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Nata

Client:

LumCAT: 2-1317-E

Luminaire: 99.02.73.171

Report No:

Voltage(V): 34.2900

Test No: GC2019083005

Current(A): 0.3550

LampCAT: XICATO XOB LES 9.8MM

Power (W): 12.1700

Lamp flux(lm): 1120.0

PF: 0.0000

Number of Lamps: 1

Ballast type: DC

Length(mm): 35

Width(mm): 35

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 1002.97, Efficiency(%): 89.55% , Luminous Efficacy(lm/W): 82.41

Central intensity(cd): 2935.125, Maximum intensity(cd): 2935.125

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=25.6

[C90/270]Total=25.6

Field angle(10%Imax): [C0/180]Total=65.4

[C90/270]Total=65.4

Maximum s/h(1/2): C0_180=0.43 C90_270=0.43

Maximum s/h(1/4): C0_180=0.49 C90_270=0.49

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 89.55%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 98.104%

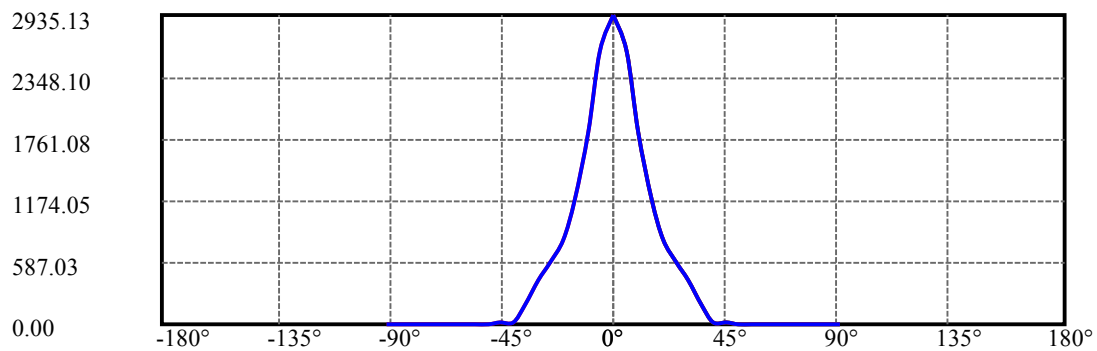
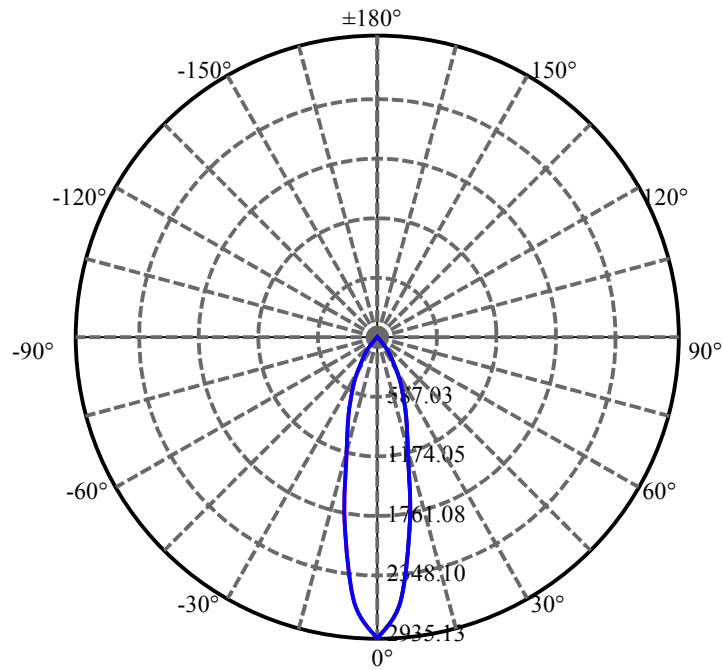
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	2935.125	0.000	0	.000%	.000%
5.0	2586.234	66.006	66.006	5.893%	6.581%
10.0	1831.570	158.039	224.045	14.111%	22.338%
15.0	1179.949	178.641	402.686	15.950%	40.149%
20.0	810.640	164.053	566.739	14.648%	56.506%
25.0	587.025	146.589	713.328	13.088%	71.122%
30.0	421.664	127.650	840.979	11.397%	83.849%
35.0	187.010	89.632	930.61	8.003%	92.786%
40.0	25.059	35.382	965.992	3.159%	96.313%
45.0	11.215	6.716	972.709	.600%	96.983%
50.0	9.007	4.086	976.795	.365%	97.390%
55.0	7.861	3.668	980.463	.327%	97.756%
60.0	7.228	3.488	983.95	.311%	98.104%
65.0	6.729	3.393	987.343	.303%	98.442%
70.0	6.398	3.324	990.667	.297%	98.773%
75.0	6.047	3.253	993.92	.290%	99.098%
80.0	5.836	3.180	997.1	.284%	99.415%
85.0	5.498	3.080	1000.18	.275%	99.722%
90.0	4.690	2.790	1002.969	.249%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	840.98	75.09%	83.85%
0-40	965.99	86.25%	96.31%
0-60	983.95	87.85%	98.10%
0-90	1000.18	89.30%	99.72%
0-120	1000.18	89.30%	99.72%
0-180	1002.97	89.55%	100.00%
60-90	19.72	1.76%	1.97%
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%
0-28.49	802.38	71.64%	80.00%

