

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: P299621

Luminaire Tested: **GLNA-AF-08-LED-E1-5MQ-7050**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299621  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24142)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GLNA-AF-08-LED-E1-5MQ-7050  
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE  
(8) 70 CRI, 5000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III  
w/Spill Control OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 49943.2 lumens  
Efficiency: N/A  
Efficacy: 112.2 lumens/watt  
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')  
IES Classification: Type V - Short - Full Cutoff  
BUG Rating: B5 - U0 - G4

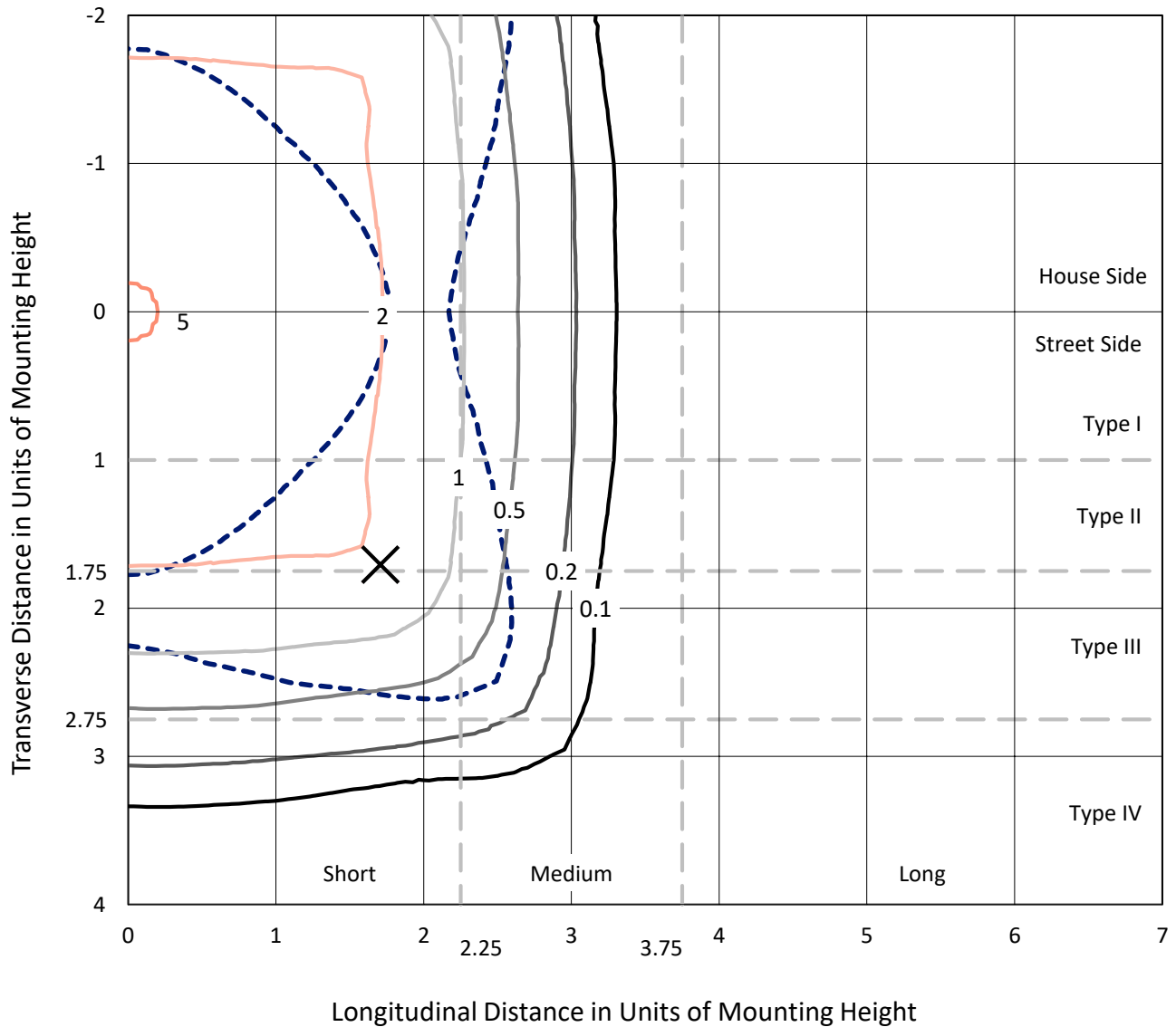
Input Watts (W): 445  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

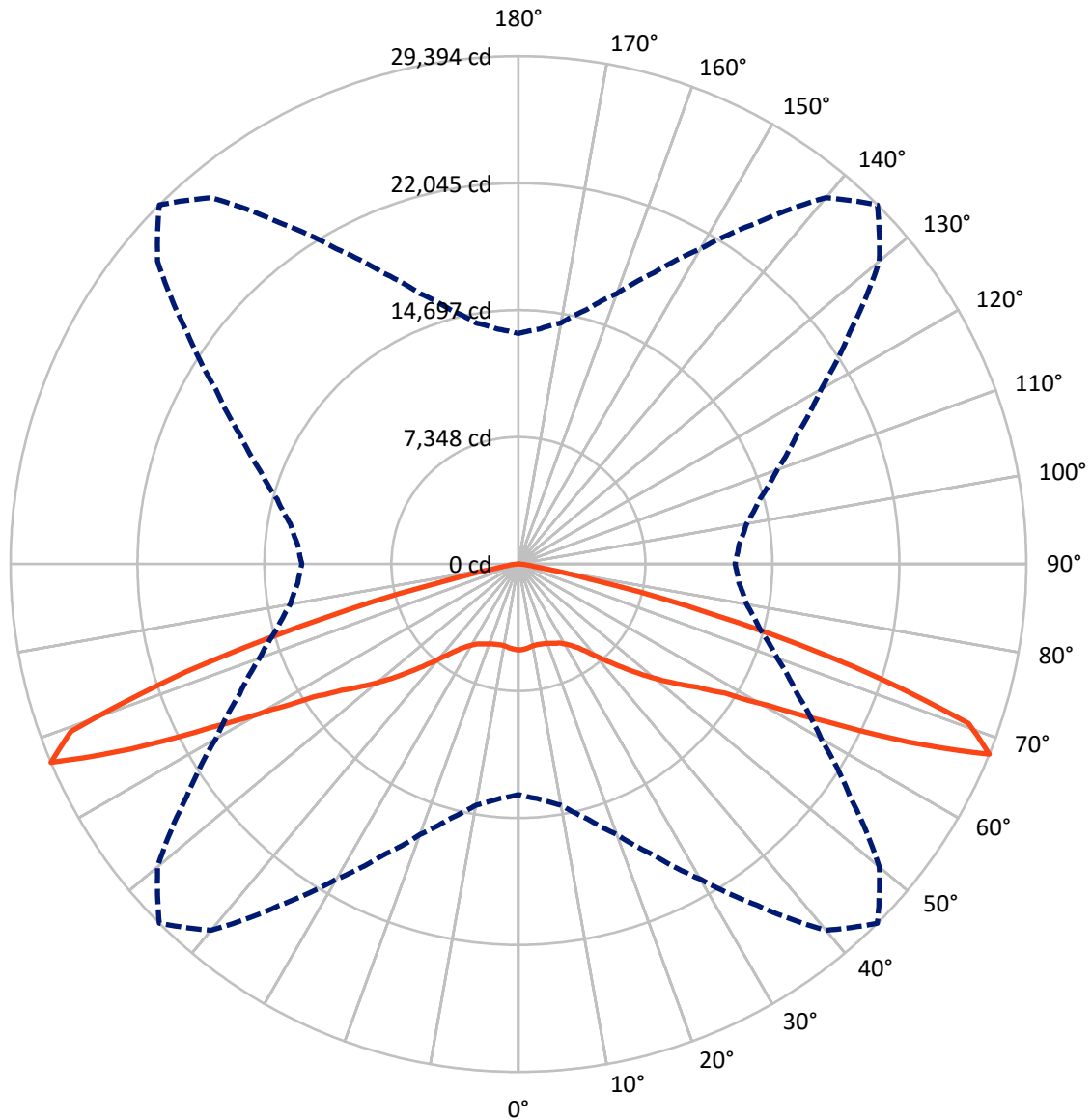
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 5.5 fc  
 Type V - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	24971.6	0.0	24971.6
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	24971.6	0.0	24971.6
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	49943.2	0.0	49943.2
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	465.8	0.9
10°-20°	1351.7	2.7
20°-30°	2297.9	4.6
30°-40°	3756.4	7.5
40°-50°	6705.9	13.4
50°-60°	11306.3	22.6
60°-70°	17545.8	35.1
70°-80°	6164.8	12.3
80°-90°	348.4	0.7
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°	49943.2	100.0
