



NATA LIGHTING CO.,LTD.
www.nata.cn
Email:info@nata.com
Tel:+86-750-3770000 Fax:+86-750-3771111
Address:380JinOu Road,GaoXin Zone,Jiang Men City,Guangdong,China

Nata

Client:

LumCAT: LN01D06337BF

Luminaire: 92.70.129.00

Report No:

Voltage(V): 32.8100

Test No: GC2019072212

Current(A): 0.1970

LampCAT: CREE CXA1830

Power (W): 6.4600

Lamp flux(lm): 953.0

PF: 0.0000

Number of Lamps: 1

Ballast type: DC

Length(mm): 63

Width(mm): 63

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 870.85, Efficiency(%): 91.38% , Luminous Efficacy(lm/W): 134.81

Central intensity(cd): 1725.609, Maximum intensity(cd): 1725.609

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=40.8

[C90/270]Total=40.8

Field angle(10%Imax): [C0/180]Total=59.8

[C90/270]Total=59.8

Maximum s/h(1/2): C0_180=0.68 C90_270=0.68

Maximum s/h(1/4): C0_180=0.62 C90_270=0.62

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 91.38%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 96.023%

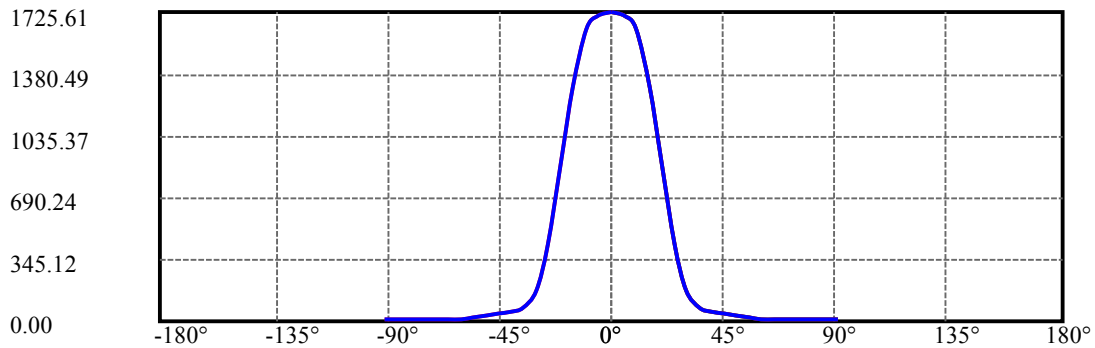
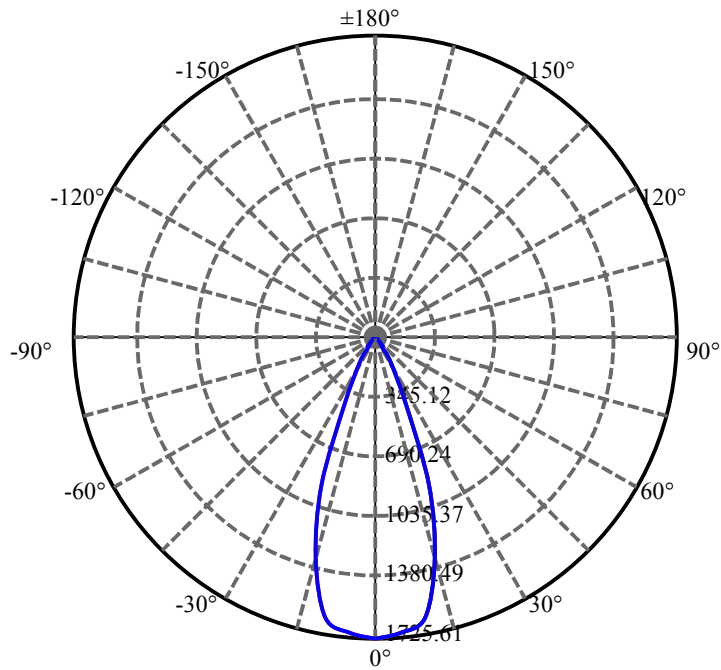
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	1725.609	0.000	0	.000%	.000%
5.0	1699.313	40.944	40.944	4.296%	4.702%
10.0	1625.906	118.954	159.897	12.482%	18.361%
15.0	1311.216	174.228	334.126	18.282%	38.368%
20.0	901.645	182.371	516.496	19.136%	59.310%
25.0	425.138	139.155	655.651	14.602%	75.289%
30.0	168.138	75.080	730.731	7.878%	83.910%
35.0	79.587	36.479	767.21	3.828%	88.099%
40.0	52.516	22.040	789.251	2.313%	90.630%
45.0	38.145	16.787	806.037	1.761%	92.558%
50.0	27.345	13.233	819.27	1.389%	94.077%
55.0	17.747	9.804	829.075	1.029%	95.203%
60.0	13.155	7.143	836.218	.750%	96.023%
65.0	11.074	5.890	842.108	.618%	96.700%
70.0	10.273	5.405	847.513	.567%	97.320%
75.0	9.844	5.258	852.771	.552%	97.924%
80.0	10.027	5.317	858.088	.558%	98.535%
85.0	11.595	5.875	863.963	.616%	99.209%
90.0	13.556	6.886	870.849	.723%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	730.73	76.68%	83.91%
0-40	789.25	82.82%	90.63%
0-60	836.22	87.75%	96.02%
0-90	863.96	90.66%	99.21%
0-120	863.96	90.66%	99.21%
0-180	870.85	91.38%	100.00%
60-90	34.89	3.66%	4.01%
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%
0-27.73	696.68	73.10%	80.00%

