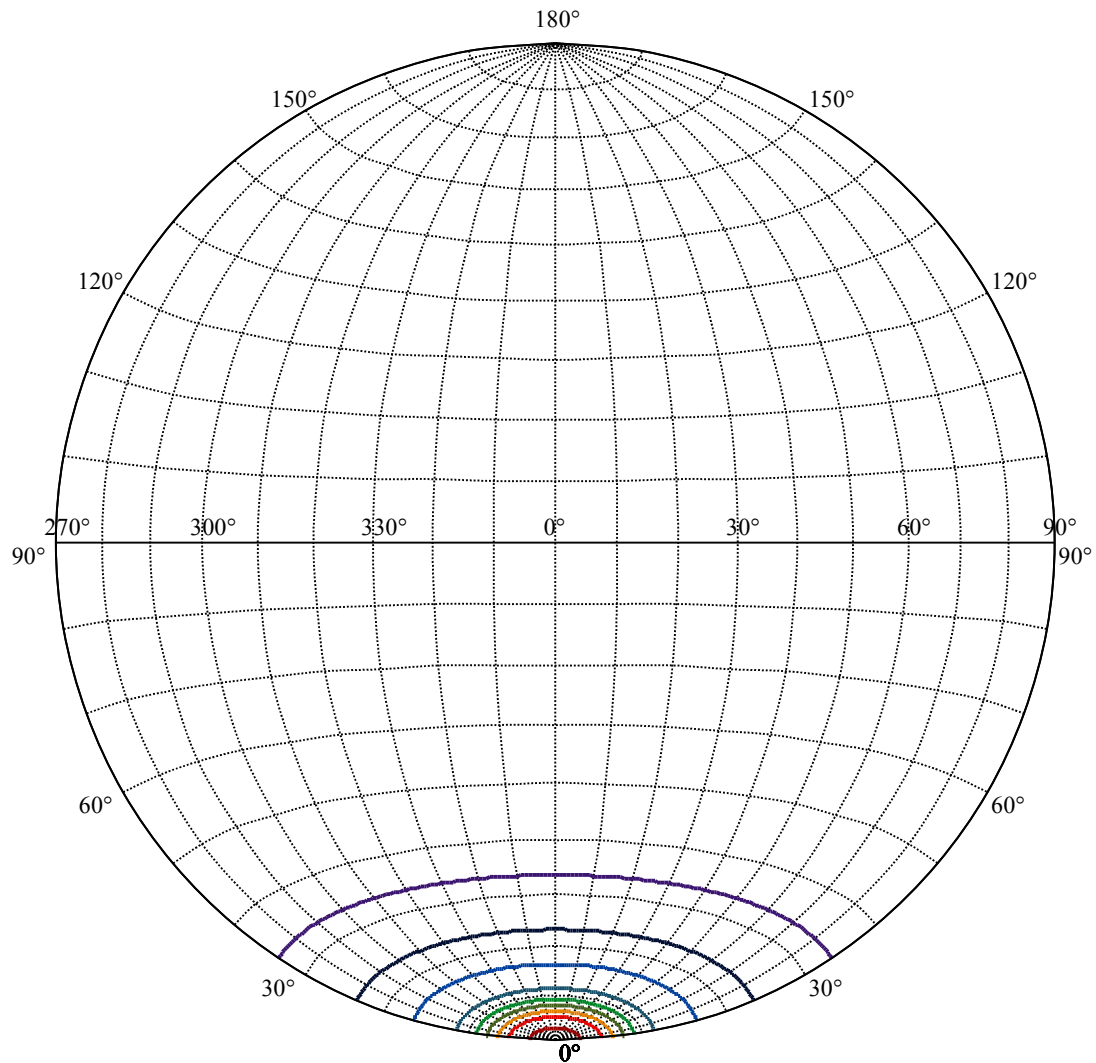
ZONAL LUMEN SUMMARY

0-10	633.45
10-20	672.24
20-30	575.14
30-40	270.47
40-50	14.21
50-60	9.21
60-70	9.30
70-80	9.59
80-90	4.87
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









