

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: P299273

Luminaire Tested: **GLNA-AF-10-LED-E1-SL2-7050-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299273
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24286)
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-SL2-7050-600
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(10) 70 CRI, 5000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V
Narrow OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 37890.4 lumens
Efficiency: N/A
Efficacy: 117.3 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B3 - U0 - G5

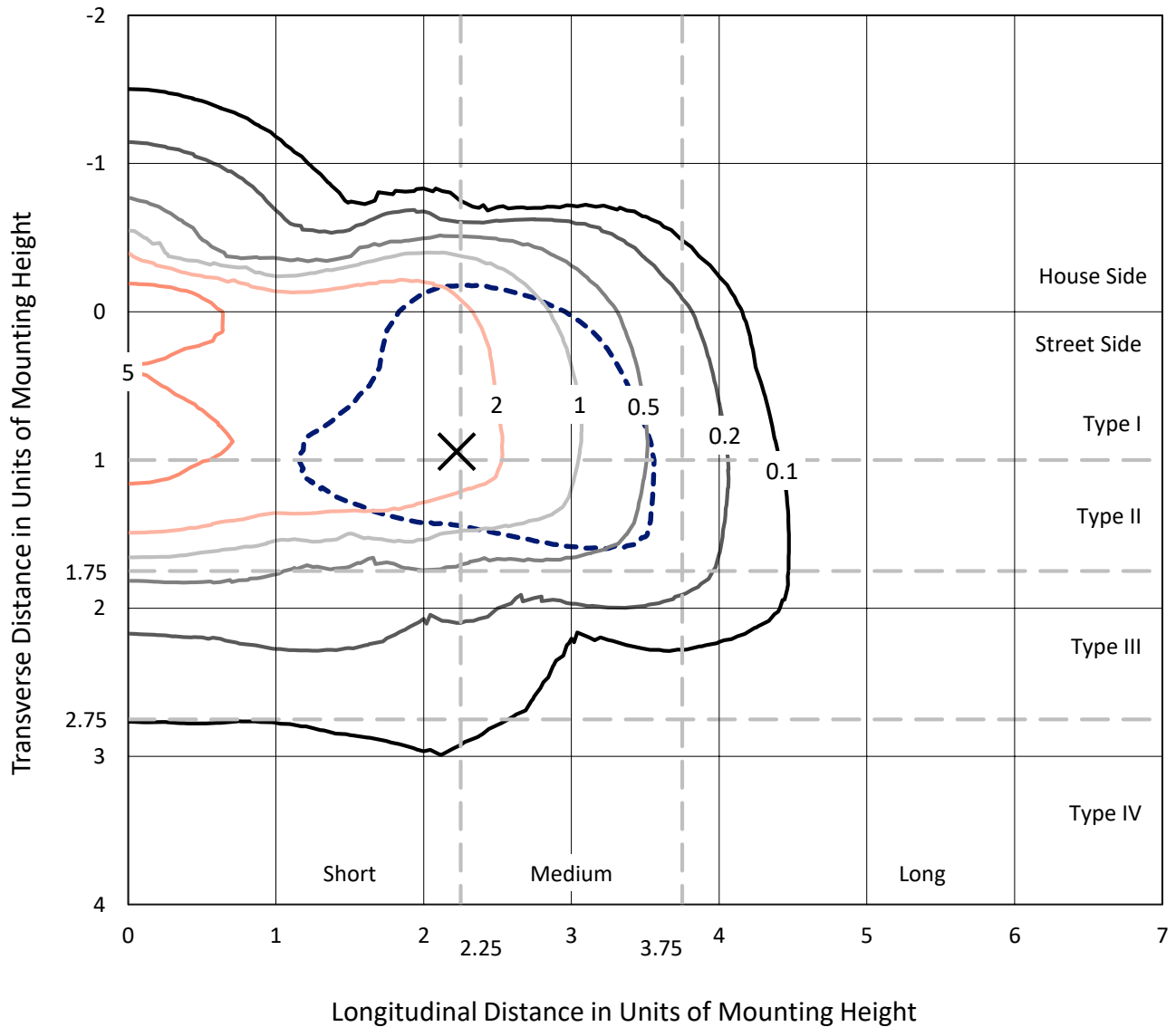
Input Watts (W): 323
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

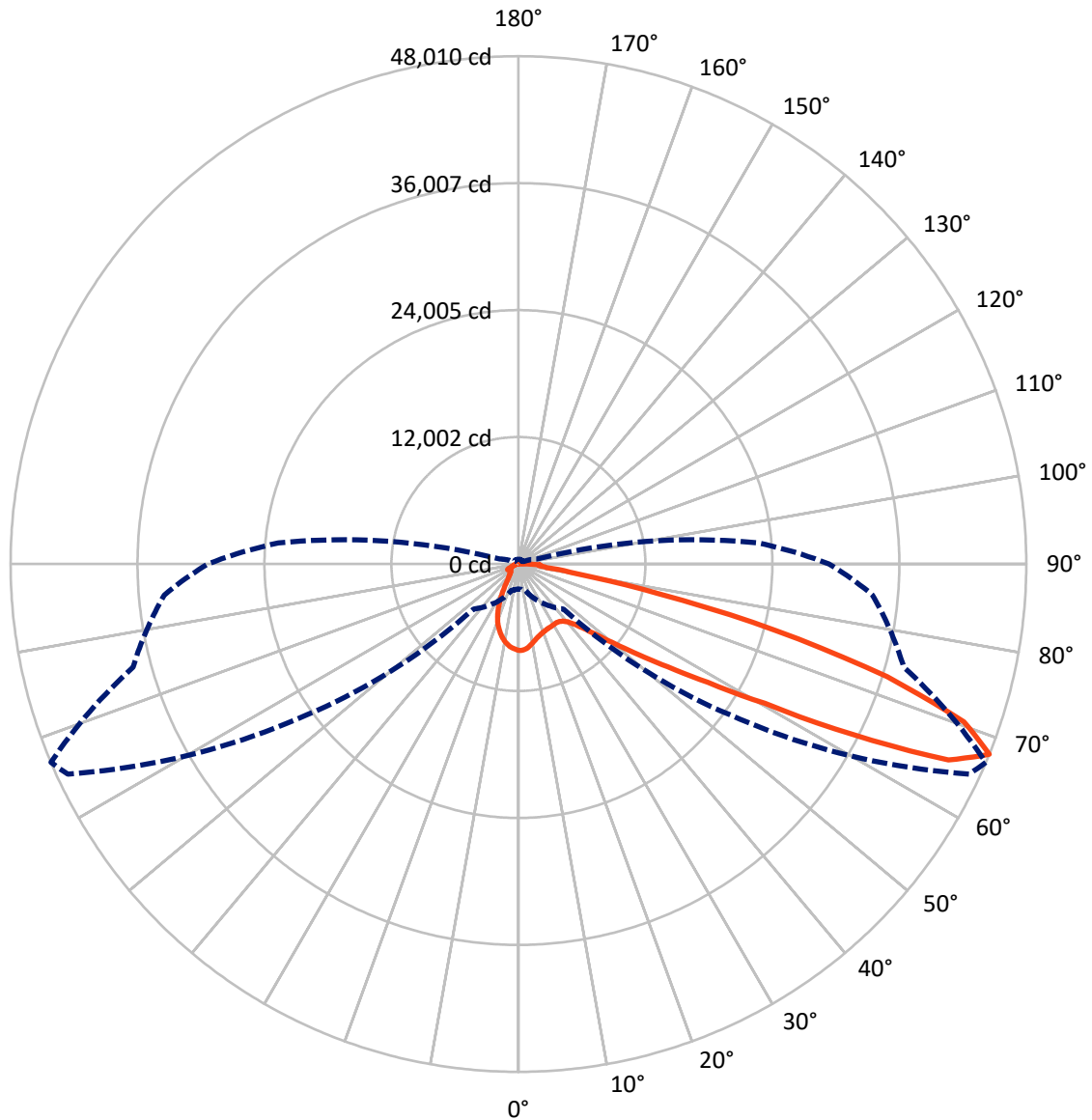
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 9.1 fc
 Type II - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6278.0	0.0	6278.0
	% Fixture	16.6	0.0	16.6
Street Side	Lumens	31612.4	0.0	31612.4
	% Fixture	83.4	0.0	83.4
Total	Lumens	37890.4	0.0	37890.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	697.3	1.8
10°-20°	1613.4	4.3
20°-30°	2186.9	5.8
30°-40°	3109.0	8.2
40°-50°	5201.4	13.7
50°-60°	8228.7	21.7
60°-70°	10482.5	27.7
70°-80°	5490.7	14.5
80°-90°	880.6	2.3
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°	37890.4	100.0
0°-180°	37890.4	100.0

Coefficient of Utilization



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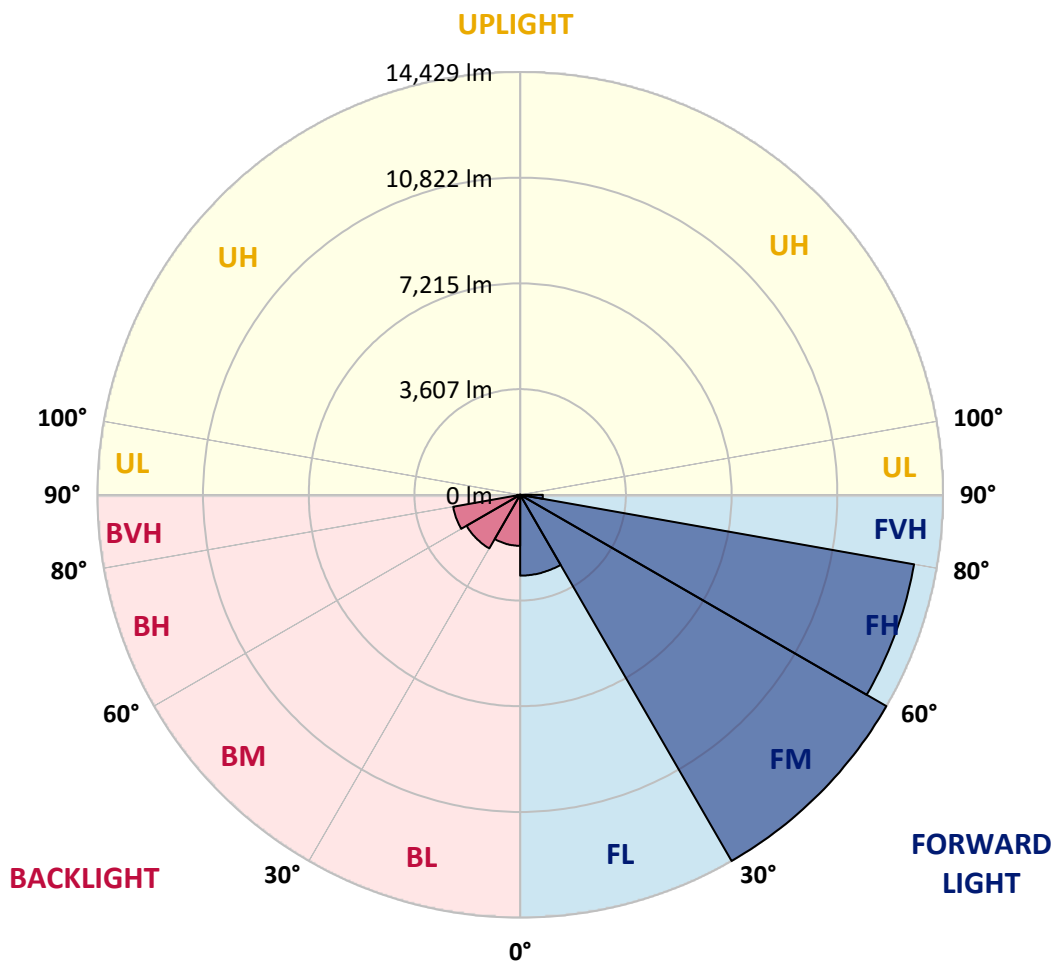
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2757.5	7.3			
FM (30°-60°)	14429.5	38.1			
