
Nata

LumCAT: 2-1794-N	
Luminaire: 92.70.131.00	
Report No: NT2018041016	Voltage(V): 34.0000
Test No: nata-0100	Current(A): 0.3000
LampCAT: BRIDGELUX V13B	Power (W): 10.2000
Lamp flux(lm): 1608.0	PF: 0.0000
Number of Lamps: 1	Ballast type: DC
Length(mm): 69	Width(mm): 69
Phm Type: C	Height(mm): 0

Photometric Results

Lumens(lm): 1360.59
Efficiency(%): 84.61%
Lumens(lm)/Power(W): 136.13
Central intensity(cd): 4889.421
Maximum intensity(cd): 4889.421
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=26.8
[C90/270]Total=26.8
Field angle(10%Imax): [C0/180]Total=55.9
[C90/270]Total=55.9
Maximum s/h(1/2): C0_180=0.45 C90_270=0.45
Maximum s/h(1/4): C0_180=0.47 C90_270=0.47
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 86.35%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 96.678%

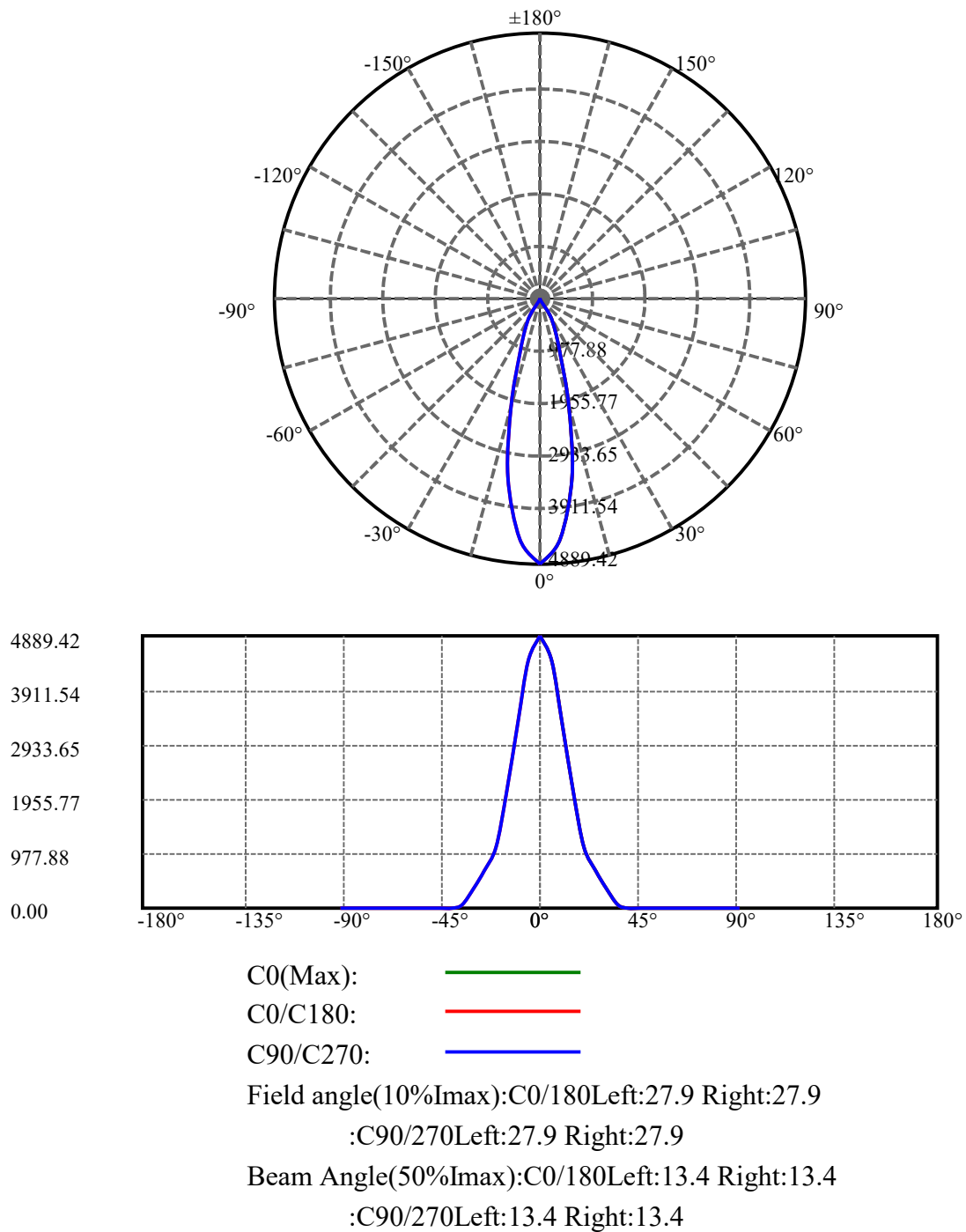
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	4889.421	29.240	29.24	1.818%	2.149%
5.0	4434.793	211.865	241.105	13.176%	17.721%
10.0	3329.673	316.929	558.033	19.709%	41.014%
15.0	2020.363	286.626	844.659	17.825%	62.080%
20.0	1100.378	206.292	1050.951	12.829%	77.242%
25.0	663.375	153.673	1204.624	9.557%	88.537%
30.0	367.508	100.723	1305.346	6.264%	95.939%
35.0	65.035	20.447	1325.793	1.272%	97.442%
40.0	10.915	3.846	1329.639	.239%	97.725%
45.0	8.472	3.284	1332.923	.204%	97.966%
50.0	7.481	3.141	1336.064	.195%	98.197%
55.0	7.020	3.152	1339.216	.196%	98.429%
60.0	6.738	3.198	1342.414	.199%	98.664%
65.0	6.538	3.248	1345.662	.202%	98.902%
70.0	6.400	3.297	1348.958	.205%	99.145%
75.0	6.297	3.334	1352.293	.207%	99.390%
80.0	6.221	3.358	1355.651	.209%	99.637%
85.0	6.097	3.330	1358.98	.207%	99.881%
90.0	5.891	1.615	1360.595	.100%	100.000%

