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Nata

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Client:

LumCAT: 3-2117-N

Luminaire: 92.70.135.00

Report No: nata-0100

Test No: GC2018052809

LampCAT: NICHIA NFDWJ130B-V3

Lamp flux(lm): 2340.9

Number of Lamps: 1

Length(mm): 74

Phm Type: C

Voltage(V): 36.3000

Current(A): 0.4900

Power (W): 17.7870

PF: 0.0000

Ballast type: DC

Width(mm): 74

Height(mm):0

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Photometric Results

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Lumens(lm): 1931.84, Efficiency(%): 82.53% , Luminous Efficacy(lm/W): 108.61

Central intensity(cd): 5000.772, Maximum intensity(cd): 5000.772

Angle of maximum intensity: C=0.0  $\gamma$ =0.0

Beam Angle(50%Imax): [C0/180]Total=35.6

[C90/270]Total=35.6

Field angle(10%Imax): [C0/180]Total=58.8

[C90/270]Total=58.8

Maximum s/h(1/2): C0\_180=0.60 C90\_270=0.60

Maximum s/h(1/4): C0\_180=0.57 C90\_270=0.57

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 83.73%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in  $\pi$  solid angle : 96.935%

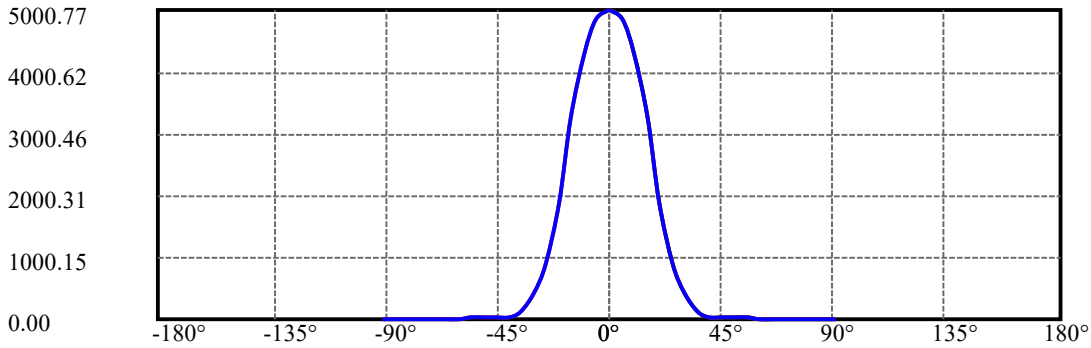
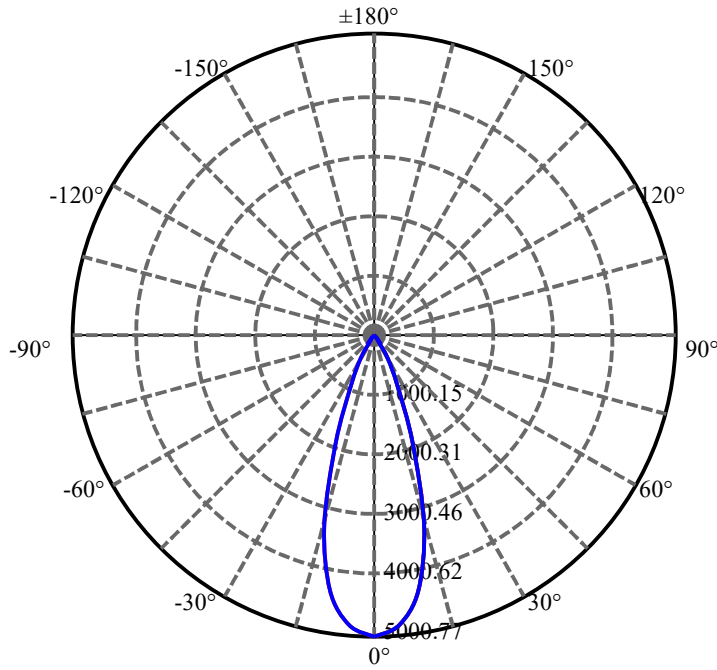
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	5000.773	29.906	29.906	1.278%	1.548%
5.0	4832.369	230.858	260.764	9.862%	13.498%
10.0	4292.541	408.577	669.341	17.454%	34.648%
15.0	3255.072	461.792	1131.133	19.727%	58.552%
20.0	1893.789	355.036	1486.169	15.167%	76.930%
25.0	911.004	211.037	1697.206	9.015%	87.855%
30.0	444.794	121.904	1819.11	5.208%	94.165%
35.0	109.569	34.448	1853.558	1.472%	95.948%
40.0	39.241	13.826	1867.385	.591%	96.664%
45.0	25.636	9.936	1877.321	.424%	97.178%
50.0	19.579	8.221	1885.542	.351%	97.604%
55.0	16.414	7.370	1892.912	.315%	97.985%
60.0	14.590	6.926	1899.838	.296%	98.344%
65.0	13.241	6.578	1906.416	.281%	98.684%
70.0	12.209	6.288	1912.704	.269%	99.010%
75.0	11.225	5.943	1918.647	.254%	99.317%
80.0	10.302	5.561	1924.209	.238%	99.605%
85.0	9.587	5.235	1929.443	.224%	99.876%
90.0	8.726	2.392	1931.835	.102%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1819.11	77.71%	94.16%
0-40	1867.38	79.77%	96.66%
0-60	1899.84	81.16%	98.34%
0-90	1929.44	82.42%	99.88%
0-120	1929.44	82.42%	99.88%
0-180	1931.84	82.53%	100.00%
60-90	36.53	1.56%	1.89%
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%
0-21.40	1545.47	66.02%	80.00%