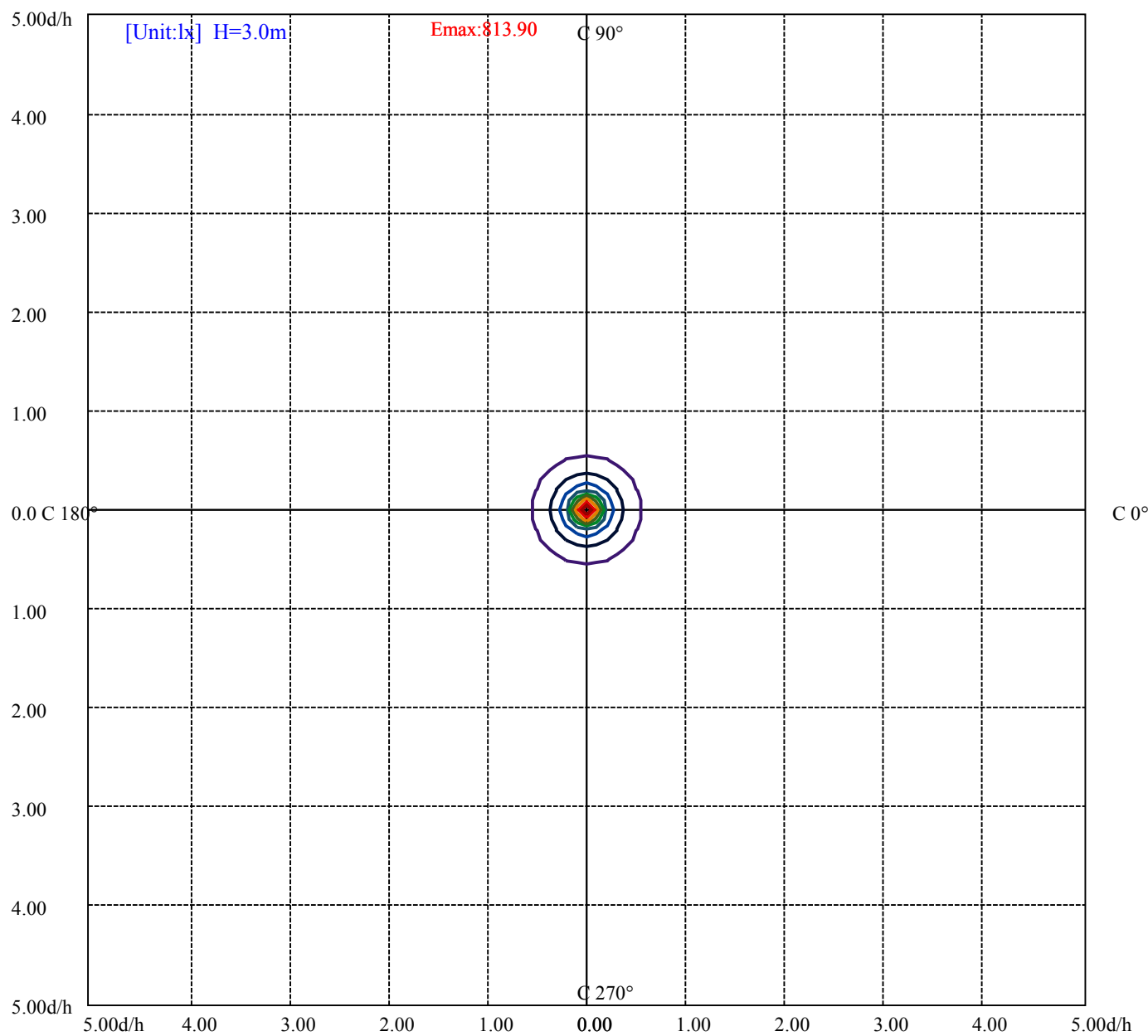
House

[Unit:cd]