ZONAL LUMEN SUMMARY

0-10	159.90
10-20	356.60
20-30	214.23
30-40	58.52
40-50	30.02
50-60	16.95
60-70	11.30
70-80	10.57
80-90	5.87
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: —————

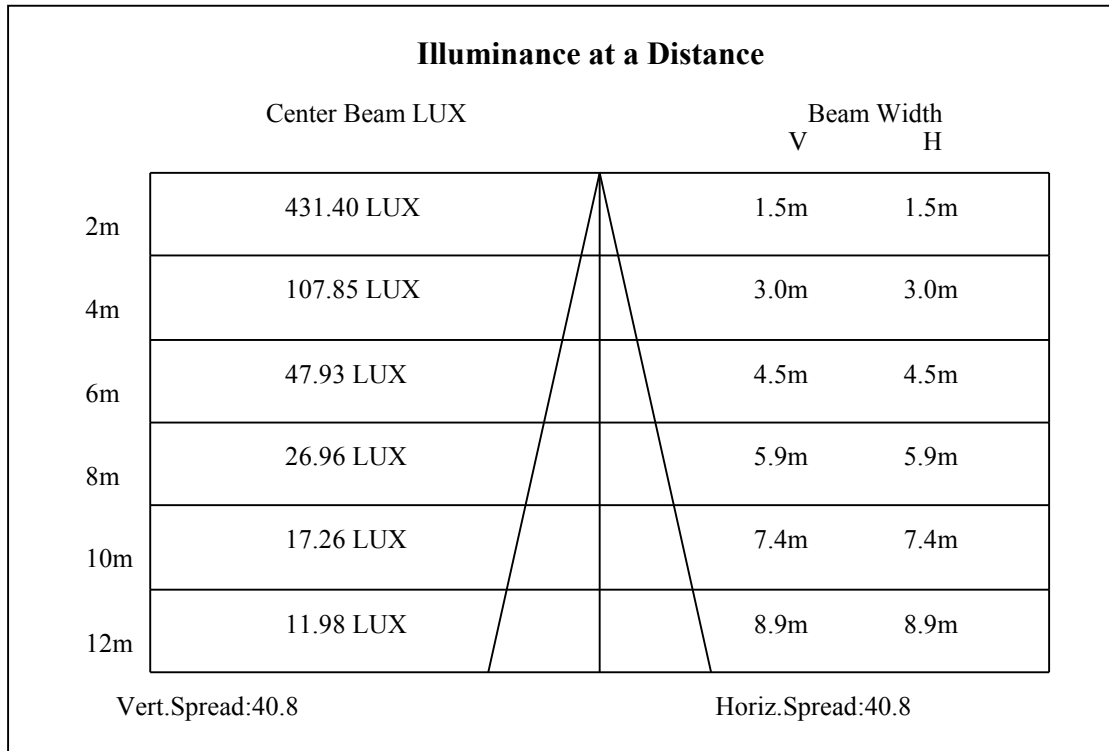
C90/C270: —————

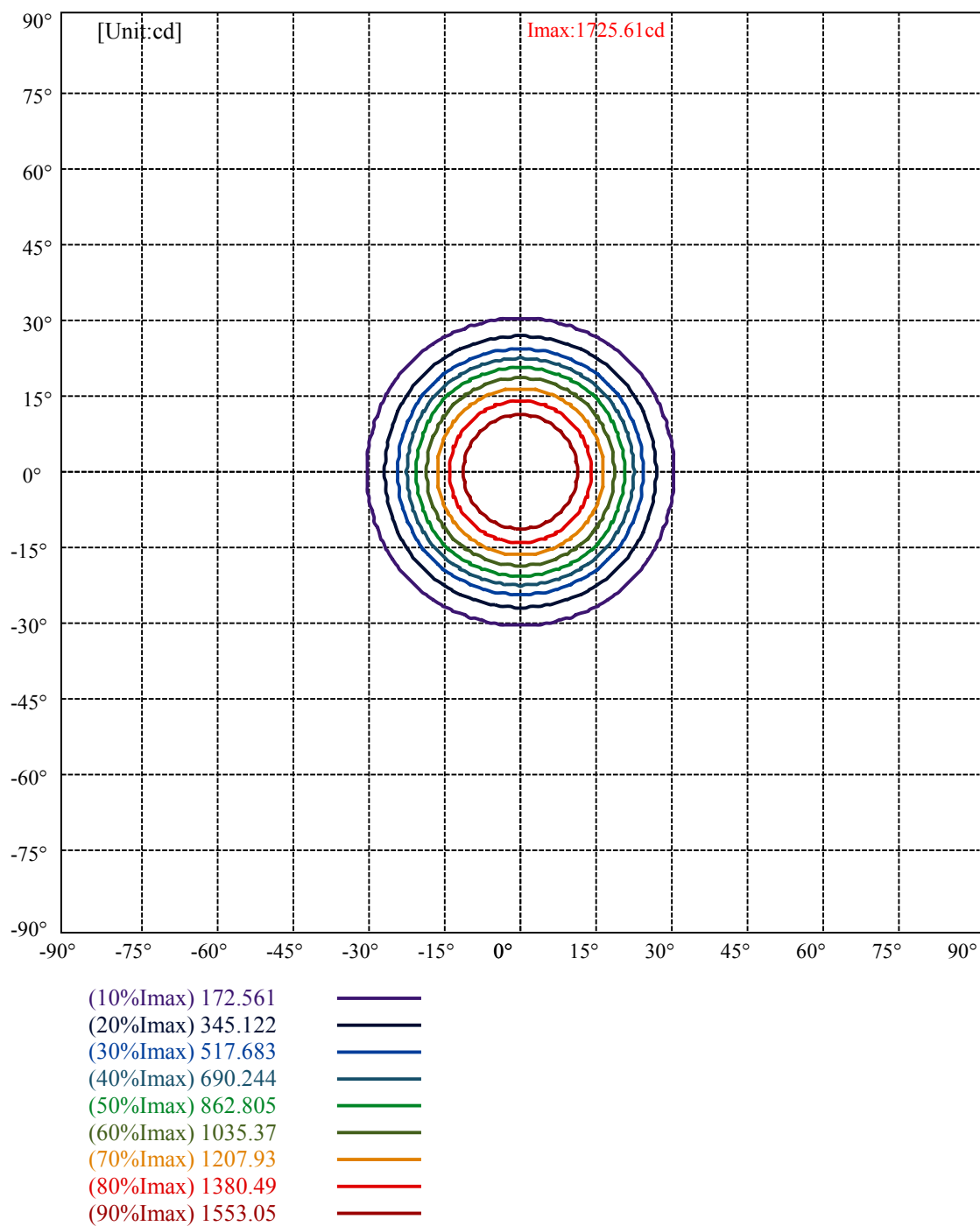
Field angle(10%Imax):C0/180Left:29.9 Right:29.9