ZONAL LUMEN SUMMARY

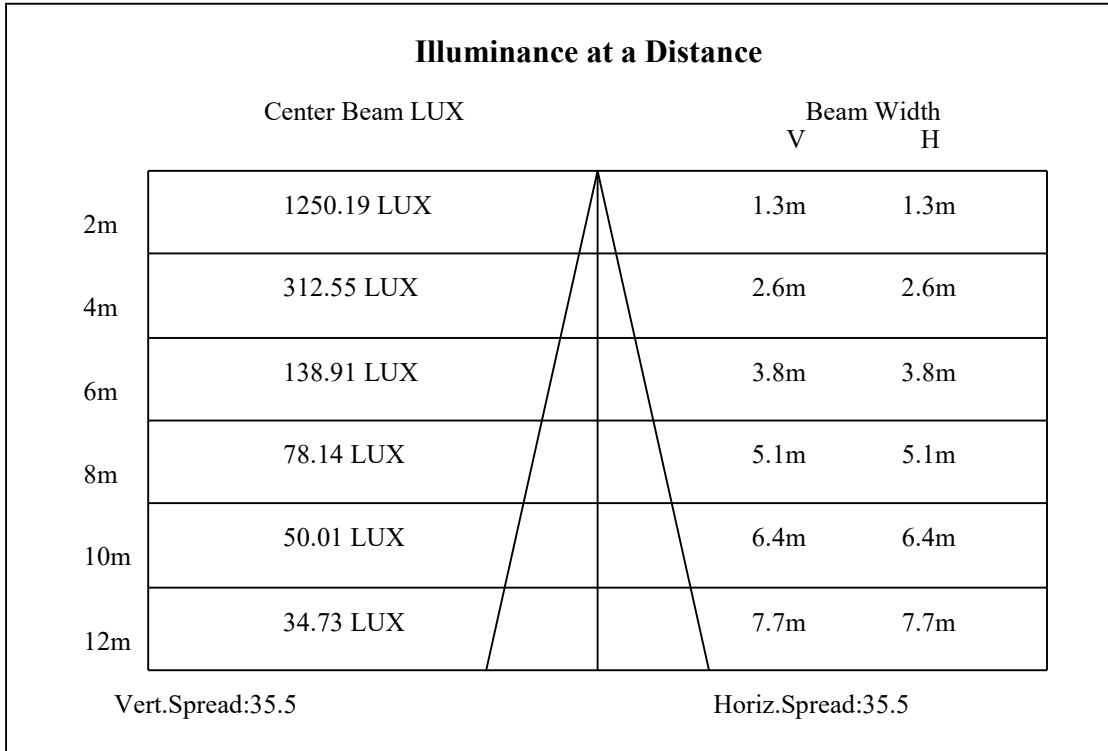
0-10	669.34
10-20	816.83
20-30	332.94
30-40	48.27
40-50	18.16
50-60	14.30
60-70	12.87
70-80	11.50
80-90	5.23
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

