
Amazonas 500 IES Test Report

LumCAT: F500

Luminaire: /

Report No: WJH-GM-06

Test No: 09

LampCAT: CSP

Lamp flux(lm): 44.0

Number of Lamps: 240

Length(mm): 230

Phm Type: C

Voltage(V): 223.0000

Current(A): 2.2330

Power (W): 488.0000

PF: 0.0000

Ballast type:

Width(mm): 190

Height(mm): 60

Photometric Results

Lumens(lm): 10633.49

Efficiency(%): 100.70%

Lumens(lm)/Power(W): 21.79

Central intensity(cd): 4315.199

Maximum intensity(cd): 4520.520

Angle of maximum intensity: C=30.0 γ =25.0

Beam Angle(50%Imax): [C0/180]Total=87.7

[C90/270]Total=88.2

Field angle(10%Imax): [C0/180]Total=146.2

[C90/270]Total=146.1

Maximum s/h(1/2): C0_180=1.54 C90_270=1.54

Maximum s/h(1/4): C0_180=2.19 C90_270=1.34

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 100.70%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 87.731%

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Zonal flux distribution table

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$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	4338.361	.000	.000	.000%	.000%
5.0	4355.619	103.934	103.934	.984%	.984%
10.0	4400.532	313.235	417.169	2.966%	3.950%
15.0	4454.100	525.251	942.420	4.974%	8.924%
20.0	4497.463	737.735	1680.154	6.986%	15.911%
25.0	4515.835	945.329	2625.483	8.952%	24.863%
30.0	4496.871	1140.566	3766.048	10.801%	35.663%
35.0	4402.134	1310.441	5076.489	12.409%	48.073%
40.0	4093.630	1417.454	6493.943	13.423%	61.496%
45.0	1943.762	1117.872	7611.815	10.586%	72.082%
50.0	1318.150	659.117	8270.933	6.242%	78.323%
55.0	1181.373	543.480	8814.412	5.147%	83.470%
60.0	1044.231	514.442	9328.854	4.872%	88.341%
65.0	877.257	467.117	9795.972	4.423%	92.765%
70.0	619.204	378.914	10174.880	3.588%	96.353%
75.0	365.678	257.432	10432.320	2.438%	98.791%
80.0	154.487	139.182	10571.500	1.318%	100.109%
85.0	34.812	51.437	10622.940	.487%	100.596%
90.0	3.744	10.557	10633.490	.100%	100.696%

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Zonal flux distribution table

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	3766.05	35.66%	35.42%
0-40	6493.94	61.50%	61.07%
0-60	9328.85	88.34%	87.73%
0-90	10622.94	100.60%	99.90%
0-120	10622.94	100.60%	99.90%
0-180	10633.49	100.70%	100.00%
60-90	1808.52	17.13%	17.01%
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%
0-52.17	8506.79	80.56%	80.00%

ZONAL LUMEN SUMMARY

0-10	417.17
10-20	1262.99
20-30	2085.89
30-40	2727.90
40-50	1776.99
50-60	1057.92
60-70	846.03
70-80	396.61
80-90	51.44
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

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Equipment: GMS-1800
Temperature(°C): 25.0

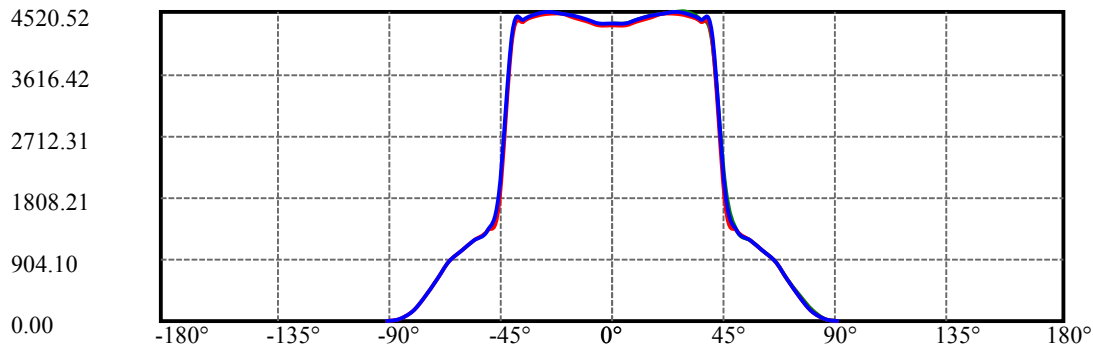
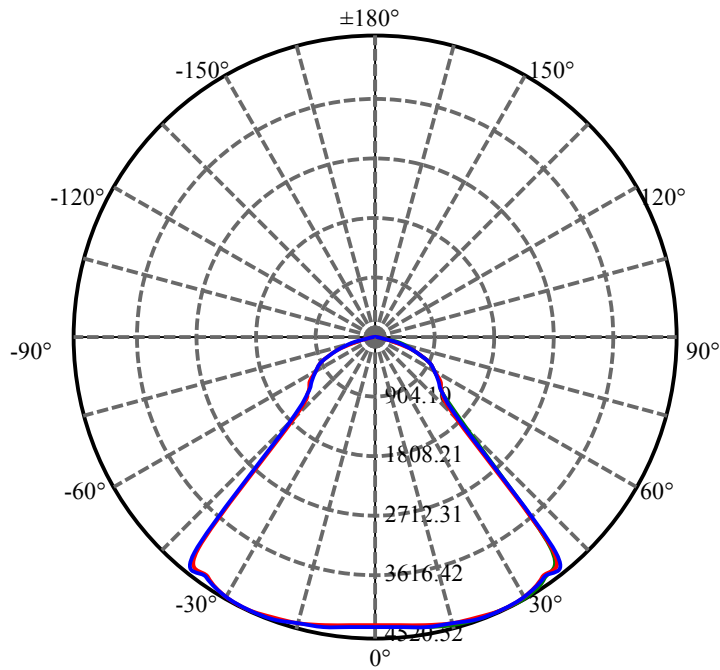
Date: 2016/9/27
Humidity(%): 65.0%

