

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions  
(formerly Eaton)

Brand: McGRAW-EDISON

Report Number: P299927

Luminaire Tested: **GLNA-AF-09-LED-E1-5WQ-7050-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299927  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24143)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GLNA-AF-09-LED-E1-5WQ-7050-800  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(9) 70 CRI, 5000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV  
w/Spill Control OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 45124.7 lumens  
Efficiency: N/A  
Efficacy: 120.7 lumens/watt  
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')  
IES Classification: Type V - Short - Semi-Cutoff  
BUG Rating: B5 - U0 - G5

Input Watts (W): 374  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT

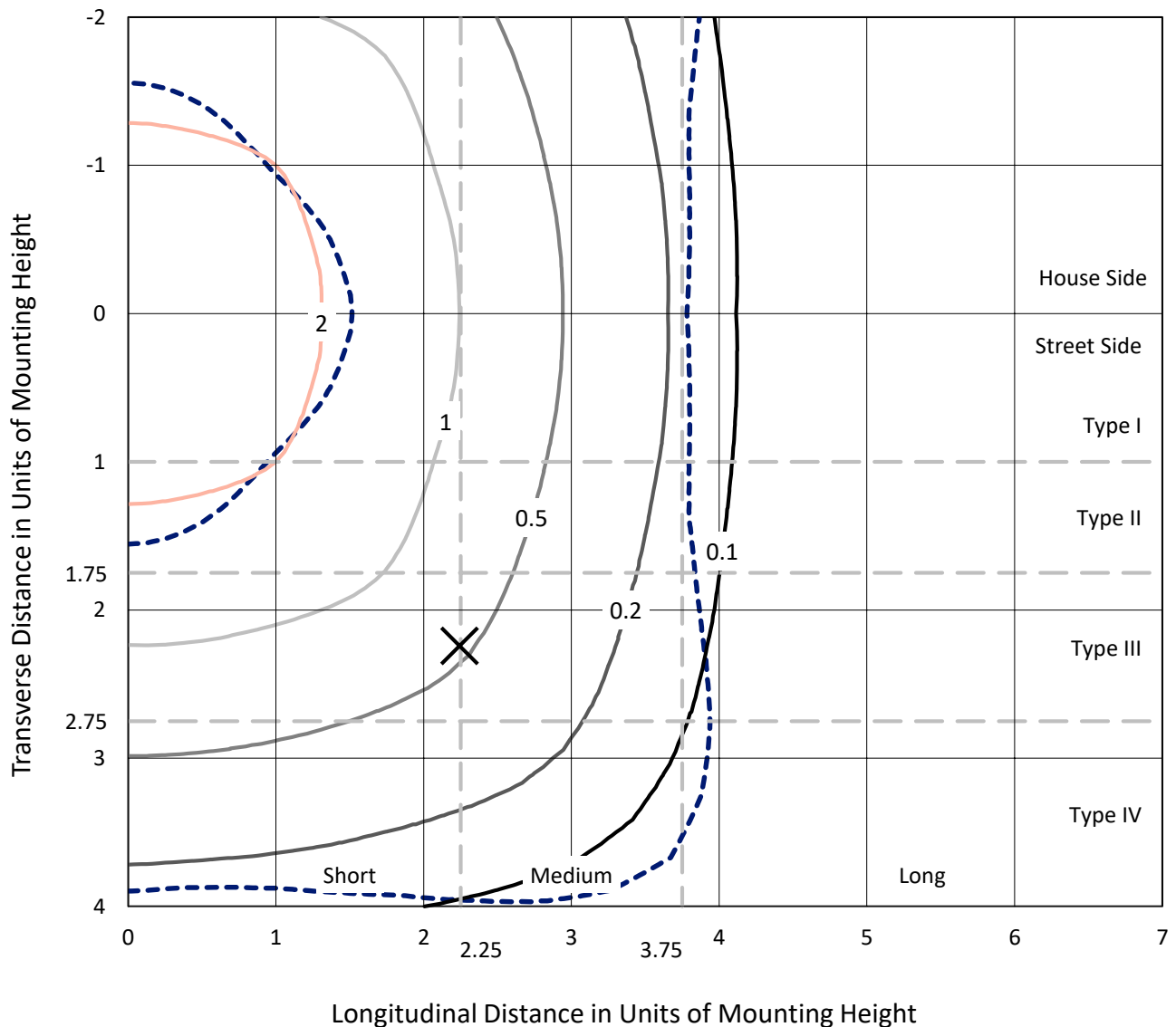


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

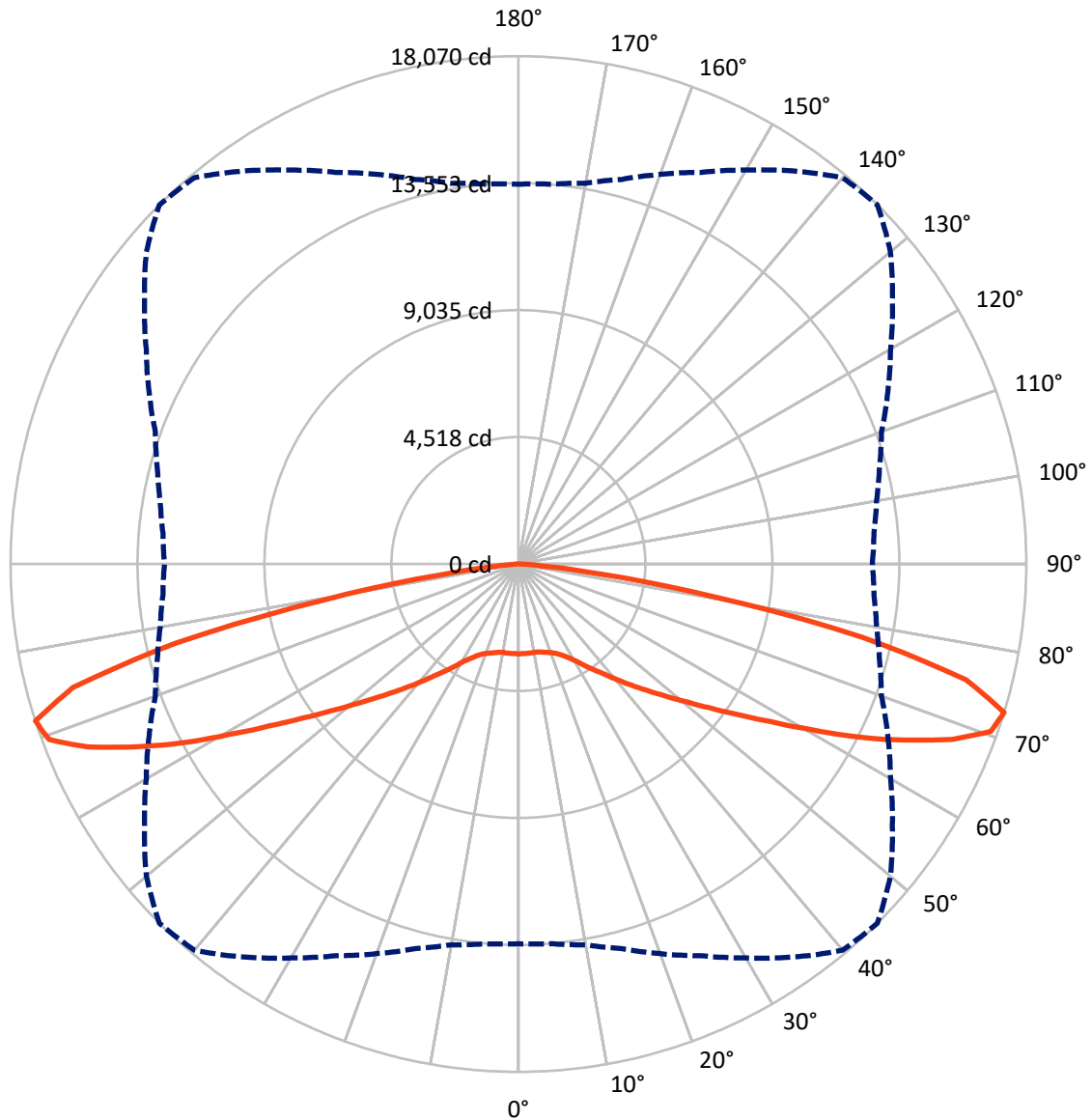


Based on 30 foot mounting height. Maximum calculated value = 3.6 fc  
 Type V - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral    - - - Horizontal Cone Through 72.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	22562.4	0.0	22562.4
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	22562.4	0.0	22562.4
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	45124.7	0.0	45124.7
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	305.1	0.7
10°-20°	926.7	2.1
20°-30°	1693.5	3.8
30°-40°	2919.9	6.5
40°-50°	4991.6	11.1
50°-60°	8090.7	17.9
60°-70°	13422.2	29.7
70°-80°	11821.8	26.2
80°-90°	953.2	2.1
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	45124.7	100.0
0°-180°	45124.7	100.0



