
Amazonas 500 IES Test Report

LumCAT: A500

Luminaire: Acrylic Lens 60 degree

Report No: WJH-GM-06

Test No: 09

LampCAT: CSP

Lamp flux(lm): 41.0

Number of Lamps: 240

Length(mm): 230

Phm Type: C

Voltage(V): 223.0000

Current(A): 2.3300

Power (W): 498.0000

PF: 0.9770

Ballast type:

Width(mm): 190

Height(mm): 60

Photometric Results

Lumens(lm): 9852.87

Efficiency(%): 100.13%

Lumens(lm)/Power(W): 19.78

Central intensity(cd): 14498.830

Maximum intensity(cd): 14910.520

Angle of maximum intensity: C=30.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=41.4

[C90/270]Total=42.0

Field angle(10%Imax): [C0/180]Total=83.2

[C90/270]Total=83.5

Maximum s/h(1/2): C0_180=0.66 C90_270=0.68

Maximum s/h(1/4): C0_180=0.95 C90_270=0.71

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 100.13%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 96.859%

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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	14573.190	.000	.000	.000%	.000%
5.0	13952.070	341.011	341.011	3.466%	3.466%
10.0	12258.320	937.628	1278.639	9.529%	12.994%
15.0	10003.510	1320.557	2599.196	13.420%	26.415%
20.0	7638.341	1453.936	4053.132	14.776%	41.190%
25.0	5545.316	1382.722	5435.854	14.052%	55.242%
30.0	3865.581	1190.957	6626.812	12.103%	67.346%
35.0	2542.573	943.646	7570.457	9.590%	76.936%
40.0	1674.057	703.513	8273.970	7.150%	84.085%
45.0	1061.315	506.477	8780.446	5.147%	89.232%
50.0	671.884	350.218	9130.664	3.559%	92.791%
55.0	445.002	242.848	9373.513	2.468%	95.259%
60.0	290.115	169.920	9543.433	1.727%	96.986%
65.0	200.968	119.383	9662.815	1.213%	98.199%
70.0	135.610	85.224	9748.039	.866%	99.065%
75.0	82.146	56.918	9804.957	.578%	99.644%
80.0	37.686	32.064	9837.021	.326%	99.970%
85.0	9.665	12.866	9849.887	.131%	100.101%
90.0	1.219	2.980	9852.867	.030%	100.131%

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Zonal flux distribution table

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	6626.81	67.35%	67.26%
0-40	8273.97	84.09%	83.98%
0-60	9543.43	96.99%	96.86%
0-90	9849.89	100.10%	99.97%
0-120	9849.89	100.10%	99.97%
0-180	9852.87	100.13%	100.00%
60-90	476.37	4.84%	4.83%
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%
0-37.22	7882.29	80.10%	80.00%

ZONAL LUMEN SUMMARY

0-10	1278.64
10-20	2774.49
20-30	2573.68
30-40	1647.16
40-50	856.69
50-60	412.77
60-70	204.61
70-80	88.98
80-90	12.87
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

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

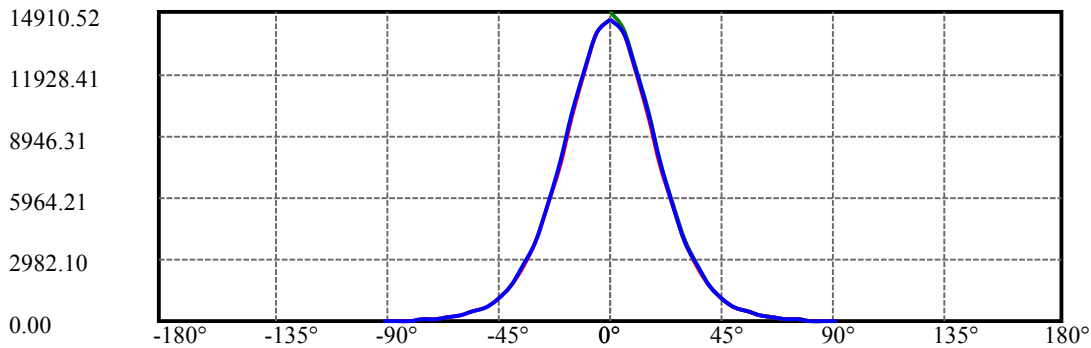
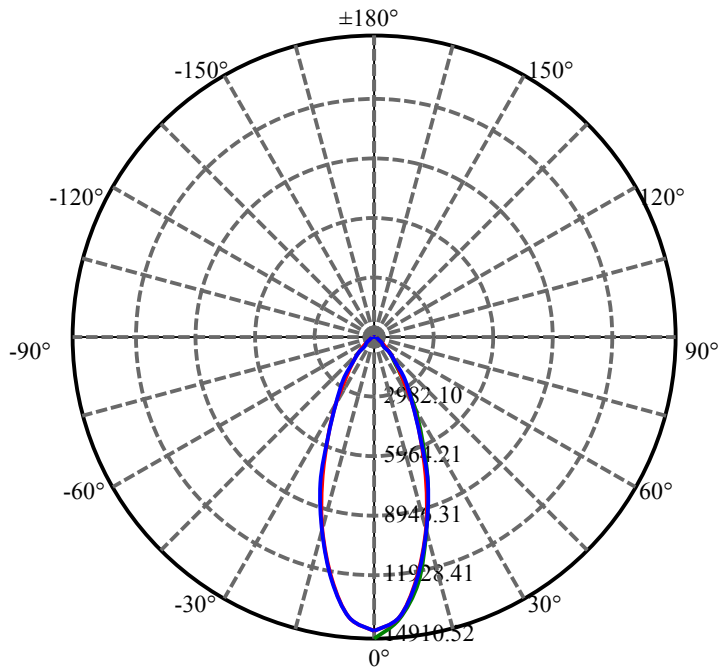
Date: 2016/9/28
Humidity(%): 65.0%