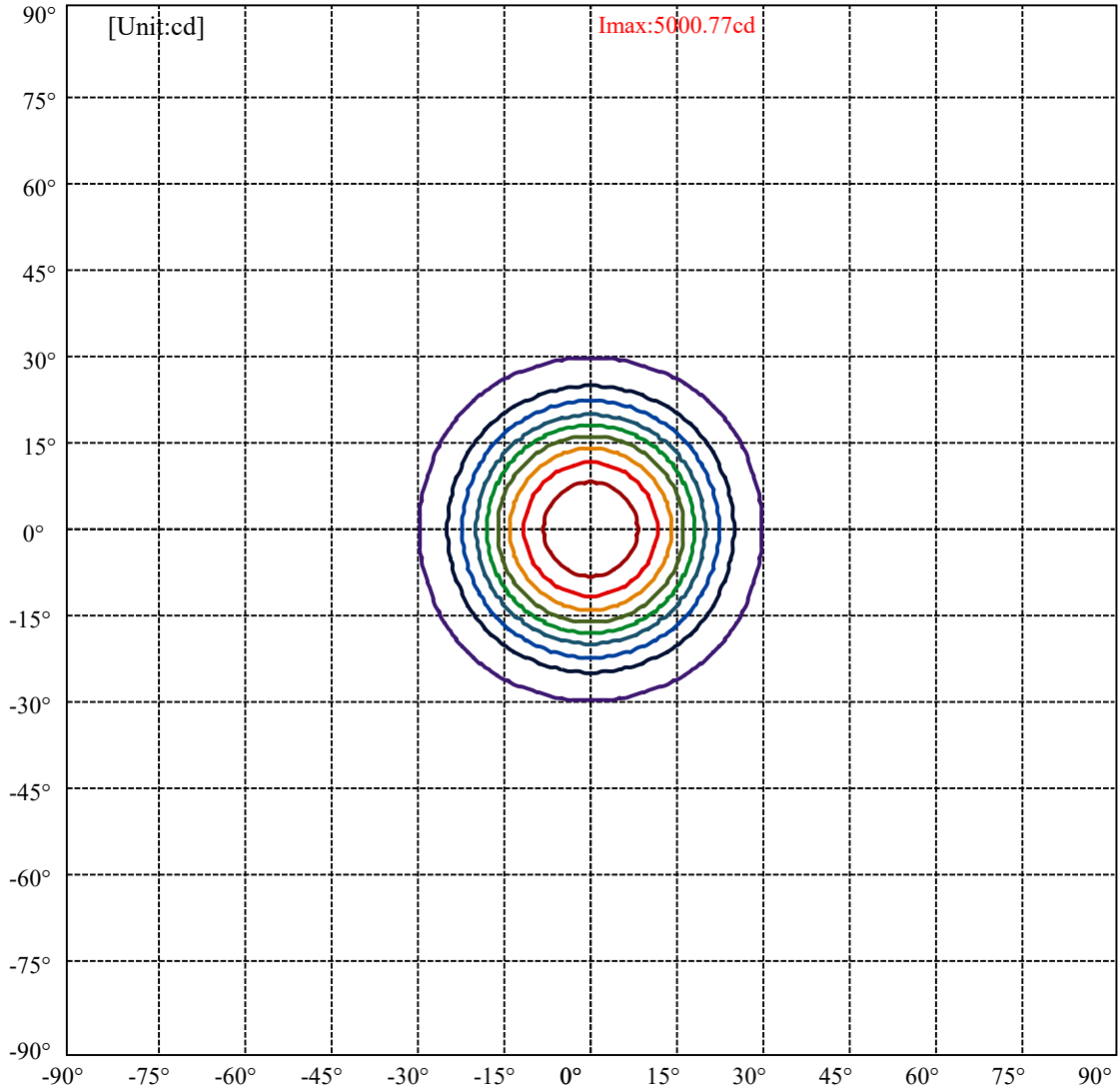


C0(Max): —————  
C0/C180: —————  
C90/C270: —————

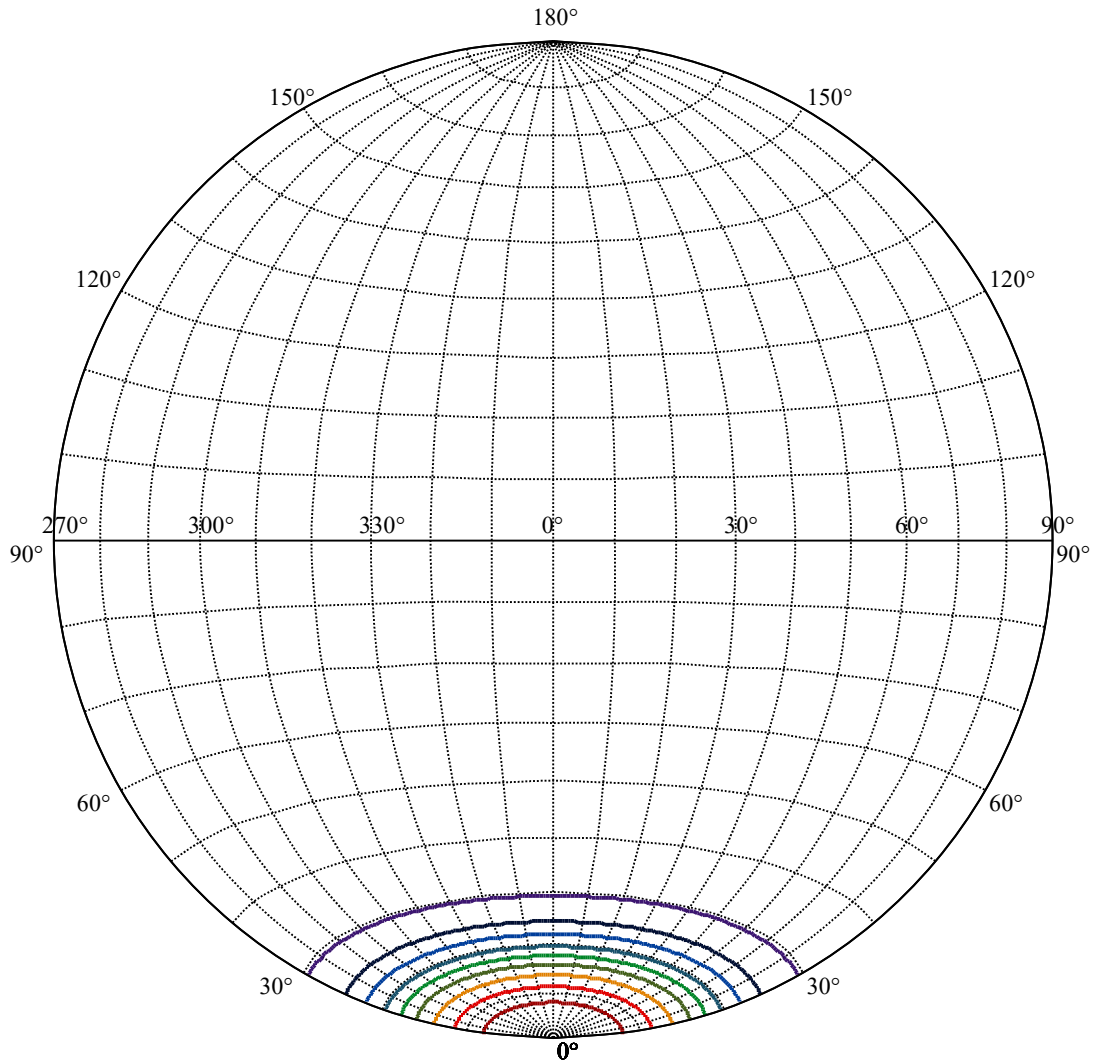
Field angle(10%Imax):C0/180Left:29.4 Right:29.4  
:C90/270Left:29.4 Right:29.4

