
Nata

LumCAT: 3-2116-N	
Luminaire: 92.70.131.00	
Report No: NT2018041009	Voltage(V): 34.0000
Test No: nata-0100	Current(A): 0.3000
LampCAT: BRIDGELUX V13B	Power (W): 10.2000
Lamp flux(lm): 1528.0	PF: 0.0000
Number of Lamps: 1	Ballast type: DC
Length(mm): 80	Width(mm): 80
Phm Type: C	Height(mm): 0

Photometric Results

Lumens(lm): 1292.09
Efficiency(%): 84.56%
Lumens(lm)/Power(W): 129.63
Central intensity(cd): 5248.251
Maximum intensity(cd): 5248.251
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=24.4
[C90/270]Total=24.4
Field angle(10%Imax): [C0/180]Total=52.4
[C90/270]Total=52.4
Maximum s/h(1/2): C0_180=0.42 C90_270=0.42
Maximum s/h(1/4): C0_180=0.41 C90_270=0.41
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 86.53%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 96.019%

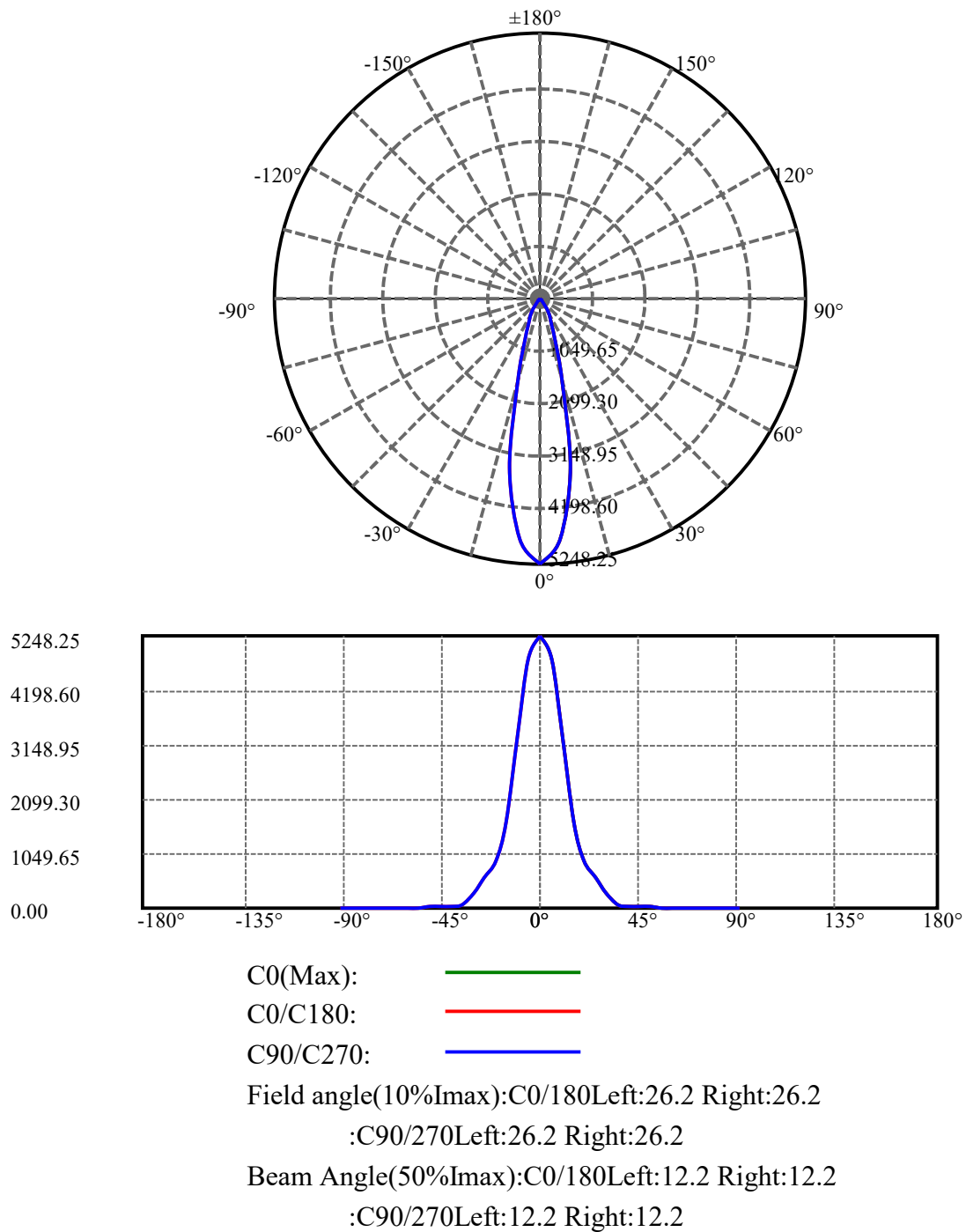
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	5248.251	31.386	31.386	2.054%	2.429%
5.0	4776.900	228.208	259.594	14.935%	20.091%
10.0	3390.304	322.700	582.293	21.119%	45.066%
15.0	1665.215	236.241	818.535	15.461%	63.349%
20.0	906.352	169.918	988.452	11.120%	76.500%
25.0	592.249	137.196	1125.648	8.979%	87.118%
30.0	308.949	84.673	1210.322	5.541%	93.671%
35.0	54.072	17.000	1227.322	1.113%	94.987%
40.0	31.086	10.953	1238.275	.717%	95.835%
45.0	25.147	9.747	1248.022	.638%	96.589%
50.0	20.137	8.455	1256.477	.553%	97.243%
55.0	15.567	6.990	1263.467	.457%	97.784%
60.0	12.945	6.145	1269.612	.402%	98.260%
65.0	10.640	5.286	1274.897	.346%	98.669%
70.0	8.203	4.225	1279.123	.277%	98.996%
75.0	7.591	4.019	1283.142	.263%	99.307%
80.0	7.150	3.860	1287.002	.253%	99.606%
85.0	6.552	3.578	1290.579	.234%	99.883%
90.0	5.526	1.515	1292.094	.099%	100.000%

