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Nata

LumCAT: 2-1795-N
Luminaire: 92.70.131.00
Report No: NATA0100
Test No: GC2020010624
LampCAT: LUMINUS CXM-14-AC40
Lamp flux(lm): 2579.0
Number of Lamps: 1
Length(mm): 0
Phm Type: C

Voltage(V): 34.3300
Current(A): 0.6000
Power (W): 20.6000
PF: 0.0000
Ballast type: DC
Width(mm): 0
Height(mm): 0

Photometric Results

Lumens(lm): 2098.67
Efficiency(%): 81.38%
Lumens(lm)/Power(W): 101.88
Central intensity(cd): 4004.438
Maximum intensity(cd): 4004.438
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=41.7
[C90/270]Total=41.7
Field angle(10%Imax): [C0/180]Total=65.5
[C90/270]Total=65.5
Maximum s/h(1/2): C0_180=0.68 C90_270=0.68
Maximum s/h(1/4): C0_180=0.65 C90_270=0.65
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 81.38%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 96.954%

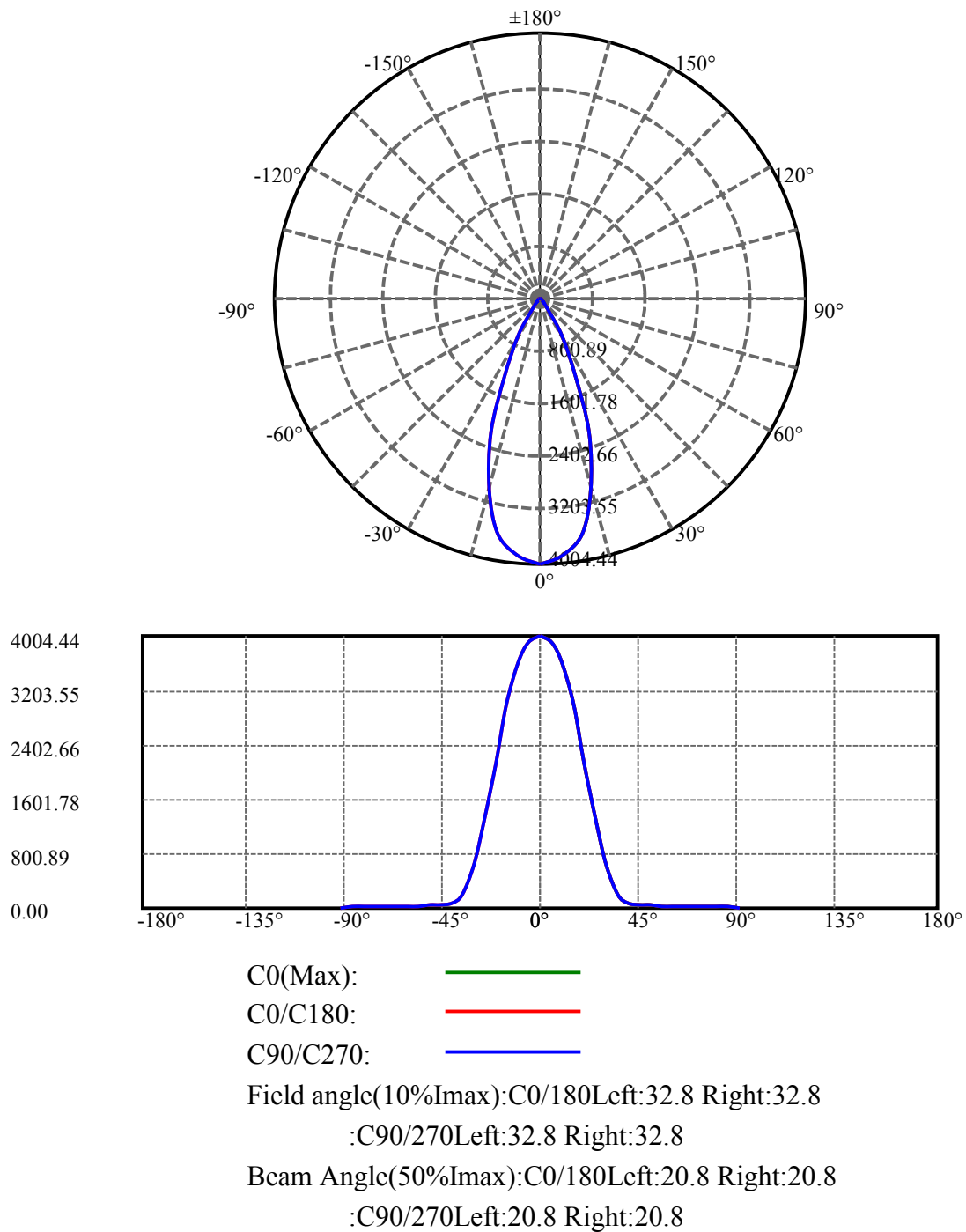
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	4004.438	0.000	0	.000%	.000%
5.0	3898.406	94.476	94.476	3.663%	4.502%
10.0	3609.352	268.576	363.052	10.414%	17.299%
15.0	2993.977	391.705	754.757	15.188%	35.964%
20.0	2142.773	423.340	1178.098	16.415%	56.136%
25.0	1296.436	360.710	1538.807	13.986%	73.323%
30.0	644.815	245.667	1784.474	9.526%	85.029%
35.0	202.774	124.813	1909.288	4.840%	90.976%
40.0	82.596	47.612	1956.9	1.846%	93.245%
45.0	54.169	25.323	1982.223	.982%	94.452%
50.0	43.066	19.648	2001.87	.762%	95.388%
55.0	36.113	17.216	2019.087	.668%	96.208%
60.0	31.605	15.653	2034.739	.607%	96.954%
65.0	27.281	14.315	2049.055	.555%	97.636%
70.0	23.604	12.884	2061.939	.500%	98.250%
75.0	20.222	11.455	2073.395	.444%	98.796%
80.0	17.009	9.962	2083.357	.386%	99.270%
85.0	14.027	8.433	2091.79	.327%	99.672%
90.0	11.088	6.877	2098.667	.267%	100.000%

