
Amazonas 500 IES Test Report

LumCAT: A500

Luminaire: AL reflector cup 15 degree

Report No: WJH-GM-06

Test No: 09

LampCAT: CSP

Lamp flux(lm): 50.0

Number of Lamps: 240

Length(mm): 230

Phm Type: C

Voltage(V): 223.0000

Current(A): 2.2330

Power (W): 498.0000

PF: 0.9780

Ballast type:

Width(mm): 190

Height(mm): 60

Photometric Results

Lumens(lm): 11948.40

Efficiency(%): 99.57%

Lumens(lm)/Power(W): 23.99

Central intensity(cd): 93974.430

Maximum intensity(cd): 97265.840

Angle of maximum intensity: C=30.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=14.6

[C90/270]Total=14.5

Field angle(10%Imax): [C0/180]Total=29.9

[C90/270]Total=30.3

Maximum s/h(1/2): C0_180=0.26 C90_270=0.26

Maximum s/h(1/4): C0_180=0.38 C90_270=0.25

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 99.57%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 99.624%

Amazonas 500 IES Test Report

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	91898.550	.000	.000	.000%	.000%
5.0	66925.630	1898.698	1898.698	15.822%	15.822%
10.0	23393.570	3231.002	5129.700	26.925%	42.748%
15.0	9560.614	1954.820	7084.520	16.290%	59.038%
20.0	4932.939	1194.472	8278.992	9.954%	68.992%
25.0	3692.878	904.689	9183.682	7.539%	76.531%
30.0	3397.522	897.296	10080.980	7.477%	84.008%
35.0	2739.500	903.719	10984.700	7.531%	91.539%
40.0	905.330	608.112	11592.810	5.068%	96.607%
45.0	143.864	194.267	11787.080	1.619%	98.226%
50.0	99.439	49.163	11836.240	.410%	98.635%
55.0	80.613	39.149	11875.390	.326%	98.962%
60.0	40.786	28.061	11903.450	.234%	99.195%
65.0	23.963	15.740	11919.190	.131%	99.327%
70.0	18.529	10.759	11929.950	.090%	99.416%
75.0	13.514	8.376	11938.330	.070%	99.486%
80.0	8.220	5.815	11944.140	.048%	99.535%
85.0	3.309	3.133	11947.270	.026%	99.561%
90.0	.818	1.130	11948.400	.009%	99.570%

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Zonal flux distribution table

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	10080.98	84.01%	84.37%
0-40	11592.81	96.61%	97.02%
0-60	11903.45	99.20%	99.62%
0-90	11947.27	99.56%	99.99%
0-120	11947.27	99.56%	99.99%
0-180	11948.40	99.57%	100.00%
60-90	71.88	0.60%	0.60%
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%
0-27.09	9558.72	79.66%	80.00%

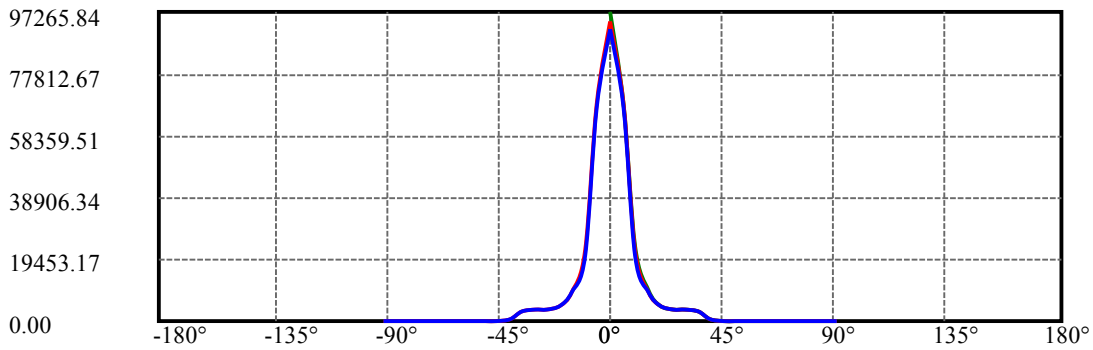
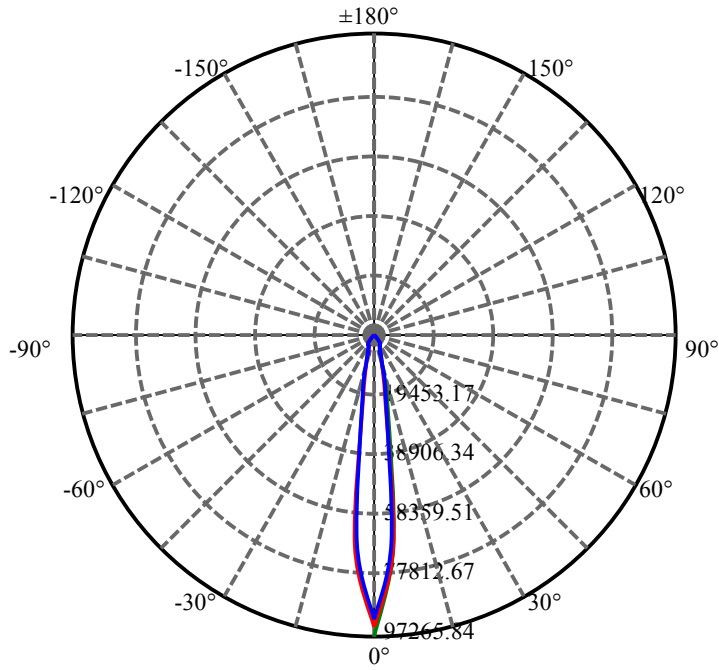
ZONAL LUMEN SUMMARY

0-10	5129.70
10-20	3149.29
20-30	1801.99
30-40	1511.83
40-50	243.43
50-60	67.21
60-70	26.50
70-80	14.19
80-90	3.13
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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Light Distribution Curve [Unit:cd]

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C30(Max): ———

C0/C180: ———

C90/C270: ———

Field angle(10%Imax):C0/180Left:14.9 Right:14.9

:C90/270Left:15.1 Right:15.1

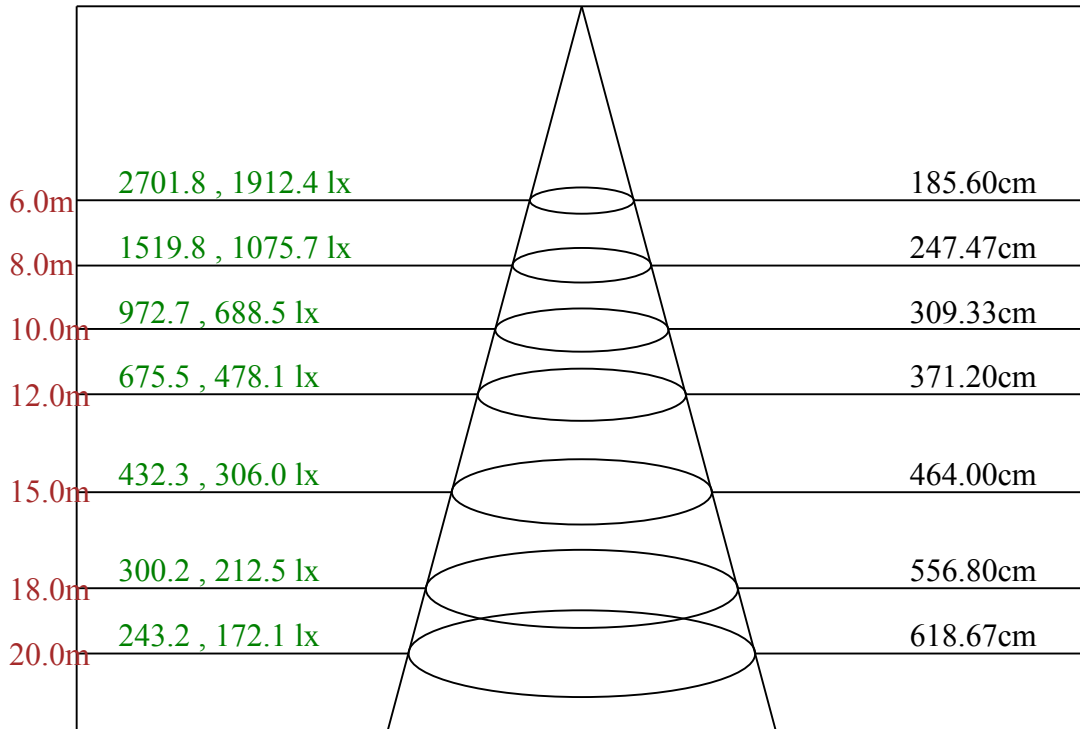
Beam Angle(50%Imax):C0/180Left:7.3 Right:7.3

:C90/270Left:7.3 Right:7.3

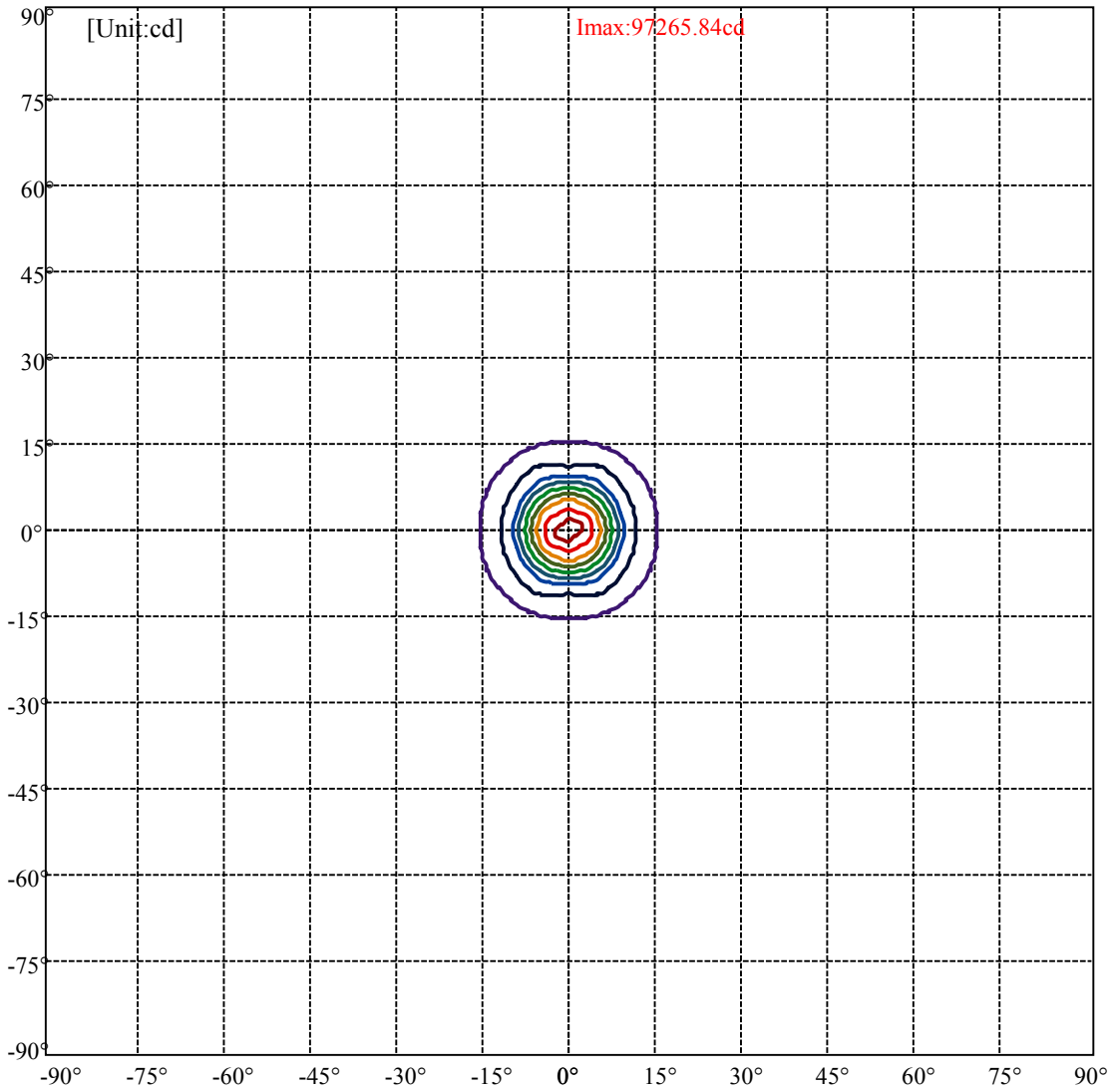
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Lux distance Curve

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Max , Ave Beam angle of C30plane17.58

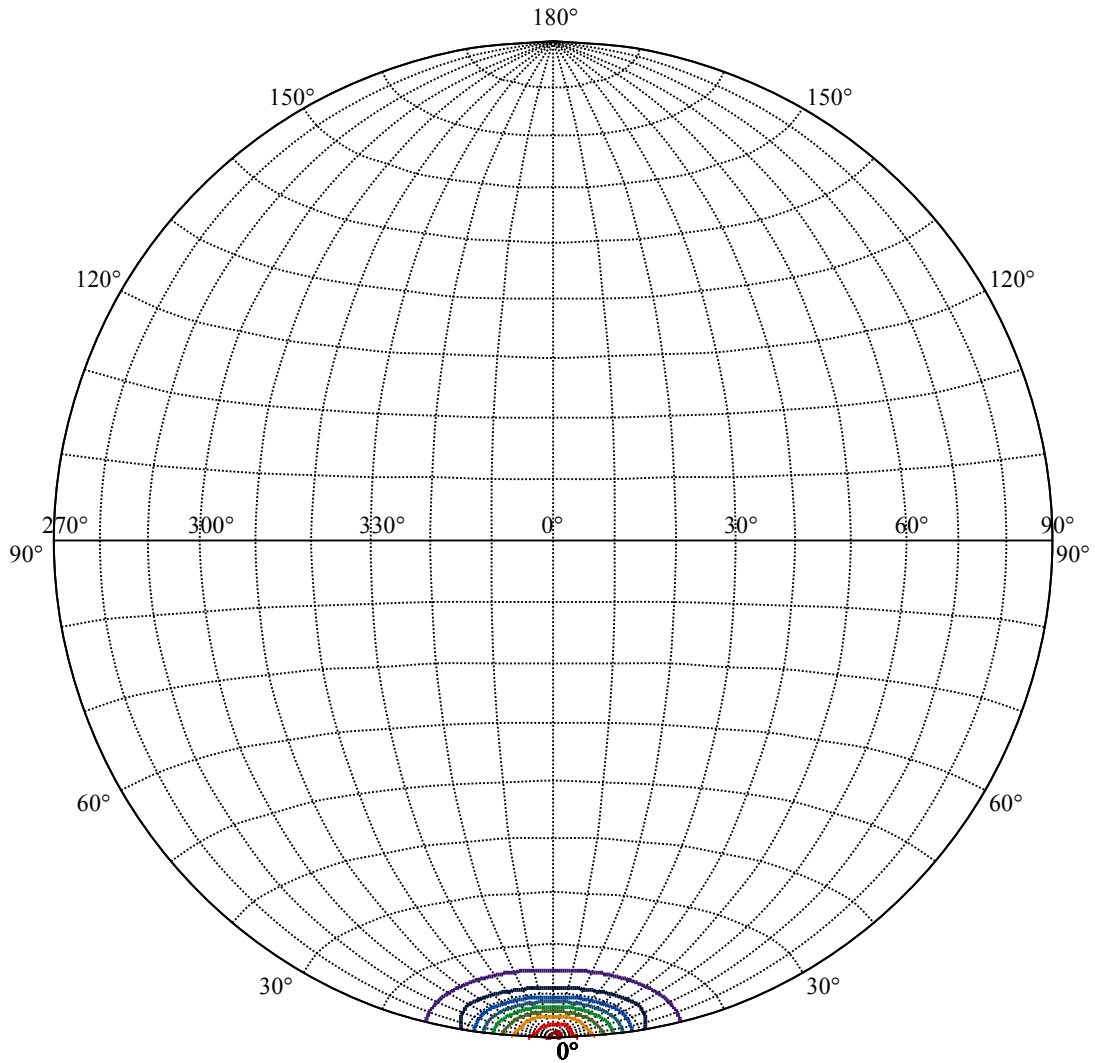


(10%Imax) 9152.93	—
(20%Imax) 18305.9	—
(30%Imax) 27458.8	—
(40%Imax) 36611.7	—
(50%Imax) 45764.6	—
(60%Imax) 54917.6	—
(70%Imax) 64070.5	—
(80%Imax) 73223.4	—
(90%Imax) 82376.3	—

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ISO candela diagram on circular web

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House

[Unit:cd]

Road

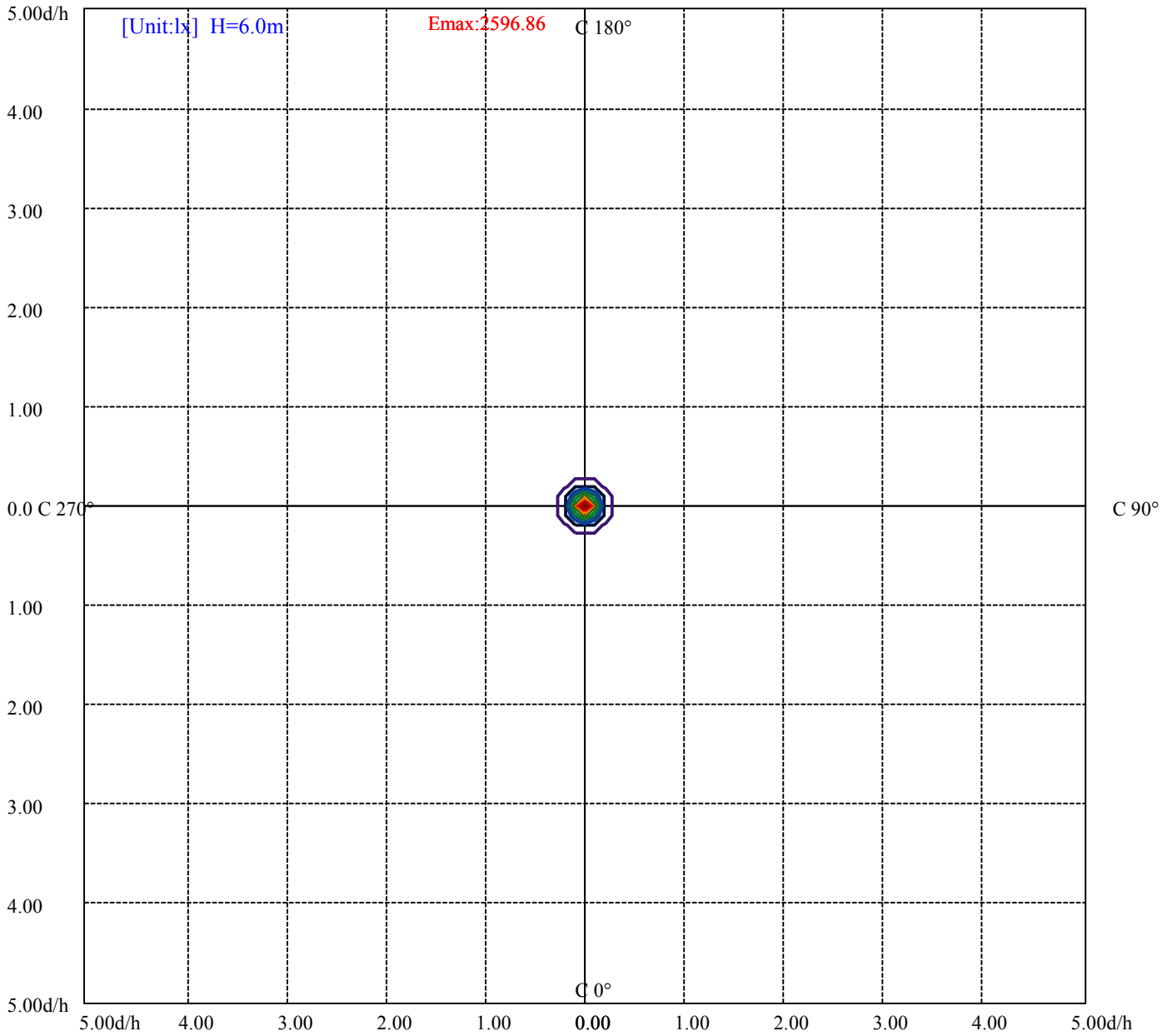
I_{max}:97265.84

(10%I _{max}) 9726.58	—
(20%I _{max}) 19453.2	—
(30%I _{max}) 29179.8	—
(40%I _{max}) 38906.3	—
(50%I _{max}) 48632.9	—
(60%I _{max}) 58359.5	—
(70%I _{max}) 68086.1	—
(80%I _{max}) 77812.7	—
(90%I _{max}) 87539.3	—