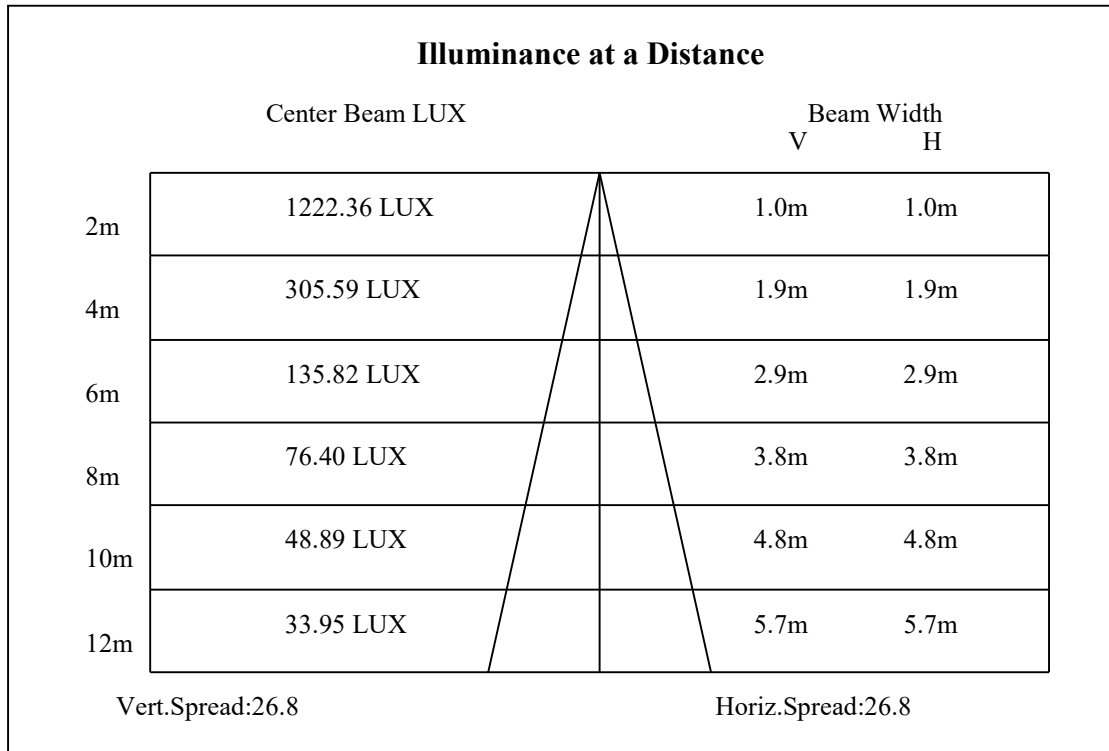
ZONAL LUMEN SUMMARY

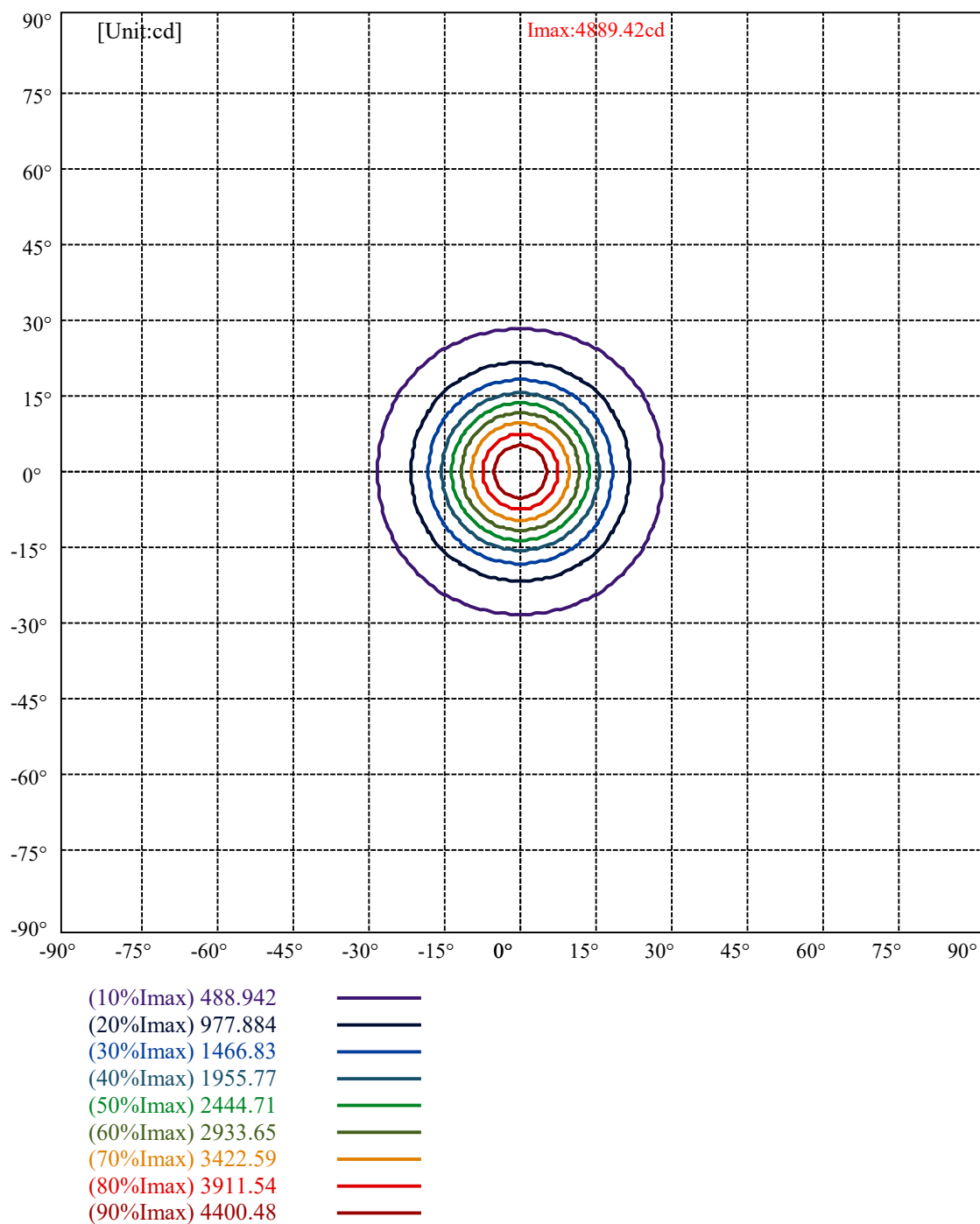
Zone	Lumens	%Lamp	%Fixt
0-30	1305.35	81.18%	95.94%
0-40	1329.64	82.69%	97.72%
0-60	1342.41	83.48%	98.66%
0-90	1358.98	84.51%	99.88%
0-120	1358.98	84.51%	99.88%
0-180	1360.59	84.61%	100.00%
60-90	19.76	1.23%	1.45%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-21.22	1088.48	67.69%	80.00%

