

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: P299873

Luminaire Tested: **GLNA-AF-10-LED-E1-5WQ-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299873
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-10-LED-E1-5WQ-7050
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(10) 70 CRI, 5000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV
w/Spill Control OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 61841.2 lumens
Efficiency: N/A
Efficacy: 110.8 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

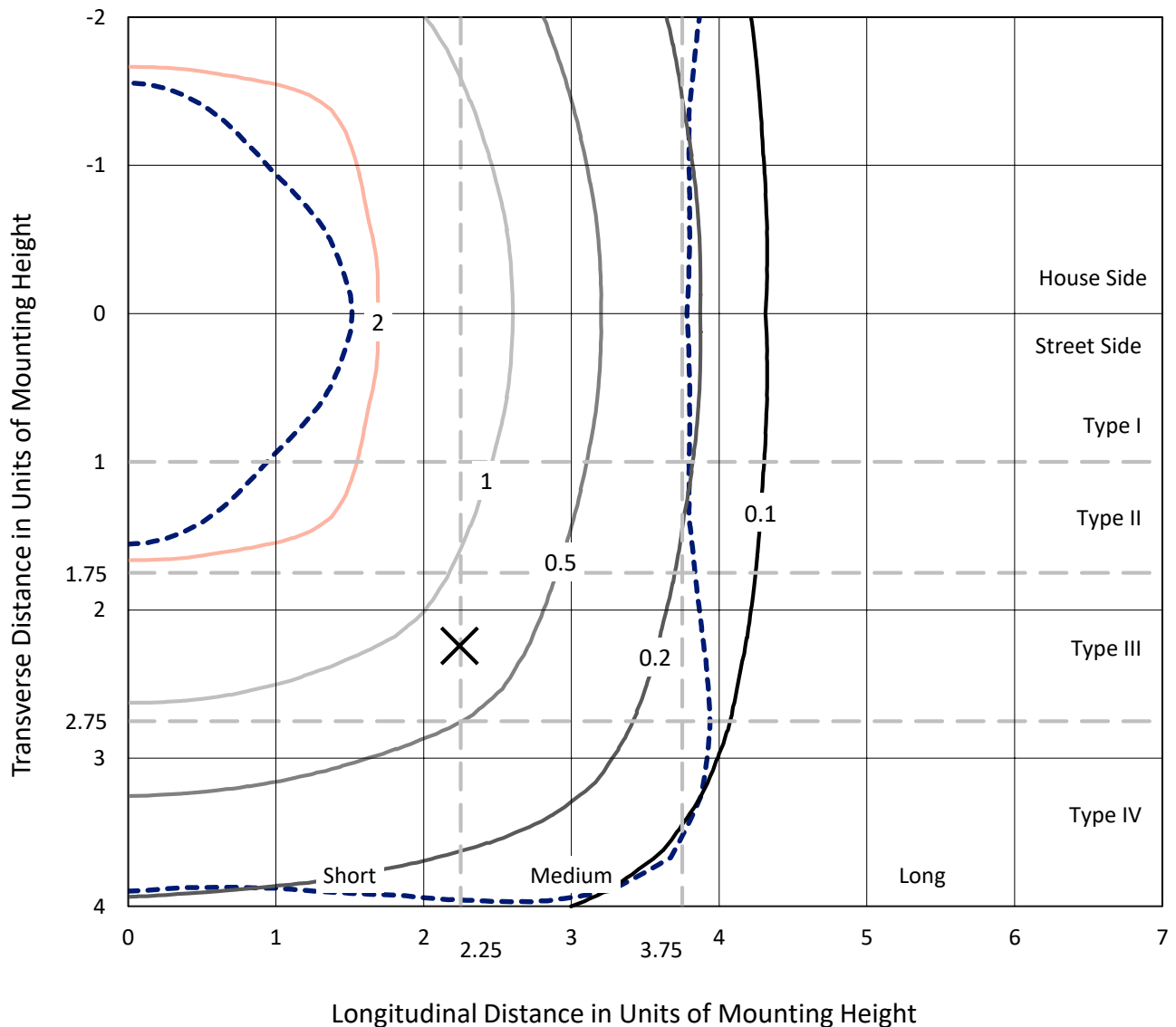
Input Watts (W): 558
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

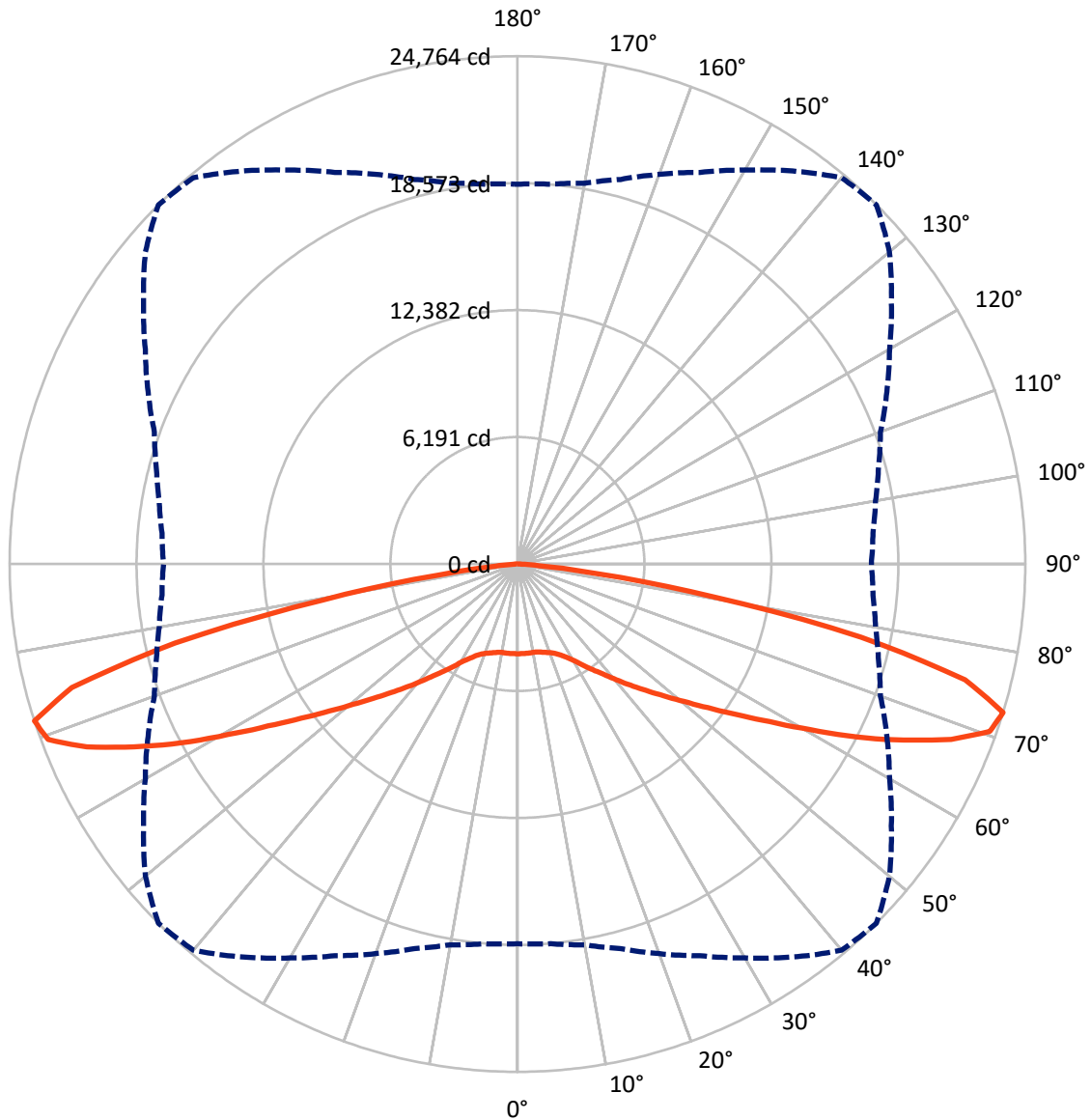
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 4.9 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
House Side	Lumens	30920.6	0.0	30920.6
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	30920.6	0.0	30920.6
	% Fixture	50.0	0.0	50.0
Total	Lumens	61841.2	0.0	61841.2
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	418.2	0.7
10°-20°	1270.0	2.1
20°-30°	2320.9	3.8
30°-40°	4001.6	6.5
40°-50°	6840.7	11.1
50°-60°	11087.9	17.9
60°-70°	18394.4	29.7
70°-80°	16201.2	26.2
80°-90°	1306.3	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°	61841.2	100.0
0°-180°	61841.2	100.0



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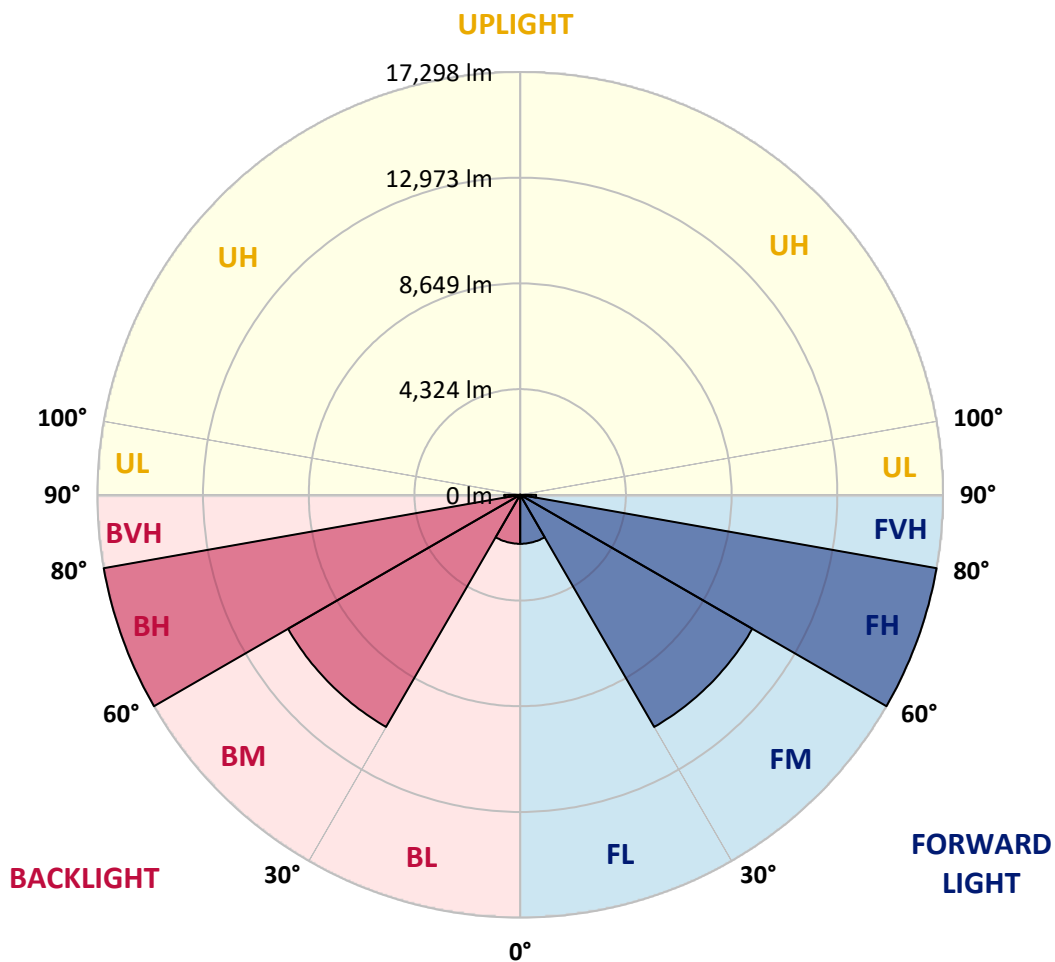
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2004.5	3.2			