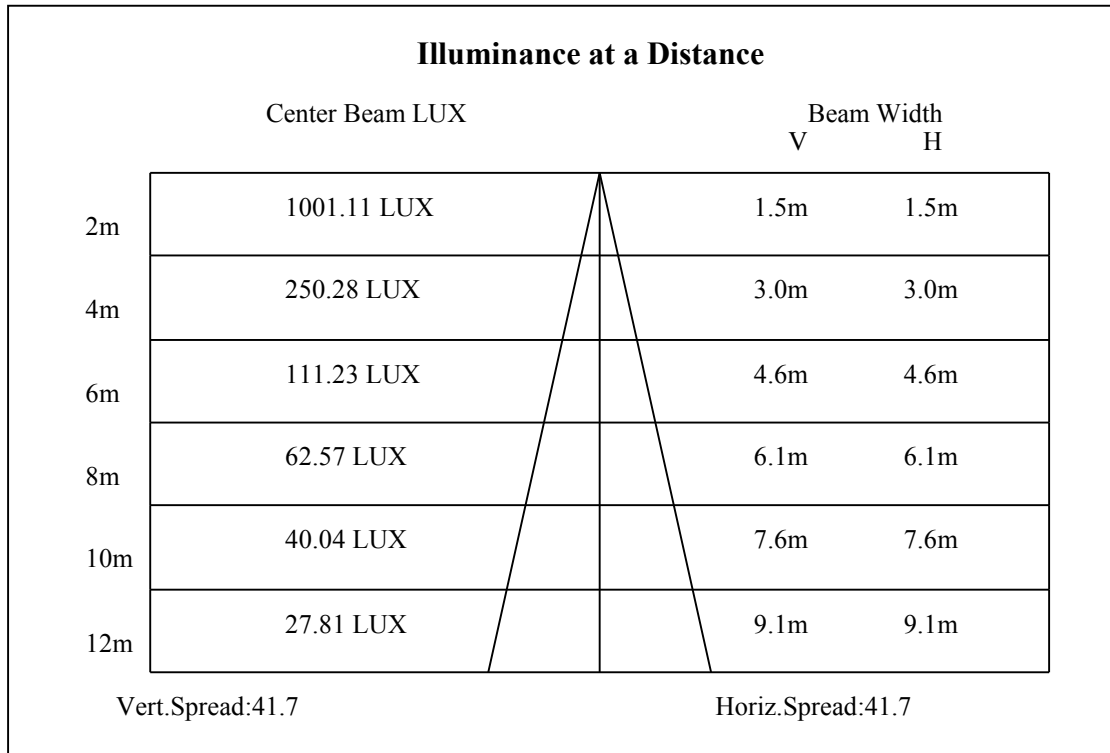
ZONAL LUMEN SUMMARY

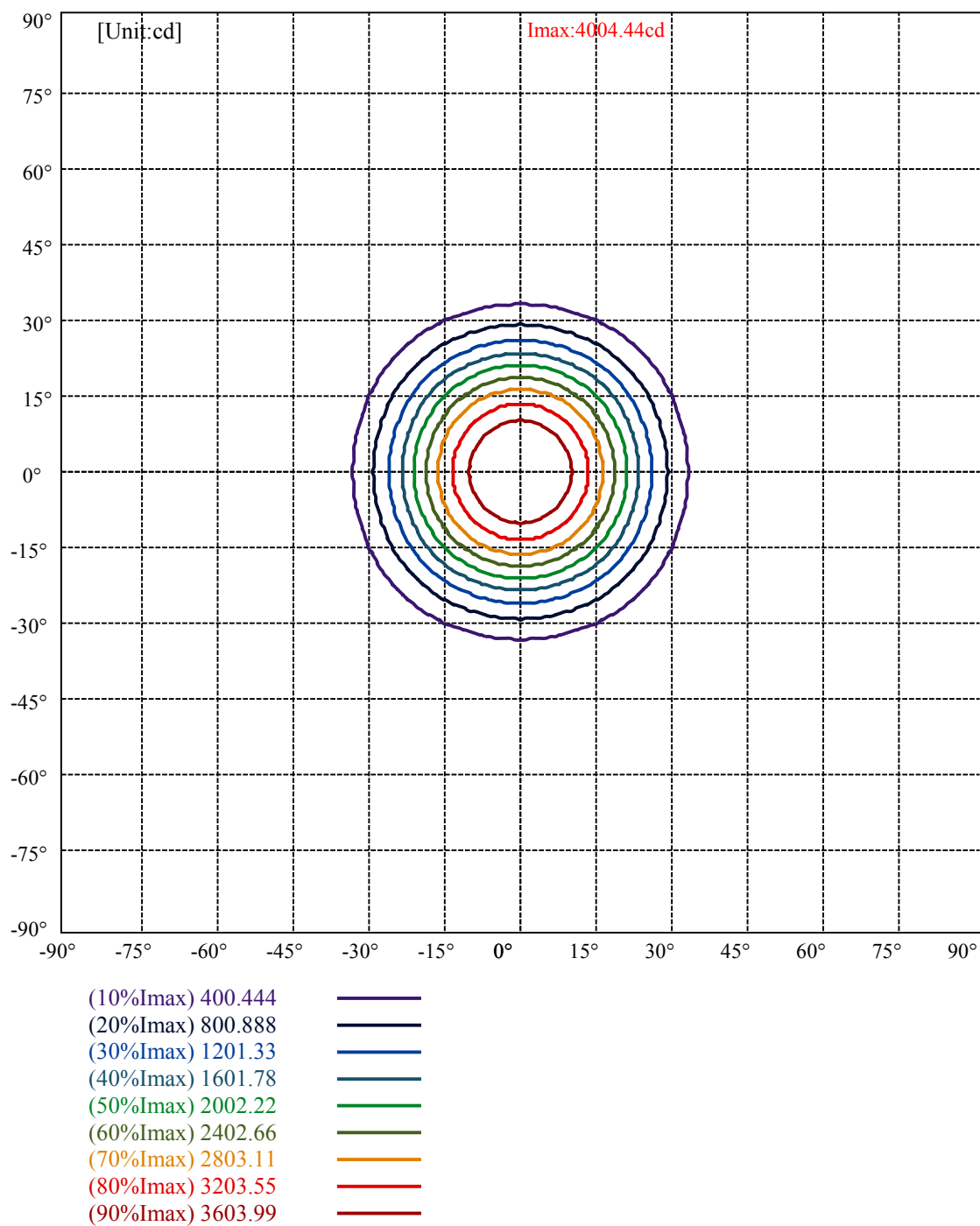
Zone	Lumens	%Lamp	%Fixt
0-30	1784.47	69.19%	85.03%
0-40	1956.90	75.88%	93.24%
0-60	2034.74	78.90%	96.95%
0-90	2091.79	81.11%	99.67%
0-120	2091.79	81.11%	99.67%
0-180	2098.67	81.38%	100.00%
60-90	72.70	2.82%	3.46%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-27.85	1678.93	65.10%	80.00%

