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Nata

Client:

LumCAT: 3-1884-L

Luminaire: 92.70.135.00

Report No: NT2018010907

Test No: GC2018010907

LampCAT: LUMILEDS 1208

Lamp flux(lm): 2981.0

Number of Lamps: 1

Length(mm): 74

Phm Type: C

Voltage(V): 35.0000

Current(A): 0.6400

Power (W): 22.4000

PF: 0.0000

Ballast type: DC

Width(mm): 74

Height(mm):0

Photometric Results

Lumens(lm): 2873.47, Efficiency(%): 96.39% , Luminous Efficacy(lm/W): 128.28

Central intensity(cd): 6943.163, Maximum intensity(cd): 6943.163

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=35.4

[C90/270]Total=35.4

Field angle(10%Imax): [C0/180]Total=65.0

[C90/270]Total=65.0

Maximum s/h(1/2): C0_180=0.59 C90_270=0.59

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(%): 97.69%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 97.155%

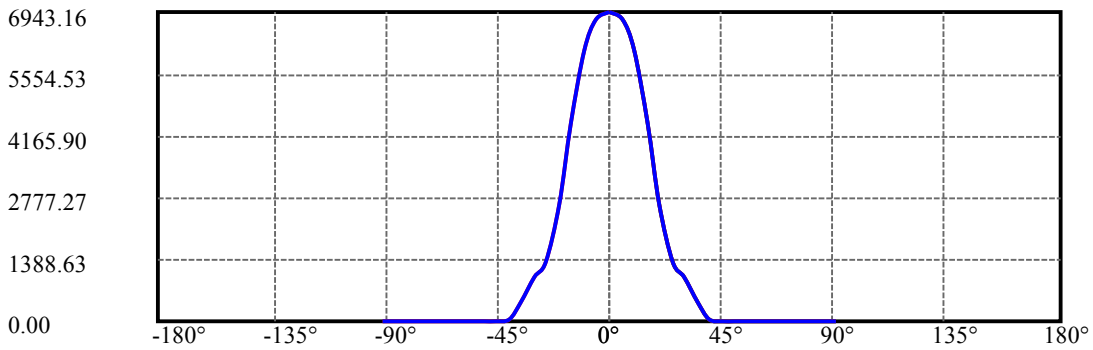
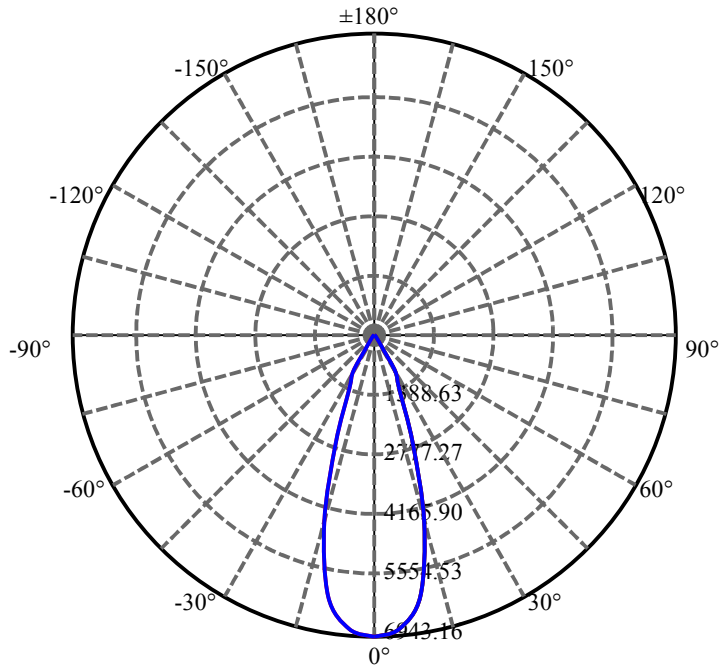
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	6943.163	41.522	41.522	1.393%	1.445%
5.0	6790.037	324.383	365.904	10.882%	12.734%
10.0	6100.318	580.647	946.551	19.478%	32.941%
15.0	4457.504	632.379	1578.93	21.214%	54.949%
20.0	2620.134	491.207	2070.137	16.478%	72.043%
25.0	1346.659	311.957	2382.094	10.465%	82.900%
30.0	982.867	269.373	2651.467	9.036%	92.274%
35.0	416.694	131.008	2782.476	4.395%	96.833%
40.0	41.650	14.675	2797.15	.492%	97.344%
45.0	21.334	8.269	2805.419	.277%	97.632%
50.0	18.678	7.843	2813.262	.263%	97.905%
55.0	17.625	7.914	2821.176	.265%	98.180%
60.0	17.343	8.233	2829.409	.276%	98.467%
65.0	17.205	8.547	2837.956	.287%	98.764%
70.0	16.551	8.525	2846.481	.286%	99.061%
75.0	15.072	7.980	2854.461	.268%	99.338%
80.0	14.239	7.686	2862.147	.258%	99.606%
85.0	13.957	7.621	2869.768	.256%	99.871%
90.0	13.503	3.701	2873.469	.124%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	2651.47	88.95%	92.27%
0-40	2797.15	93.83%	97.34%
0-60	2829.41	94.91%	98.47%
0-90	2869.77	96.27%	99.87%
0-120	2869.77	96.27%	99.87%
0-180	2873.47	96.39%	100.00%
60-90	48.59	1.63%	1.69%
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%
0-23.66	2298.78	77.11%	80.00%