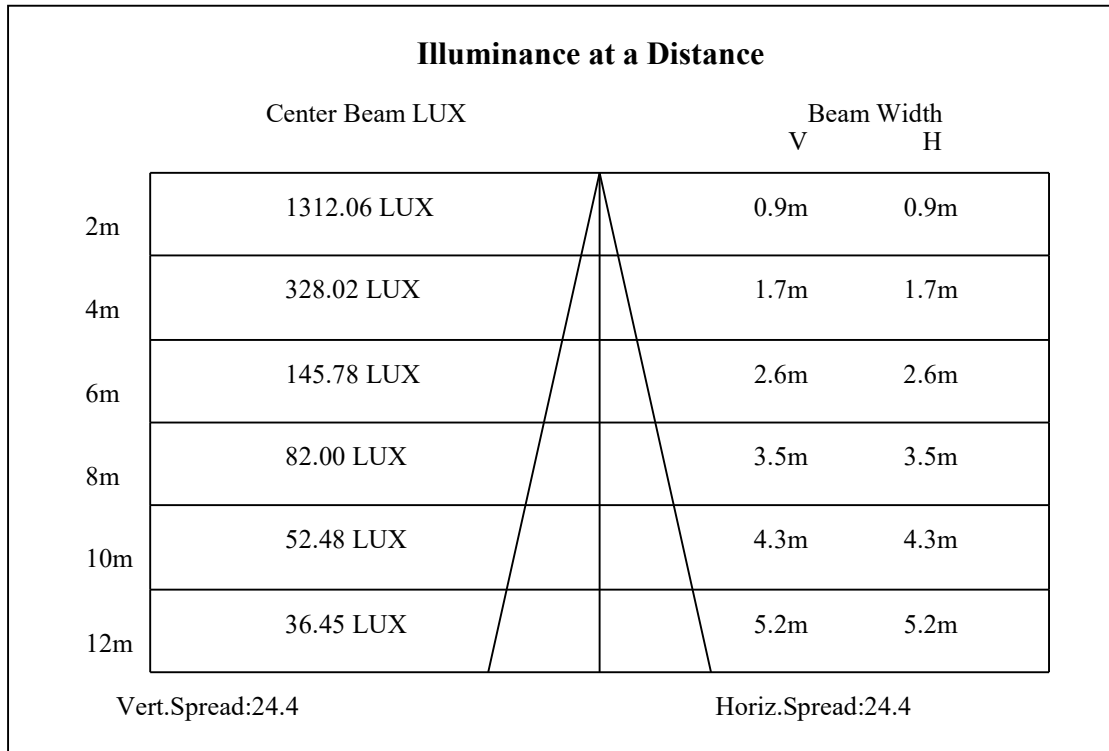
ZONAL LUMEN SUMMARY

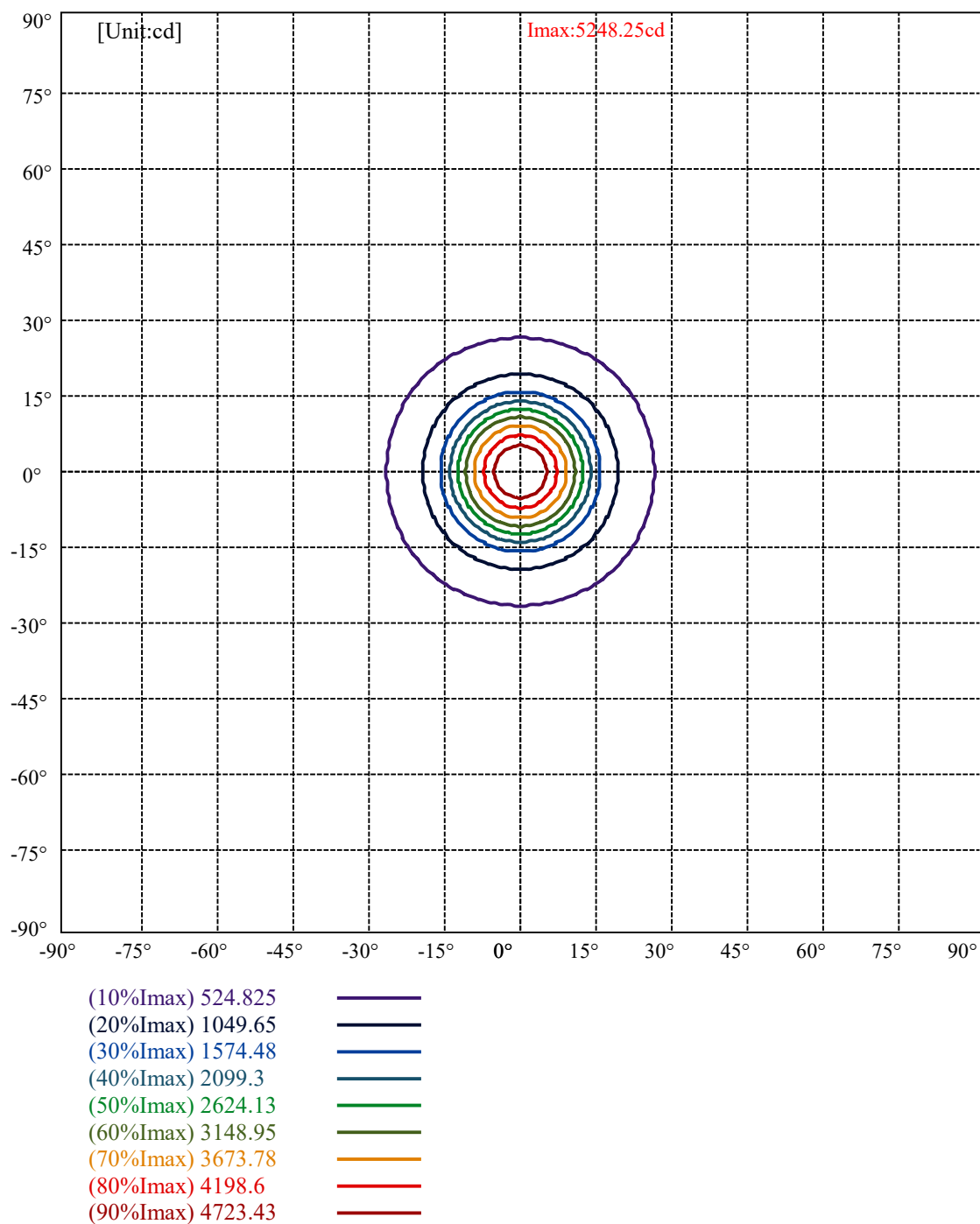
Zone	Lumens	%Lamp	%Fixt
0-30	1210.32	79.21%	93.67%
0-40	1238.27	81.04%	95.83%
0-60	1269.61	83.09%	98.26%
0-90	1290.58	84.46%	99.88%
0-120	1290.58	84.46%	99.88%
0-180	1292.09	84.56%	100.00%
60-90	27.11	1.77%	2.10%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-21.65	1033.68	67.65%	80.00%

