

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: P299374

Luminaire Tested: **GLNA-AF-07-LED-E1-5NQ**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299374  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24141)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GLNA-AF-07-LED-E1-5NQ  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(7) 70 CRI, 4000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II  
w/Spill Control OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 43280.8 lumens  
Efficiency: N/A  
Efficacy: 110.7 lumens/watt  
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')  
IES Classification: Type V - Short - Full Cutoff  
BUG Rating: B5 - U0 - G3

Input Watts (W): 391  
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

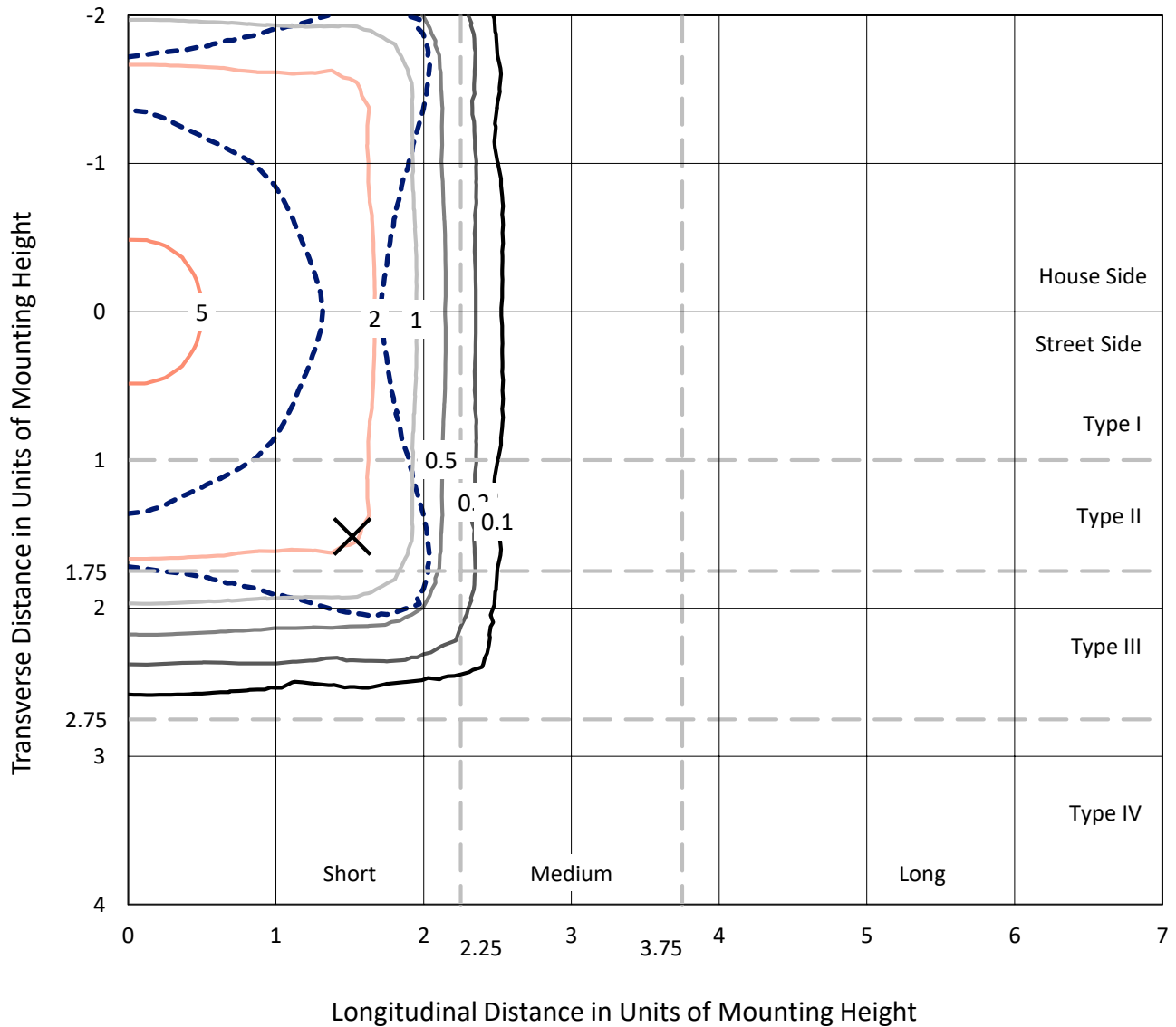


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

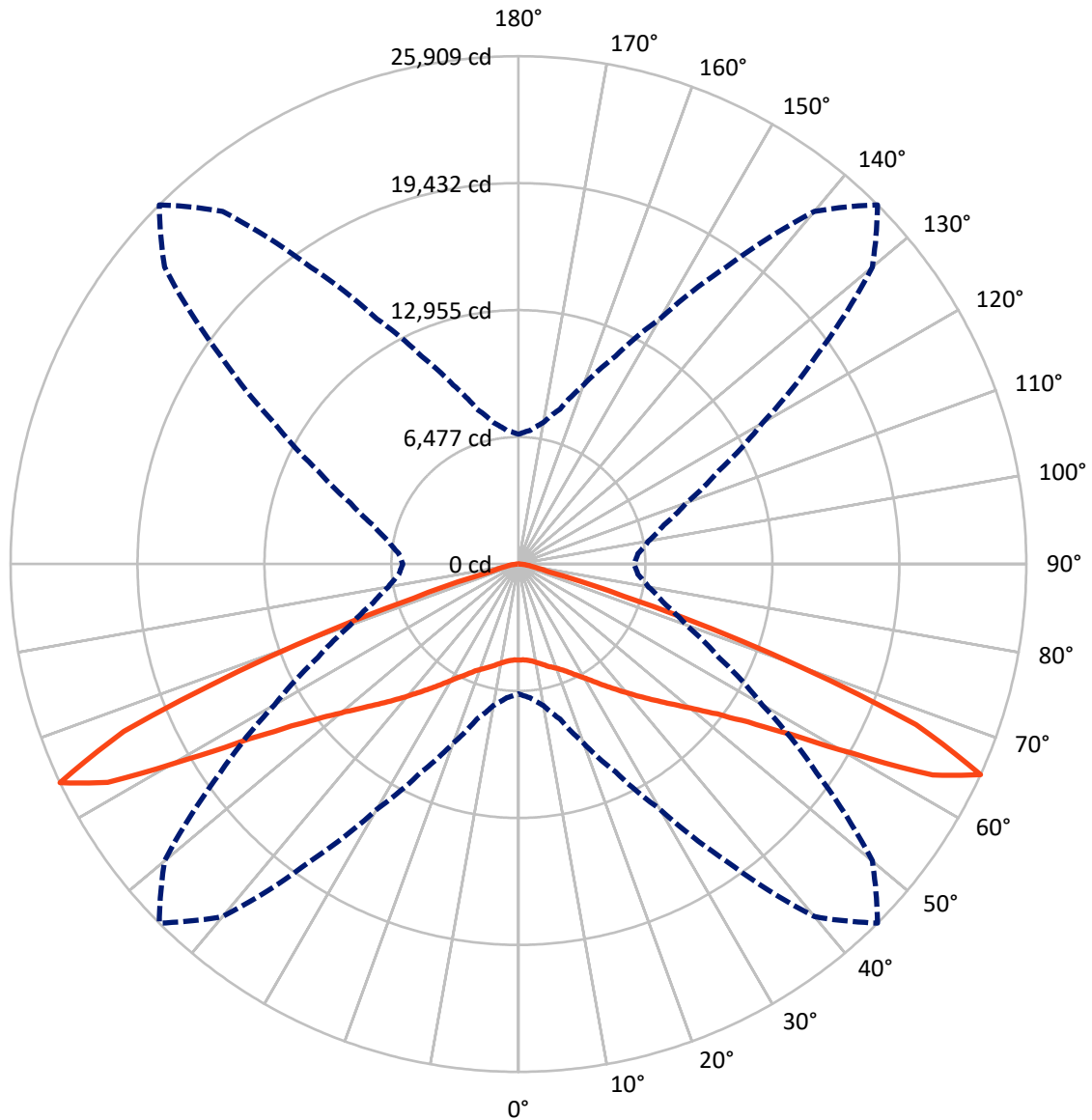


Based on 30 foot mounting height. Maximum calculated value = 5.4 fc  
 Type V - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral      - - - Horizontal Cone Through 65-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	21640.4	0.0	21640.4
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	21640.4	0.0	21640.4
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	43280.8	0.0	43280.8
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	477.3	1.1
10°-20°	1530.9	3.5
20°-30°	2862.4	6.6
30°-40°	4841.2	11.2
40°-50°	7915.8	18.3
50°-60°	12587.4	29.1