FH (60°-80°)	13651.1	36.0			G5
FVH (80°-90°)	774.3	2.0			G5
BL (0°-30°)	1740.1	4.6	B3/2500		
BM (30°-60°)	2109.6	5.6	B2/2500		
BH (60°-80°)	2322.0	6.1	B3/2500		G3/2500
BVH (80°-90°)	106.3	0.3			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G5

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	8172.9	8172.9	8172.9	8172.9	8172.9	8172.9	8172.9	8172.9	8172.9	8172.9	8172.9
2.5°	7836.5	7849.6	7890.7	7916.9	8034.6	8085.1	8120.6	8156.1	8161.7	8178.5	8161.7
5°	7014.4	7042.4	7119.0	7205.0	7432.9	7612.3	7801.0	7997.2	8032.7	8159.8	8195.3
7.5°	6377.2	6369.8	6433.3	6536.1	6769.6	7018.1	7348.9	7739.4	7816.0	8101.9	8240.1
10°	5912.0	5906.4	5973.6	6080.1	6302.5	6537.9	6911.6	7446.0	7554.4	8010.3	8283.1
12.5°	5568.2	5570.0	5637.3	5755.0	5981.1	6218.4	6597.7	7162.0	7300.3	7903.8	8328.0
15°	5340.2	5355.2	5409.3	5534.5	5755.0	5992.3	6364.2	6949.0	7104.1	7819.7	8378.4
17.5°	5263.6	5287.9	5306.6	5398.1	5586.9	5824.2	6188.5	6792.0	6956.5	7761.8	8423.3
20°	5334.6	5362.6	5327.1	5358.9	5478.5	5687.8	6050.2	6668.7	6836.9	7696.4	8428.9
22.5°	5639.2	5665.3	5560.7	5469.1	5461.7	5588.7	5936.3	6571.6	6745.3	7647.8	8430.7
25°	6175.4	6192.3	6016.6	5803.6	5596.2	5553.2	5855.9	6504.3	6689.3	7604.8	8395.2
27.5°	6833.2	6846.2	6644.4	6330.5	5913.8	5637.3	5827.9	6465.1	6657.5	7567.5	8335.4
30°	7632.9	7694.5	7423.6	7027.5	6420.2	5885.8	5883.9	6444.5	6622.0	7503.9	8217.7
32.5°	8451.3	8477.4	8290.6	7888.9	7102.2	6323.0	6040.9	6459.4	6612.7	7427.3	8068.2
35°	9280.9	9314.5	9193.1	8869.8	8034.6	6963.9	6347.3	6547.3	6670.6	7401.2	7963.6