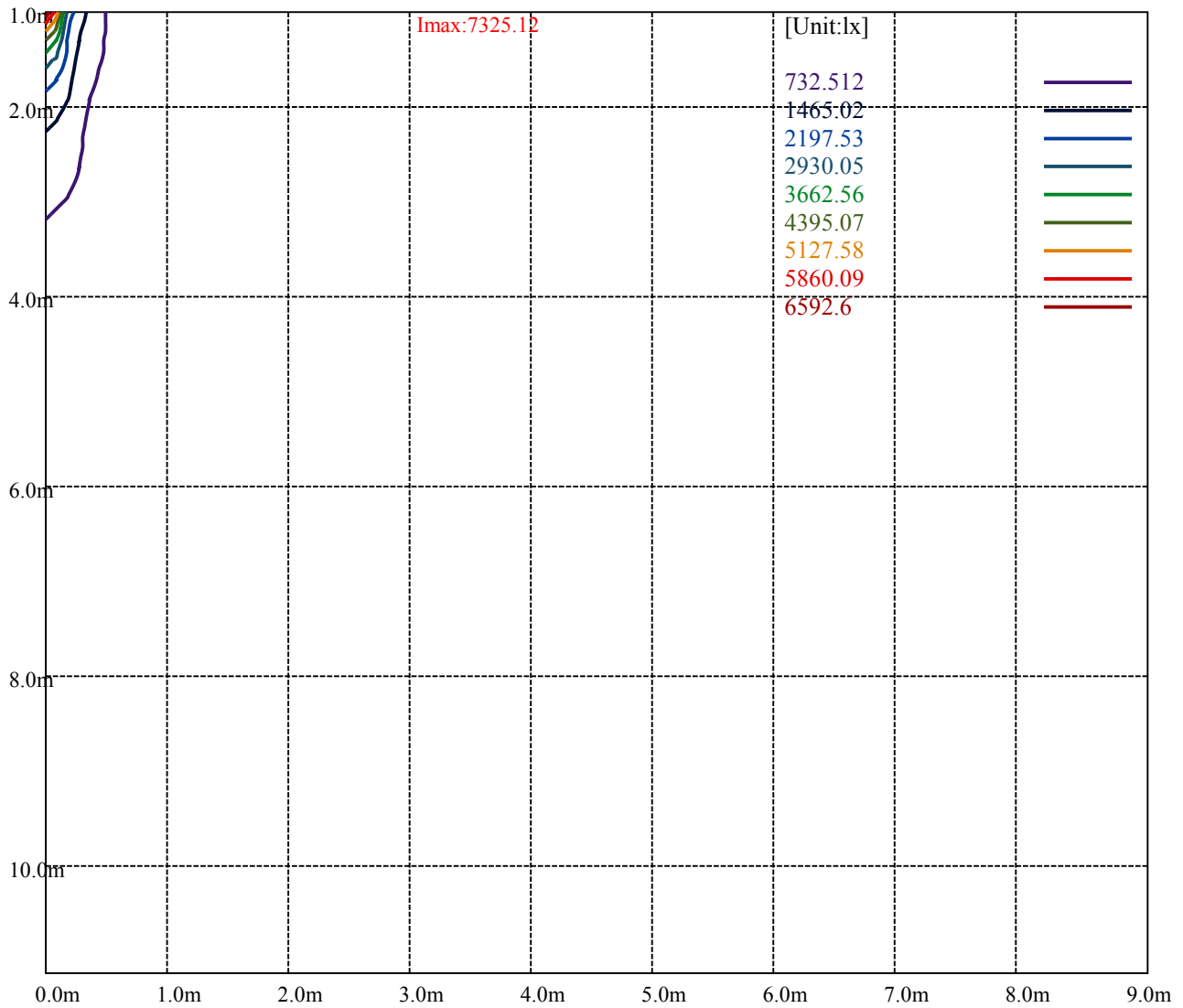
Road

Imax:7325.12

(10%Imax)	732.512	—
(20%Imax)	1465.02	—
(30%Imax)	2197.53	—
(40%Imax)	2930.05	—
(50%Imax)	3662.56	—
(60%Imax)	4395.07	—
(70%Imax)	5127.58	—
(80%Imax)	5860.09	—
(90%Imax)	6592.6	—



