

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: P301195

Luminaire Tested: **GLNA-AF-10-LED-E1-T3R-7030-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301195
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P194839)
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-T3R-7030-800
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(10) 70 CRI, 3000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III
Roadway OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 46908.5 lumens
Efficiency: N/A
Efficacy: 112.0 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type III - Short - Full Cutoff
BUG Rating: B3 - U0 - G5

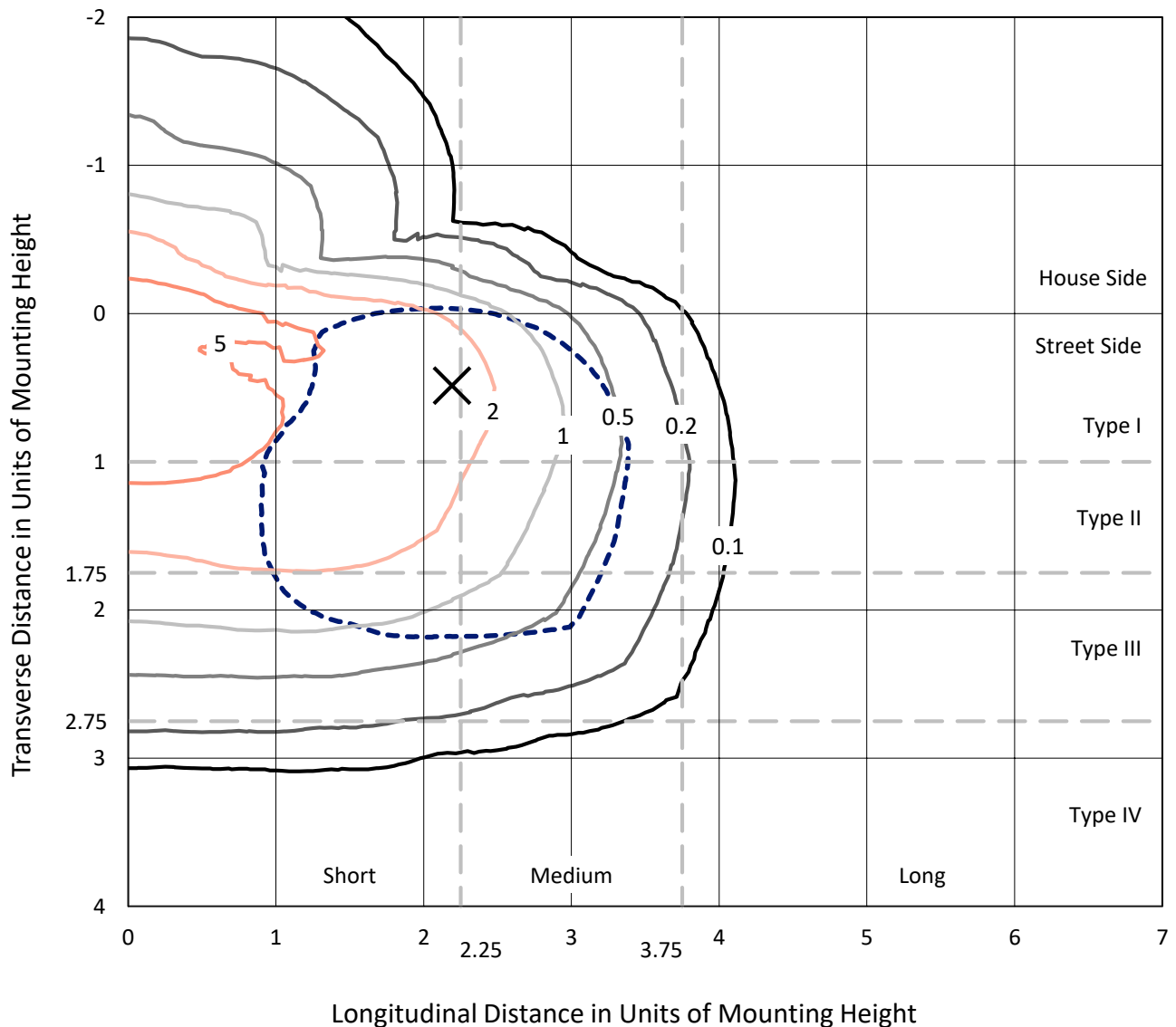
Input Watts (W): 419
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