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ISO illuminance diagram

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(10%Emax) 259.6859	—
(20%Emax) 519.3723	—
(30%Emax) 779.0583	—
(40%Emax) 1038.745	—
(50%Emax) 1298.431	—
(60%Emax) 1558.114	—
(70%Emax) 1817.8	—
(80%Emax) 2077.486	—
(90%Emax) 2337.172	—

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

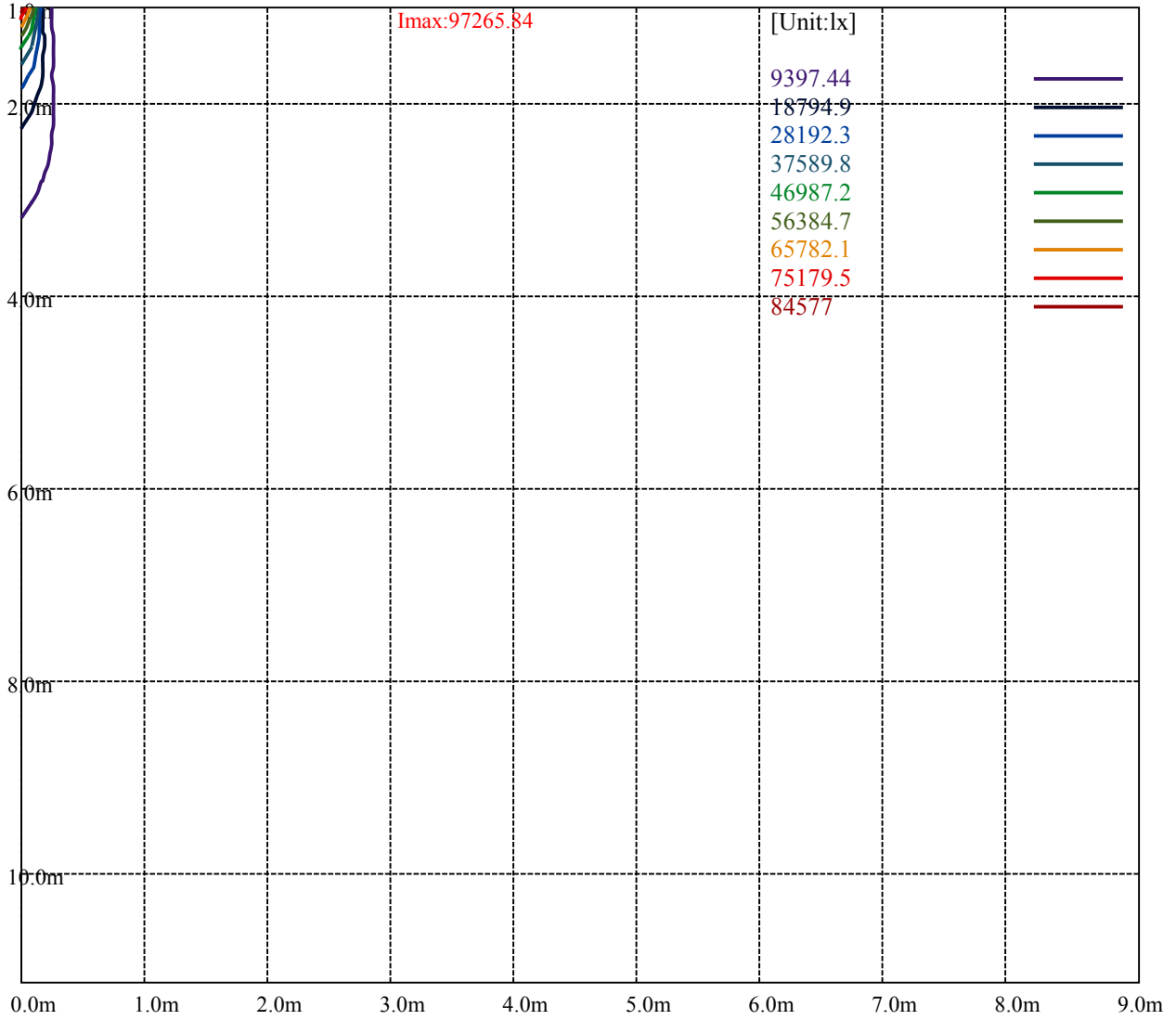
Date: 2016/9/27
Humidity(%): 65.0%

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)

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Luminance Table

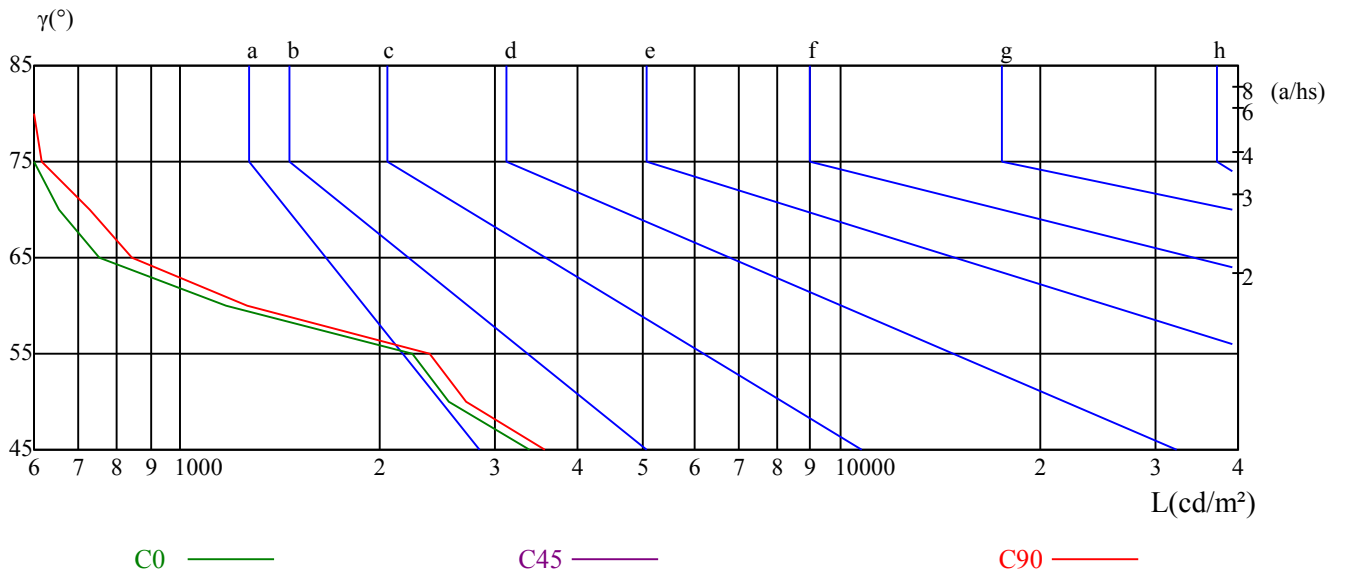
γ	45	50	55	60	65	70	75	80	85
C0	3372	2543	2244	1169	756	655	543	395	190
C45	0	0	0	0	0	0	0	0	0
C90	3553	2704	2387	1265	842	729	618	455	220

L横(65)	L纵(65)	L45(65)	L横(75)	L纵(75)	L45(75)	L横(85)	L纵(85)	L45(85)
1267	1313	0	1183	1219	0	878	878	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: 2016/9/27
Humidity(%): 65.0%

Operator: Andy Chen
Distance(m): 10.22

Amazonas 500 IES Test Report

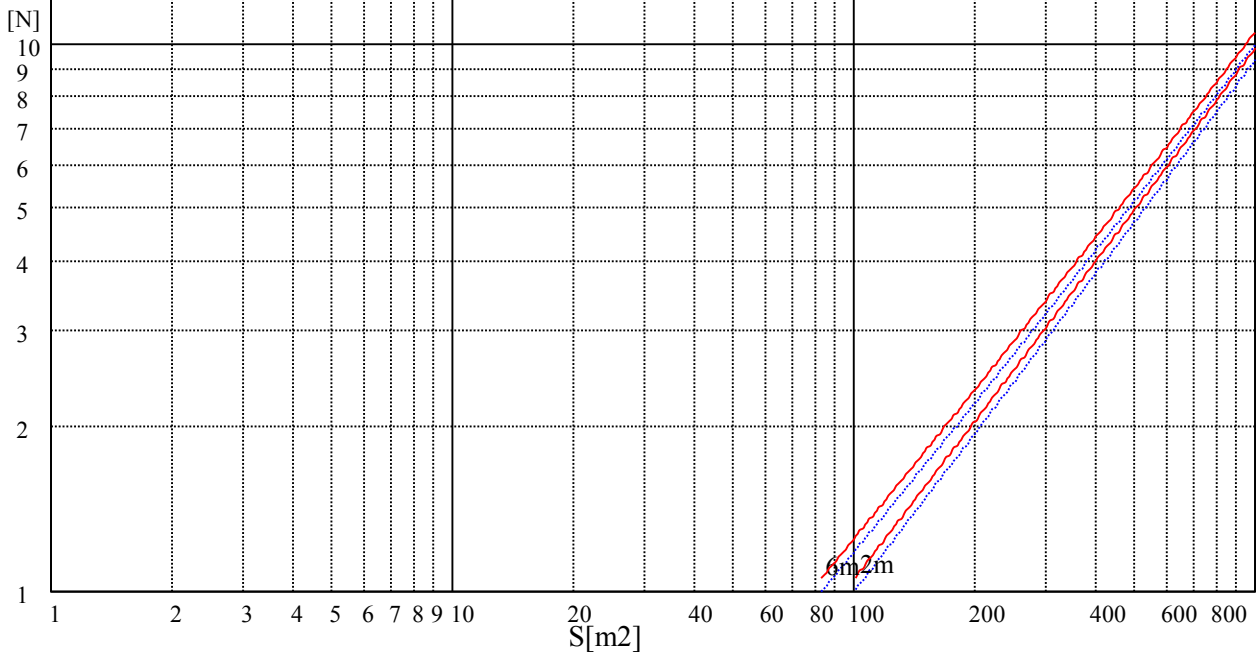
UGR Glare

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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	9.0	9.6	9.2	9.8	10.0	9.0	9.7	9.3	9.9	10.1
	3H	8.8	9.4	9.1	9.6	9.9	8.9	9.5	9.2	9.7	9.9
	4H	8.6	9.1	9.0	9.4	9.7	8.7	9.2	9.1	9.5	9.8
	6H	8.6	9.1	9.0	9.4	9.7	8.7	9.2	9.1	9.5	9.8
	8H	8.6	9.1	9.0	9.4	9.7	8.7	9.2	9.1	9.5	9.8
	12H	8.4	8.8	8.8	9.2	9.6	8.5	8.9	8.9	9.3	9.7
4H	2H	8.6	9.1	9.0	9.4	9.7	8.7	9.2	9.0	9.5	9.8
	3H	8.4	8.8	8.8	9.2	9.6	8.5	8.9	8.9	9.3	9.7
	4H	8.5	8.8	8.9	9.2	9.6	8.5	8.9	8.9	9.3	9.7
	6H	8.5	8.8	8.9	9.2	9.6	8.6	8.9	9.0	9.3	9.7
	8H	8.2	8.4	8.7	8.9	9.4	8.3	8.5	8.8	9.0	9.5
	12H	8.2	8.4	8.7	8.9	9.4	8.3	8.5	8.8	9.0	9.5
8H	4H	8.2	8.4	8.7	8.9	9.4	8.3	8.5	8.8	9.0	9.5
	6H	8.2	8.4	8.7	8.9	9.4	8.3	8.5	8.8	9.0	9.5
	8H	8.2	8.5	8.7	8.9	9.4	8.3	8.5	8.8	9.0	9.5
	12H	8.2	8.5	8.7	8.9	9.4	8.3	8.5	8.8	9.0	9.5
12H	4H	8.2	8.4	8.7	8.9	9.4	8.3	8.5	8.8	9.0	9.5
	6H	8.2	8.4	8.7	8.9	9.4	8.3	8.5	8.8	9.0	9.5
	8H	8.2	8.5	8.7	8.9	9.4	8.3	8.5	8.8	9.0	9.5
Variation with the observer position at spacings:											
S = 1.0H		5.1/-10.8					5.0/-11.0				
S = 1.5H		7.9/-12.4					7.8/-12.7				
S = 2.0H		9.9/-12.7					9.8/-13.1				
Standard tables:		BK0					BK0				
Uncorrected UGR		-4.1					-4.1				

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Budgetary Estimate Tab			
Lamp Flux	12000.0 lm		
Maint Co	0.8/0.8		
Ave Illu	100.0 lx		
Plane H	0.0 m		
Place	C	W	F
Ref1	0.7	0.5	0.2
Ref2	0.5	0.3	0.2

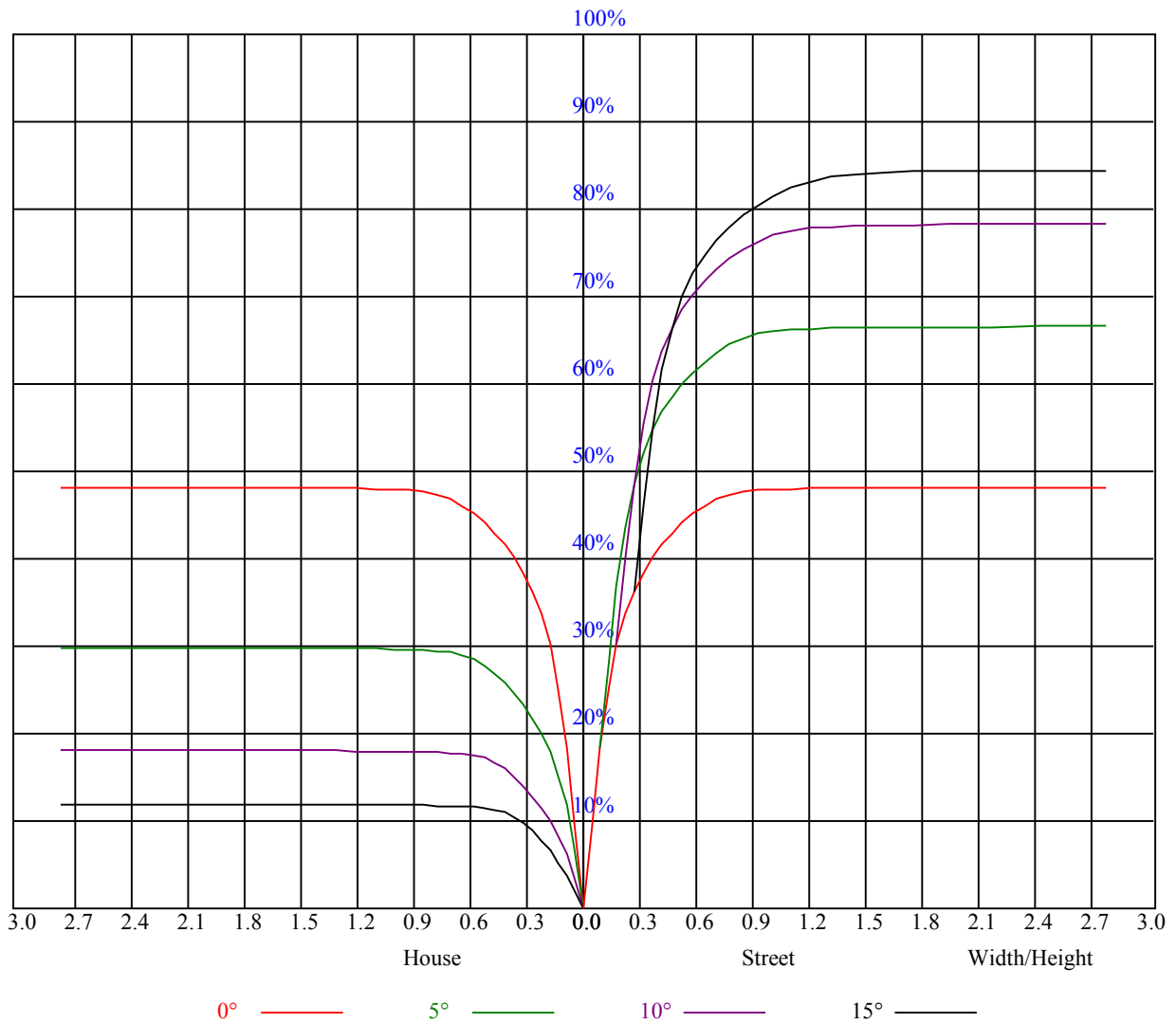


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Utilization factor table for indoor luminaire

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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	1.06	1.06	1.06	1.02	1.02	1.02	1.00
1	1.12	1.10	1.08	1.10	1.08	1.07	1.06	1.05	1.03	1.02	1.01	1.00	0.99	0.98	0.97	0.96
2	1.07	1.03	1.01	1.05	1.02	1.00	1.02	1.00	0.98	0.99	0.97	0.95	0.96	0.95	0.94	0.92
3	1.02	0.98	0.95	1.00	0.97	0.94	0.98	0.95	0.93	0.96	0.93	0.91	0.93	0.92	0.90	0.89
4	0.97	0.93	0.90	0.96	0.92	0.90	0.94	0.91	0.89	0.92	0.90	0.88	0.91	0.88	0.87	0.85
5	0.94	0.89	0.86	0.93	0.89	0.86	0.91	0.88	0.85	0.90	0.87	0.84	0.88	0.86	0.84	0.82
6	0.90	0.86	0.83	0.89	0.85	0.82	0.88	0.84	0.82	0.87	0.84	0.81	0.86	0.83	0.81	0.80
7	0.87	0.83	0.80	0.86	0.82	0.79	0.85	0.82	0.79	0.84	0.81	0.79	0.83	0.80	0.78	0.77
8	0.84	0.80	0.77	0.84	0.80	0.77	0.83	0.79	0.77	0.82	0.79	0.76	0.81	0.78	0.76	0.75
9	0.82	0.77	0.75	0.81	0.77	0.75	0.81	0.77	0.74	0.80	0.76	0.74	0.79	0.76	0.74	0.73
10	0.79	0.75	0.73	0.79	0.75	0.72	0.78	0.75	0.72	0.78	0.74	0.72	0.77	0.74	0.72	0.71