(10%E _{max}) 81.38978	—
(20%E _{max}) 162.78	—
(30%E _{max}) 244.1689	—
(40%E _{max}) 325.5589	—
(50%E _{max}) 406.9489	—
(60%E _{max}) 488.3389	—
(70%E _{max}) 569.7278	—
(80%E _{max}) 651.1178	—
(90%E _{max}) 732.5078	—



Luminance Table

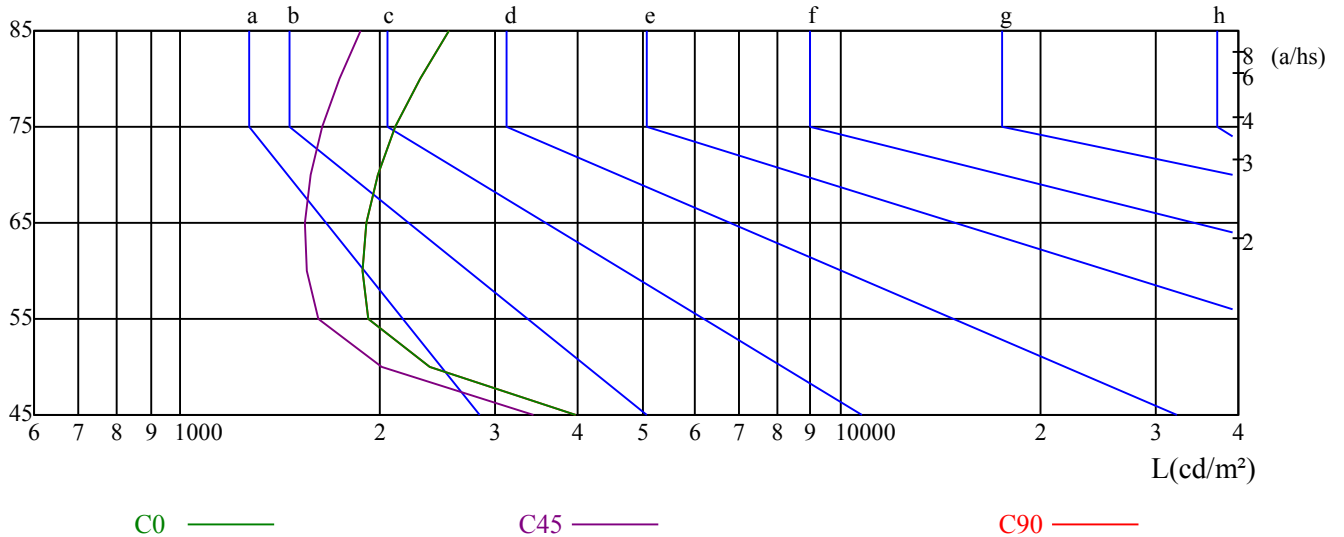
γ	45	50	55	60	65	70	75	80	85
C0	3980	2381	1929	1891	1912	1989	2120	2302	2554
C45	3431	2022	1613	1555	1545	1576	1643	1739	1873
C90	3980	2381	1929	1891	1912	1989	2120	2302	2554