60°-70°	11378.2	26.3
70°-80°	1440.0	3.3
80°-90°	247.7	0.6
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°	43280.8	100.0
0°-180°	43280.8	100.0



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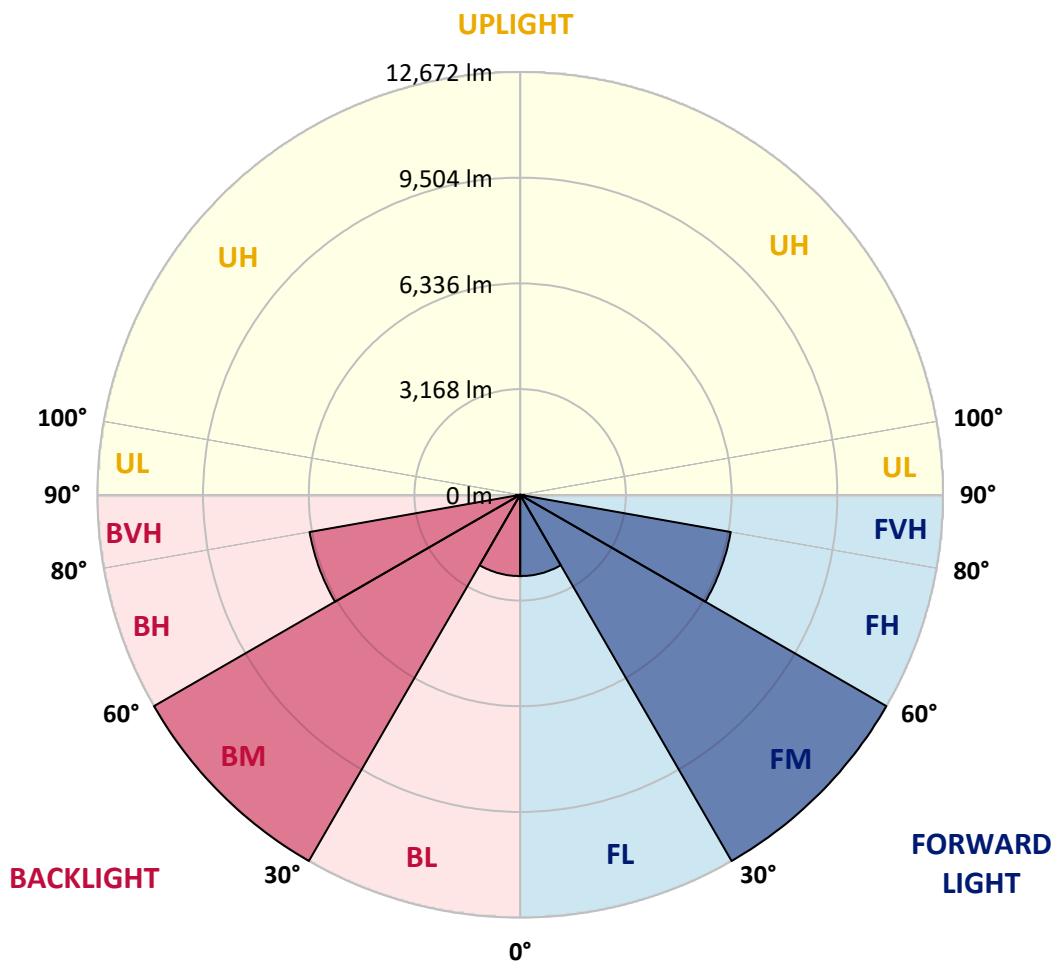
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2435.3	5.6			
FM	(30°-60°)	12672.2	29.3			
FH	(60°-80°)	6409.1	14.8			G3/7500
FVH	(80°-90°)	123.8	0.3			G2/225
BL	(0°-30°)	2435.3	5.6	B3/2500		
BM	(30°-60°)	12672.2	29.3	B5		
BH	(60°-80°)	6409.1	14.8	B5		G3/7500
BVH	(80°-90°)	123.8	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-G3**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	4897.2	4897.2	4897.2	4897.2	4897.2	4897.2	4897.2	4897.2	4897.2	4897.2	4897.2
2.5°	4901.3	4905.4	4909.4	4905.4	4909.4	4903.3	4899.3	4905.4	4899.3	4893.2	4897.2
5°	4943.9	4945.9	4945.9	4939.8	4945.9	4941.8	4935.8	4943.9	4937.8	4931.7	4935.8
7.5°	5014.8	5022.9	5016.8	5010.8	5014.8	5010.8	5006.7	5008.7	5006.7	5000.6	5002.6
10°	5110.1	5116.2	5112.1	5110.1	5114.1	5112.1	5108.1	5106.0	5108.1	5102.0	5102.0
12.5°	5225.6	5223.6	5221.6	5223.6	5229.7	5229.7	5227.6	5229.7	5233.7	5235.8	5231.7
15°	5339.1	5343.2	5343.2	5343.2	5355.3	5365.5	5371.6	5375.6	5383.7	5385.8	5377.6
17.5°	5481.0	5481.0	5479.0	5481.0	5493.2	5509.4	5515.5	5523.6	5531.7	5537.8	5527.6
20°	5639.1	5643.2	5643.2	5647.2	5663.5	5681.7	5681.7	5685.8	5681.7	5685.8	5679.7
22.5°	5831.7	5843.9	5843.9	5845.9	5862.1	5884.4	5878.3	5884.4	5874.3	5882.4	5874.3