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: —————

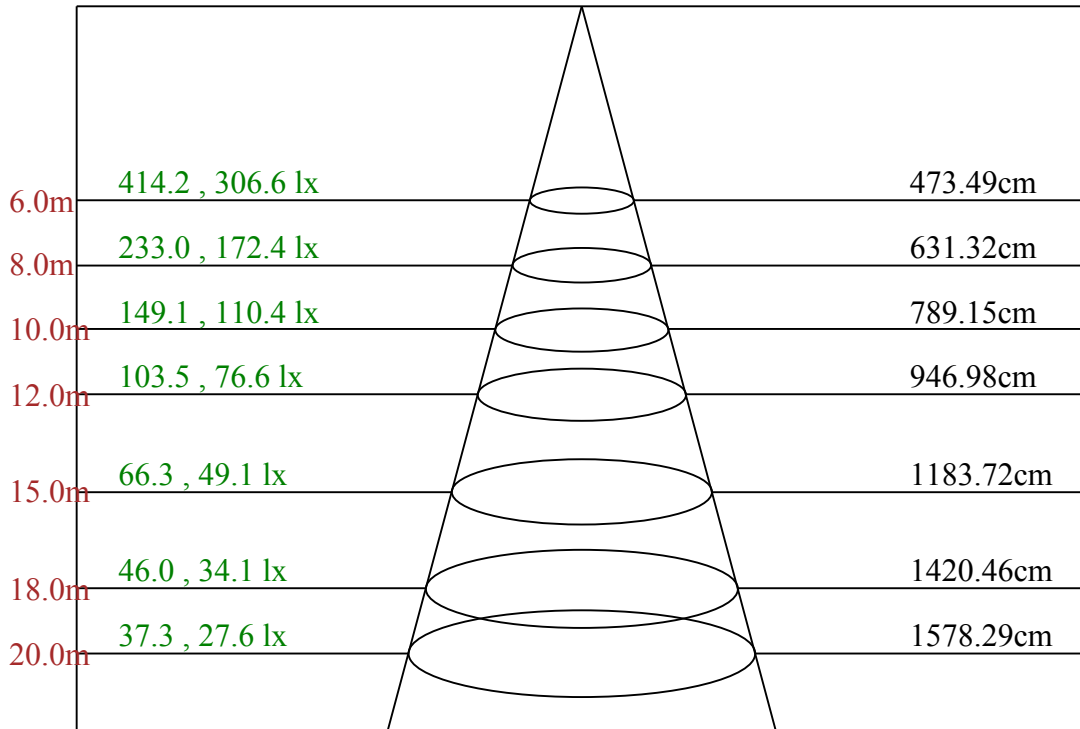
Field angle(10%Imax):C0/180Left:41.6 Right:41.6

:C90/270Left:41.7 Right:41.7

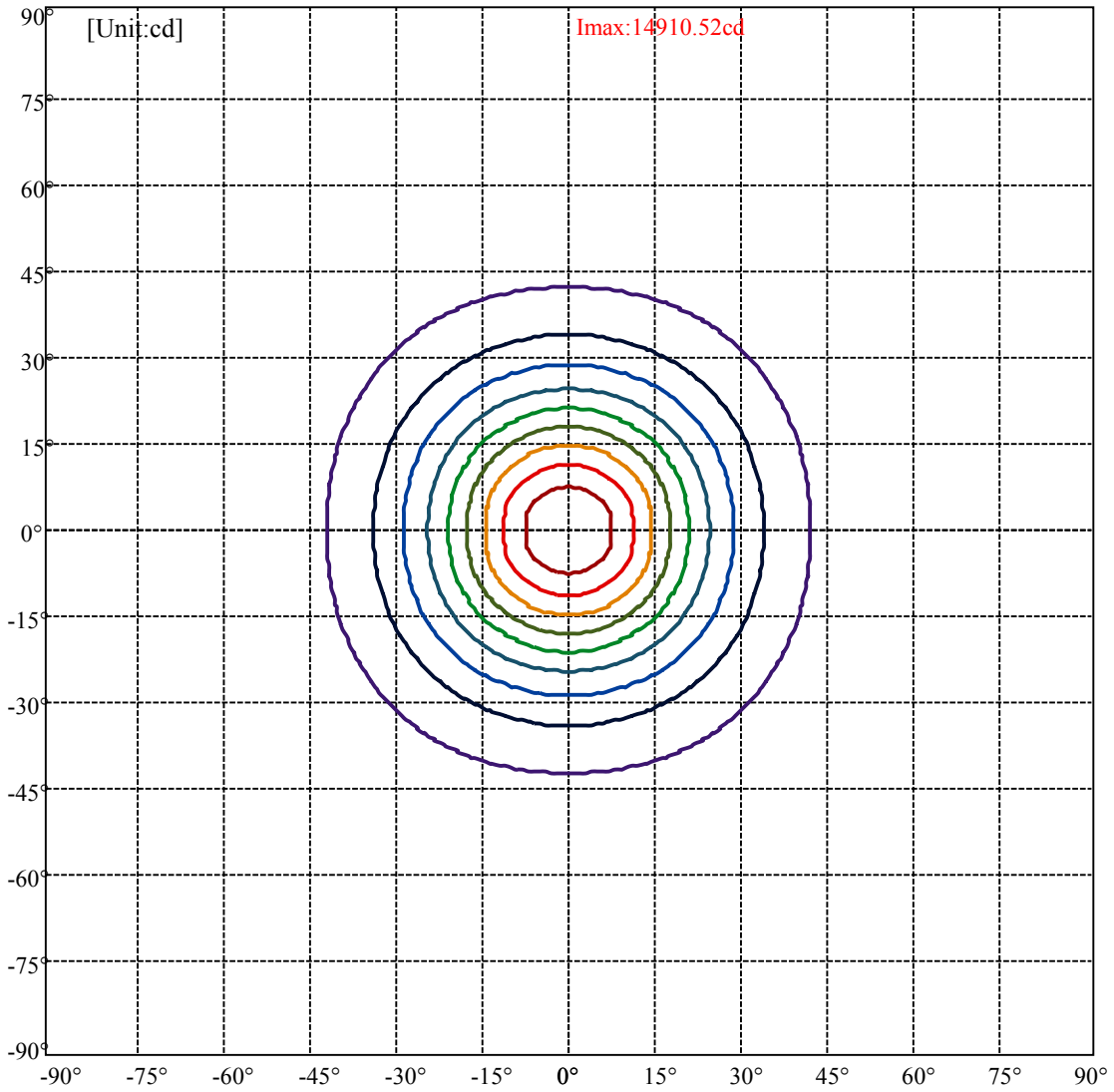
Beam Angle(50%Imax):C0/180Left:20.7 Right:20.7