ZONAL LUMEN SUMMARY

0-10	946.55
10-20	1123.59
20-30	581.33
30-40	145.68
40-50	16.11
50-60	16.15
60-70	17.07
70-80	15.67
80-90	7.62
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: —————

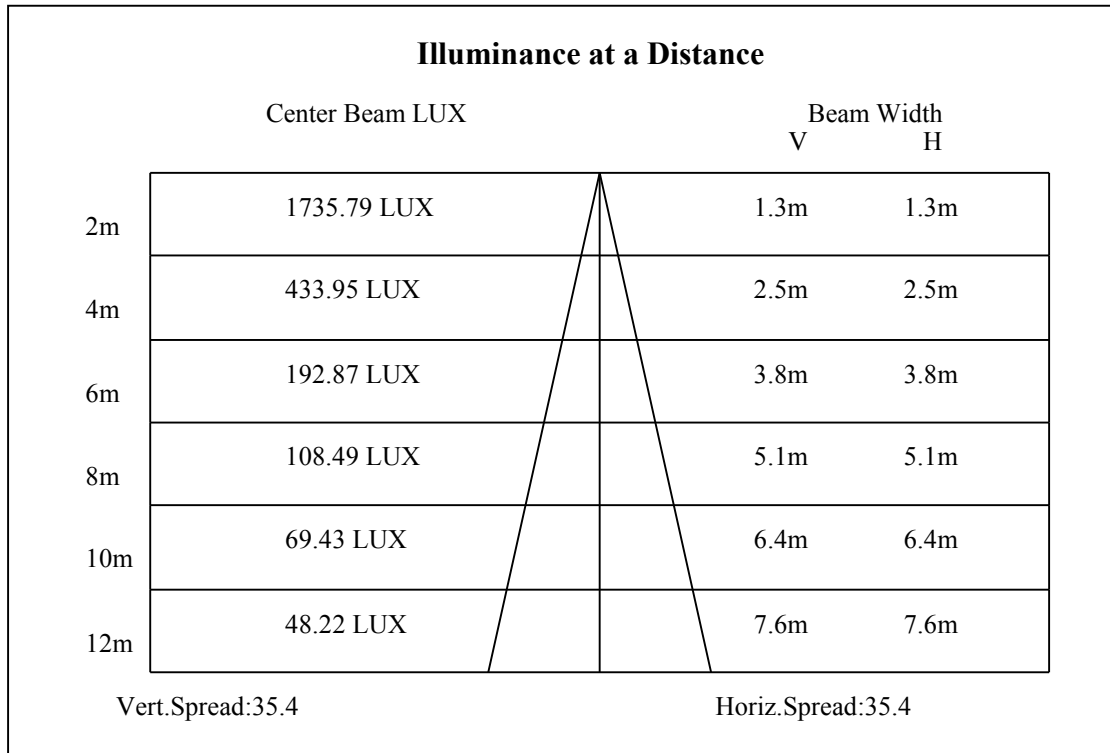
C90/C270: —————

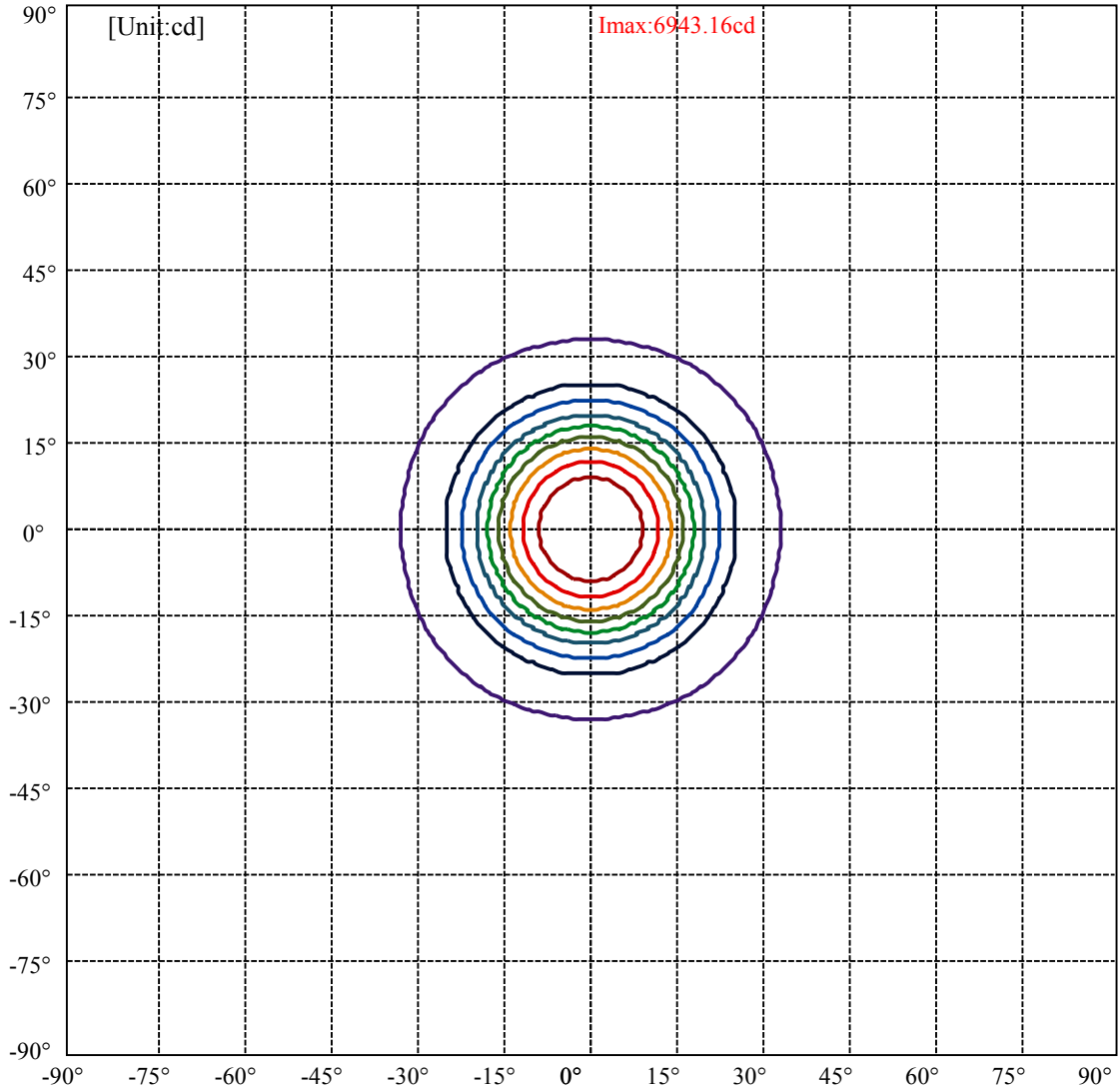
Field angle(10%Imax):C0/180Left:32.5 Right:32.5