37.5°	10355.3	10400.1	10232.0	9858.3	9168.8	7832.8	6857.4	6767.8	6848.1	7475.9	7931.8
40°	12053.8	12033.2	11541.8	10985.0	10409.5	8944.6	7586.2	7141.5	7188.2	7717.0	8029.0
42.5°	14030.7	13980.2	13133.8	12259.3	11773.5	10289.9	8550.3	7789.8	7780.5	8191.6	8370.9
45°	15607.7	15566.6	14804.2	13726.1	13337.4	11822.1	9796.6	8755.9	8686.7	8944.6	9002.5
47.5°	16461.6	16463.5	16024.4	15144.3	15135.0	13769.1	11397.9	10153.5	10033.9	10155.4	10093.7
50°	16162.6	16201.9	16155.2	15874.9	16775.5	16321.5	13488.8	12102.4	11861.3	11980.9	11743.6
52.5°	14716.4	14766.9	15043.4	15473.2	17465.0	19406.4	16560.6	14524.0	14243.7	14200.7	13937.2
55°	12152.8	12214.5	12778.8	13946.6	16891.4	21478.6	21407.6	17610.7	17164.2	16758.7	16646.6
57.5°	8376.5	8479.3	9387.4	11121.4	15035.9	22104.5	27179.4	22011.1	21103.0	19686.7	19712.8
60°	4721.7	4841.3	5912.0	7487.1	11291.4	21424.4	31570.4	28676.1	26759.0	23115.4	23309.7
62.5°	3002.7	3131.6	3944.4	5201.9	6775.2	17762.1	33369.8	37942.0	35507.3	27341.9	27532.5
65°	2430.9	2487.0	2870.0	4293.8	4919.8	10701.0	32003.9	45574.9	44666.8	32706.4	31817.0
67.5°	2373.0	2391.7	2589.8	3604.4	4718.0	6014.7	25527.6	47002.4	48009.6	37715.9	33601.5
70°	2345.0	2410.4	2918.6	3439.9	4518.1	5073.0	15340.5	43089.8	44679.9	39025.8	31226.6
72.5°	1137.9	1134.2	1468.7	3111.1	5089.8	5261.7	7881.4	34864.6	36460.3	33810.7	25660.3
75°	917.4	839.0	801.6	1139.8	4893.6	5433.6	5022.6	23989.8	25144.6	22668.8	15774.0
77.5°	870.7	777.3	711.9	713.8	2068.4	5762.5	4254.6	13277.7	13614.0	10239.5	4321.9
80°	721.2	635.3	588.6	663.3	1001.5	5487.8	4600.3	6009.1	5514.0	2515.0	1438.8