Beam Angle(50%Imax):C0/180Left:17.8 Right:17.8  
:C90/270Left:17.8 Right:17.8





(10%Imax) 500.077	—
(20%Imax) 1000.15	—
(30%Imax) 1500.23	—
(40%Imax) 2000.31	—
(50%Imax) 2500.39	—
(60%Imax) 3000.46	—
(70%Imax) 3500.54	—
(80%Imax) 4000.62	—
(90%Imax) 4500.7	—



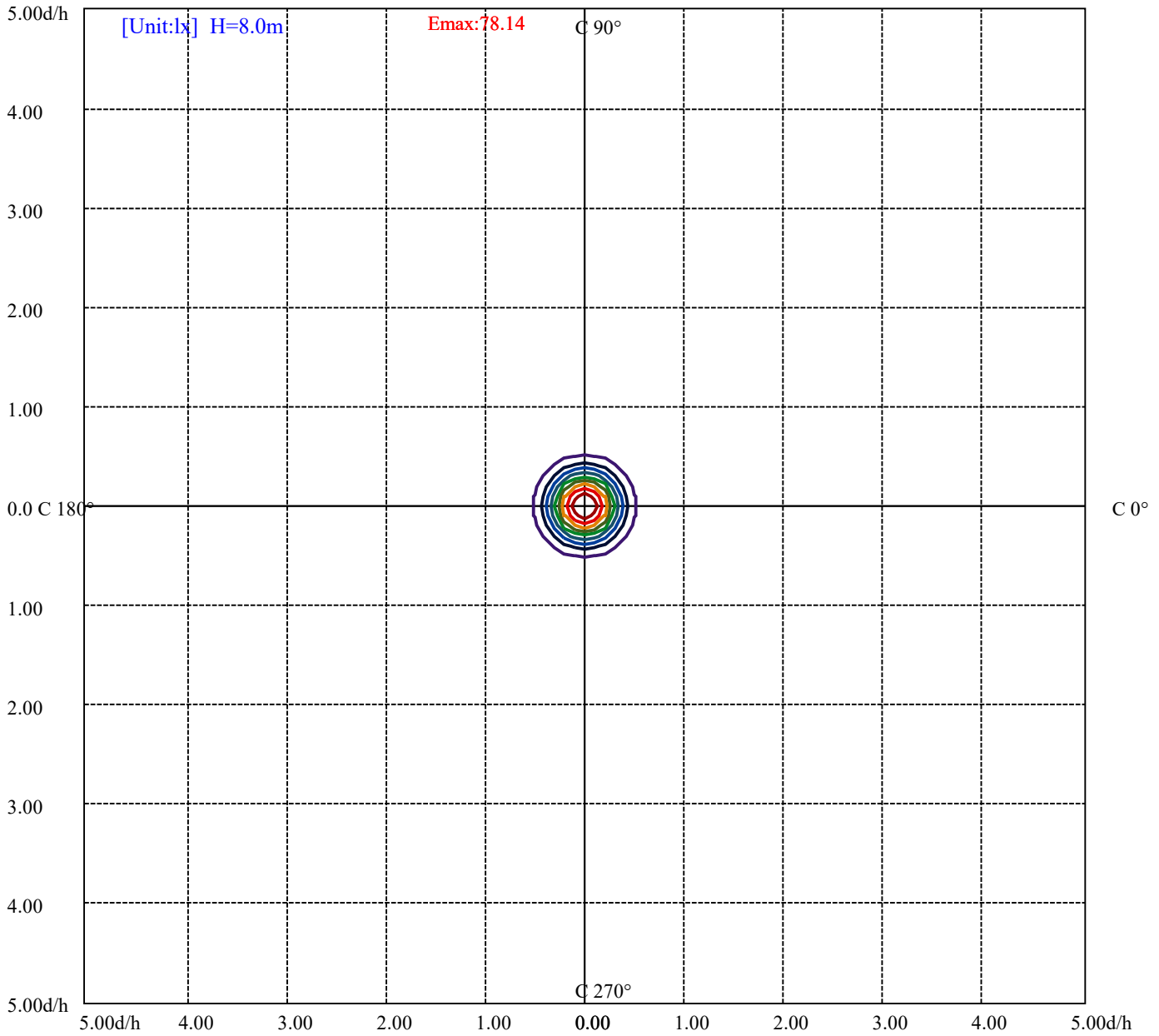
House

[Unit:cd]