Operator: Andy chen
Distance(m): 10.22

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Light Distribution Curve [Unit:cd]

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C30(Max): ———

C0/C180: ———

C90/C270: ———

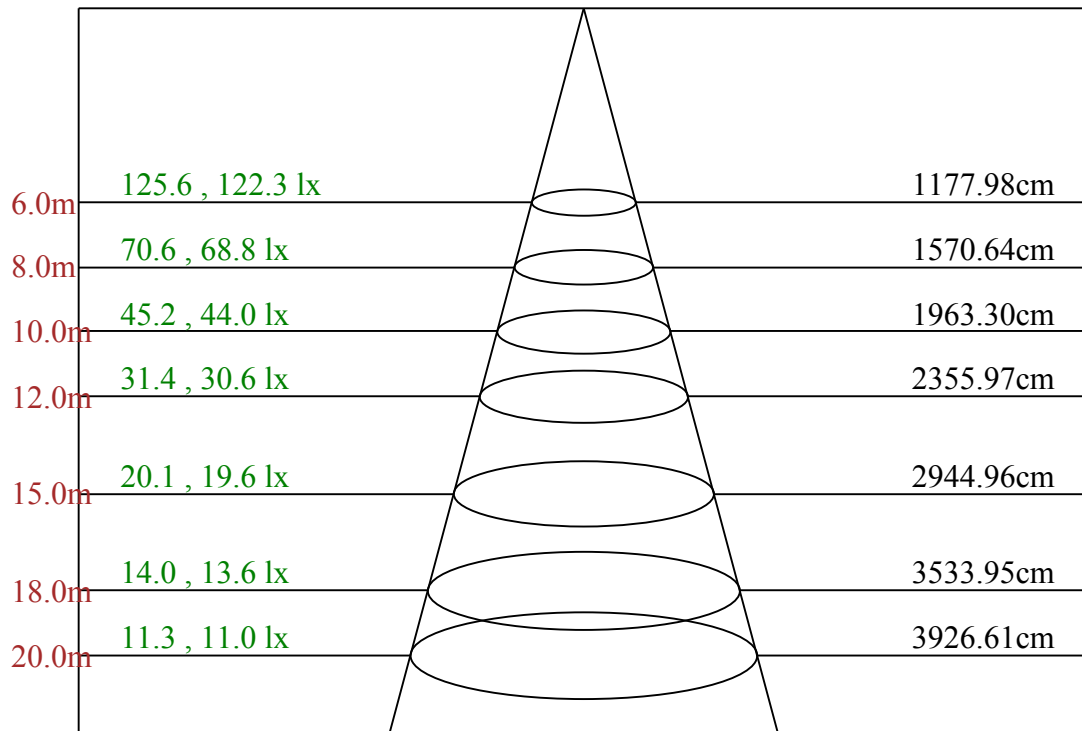
Field angle(10%Imax):C0/180Left:98.1 Right:48.1

:C90/270Left:98.1 Right:48.1

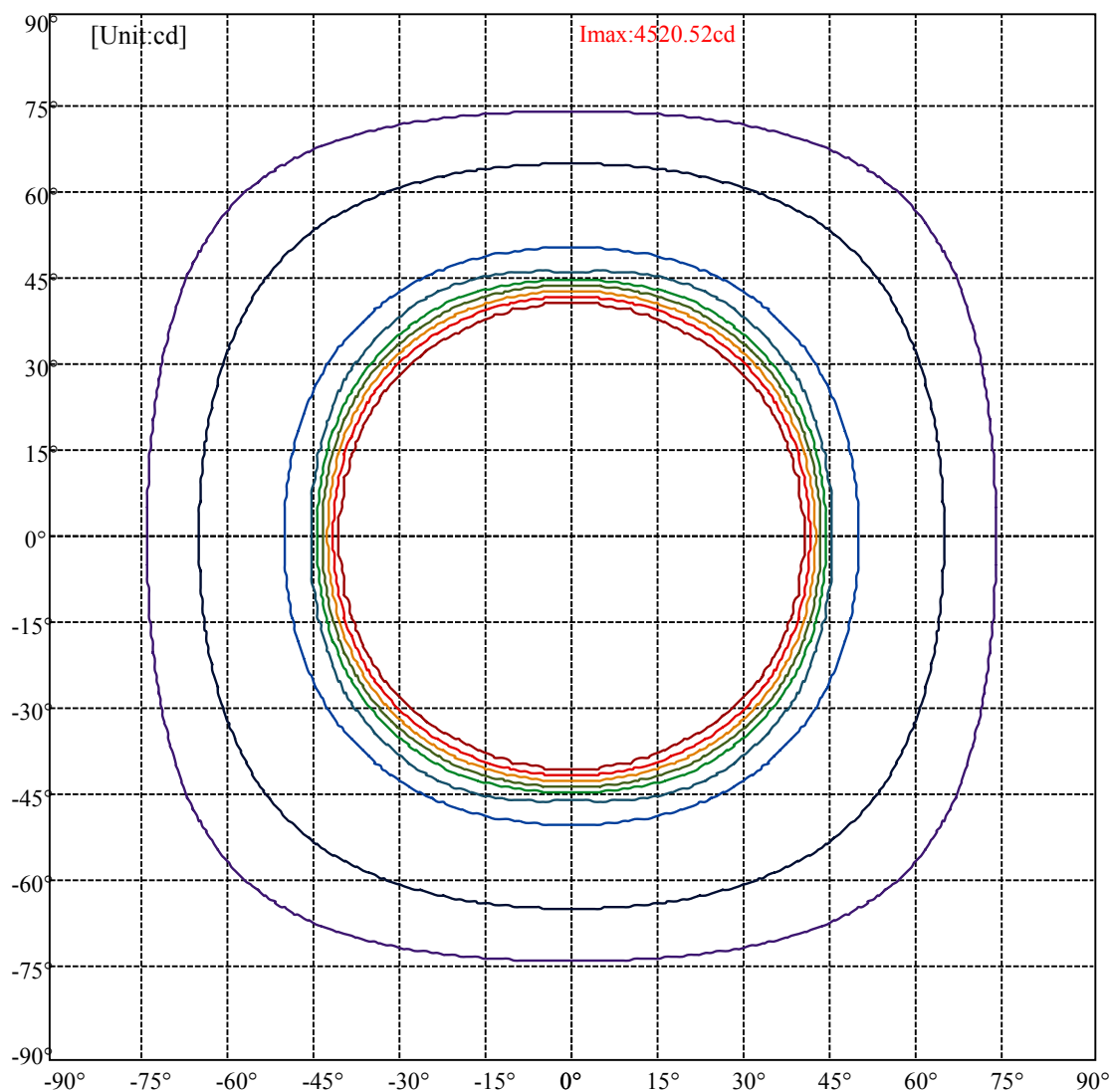
Beam Angle(50%Imax):C0/180Left:68.9 Right:18.9