:C90/270Left:21.0 Right:21.0

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Max , Ave Beam angle of C30plane43.07

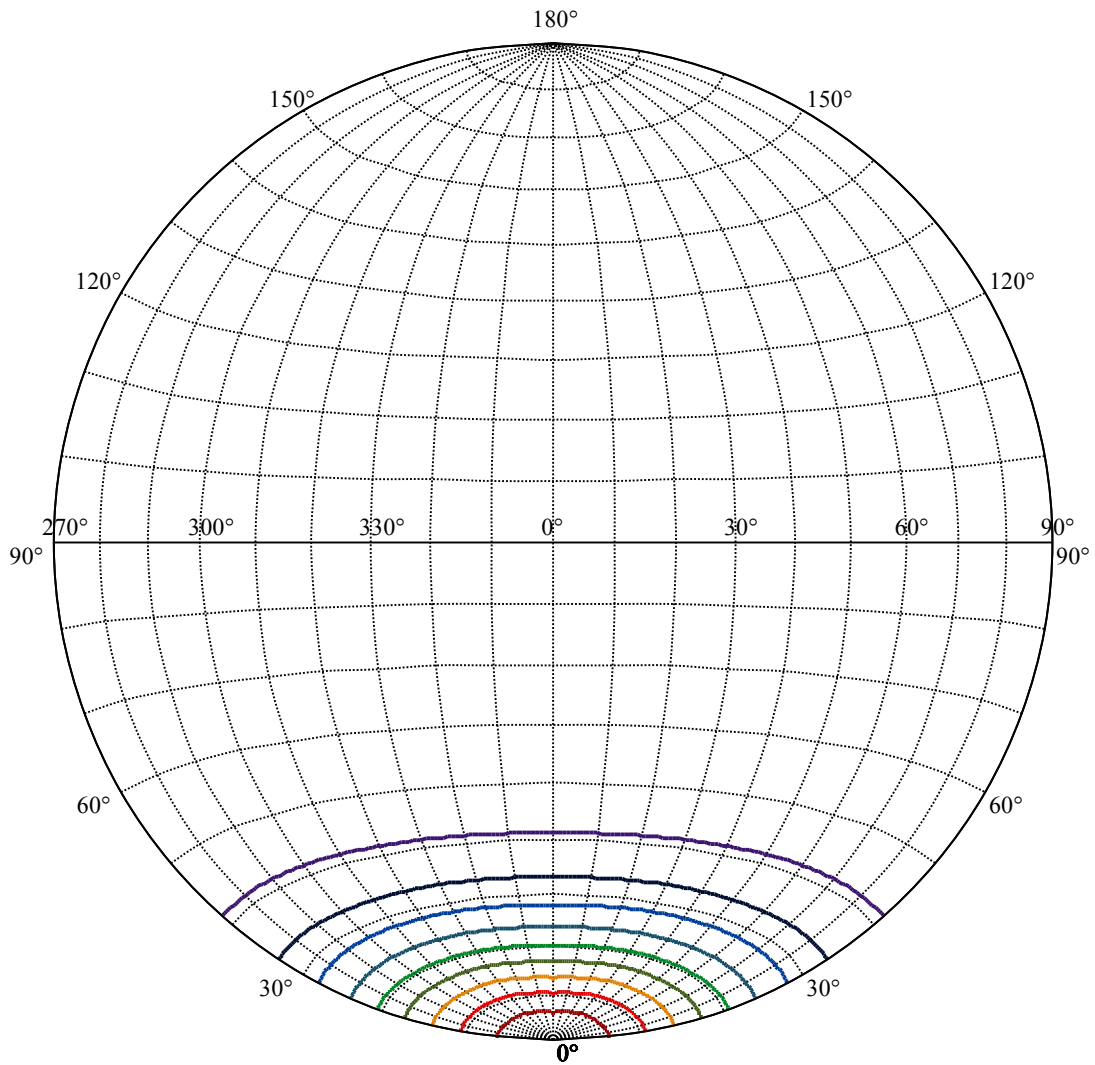


(10%Imax) 1454.48	—
(20%Imax) 2908.97	—
(30%Imax) 4363.45	—
(40%Imax) 5817.94	—
(50%Imax) 7272.42	—
(60%Imax) 8726.91	—
(70%Imax) 10181.4	—
(80%Imax) 11635.9	—
(90%Imax) 13090.4	—