FM	(30°-60°)	10965.1	17.7			
FH	(60°-80°)	17297.8	28.0			G5
FVH	(80°-90°)	653.1	1.1			G4/750
BL	(0°-30°)	2004.5	3.2	B3/2500		
BM	(30°-60°)	10965.1	17.7	B5		
BH	(60°-80°)	17297.8	28.0	B5		G5
BVH	(80°-90°)	653.1	1.1			G4/750
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°	4379.3	4379.3	4379.3	4379.3	4379.3	4379.3	4379.3	4379.3	4379.3	4379.3	4379.3
2.5°	4379.3	4382.2	4385.0	4382.2	4382.2	4379.3	4376.5	4379.3	4376.5	4370.8	4373.6
5°	4393.5	4399.2	4399.2	4393.5	4396.3	4393.5	4387.8	4390.7	4385.0	4376.5	4376.5
7.5°	4410.5	4413.4	4413.4	4407.7	4410.5	4404.8	4399.2	4396.3	4390.7	4379.3	4370.8
10°	4436.0	4438.9	4436.0	4430.4	4430.4	4421.9	4407.7	4402.0	4390.7	4373.6	4365.1
12.5°	4464.4	4467.2	4464.4	4458.7	4455.9	4441.7	4430.4	4421.9	4413.4	4399.2	4385.0
15°	4504.1	4509.8	4504.1	4492.8	4484.3	4472.9	4467.2	4470.1	4472.9	4461.6	4447.4
17.5°	4577.9	4580.7	4572.2	4546.7	4535.3	4524.0	4524.0	4529.6	4538.1	4532.5	4518.3
20°	4714.0	4705.5	4685.6	4654.4	4640.3	4620.4	4617.6	4620.4	4620.4	4617.6	4606.2
22.5°	4884.2	4878.5	4853.0	4813.3	4793.4	4782.1	4765.1	4750.9	4748.0	4739.5	4728.2
25°	5088.4	5085.6	5054.4	5020.3	5006.1	4992.0	4977.8	4957.9	4940.9	4921.1	4909.7
27.5°	5349.3	5338.0	5292.6	5275.6	5255.7	5247.2	5227.4	5204.7	5190.5	5165.0	5150.8
30°	5635.8	5635.8	5598.9	5593.3	5593.3	5573.4	5550.7	5511.0	5485.5	5460.0	5451.5
32.5°	5922.3	5925.1	5888.2	5899.6	5908.1	5922.3	5928.0	5913.8	5896.8	5893.9	5876.9