:C90/270Left:69.1 Right:19.1

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Max , Ave Beam angle of C30plane88.94

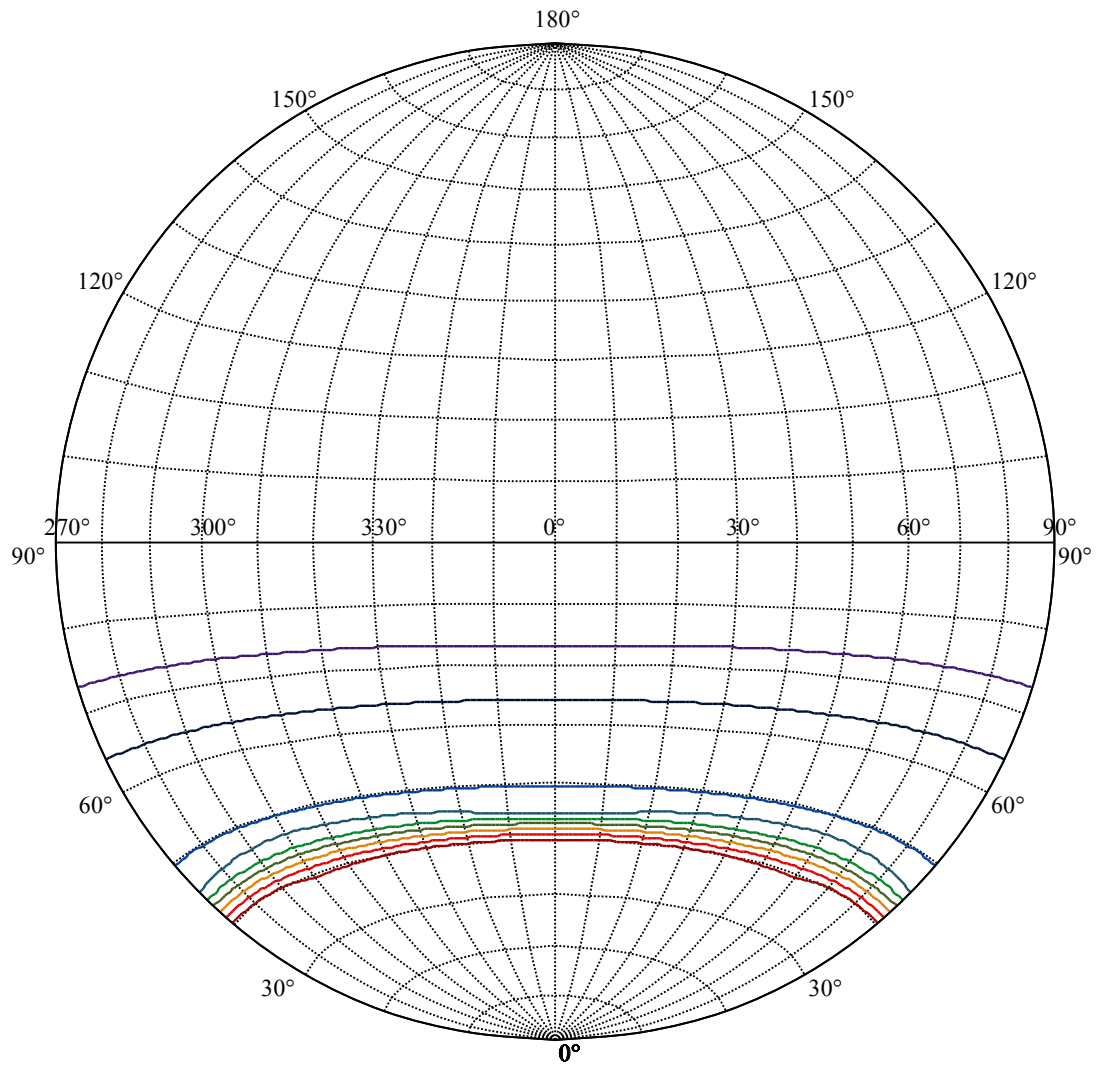


(10%Imax) 452.021	
(20%Imax) 904.041	
(30%Imax) 1356.06	
(40%Imax) 1808.08	
(50%Imax) 2260.1	
(60%Imax) 2712.12	
(70%Imax) 3164.14	
(80%Imax) 3616.16	
(90%Imax) 4068.19	