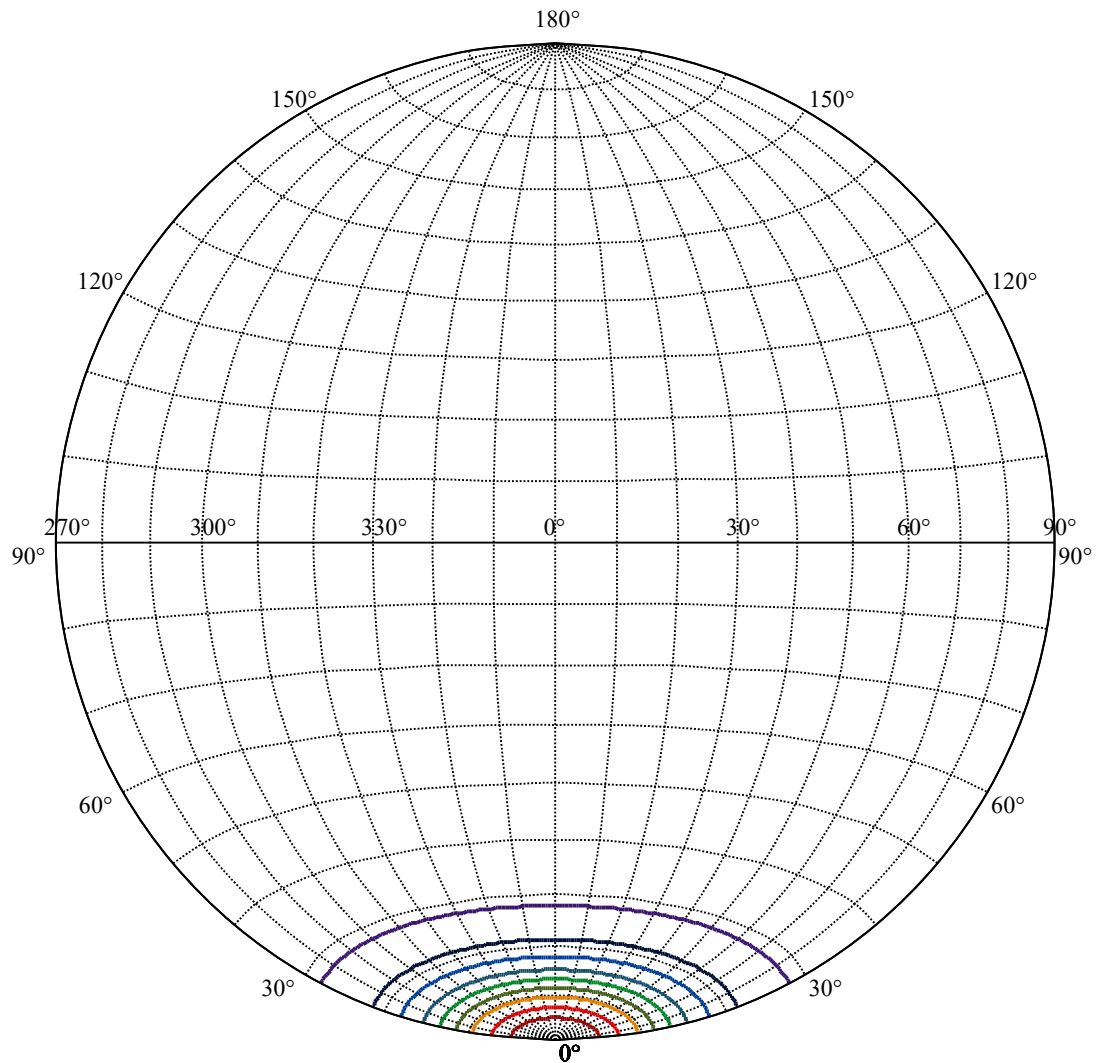
ZONAL LUMEN SUMMARY

0-10	558.03
10-20	492.92
20-30	254.40
30-40	24.29
40-50	6.42
50-60	6.35
60-70	6.54
70-80	6.69
80-90	3.33
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