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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	93974.43	68186.47	22364.26	9250.23	5064.91	3665.28	3362.78	2884.74	862.14
30.0	97265.84	68385.00	23301.01	9718.65	4992.60	3702.37	3405.62	2748.38	893.80
60.0	89711.26	64832.36	25501.55	9702.25	4922.60	3701.32	3400.92	2541.49	944.37
90.0	91529.27	66932.59	20392.03	9271.65	4702.33	3684.61	3409.28	2972.51	893.49
120.0	88906.70	64832.36	25501.55	9702.25	4922.60	3701.32	3400.92	2541.49	944.37
150.0	90003.84	68385.00	23301.01	9718.65	4992.60	3702.37	3405.62	2748.38	893.80
180.0	93974.43	68186.47	22364.26	9250.23	5064.91	3665.28	3362.78	2884.74	862.14
210.0	97265.84	68385.00	23301.01	9718.65	4992.60	3702.37	3405.62	2748.38	893.80
240.0	89711.26	64832.36	25501.55	9702.25	4922.60	3701.32	3400.92	2541.49	944.37
270.0	91529.27	66932.59	20392.03	9271.65	4702.33	3684.61	3409.28	2972.51	893.49
300.0	88906.70	64832.36	25501.55	9702.25	4922.60	3701.32	3400.92	2541.49	944.37
330.0	90003.84	68385.00	23301.01	9718.65	4992.60	3702.37	3405.62	2748.38	893.80
360.0	93974.43	68186.47	22364.26	9250.23	5064.91	3665.28	3362.78	2884.74	862.14

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	137.09	98.32	81.61	39.50	23.41	18.29	13.37	8.36	3.34
30.0	142.21	99.06	80.98	40.96	23.93	18.49	13.48	8.15	3.34
60.0	151.61	100.31	78.99	41.59	24.14	18.60	13.48	8.05	3.24
90.0	138.45	99.58	82.13	40.12	24.24	18.70	13.79	8.57	3.34
120.0	151.61	100.31	78.99	41.59	24.14	18.60	13.48	8.05	3.24
150.0	142.21	99.06	80.98	40.96	23.93	18.49	13.48	8.15	3.34
180.0	137.09	98.32	81.61	39.50	23.41	18.29	13.37	8.36	3.34
210.0	142.21	99.06	80.98	40.96	23.93	18.49	13.48	8.15	3.34
240.0	151.61	100.31	78.99	41.59	24.14	18.60	13.48	8.05	3.24
270.0	138.45	99.58	82.13	40.12	24.24	18.70	13.79	8.57	3.34
300.0	151.61	100.31	78.99	41.59	24.14	18.60	13.48	8.05	3.24
330.0	142.21	99.06	80.98	40.96	23.93	18.49	13.48	8.15	3.34
360.0	137.09	98.32	81.61	39.50	23.41	18.29	13.37	8.36	3.34

C/γ(°)	90.0
0.0	0.73
30.0	0.84
60.0	0.84
90.0	0.84
120.0	0.84
150.0	0.84
180.0	0.73
210.0	0.84
240.0	0.84
270.0	0.84
300.0	0.84
330.0	0.84
360.0	0.73

Amazonas 500 IES Test Report

LumCAT: F500
Luminaire: AL reflector cup15 degree
Report No: WJH-GM-06
Test No: 09
LampCAT: CSP
Lamp flux(lm): 50.0
Number of Lamps: 240
Length(mm): 230
Phm Type: C

Voltage(V): 223.0000
Current(A): 2.2330
Power (W): 498.0000
PF: 0.9780
Ballast type:
Width(mm): 190
Height(mm): 60

Photometric Results

Lumens(lm): 11948.40
Efficiency(%): 99.57%
Lumens(lm)/Power(W): 23.99
Central intensity(cd): 93974.430
Maximum intensity(cd): 97265.840
Angle of maximum intensity: C=30.0 $\gamma=0.0$
Beam Angle(50%Imax): [C0/180]Total=14.6
 [C90/270]Total=14.5
Field angle(10%Imax): [C0/180]Total=29.9
 [C90/270]Total=30.3
Maximum s/h(1/2): C0_180=0.26 C90_270=0.26
Maximum s/h(1/4): C0_180=0.38 C90_270=0.25
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 99.57%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 99.624%

Amazonas 500 IES Test Report

Zonal flux distribution table

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$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
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45.0	143.864	194.267	11787.080	1.619%	98.226%
50.0	99.439	49.163	11836.240	.410%	98.635%
55.0	80.613	39.149	11875.390	.326%	98.962%
60.0	40.786	28.061	11903.450	.234%	99.195%
65.0	23.963	15.740	11919.190	.131%	99.327%
70.0	18.529	10.759	11929.950	.090%	99.416%
75.0	13.514	8.376	11938.330	.070%	99.486%
80.0	8.220	5.815	11944.140	.048%	99.535%
85.0	3.309	3.133	11947.270	.026%	99.561%
90.0	.818	1.130	11948.400	.009%	99.570%

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Zonal flux distribution table

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	10080.98	84.01%	84.37%
0-40	11592.81	96.61%	97.02%
0-60	11903.45	99.20%	99.62%
0-90	11947.27	99.56%	99.99%
0-120	11947.27	99.56%	99.99%
0-180	11948.40	99.57%	100.00%
60-90	71.88	0.60%	0.60%
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%
0-27.09	9558.72	79.66%	80.00%

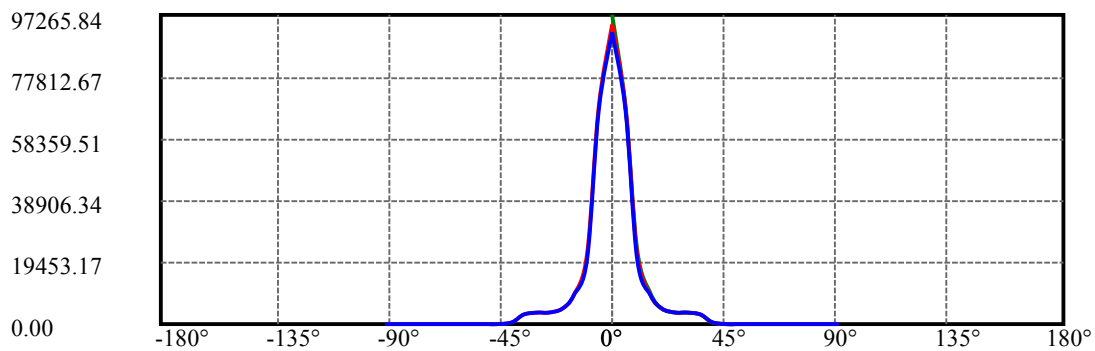
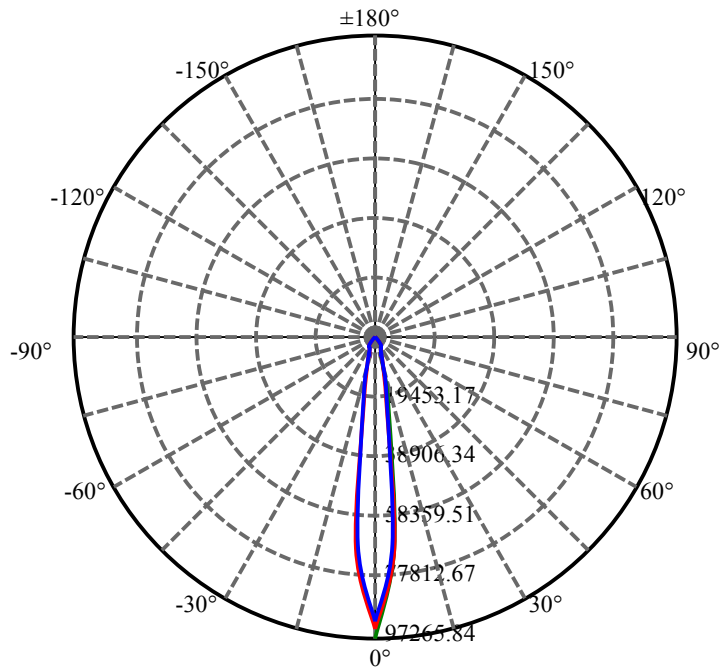
ZONAL LUMEN SUMMARY

0-10	5129.70
10-20	3149.29
20-30	1801.99
30-40	1511.83
40-50	243.43
50-60	67.21
60-70	26.50
70-80	14.19
80-90	3.13
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

Amazonas 500 IES Test Report

Light Distribution Curve [Unit:cd]

Page: 4 Total:15



C30(Max): —————

C0/C180: —————

C90/C270: —————

Field angle(10%Imax):C0/180Left:14.9 Right:14.9

:C90/270Left:15.1 Right:15.1

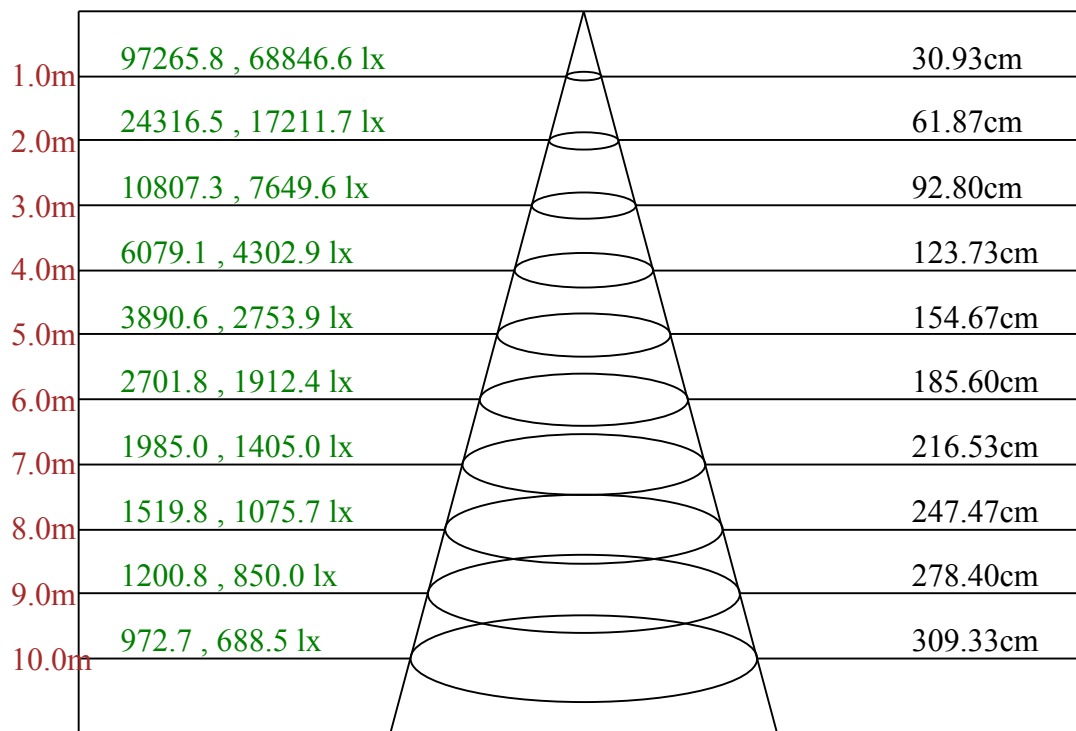
Beam Angle(50%Imax):C0/180Left:7.3 Right:7.3

:C90/270Left:7.3 Right:7.3

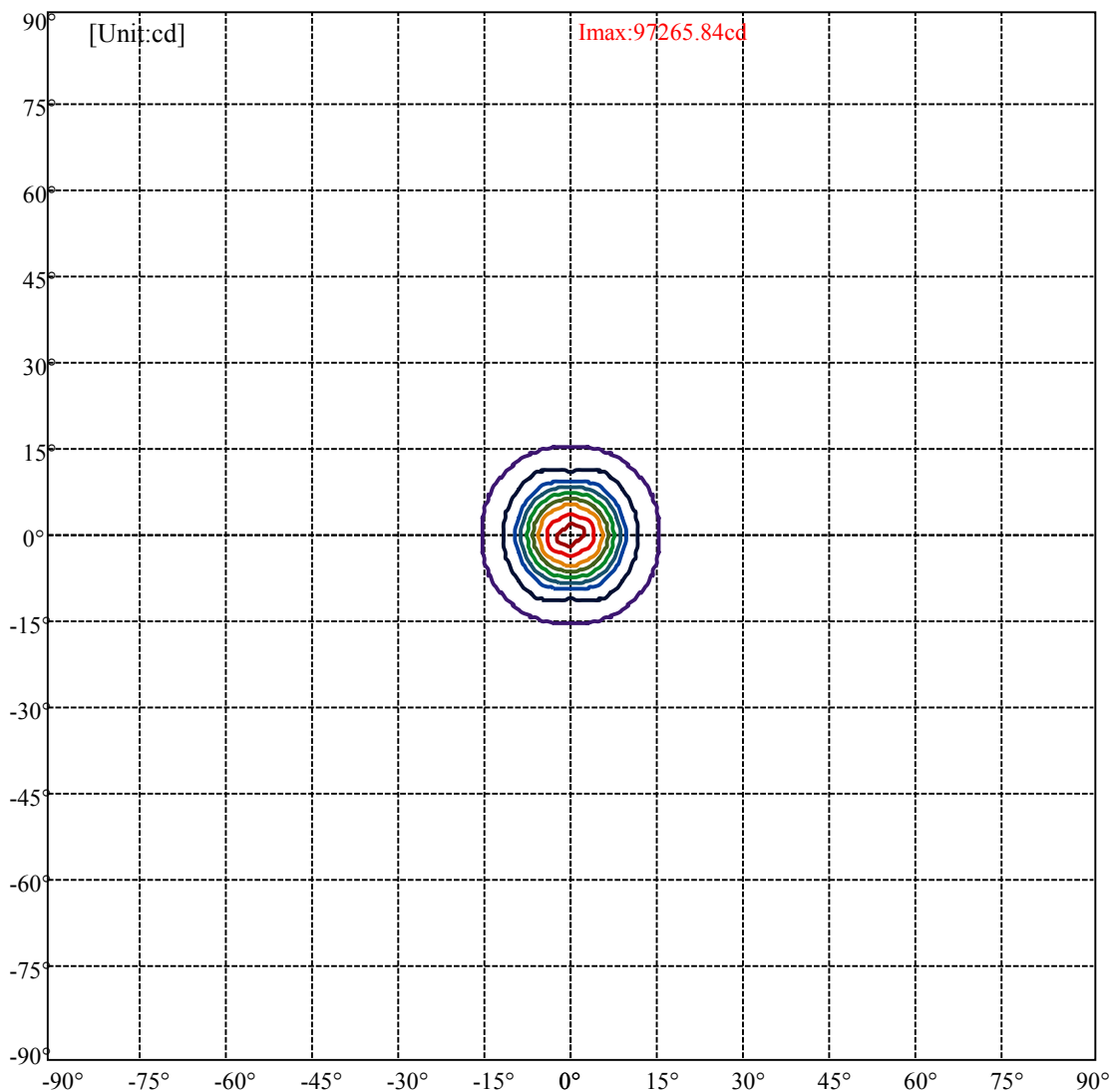
Amazonas 500 IES Test Report

Lux distance Curve

Page: 5 Total:15



Max , Ave Beam angle of C30plane17.58

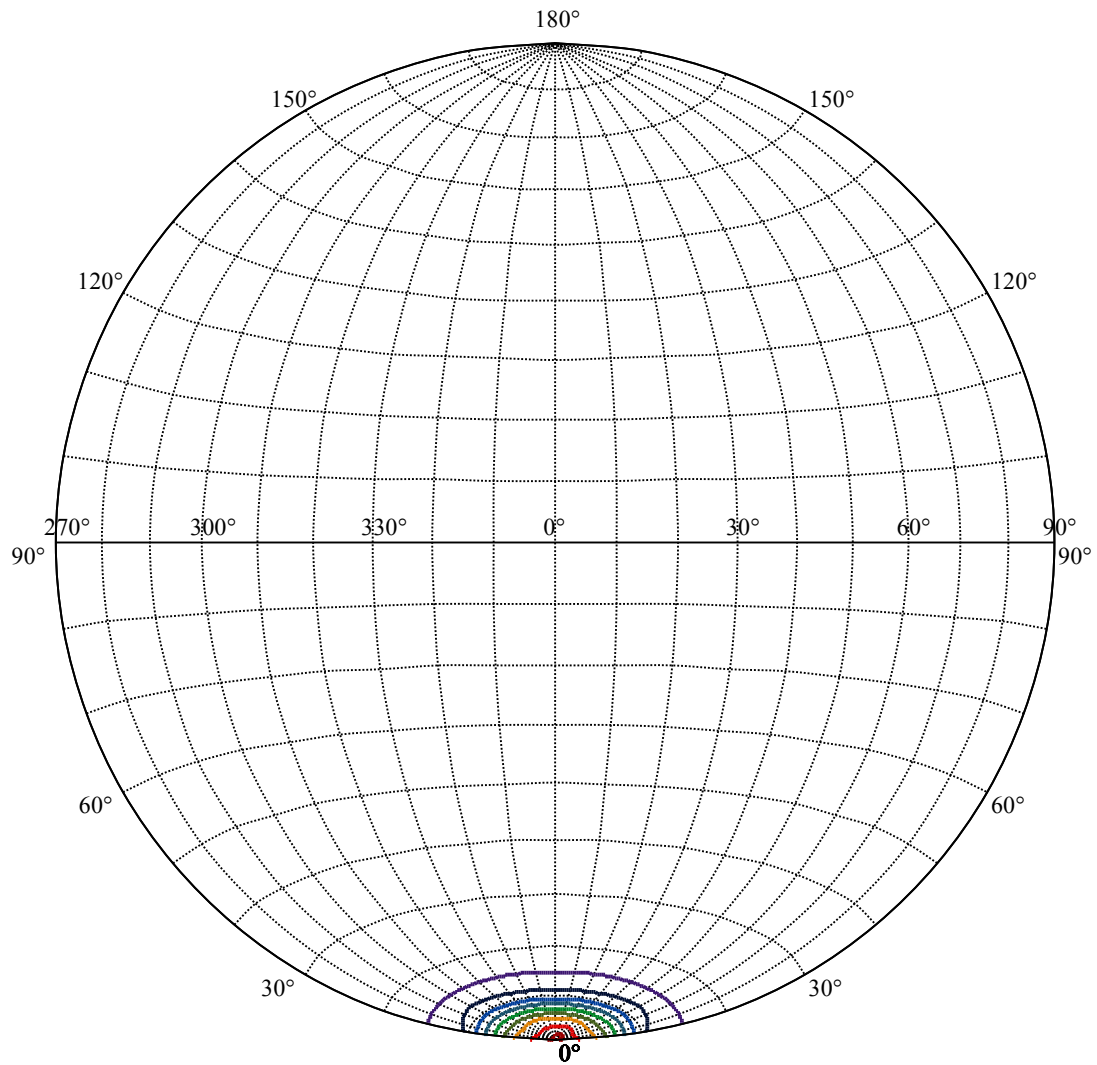


(10%Imax) 9152.93	—
(20%Imax) 18305.9	—
(30%Imax) 27458.8	—
(40%Imax) 36611.7	—
(50%Imax) 45764.6	—
(60%Imax) 54917.6	—
(70%Imax) 64070.5	—
(80%Imax) 73223.4	—
(90%Imax) 82376.3	—