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ISO candela diagram on circular web

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House

[Unit:cd]

Road

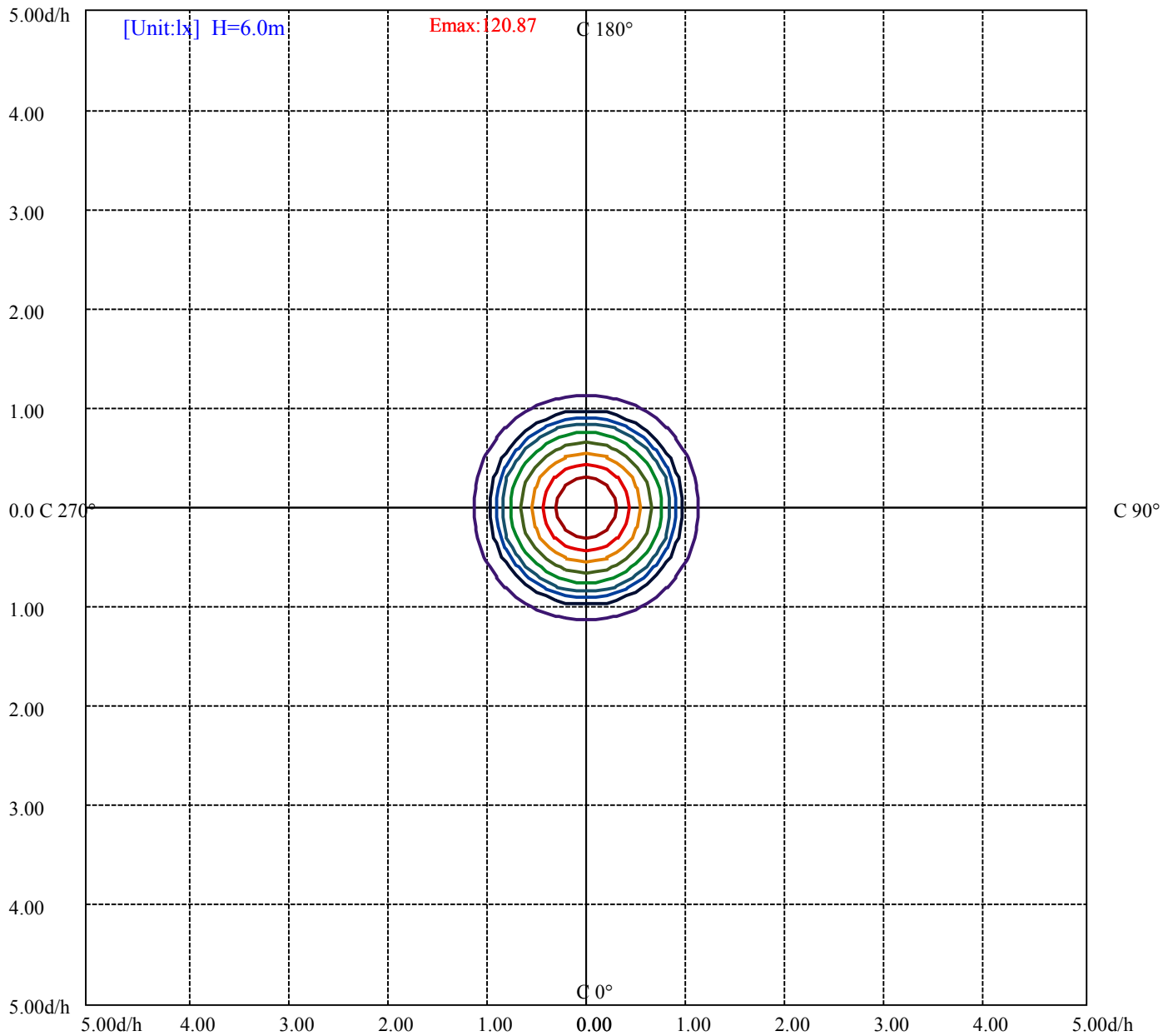
Imax:4520.52

(10%Imax) 452.052	—
(20%Imax) 904.104	—
(30%Imax) 1356.16	—
(40%Imax) 1808.21	—
(50%Imax) 2260.26	—
(60%Imax) 2712.31	—
(70%Imax) 3164.36	—
(80%Imax) 3616.42	—
(90%Imax) 4068.47	—

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ISO illuminance diagram

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(10%Emax) 12.08681	—
(20%Emax) 24.17361	—
(30%Emax) 36.26028	—
(40%Emax) 48.34722	—
(50%Emax) 60.43389	—
(60%Emax) 72.52084	—
(70%Emax) 84.60751	—
(80%Emax) 96.69444	—
(90%Emax) 108.7811	—