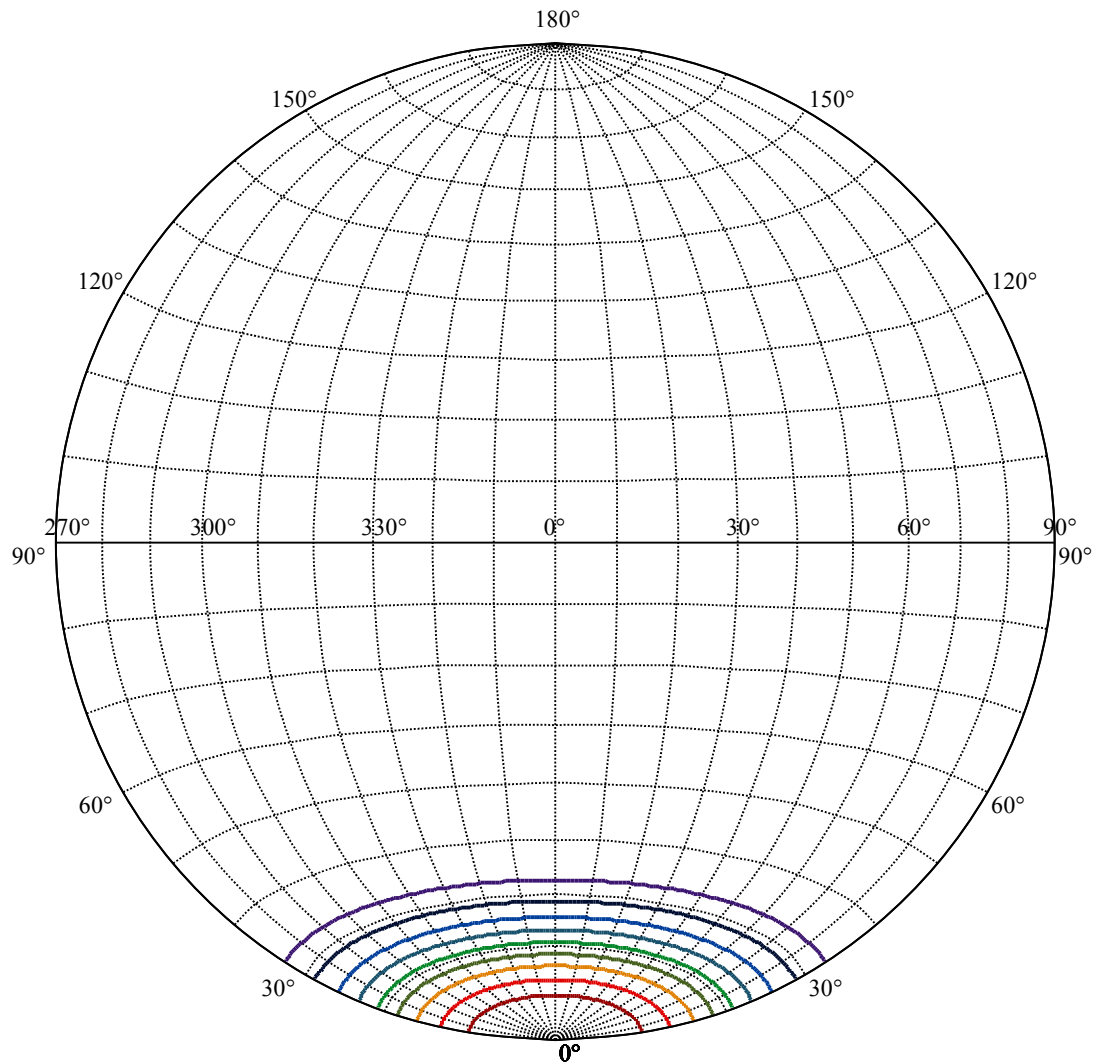
ZONAL LUMEN SUMMARY

0-10	363.05
10-20	815.05
20-30	606.38
30-40	172.43
40-50	44.97
50-60	32.87
60-70	27.20
70-80	21.42
80-90	8.43
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