Road

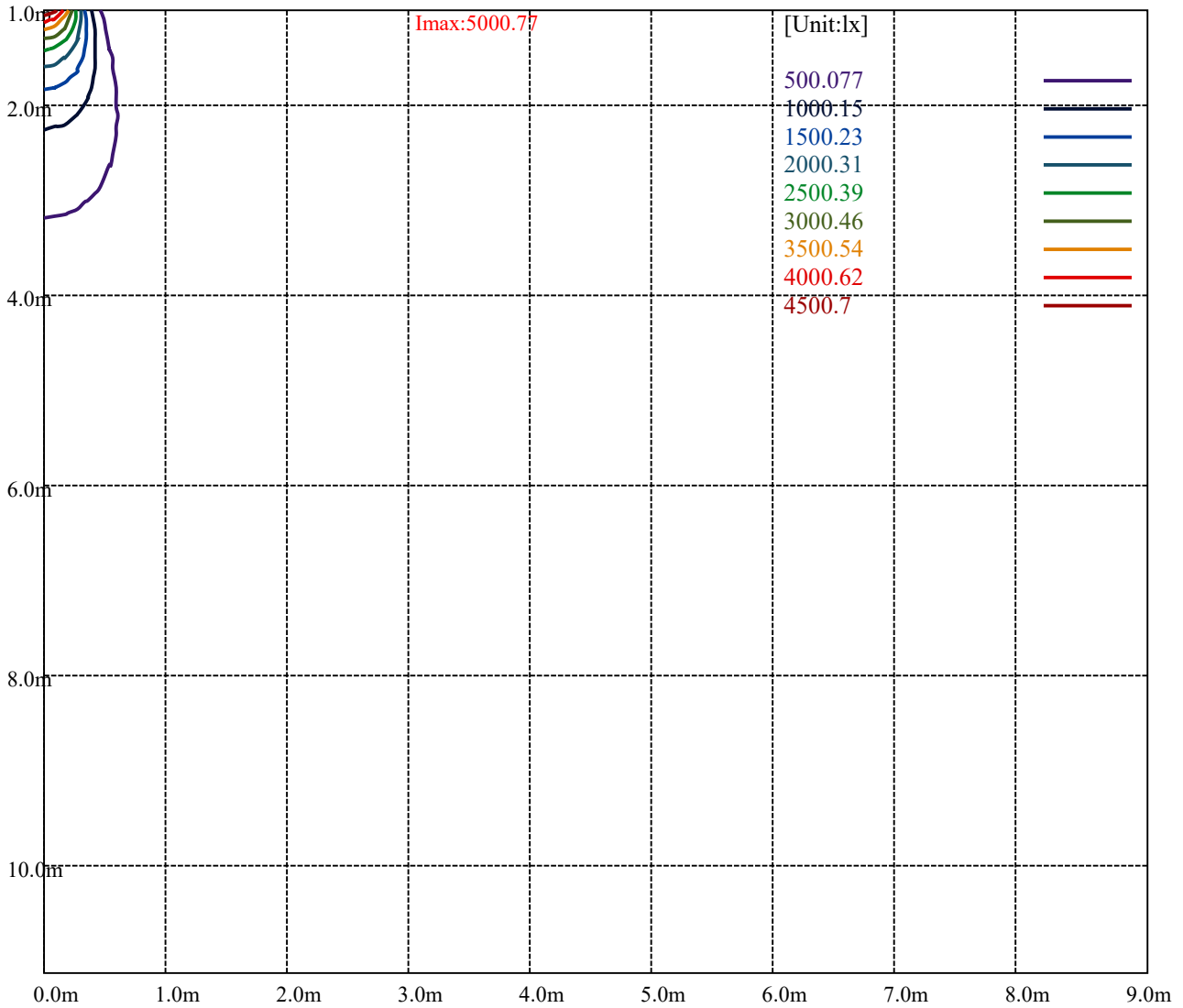
**Imax:5000.77**

(10%Imax) 500.077	—
(20%Imax) 1000.15	—
(30%Imax) 1500.23	—
(40%Imax) 2000.31	—
(50%Imax) 2500.39	—
(60%Imax) 3000.46	—
(70%Imax) 3500.54	—
(80%Imax) 4000.62	—
(90%Imax) 4500.7	—



- (10%Emax) 7.813703
- (20%Emax) 15.62734
- (30%Emax) 23.44109
- (40%Emax) 31.25484
- (50%Emax) 39.06844
- (60%Emax) 46.88219
- (70%Emax) 54.69594
- (80%Emax) 62.50953
- (90%Emax) 70.32328