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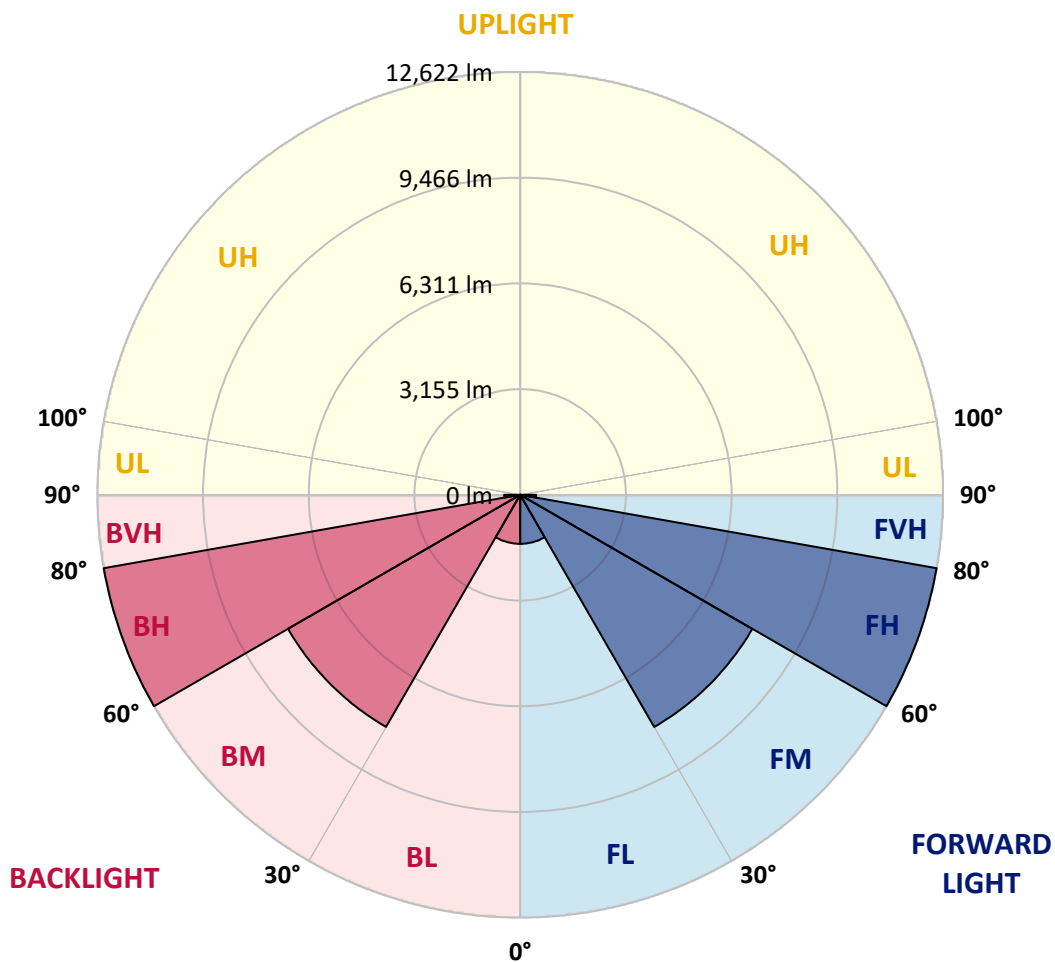
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1462.7	3.2			
FM	(30°-60°)	8001.1	17.7			
FH	(60°-80°)	12622.0	28.0			G5
FVH	(80°-90°)	476.6	1.1			G3/500
BL	(0°-30°)	1462.7	3.2	B3/2500		
BM	(30°-60°)	8001.1	17.7	B4/8500		
BH	(60°-80°)	12622.0	28.0	B5		G5
BVH	(80°-90°)	476.6	1.1			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B5-U0-G5**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	3195.5	3195.5	3195.5	3195.5	3195.5	3195.5	3195.5	3195.5	3195.5	3195.5	3195.5
2.5°	3195.5	3197.6	3199.7	3197.6	3197.6	3195.5	3193.5	3195.5	3193.5	3189.3	3191.4
5°	3205.9	3210.0	3210.0	3205.9	3207.9	3205.9	3201.7	3203.8	3199.7	3193.5	3193.5
7.5°	3218.3	3220.4	3220.4	3216.2	3218.3	3214.2	3210.0	3207.9	3203.8	3195.5	3189.3
10°	3236.9	3239.0	3236.9	3232.8	3232.8	3226.6	3216.2	3212.1	3203.8	3191.4	3185.2
12.5°	3257.6	3259.7	3257.6	3253.5	3251.4	3241.1	3232.8	3226.6	3220.4	3210.0	3199.7
15°	3286.6	3290.7	3286.6	3278.3	3272.1	3263.8	3259.7	3261.8	3263.8	3255.6	3245.2
17.5°	3340.4	3342.5	3336.3	3317.6	3309.4	3301.1	3301.1	3305.2	3311.4	3307.3	3296.9
20°	3439.7	3433.5	3419.1	3396.3	3385.9	3371.5	3369.4	3371.5	3371.5	3369.4	3361.1
22.5°	3563.9	3559.8	3541.2	3512.2	3497.7	3489.4	3477.0	3466.7	3464.6	3458.4	3450.1
25°	3712.9	3710.9	3688.1	3663.3	3652.9	3642.6	3632.2	3617.7	3605.3	3590.8	3582.6
27.5°	3903.4	3895.1	3862.0	3849.5	3835.1	3828.8	3814.4	3797.8	3787.5	3768.8	3758.5
30°	4112.4	4112.4	4085.5	4081.3	4081.3	4066.9	4050.3	4021.3	4002.7	3984.1	3977.9
32.5°	4321.4	4323.5	4296.6	4304.9	4311.1	4321.4	4325.6	4315.2	4302.8	4300.7	4288.3
35°	4623.6	4615.3	4588.4	4594.6	4592.5	4590.5	4590.5	4613.2	4617.4	4621.5	4596.7
37.5°	4998.2	4998.2	4971.3	4971.3	4958.9	4946.5	4929.9	4944.4	4967.1	4973.4	4956.8
40°	5426.6	5441.1	5408.0	5405.9	5410.1	5370.7	5352.1	5374.9	5389.4	5414.2	5395.6
42.5°	5931.6	5921.3	5888.1	5884.0	5861.2	5848.8	5832.3	5850.9	5873.7	5890.2	5896.4