Amazonas 500 IES Test Report

ISO candela diagram on circular web

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House

[Unit:cd]

Road

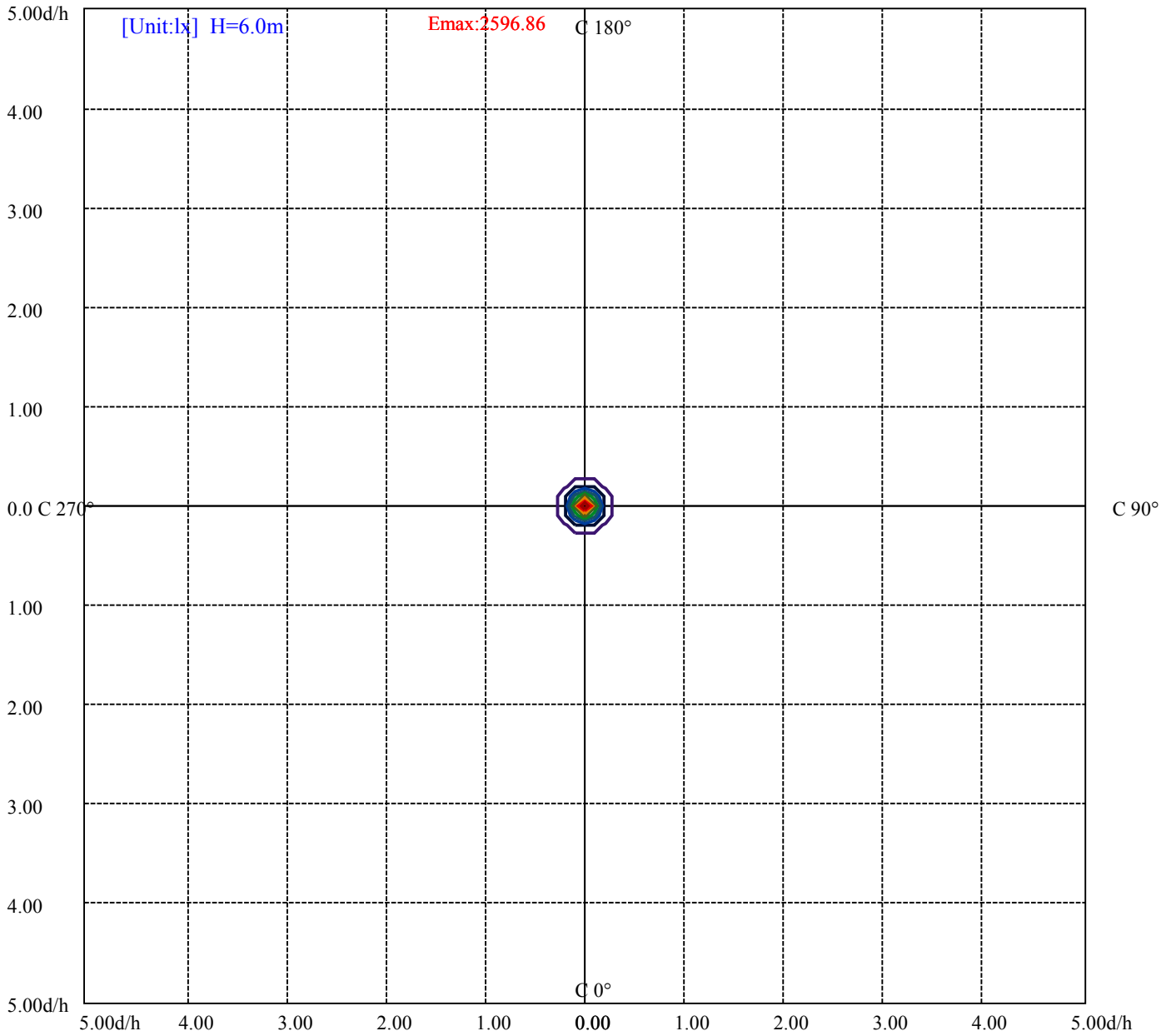
Imax:97265.84

(10%Imax) 9726.58	—
(20%Imax) 19453.2	—
(30%Imax) 29179.8	—
(40%Imax) 38906.3	—
(50%Imax) 48632.9	—
(60%Imax) 58359.5	—
(70%Imax) 68086.1	—
(80%Imax) 77812.7	—
(90%Imax) 87539.3	—

Amazonas 500 IES Test Report

ISO illuminance diagram

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(10%Emax) 259.6859	—
(20%Emax) 519.3723	—
(30%Emax) 779.0583	—
(40%Emax) 1038.745	—
(50%Emax) 1298.431	—
(60%Emax) 1558.114	—
(70%Emax) 1817.8	—
(80%Emax) 2077.486	—
(90%Emax) 2337.172	—

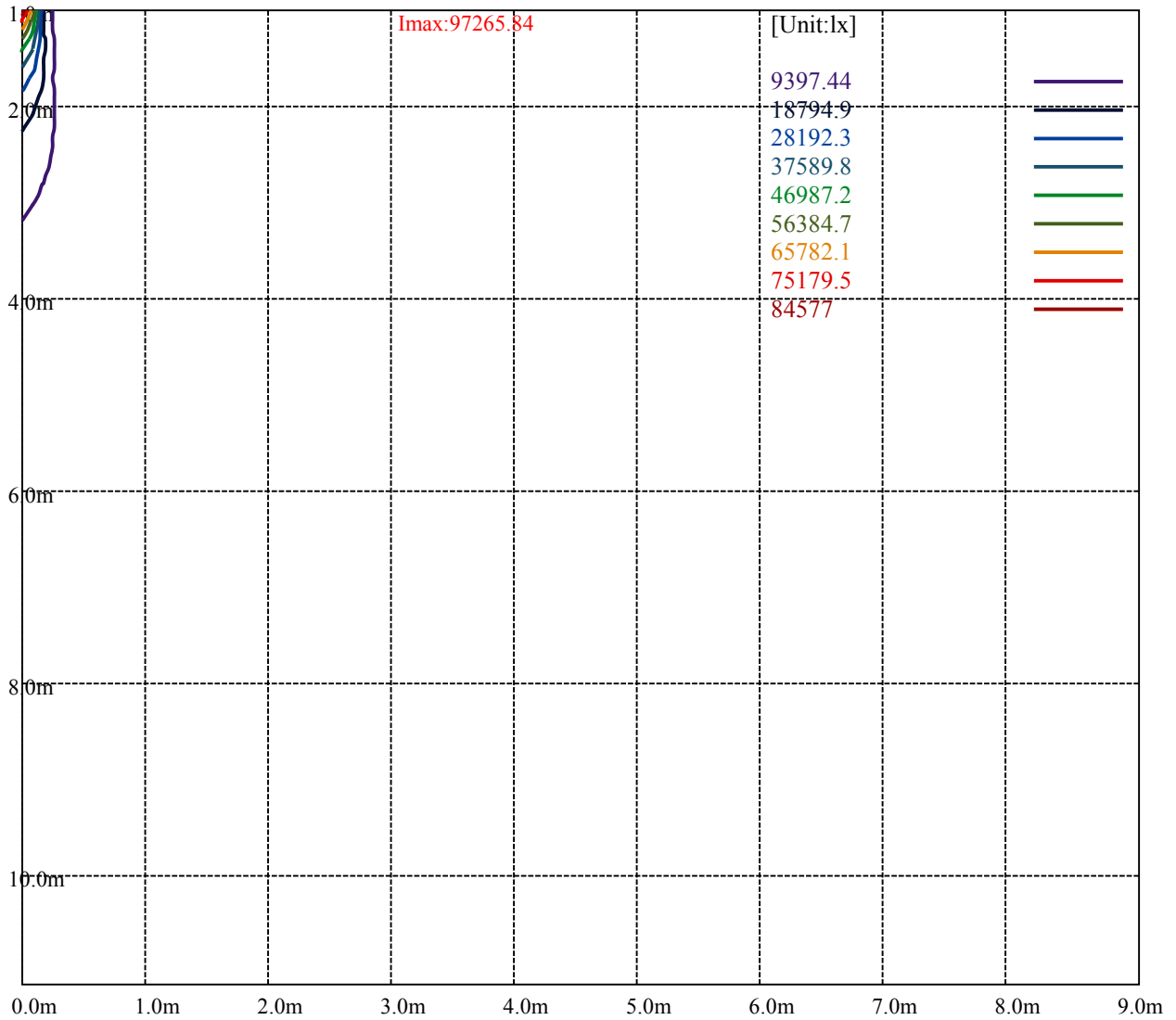
Equipment:GMS-1800
Temperature(°C): 25.0

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

Operator: Andy chen
Distance(m): 10.22

Amazonas 500 IES Test Report

Space ISO Lux diagram



Amazonas 500 IES Test Report

Luminance Limiting Curve(no luminous side)

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Luminance Table

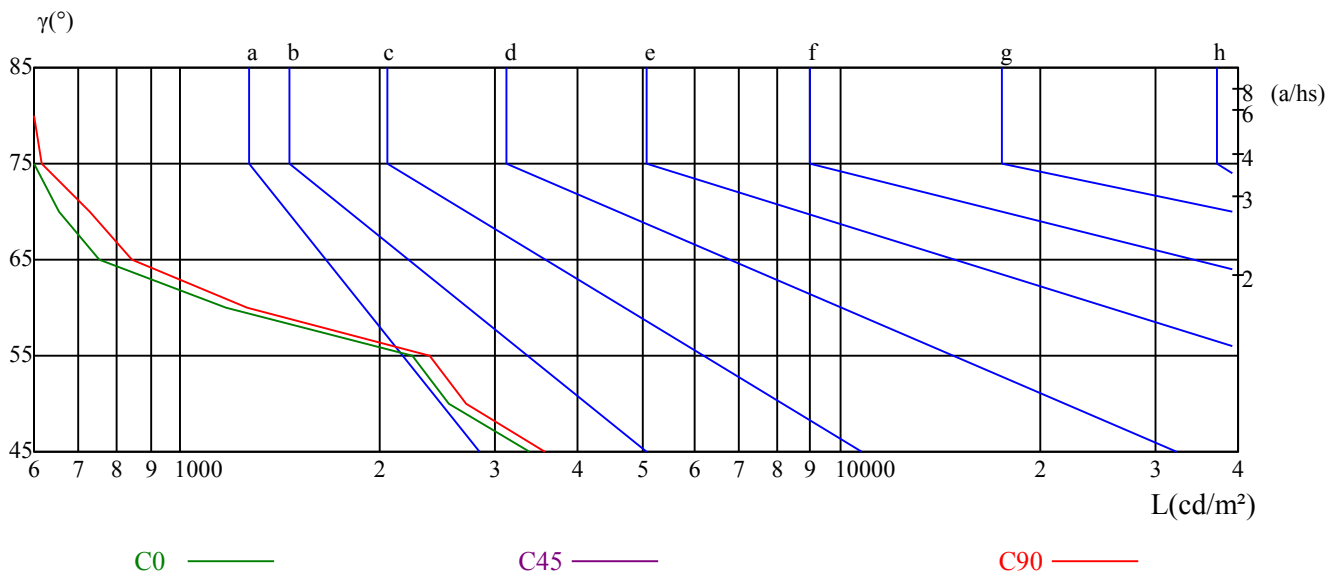
γ	45	50	55	60	65	70	75	80	85
C0	3372	2543	2244	1169	756	655	543	395	190
C45	0	0	0	0	0	0	0	0	0
C90	3553	2704	2387	1265	842	729	618	455	220

L横(65)	L纵(65)	L45(65)	L横(75)	L纵(75)	L45(75)	L横(85)	L纵(85)	L45(85)
1267	1313	0	1183	1219	0	878	878	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: 2016/9/27
Humidity(%): 65.0%

Operator: Andy chen
Distance(m): 10.22

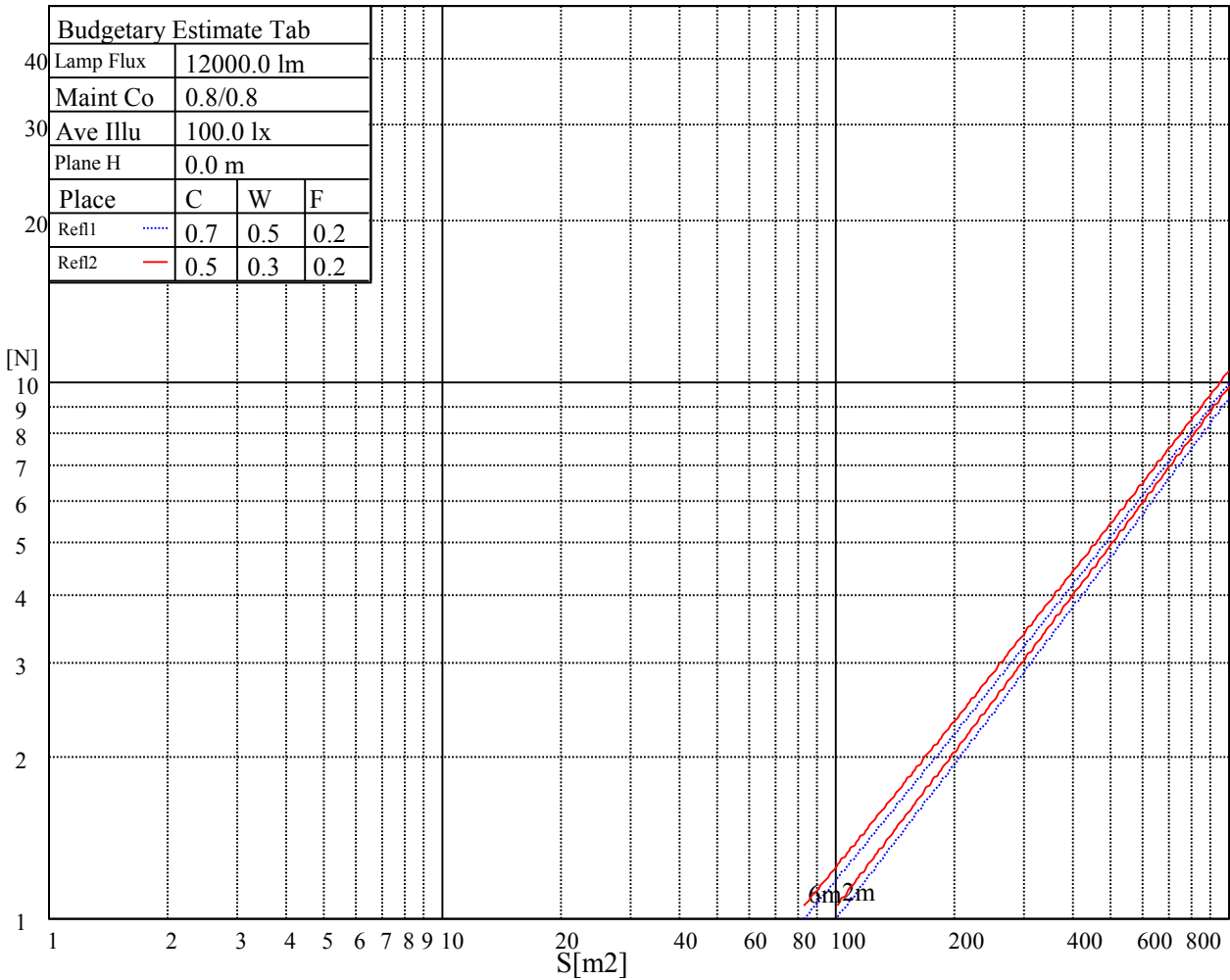
Amazonas 500 IES Test Report

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	9.0	9.6	9.2	9.8	10.0	9.0	9.7	9.3	9.9	10.1
	3H	8.8	9.4	9.1	9.6	9.9	8.9	9.5	9.2	9.7	9.9
	4H	8.6	9.1	9.0	9.4	9.7	8.7	9.2	9.1	9.5	9.8
	6H	8.6	9.1	9.0	9.4	9.7	8.7	9.2	9.1	9.5	9.8
	8H	8.6	9.1	9.0	9.4	9.7	8.7	9.2	9.1	9.5	9.8
	12H	8.4	8.8	8.8	9.2	9.6	8.5	8.9	8.9	9.3	9.7
4H	2H	8.6	9.1	9.0	9.4	9.7	8.7	9.2	9.0	9.5	9.8
	3H	8.4	8.8	8.8	9.2	9.6	8.5	8.9	8.9	9.3	9.7
	4H	8.5	8.8	8.9	9.2	9.6	8.5	8.9	8.9	9.3	9.7
	6H	8.5	8.8	8.9	9.2	9.6	8.6	8.9	9.0	9.3	9.7
	8H	8.2	8.4	8.7	8.9	9.4	8.3	8.5	8.8	9.0	9.5
	12H	8.2	8.4	8.7	8.9	9.4	8.3	8.5	8.8	9.0	9.5
8H	4H	8.2	8.4	8.7	8.9	9.4	8.3	8.5	8.8	9.0	9.5
	6H	8.2	8.4	8.7	8.9	9.4	8.3	8.5	8.8	9.0	9.5
	8H	8.2	8.5	8.7	8.9	9.4	8.3	8.5	8.8	9.0	9.5
	12H	8.2	8.5	8.7	8.9	9.4	8.3	8.5	8.8	9.0	9.5
12H	4H	8.2	8.4	8.7	8.9	9.4	8.3	8.5	8.8	9.0	9.5
	6H	8.2	8.4	8.7	8.9	9.4	8.3	8.5	8.8	9.0	9.5
	8H	8.2	8.5	8.7	8.9	9.4	8.3	8.5	8.8	9.0	9.5
Variation with the observer position at spacings:											
S = 1.0H		5.1/-10.8					5.0/-11.0				
S = 1.5H		7.9/-12.4					7.8/-12.7				
S = 2.0H		9.9/-12.7					9.8/-13.1				
Standard tables:		BK0					BK0				
Uncorrected UGR		-4.1					-4.1				