0°-180°	49943.2	100.0



REPORT NUMBER: P299621

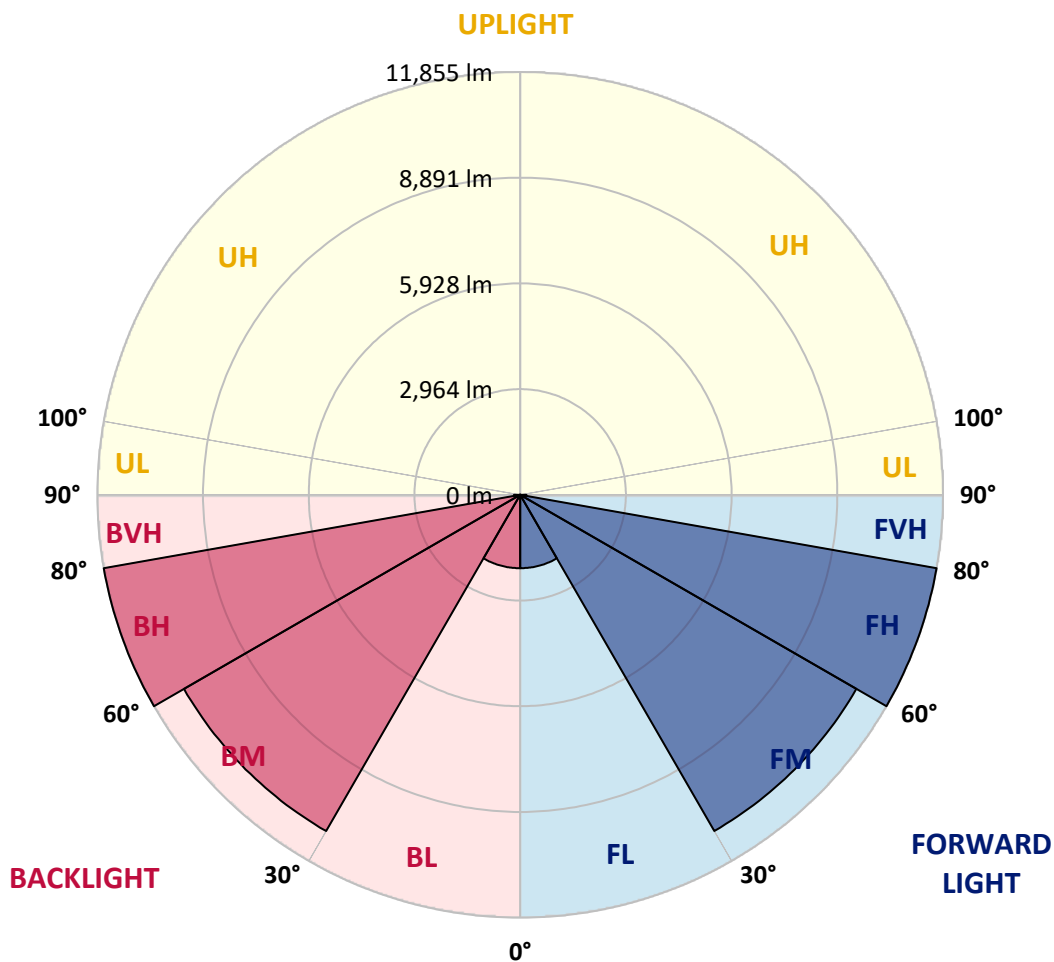
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2057.8	4.1			
FM	(30°-60°)	10884.3	21.8			
FH	(60°-80°)	11855.3	23.7			G4/12000
FVH	(80°-90°)	174.2	0.3			G2/225
BL	(0°-30°)	2057.8	4.1	B3/2500		
BM	(30°-60°)	10884.3	21.8	B5		
BH	(60°-80°)	11855.3	23.7	B5		G4/12000
BVH	(80°-90°)	174.2	0.3			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B5-U0-G4**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	4977.0	4977.0	4977.0	4977.0	4977.0	4977.0	4977.0	4977.0	4977.0	4977.0	4977.0
2.5°	4958.7	4963.3	4963.3	4963.3	4961.0	4961.0	4956.4	4961.0	4958.7	4951.8	4954.1
5°	4917.3	4921.9	4921.9	4919.6	4926.5	4924.2	4917.3	4921.9	4919.6	4915.0	4917.3
7.5°	4857.6	4864.5	4864.5	4862.2	4869.1	4866.8	4862.2	4864.5	4864.5	4857.6	4857.6
10°	4791.0	4795.6	4795.6	4793.3	4804.8	4804.8	4802.5	4809.4	4811.7	4804.8	4800.2
12.5°	4729.0	4735.9	4735.9	4745.1	4756.6	4761.2	4772.6	4781.8	4791.0	4788.7	4779.5
15°	4692.3	4696.8	4706.0	4717.5	4735.9	4752.0	4770.3	4791.0	4809.4	4814.0	4800.2
17.5°	4669.3	4676.2	4690.0	4706.0	4731.3	4758.9	4786.4	4814.0	4839.2	4848.4	4832.4
20°	4662.4	4667.0	4680.8	4708.3	4742.8	4784.1	4823.2	4855.3	4889.8	4901.3	4889.8
22.5°	4676.2	4685.4	4701.4	4733.6	4779.5	4832.4	4878.3	4921.9	4965.6	4986.2	4970.2
25°	4738.2	4747.4	4768.0	4809.4	4859.9	4915.0	4967.9	5018.4	5057.4	5078.1	5066.6
27.5°	4853.0	4864.5	4889.8	4931.1	4986.2	5046.0	5103.4	5144.7	5176.9	5183.8	5170.0