Luminance Table

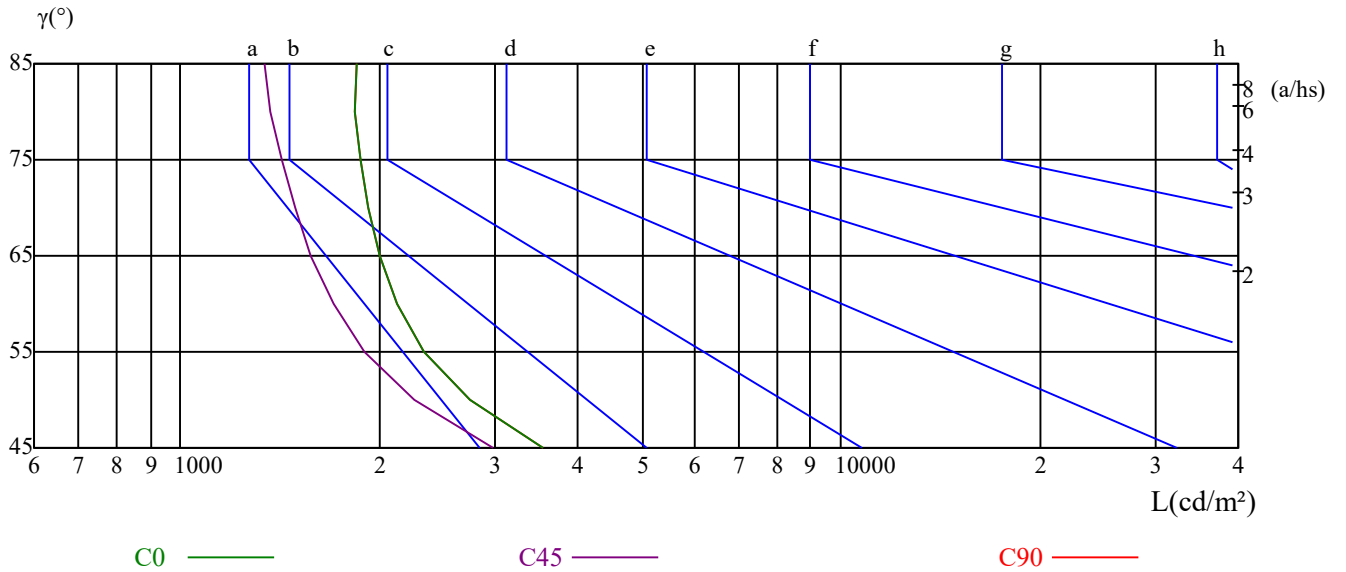
$\gamma$	45	50	55	60	65	70	75	80	85
C0	3550	2739	2338	2133	2004	1931	1873	1835	1845
C45	2978	2263	1903	1709	1579	1495	1423	1365	1341
C90	3550	2739	2338	2133	2004	1931	1873	1835	1845

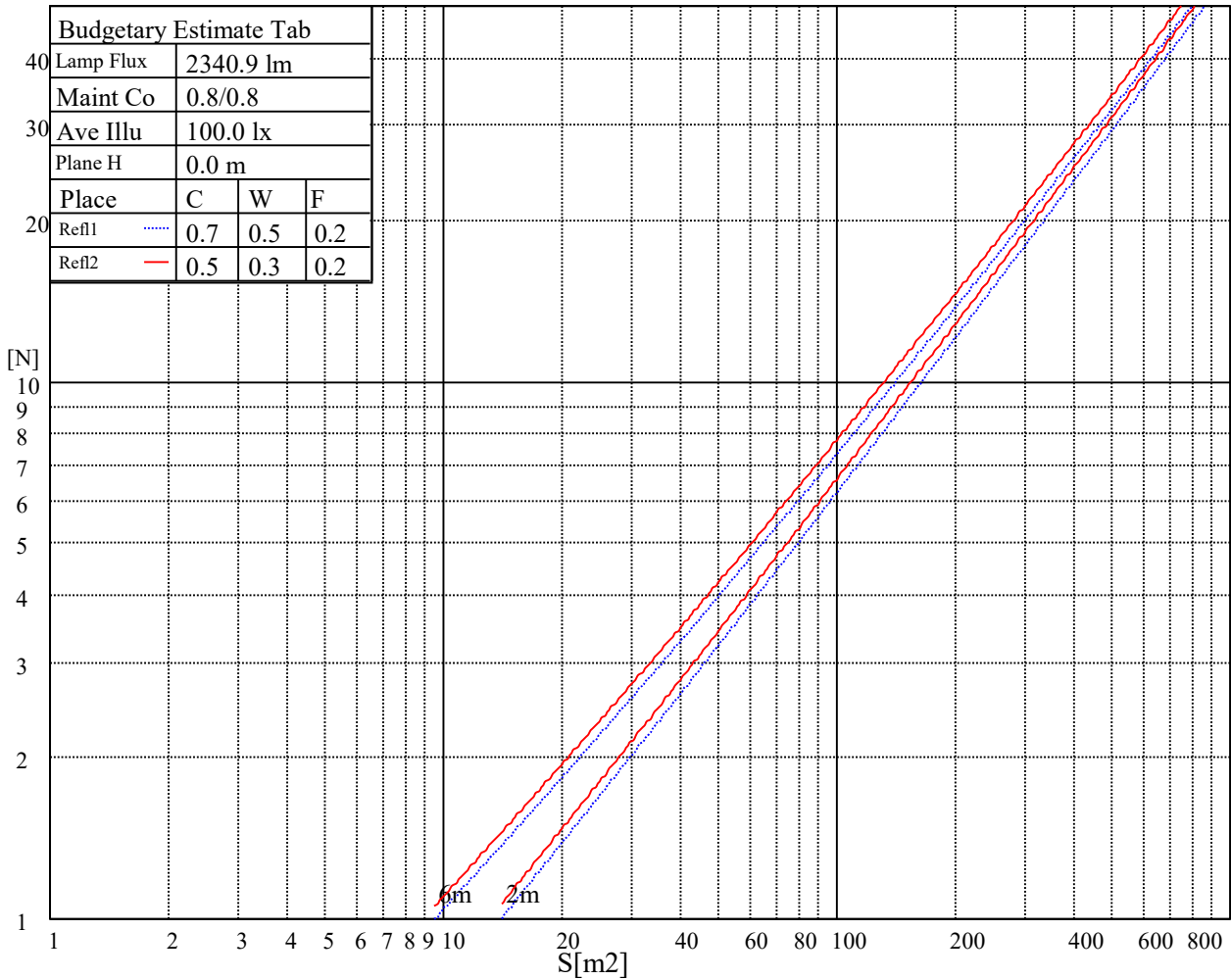
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
5722	5722	5722	7920	7920	7920	20087	20087	20087