ZONAL LUMEN SUMMARY

0-10	224.05
10-20	342.69
20-30	274.24
30-40	125.01
40-50	10.80
50-60	7.16
60-70	6.72
70-80	6.43
80-90	3.08
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: —————

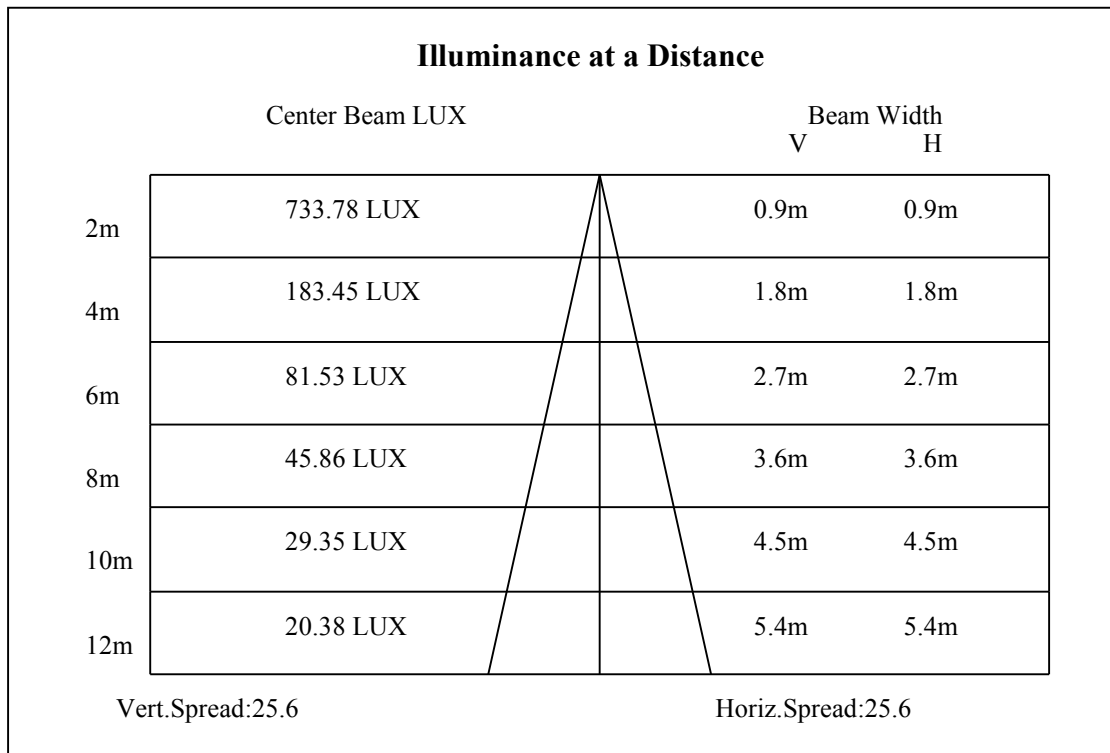
C90/C270: —————

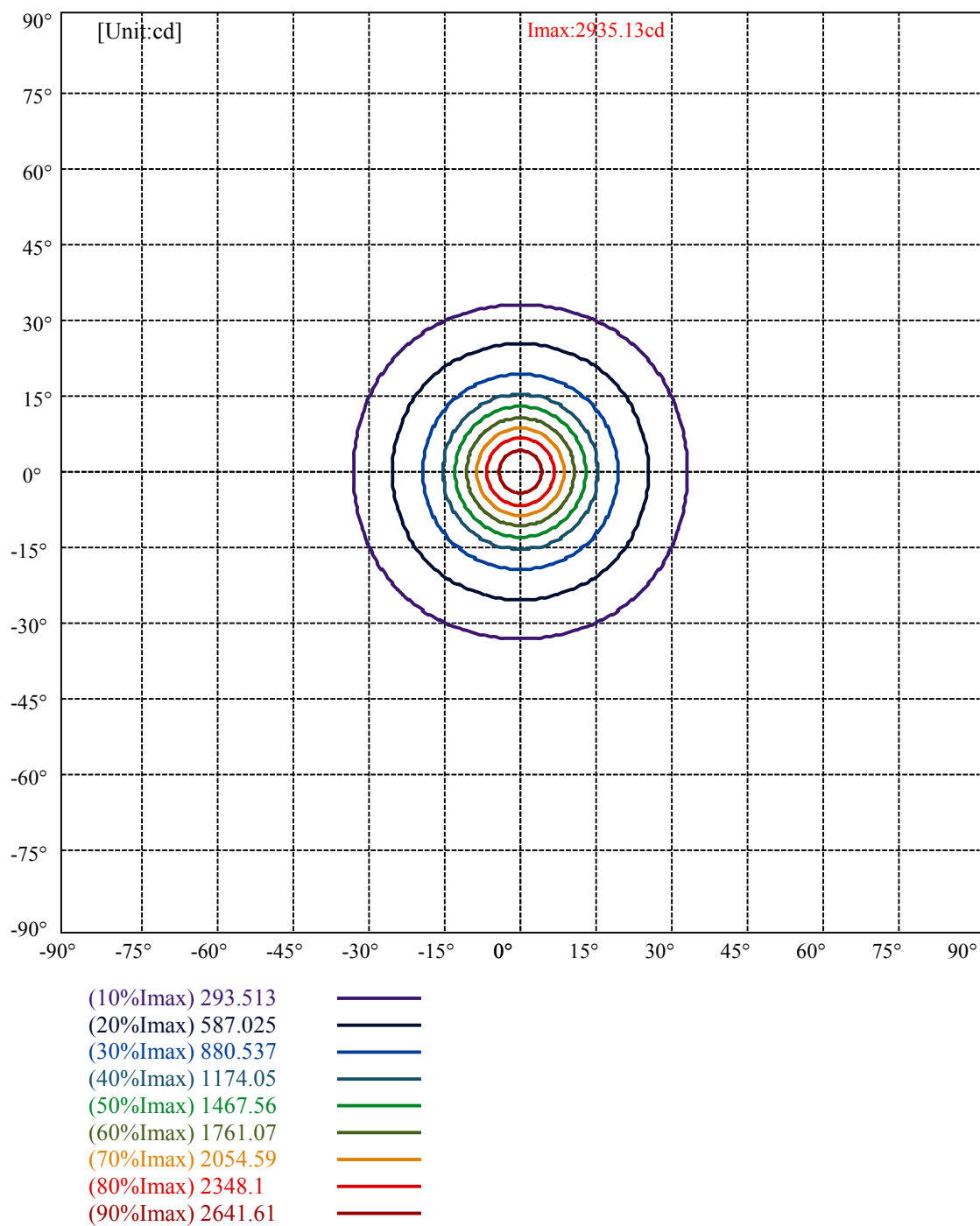
Field angle(10%Imax):C0/180Left:32.7 Right:32.7