I_{max}:4004.44

(10%I_{max}) 400.444

(20%I_{max}) 800.888

(30%I_{max}) 1201.33

(40%I_{max}) 1601.78

(50%I_{max}) 2002.22

(60%I_{max}) 2402.66

(70%I_{max}) 2803.11

(80%I_{max}) 3203.55

(90%I_{max}) 3603.99

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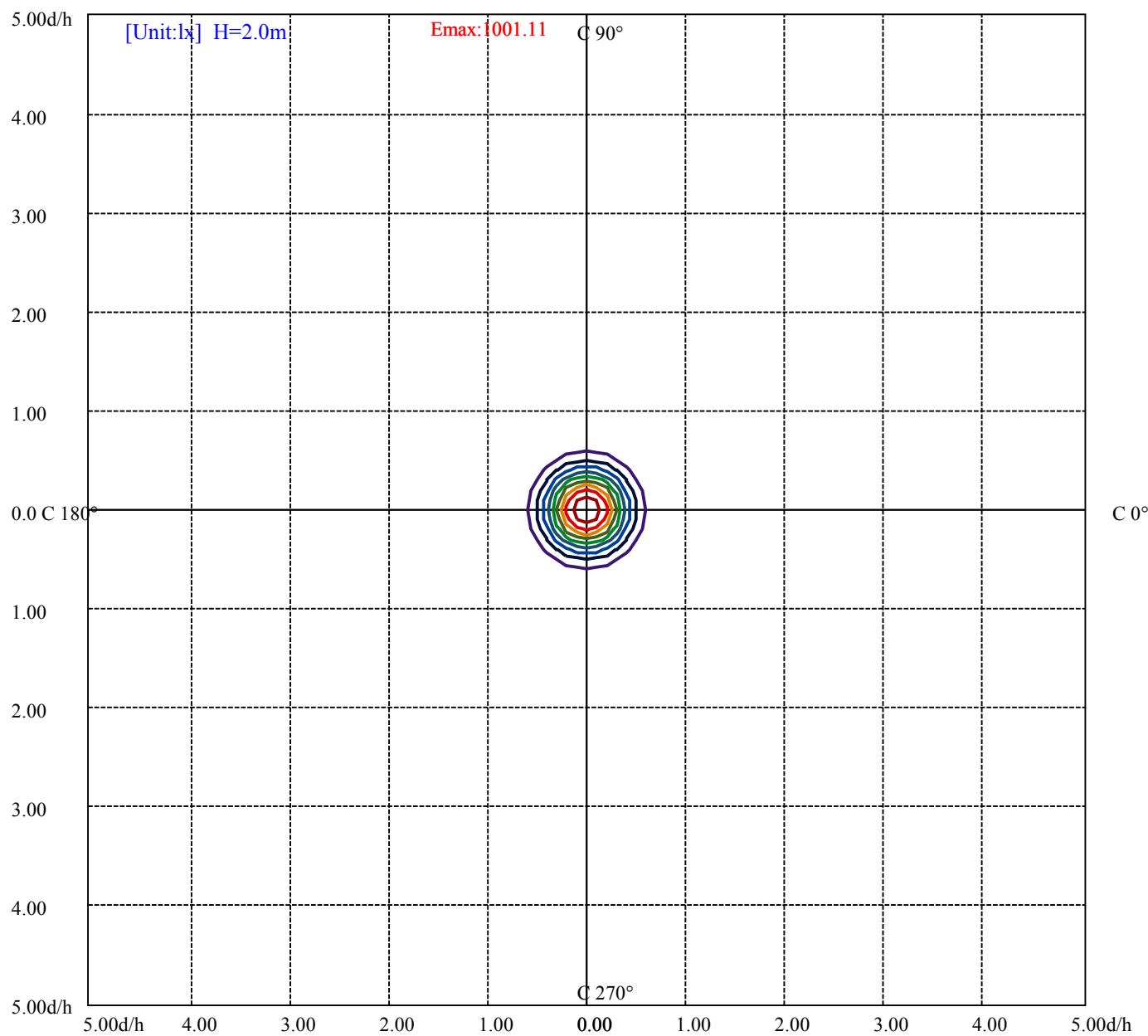