35°	6336.4	6325.0	6288.2	6296.7	6293.8	6291.0	6291.0	6322.2	6327.9	6333.6	6299.5
37.5°	6849.8	6849.8	6812.9	6812.9	6795.9	6778.9	6756.2	6776.0	6807.2	6815.7	6793.0
40°	7436.9	7456.7	7411.4	7408.5	7414.2	7360.3	7334.8	7366.0	7385.8	7419.9	7394.3
42.5°	8129.0	8114.8	8069.4	8063.7	8032.5	8015.5	7992.8	8018.3	8049.5	8072.2	8080.7
45°	8792.7	8781.3	8730.3	8730.3	8699.1	8684.9	8696.2	8738.8	8753.0	8784.2	8815.4
47.5°	9447.9	9433.7	9399.6	9413.8	9416.7	9442.2	9479.1	9518.8	9558.5	9601.0	9615.2
50°	10117.2	10120.1	10083.2	10117.2	10159.8	10230.7	10330.0	10395.2	10477.5	10531.3	10548.4
52.5°	10727.1	10738.4	10778.1	10857.5	10942.6	11081.6	11251.8	11410.6	11546.8	11637.5	11631.8
55°	11458.8	11475.8	11572.3	11708.4	11847.4	12057.3	12309.7	12590.5	12817.4	12947.9	12865.7
57.5°	12394.8	12431.7	12539.5	12723.8	12930.9	13203.2	13549.2	13971.8	14323.5	14499.4	14366.1
60°	13679.7	13702.4	13832.8	14037.1	14286.7	14624.2	15086.5	15653.8	16150.1	16382.7	16229.6
62.5°	15373.0	15415.5	15520.5	15727.5	15982.8	16365.7	16930.1	17639.2	18257.5	18580.9	18234.9
65°	17395.3	17531.4	17619.4	17829.3	18067.5	18473.1	19063.1	19823.2	20486.9	20699.6	20299.7
67.5°	19397.8	19516.9	19670.0	19911.1	20152.2	20608.9	21156.3	21893.7	22622.7	22815.5	22194.4
70°	20274.2	20342.3	20580.5	20909.5	21371.8	21910.8	22543.3	23371.5	24273.4	24432.3	23643.8
72.5°	18518.5	18586.6	18853.2	19411.9	20217.5	21074.0	22177.4	23394.2	24585.4	24764.1	23677.8