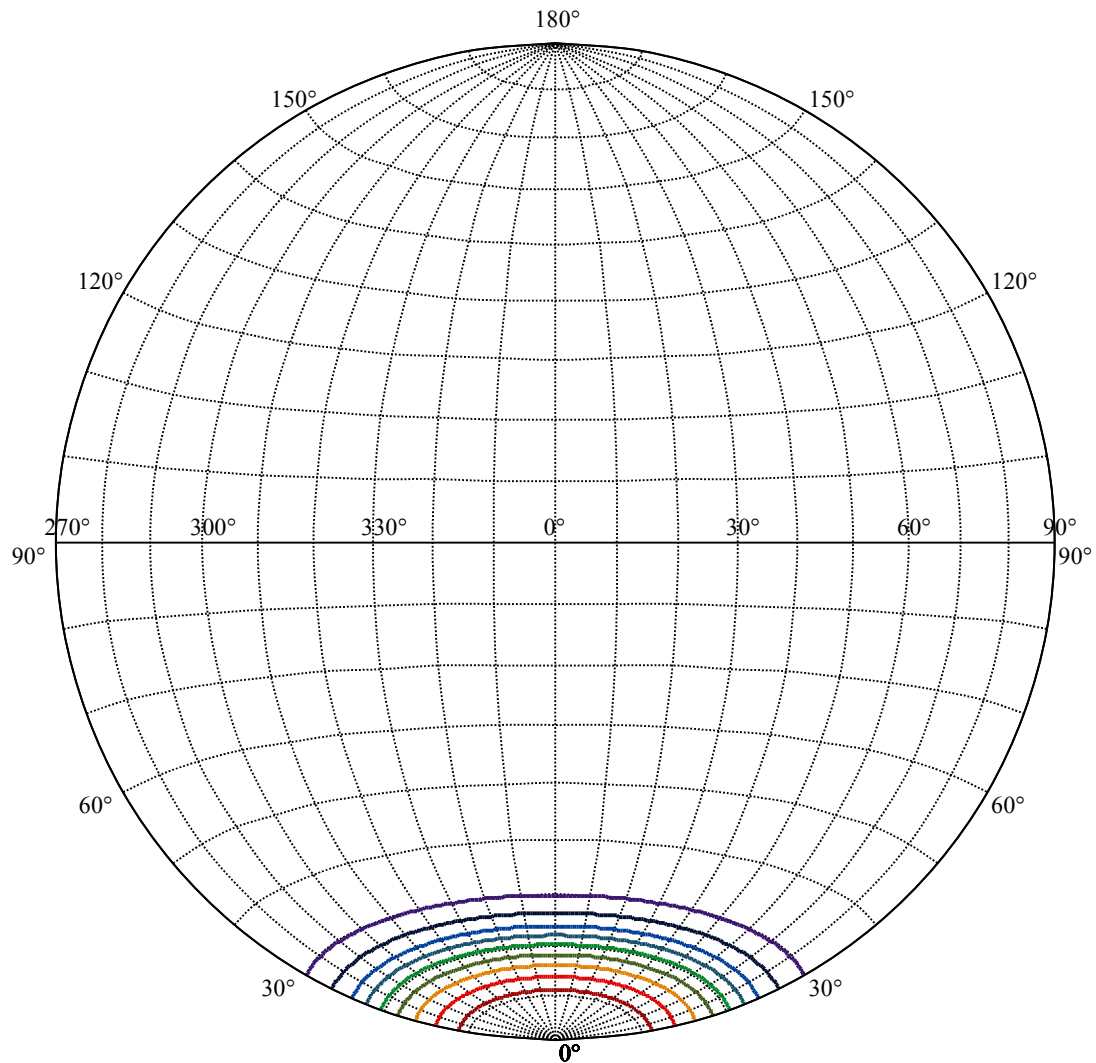
:C90/270Left:29.9 Right:29.9

Beam Angle(50%Imax):C0/180Left:20.4 Right:20.4