Equipment: GMS-1800
Temperature(°C): 25.0

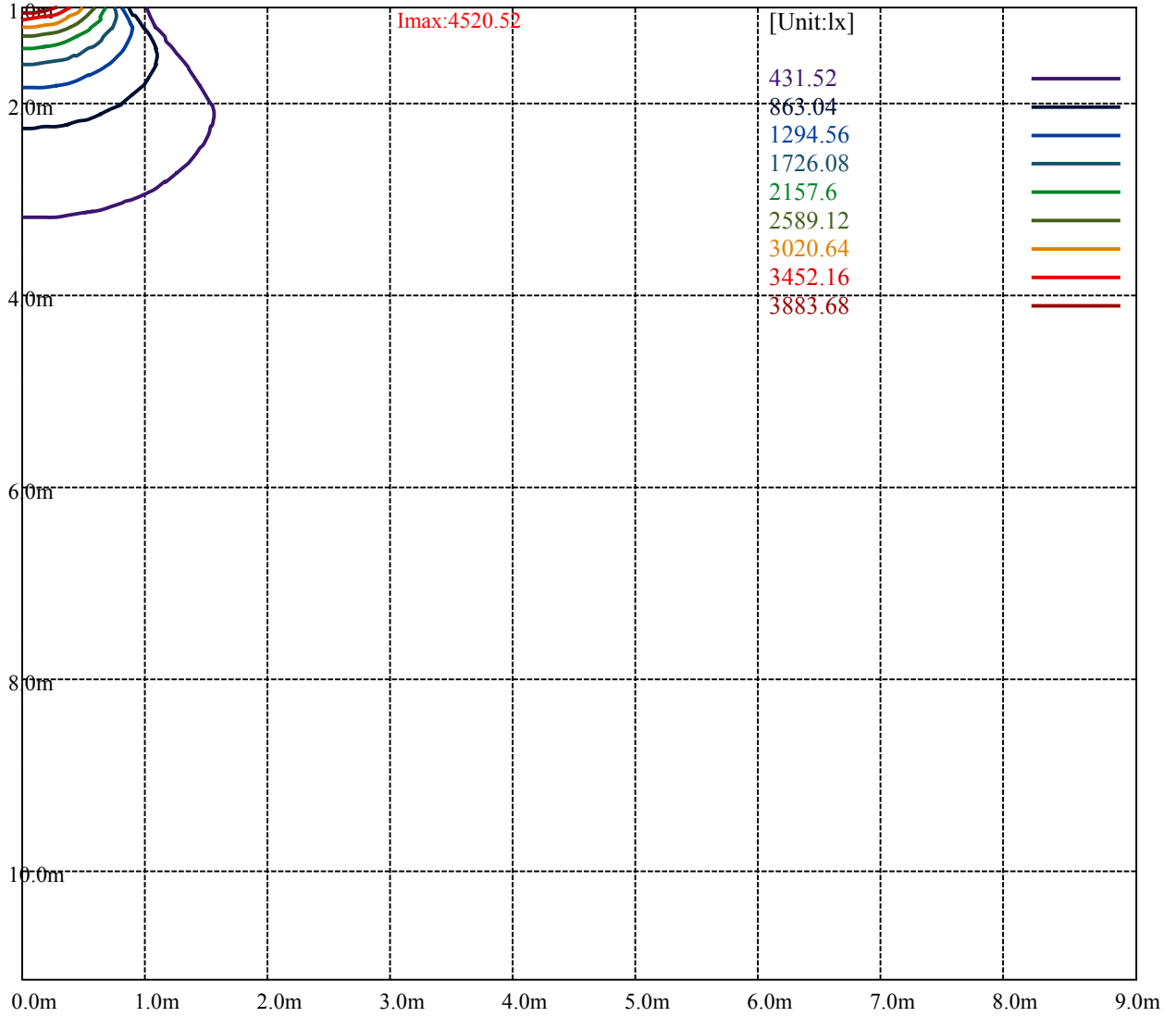
Date: 2016/9/27
Humidity(%): 65.0%

Operator: Andy chen
Distance(m): 10.22

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Space ISO Lux diagram

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Equipment: GMS-1800
Temperature(°C): 25.0

Date: 2016/9/27
Humidity(%): 65.0%

Operator: Andy chen
Distance(m): 10.22

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Luminance Limiting Curve(no luminous side)

Luminance Table

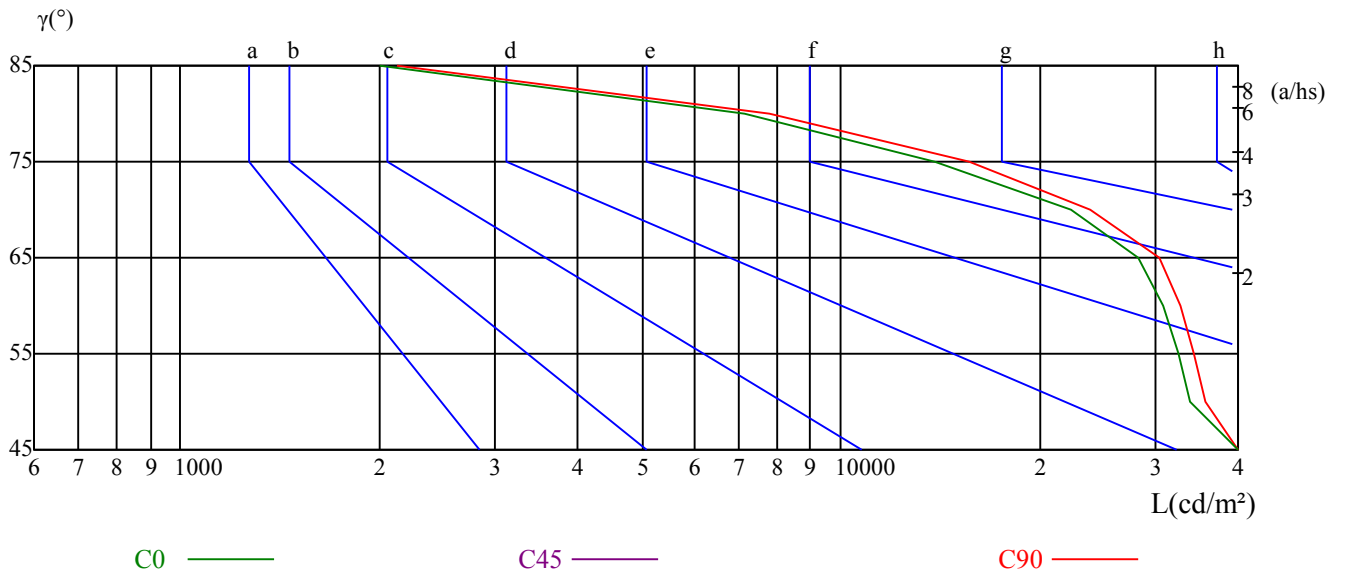
γ	45	50	55	60	65	70	75	80	85
C0	41725	33930	32399	30802	28258	22355	13867	7129	2006
C45	0	0	0	0	0	0	0	0	0
C90	47305	35729	34198	32820	30370	23945	15663	7797	2122