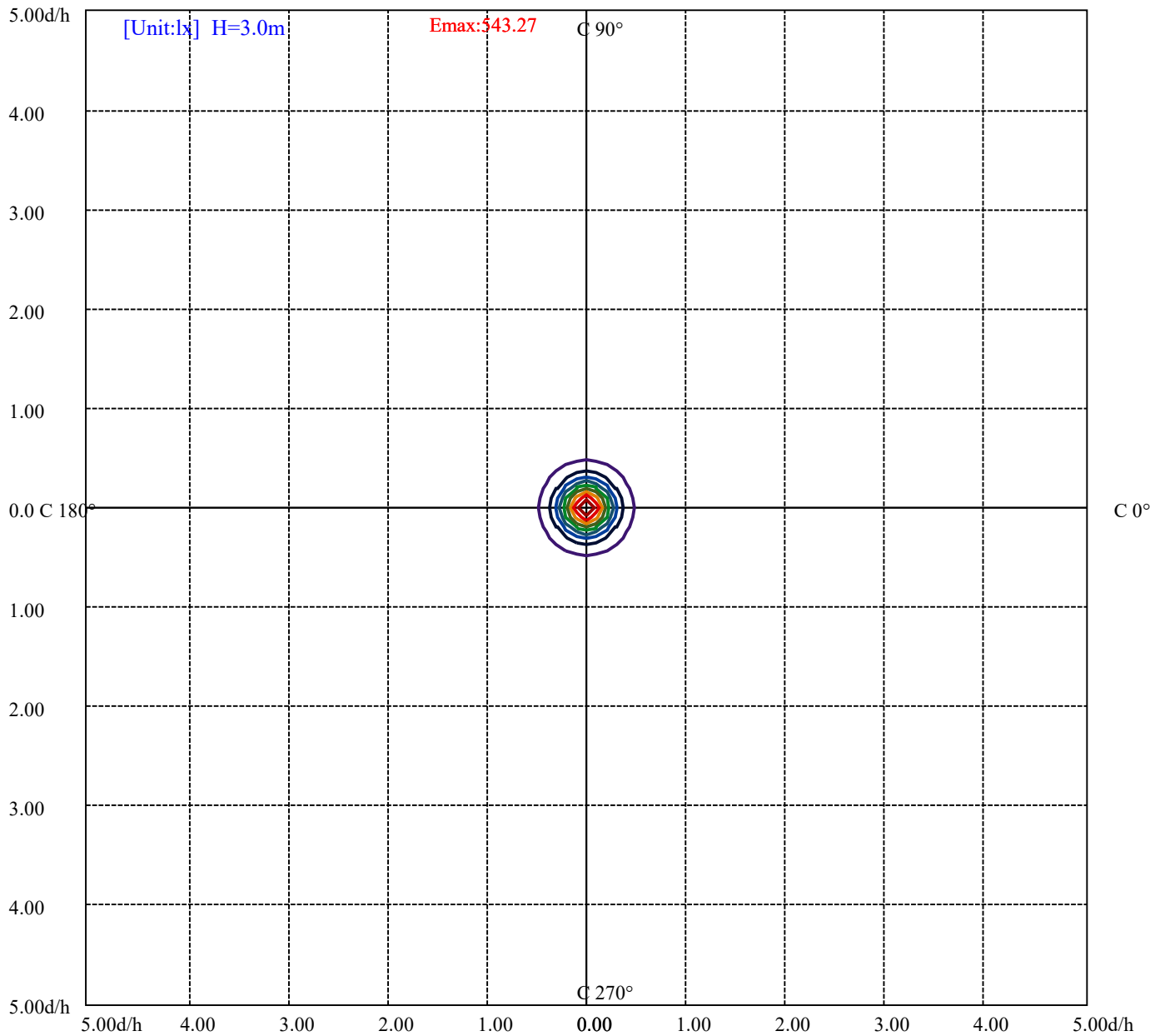
House

[Unit:cd]

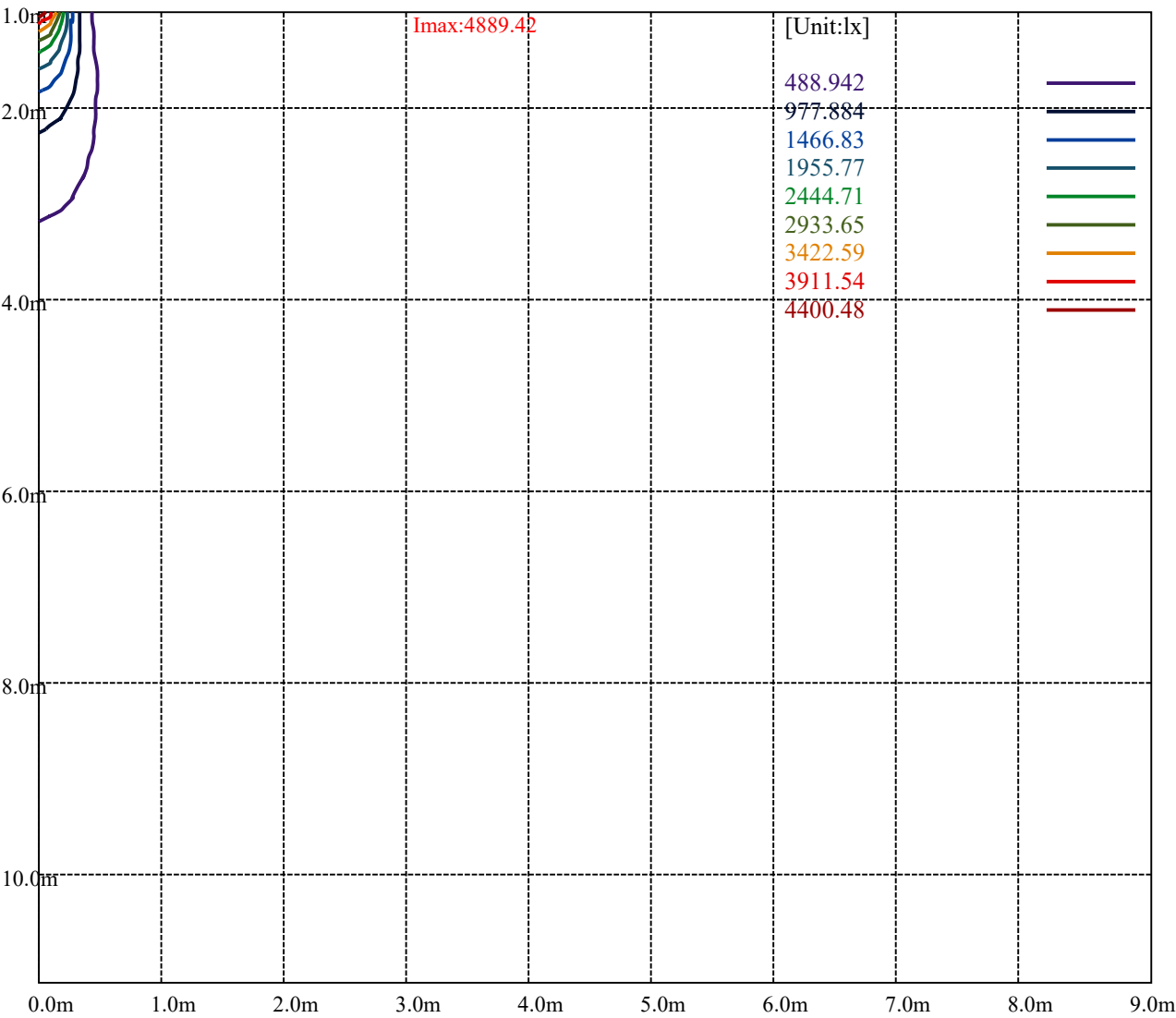
Road

Imax:4889.42

(10%Imax)	488.942	—
(20%Imax)	977.884	—
(30%Imax)	1466.83	—
(40%Imax)	1955.77	—
(50%Imax)	2444.71	—
(60%Imax)	2933.65	—
(70%Imax)	3422.59	—
(80%Imax)	3911.54	—
(90%Imax)	4400.48	—