30°	5025.3	5050.5	5080.4	5126.3	5190.6	5241.2	5298.6	5335.3	5374.4	5374.4	5362.9
32.5°	5294.0	5319.3	5351.4	5395.1	5445.6	5500.7	5551.2	5583.4	5624.7	5627.0	5599.5
35°	5695.9	5707.4	5735.0	5762.5	5808.5	5856.7	5900.3	5921.0	5955.5	5957.8	5932.5
37.5°	6226.5	6228.8	6247.1	6256.3	6297.7	6350.5	6391.8	6405.6	6437.8	6433.2	6407.9
40°	6844.3	6855.8	6862.7	6876.5	6920.1	6970.6	7014.3	7021.2	7055.6	7048.7	7016.6
42.5°	7558.6	7563.2	7602.2	7622.9	7664.2	7689.5	7744.6	7751.5	7792.9	7774.5	7737.7
45°	8360.2	8401.5	8438.2	8479.6	8523.2	8553.1	8596.7	8587.5	8615.1	8587.5	8566.9
47.5°	9203.1	9232.9	9315.6	9379.9	9451.1	9476.4	9538.4	9510.8	9538.4	9499.3	9492.4
50°	10130.9	10183.8	10255.0	10328.5	10404.3	10445.6	10526.0	10491.5	10528.3	10491.5	10470.9
52.5°	11045.0	11058.8	11215.0	11323.0	11428.6	11476.8	11525.1	11509.0	11511.3	11509.0	11488.3
55°	11913.2	11945.4	12101.6	12248.5	12432.3	12567.8	12650.5	12641.3	12620.6	12599.9	12565.5
57.5°	12891.6	12923.8	13102.9	13284.4	13493.4	13686.3	13854.0	14026.2	14092.8	14111.2	14035.4
60°	14214.6	14212.3	14451.1	14671.6	14970.2	15257.3	15624.8	15999.1	16428.6	16628.4	16364.3
62.5°	15560.5	15615.6	15960.1	16350.5	16966.1	17565.5	18243.1	18909.1	19588.9	20142.5	19554.5
65°	15399.7	15611.0	16123.2	17007.4	18144.3	19494.8	20955.5	22501.2	23897.6	24857.7	23780.5
67.5°	13346.4	13647.3	14168.6	15243.5	16665.2	18612.8	21065.8	24122.7	27675.8	29393.8	27264.7