75°	14005.9	13895.2	14289.5	15029.8	16116.1	17310.2	18853.2	20597.5	22319.2	22543.3	21247.0
77.5°	7238.3	7224.2	7522.0	8441.0	9737.2	11095.8	12794.7	14766.0	16450.8	17131.5	16076.4
80°	2039.3	2062.0	2203.8	2660.5	3417.8	4399.2	5726.6	7573.0	8951.5	9654.9	9065.0
82.5°	799.8	862.2	916.1	1001.2	1100.5	1245.2	1662.1	2473.3	3318.5	3965.2	3247.6
85°	286.5	306.3	434.0	513.4	521.9	550.3	626.8	731.8	882.1	1052.3	865.1
87.5°	107.8	119.1	139.0	229.7	226.9	207.1	252.4	263.8	198.5	181.5	224.1
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°	4379.3	4379.3	4379.3	4379.3	4379.3	4379.3	4379.3	4379.3
2.5°	4368.0	4370.8	4370.8	4373.6	4376.5	4376.5	4382.2	4382.2
5°	4370.8	4370.8	4365.1	4368.0	4365.1	4365.1	4368.0	4368.0
7.5°	4365.1	4362.3	4356.6	4353.8	4348.1	4348.1	4348.1	4348.1
10°	4356.6	4353.8	4348.1	4345.3	4342.4	4342.4	4342.4	4342.4
12.5°	4379.3	4370.8	4365.1	4362.3	4362.3	4362.3	4362.3	4362.3
15°	4438.9	4419.0	4404.8	4404.8	4407.7	4413.4	4413.4	4419.0
17.5°	4512.6	4489.9	4475.8	4464.4	4470.1	4478.6	4484.3	4489.9
20°	4600.5	4589.2	4569.3	4558.0	4558.0	4569.3	4575.0	4577.9
22.5°	4722.5	4714.0	4705.5	4691.3	4691.3	4697.0	4708.3	4708.3
25°	4904.0	4898.4	4892.7	4881.3	4878.5	4878.5	4884.2	4889.9
27.5°	5130.9	5133.8	5128.1	5125.3	5116.8	5113.9	5122.4	5119.6
30°	5434.4	5448.6	5462.8	5451.5	5437.3	5428.8	5420.3	5408.9
32.5°	5845.7	5828.7	5817.3	5797.5	5772.0	5749.3	5732.3	5712.4
35°	6234.3	6205.9	6194.6	6211.6	6208.8	6194.6	6174.7	6157.7