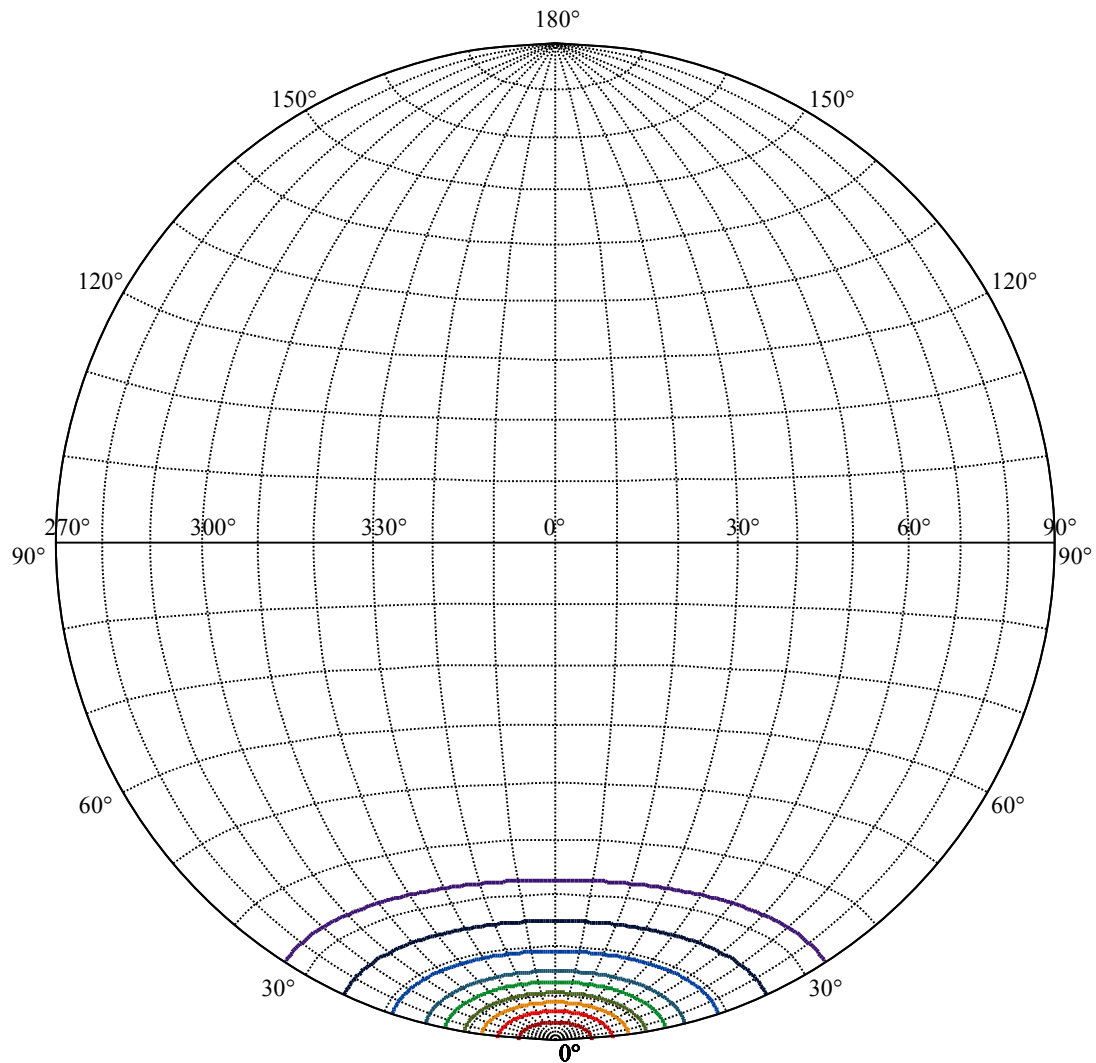
:C90/270Left:32.7 Right:32.7

Beam Angle(50%Imax):C0/180Left:12.8 Right:12.8