:C90/270Left:32.5 Right:32.5

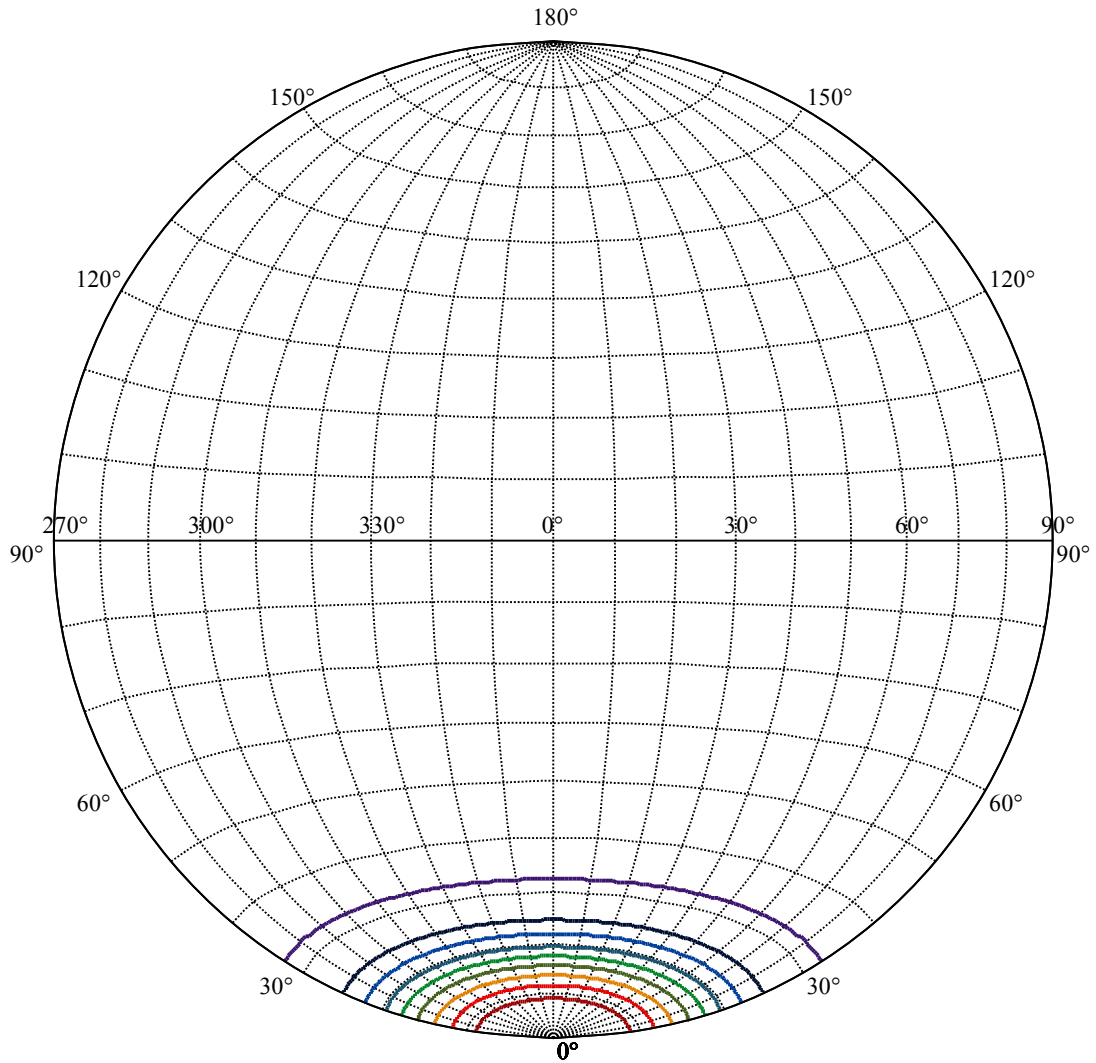
Beam Angle(50%Imax):C0/180Left:17.7 Right:17.7

:C90/270Left:17.7 Right:17.7





(10%Imax) 694.316	—
(20%Imax) 1388.63	—
(30%Imax) 2082.95	—
(40%Imax) 2777.27	—
(50%Imax) 3471.58	—
(60%Imax) 4165.9	—
(70%Imax) 4860.21	—
(80%Imax) 5554.53	—
(90%Imax) 6248.85	—