:C90/270Left:20.4 Right:20.4







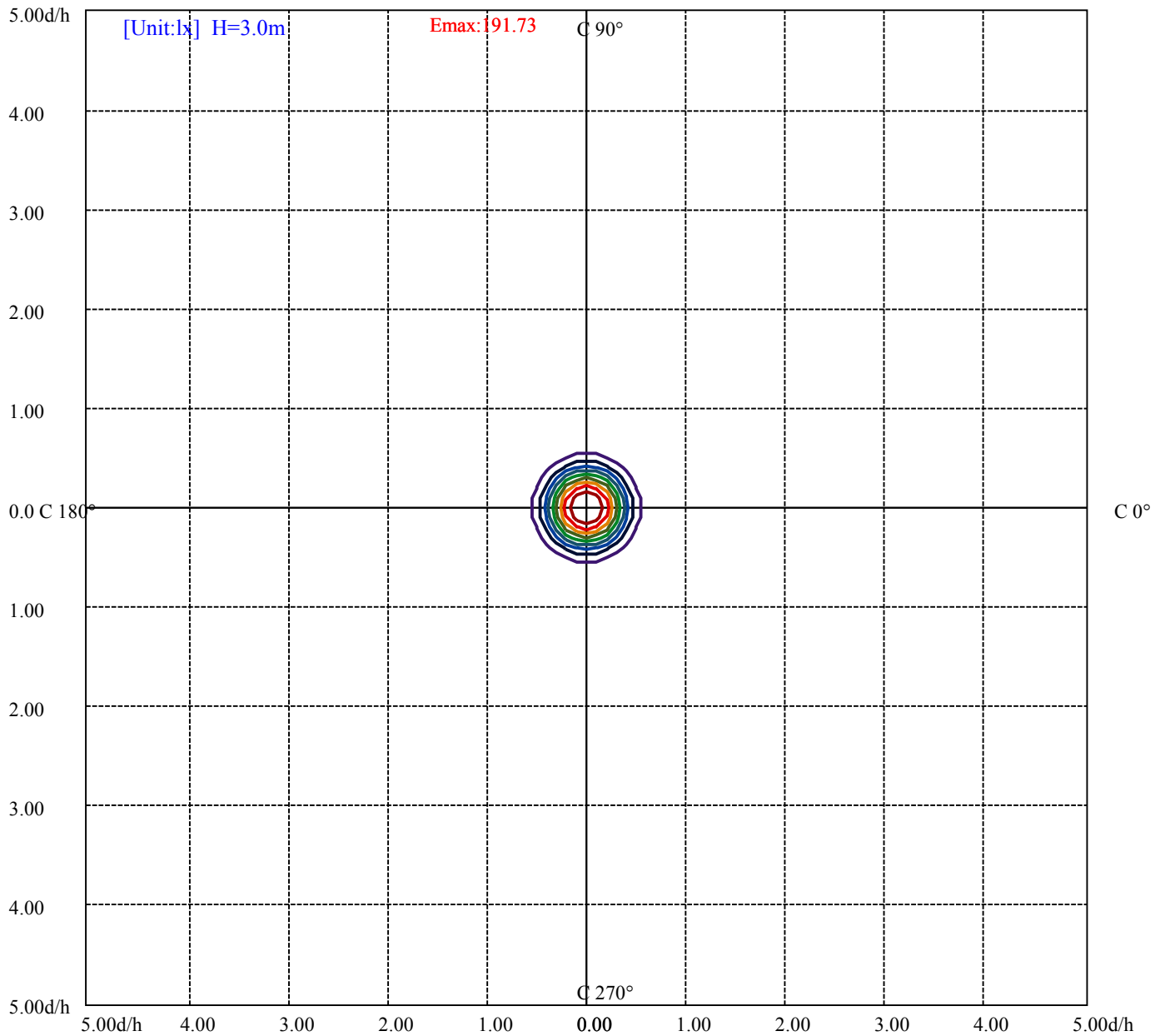
House

[Unit:cd]