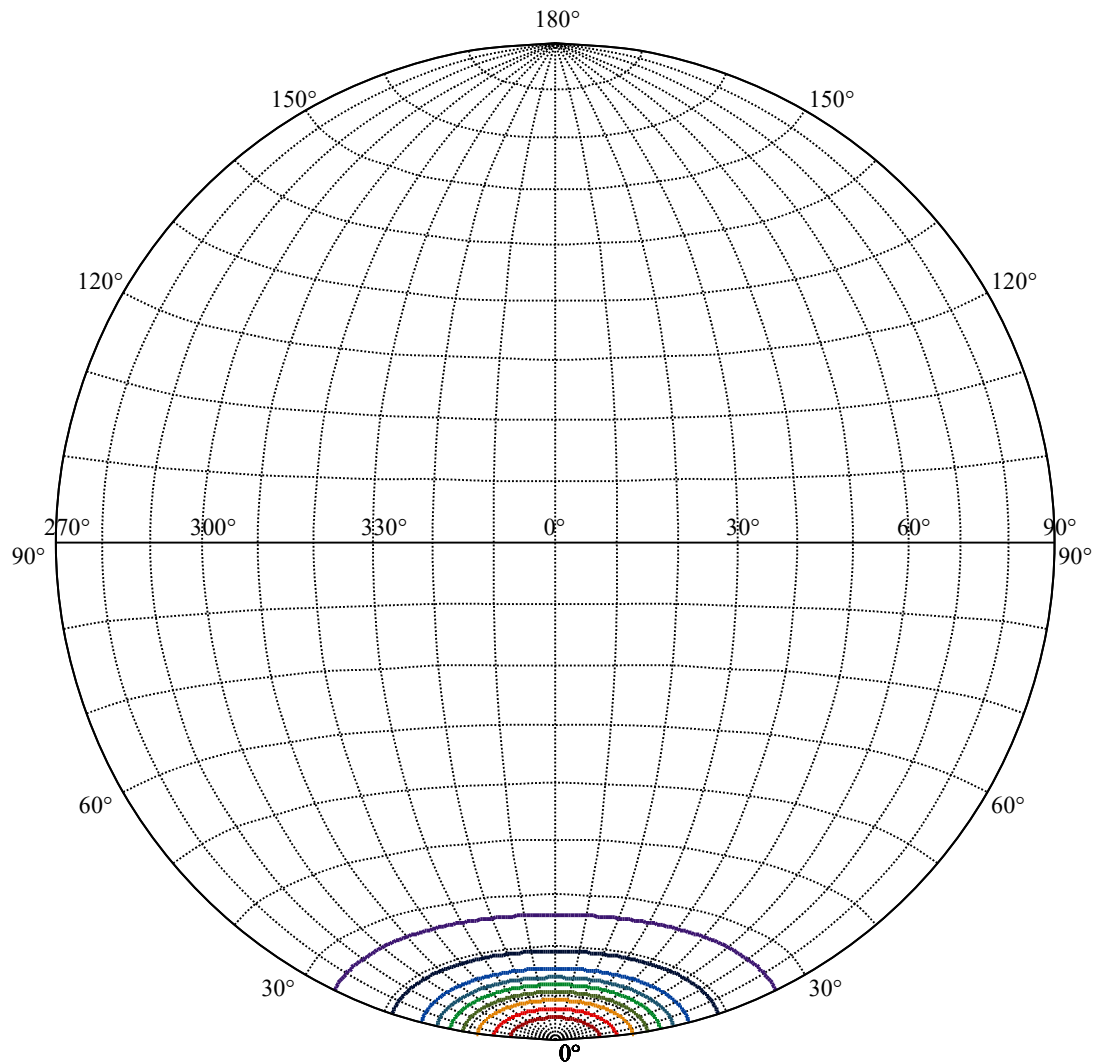
ZONAL LUMEN SUMMARY

0-10	582.29
10-20	406.16
20-30	221.87
30-40	27.95
40-50	18.20
50-60	13.13
60-70	9.51
70-80	7.88
80-90	3.58
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:5248.25