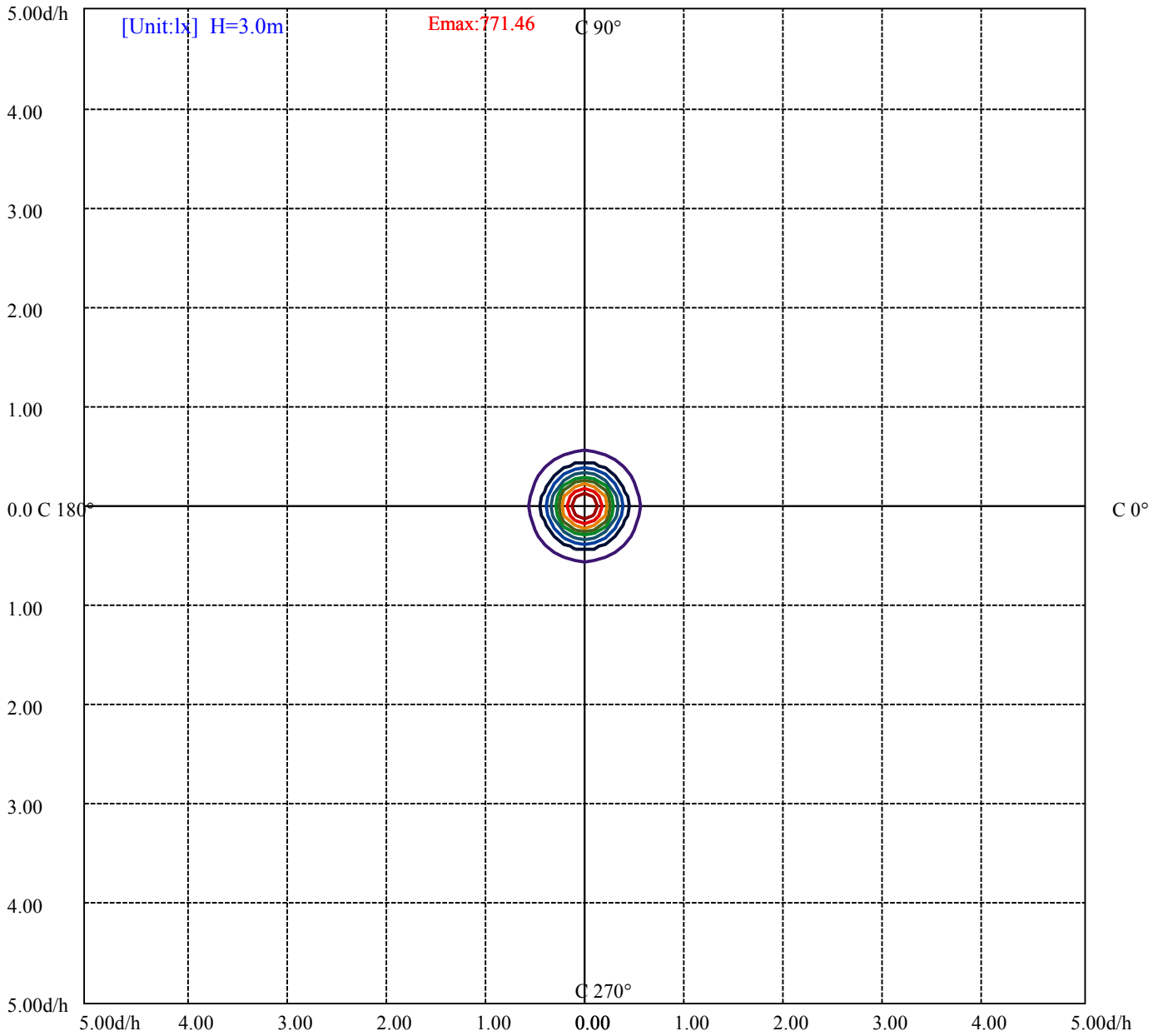
House

[Unit:cd]