L横(65)	L纵(65)	L45(65)	L横(75)	L纵(75)	L45(75)	L横(85)	L纵(85)	L45(85)
47395	47361	0	30209	30911	0	9245	8450	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



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UGR Glare

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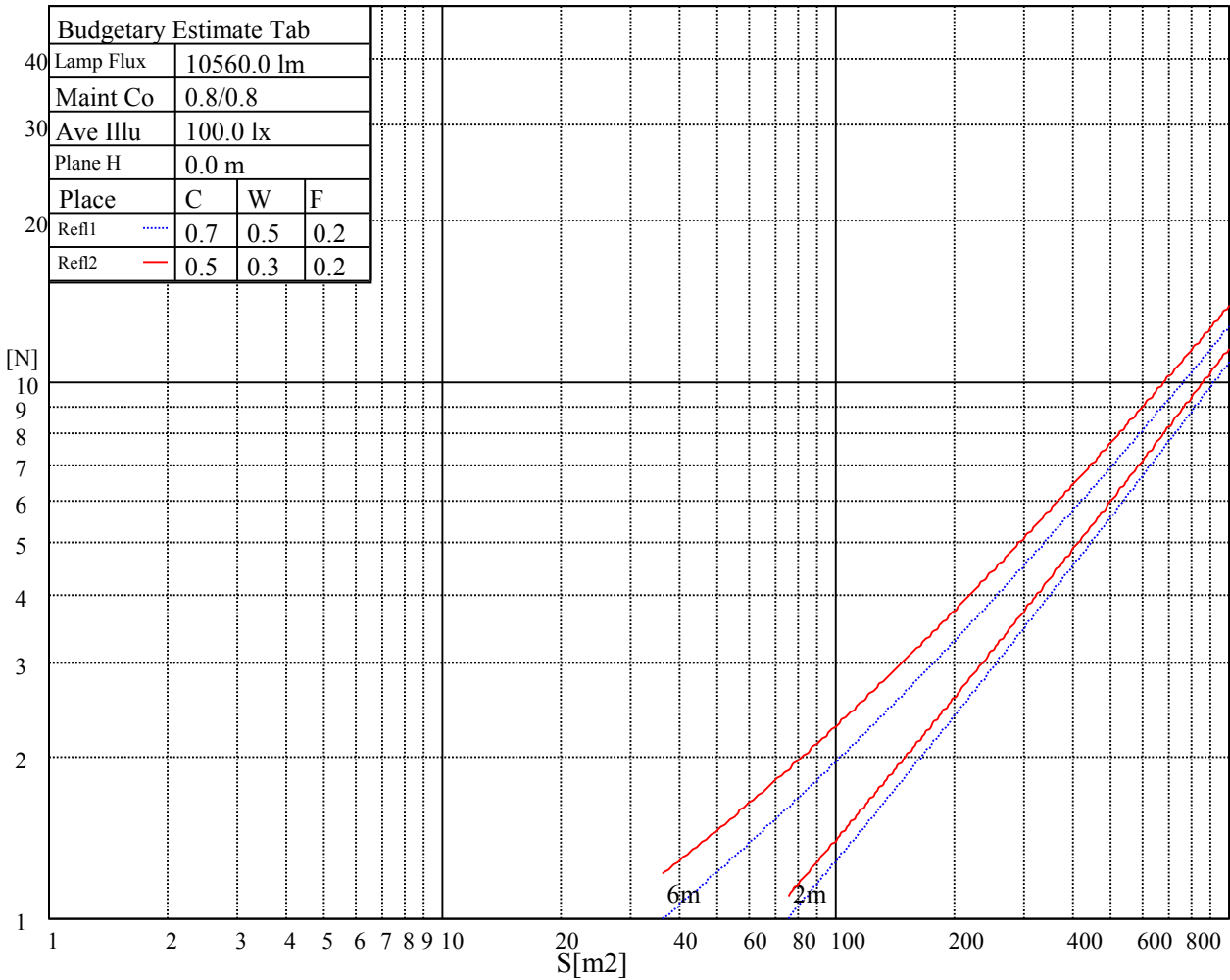
Illuminatin assessment according UGR											
Rf of Ceiling	70	70	50	50	30	70	70	50	50	30	
Rf of Wall	50	30	50	30	30	50	30	50	30	30	
Rf of Floor	20	20	20	20	20	20	20	20	20	20	
Room dimensions		Viewed crosswise					Viewed endwise				
X	Y										
2H	2H	18.5	19.8	18.8	20.0	20.2	18.4	19.7	18.7	19.9	20.1
	3H	19.6	20.7	19.9	20.9	21.2	19.5	20.6	19.8	20.9	21.1
	4H	19.7	20.6	20.1	21.0	21.3	19.6	20.5	20.0	20.9	21.2
	6H	19.9	20.8	20.3	21.1	21.5	19.8	20.7	20.2	21.0	21.3
	8H	19.9	20.8	20.3	21.2	21.5	19.8	20.7	20.2	21.1	21.4
	12H	19.7	20.4	20.2	20.8	21.2	19.6	20.3	20.1	20.7	21.1
4H	2H	18.8	19.7	19.2	20.0	20.4	18.7	19.6	19.1	19.9	20.3
	3H	20.0	20.7	20.4	21.1	21.5	19.9	20.6	20.4	21.0	21.4
	4H	20.4	21.1	20.8	21.5	21.9	20.3	21.0	20.8	21.4	21.8
	6H	20.6	21.3	21.1	21.7	22.1	20.5	21.2	21.0	21.6	22.0
	8H	20.5	20.9	21.0	21.4	21.9	20.4	20.8	20.9	21.3	21.8
	12H	20.5	20.9	21.0	21.4	21.9	20.4	20.8	20.9	21.3	21.8
8H	4H	20.5	20.8	21.0	21.3	21.8	20.4	20.8	20.9	21.2	21.8
	6H	20.7	21.1	21.2	21.6	22.1	20.6	21.0	21.1	21.5	22.0
	8H	20.8	21.2	21.3	21.6	22.1	20.7	21.1	21.2	21.5	22.1
	12H	20.8	21.2	21.3	21.7	22.2	20.7	21.1	21.2	21.6	22.1
12H	4H	20.5	20.9	21.0	21.3	21.8	20.4	20.8	20.9	21.3	21.8
	6H	20.7	21.1	21.2	21.6	22.1	20.7	21.0	21.2	21.5	22.0
	8H	20.8	21.2	21.3	21.7	22.2	20.7	21.1	21.2	21.6	22.1
Variation with the observer position at spacings:											
S = 1.0H	0.8/-1.0					0.9/-0.9					
S = 1.5H	1.7/-1.2					1.7/-1.2					
S = 2.0H	2.5/-1.4					2.6/-1.4					
Standard tables:	BK2					BK2					
Uncorrected UGR	8.0					7.9					