82.5°	500.8	455.9	442.8	556.8	801.6	3910.8	5349.6	3228.8	2707.5	1259.4	887.5
85°	319.5	272.8	302.7	405.5	624.1	1805.0	5510.2	2516.9	2001.2	799.7	500.8
87.5°	147.6	119.6	149.5	224.2	407.3	622.2	5243.0	2827.1	2061.0	422.3	315.8
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	8172.9	8172.9	8172.9	8172.9	8172.9	8172.9	8172.9	8172.9	8172.9	8172.9	8172.9
2.5°	8176.6	8141.1	8113.1	8060.8	8002.8	7946.8	7896.3	7832.8	7814.1	7797.3	7823.5
5°	8202.8	8167.3	8064.5	7903.8	7726.3	7560.0	7393.7	7251.7	7163.9	7115.3	7143.3
7.5°	8242.0	8191.6	7978.5	7683.3	7363.8	7072.3	6771.5	6530.5	6352.9	6268.9	6293.2
10°	8277.5	8180.3	7832.8	7390.0	6922.8	6489.3	6014.7	5622.4	5330.9	5177.6	5215.0
12.5°	8292.5	8137.4	7629.1	7023.7	6382.8	5747.5	5048.7	4462.0	4043.5	3890.2	3858.5
15°	8307.4	8088.8	7404.9	6607.1	5730.7	4832.0	3852.9	3150.3	2802.8	2726.2	2709.3
17.5°	8311.1	8004.7	7150.8	6154.9	4966.5	3742.6	2634.6	2188.0	2189.9	2313.2	2328.2
20°	8271.9	7879.5	6842.5	5592.5	4050.9	2587.9	1808.7	1732.1	2014.3	2322.6	2359.9
22.5°	8182.2	7713.2	6493.1	4936.6	3002.7	1704.1	1399.5	1483.6	1848.0	2225.4	2268.4
25°	8068.2	7511.4	6080.1	4176.1	1988.1	1218.3	1173.4	1276.2	1522.8	1775.1	1799.4
27.5°	7913.2	7272.3	5616.7	3305.4	1291.1	1003.4	1033.3	1102.4	1203.3	1315.4	1326.6
30°	7713.2	6986.4	5121.6	2410.4	975.4	902.5	945.5	982.8	1025.8	1089.3	1094.9
32.5°	7483.4	6711.7	4613.4	1664.8	865.1	850.2	883.8	902.5	936.1	975.4	979.1
35°	7290.9	6450.1	4086.4	1177.2	818.4	810.9	833.4	840.8	872.6	915.6	919.3
37.5°	7180.7	6237.1	3542.7	949.2	786.6	775.4	788.5	788.5	833.4	896.9	906.2