(10%Emax)	54.32678	
(20%Emax)	108.6534	
(30%Emax)	162.98	
(40%Emax)	217.3067	
(50%Emax)	271.6333	
(60%Emax)	325.96	
(70%Emax)	380.2867	
(80%Emax)	434.6144	
(90%Emax)	488.9411	



Luminance Table

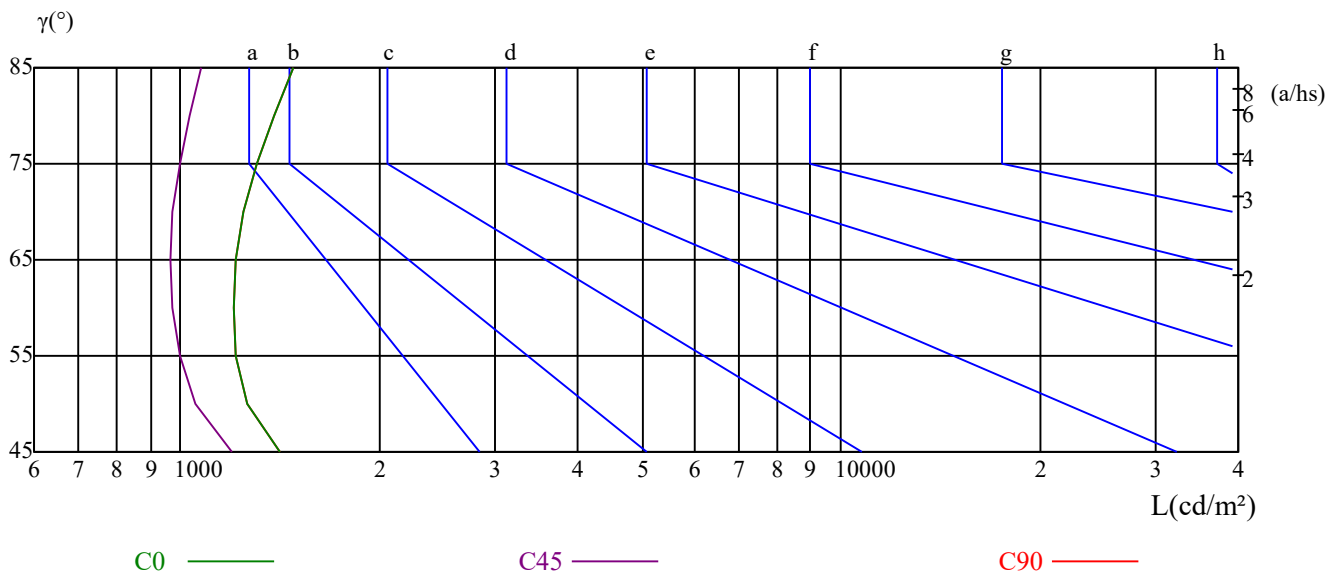
γ	45	50	55	60	65	70	75	80	85
C0	1412	1265	1214	1202	1213	1248	1303	1384	1478
C45	1194	1054	996	970	963	973	996	1034	1076
C90	1412	1265	1214	1202	1213	1248	1303	1384	1478