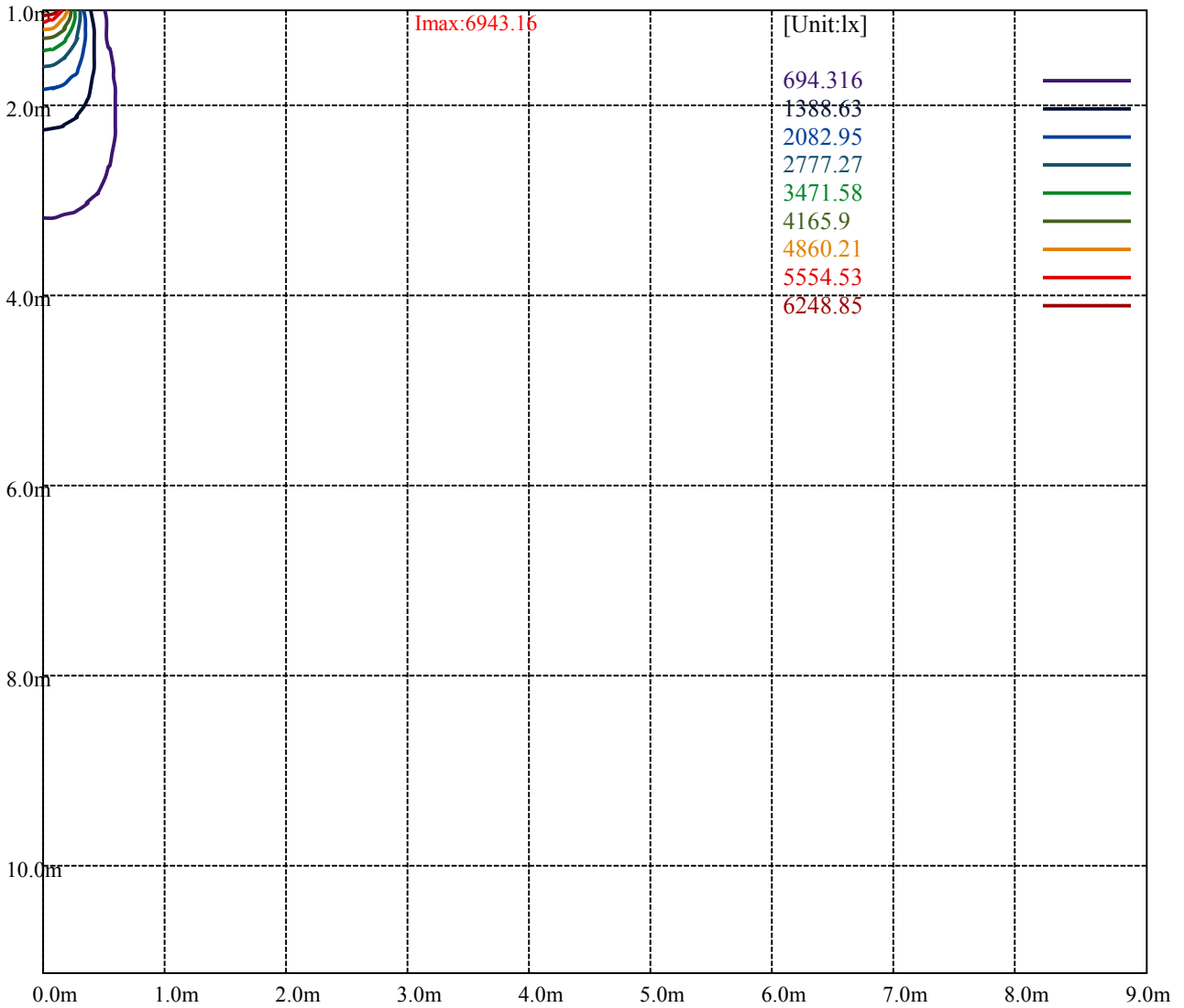
Road

Imax:6943.16

(10%Imax) 694.316	—
(20%Imax) 1388.63	—
(30%Imax) 2082.95	—
(40%Imax) 2777.27	—
(50%Imax) 3471.58	—
(60%Imax) 4165.9	—
(70%Imax) 4860.21	—
(80%Imax) 5554.53	—
(90%Imax) 6248.85	—



- (10%Emax) 77.14622
- (20%Emax) 154.2922
- (30%Emax) 231.4389
- (40%Emax) 308.5844
- (50%Emax) 385.7311
- (60%Emax) 462.8778
- (70%Emax) 540.0233
- (80%Emax) 617.17
- (90%Emax) 694.3156



Luminance Table

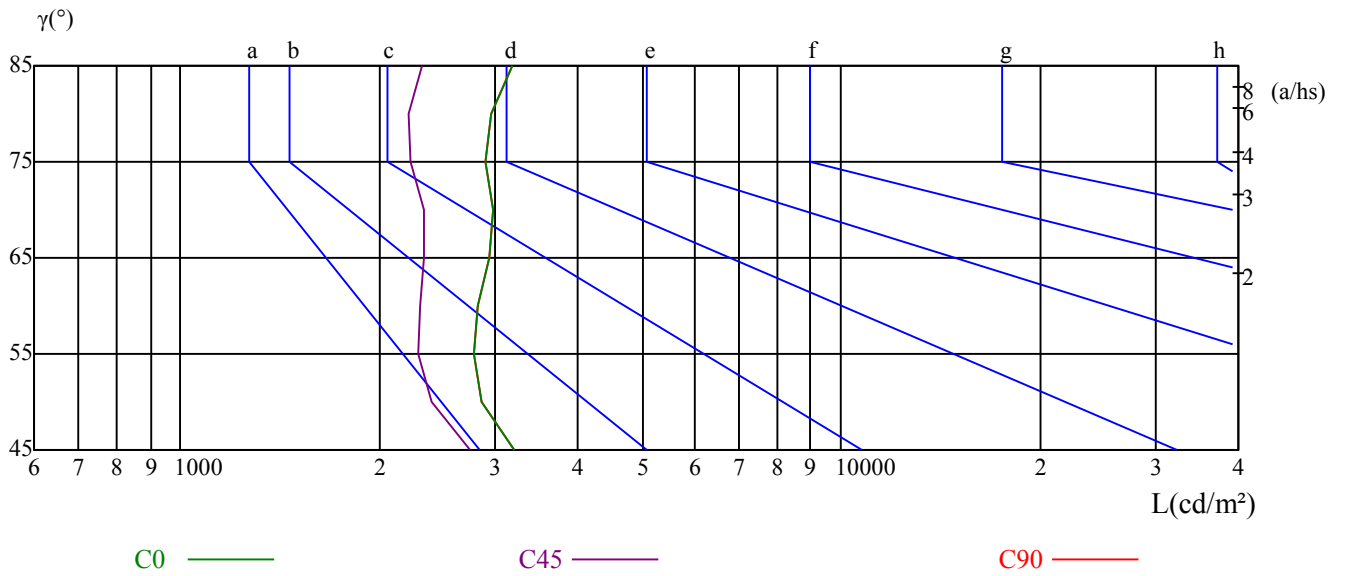
γ	45	50	55	60	65	70	75	80	85
C0	3210	2863	2774	2827	2932	2978	2895	2958	3183
C45	2737	2404	2294	2300	2344	2336	2225	2220	2325
C90	3210	2863	2774	2827	2932	2978	2895	2958	3183