:C90/270Left:12.8 Right:12.8







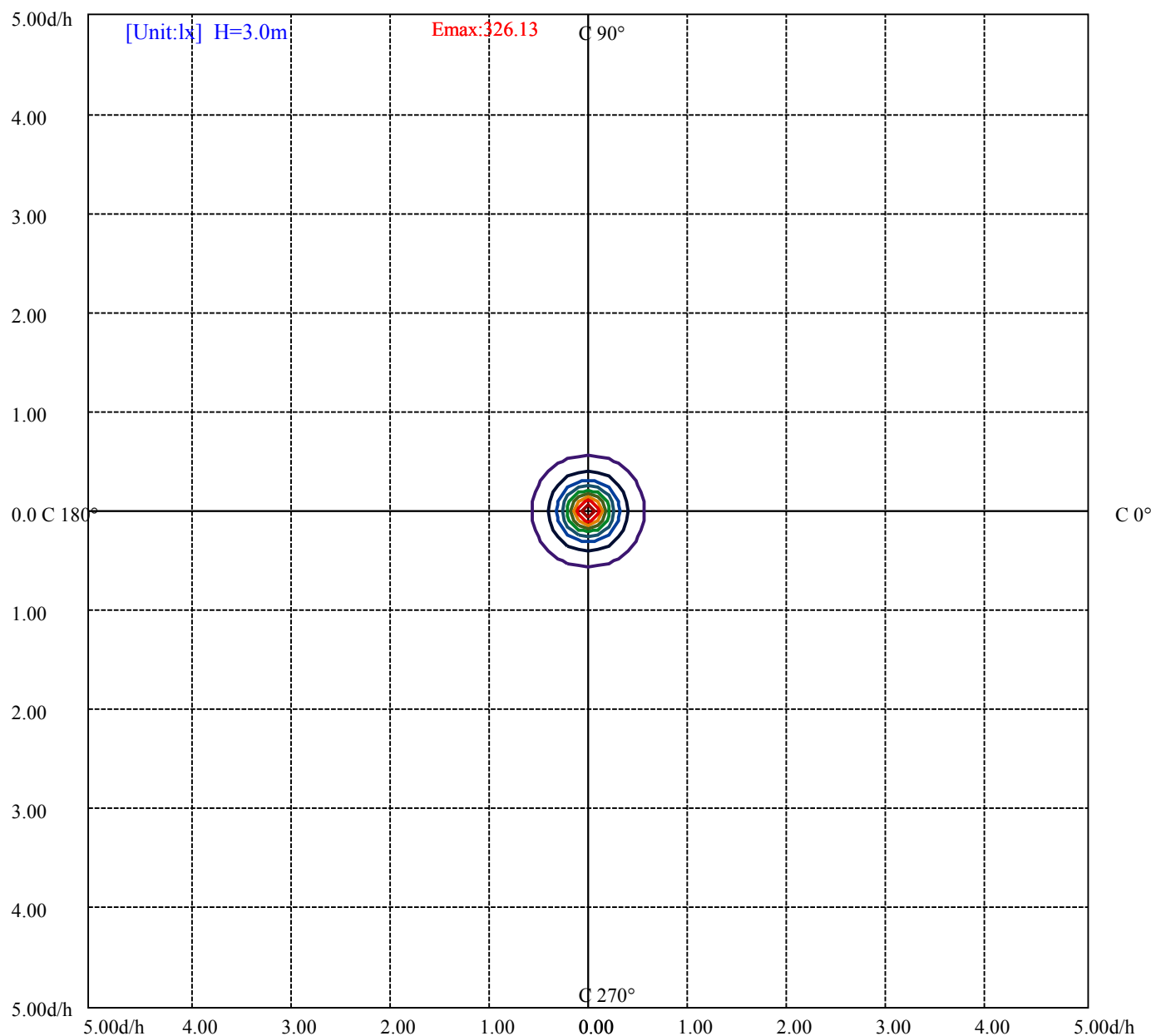
House

[Unit:cd]