(10%Imax) 524.825

(20%Imax) 1049.65

(30%Imax) 1574.48

(40%Imax) 2099.3

(50%Imax) 2624.13

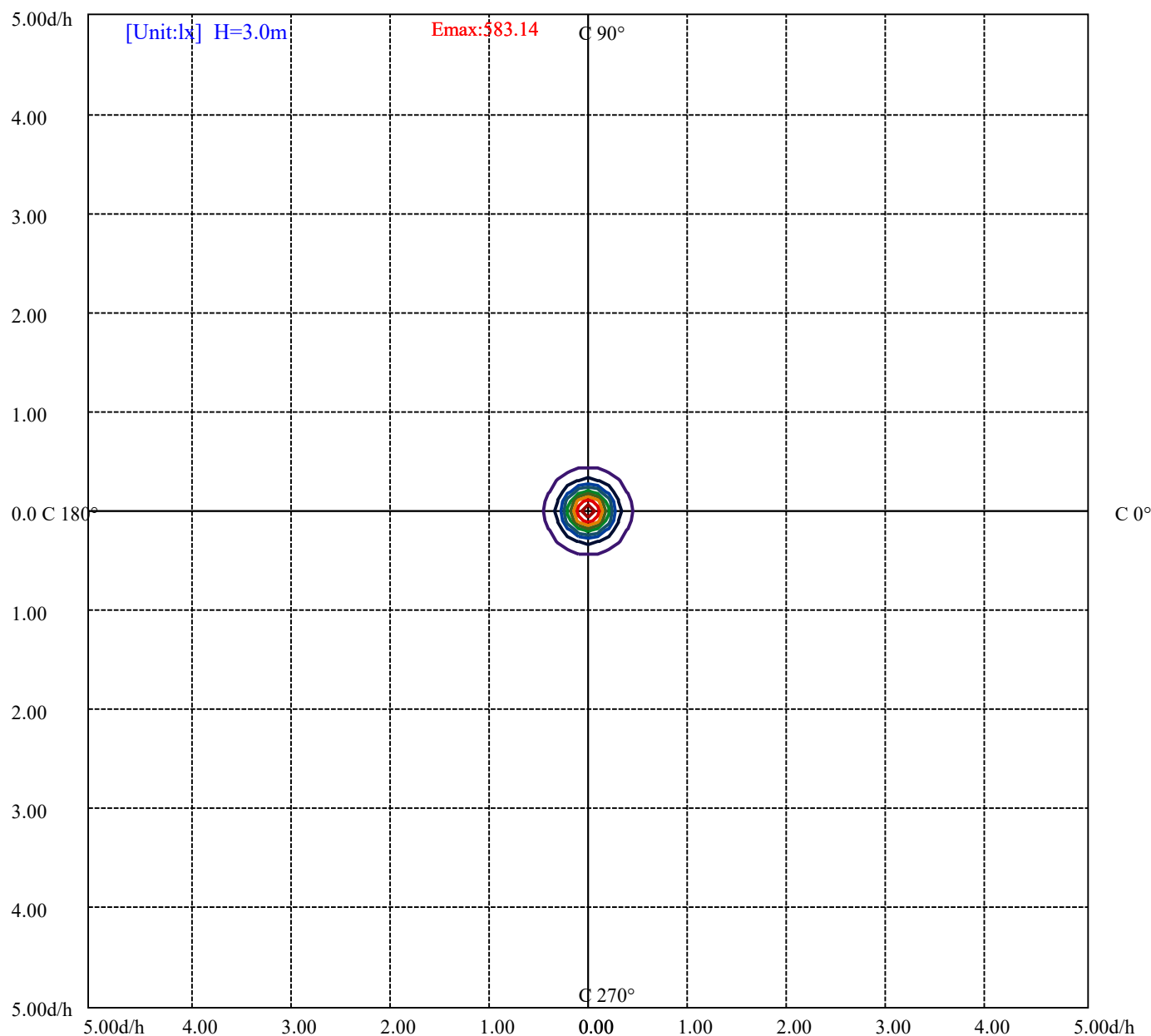
(60%Imax) 3148.95

(70%Imax) 3673.78

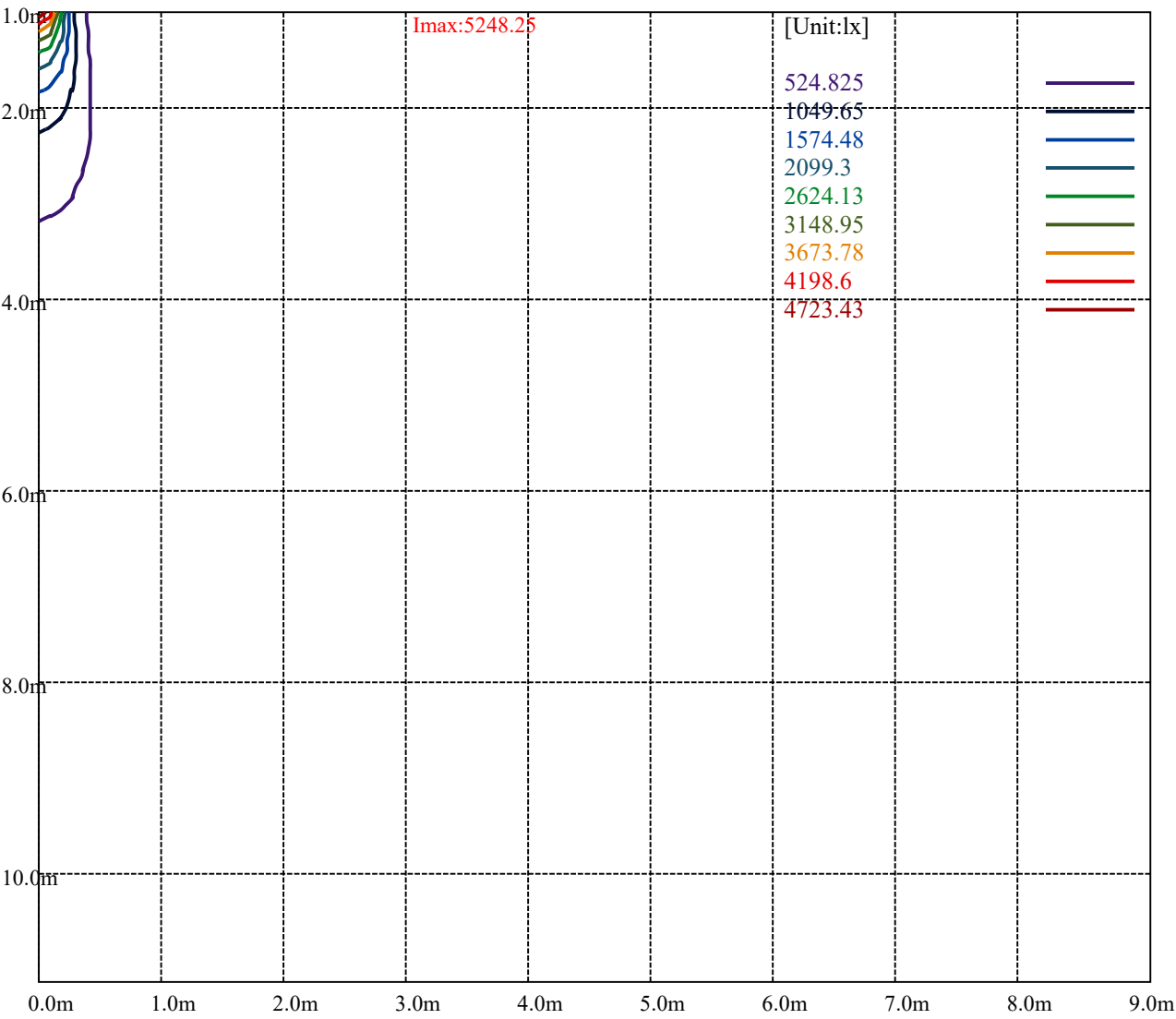
(80%Imax) 4198.6

(90%Imax) 4723.43





(10%Emax)	58.31377	—
(20%Emax)	116.6278	—
(30%Emax)	174.9411	—
(40%Emax)	233.2545	—
(50%Emax)	291.5689	—
(60%Emax)	349.8822	—
(70%Emax)	408.1967	—
(80%Emax)	466.51	—
(90%Emax)	524.8234	—