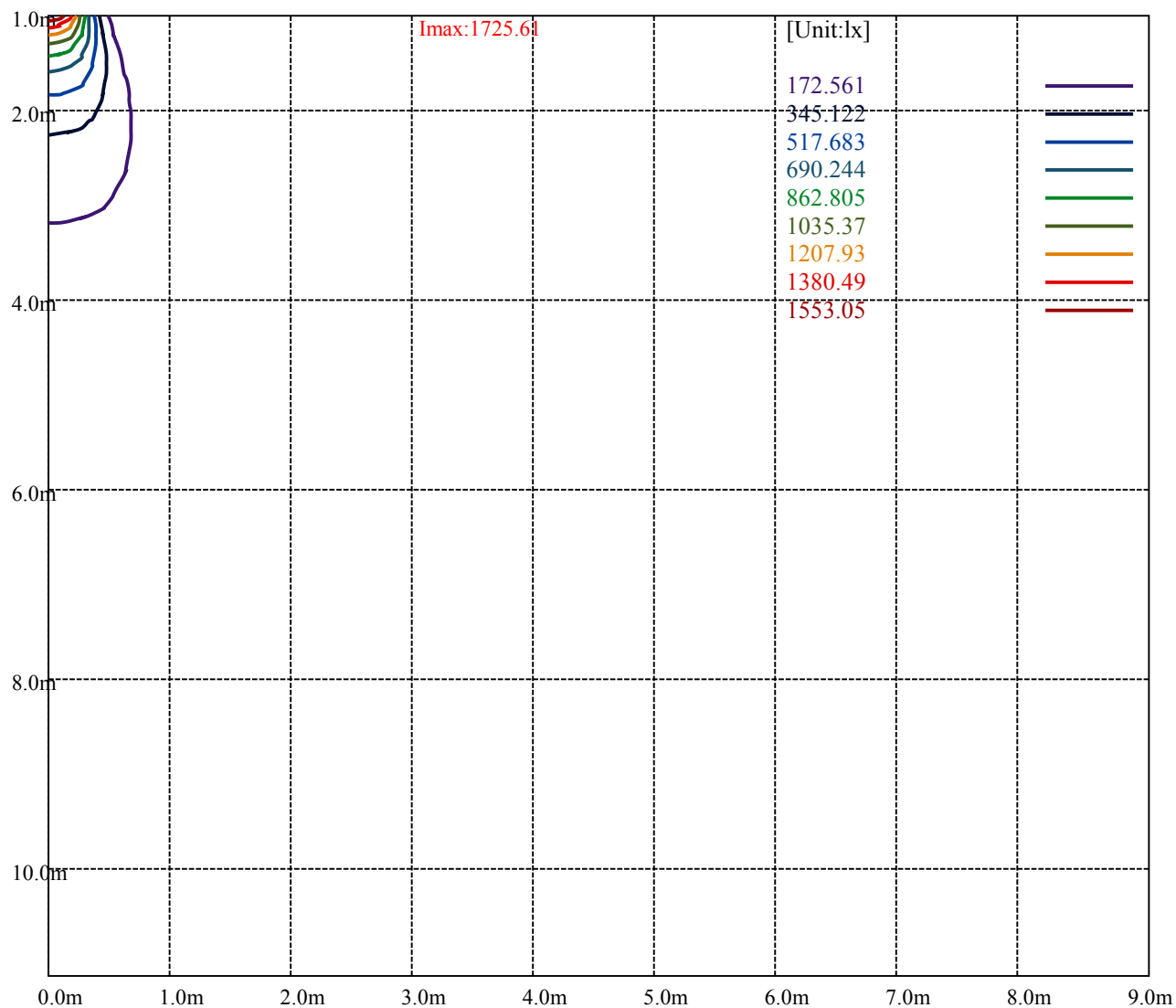
Road

Imax:1725.61

(10%Imax)	172.561	—
(20%Imax)	345.122	—
(30%Imax)	517.683	—
(40%Imax)	690.244	—
(50%Imax)	862.805	—
(60%Imax)	1035.37	—
(70%Imax)	1207.93	—
(80%Imax)	1380.49	—
(90%Imax)	1553.05	—



(10%Emax)	19.17344	—
(20%Emax)	38.34689	—
(30%Emax)	57.52022	—
(40%Emax)	76.69366	—
(50%Emax)	95.86711	—
(60%Emax)	115.04	—
(70%Emax)	134.2144	—
(80%Emax)	153.3878	—
(90%Emax)	172.5611	—



Luminance Table

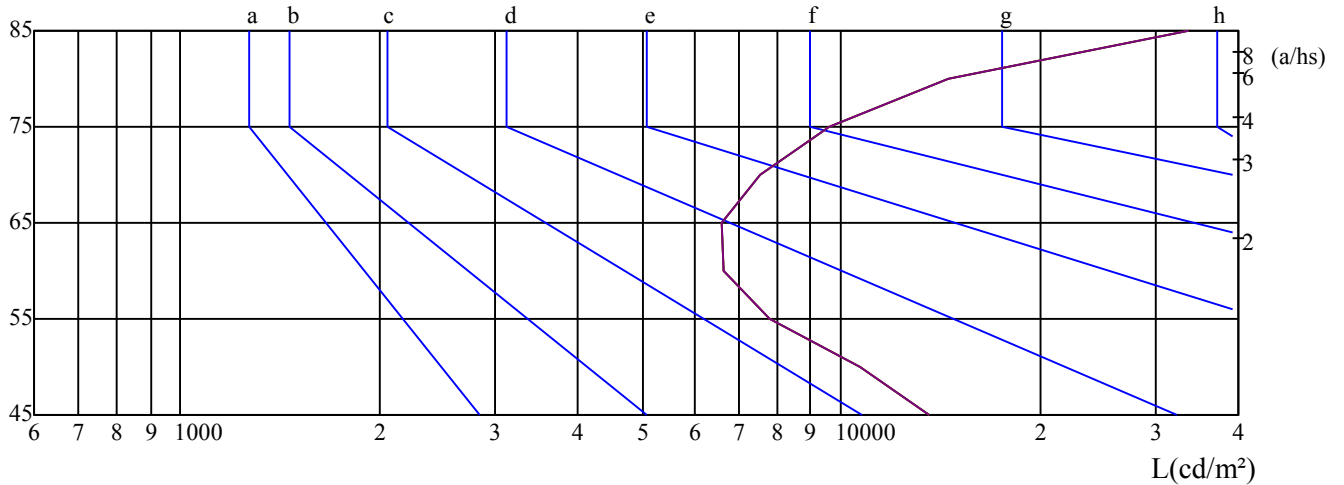
γ	45	50	55	60	65	70	75	80	85
C0	13591	10718	7796	6629	6602	7567	9583	14548	33518
C45	13591	10718	7796	6629	6602	7567	9583	14548	33518
C90	13591	10718	7796	6629	6602	7567	9583	14548	33518