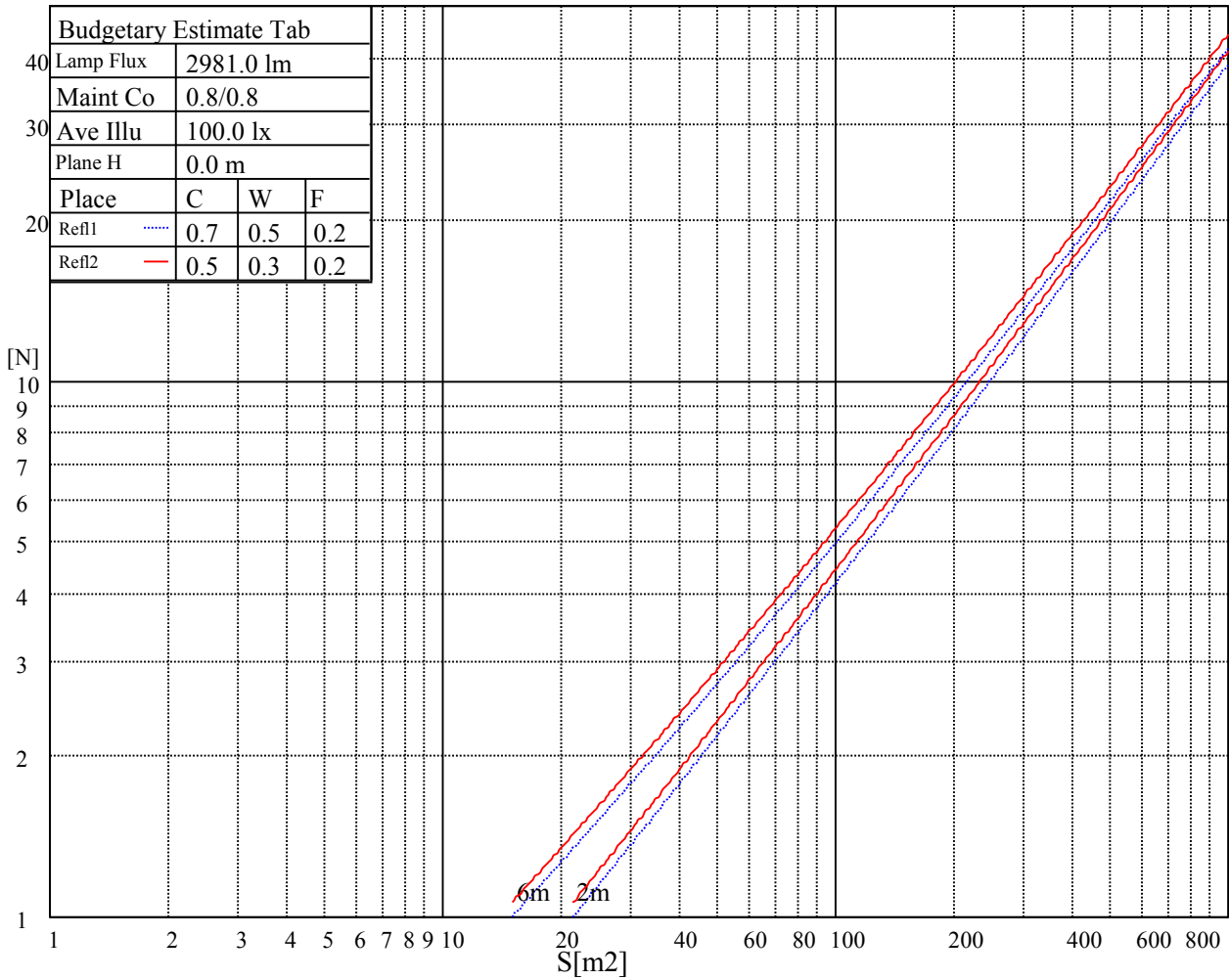
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
7434	7434	7434	10634	10634	10634	29243	29243	29243