Luminance Table

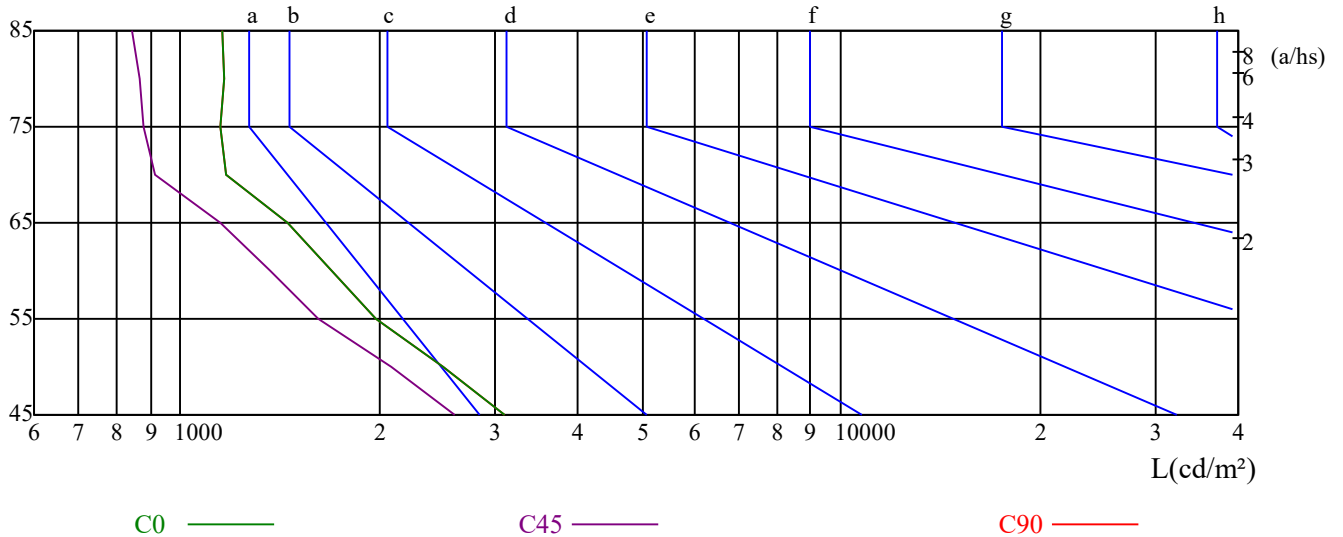
γ	45	50	55	60	65	70	75	80	85
C0	3087	2506	1979	1696	1449	1172	1150	1162	1158
C45	2607	2084	1621	1367	1148	912	878	868	843
C90	3087	2506	1979	1696	1449	1172	1150	1162	1158