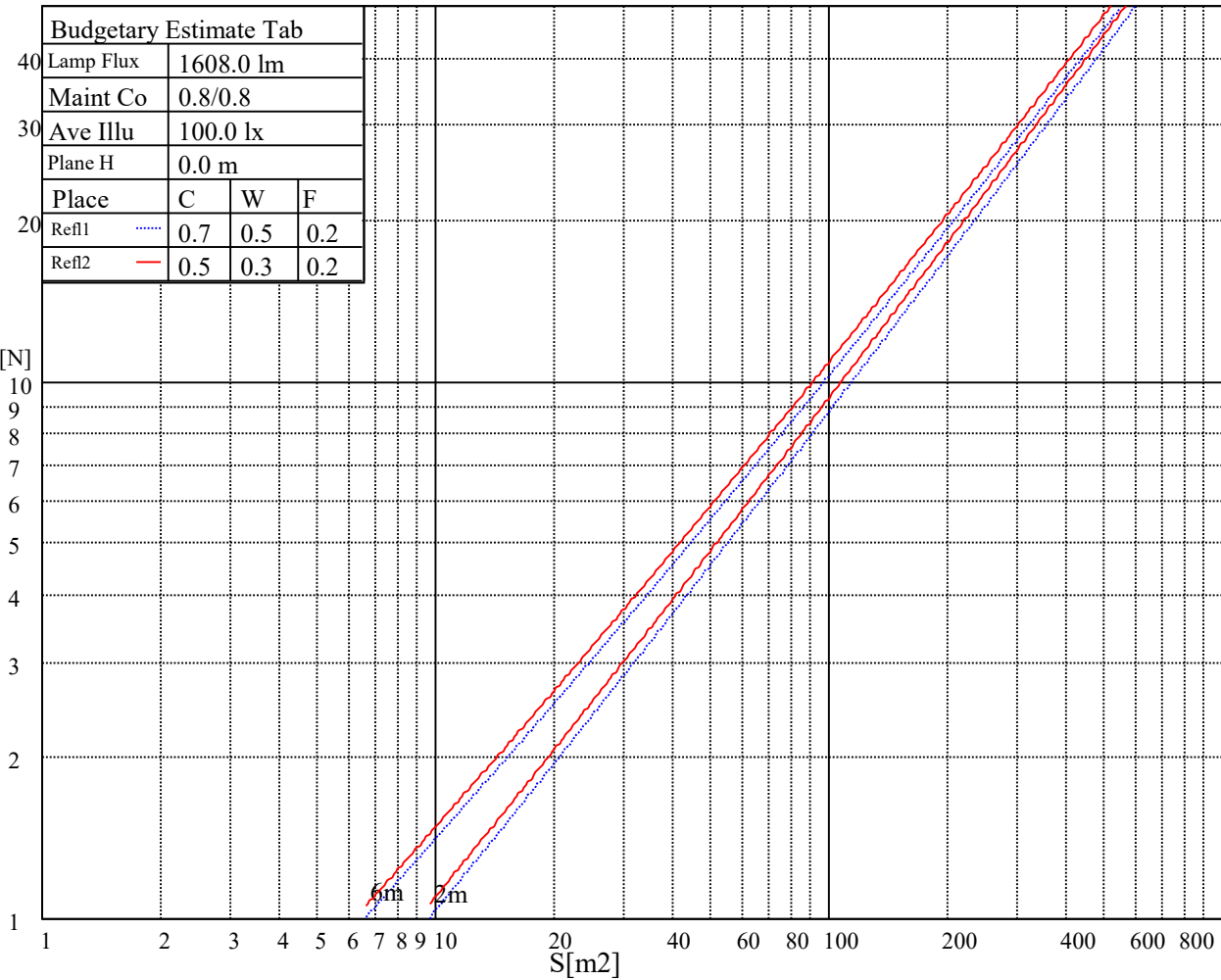
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
3249	3249	3249	5110	5110	5110	14695	14695	14695

Glare Table

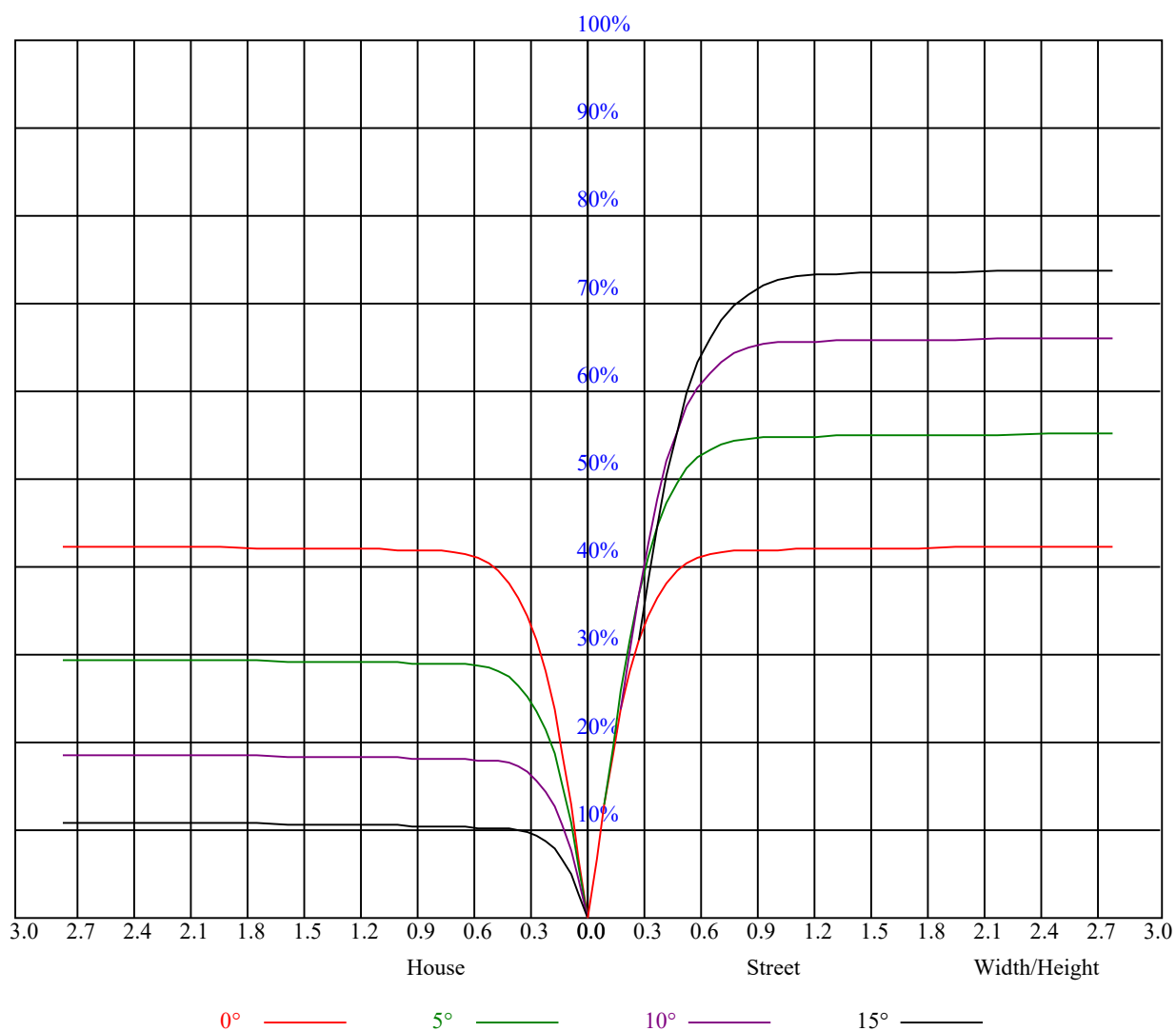
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	≤ 300				
1.5	B		2000	1000	500	≤ 300			
1.85	C			2000	1000	500	≤ 300		
2.2	D				2000	1000	500	≤ 300	
2.55	E					2000	1000	500	≤ 300
		a	b	c	d	e	f	g	h