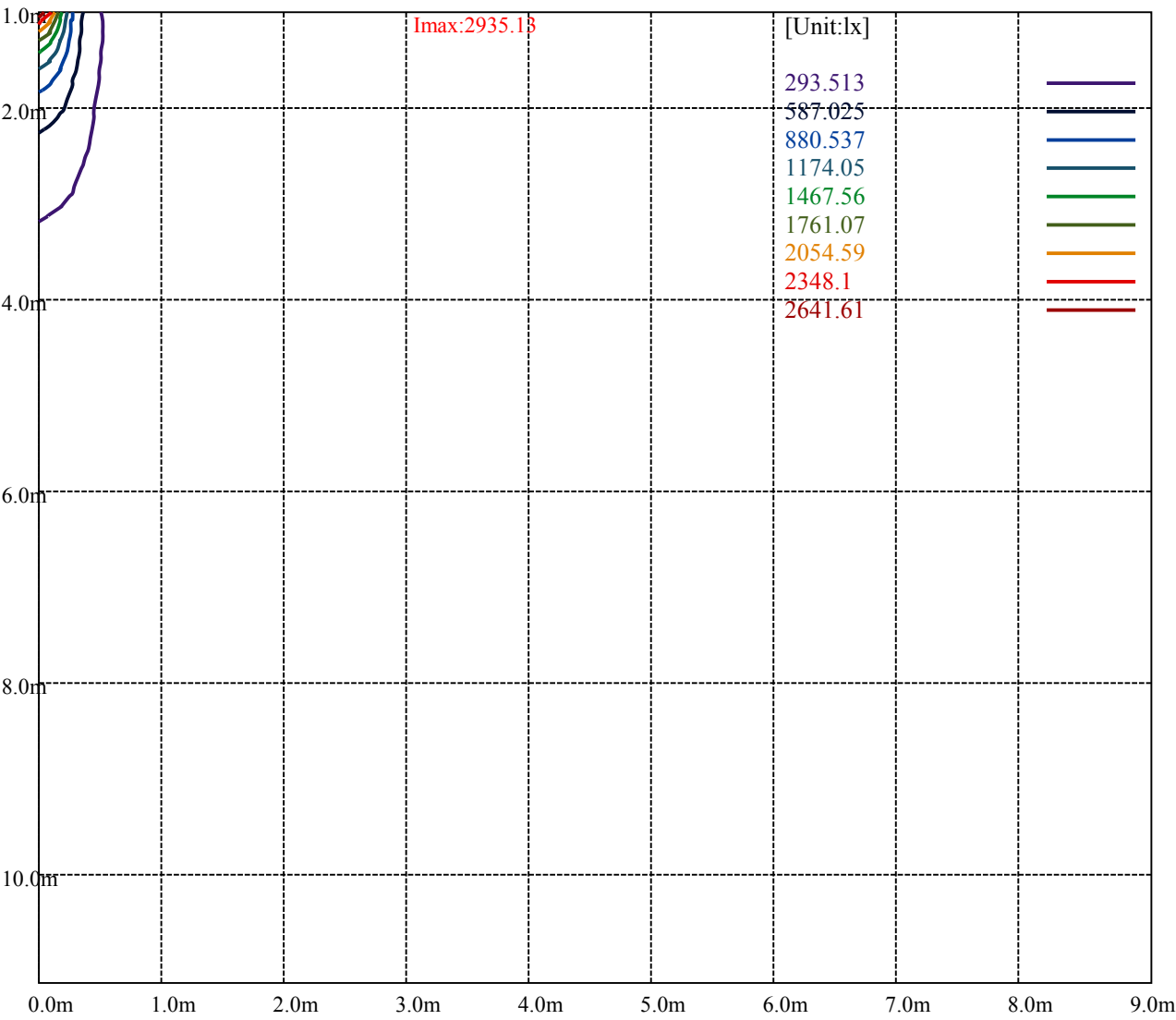
Road

Imax:2935.13

(10%Imax)	293.513	—
(20%Imax)	587.025	—
(30%Imax)	880.537	—
(40%Imax)	1174.05	—
(50%Imax)	1467.56	—
(60%Imax)	1761.07	—
(70%Imax)	2054.59	—
(80%Imax)	2348.1	—
(90%Imax)	2641.61	—



(10%Emax)	32.61233	—
(20%Emax)	65.22478	—
(30%Emax)	97.83711	—
(40%Emax)	130.45	—
(50%Emax)	163.0622	—
(60%Emax)	195.6744	—
(70%Emax)	228.2867	—
(80%Emax)	260.8989	—
(90%Emax)	293.5111	—



Luminance Table

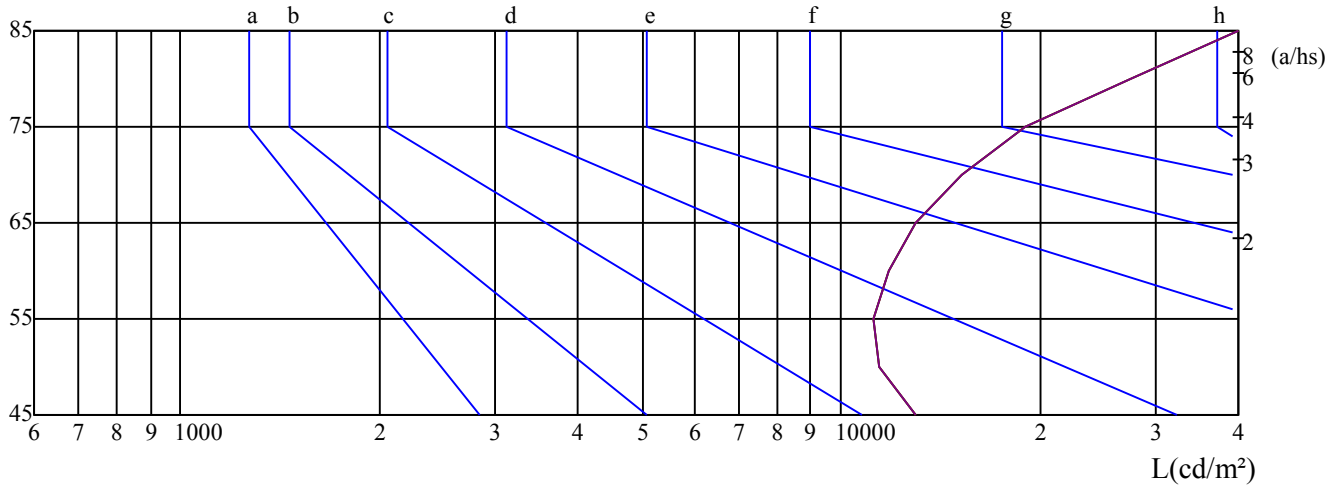
γ	45	50	55	60	65	70	75	80	85
C0	12947	11439	11188	11801	12998	15272	19072	27435	51500
C45	12947	11439	11188	11801	12998	15272	19072	27435	51500
C90	12947	11439	11188	11801	12998	15272	19072	27435	51500