37.5°	6710.8	6705.1	6710.8	6742.0	6736.3	6750.5	6710.8	6708.0
40°	7312.1	7317.8	7357.5	7394.3	7414.2	7434.1	7411.4	7388.7
42.5°	8009.8	8007.0	8021.2	8072.2	8106.3	8129.0	8080.7	8075.1
45°	8747.3	8727.4	8738.8	8781.3	8815.4	8840.9	8787.0	8787.0
47.5°	9558.5	9524.4	9487.6	9535.8	9555.6	9572.7	9530.1	9515.9
50°	10463.3	10392.4	10312.9	10332.8	10332.8	10327.1	10273.2	10270.4
52.5°	11501.4	11370.9	11226.2	11172.4	11141.2	11107.1	11013.5	10968.1
55°	12695.5	12499.8	12272.9	12133.9	12060.1	11966.5	11810.5	11768.0
57.5°	14091.0	13784.6	13393.2	13223.0	13058.5	12905.4	12732.3	12684.1
60°	15744.5	15293.6	14774.5	14459.7	14281.0	14133.5	13954.8	13946.3
62.5°	17588.2	16876.2	16289.1	16005.5	15875.0	15744.5	15574.4	15597.1
65°	19463.0	18719.9	18169.6	17939.9	17817.9	17710.1	17539.9	17565.5
67.5°	21312.3	20628.7	20024.6	19789.2	19653.0	19516.9	19363.7	19389.2
70°	22639.7	21791.6	21110.9	20589.0	20262.8	19894.1	19655.9	19596.3
72.5°	22259.6	20952.1	19871.4	18836.2	18229.2	17735.7	17401.0	17256.3
75°	19264.4	17477.5	16087.7	14817.1	14102.3	13520.8	13098.2	12834.5
77.5°	14306.5	12298.4	10656.1	9192.6	8035.4	7258.2	6710.8	6356.2
80°	7831.1	5956.3	4353.8	3060.4	2249.2	1869.2	1650.8	1545.8
82.5°	2439.3	1574.2	1160.1	1001.2	930.3	890.6	825.4	720.4
85°	777.2	680.7	632.5	604.1	575.8	502.0	346.0	314.8
87.5°	300.7	309.2	306.3	289.3	295.0	212.7	170.2	150.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)