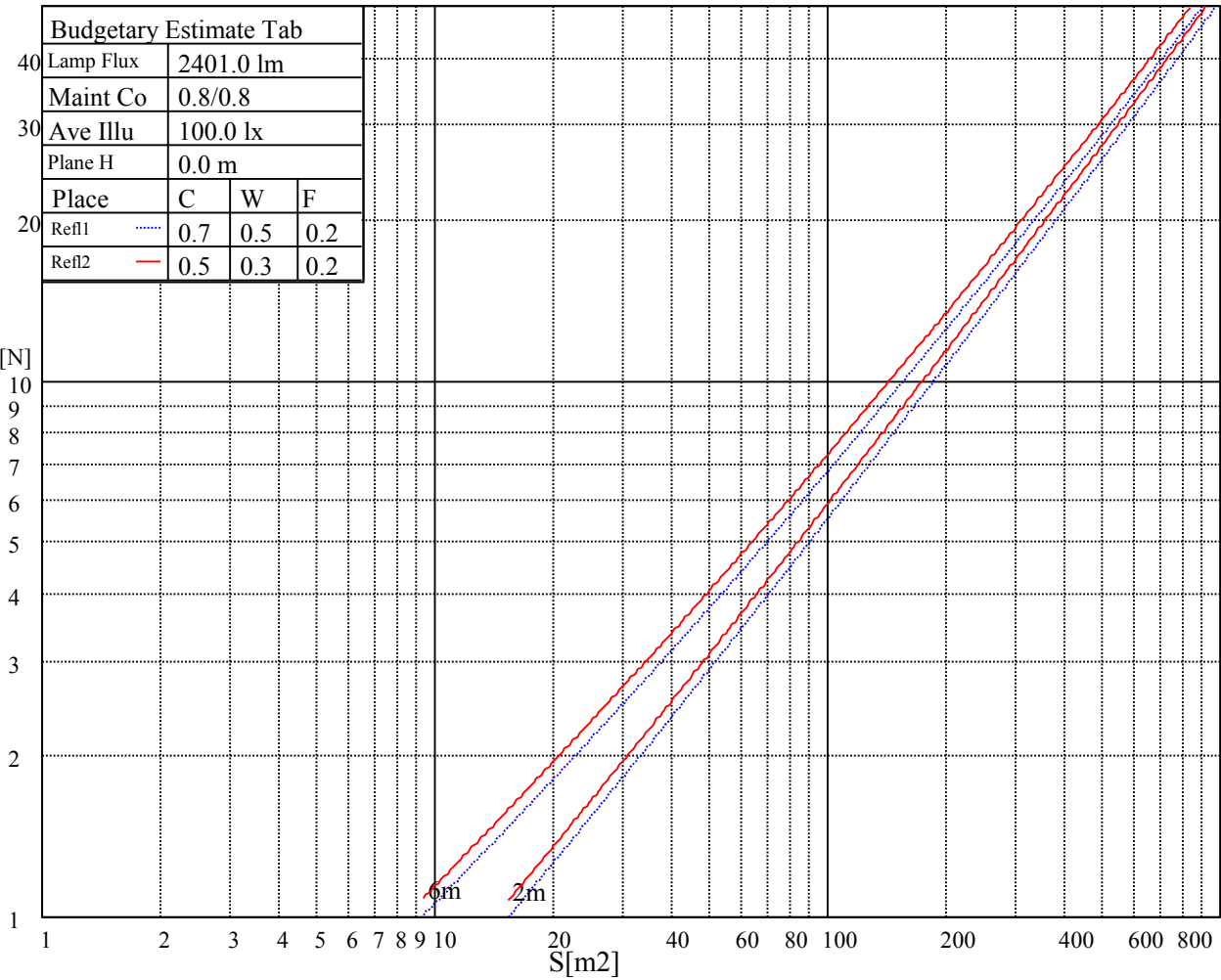
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
4490	4490	4490	7093	7093	7093	20901	20901	20901