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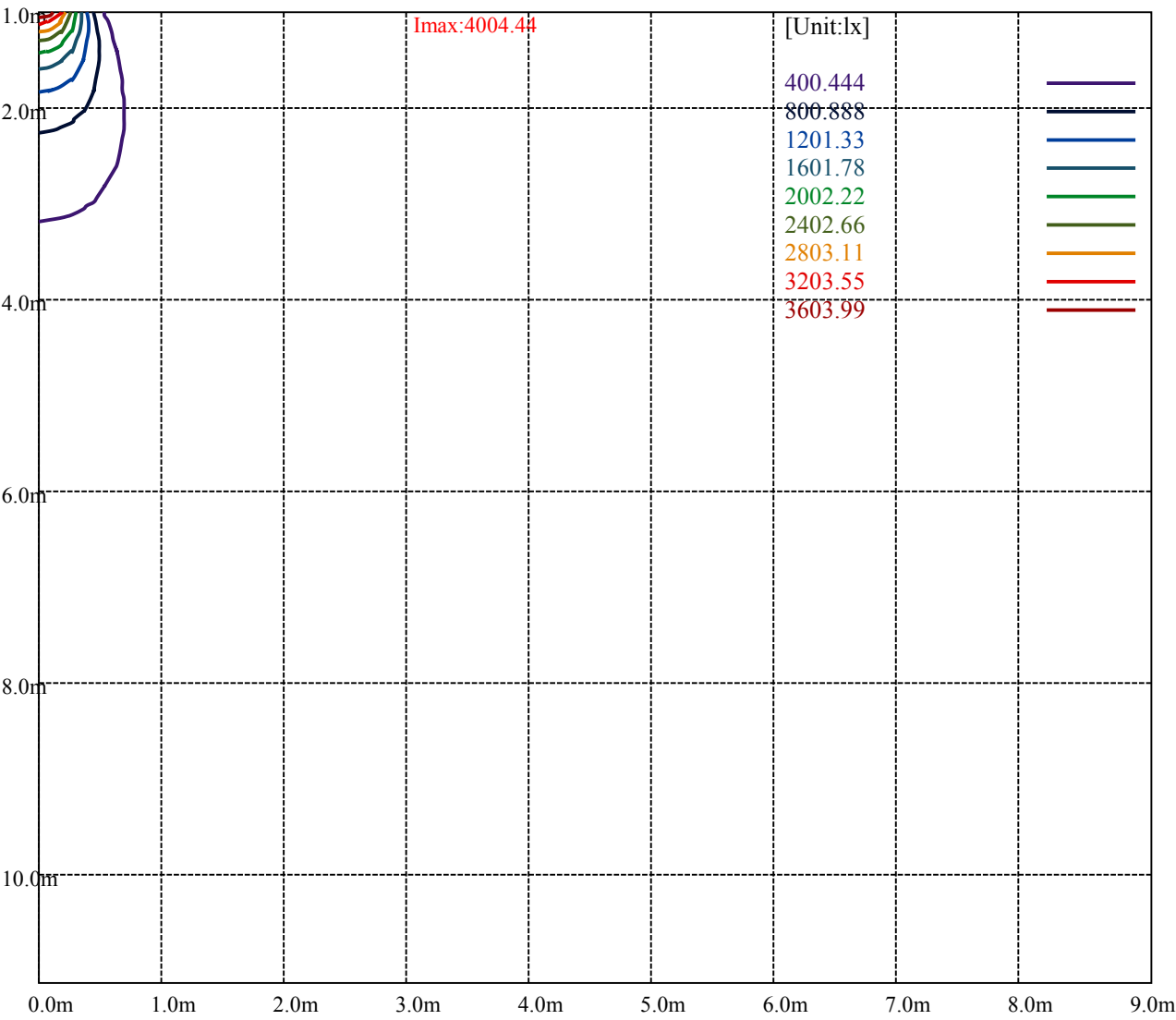
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(10%E _{max}) 100.1107	
(20%E _{max}) 200.2218	
(30%E _{max}) 300.3325	
(40%E _{max}) 400.4425	
(50%E _{max}) 500.555	
(60%E _{max}) 600.665	
(70%E _{max}) 700.775	
(80%E _{max}) 800.8875	
(90%E _{max}) 900.9975	