45°	6415.9	6407.6	6370.4	6370.4	6347.6	6337.3	6345.5	6376.6	6386.9	6409.7	6432.5
47.5°	6894.0	6883.6	6858.8	6869.2	6871.2	6889.8	6916.8	6945.7	6974.7	7005.7	7016.1
50°	7382.4	7384.5	7357.6	7382.4	7413.5	7465.2	7537.6	7585.2	7645.3	7684.6	7697.0
52.5°	7827.4	7835.7	7864.7	7922.6	7984.7	8086.1	8210.3	8326.2	8425.5	8491.8	8487.6
55°	8361.4	8373.8	8444.2	8543.5	8644.9	8798.1	8982.3	9187.2	9352.7	9447.9	9387.9
57.5°	9044.3	9071.3	9149.9	9284.4	9435.5	9634.2	9886.7	10195.1	10451.7	10580.0	10482.8
60°	9981.9	9998.5	10093.7	10242.7	10424.8	10671.1	11008.4	11422.4	11784.6	11954.3	11842.5
62.5°	11217.5	11248.5	11325.1	11476.2	11662.4	11941.9	12353.7	12871.1	13322.3	13558.2	13305.7
65°	12693.1	12792.5	12856.6	13009.8	13183.6	13479.6	13910.1	14464.7	14949.0	15104.3	14812.4
67.5°	14154.3	14241.2	14353.0	14528.9	14704.8	15038.0	15437.5	15975.6	16507.5	16648.2	16195.0
70°	14793.8	14843.5	15017.3	15257.4	15594.8	15988.0	16449.5	17053.9	17712.0	17827.9	17252.6
72.5°	13512.7	13562.4	13756.9	14164.7	14752.4	15377.5	16182.6	17070.4	17939.7	18070.1	17277.4
75°	10219.9	10139.2	10426.9	10967.0	11759.7	12631.0	13756.9	15029.8	16286.0	16449.5	15503.7
77.5°	5281.7	5271.4	5488.7	6159.3	7105.1	8096.5	9336.2	10774.6	12003.9	12500.7	11730.7
80°	1488.1	1504.6	1608.1	1941.3	2493.9	3210.0	4178.6	5526.0	6531.8	7045.1	6614.6
82.5°	583.6	629.2	668.5	730.6	803.0	908.6	1212.8	1804.7	2421.5	2893.4	2369.7
85°	209.0	223.5	316.7	374.6	380.8	401.5	457.4	534.0	643.7	767.8	631.2
87.5°	78.6	86.9	101.4	167.6	165.6	151.1	184.2	192.5	144.9	132.5	163.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	3195.5	3195.5	3195.5	3195.5	3195.5	3195.5	3195.5	3195.5
2.5°	3187.3	3189.3	3189.3	3191.4	3193.5	3193.5	3197.6	3197.6
5°	3189.3	3189.3	3185.2	3187.3	3185.2	3185.2	3187.3	3187.3
7.5°	3185.2	3183.1	3179.0	3176.9	3172.8	3172.8	3172.8	3172.8
10°	3179.0	3176.9	3172.8	3170.7	3168.6	3168.6	3168.6	3168.6
12.5°	3195.5	3189.3	3185.2	3183.1	3183.1	3183.1	3183.1	3183.1