Glare Table

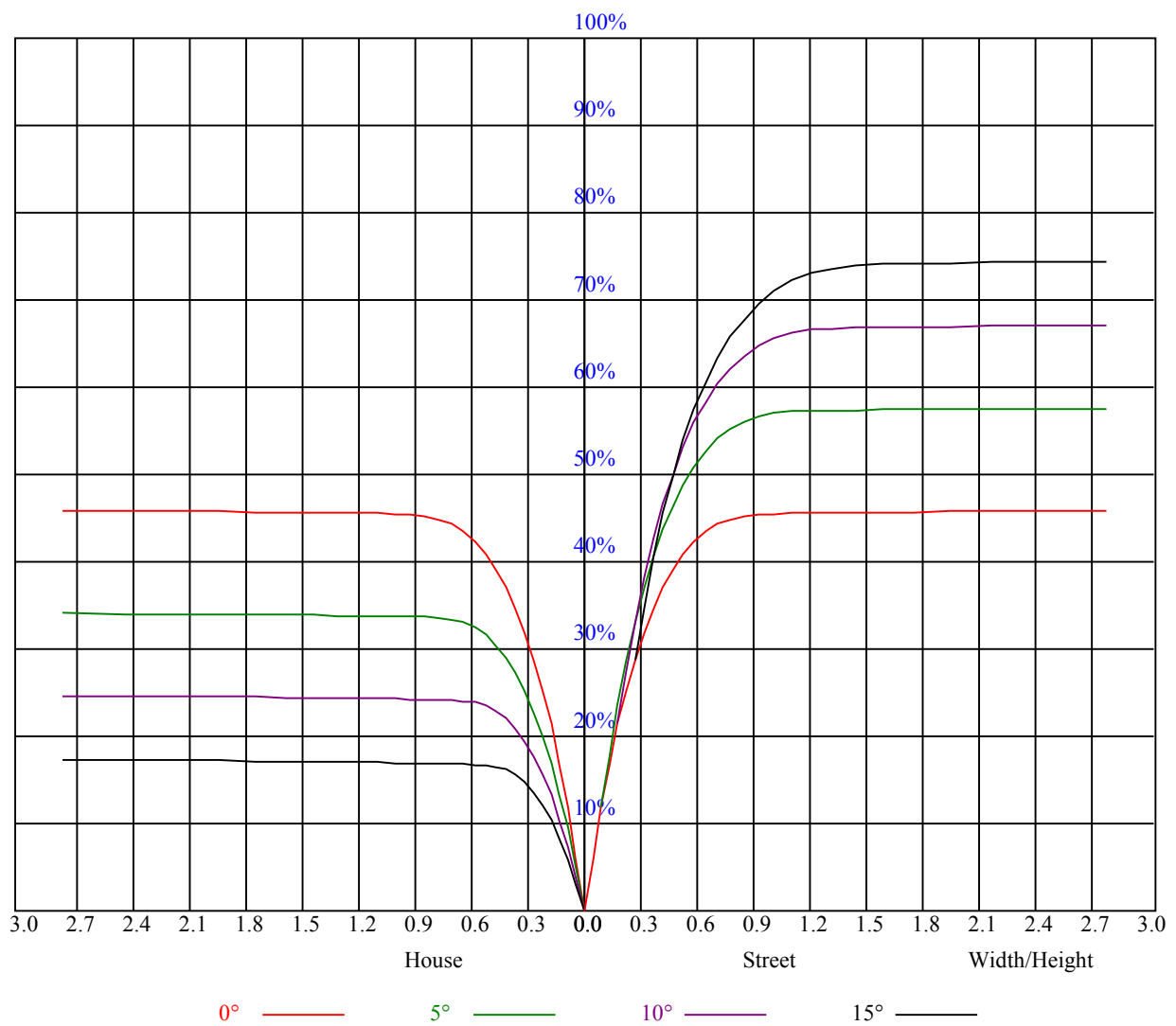
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	≤ 300				
1.5	B		2000	1000	500	≤ 300			
1.85	C			2000	1000	500	≤ 300		
2.2	D				2000	1000	500	≤ 300	
2.55	E					2000	1000	500	≤ 300
		a	b	c	d	e	f	g	h