Luminance Table

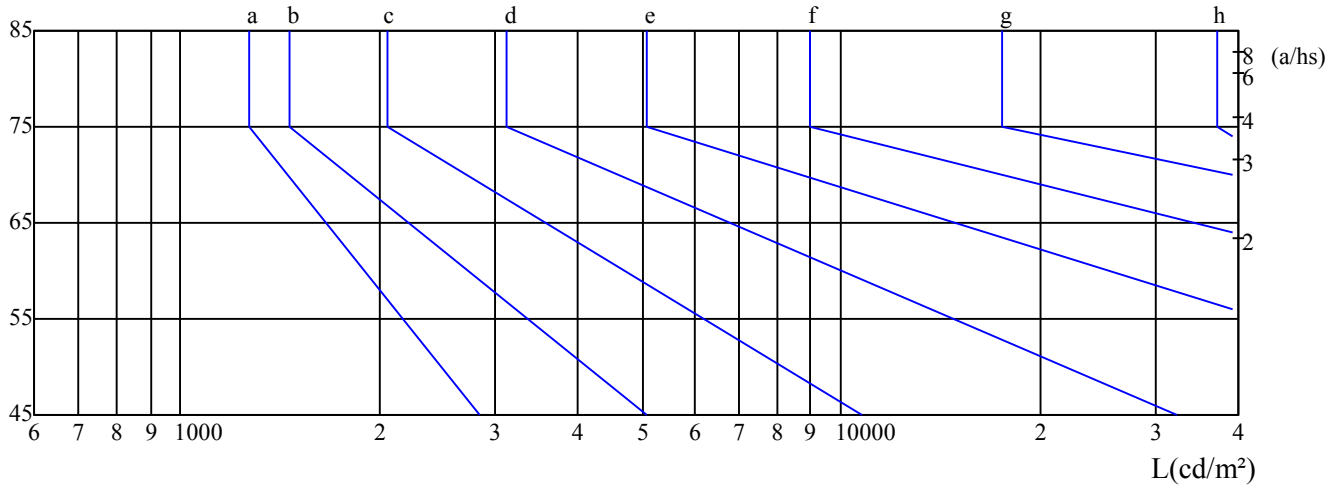
γ	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
0	0	0	0	0	0	0	0	0