Amazonas 500 IES Test Report

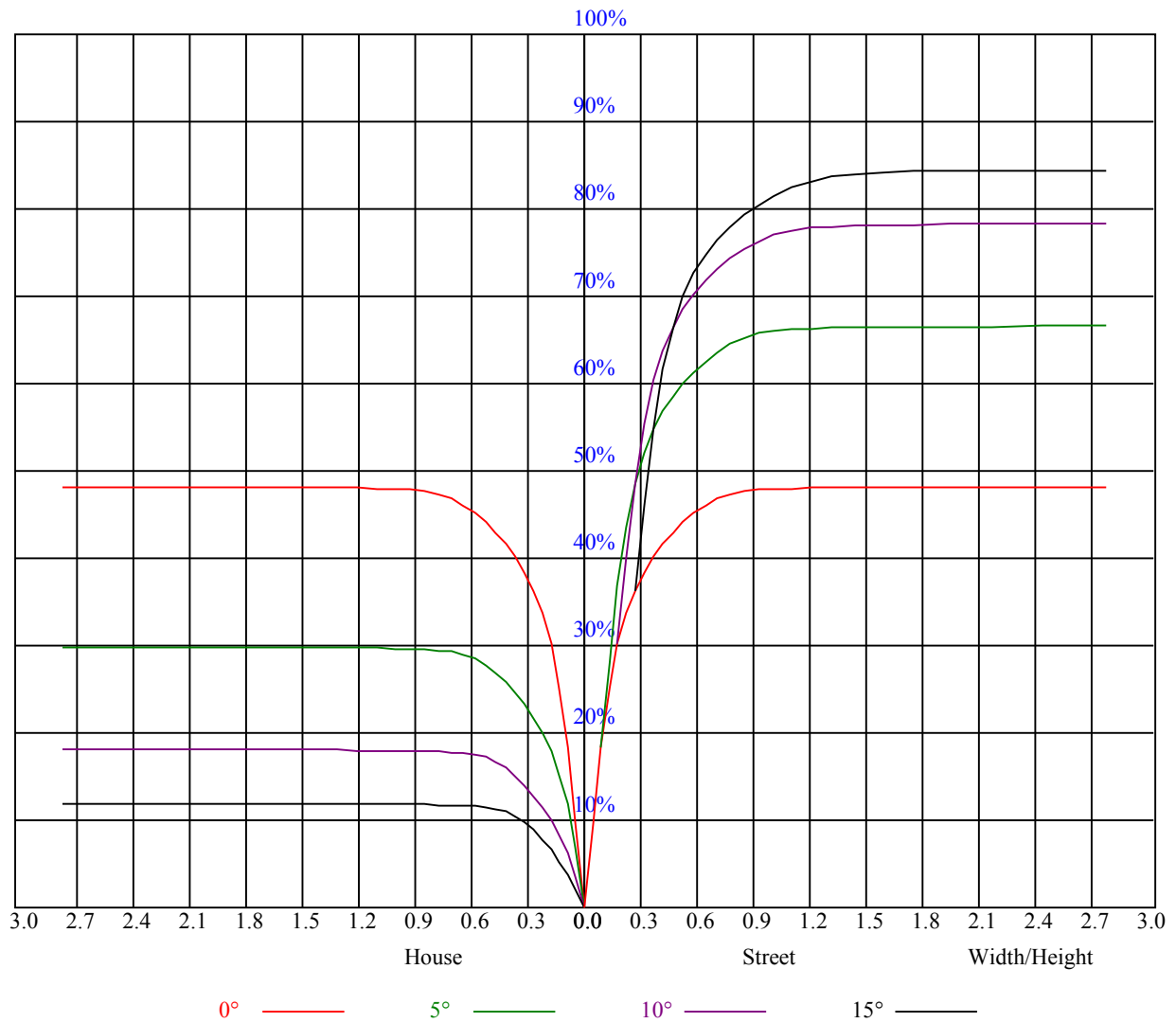


Amazonas 500 IES Test Report

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	1.06	1.06	1.06	1.02	1.02	1.02	1.00
1	1.12	1.10	1.08	1.10	1.08	1.07	1.06	1.05	1.03	1.02	1.01	1.00	0.99	0.98	0.97	0.96
2	1.07	1.03	1.01	1.05	1.02	1.00	1.02	1.00	0.98	0.99	0.97	0.95	0.96	0.95	0.94	0.92
3	1.02	0.98	0.95	1.00	0.97	0.94	0.98	0.95	0.93	0.96	0.93	0.91	0.93	0.92	0.90	0.89
4	0.97	0.93	0.90	0.96	0.92	0.90	0.94	0.91	0.89	0.92	0.90	0.88	0.91	0.88	0.87	0.85
5	0.94	0.89	0.86	0.93	0.89	0.86	0.91	0.88	0.85	0.90	0.87	0.84	0.88	0.86	0.84	0.82
6	0.90	0.86	0.83	0.89	0.85	0.82	0.88	0.84	0.82	0.87	0.84	0.81	0.86	0.83	0.81	0.80
7	0.87	0.83	0.80	0.86	0.82	0.79	0.85	0.82	0.79	0.84	0.81	0.79	0.83	0.80	0.78	0.77
8	0.84	0.80	0.77	0.84	0.80	0.77	0.83	0.79	0.77	0.82	0.79	0.76	0.81	0.78	0.76	0.75
9	0.82	0.77	0.75	0.81	0.77	0.75	0.81	0.77	0.74	0.80	0.76	0.74	0.79	0.76	0.74	0.73
10	0.79	0.75	0.73	0.79	0.75	0.72	0.78	0.75	0.72	0.78	0.74	0.72	0.77	0.74	0.72	0.71



Amazonas 500 IES Test Report

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	93974.43	68186.47	22364.26	9250.23	5064.91	3665.28	3362.78	2884.74	862.14
30.0	97265.84	68385.00	23301.01	9718.65	4992.60	3702.37	3405.62	2748.38	893.80
60.0	89711.26	64832.36	25501.55	9702.25	4922.60	3701.32	3400.92	2541.49	944.37
90.0	91529.27	66932.59	20392.03	9271.65	4702.33	3684.61	3409.28	2972.51	893.49
120.0	88906.70	64832.36	25501.55	9702.25	4922.60	3701.32	3400.92	2541.49	944.37
150.0	90003.84	68385.00	23301.01	9718.65	4992.60	3702.37	3405.62	2748.38	893.80
180.0	93974.43	68186.47	22364.26	9250.23	5064.91	3665.28	3362.78	2884.74	862.14
210.0	97265.84	68385.00	23301.01	9718.65	4992.60	3702.37	3405.62	2748.38	893.80
240.0	89711.26	64832.36	25501.55	9702.25	4922.60	3701.32	3400.92	2541.49	944.37
270.0	91529.27	66932.59	20392.03	9271.65	4702.33	3684.61	3409.28	2972.51	893.49
300.0	88906.70	64832.36	25501.55	9702.25	4922.60	3701.32	3400.92	2541.49	944.37
330.0	90003.84	68385.00	23301.01	9718.65	4992.60	3702.37	3405.62	2748.38	893.80
360.0	93974.43	68186.47	22364.26	9250.23	5064.91	3665.28	3362.78	2884.74	862.14

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	137.09	98.32	81.61	39.50	23.41	18.29	13.37	8.36	3.34
30.0	142.21	99.06	80.98	40.96	23.93	18.49	13.48	8.15	3.34
60.0	151.61	100.31	78.99	41.59	24.14	18.60	13.48	8.05	3.24
90.0	138.45	99.58	82.13	40.12	24.24	18.70	13.79	8.57	3.34
120.0	151.61	100.31	78.99	41.59	24.14	18.60	13.48	8.05	3.24
150.0	142.21	99.06	80.98	40.96	23.93	18.49	13.48	8.15	3.34
180.0	137.09	98.32	81.61	39.50	23.41	18.29	13.37	8.36	3.34
210.0	142.21	99.06	80.98	40.96	23.93	18.49	13.48	8.15	3.34
240.0	151.61	100.31	78.99	41.59	24.14	18.60	13.48	8.05	3.24
270.0	138.45	99.58	82.13	40.12	24.24	18.70	13.79	8.57	3.34
300.0	151.61	100.31	78.99	41.59	24.14	18.60	13.48	8.05	3.24
330.0	142.21	99.06	80.98	40.96	23.93	18.49	13.48	8.15	3.34
360.0	137.09	98.32	81.61	39.50	23.41	18.29	13.37	8.36	3.34

C/γ(°)	90.0
0.0	0.73
30.0	0.84
60.0	0.84
90.0	0.84
120.0	0.84
150.0	0.84
180.0	0.73
210.0	0.84
240.0	0.84
270.0	0.84
300.0	0.84
330.0	0.84
360.0	0.73

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%

Amazonas 500 IES Test Report

Zonal flux distribution table

Page: 2 Total:15

$\gamma(^{\circ})$	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%

Amazonas 500 IES Test Report

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

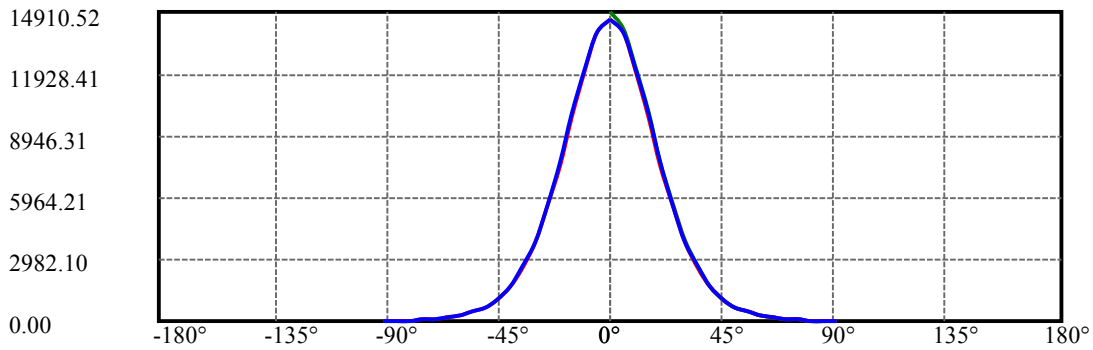
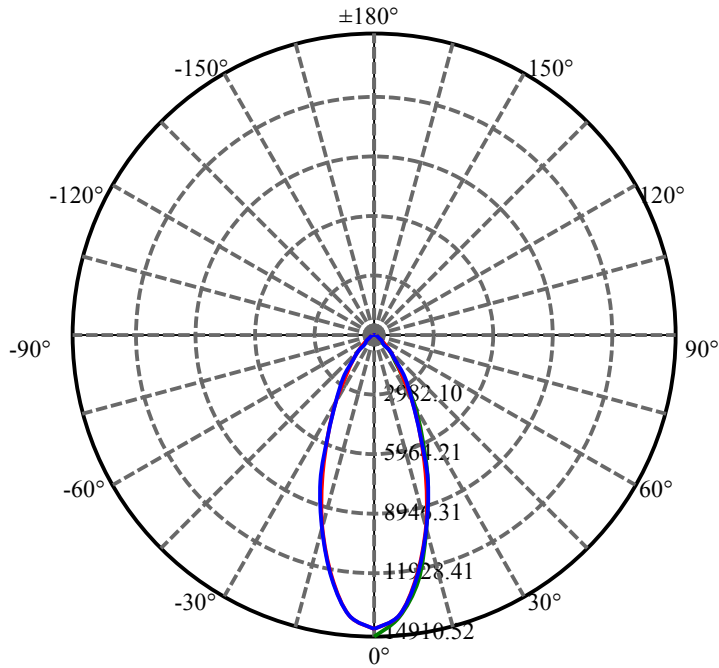
Date: 2016/9/28
Humidity(%): 65.0%

Operator: Andy Chen
Distance(m): 10.22

Amazonas 500 IES Test Report

Light Distribution Curve [Unit:cd]

Page: 4 Total:15



C30(Max): —————

C0/C180: —————

C90/C270: —————

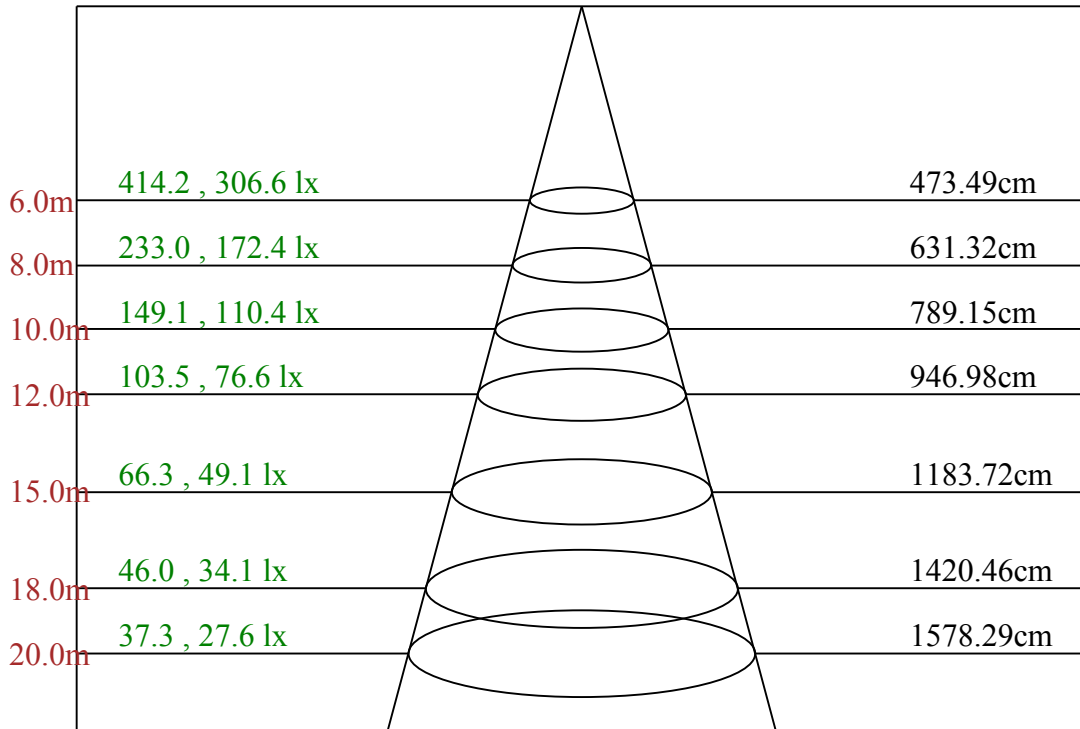
Field angle(10%Imax):C0/180Left:41.6 Right:41.6

:C90/270Left:41.7 Right:41.7

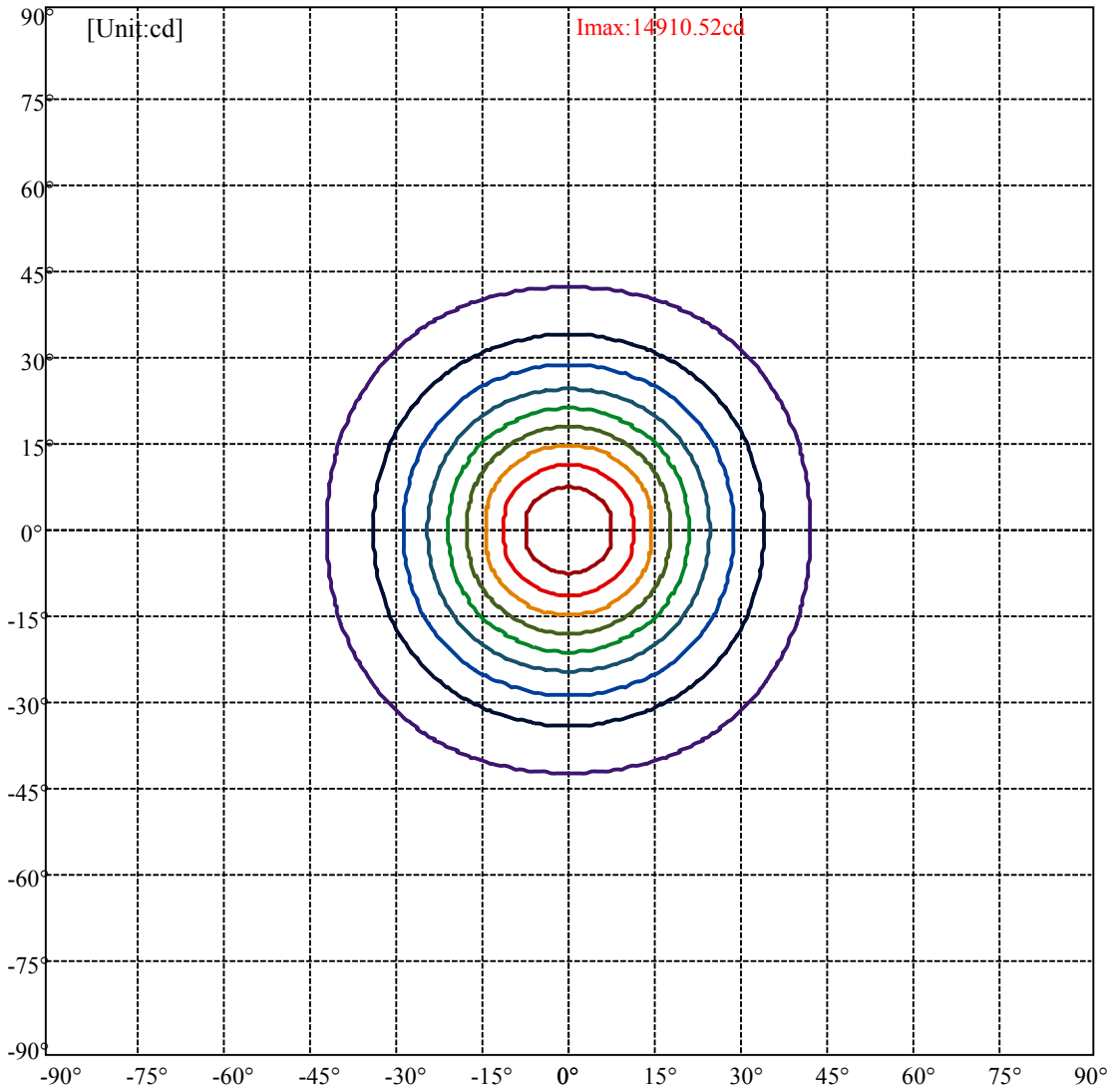
Beam Angle(50%Imax):C0/180Left:20.7 Right:20.7