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ISO candela diagram on circular web

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House

[Unit:cd]

Road

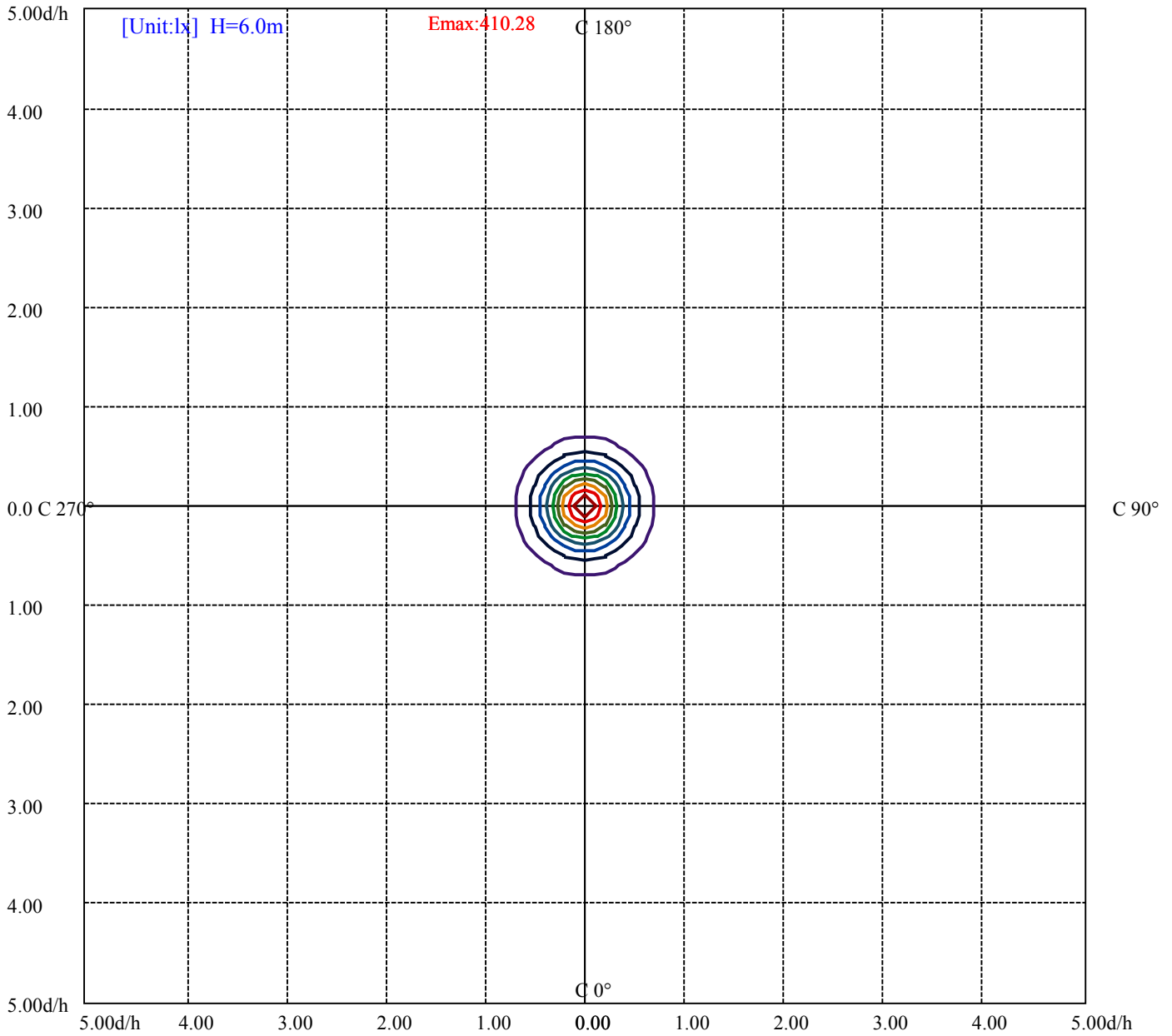
Imax:14910.52

(10%Imax) 1491.05	—
(20%Imax) 2982.1	—
(30%Imax) 4473.16	—
(40%Imax) 5964.21	—
(50%Imax) 7455.26	—
(60%Imax) 8946.31	—
(70%Imax) 10437.4	—
(80%Imax) 11928.4	—
(90%Imax) 13419.5	—

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ISO illuminance diagram

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(10%Emax) 41.0275	—
(20%Emax) 82.055	—
(30%Emax) 123.0828	—
(40%Emax) 164.1103	—
(50%Emax) 205.1378	—
(60%Emax) 246.1656	—
(70%Emax) 287.1917	—
(80%Emax) 328.2195	—
(90%Emax) 369.2472	—