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
12998	12998	12998	19072	19072	19072	51500	51500	51500

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

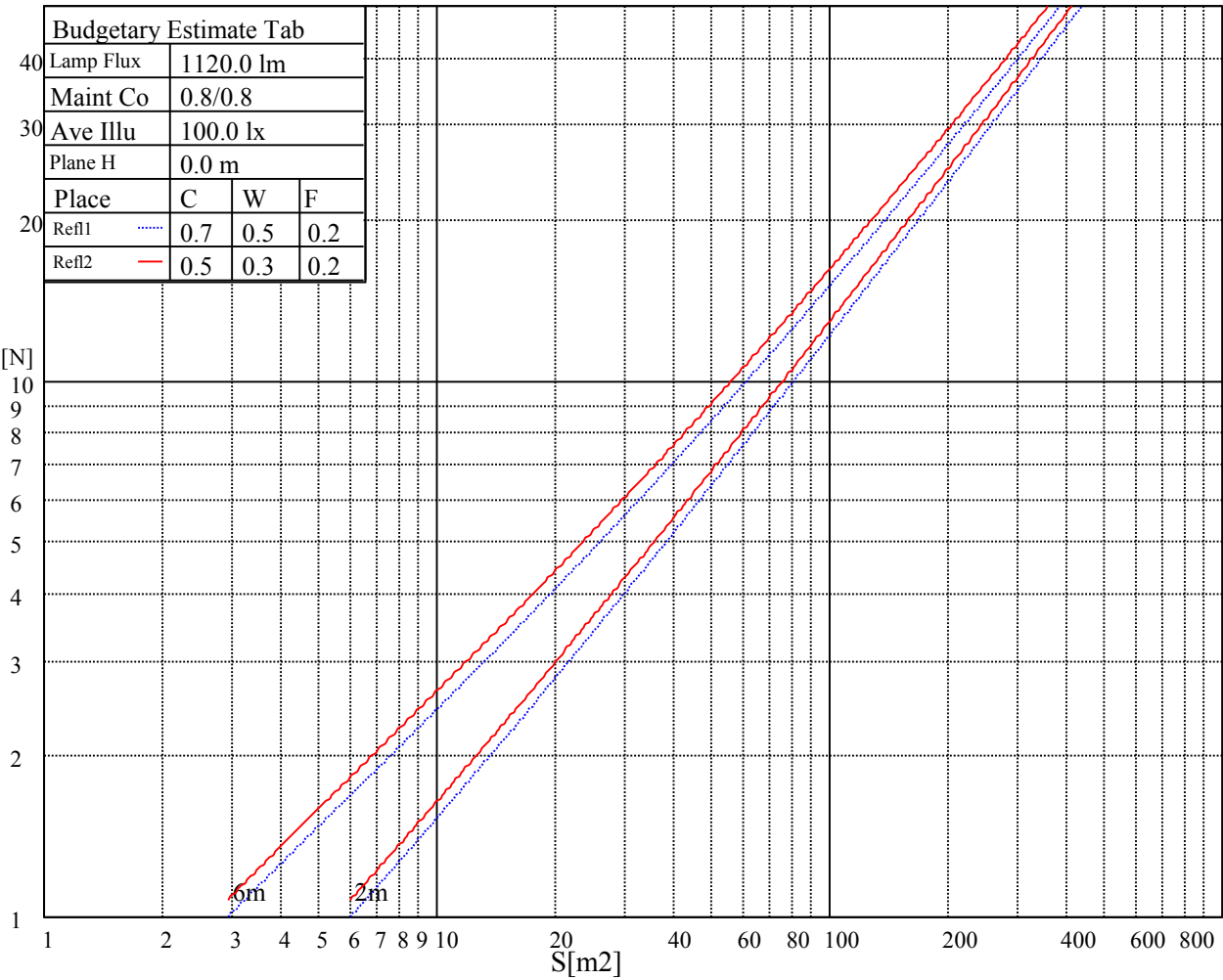
Luminance Limiting Curve

 $\gamma(^{\circ})$ 

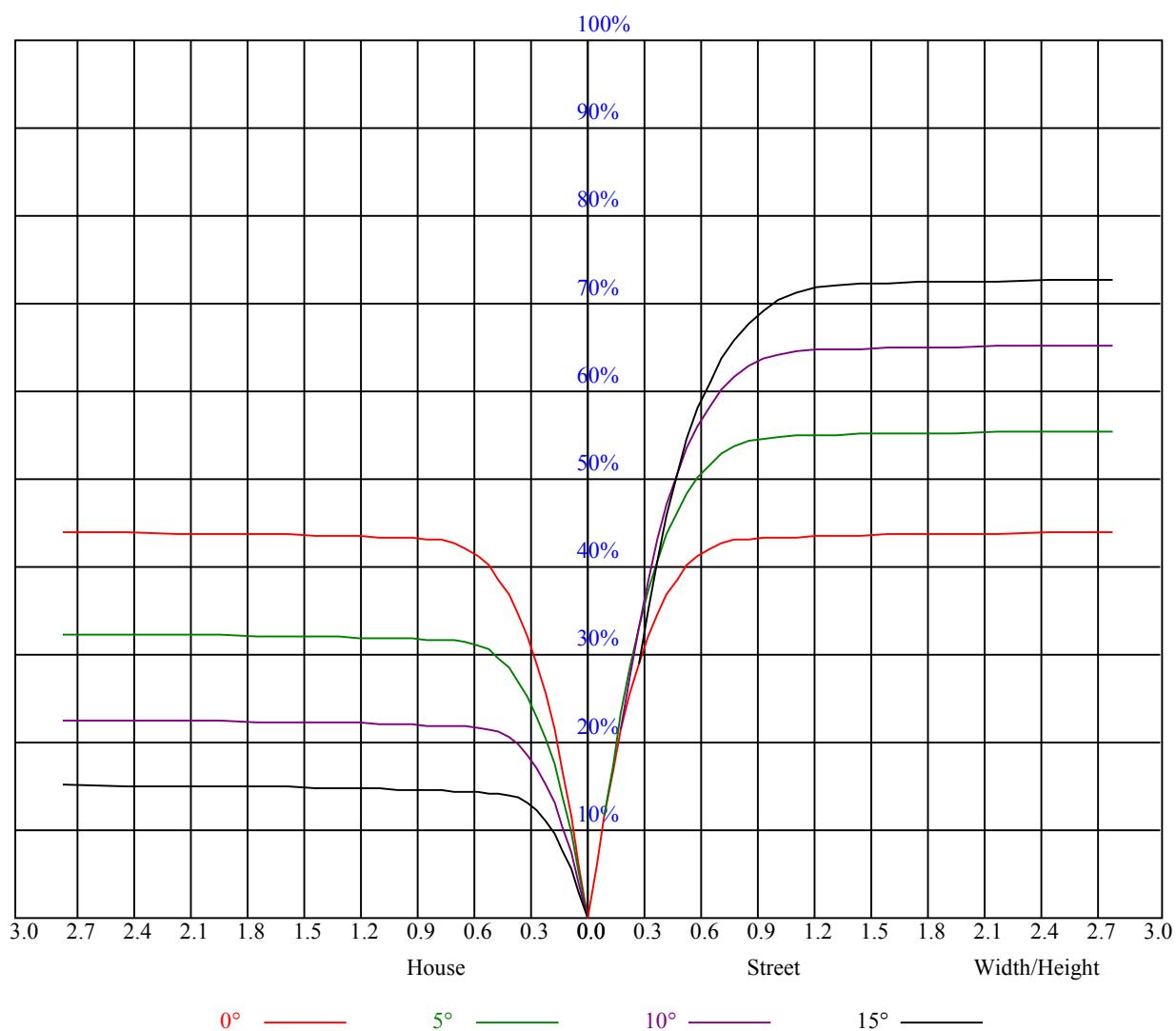
C0 ———

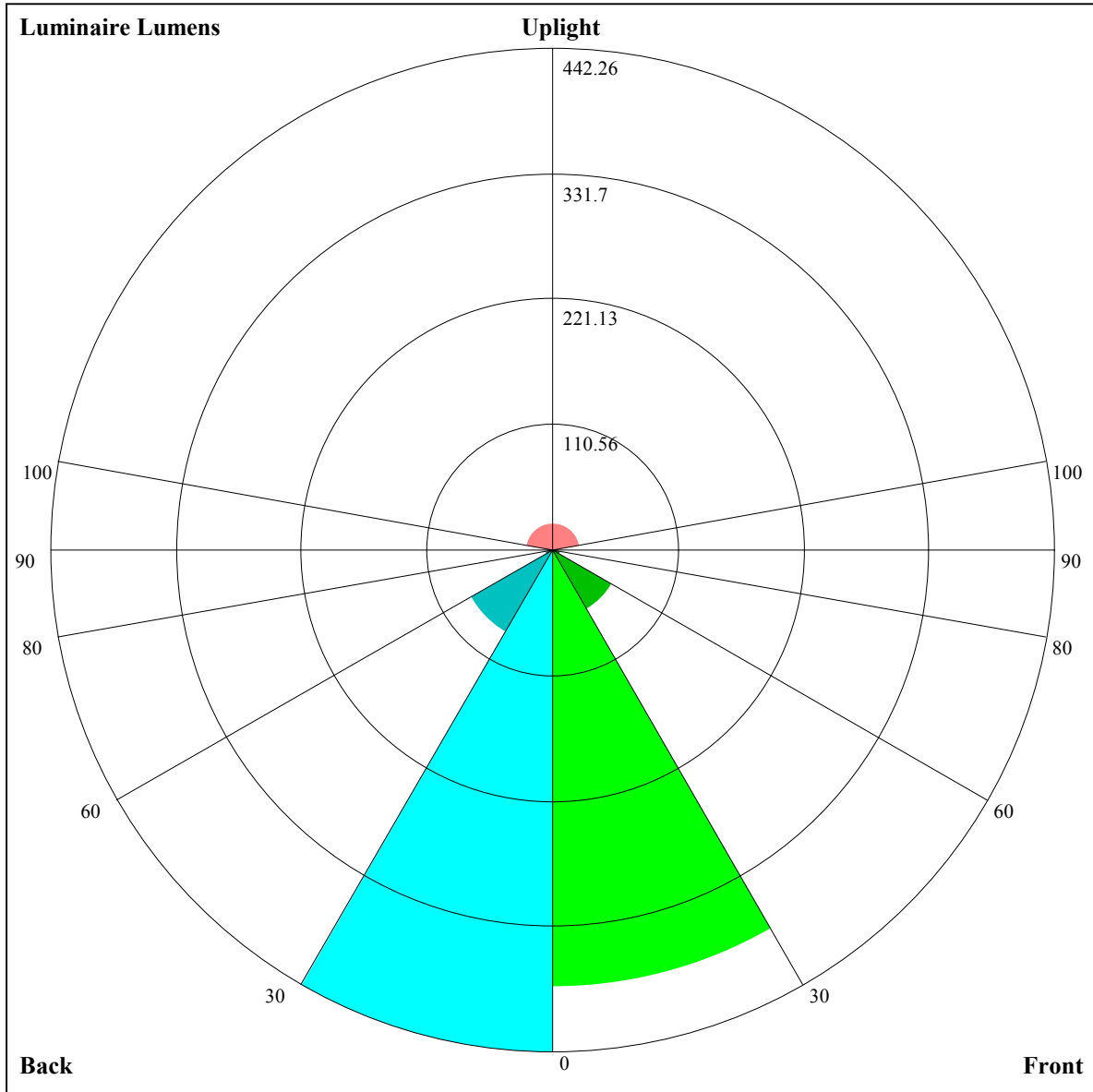
C45 ———

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	1.07	1.07	1.07	1.04	1.04	1.04	1.00	1.00	1.00	0.95	0.95	0.95	0.91	0.91	0.91	0.90
1	1.00	0.98	0.96	0.98	0.96	0.94	0.94	0.93	0.91	0.91	0.90	0.89	0.88	0.87	0.86	0.84
2	0.94	0.90	0.88	0.92	0.89	0.87	0.89	0.87	0.85	0.87	0.85	0.83	0.84	0.83	0.81	0.80
3	0.89	0.85	0.81	0.87	0.84	0.81	0.85	0.82	0.80	0.83	0.80	0.78	0.81	0.79	0.77	0.76
4	0.84	0.80	0.76	0.83	0.79	0.76	0.81	0.78	0.75	0.79	0.76	0.74	0.78	0.75	0.73	0.72
5	0.80	0.75	0.72	0.79	0.75	0.72	0.77	0.74	0.71	0.76	0.73	0.70	0.75	0.72	0.70	0.69
6	0.76	0.71	0.68	0.75	0.71	0.68	0.74	0.70	0.67	0.73	0.69	0.67	0.72	0.69	0.67	0.65