25°	6083.0	6101.3	6097.2	6097.2	6109.4	6123.6	6125.6	6137.8	6135.7	6145.9	6139.8
27.5°	6366.8	6395.2	6403.3	6401.3	6409.4	6423.6	6427.6	6441.8	6433.7	6441.8	6437.8
30°	6707.4	6719.5	6735.7	6741.8	6752.0	6766.1	6766.1	6768.2	6758.0	6770.2	6776.3
32.5°	7060.1	7082.4	7098.6	7135.1	7153.3	7163.4	7161.4	7165.5	7155.3	7171.5	7183.7
35°	7526.3	7542.5	7568.8	7597.2	7621.5	7619.5	7613.4	7615.5	7615.5	7629.6	7641.8
37.5°	8087.8	8091.8	8126.3	8166.8	8179.0	8166.8	8130.3	8122.2	8104.0	8122.2	8142.5
40°	8681.7	8695.9	8764.8	8791.1	8797.2	8774.9	8722.2	8691.8	8651.3	8673.6	8701.9
42.5°	9304.0	9332.3	9395.2	9441.8	9462.1	9447.9	9374.9	9328.3	9275.6	9287.7	9316.1
45°	9993.1	10027.6	10116.8	10161.4	10199.9	10177.6	10106.6	10035.7	9952.6	9958.7	10003.3
47.5°	10763.4	10797.9	10913.4	10988.4	11008.7	11004.6	10925.6	10828.3	10714.8	10710.7	10749.2
50°	11626.9	11661.4	11805.3	11920.8	11979.6	11973.5	11880.3	11742.4	11604.6	11606.6	11655.3
52.5°	12470.1	12512.7	12662.7	12861.4	12976.9	13060.0	13003.2	12873.5	12705.3	12709.3	12753.9
55°	13260.7	13331.6	13503.9	13773.5	13988.4	14221.5	14288.4	14284.3	14183.0	14211.3	14255.9
57.5°	13643.8	13749.2	14014.7	14440.4	14878.2	15352.5	15753.9	16053.9	16181.6	16374.2	16329.6
60°	12918.1	13086.3	13477.6	14103.9	14969.4	15958.6	17018.7	18054.5	18938.3	19605.2	19222.1
62.5°	10576.9	10795.8	11270.2	12072.8	13382.3	14965.4	16994.4	19443.0	22110.6	23720.0	22570.7
65°	6618.2	6845.2	7327.6	8187.1	9719.5	11687.7	14440.4	18498.5	23482.9	25909.2	23570.0