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

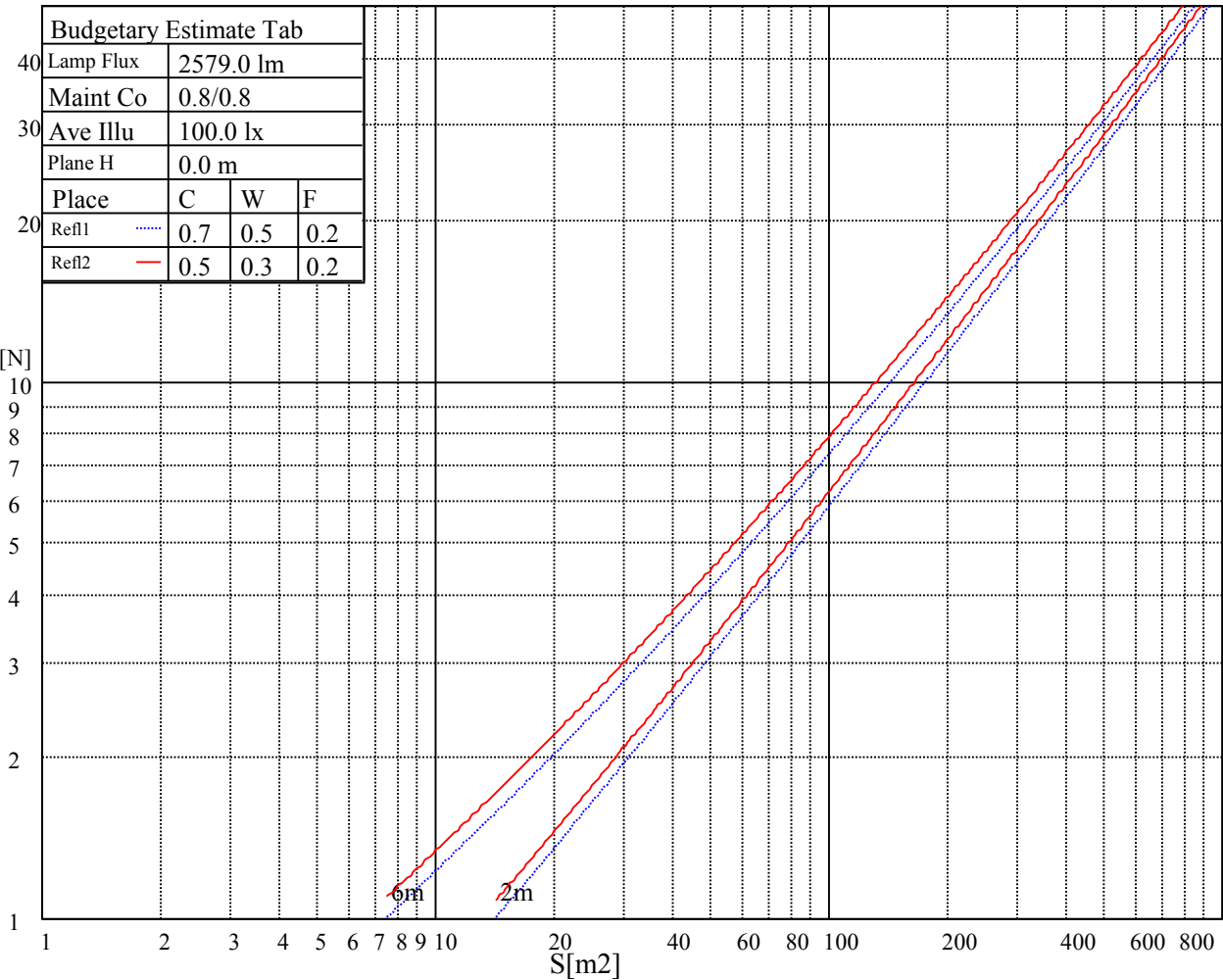
Luminance Limiting Curve

 $\gamma(^{\circ})$ 

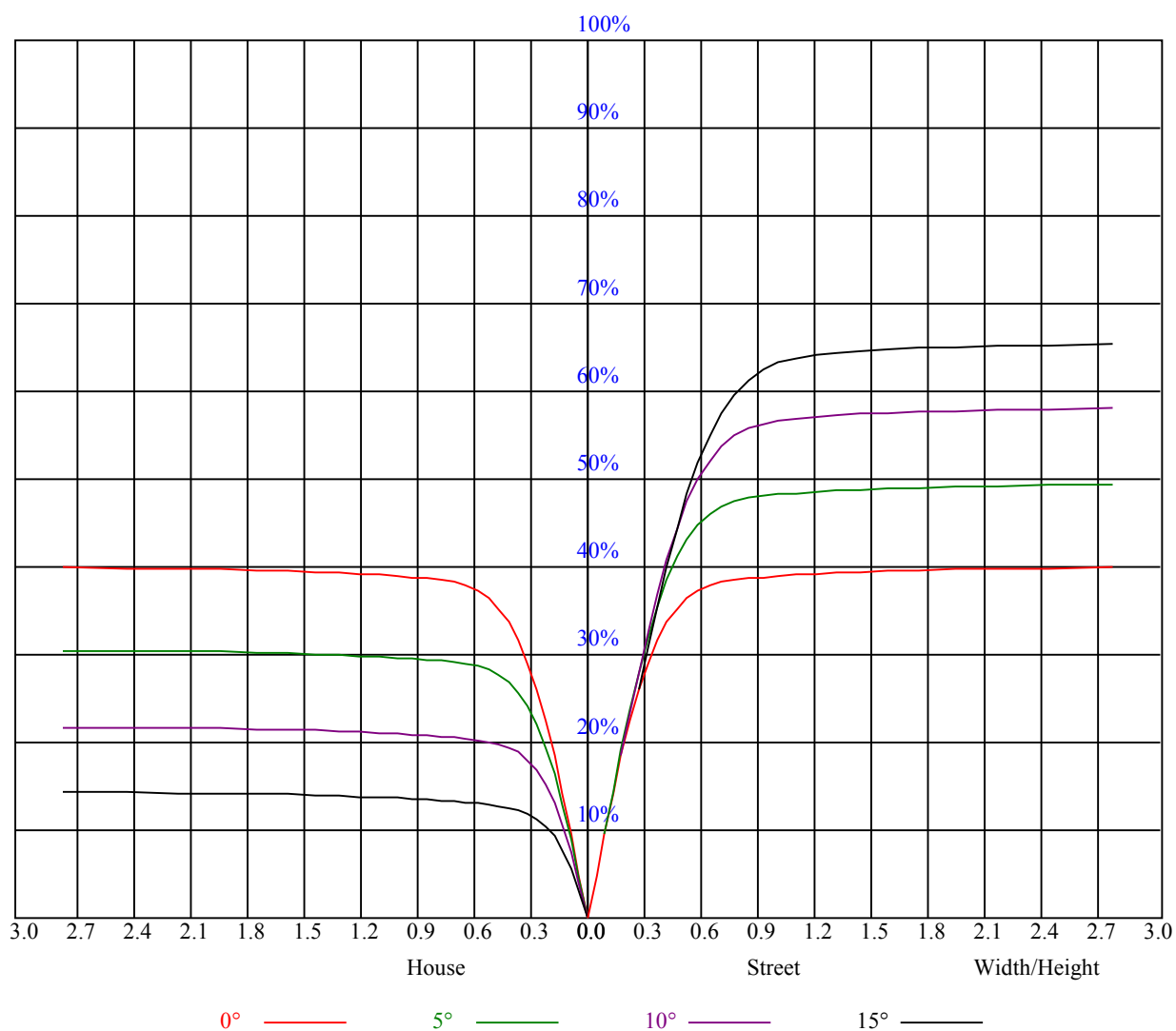
C0 ———

C45 ———

C90 ———



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	0.97	0.97	0.97	0.95	0.95	0.95	0.90	0.90	0.90	0.87	0.87	0.87	0.83	0.83	0.83	0.81
1	0.90	0.88	0.86	0.88	0.87	0.85	0.85	0.84	0.82	0.82	0.81	0.80	0.79	0.78	0.78	0.76
2	0.85	0.81	0.79	0.83	0.80	0.78	0.81	0.78	0.76	0.78	0.76	0.75	0.76	0.74	0.73	0.72
3	0.80	0.76	0.73	0.78	0.75	0.72	0.76	0.73	0.71	0.74	0.72	0.70	0.73	0.71	0.69	0.68
4	0.75	0.71	0.68	0.74	0.71	0.68	0.73	0.69	0.67	0.71	0.68	0.66	0.70	0.67	0.65	0.64
5	0.71	0.67	0.64	0.71	0.67	0.64	0.69	0.66	0.63	0.68	0.65	0.63	0.67	0.64	0.62	0.61
6	0.68	0.63	0.60	0.67	0.63	0.60	0.66	0.62	0.60	0.65	0.62	0.59	0.64	0.61	0.59	0.58
7	0.65	0.60	0.57	0.64	0.60	0.57	0.63	0.59	0.57	0.62	0.59	0.56	0.61	0.58	0.56	0.55
8	0.62	0.57	0.54	0.61	0.57	0.54	0.60	0.57	0.54	0.60	0.56	0.54	0.59	0.56	0.54	0.53
9	0.59	0.55	0.52	0.59	0.55	0.52	0.58	0.54	0.52	0.57	0.54	0.51	0.57	0.54	0.51	0.50
10	0.57	0.52	0.50	0.56	0.52	0.50	0.56	0.52	0.49	0.55	0.52	0.49	0.54	0.51	0.49	0.48



Nata 2-1795-N

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	4002.75	3875.63	3539.25	2806.88	2038.50	1206.00	541.69	156.26	79.31