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	1.03	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	0.90	0.87	0.84	0.89	0.86	0.83	0.86	0.84	0.82	0.84	0.82	0.80	0.81	0.80	0.78	0.77
3	0.86	0.83	0.80	0.85	0.82	0.79	0.83	0.80	0.78	0.81	0.79	0.77	0.79	0.77	0.76	0.74
4	0.83	0.79	0.76	0.82	0.78	0.76	0.80	0.77	0.75	0.79	0.76	0.74	0.77	0.75	0.73	0.72
5	0.80	0.76	0.73	0.79	0.76	0.73	0.78	0.75	0.72	0.76	0.74	0.72	0.75	0.73	0.71	0.70
6	0.77	0.73	0.71	0.77	0.73	0.70	0.75	0.72	0.70	0.74	0.72	0.69	0.73	0.71	0.69	0.68
7	0.75	0.71	0.68	0.74	0.71	0.68	0.73	0.70	0.68	0.72	0.70	0.67	0.72	0.69	0.67	0.66
8	0.73	0.69	0.66	0.72	0.69	0.66	0.71	0.68	0.66	0.71	0.68	0.66	0.70	0.67	0.65	0.64
9	0.71	0.67	0.64	0.70	0.67	0.64	0.69	0.66	0.64	0.69	0.66	0.64	0.68	0.66	0.64	0.63
10	0.69	0.65	0.63	0.68	0.65	0.63	0.68	0.65	0.62	0.67	0.64	0.62	0.67	0.64	0.62	0.61



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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	4875.79	4528.94	3526.91	2166.47	1256.39	710.23	422.28	88.64	11.23		
45.0	4906.63	4343.95	3202.63	1931.93	1052.13	621.59	346.30	39.42	10.68		
90.0	4856.53	4144.10	2826.60	1671.51	912.50	579.19	251.72	16.90	9.52		
135.0	4918.74	4354.96	3220.25	1897.24	1044.42	638.10	322.63	23.73	9.14		
180.0	4875.79	4343.40	3138.21	1837.23	1043.21	625.72	295.60	24.28	8.97		
225.0	4906.63	4499.21	3435.52	2062.41	1074.54	685.40	385.73	57.04	11.34		
270.0	4856.53	4689.70	3814.86	2420.83	1352.74	748.22	482.29	194.29	15.75		
315.0	4918.74	4574.09	3472.41	2175.28	1067.10	698.56	433.51	75.98	10.68		
360.0	4875.79	4528.94	3526.91	2166.47	1256.39	710.23	422.28	88.64	11.23		
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0		
0.0	8.42	7.38	6.94	6.77	6.55	6.44	6.28	6.17	6.11		
45.0	8.48	7.38	6.88	6.55	6.39	6.22	6.17	6.11	5.95		
90.0	7.93	7.10	6.83	6.61	6.44	6.33	6.28	6.22	6.06		
135.0	7.82	7.21	6.83	6.66	6.55	6.44	6.39	6.28	6.22		
180.0	7.82	7.21	6.88	6.72	6.61	6.50	6.39	6.28	6.22		
225.0	8.92	7.76	7.21	6.83	6.55	6.44	6.33	6.28	6.06		
270.0	10.13	8.42	7.54	6.99	6.61	6.44	6.28	6.22	6.06		
315.0	8.26	7.38	7.05	6.77	6.61	6.39	6.28	6.22	6.11		
360.0	8.42	7.38	6.94	6.77	6.55	6.44	6.28	6.17	6.11		
C/γ(°)	90.0										
0.0	5.95										
45.0	5.78										
90.0	5.89										
135.0	5.95										
180.0	5.89										
225.0	5.84										
270.0	5.89										
315.0	5.95										
360.0	5.95										