67.5°	2580.4	2704.0	2965.5	3514.8	4666.2	6417.5	9180.3	13785.7	19747.1	21873.4	19380.2
70°	1293.2	1305.4	1354.0	1455.4	1702.7	2211.5	3364.8	6391.1	11324.9	13678.2	10917.5
72.5°	934.4	936.5	960.8	1005.4	1084.4	1198.0	1416.9	1956.1	3683.1	5629.0	3452.0
75°	715.5	723.6	737.8	762.2	804.7	861.5	940.5	1127.0	1396.6	1619.6	1362.1
77.5°	551.3	567.6	577.7	600.0	626.3	664.9	687.2	758.1	881.7	928.4	914.2
80°	419.6	433.8	456.1	474.3	492.6	510.8	502.7	535.1	600.0	638.5	618.2
82.5°	267.6	283.8	348.6	364.9	373.0	385.1	370.9	373.0	401.3	425.7	401.3
85°	172.3	182.4	220.9	241.2	243.2	251.3	245.3	231.1	231.1	210.8	237.2
87.5°	79.1	81.1	99.3	117.6	121.6	109.5	107.4	103.4	83.1	79.1	85.1
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°	4897.2	4897.2	4897.2	4897.2	4897.2	4897.2	4897.2	4897.2
2.5°	4895.2	4899.3	4901.3	4907.4	4909.4	4909.4	4911.4	4915.5
5°	4933.7	4939.8	4941.8	4949.9	4952.0	4949.9	4954.0	4956.0
7.5°	5002.6	5012.8	5016.8	5024.9	5018.9	5027.0	5029.0	5029.0
10°	5104.0	5114.1	5116.2	5124.3	5120.2	5124.3	5124.3	5120.2
12.5°	5237.8	5239.8	5233.7	5239.8	5231.7	5235.8	5229.7	5225.6
15°	5385.8	5379.7	5365.5	5365.5	5353.3	5355.3	5353.3	5351.3
17.5°	5529.7	5517.5	5507.4	5503.3	5493.2	5491.2	5485.1	5485.1
20°	5687.8	5681.7	5675.6	5667.5	5657.4	5647.2	5645.2	5649.3
22.5°	5878.3	5876.3	5876.3	5872.2	5858.0	5847.9	5841.8	5841.8
25°	6133.7	6115.5	6115.5	6113.4	6107.4	6101.3	6089.1	6095.2
27.5°	6421.6	6411.4	6419.5	6417.5	6411.4	6411.4	6403.3	6403.3
30°	6776.3	6772.2	6784.4	6774.3	6754.0	6752.0	6743.8	6733.7