Glare Table

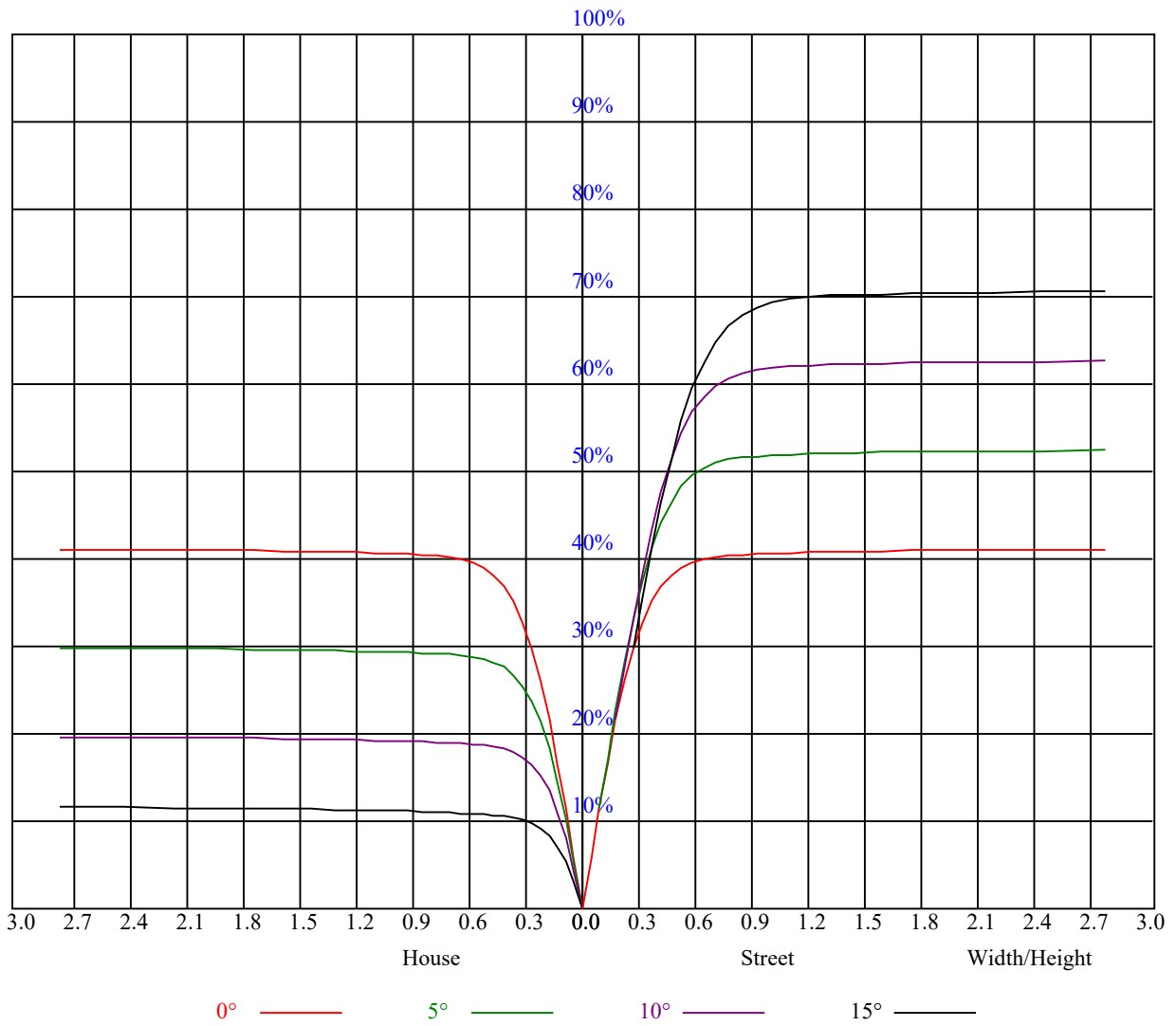
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