15°	3239.0	3224.5	3214.2	3214.2	3216.2	3220.4	3220.4	3224.5
17.5°	3292.8	3276.2	3265.9	3257.6	3261.8	3268.0	3272.1	3276.2
20°	3357.0	3348.7	3334.2	3325.9	3325.9	3334.2	3338.3	3340.4
22.5°	3446.0	3439.7	3433.5	3423.2	3423.2	3427.3	3435.6	3435.6
25°	3578.4	3574.3	3570.1	3561.9	3559.8	3559.8	3563.9	3568.1
27.5°	3744.0	3746.1	3741.9	3739.8	3733.6	3731.6	3737.8	3735.7
30°	3965.4	3975.8	3986.1	3977.9	3967.5	3961.3	3955.1	3946.8
32.5°	4265.5	4253.1	4244.8	4230.4	4211.7	4195.2	4182.8	4168.3
35°	4549.1	4528.4	4520.1	4532.5	4530.5	4520.1	4505.6	4493.2
37.5°	4896.8	4892.6	4896.8	4919.5	4915.4	4925.8	4896.8	4894.7
40°	5335.5	5339.7	5368.7	5395.6	5410.1	5424.5	5408.0	5391.4
42.5°	5844.7	5842.6	5853.0	5890.2	5915.0	5931.6	5896.4	5892.3
45°	6382.8	6368.3	6376.6	6407.6	6432.5	6451.1	6411.8	6411.8
47.5°	6974.7	6949.9	6923.0	6958.1	6972.6	6985.1	6954.0	6943.7
50°	7634.9	7583.2	7525.2	7539.7	7539.7	7535.6	7496.3	7494.2
52.5°	8392.4	8297.2	8191.7	8152.3	8129.6	8104.7	8036.4	8003.3
55°	9263.7	9120.9	8955.4	8853.9	8800.1	8731.8	8618.0	8587.0
57.5°	10282.0	10058.5	9772.9	9648.7	9528.6	9416.9	9290.6	9255.5
60°	11488.6	11159.5	10780.8	10551.0	10420.7	10313.0	10182.7	10176.4
62.5°	12833.9	12314.4	11886.0	11679.0	11583.8	11488.6	11364.4	11381.0
65°	14201.9	13659.7	13258.1	13090.5	13001.5	12922.9	12798.7	12817.3
67.5°	15551.3	15052.5	14611.7	14439.9	14340.6	14241.2	14129.5	14148.1
70°	16519.9	15901.1	15404.4	15023.6	14785.5	14516.5	14342.6	14299.2
72.5°	16242.6	15288.5	14499.9	13744.5	13301.6	12941.5	12697.3	12591.7
75°	14057.0	12753.2	11739.0	10811.8	10290.3	9866.0	9557.6	9365.1
77.5°	10439.3	8974.0	7775.7	6707.7	5863.3	5296.2	4896.8	4638.1
80°	5714.3	4346.3	3176.9	2233.1	1641.2	1363.9	1204.5	1128.0
82.5°	1779.9	1148.7	846.5	730.6	678.8	649.9	602.3	525.7
85°	567.1	496.7	461.5	440.8	420.1	366.3	252.5	229.7
87.5°	219.4	225.6	223.5	211.1	215.2	155.2	124.2	109.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)