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
6602	6602	6602	9583	9583	9583	33518	33518	33518

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

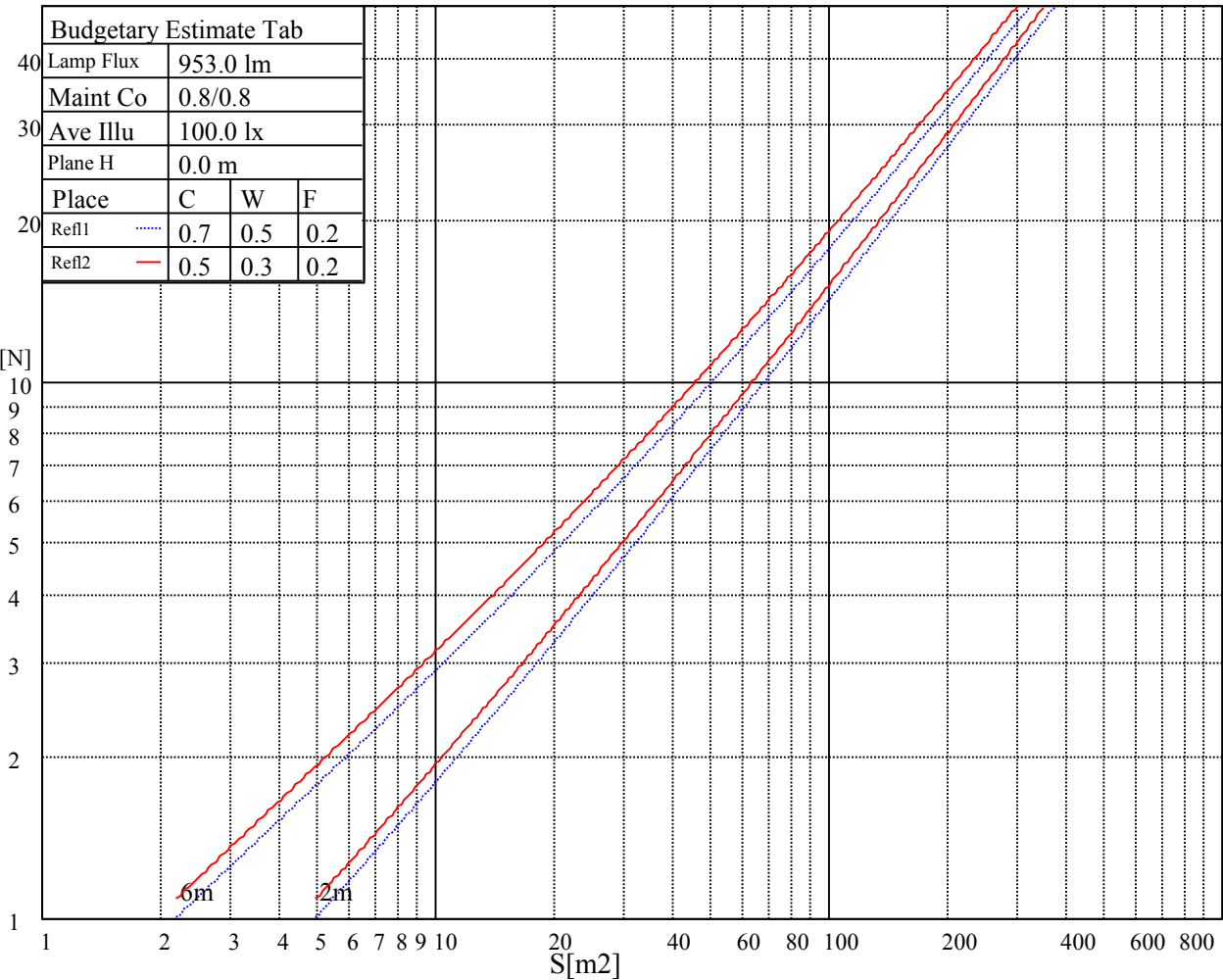
Luminance Limiting Curve

 $\gamma(^{\circ})$ 

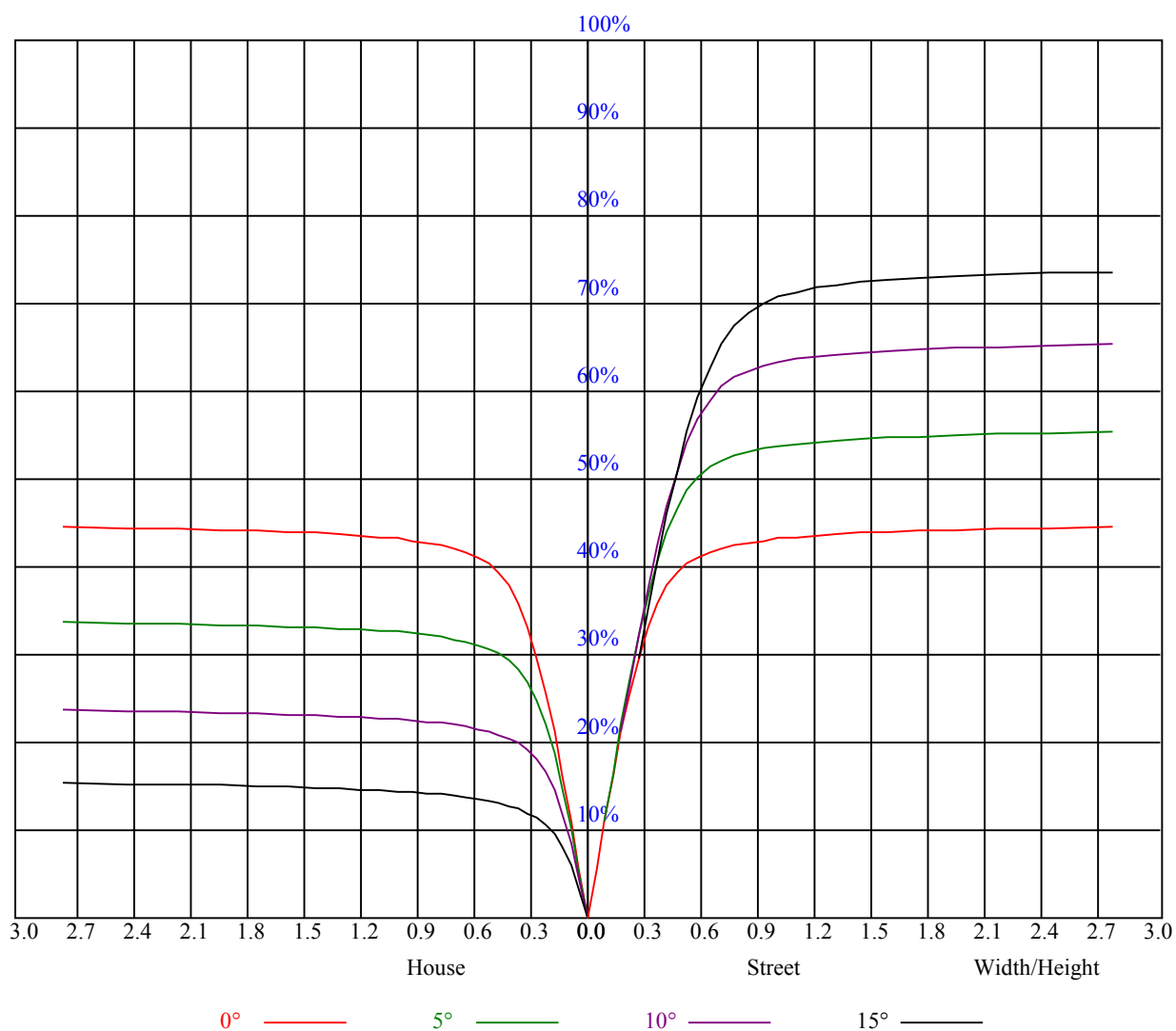
C0 ———

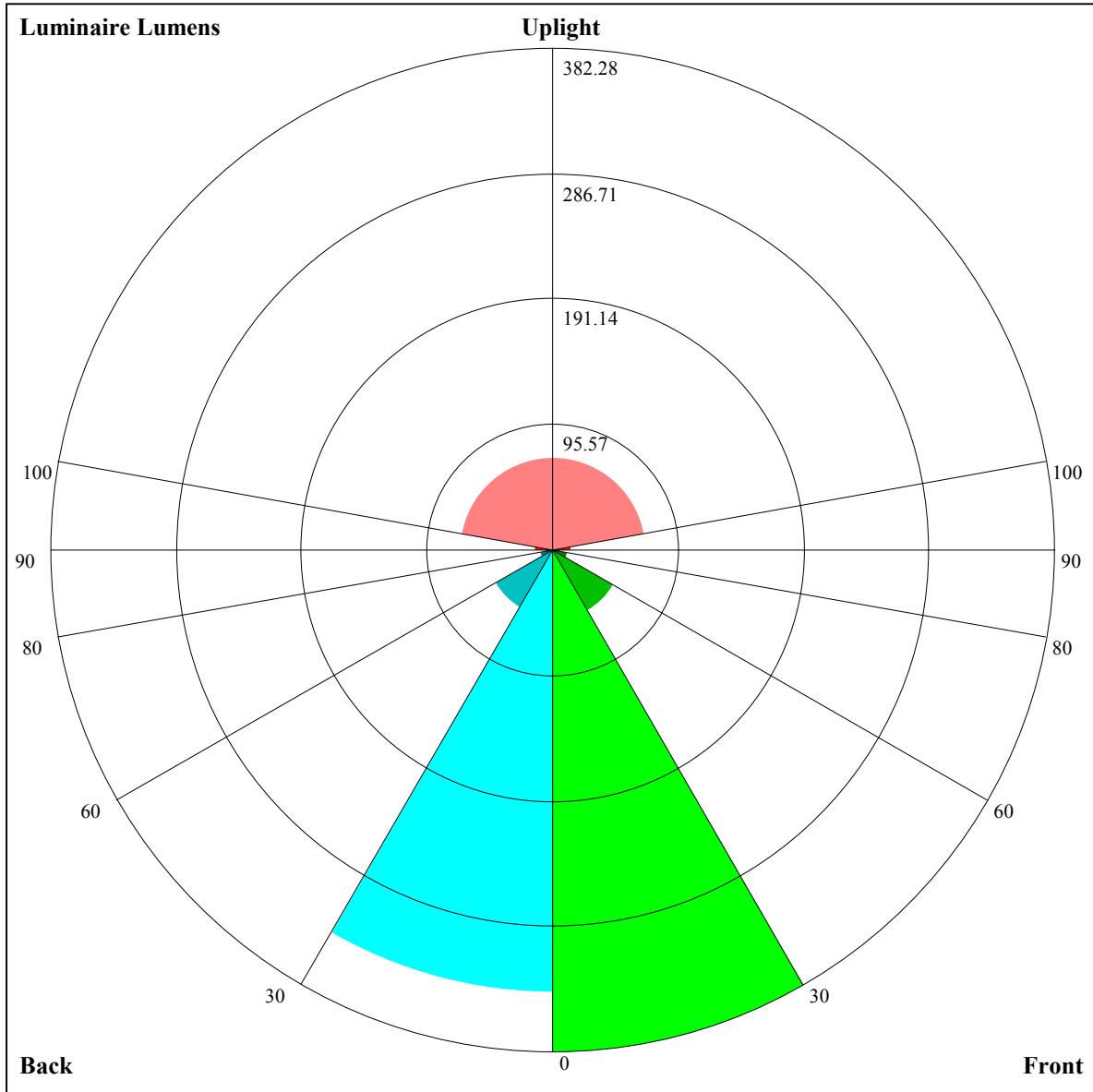
C45 ———

C90 ———



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	1.09	1.09	1.09	1.06	1.06	1.06	1.02	1.02	1.02	0.97	0.97	0.97	0.93	0.93	0.93	0.91
1	1.01	0.99	0.96	0.99	0.97	0.95	0.95	0.94	0.92	0.92	0.90	0.89	0.89	0.88	0.87	0.85
2	0.95	0.91	0.88	0.93	0.90	0.87	0.90	0.87	0.85	0.87	0.85	0.83	0.85	0.83	0.81	0.80
3	0.89	0.85	0.81	0.88	0.84	0.81	0.85	0.82	0.79	0.83	0.80	0.78	0.81	0.79	0.77	0.76
4	0.84	0.79	0.76	0.83	0.79	0.75	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	0.71	0.79	0.75	0.71	0.77	0.74	0.71	0.76	0.73	0.70	0.75	0.72	0.69	0.68
6	0.76	0.71	0.68	0.75	0.71	0.67	0.74	0.70	0.67	0.73	0.69	0.66	0.72	0.68	0.66	0.65