:C90/270Left:21.0 Right:21.0

Amazonas 500 IES Test Report



Max , Ave Beam angle of C30plane43.07

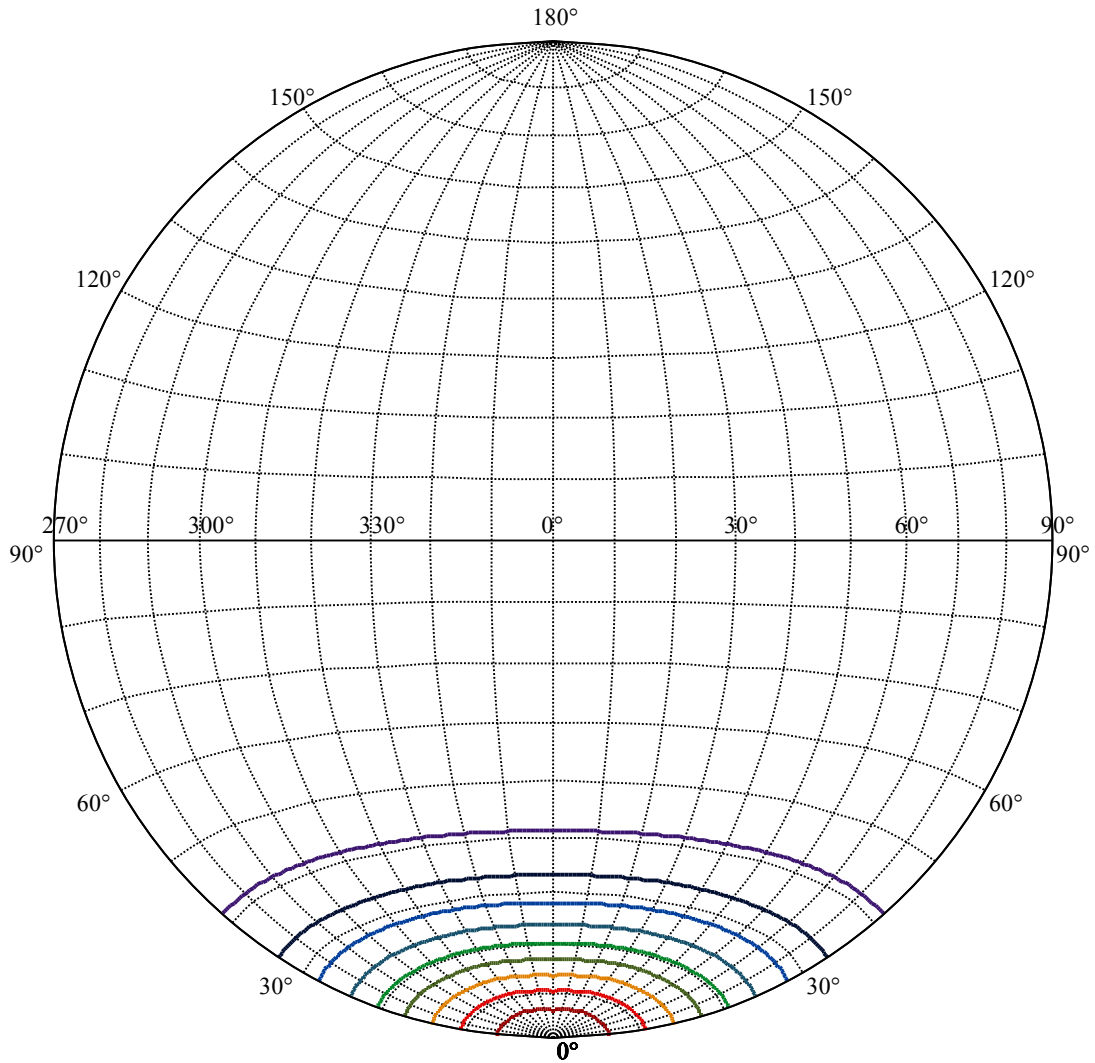


(10%Imax)	1454.48	—
(20%Imax)	2908.97	—
(30%Imax)	4363.45	—
(40%Imax)	5817.94	—
(50%Imax)	7272.42	—
(60%Imax)	8726.91	—
(70%Imax)	10181.4	—
(80%Imax)	11635.9	—
(90%Imax)	13090.4	—

Amazonas 500 IES Test Report

ISO candela diagram on circular web

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House

[Unit:cd]

Road

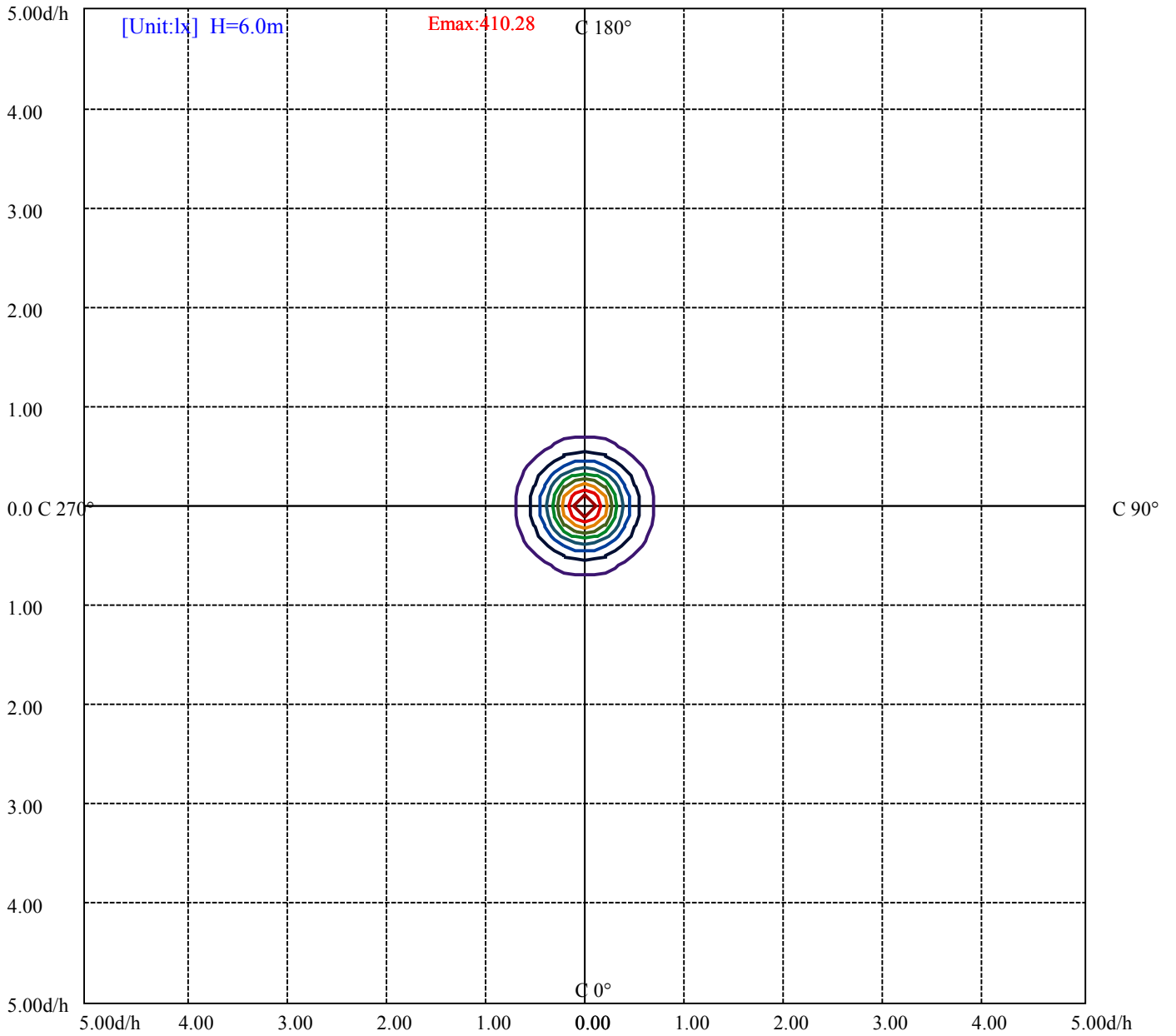
Imax:14910.52










(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	—

Amazonas 500 IES Test Report

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

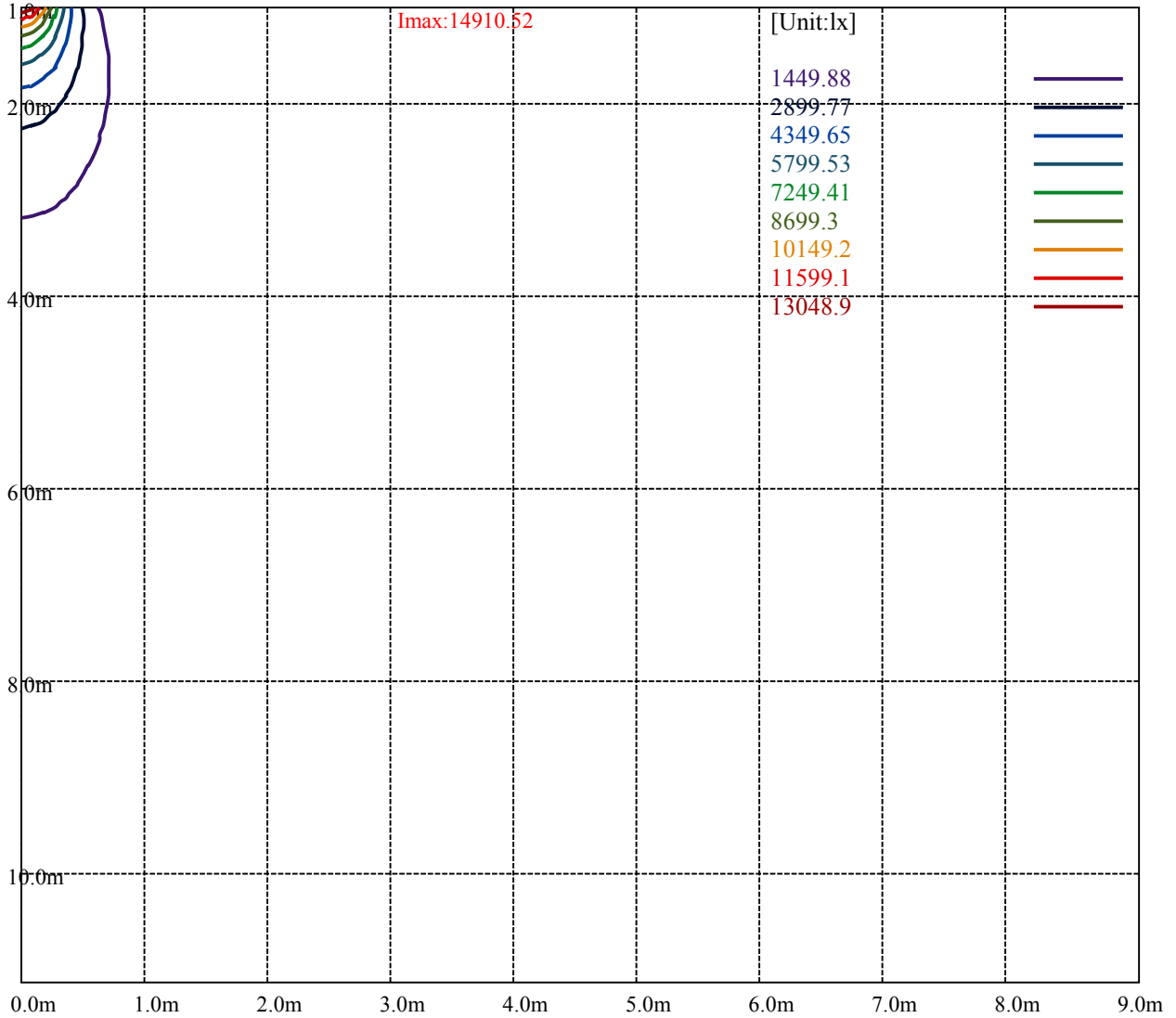
Date: 2016/9/28
Humidity(%): 65.0%

Operator: Andy Chen
Distance(m): 10.22

Amazonas 500 IES Test Report

Space ISO Lux diagram

Page: 9 Total:15



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

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

Operator: Andy Chen
Distance(m): 10.22

Amazonas 500 IES Test Report

Luminance Limiting Curve(no luminous side)

Page: 10 Total:15

Luminance Table

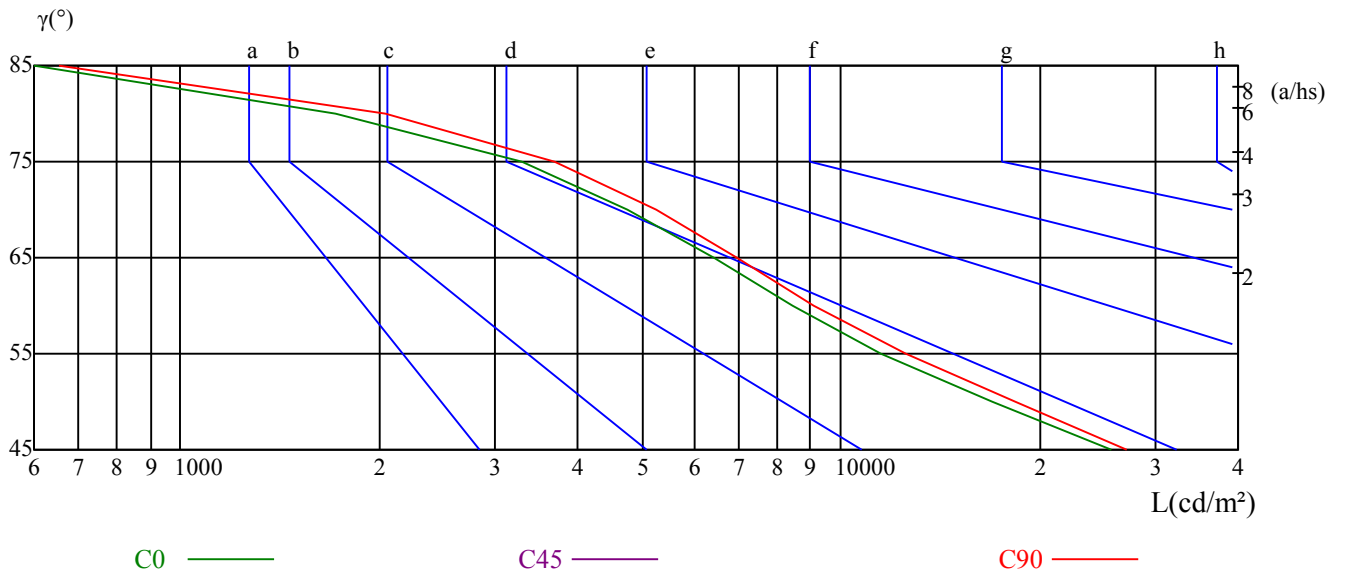
γ	45	50	55	60	65	70	75	80	85
C0	25679	16932	11486	8430	6413	4765	3278	1712	524
C45	0	0	0	0	0	0	0	0	0
C90	27197	18388	12516	9084	6977	5261	3679	2049	655

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

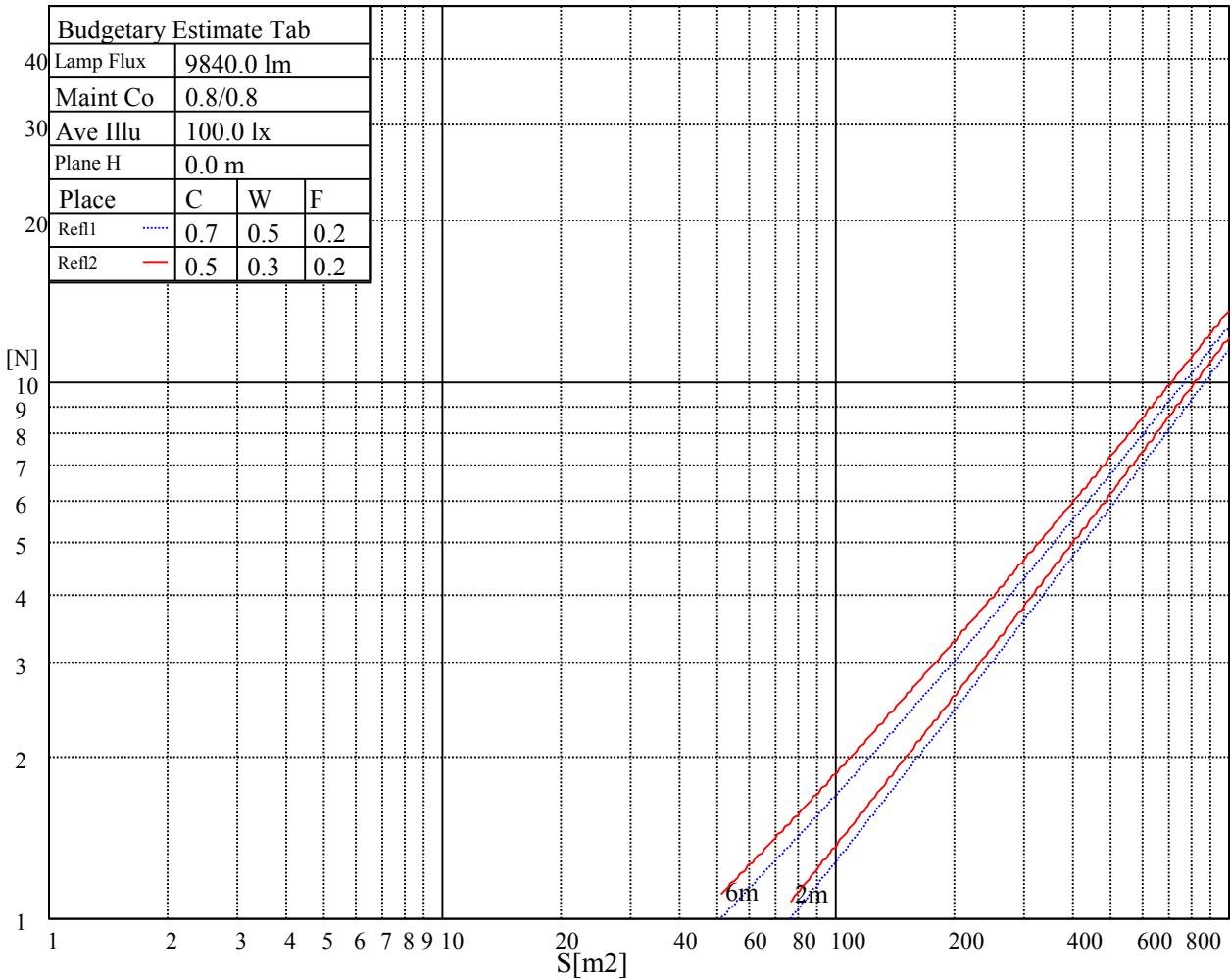
Amazonas 500 IES Test Report

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					

Amazonas 500 IES Test Report



Amazonas 500 IES Test Report

Utilization factor table for indoor luminaire

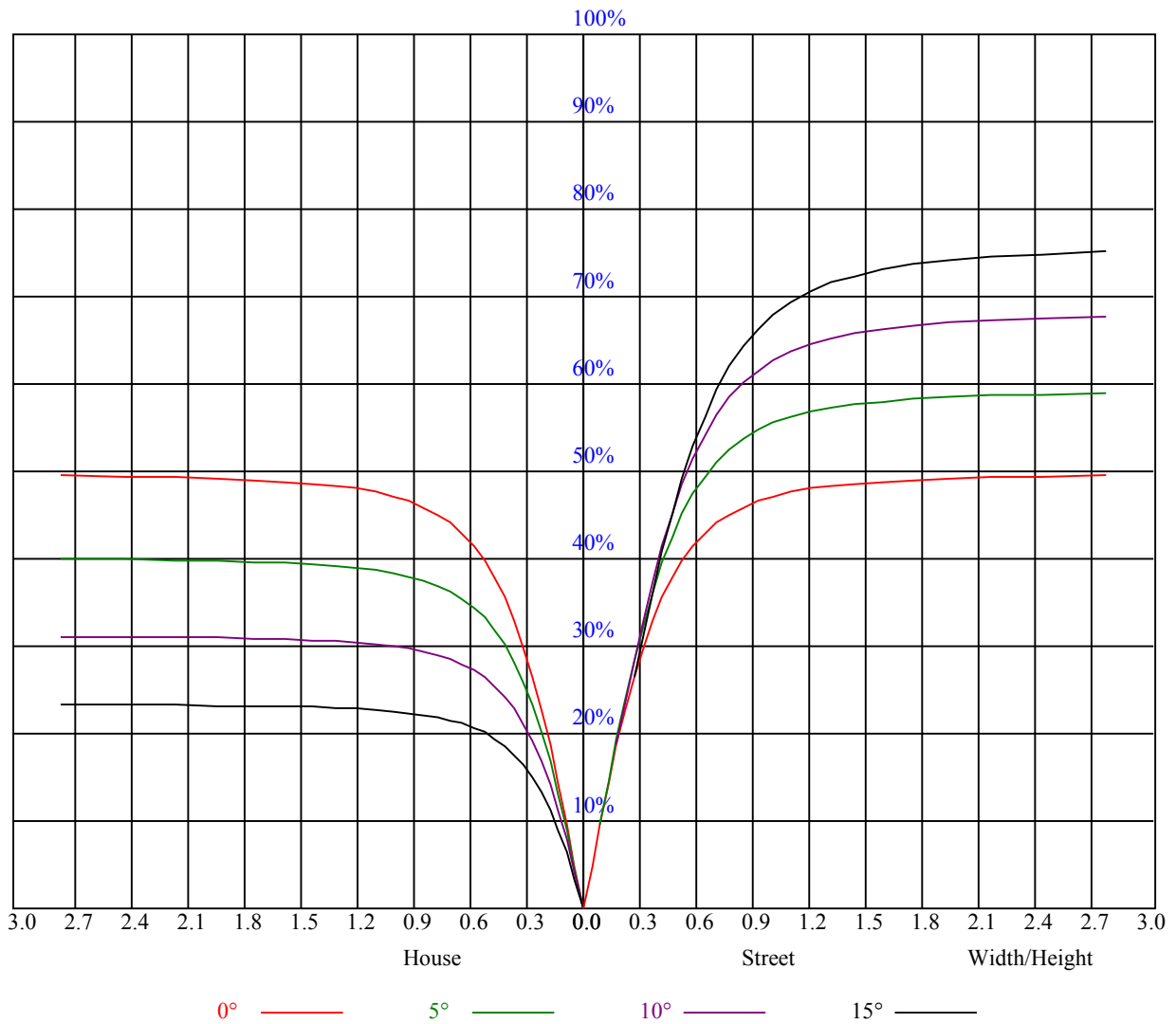
Page: 13 Total:15

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



Amazonas 500 IES Test Report

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

Amazonas 500 IES Test Report

LumCAT: F500

Luminaire: 60° Acrylic Lens60 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%