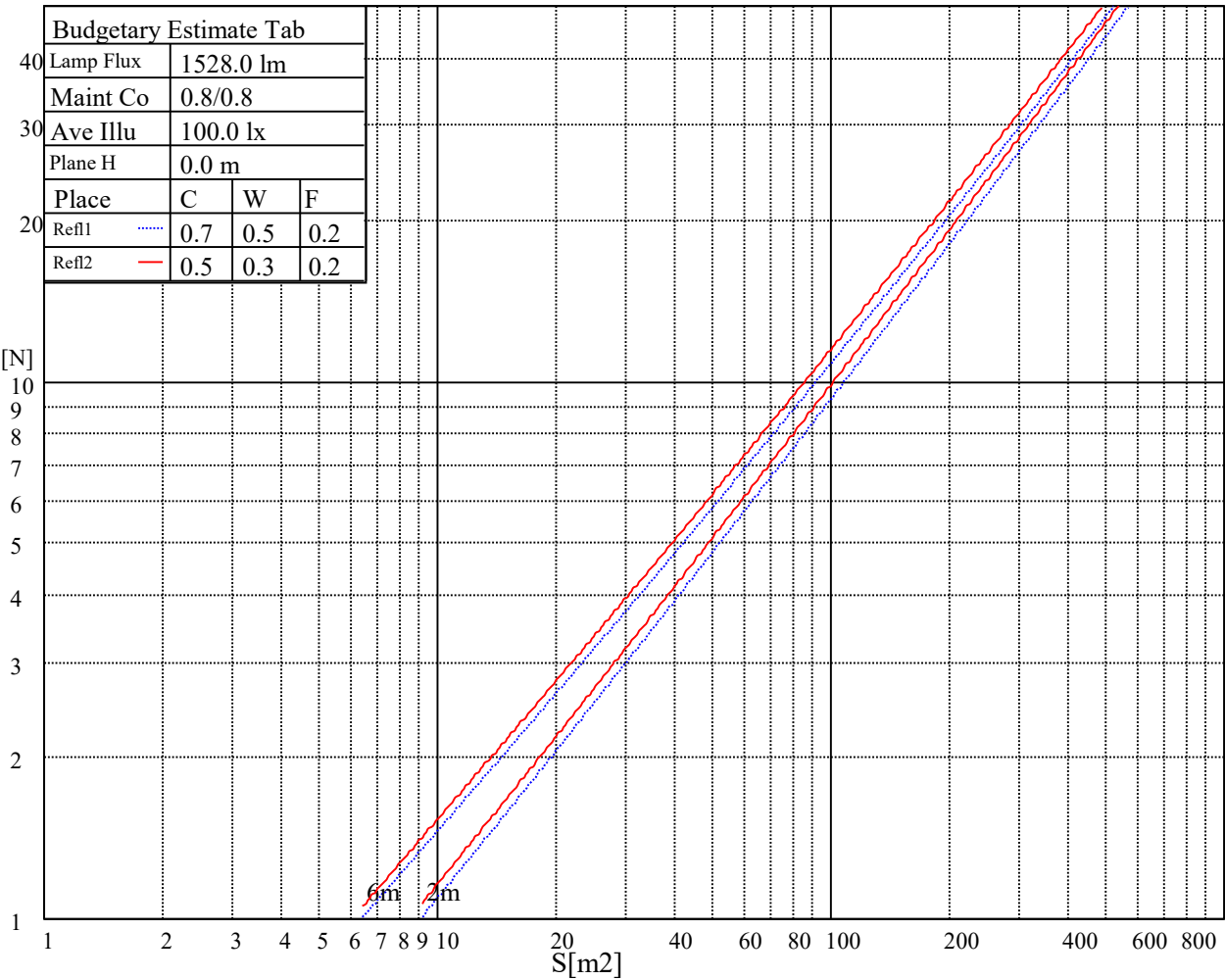
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
3934	3934	3934	4583	4583	4583	11746	11746	11746

Glare Table

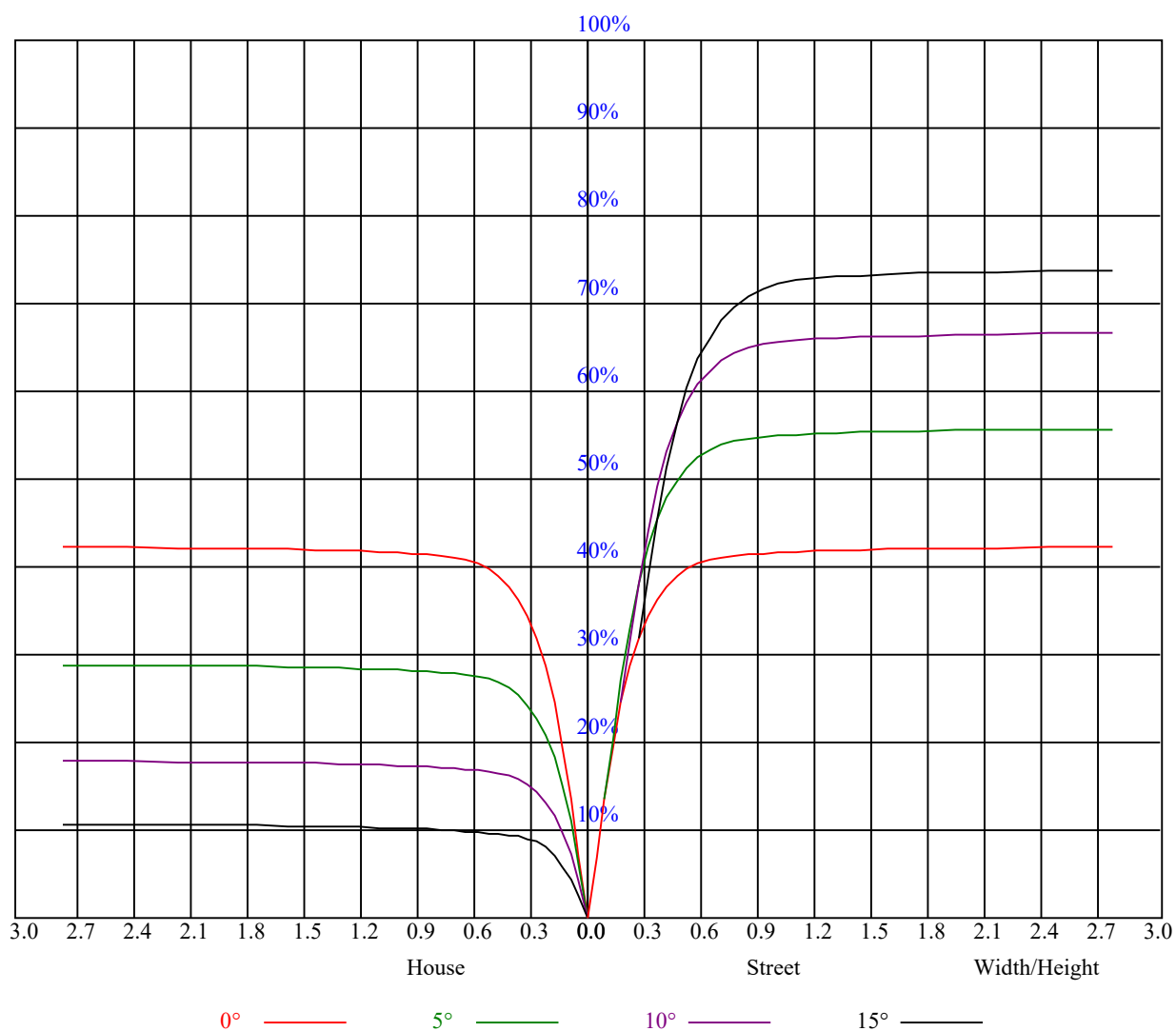
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	≤ 300				
1.5	B		2000	1000	500	≤ 300			
1.85	C			2000	1000	500	≤ 300		
2.2	D				2000	1000	500	≤ 300	
2.55	E					2000	1000	500	≤ 300
		a	b	c	d	e	f	g	h