Glare Table

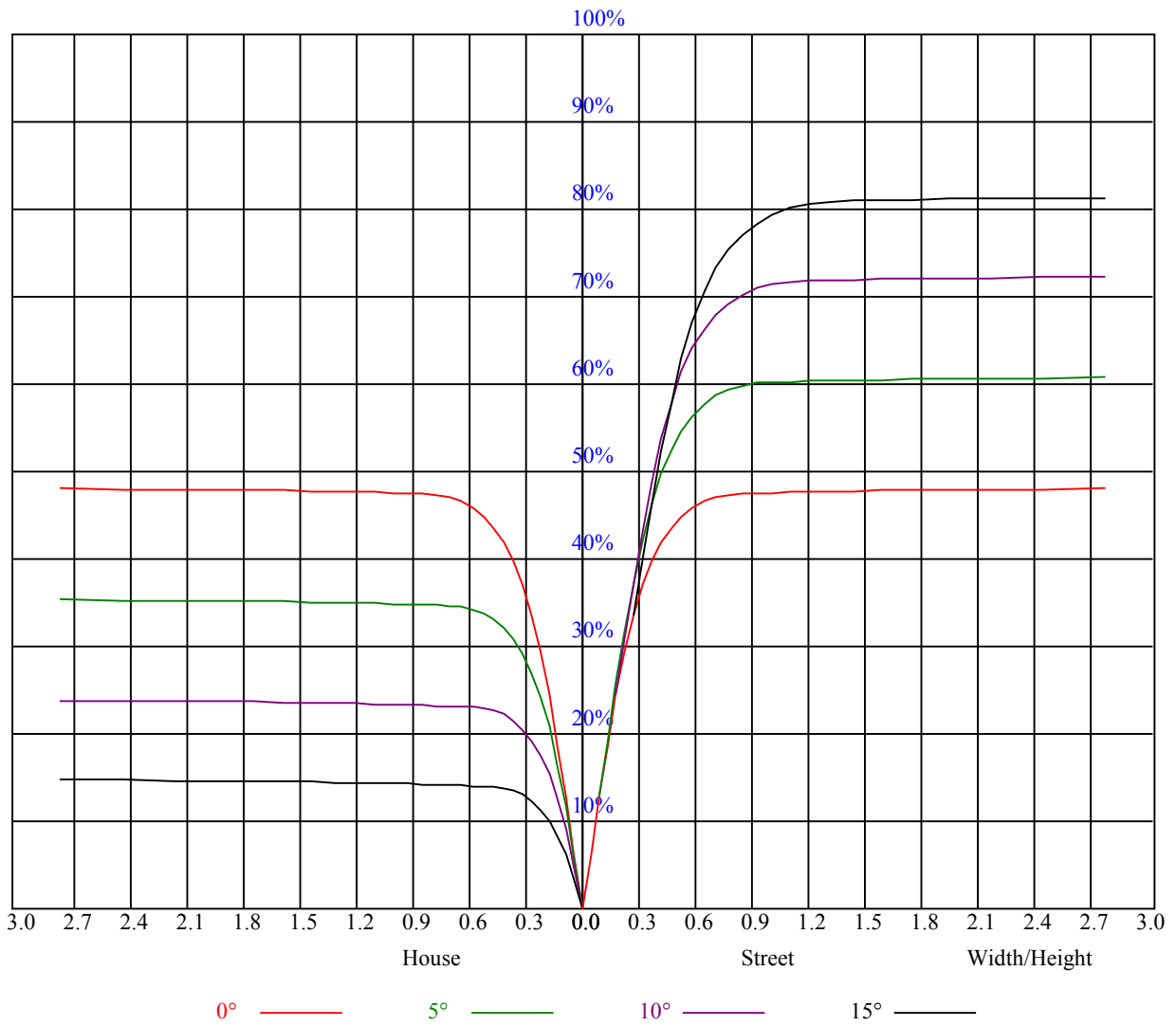
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