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

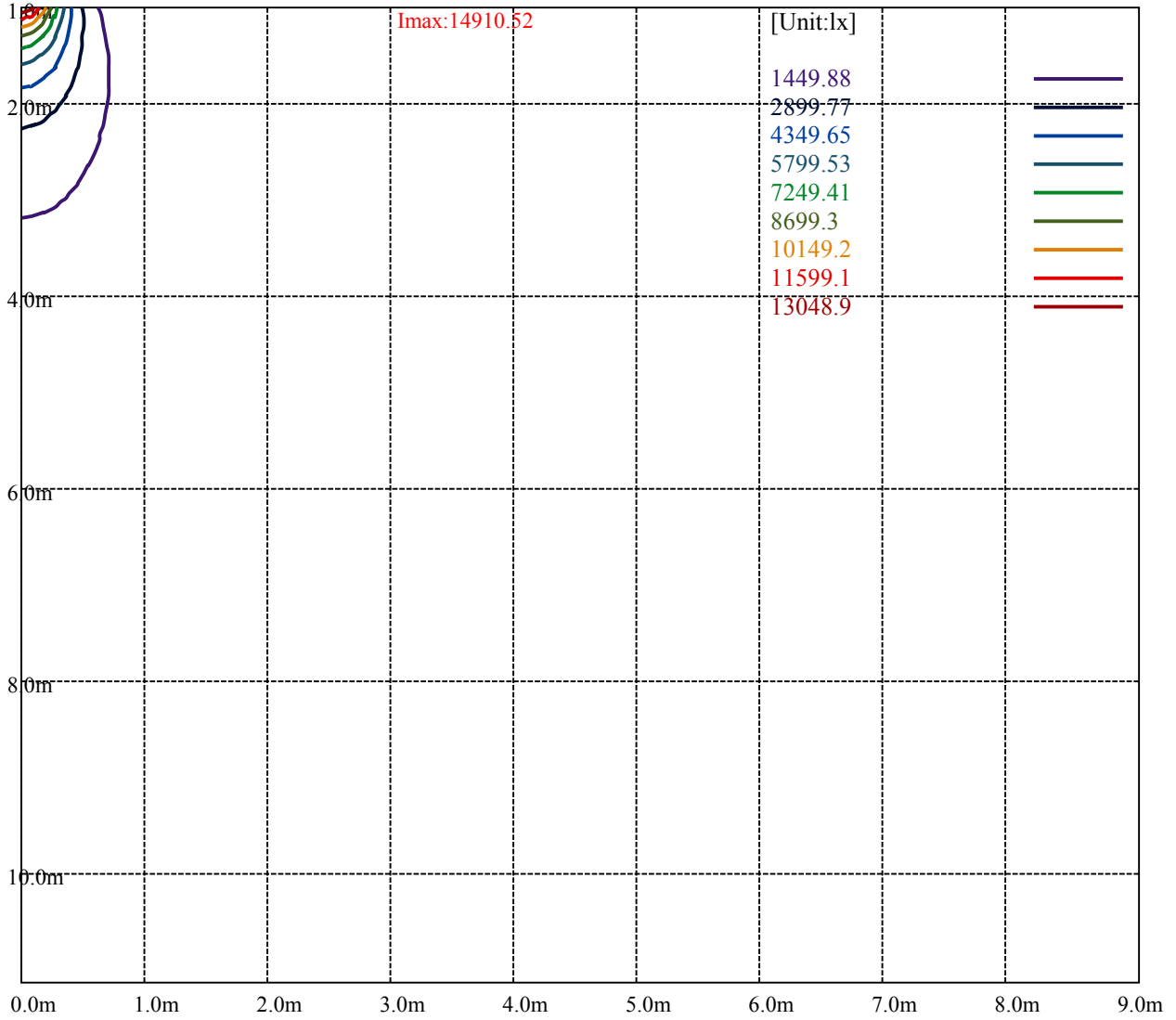
Date: 2016/9/28
Humidity(%): 65.0%

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: 2016/9/28
Humidity(%): 65.0%

Operator: Andy Chen
Distance(m): 10.22

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Luminance Limiting Curve(no luminous side)

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Luminance Table

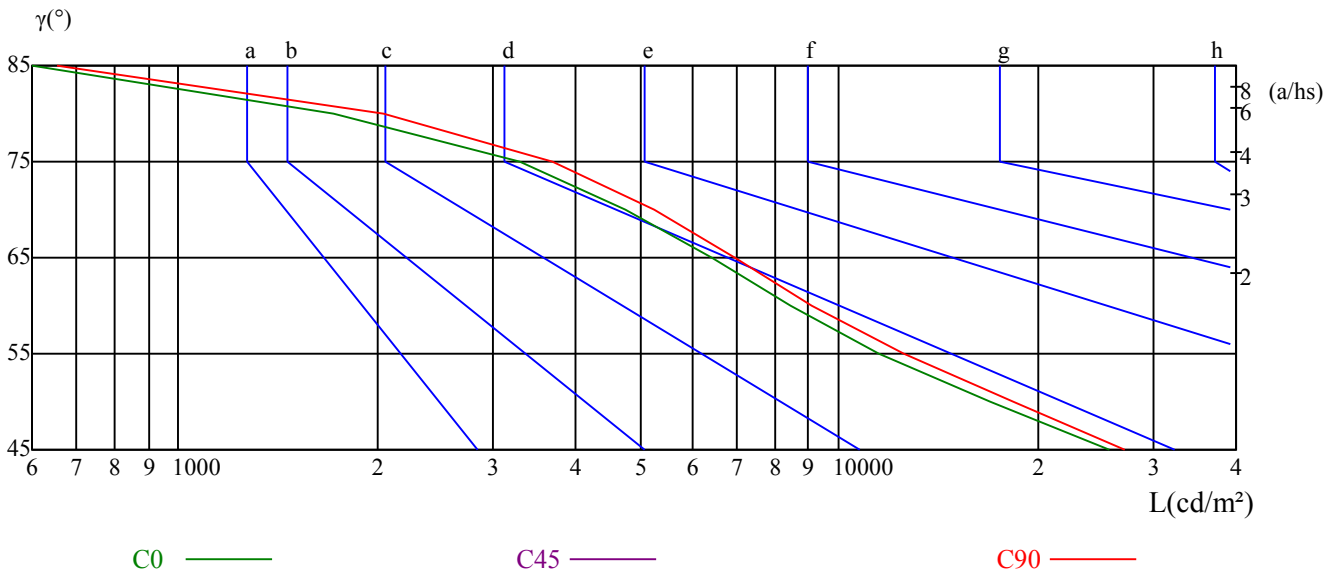
γ	45	50	55	60	65	70	75	80	85
C0	25679	16932	11486	8430	6413	4765	3278	1712	524
C45	0	0	0	0	0	0	0	0	0
C90	27197	18388	12516	9084	6977	5261	3679	2049	655