Luminance Limiting Curve

 $\gamma(^{\circ})$ 



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	1.11	1.11	1.11	1.09	1.09	1.09	1.04	1.04	1.04	0.99	0.99	0.99	0.95	0.95	0.95	0.93
1	1.02	0.99	0.97	1.00	0.98	0.95	0.96	0.94	0.92	0.93	0.91	0.90	0.89	0.88	0.87	0.85
2	0.96	0.92	0.89	0.95	0.91	0.88	0.92	0.89	0.86	0.89	0.86	0.84	0.86	0.84	0.83	0.81
3	0.91	0.87	0.83	0.90	0.86	0.82	0.87	0.84	0.81	0.85	0.82	0.80	0.83	0.81	0.79	0.77
4	0.86	0.82	0.78	0.85	0.81	0.78	0.83	0.80	0.77	0.82	0.78	0.76	0.80	0.77	0.75	0.74
5	0.82	0.77	0.74	0.81	0.77	0.74	0.80	0.76	0.73	0.78	0.75	0.72	0.77	0.74	0.72	0.70
6	0.79	0.74	0.70	0.78	0.73	0.70	0.77	0.73	0.70	0.75	0.72	0.69	0.74	0.71	0.69	0.67
7	0.75	0.70	0.67	0.75	0.70	0.67	0.74	0.69	0.66	0.72	0.69	0.66	0.72	0.68	0.66	0.65
8	0.72	0.67	0.64	0.72	0.67	0.64	0.71	0.67	0.64	0.70	0.66	0.63	0.69	0.66	0.63	0.62
9	0.69	0.65	0.61	0.69	0.64	0.61	0.68	0.64	0.61	0.67	0.64	0.61	0.67	0.63	0.61	0.60
10	0.67	0.62	0.59	0.66	0.62	0.59	0.66	0.62	0.59	0.65	0.61	0.59	0.64	0.61	0.59	0.58



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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	7321.40	6417.37	3467.45	2493.50	1905.50	1361.54	1047.72	710.78	296.75
45.0	7317.00	6519.23	3462.50	2487.45	1902.75	1372.56	1052.13	728.40	301.16
90.0	7329.11	5978.57	2843.66	2271.63	1696.84	1253.63	984.90	637.17	150.58
135.0	7332.96	6383.24	3318.80	2373.48	1844.39	1344.48	1021.30	697.56	278.59
180.0	7321.40	5852.50	2998.92	2359.72	1822.92	1307.59	978.24	529.92	98.83
225.0	7317.00	5312.39	2943.87	2274.38	1686.93	1196.38	958.97	528.43	97.50
270.0	7329.11	6062.81	3223.55	2362.47	1794.29	1314.20	994.32	646.36	278.59
315.0	7332.96	5873.97	3007.18	2262.82	1741.43	1255.29	955.45	586.41	119.47
360.0	7321.40	6417.37	3467.45	2493.50	1905.50	1361.54	1047.72	710.78	296.75
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	23.62	13.54	10.30	9.63	9.30	9.08	9.03	8.97	9.03
45.0	24.61	14.48	10.30	9.69	9.30	9.08	8.97	8.92	8.92
90.0	22.90	12.88	10.24	9.63	9.25	9.08	8.97	8.92	8.81
135.0	23.62	14.53	10.63	9.91	9.36	9.14	9.03	8.97	8.92
180.0	20.76	12.83	10.41	9.80	9.41	9.14	9.03	8.97	9.03
225.0	19.82	11.56	10.19	9.58	9.30	9.08	9.03	8.92	8.92
270.0	23.73	12.94	10.19	9.63	9.25	9.08	8.97	8.86	8.86
315.0	20.59	12.17	10.08	9.52	9.19	9.03	8.92	8.97	8.92
360.0	23.62	13.54	10.30	9.63	9.30	9.08	9.03	8.97	9.03
C/ γ (°)	90.0								
0.0	8.81								
45.0	8.86								
90.0	8.81								
135.0	8.86								
180.0	8.81								
225.0	8.81								
270.0	8.81								
315.0	8.81								
360.0	8.81								