Amazonas 500 IES Test Report

Zonal flux distribution table

Page: 2 Total:15

$\gamma(^{\circ})$	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%

Amazonas 500 IES Test Report

Zonal flux distribution table

Page: 3 Total:15

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%

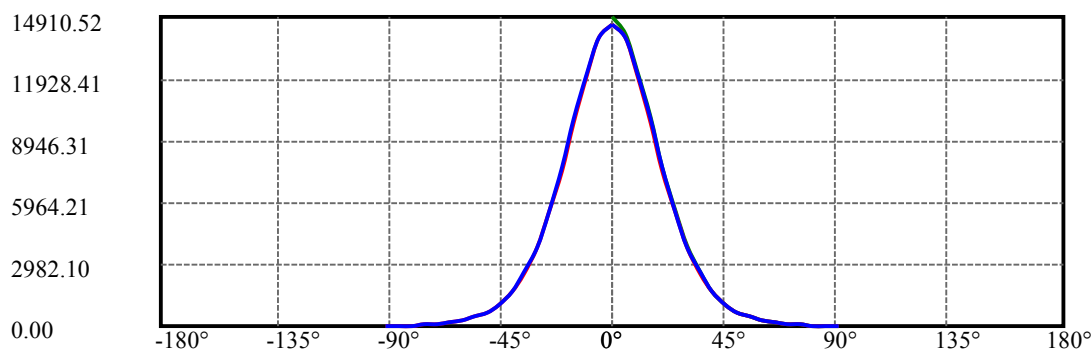
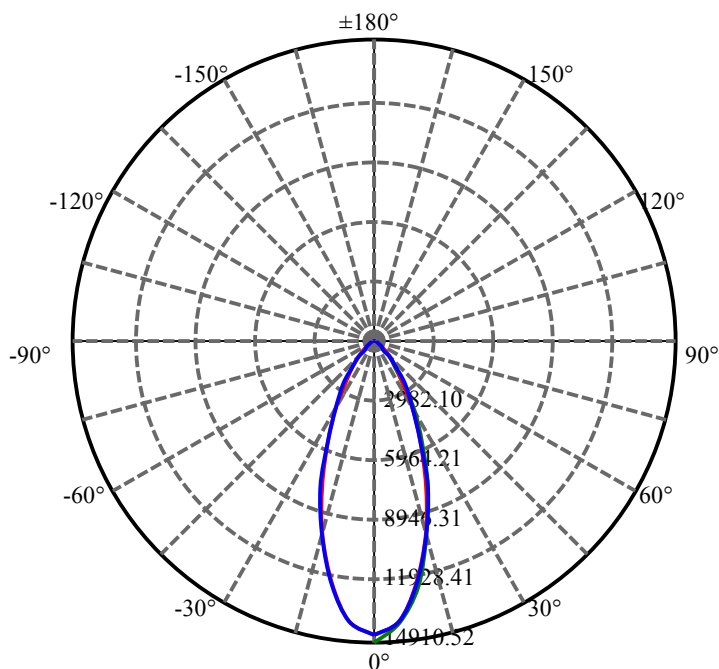
ZONAL LUMEN SUMMARY

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



C30(Max): —————

C0/C180: —————

C90/C270: —————

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

:C90/270Left:41.7 Right:41.7

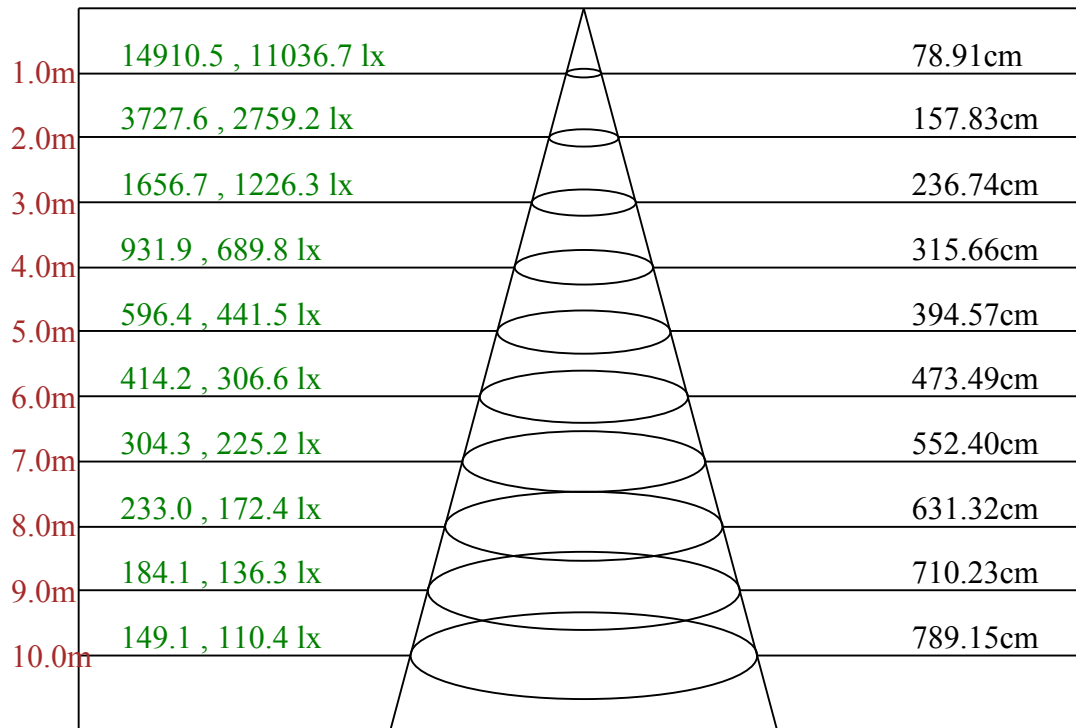
Beam Angle(50%Imax):C0/180Left:20.7 Right:20.7

:C90/270Left:21.0 Right:21.0

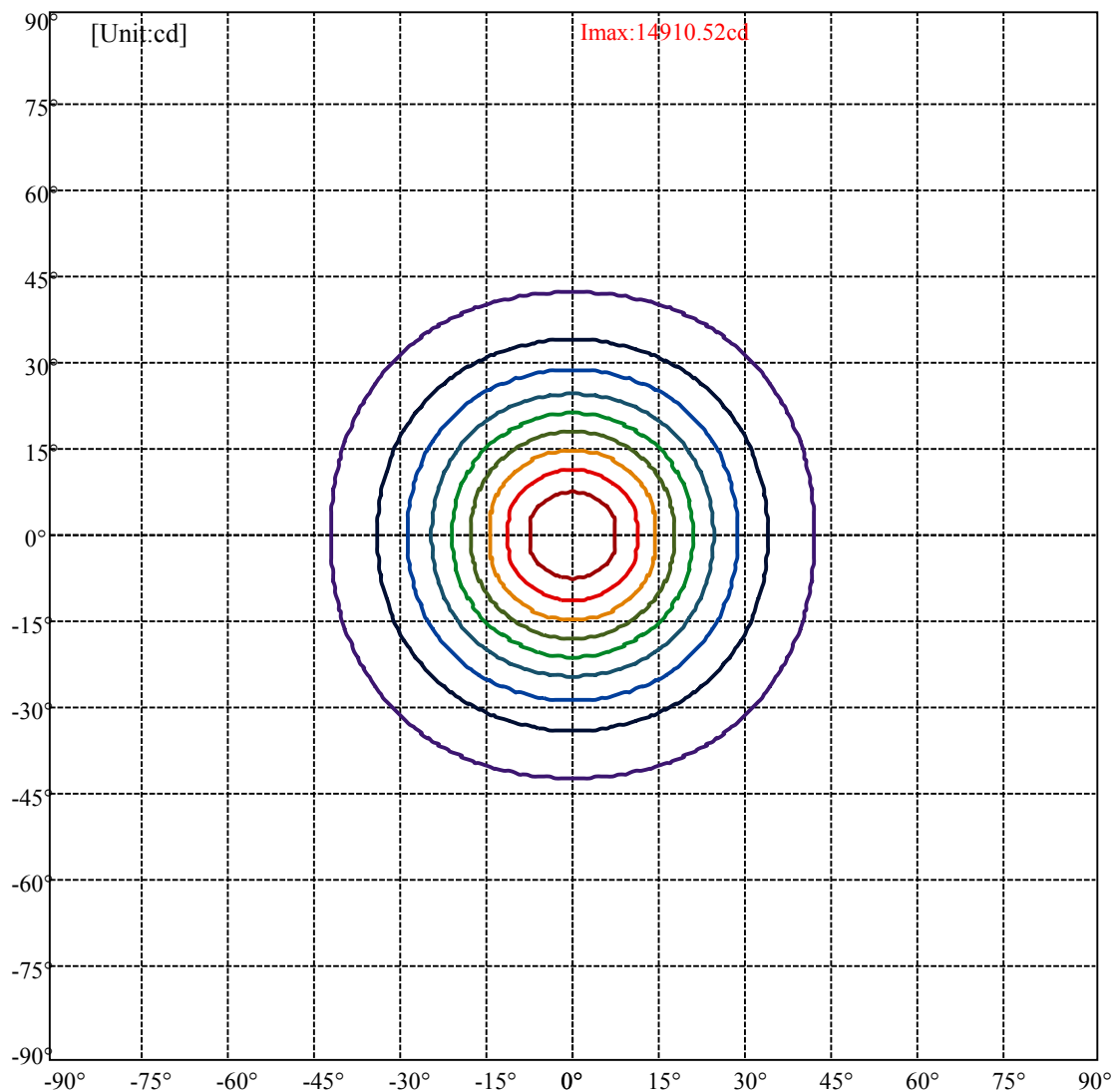
Amazonas 500 IES Test Report

Lux distance Curve

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Max , Ave Beam angle of C30plane43.07

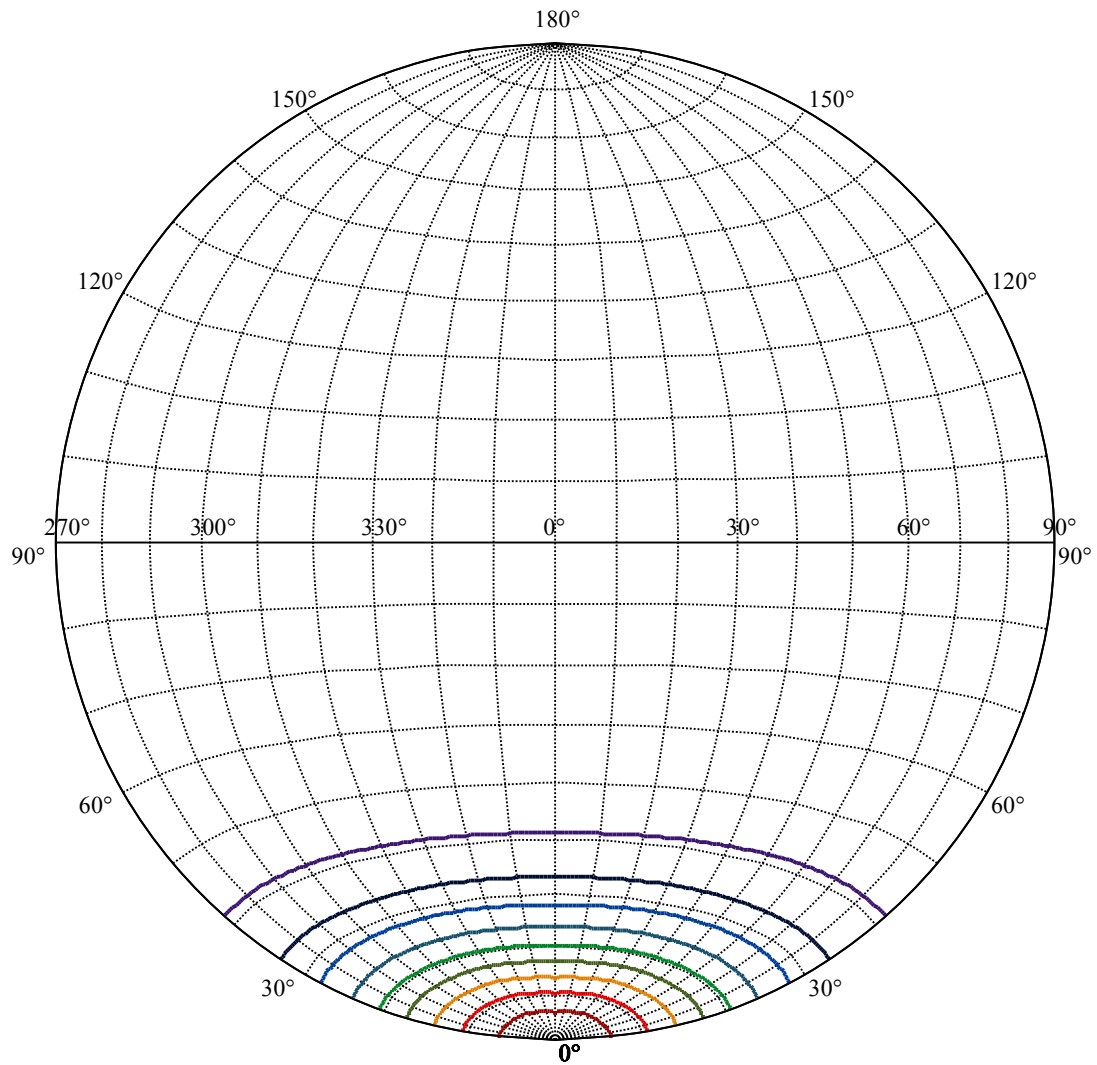


(10%Imax) 1454.48	—
(20%Imax) 2908.97	—
(30%Imax) 4363.45	—
(40%Imax) 5817.94	—
(50%Imax) 7272.42	—
(60%Imax) 8726.91	—
(70%Imax) 10181.4	—
(80%Imax) 11635.9	—
(90%Imax) 13090.4	—