L横(65)	L纵(65)	L45(65)	L横(75)	L纵(75)	L45(75)	L横(85)	L纵(85)	L45(85)
10755	10880	0	7141	7261	0	2414	2606	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



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

Date: 2016/9/28
Humidity(%): 65.0%

Operator: Andy Chen
Distance(m): 10.22

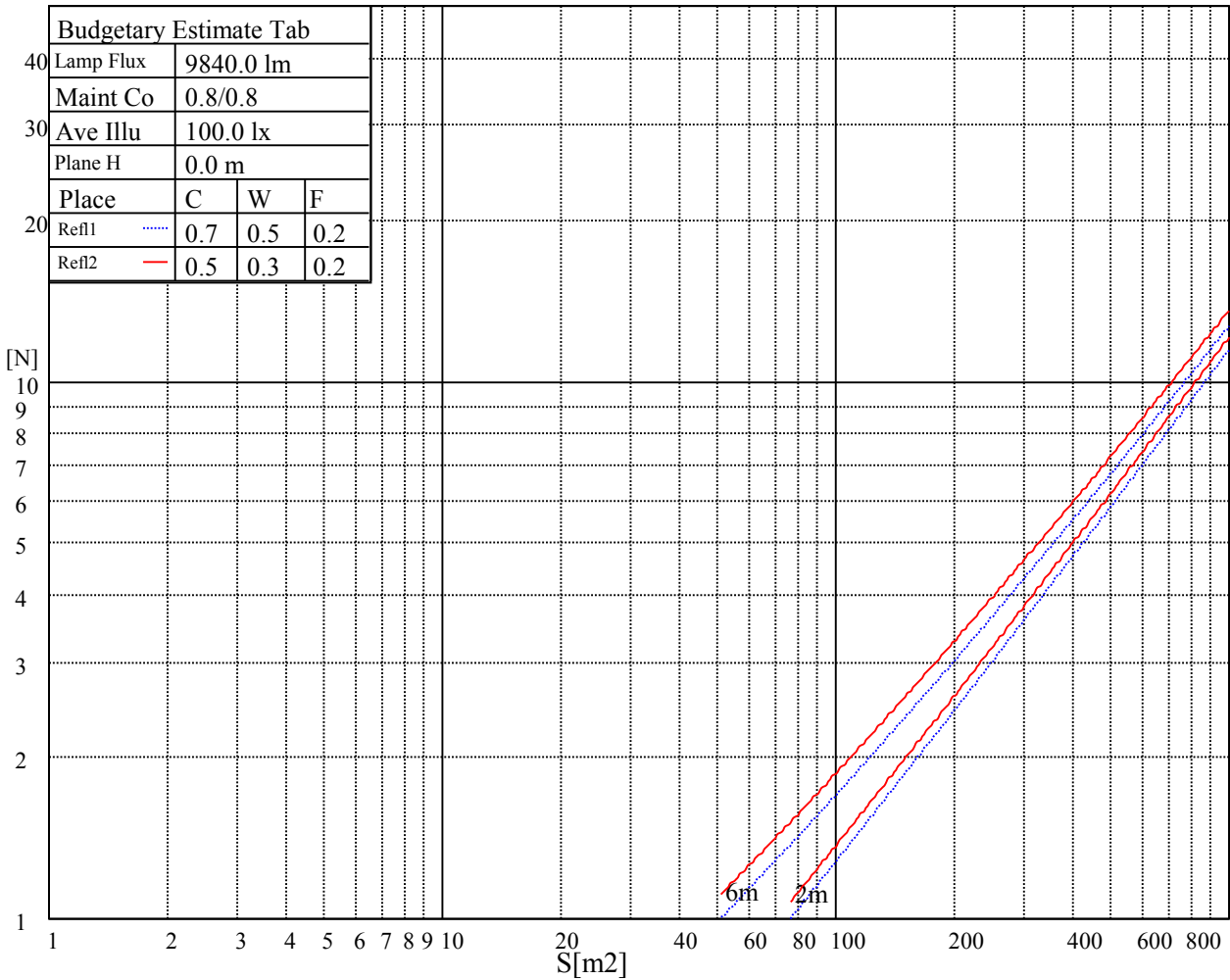
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UGR Glare