40°	7188.2	6119.4	2999.0	857.6	760.5	745.5	747.4	747.4	805.3	874.5	880.1
42.5°	7391.8	6149.3	2516.9	822.1	739.9	723.1	713.8	719.4	768.0	812.8	816.5
45°	7870.2	6360.4	2064.7	799.7	719.4	713.8	693.2	691.3	710.0	730.6	730.6
47.5°	8655.0	6777.1	1758.3	784.8	702.6	700.7	676.4	652.1	650.2	657.7	657.7
50°	9931.1	7494.6	1552.7	768.0	691.3	676.4	648.4	611.0	597.9	603.5	603.5
52.5°	11844.5	8774.5	1474.3	745.5	667.1	642.8	611.0	573.6	562.4	564.3	564.3
55°	14353.9	10740.2	1463.0	719.4	640.9	601.7	575.5	547.5	534.4	538.1	538.1
57.5°	17420.1	13458.9	1663.0	678.3	605.4	560.6	545.6	526.9	517.6	523.2	521.3
60°	21147.8	17016.5	2466.4	635.3	569.9	523.2	523.2	508.2	500.8	506.4	504.5
62.5°	25441.7	21103.0	3468.0	603.5	532.5	493.3	500.8	493.3	485.8	489.6	487.7
65°	29249.7	23765.6	3247.5	579.2	495.2	465.3	478.3	474.6	469.0	472.7	470.9
67.5°	29359.9	22779.0	1823.7	553.1	459.7	437.2	455.9	454.0	450.3	454.0	452.2
70°	26202.2	19234.5	1027.7	504.5	422.3	403.6	429.8	427.9	424.2	431.6	429.8
72.5°	20992.7	13957.8	751.1	444.7	384.9	368.1	398.0	396.1	396.1	407.3	401.7
75°	12079.9	7182.6	599.8	381.2	345.7	332.6	358.8	360.6	364.4	379.3	368.1
77.5°	3443.7	2238.5	489.6	323.3	297.1	291.5	317.6	321.4	323.3	340.1	325.1
80°	1279.9	1031.4	403.6	270.9	242.9	244.8	269.1	274.7	276.5	293.4	274.7
82.5°	816.5	680.1	327.0	209.3	190.6	188.7	218.6	226.1	226.1	228.0	216.7
85°	476.5	407.3	246.6	151.3	134.5	128.9	162.6	175.6	170.0	166.3	158.8
87.5°	319.5	280.3	151.3	84.1	72.9	69.1	95.3	104.6	100.9	95.3	89.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)