32.5°	7185.7	7181.7	7199.9	7187.8	7155.3	7137.1	7120.9	7112.8
35°	7641.8	7643.8	7666.1	7658.0	7621.5	7609.4	7581.0	7576.9
37.5°	8140.5	8172.9	8211.4	8219.5	8189.1	8181.0	8150.6	8134.4
40°	8726.3	8768.8	8827.6	8841.8	8809.4	8803.3	8760.7	8738.4
42.5°	9350.6	9423.5	9496.5	9508.7	9476.3	9443.8	9403.3	9387.1
45°	10047.9	10135.0	10230.3	10254.6	10206.0	10167.5	10114.8	10114.8
47.5°	10830.3	10939.7	11047.2	11114.1	11069.5	11028.9	10966.1	10925.6
50°	11754.6	11904.6	12044.5	12113.4	12042.4	11965.4	11856.0	11819.5
52.5°	12914.1	13076.2	13197.8	13161.3	13051.9	12944.5	12824.9	12776.2
55°	14393.8	14448.5	14448.5	14310.7	14091.7	13911.3	13722.8	13660.0
57.5°	16244.4	16033.6	15709.3	15297.8	14780.9	14330.9	14026.9	13883.0
60°	18419.4	17405.9	16260.6	15135.7	14211.3	13449.2	12997.2	12790.4
62.5°	19868.7	17217.4	14922.8	13116.8	11787.0	10868.8	10244.5	10001.2
65°	18569.4	14359.3	11286.4	9125.6	7676.3	6741.8	6123.6	5896.6
67.5°	13601.2	8997.9	6010.1	4307.4	3156.0	2517.5	2264.2	2158.8
70°	6105.3	3168.2	1941.9	1516.2	1307.4	1200.0	1153.4	1137.2
72.5°	1840.5	1331.7	1123.0	1013.5	930.4	877.7	839.2	835.1
75°	1110.8	924.3	820.9	756.1	703.4	660.8	640.5	634.5
77.5°	776.3	679.0	630.4	583.8	543.2	510.8	492.6	478.4
80°	545.3	498.6	476.3	450.0	423.6	393.2	366.9	354.7
82.5°	364.9	354.7	354.7	338.5	316.2	287.8	235.1	223.0
85°	235.1	233.1	237.2	231.1	214.9	184.5	152.0	143.9
87.5°	109.5	111.5	123.6	121.6	117.6	97.3	77.0	73.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)