Equipment: GMS-1800
Temperature(°C): 25.0

Date: 2016/9/27
Humidity(%): 65.0%

Operator: Andy chen
Distance(m): 10.22

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Utilization factor table for indoor luminaire

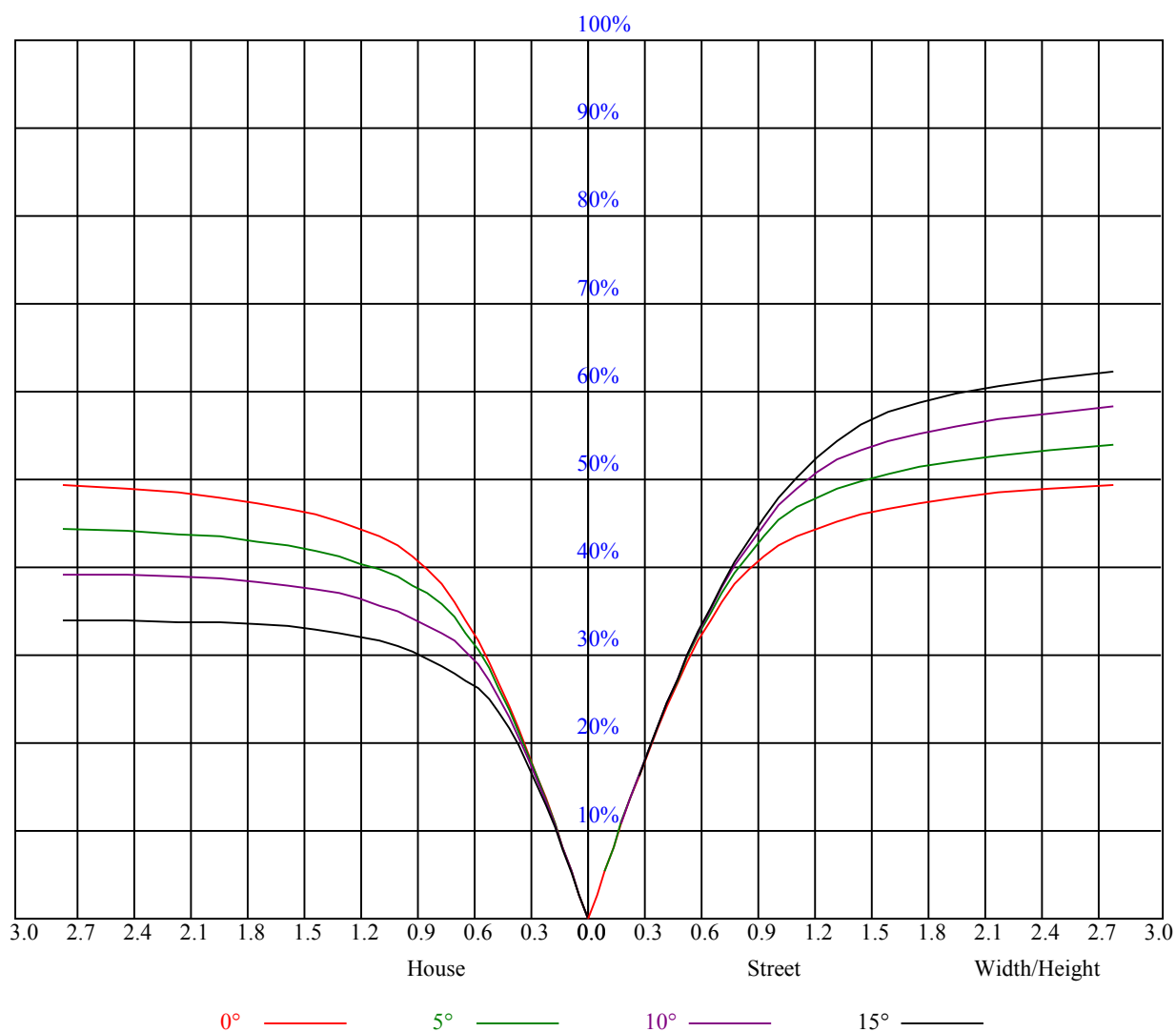
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RHOCC	80			70			50			30			10			0
RHOW	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR	COEFFICIENTS OF UTILIZATION RHOFC=20 CU															
0	1.20	1.20	1.20	1.17	1.17	1.17	1.12	1.12	1.12	1.07	1.07	1.07	1.03	1.03	1.03	1.01
1	1.07	1.04	1.00	1.05	1.02	0.99	1.01	0.98	0.96	0.97	0.95	0.93	0.93	0.92	0.90	0.88
2	0.96	0.90	0.85	0.94	0.88	0.84	0.90	0.86	0.82	0.87	0.83	0.80	0.84	0.81	0.78	0.76
3	0.86	0.78	0.73	0.84	0.77	0.72	0.81	0.75	0.71	0.78	0.74	0.70	0.76	0.72	0.68	0.66
4	0.77	0.69	0.63	0.76	0.68	0.63	0.73	0.67	0.62	0.71	0.66	0.61	0.69	0.64	0.60	0.58
5	0.70	0.61	0.55	0.69	0.61	0.55	0.66	0.60	0.55	0.65	0.59	0.54	0.63	0.58	0.54	0.52
6	0.63	0.55	0.49	0.62	0.55	0.49	0.61	0.54	0.49	0.59	0.53	0.48	0.57	0.52	0.48	0.46
7	0.58	0.50	0.44	0.57	0.49	0.44	0.56	0.49	0.44	0.54	0.48	0.43	0.53	0.47	0.43	0.41
8	0.53	0.45	0.40	0.52	0.45	0.40	0.51	0.44	0.39	0.50	0.44	0.39	0.49	0.43	0.39	0.37
9	0.49	0.41	0.36	0.48	0.41	0.36	0.47	0.40	0.36	0.46	0.40	0.36	0.45	0.40	0.35	0.34
10	0.45	0.38	0.33	0.45	0.38	0.33	0.44	0.37	0.33	0.43	0.37	0.32	0.42	0.36	0.32	0.31