7	0.73	0.68	0.65	0.72	0.68	0.65	0.71	0.67	0.64	0.70	0.66	0.64	0.69	0.66	0.64	0.62
8	0.69	0.65	0.62	0.69	0.65	0.62	0.68	0.64	0.61	0.67	0.64	0.61	0.66	0.63	0.61	0.60
9	0.67	0.62	0.59	0.66	0.62	0.59	0.65	0.61	0.59	0.65	0.61	0.58	0.64	0.61	0.58	0.57
10	0.64	0.59	0.56	0.64	0.59	0.56	0.63	0.59	0.56	0.62	0.59	0.56	0.62	0.58	0.56	0.55





Luminaire Lumens:

FL=385.34,FM=60.58,FH=6.46,FVH=2.78

BL=442.26,BM=83.56,BH=6.66,BVH=3

UL=5.12,UH=24.35

BUG Rating:B1-U2-G0

Intensity data(cd)

C/ γ (°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	2954.25	2279.25	1514.81	1046.25	803.25	545.63	369.00	85.84	12.66
45.0	2950.31	2466.56	1502.44	948.38	743.06	575.44	342.56	110.76	33.19
90.0	2957.63	2675.81	1546.88	917.16	732.83	641.93	480.38	145.13	22.44
135.0	2878.31	2978.44	2211.75	1213.88	852.19	732.38	569.25	284.06	34.82
180.0	2954.25	2873.25	2121.75	1343.25	954.45	690.36	465.41	259.71	29.08