70°	9673.9	10013.8	10560.4	11610.0	13018.0	14869.1	17533.4	21203.6	25907.3	27639.0	25294.1
72.5°	4814.0	4997.7	5335.3	6003.7	7069.4	8571.5	10987.6	14515.4	18677.1	20266.5	18123.6
75°	1635.3	1720.3	1777.7	1995.9	2333.5	2923.8	4125.0	6345.9	9680.8	11605.5	9543.0
77.5°	944.0	946.3	985.3	1024.3	1081.8	1146.1	1306.8	1715.7	2967.4	4214.5	3070.7
80°	610.9	608.6	640.8	670.6	709.7	741.8	751.0	794.7	916.4	1086.4	971.5
82.5°	317.0	356.0	427.2	466.2	539.7	553.5	535.1	519.1	548.9	569.6	583.4
85°	174.6	151.6	227.4	294.0	326.1	330.7	330.7	312.4	323.8	317.0	344.5
87.5°	80.4	73.5	89.6	144.7	153.9	130.9	137.8	121.7	87.3	85.0	96.5
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°	4977.0	4977.0	4977.0	4977.0	4977.0	4977.0	4977.0	4977.0
2.5°	4954.1	4956.4	4956.4	4963.3	4965.6	4970.2	4974.8	4977.0
5°	4915.0	4921.9	4917.3	4924.2	4924.2	4928.8	4928.8	4931.1
7.5°	4857.6	4864.5	4864.5	4864.5	4862.2	4869.1	4869.1	4869.1
10°	4797.9	4802.5	4800.2	4795.6	4791.0	4797.9	4795.6	4793.3
12.5°	4779.5	4768.0	4758.9	4754.3	4745.1	4747.4	4740.5	4740.5
15°	4791.0	4770.3	4754.3	4747.4	4738.2	4733.6	4729.0	4731.3
17.5°	4820.9	4795.6	4774.9	4763.5	4752.0	4745.1	4735.9	4738.2
20°	4873.7	4843.8	4814.0	4791.0	4770.3	4758.9	4752.0	4749.7
22.5°	4951.8	4908.1	4864.5	4830.1	4802.5	4786.4	4779.5	4774.9
25°	5041.4	4993.1	4942.6	4903.6	4876.0	4855.3	4841.5	4841.5
27.5°	5153.9	5114.9	5068.9	5023.0	4997.7	4977.0	4967.9	4963.3
30°	5342.2	5305.5	5268.7	5225.1	5192.9	5172.3	5156.2	5142.4
32.5°	5583.4	5553.5	5523.7	5491.5	5461.7	5434.1	5408.8	5397.4