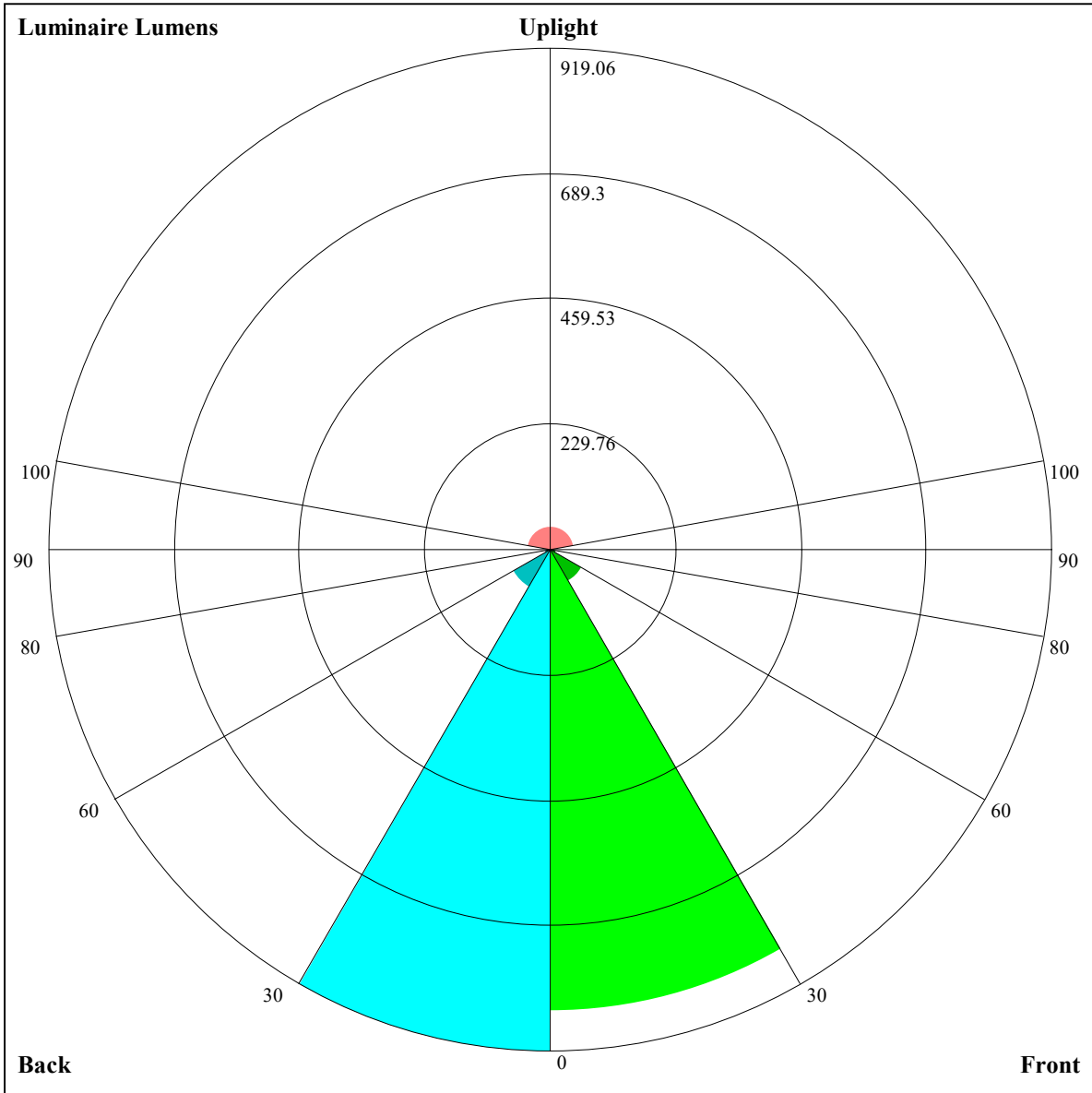
Luminance Limiting Curve





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





Luminaire Lumens:

FL=847.19,FM=66,FH=12.47,FVH=5.21

BL=919.06,BM=79.12,BH=12.72,BVH=5.25

UL=9.52,UH=45.31

BUG Rating:B2-U2-G0

Intensity data(cd)

C/ $\gamma$ (°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	5021.69	4843.31	4271.83	3175.65	1750.24	837.96	380.44	63.92	35.57
45.0	5015.64	4626.94	3895.79	2630.04	1262.44	666.73	278.03	46.36	29.51
90.0	4946.27	4523.43	3793.39	2517.18	1086.70	679.40	194.24	47.02	29.51
135.0	5019.49	4742.01	4218.97	3201.53	1964.41	907.33	417.33	67.39	37.44
180.0	5021.69	4847.17	4324.68	3340.82	2016.72	929.46	457.79	85.01	40.41
225.0	5015.64	5058.03	4656.12	3835.78	2476.44	1065.18	689.42	193.36	49.99
270.0	4946.27	5072.35	4761.83	3991.04	2702.72	1348.88	681.60	299.51	52.85
315.0	5019.49	4945.72	4417.73	3348.53	1890.64	853.10	459.50	74.00	38.65
360.0	5021.69	4843.31	4271.83	3175.65	1750.24	837.96	380.44	63.92	35.57
C/ $\gamma$ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	23.95	18.83	15.91	14.20	13.05	11.95	11.01	10.08	9.41
45.0	21.69	17.45	15.09	13.65	12.50	11.56	10.63	9.80	9.47
90.0	21.80	17.84	15.42	14.09	12.88	11.95	10.96	9.97	9.69
135.0	24.72	19.27	16.41	14.59	13.27	12.28	11.29	10.30	9.52
180.0	26.04	19.71	16.52	14.65	13.21	12.17	11.18	10.19	9.36
225.0	30.50	21.36	17.51	15.20	13.60	12.55	11.51	10.63	9.74
270.0	31.49	22.57	18.06	15.80	14.15	12.99	11.95	11.07	9.97
315.0	24.89	19.60	16.41	14.53	13.27	12.22	11.29	10.41	9.52
360.0	23.95	18.83	15.91	14.20	13.05	11.95	11.01	10.08	9.41
C/ $\gamma$ (°)	90.0								
0.0	8.53								
45.0	8.59								
90.0	8.75								
135.0	8.75								
180.0	8.53								
225.0	8.86								
270.0	9.03								
315.0	8.75								
360.0	8.53								