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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	13.2	14.1	13.4	14.3	14.5	13.1	14.0	13.4	14.2	14.4
	3H	13.4	14.2	13.7	14.4	14.7	13.3	14.1	13.6	14.3	14.6
	4H	13.3	14.0	13.7	14.3	14.6	13.2	13.9	13.6	14.2	14.5
	6H	13.4	14.0	13.7	14.3	14.7	13.3	14.0	13.6	14.3	14.6
	8H	13.4	14.1	13.7	14.4	14.7	13.3	14.0	13.6	14.3	14.6
	12H	13.2	13.7	13.6	14.1	14.5	13.1	13.6	13.5	14.0	14.4
4H	2H	13.1	13.7	13.4	14.0	14.4	13.0	13.7	13.3	14.0	14.3
	3H	13.3	13.8	13.7	14.2	14.6	13.3	13.8	13.7	14.1	14.5
	4H	13.5	14.0	13.9	14.4	14.8	13.4	13.9	13.8	14.3	14.7
	6H	13.6	14.1	14.0	14.5	14.9	13.5	14.0	13.9	14.4	14.8
	8H	13.4	13.7	13.9	14.2	14.7	13.3	13.6	13.8	14.1	14.6
	12H	13.4	13.7	13.9	14.2	14.7	13.3	13.6	13.8	14.1	14.6
8H	4H	13.4	13.7	13.9	14.1	14.6	13.3	13.6	13.8	14.1	14.6
	6H	13.5	13.8	14.0	14.3	14.8	13.4	13.7	13.9	14.2	14.7
	8H	13.5	13.8	14.0	14.3	14.8	13.5	13.7	14.0	14.2	14.7
	12H	13.6	13.8	14.1	14.3	14.8	13.5	13.8	14.0	14.2	14.7
12H	4H	13.4	13.7	13.9	14.1	14.6	13.3	13.6	13.8	14.1	14.6
	6H	13.5	13.8	14.0	14.3	14.8	13.4	13.7	13.9	14.2	14.7
	8H	13.6	13.8	14.1	14.3	14.8	13.5	13.8	14.0	14.2	14.7
Variation with the observer position at spacings:											
S = 1.0H	2.0/-2.4					2.0/-2.5					
S = 1.5H	3.8/-3.5					3.9/-3.6					
S = 2.0H	6.0/-4.1					6.0/-4.2					
Standard tables:	BK1					BK1					
Uncorrected UGR	1.1					1.0					

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Utilization factor table for indoor luminaire

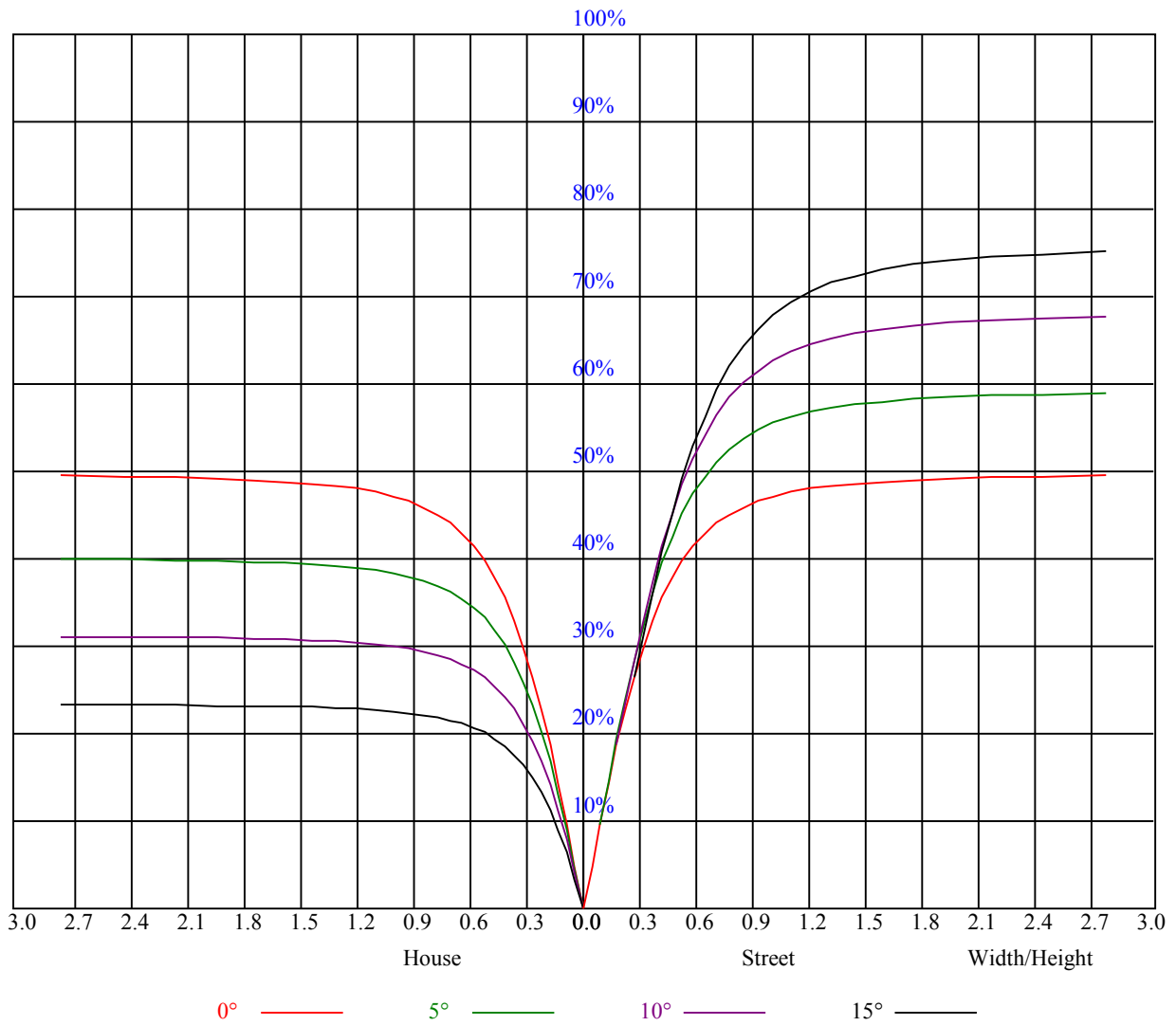
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RHOCC	80			70			50			30			10			0
RHOW	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR	COEFFICIENTS OF UTILIZATION RHOFC=20 CU															
0	1.19	1.19	1.19	1.16	1.16	1.16	1.11	1.11	1.11	1.07	1.07	1.07	1.02	1.02	1.02	1.00
1	1.10	1.08	1.05	1.08	1.06	1.04	1.04	1.02	1.00	1.00	0.99	0.97	0.97	0.96	0.94	0.93
2	1.02	0.98	0.94	1.00	0.96	0.93	0.97	0.94	0.91	0.94	0.91	0.89	0.91	0.89	0.87	0.85
3	0.95	0.89	0.85	0.93	0.88	0.84	0.91	0.86	0.83	0.88	0.85	0.82	0.86	0.83	0.80	0.79
4	0.88	0.82	0.78	0.87	0.82	0.77	0.85	0.80	0.76	0.83	0.79	0.76	0.81	0.77	0.75	0.73
5	0.82	0.76	0.72	0.81	0.76	0.71	0.80	0.75	0.71	0.78	0.74	0.70	0.76	0.73	0.70	0.68
6	0.77	0.71	0.67	0.76	0.71	0.66	0.75	0.70	0.66	0.73	0.69	0.65	0.72	0.68	0.65	0.63
7	0.73	0.66	0.62	0.72	0.66	0.62	0.71	0.65	0.62	0.69	0.65	0.61	0.68	0.64	0.61	0.59
8	0.69	0.62	0.58	0.68	0.62	0.58	0.67	0.62	0.58	0.66	0.61	0.58	0.65	0.61	0.57	0.56
9	0.65	0.59	0.55	0.64	0.59	0.55	0.63	0.58	0.54	0.62	0.58	0.54	0.62	0.57	0.54	0.53
10	0.61	0.56	0.52	0.61	0.55	0.52	0.60	0.55	0.51	0.59	0.55	0.51	0.59	0.54	0.51	0.50