7	0.73	0.68	0.64	0.72	0.67	0.64	0.71	0.67	0.64	0.70	0.66	0.63	0.69	0.66	0.63	0.62
8	0.69	0.65	0.61	0.69	0.64	0.61	0.68	0.64	0.61	0.67	0.63	0.61	0.66	0.63	0.60	0.59
9	0.66	0.62	0.58	0.66	0.61	0.58	0.65	0.61	0.58	0.64	0.61	0.58	0.64	0.60	0.58	0.57
10	0.64	0.59	0.56	0.63	0.59	0.56	0.63	0.59	0.56	0.62	0.58	0.56	0.61	0.58	0.56	0.54





Luminaire Lumens:

FL=382.28,FM=53.74,FH=10.93,FVH=6.57

BL=337.43,BM=50.29,BH=10.8,BVH=6.21

UL=14.79,UH=70.39

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	1722.94	1768.50	1770.75	1597.50	1124.44	520.31	208.01	86.23	58.11
45.0	1719.00	1746.56	1712.81	1481.63	1016.44	457.88	178.76	86.63	55.97
90.0	1726.88	1689.19	1553.63	1108.58	757.35	341.66	151.37	72.34	47.93
135.0	1733.63	1663.31	1564.31	1217.81	814.50	412.31	186.75	87.02	53.16
180.0	1722.94	1643.06	1528.31	1106.89	759.04	377.10	163.46	70.88	47.48
225.0	1719.00	1638.56	1514.25	1099.01	758.42	371.14	153.62	70.82	47.48