35°	5923.3	5900.3	5879.7	5842.9	5831.4	5815.4	5801.6	5790.1
37.5°	6391.8	6382.7	6382.7	6343.6	6334.4	6327.5	6313.8	6316.1
40°	7007.4	7016.6	7005.1	6991.3	6984.4	6966.0	6966.0	6982.1
42.5°	7735.4	7742.3	7767.6	7744.6	7769.9	7746.9	7733.1	7744.6
45°	8580.6	8605.9	8656.4	8633.5	8649.5	8610.5	8562.3	8564.6
47.5°	9529.2	9552.2	9572.8	9556.8	9559.1	9494.7	9430.4	9414.4
50°	10514.5	10523.7	10535.2	10512.2	10516.8	10445.6	10372.1	10374.4
52.5°	11488.3	11532.0	11577.9	11515.9	11502.1	11421.7	11318.4	11277.0
55°	12602.2	12664.3	12611.4	12503.5	12395.5	12287.6	12152.1	12129.1
57.5°	13975.7	13870.0	13704.7	13500.3	13351.0	13199.4	13061.6	13004.2
60°	15886.6	15489.3	15190.7	14887.5	14696.9	14510.8	14329.4	14301.8
62.5°	18587.6	17900.8	17306.0	16679.0	16166.8	15767.2	15447.9	15358.3
65°	21973.0	20349.2	18941.3	17627.5	16486.0	15624.8	15082.7	14843.9
67.5°	23429.1	20222.8	17809.0	15944.0	14451.1	13408.4	12822.7	12531.0
70°	20588.0	16770.8	14145.7	12278.4	10918.7	9807.1	9276.6	8964.2
72.5°	14164.0	10668.4	8435.9	6885.6	5799.3	4869.1	4501.6	4474.1
75°	6359.7	4212.2	2903.1	2237.0	1883.3	1637.6	1561.8	1504.4
77.5°	1780.0	1316.0	1173.6	1097.8	1024.3	939.4	907.2	914.1
80°	865.9	817.6	785.5	737.3	670.6	599.5	567.3	581.1
82.5°	574.2	567.3	588.0	553.5	457.1	388.2	326.1	298.6
85°	349.1	353.7	360.6	362.9	307.8	215.9	147.0	165.4
87.5°	137.8	158.5	172.3	179.1	167.7	103.4	82.7	85.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)