225.0	2950.31	2616.19	2048.06	1410.19	869.06	546.47	415.29	233.61	30.77
270.0	2957.63	2522.25	2049.75	1447.31	803.81	494.44	396.56	297.00	27.11
315.0	2878.31	2278.13	1657.13	1113.19	726.47	469.58	334.86	79.99	10.41
360.0	2954.25	2279.25	1514.81	1046.25	803.25	545.63	369.00	85.84	12.66
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	9.34	7.88	6.98	6.58	6.24	6.02	5.85	5.63	4.95
45.0	16.37	11.03	8.66	7.65	6.81	6.30	5.85	5.79	5.51
90.0	10.97	8.94	7.93	7.37	6.86	6.47	5.96	5.40	5.18
135.0	10.13	8.21	7.31	6.75	6.41	6.30	6.13	6.02	5.51
180.0	10.46	9.06	8.27	7.65	7.26	7.03	7.09	7.37	7.26
225.0	12.66	9.79	8.33	7.48	6.75	6.19	5.63	5.68	5.40
270.0	11.81	9.79	8.44	7.54	6.86	6.36	5.68	5.23	4.89
315.0	7.99	7.37	6.98	6.81	6.64	6.53	6.19	5.57	5.29
360.0	9.34	7.88	6.98	6.58	6.24	6.02	5.85	5.63	4.95
C/ γ (°)	90.0								
0.0	4.50								
45.0	4.56								
90.0	4.73								
135.0	5.18								
180.0	4.95								
225.0	4.56								
270.0	4.56								
315.0	4.50								
360.0	4.50								