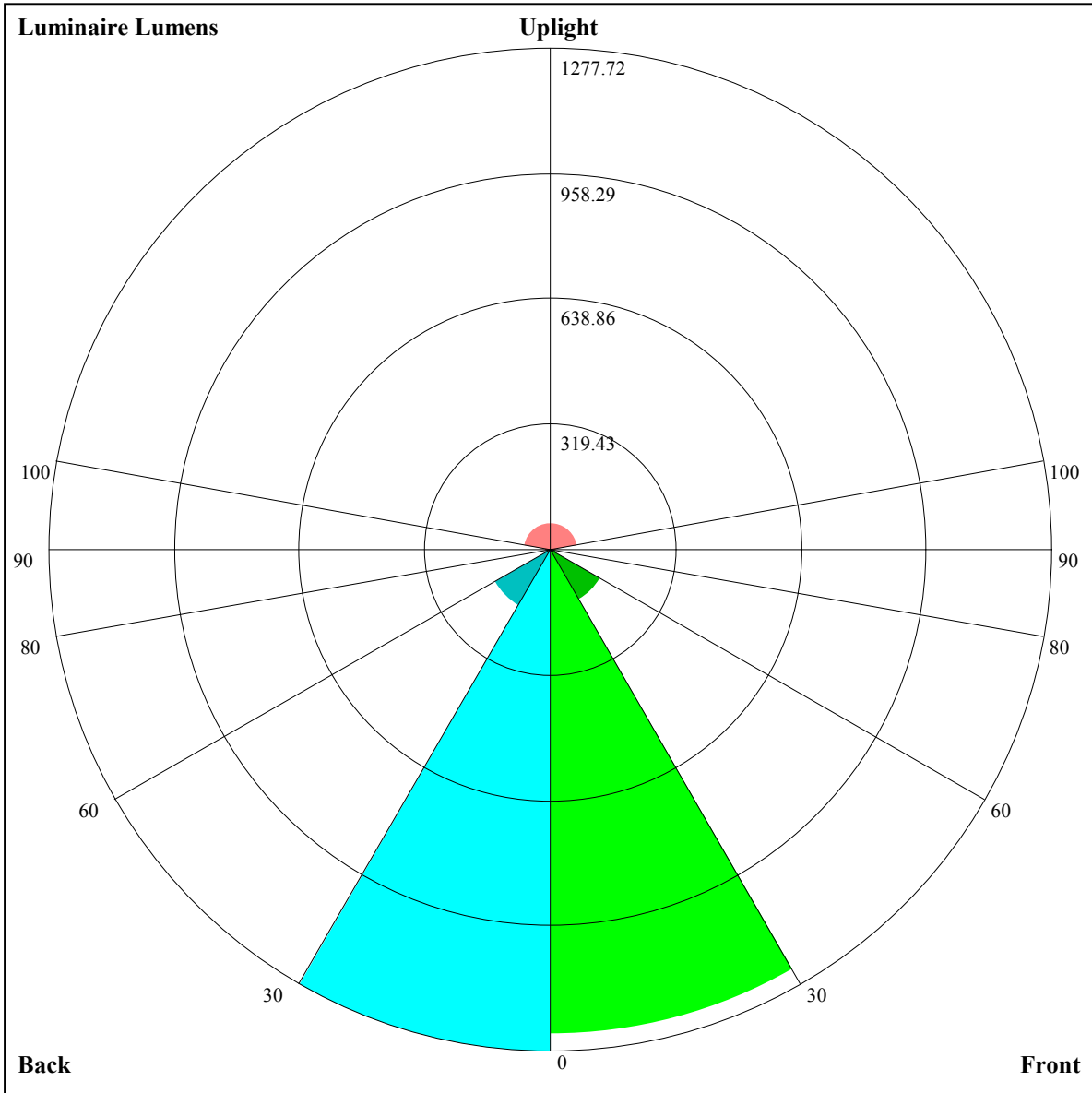
Luminance Limiting Curve





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	1.16	1.16	1.16	1.14	1.14	1.14	1.09	1.09	1.09	1.04	1.04	1.04	1.00	1.00	1.00	0.98
1	1.08	1.05	1.03	1.06	1.03	1.01	1.02	1.00	0.98	0.98	0.97	0.95	0.95	0.94	0.93	0.91
2	1.02	0.99	0.96	1.01	0.97	0.95	0.97	0.95	0.92	0.95	0.92	0.90	0.92	0.90	0.89	0.87
3	0.97	0.93	0.90	0.96	0.92	0.89	0.94	0.90	0.88	0.91	0.89	0.86	0.89	0.87	0.85	0.84
4	0.93	0.89	0.85	0.92	0.88	0.85	0.90	0.86	0.84	0.88	0.85	0.83	0.86	0.84	0.82	0.81
5	0.89	0.85	0.81	0.88	0.84	0.81	0.87	0.83	0.80	0.85	0.82	0.80	0.84	0.81	0.79	0.78
6	0.86	0.81	0.78	0.85	0.81	0.78	0.84	0.80	0.77	0.83	0.79	0.77	0.81	0.78	0.76	0.75
7	0.83	0.78	0.75	0.82	0.78	0.75	0.81	0.77	0.74	0.80	0.77	0.74	0.79	0.76	0.74	0.73
8	0.80	0.75	0.72	0.79	0.75	0.72	0.78	0.75	0.72	0.78	0.74	0.72	0.77	0.74	0.71	0.70
9	0.77	0.73	0.70	0.77	0.73	0.70	0.76	0.72	0.70	0.75	0.72	0.69	0.75	0.71	0.69	0.68
10	0.75	0.71	0.68	0.75	0.70	0.68	0.74	0.70	0.67	0.73	0.70	0.67	0.73	0.69	0.67	0.66





Luminaire Lumens:

FL=1235.47,FM=148.22,FH=16.01,FVH=7.58

BL=1277.72,BM=162.98,BH=16.77,BVH=7.61

UL=14.73,UH=70.11

BUG Rating:B3-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	6917.29	6895.26	6206.51	4416.62	2584.90	1434.77	1033.96	448.71	47.62
45.0	6972.89	6852.32	6200.45	4536.65	2570.58	1301.53	933.21	369.98	31.60
90.0	6940.96	6689.90	6003.35	4377.53	2495.16	1095.46	884.81	355.83	30.83
135.0	6941.51	6731.20	6058.41	4701.82	3083.16	1620.86	1145.72	553.32	71.79
180.0	6917.29	6611.17	5804.05	4281.74	2670.79	1425.41	1028.40	415.07	45.86
225.0	6972.89	6781.85	6207.06	4716.13	2784.75	1341.17	973.84	419.20	34.74
270.0	6940.96	6890.31	6378.28	4659.42	2663.63	1282.81	955.78	456.42	35.46
315.0	6941.51	6868.29	5944.44	3970.12	2108.11	1271.25	907.22	315.03	35.29
360.0	6917.29	6895.26	6206.51	4416.62	2584.90	1434.77	1033.96	448.71	47.62
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	21.64	18.11	16.96	17.01	17.07	16.57	15.09	14.15	13.87
45.0	18.50	16.96	16.19	16.02	16.13	16.02	14.98	14.26	14.20
90.0	19.10	17.56	16.63	16.19	16.08	15.75	14.87	14.20	14.04
135.0	25.00	20.43	18.77	18.44	18.44	17.45	15.47	14.20	13.82
180.0	27.09	22.63	21.03	20.76	19.88	18.06	15.53	14.48	14.04
225.0	21.09	19.49	18.72	17.84	17.34	16.63	15.20	14.42	14.09
270.0	18.61	17.07	16.19	15.97	16.13	15.97	14.92	14.20	13.87
315.0	19.66	17.18	16.52	16.52	16.57	15.97	14.53	13.98	13.71
360.0	21.64	18.11	16.96	17.01	17.07	16.57	15.09	14.15	13.87
C/ γ (°)	90.0								
0.0	13.38								
45.0	13.60								
90.0	13.54								
135.0	13.38								
180.0	13.43								
225.0	13.60								
270.0	13.65								
315.0	13.43								
360.0	13.38								