Luminance Limiting Curve

 $\gamma(^{\circ})$ 



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	1.01	1.01	1.01	0.96	0.96	0.96	0.92	0.92	0.92	0.88	0.88	0.88	0.87
1	0.95	0.92	0.90	0.93	0.91	0.89	0.89	0.87	0.86	0.86	0.85	0.83	0.83	0.82	0.81	0.79
2	0.90	0.87	0.84	0.89	0.86	0.83	0.86	0.83	0.81	0.83	0.81	0.79	0.81	0.79	0.78	0.76
3	0.86	0.82	0.79	0.85	0.81	0.79	0.83	0.80	0.77	0.81	0.78	0.76	0.79	0.77	0.75	0.74
4	0.83	0.79	0.76	0.82	0.78	0.75	0.80	0.77	0.74	0.78	0.76	0.74	0.77	0.75	0.73	0.72
5	0.80	0.76	0.73	0.79	0.75	0.72	0.77	0.74	0.72	0.76	0.73	0.71	0.75	0.73	0.71	0.70
6	0.77	0.73	0.70	0.76	0.73	0.70	0.75	0.72	0.70	0.74	0.71	0.69	0.73	0.71	0.69	0.68
7	0.75	0.71	0.68	0.74	0.70	0.68	0.73	0.70	0.67	0.72	0.69	0.67	0.71	0.69	0.67	0.66
8	0.72	0.69	0.66	0.72	0.68	0.66	0.71	0.68	0.66	0.70	0.68	0.65	0.70	0.67	0.65	0.64
9	0.70	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	5245.22	4956.73	3753.75	1965.51	1018.54	644.16	374.38	75.37	33.47		
45.0	5218.80	5044.27	3924.97	2287.04	1081.86	665.63	421.18	94.59	33.31		
90.0	5273.85	4905.53	3575.36	1856.50	945.37	621.42	346.08	51.04	32.10		
135.0	5255.13	4959.48	3681.62	1919.27	968.44	630.95	360.62	52.58	31.88		
180.0	5245.22	4608.22	2958.18	1093.37	808.23	551.06	224.91	40.41	29.90		
225.0	5218.80	4508.57	2817.79	1065.12	768.64	514.78	197.27	37.99	29.01		
270.0	5273.85	4655.57	3354.04	1600.49	845.67	556.07	285.19	41.13	29.95		
315.0	5255.13	4576.84	3056.73	1534.42	814.06	553.92	261.96	39.48	29.07		
360.0	5245.22	4956.73	3753.75	1965.51	1018.54	644.16	374.38	75.37	33.47		
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0		
0.0	26.43	21.75	16.41	13.27	11.29	8.48	7.82	7.16	6.72		
45.0	27.20	22.30	16.90	13.54	11.78	8.53	7.93	7.38	6.83		
90.0	25.88	20.81	15.42	13.10	11.12	8.09	7.49	6.88	6.55		
135.0	25.71	20.54	15.91	13.10	11.07	8.09	7.49	6.99	6.55		
180.0	24.11	19.16	14.87	12.55	9.52	8.09	7.38	7.05	6.28		
225.0	23.40	18.50	14.87	12.61	9.36	8.20	7.65	7.43	6.50		
270.0	24.50	19.21	15.31	12.94	10.68	8.09	7.43	7.05	6.39		
315.0	23.95	18.83	14.87	12.44	10.30	8.04	7.54	7.27	6.61		
360.0	26.43	21.75	16.41	13.27	11.29	8.48	7.82	7.16	6.72		
C/γ(°)	90.0										
0.0	5.56										
45.0	5.73										
90.0	5.51										
135.0	5.45										
180.0	5.45										
225.0	5.56										
270.0	5.51										
315.0	5.45										
360.0	5.56										