Equipment: GMS-1800
 Temperature(°C): 25.0

Date: 2016/9/27
 Humidity(%): 65.0%

Operator: Andy chen
 Distance(m): 10.22



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Intensity data(cd)

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C/γ(°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	4315.20	4332.44	4383.64	4439.02	4480.81	4499.62	4478.20	4379.46	4126.07
30.0	4347.59	4360.97	4403.49	4456.57	4500.98	4520.52	4506.73	4412.69	4085.64
60.0	4354.91	4359.61	4404.01	4459.39	4503.80	4518.74	4492.62	4399.10	4026.08
90.0	4342.37	4360.13	4404.54	4453.65	4494.40	4516.86	4504.32	4409.76	4212.28
120.0	4338.19	4359.61	4404.01	4459.39	4503.80	4518.74	4492.62	4399.10	4026.08
150.0	4331.92	4360.97	4403.49	4456.57	4500.98	4520.52	4506.73	4412.69	4085.64
180.0	4315.20	4332.44	4383.64	4439.02	4480.81	4499.62	4478.20	4379.46	4126.07
210.0	4347.59	4360.97	4403.49	4456.57	4500.98	4520.52	4506.73	4412.69	4085.64
240.0	4354.91	4359.61	4404.01	4459.39	4503.80	4518.74	4492.62	4399.10	4026.08
270.0	4342.37	4360.13	4404.54	4453.65	4494.40	4516.86	4504.32	4409.76	4212.28
300.0	4338.19	4359.61	4404.01	4459.39	4503.80	4518.74	4492.62	4399.10	4026.08
330.0	4331.92	4360.97	4403.49	4456.57	4500.98	4520.52	4506.73	4412.69	4085.64
360.0	4315.20	4332.44	4383.64	4439.02	4480.81	4499.62	4478.20	4379.46	4126.07

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	1696.49	1311.76	1178.33	1041.13	875.31	624.01	341.68	150.99	35.21
30.0	1954.37	1318.45	1182.09	1046.57	879.38	622.02	377.00	158.09	35.63
60.0	2107.13	1322.31	1184.60	1045.00	877.40	616.38	374.39	156.53	35.11
90.0	1843.09	1315.63	1176.55	1041.13	874.68	614.40	349.62	146.70	32.18
120.0	2107.13	1322.31	1184.60	1045.00	877.40	616.38	374.39	156.53	35.11
150.0	1954.37	1318.45	1182.09	1046.57	879.38	622.02	377.00	158.09	35.63
180.0	1696.49	1311.76	1178.33	1041.13	875.31	624.01	341.68	150.99	35.21
210.0	1954.37	1318.45	1182.09	1046.57	879.38	622.02	377.00	158.09	35.63
240.0	2107.13	1322.31	1184.60	1045.00	877.40	616.38	374.39	156.53	35.11
270.0	1843.09	1315.63	1176.55	1041.13	874.68	614.40	349.62	146.70	32.18
300.0	2107.13	1322.31	1184.60	1045.00	877.40	616.38	374.39	156.53	35.11
330.0	1954.37	1318.45	1182.09	1046.57	879.38	622.02	377.00	158.09	35.63
360.0	1696.49	1311.76	1178.33	1041.13	875.31	624.01	341.68	150.99	35.21

C/γ(°)	90.0
0.0	4.28
30.0	3.97
60.0	3.55
90.0	3.13
120.0	3.55
150.0	3.97
180.0	4.28
210.0	3.97
240.0	3.55
270.0	3.13
300.0	3.55
330.0	3.97
360.0	4.28