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

Date: 2016/9/28
Humidity(%): 65.0%

Operator: Andy Chen
Distance(m): 10.22



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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	14498.83	13885.48	12151.48	9825.44	7540.26	5489.14	3829.85	2539.93	1640.48
30.0	14910.52	14047.64	12356.80	10078.31	7662.83	5578.47	3897.56	2564.79	1676.01
60.0	14629.44	13900.11	12236.64	10016.66	7627.30	5575.65	3874.57	2504.71	1693.67
90.0	14532.27	13931.45	12211.56	10005.69	7709.53	5474.51	3819.40	2576.50	1664.51
120.0	14458.08	13900.11	12236.64	10016.66	7627.30	5575.65	3874.57	2504.71	1693.67
150.0	14410.01	14047.64	12356.80	10078.31	7662.83	5578.47	3897.56	2564.79	1676.01
180.0	14498.83	13885.48	12151.48	9825.44	7540.26	5489.14	3829.85	2539.93	1640.48
210.0	14910.52	14047.64	12356.80	10078.31	7662.83	5578.47	3897.56	2564.79	1676.01
240.0	14629.44	13900.11	12236.64	10016.66	7627.30	5575.65	3874.57	2504.71	1693.67
270.0	14532.27	13931.45	12211.56	10005.69	7709.53	5474.51	3819.40	2576.50	1664.51
300.0	14458.08	13900.11	12236.64	10016.66	7627.30	5575.65	3874.57	2504.71	1693.67
330.0	14410.01	14047.64	12356.80	10078.31	7662.83	5578.47	3897.56	2564.79	1676.01
360.0	14498.83	13885.48	12151.48	9825.44	7540.26	5489.14	3829.85	2539.93	1640.48

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	1044.06	654.63	417.75	284.94	198.63	133.01	80.77	36.26	9.20
30.0	1059.42	670.40	450.24	291.84	203.34	137.40	82.96	38.45	9.93
60.0	1072.69	679.39	460.59	291.94	199.78	135.42	82.02	37.20	9.51
90.0	1059.63	677.09	430.60	288.18	200.93	135.00	82.13	38.56	9.93
120.0	1072.69	679.39	460.59	291.94	199.78	135.42	82.02	37.20	9.51
150.0	1059.42	670.40	450.24	291.84	203.34	137.40	82.96	38.45	9.93
180.0	1044.06	654.63	417.75	284.94	198.63	133.01	80.77	36.26	9.20
210.0	1059.42	670.40	450.24	291.84	203.34	137.40	82.96	38.45	9.93
240.0	1072.69	679.39	460.59	291.94	199.78	135.42	82.02	37.20	9.51
270.0	1059.63	677.09	430.60	288.18	200.93	135.00	82.13	38.56	9.93
300.0	1072.69	679.39	460.59	291.94	199.78	135.42	82.02	37.20	9.51
330.0	1059.42	670.40	450.24	291.84	203.34	137.40	82.96	38.45	9.93
360.0	1044.06	654.63	417.75	284.94	198.63	133.01	80.77	36.26	9.20

C/γ(°)	90.0
0.0	1.15
30.0	1.25
60.0	1.25
90.0	1.15
120.0	1.25
150.0	1.25
180.0	1.15
210.0	1.25
240.0	1.25
270.0	1.15
300.0	1.25
330.0	1.25
360.0	1.15