270.0	1726.88	1698.19	1632.94	1414.69	966.94	483.19	161.89	79.76	53.61
315.0	1733.63	1747.13	1730.25	1463.63	1016.04	437.51	141.24	83.03	56.42
360.0	1722.94	1768.50	1770.75	1597.50	1124.44	520.31	208.01	86.23	58.11
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	42.86	30.60	19.86	14.12	11.76	11.19	10.91	10.46	12.15
45.0	40.89	29.14	18.34	13.44	11.14	10.18	9.73	9.96	11.81
90.0	34.82	24.02	15.64	12.21	10.63	9.84	9.39	10.01	11.64
135.0	37.63	27.34	17.49	13.16	10.97	10.01	9.34	9.62	11.42
180.0	35.27	25.59	16.99	13.33	11.93	11.70	11.87	10.97	10.97
225.0	34.88	24.75	15.41	12.04	10.13	9.34	8.83	9.28	10.46
270.0	38.59	28.29	19.69	13.56	10.97	9.96	9.34	9.84	11.98
315.0	40.22	29.03	18.56	13.39	11.08	9.96	9.34	10.07	12.32
360.0	42.86	30.60	19.86	14.12	11.76	11.19	10.91	10.46	12.15
C/ γ (°)	90.0								
0.0	14.57								
45.0	14.68								
90.0	13.78								
135.0	12.88								
180.0	12.99								
225.0	12.04								
270.0	13.16								
315.0	14.34								
360.0	14.57								