45.0	4008.94	3866.06	3500.44	2849.06	1942.88	1112.06	550.13	136.69	70.71
90.0	4002.75	3822.19	3461.63	2727.00	1869.75	1098.28	490.16	140.74	71.83
135.0	4003.31	3931.31	3696.75	3188.81	2288.81	1486.13	764.44	295.31	93.54
180.0	4002.75	3944.25	3715.88	3148.88	2340.00	1330.88	733.84	237.66	91.13
225.0	4008.94	3937.50	3728.25	3195.56	2359.13	1532.25	772.59	220.61	89.10
270.0	4002.75	3947.63	3691.13	3195.00	2311.31	1501.88	765.56	286.88	91.41
315.0	4003.31	3862.69	3541.50	2840.63	1991.81	1104.02	540.11	148.05	73.74
360.0	4002.75	3875.63	3539.25	2806.88	2038.50	1206.00	541.69	156.26	79.31
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	56.36	46.41	40.28	36.62	33.02	30.32	28.13	26.33	23.40
45.0	50.12	39.49	32.91	28.80	24.64	20.81	17.72	14.68	11.81
90.0	51.58	41.96	35.55	31.28	26.78	22.67	18.79	14.18	11.42
135.0	57.15	44.33	36.73	31.33	26.83	23.18	19.24	15.92	12.77
180.0	57.09	45.73	37.86	33.13	28.18	24.47	21.15	18.11	15.19
225.0	54.34	42.30	35.16	30.43	26.10	22.44	18.90	16.09	13.11
270.0	55.69	43.48	36.23	31.61	27.23	23.46	19.69	15.86	12.15
315.0	51.02	40.84	34.20	29.64	25.48	21.49	18.17	14.91	12.38
360.0	56.36	46.41	40.28	36.62	33.02	30.32	28.13	26.33	23.40
C/γ(°)	90.0								
0.0	13.84								
45.0	10.24								
90.0	10.18								
135.0	10.58								
180.0	12.15								
225.0	11.03								
270.0	10.24								
315.0	10.46								
360.0	13.84								