Amazonas 500 IES Test Report

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	—

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

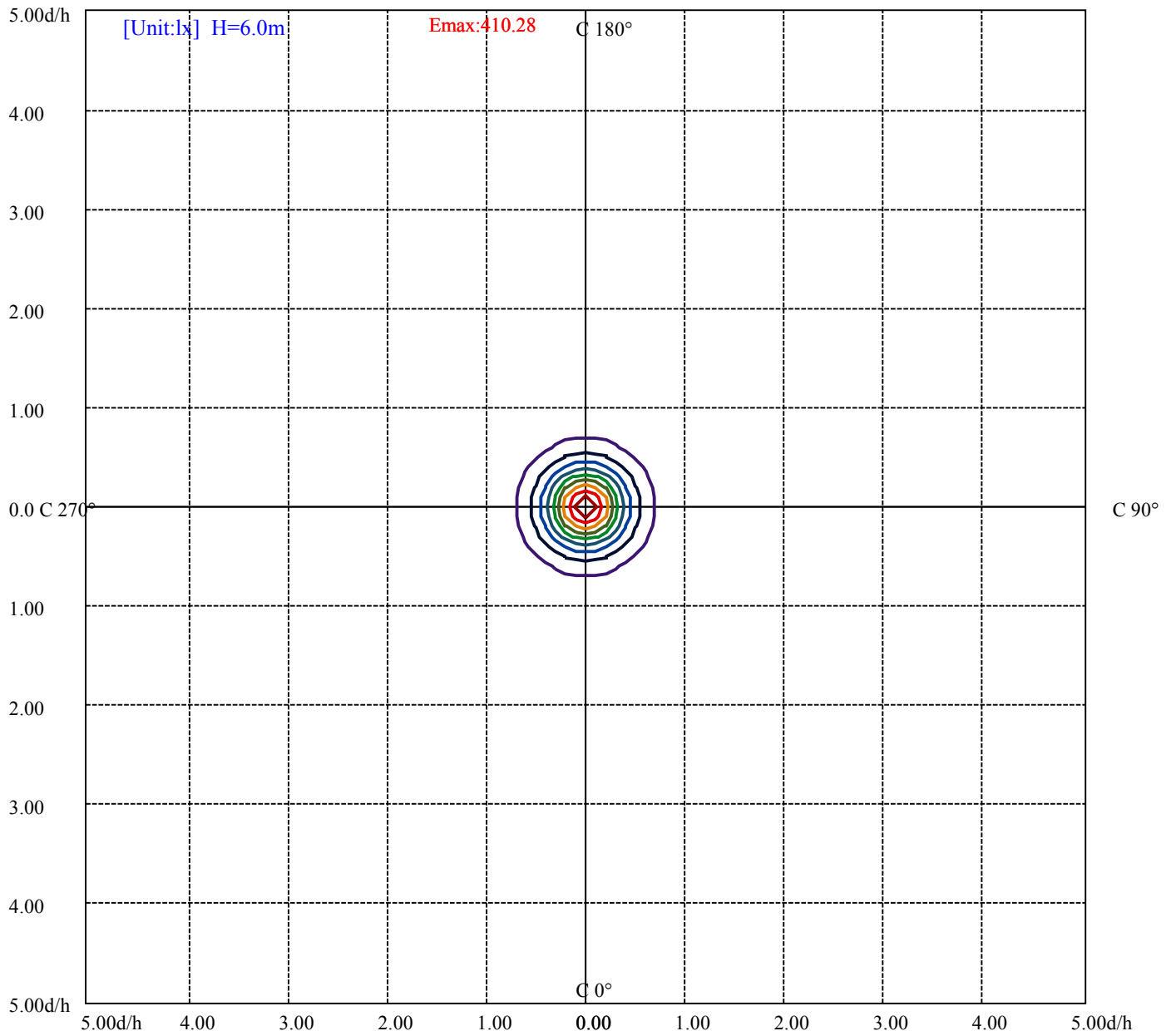
Date: 2016/9/28
Humidity(%): 65.0%

Operator: Andy chen
Distance(m): 10.22

Amazonas 500 IES Test Report

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

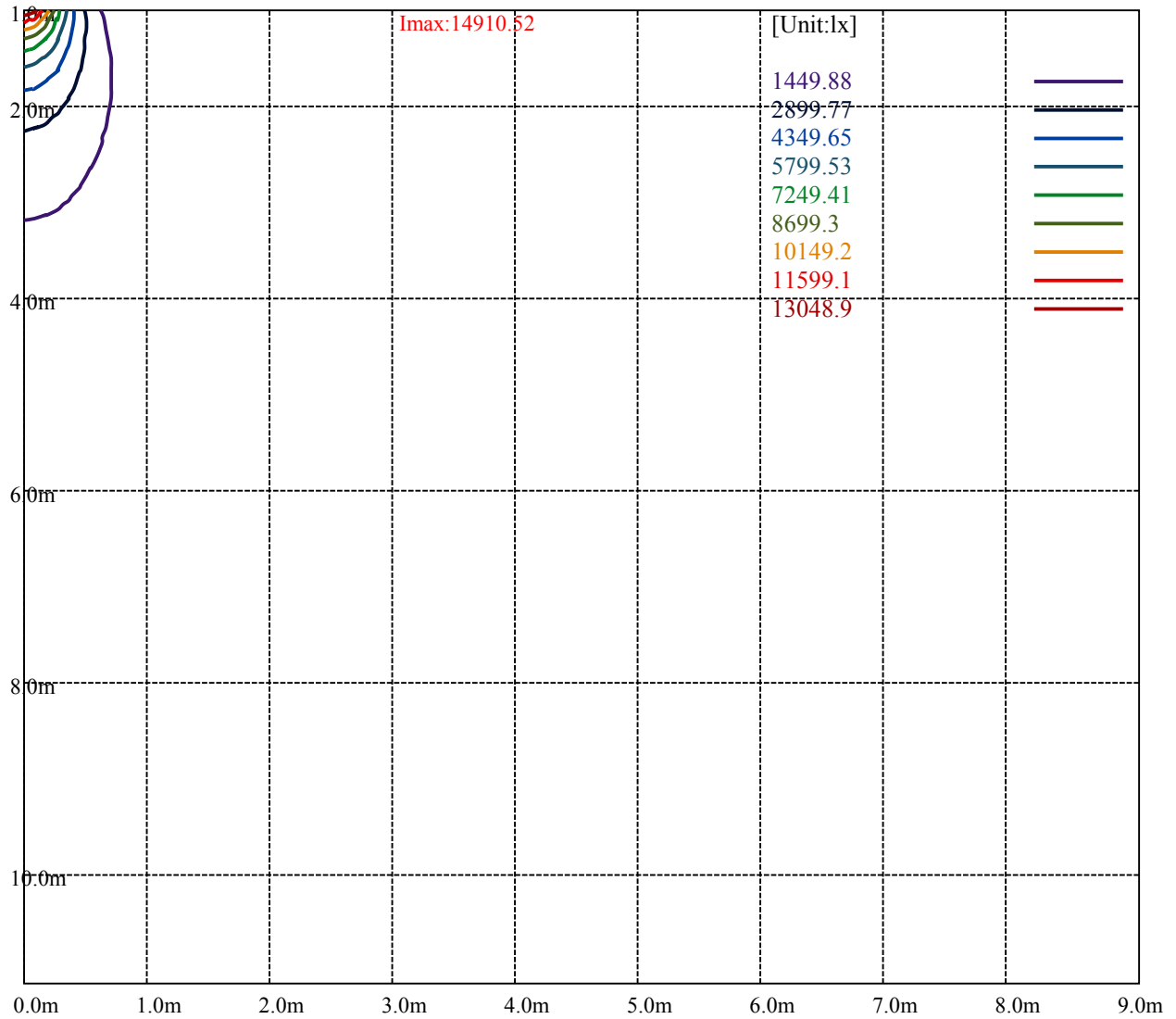
Date: 2016/9/28
Humidity(%): 65.0%

Operator: Andy chen
Distance(m): 10.22

Amazonas 500 IES Test Report

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

Amazonas 500 IES Test Report

Luminance Limiting Curve(no luminous side)

Page: 10 Total:15

Luminance Table

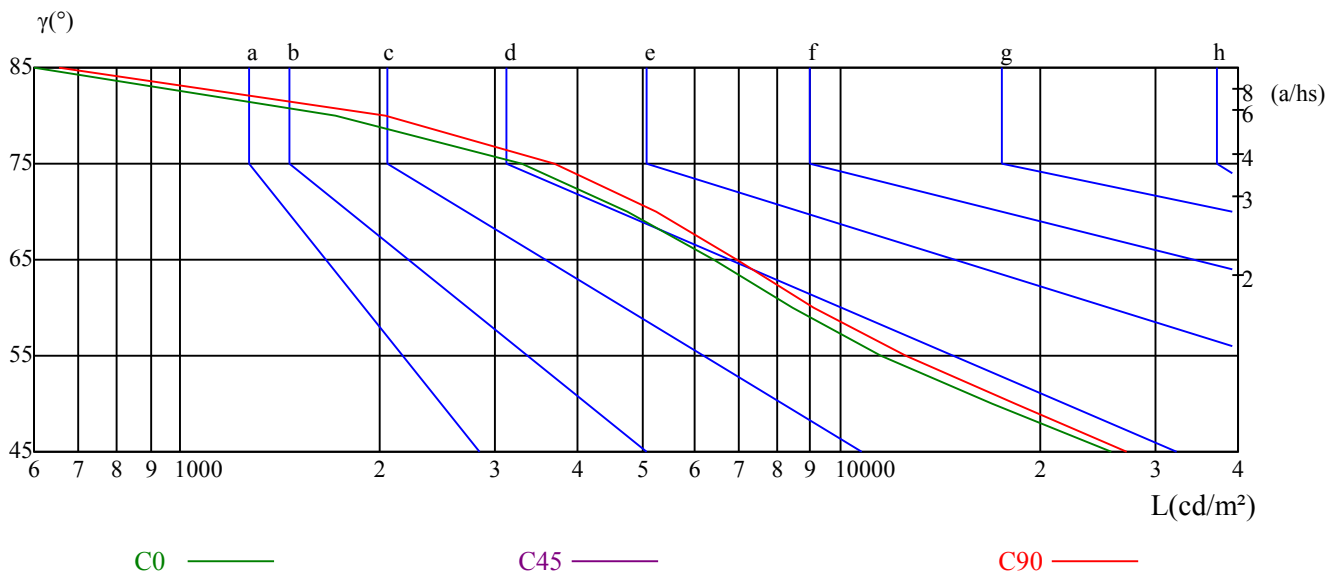
γ	45	50	55	60	65	70	75	80	85
C0	25679	16932	11486	8430	6413	4765	3278	1712	524
C45	0	0	0	0	0	0	0	0	0
C90	27197	18388	12516	9084	6977	5261	3679	2049	655

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

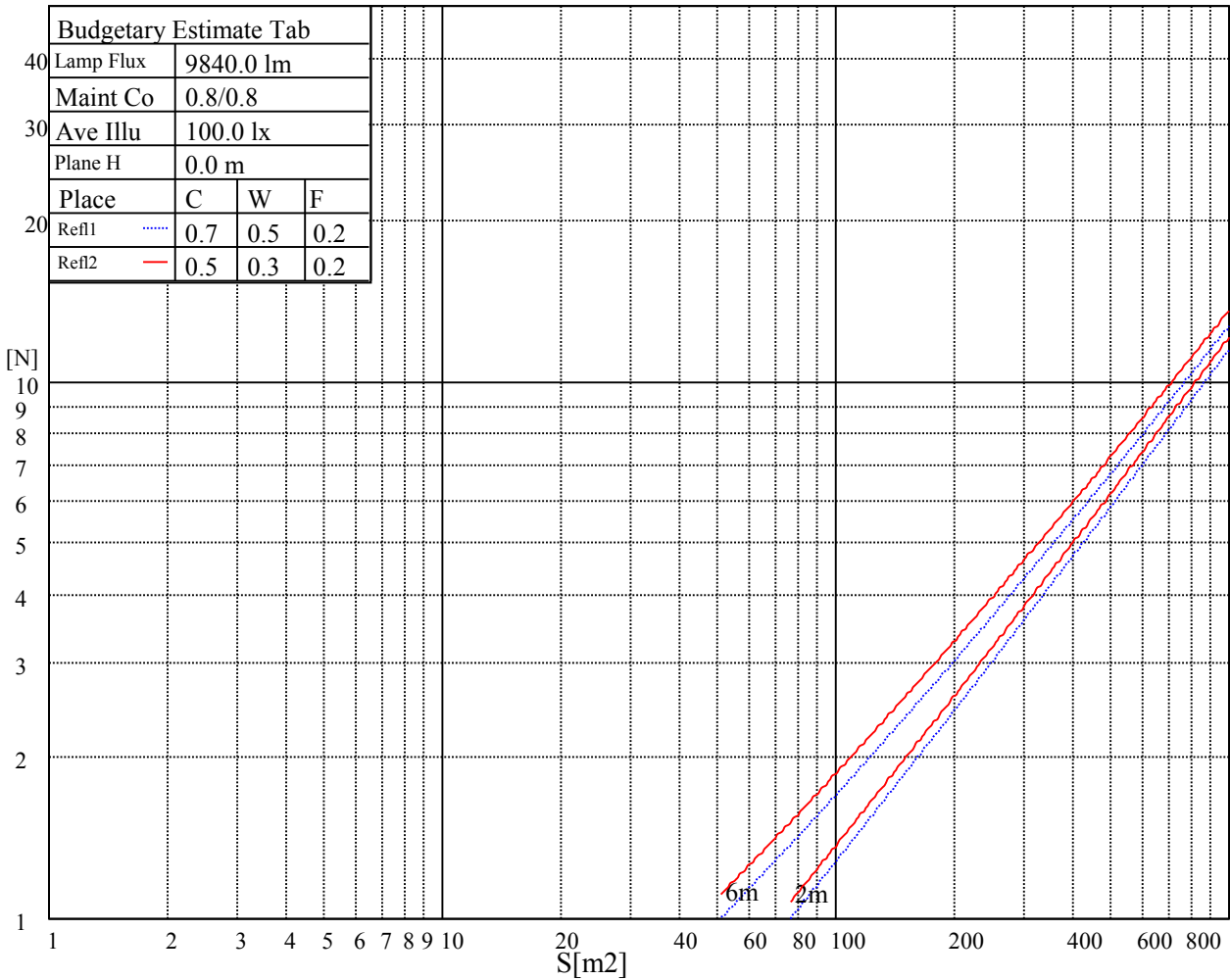
Amazonas 500 IES Test Report

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					

Amazonas 500 IES Test Report



Amazonas 500 IES Test Report

Utilization factor table for indoor luminaire

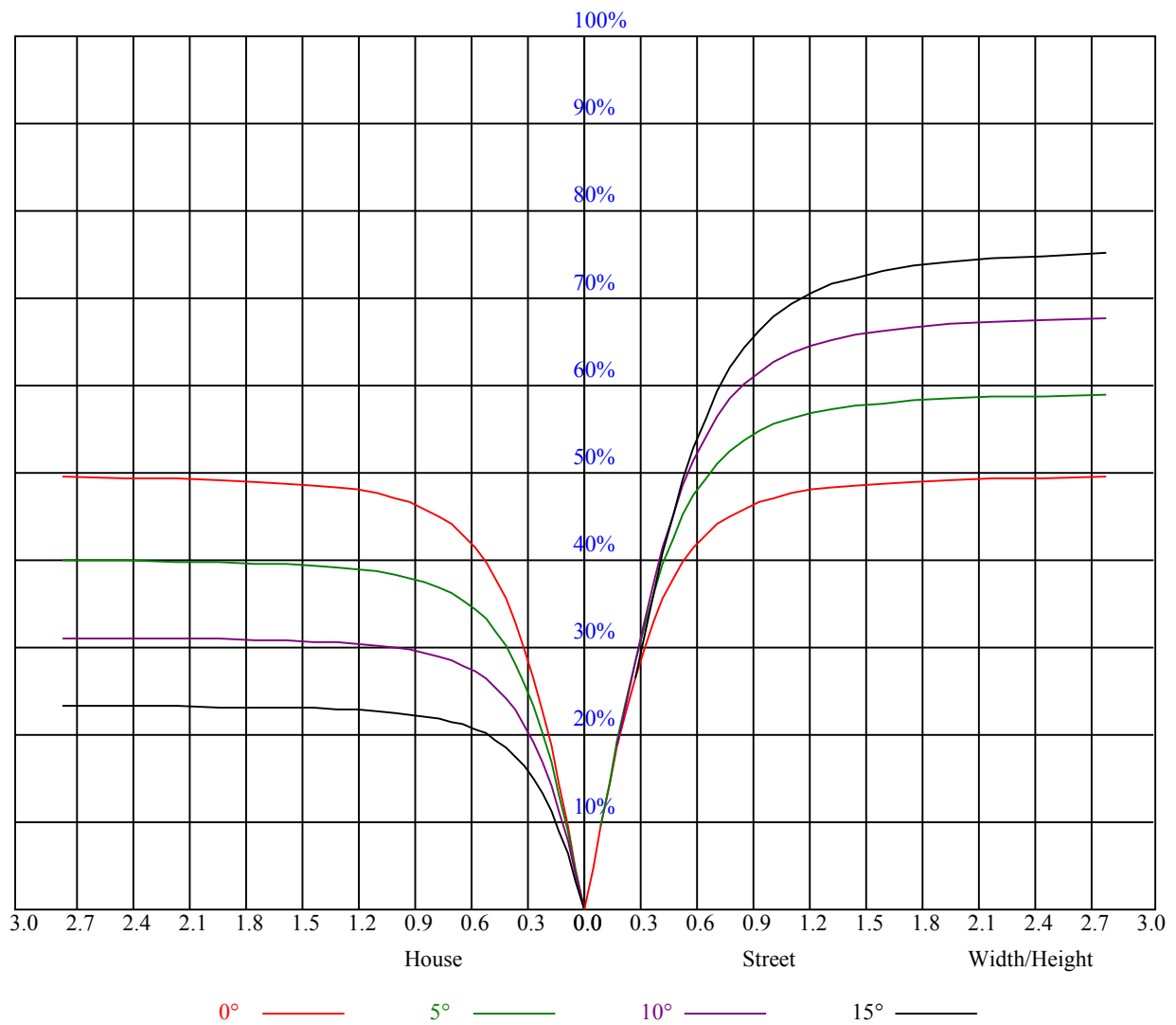
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RHOCC	80			70			50			30			10			0
RHOW	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR	COEFFICIENTS OF UTILIZATION RHOFC=20 CU															
0	1.19	1.19	1.19	1.16	1.16	1.16	1.11	1.11	1.11	1.07	1.07	1.07	1.02	1.02	1.02	1.00
1	1.10	1.08	1.05	1.08	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



Amazonas 500 IES Test Report

Intensity data(cd)

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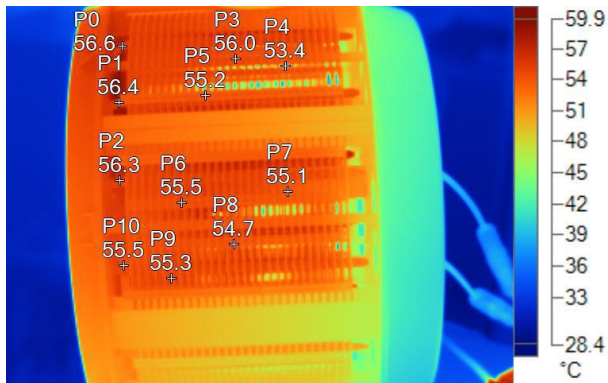
C/γ(°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	14498.83	13885.48	12151.48	9825.44	7540.26	5489.14	3829.85	2539.93	1640.48
30.0	14910.52	14047.64	12356.80	10078.31	7662.83	5578.47	3897.56	2564.79	1676.01
60.0	14629.44	13900.11	12236.64	10016.66	7627.30	5575.65	3874.57	2504.71	1693.67
90.0	14532.27	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

Thermal Imaging Test Report for Amazonas 500

Light Housing



2016/9/26 13:57:40

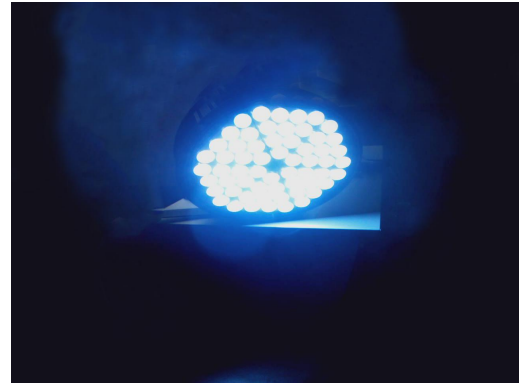
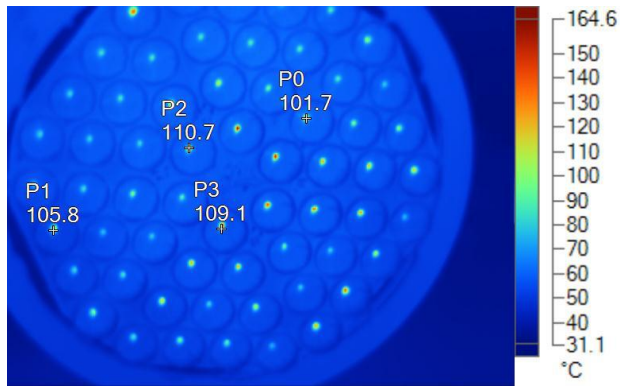
Image Information

Average Temperatures	46.2°C
Temperature Range	28.6°C to 61.5°C
Thermal Cameras	Ti400
Infrared Sensor Size	320 x 240
Calibration Range	-20.0°C to 80.0°C
Object Distance	0.96m

Main Image Tags

Tags No.	Temperature
P0	56.6°C
P1	56.4°C
P2	56.3°C
P3	56.0°C
P4	53.4°C
P5	55.2°C
P6	55.5°C
P7	55.1°C
P8	54.7°C
P9	55.3°C
P10	55.5°C

Light source



2016/9/26 14:01:35

Image Information

Average Temperatures	52.1°C
Temperature Range	31.4°C to 169.8°C
Thermal Cameras	Ti400
Infrared Sensor Size	320 x 240
Calibration Range	-20.0°C to 250.0°C
Object Distance	1.03m

Main Image Tags

Tags No.	Temperature
P2	110.7°C
P3	109.1°C
P0	101.7°C
P1	105.8°C