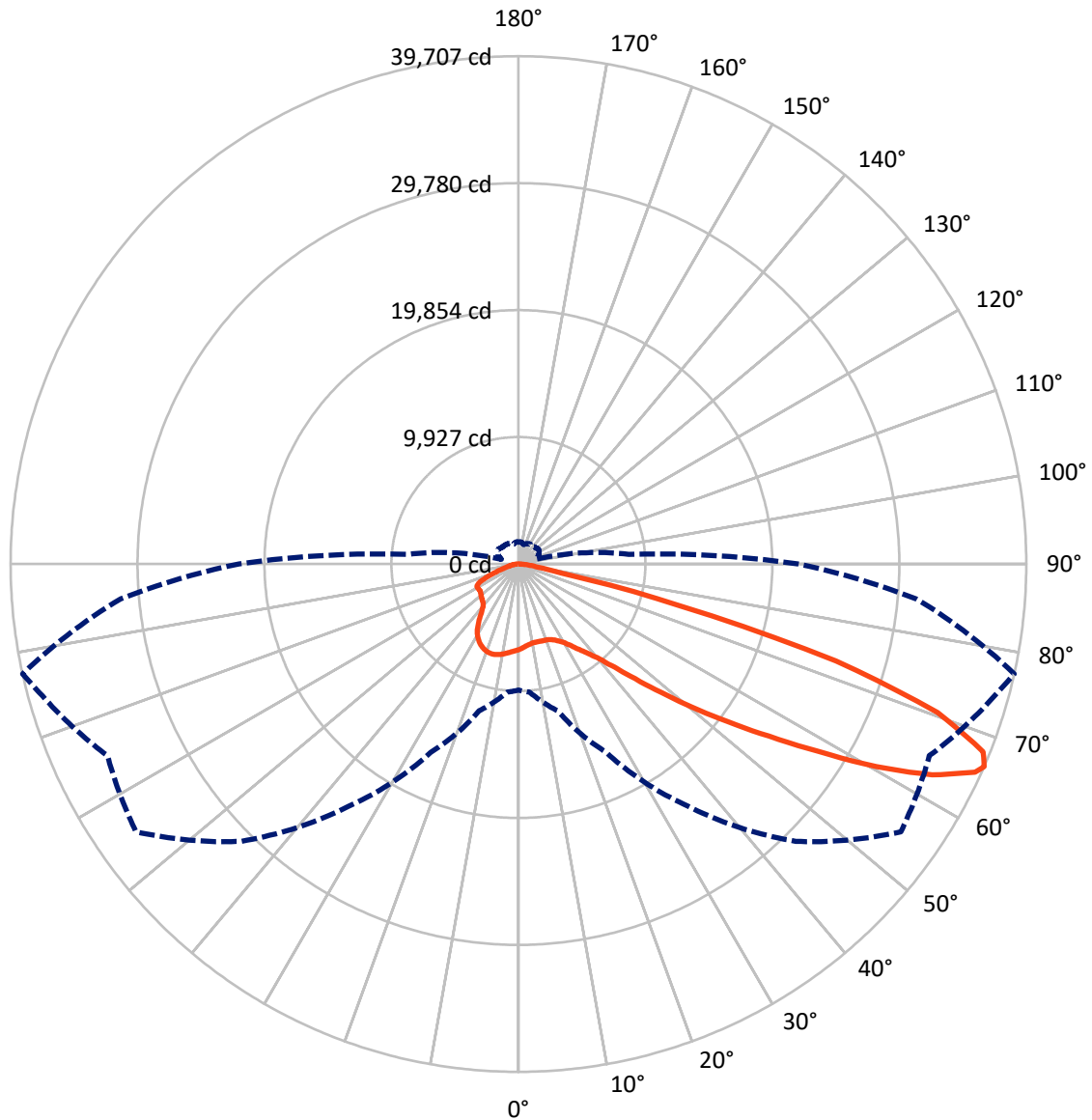
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 9.2 fc
 Type III - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 77.5-Deg Lateral - - - Horizontal Cone Through 66-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8014.0	0.0	8014.0
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	38894.4	0.0	38894.4
	% Fixture	82.9	0.0	82.9
Total	Lumens	46908.5	0.0	46908.5
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	597.2	1.3
10°-20°	1684.9	3.6
20°-30°	2875.5	6.1
30°-40°	4603.1	9.8
40°-50°	7111.4	15.2
50°-60°	10086.4	21.5
60°-70°	13492.8	28.8
70°-80°	5859.7	12.5
80°-90°	597.5	1.3
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°	46908.5	100.0
0°-180°	46908.5	100.0



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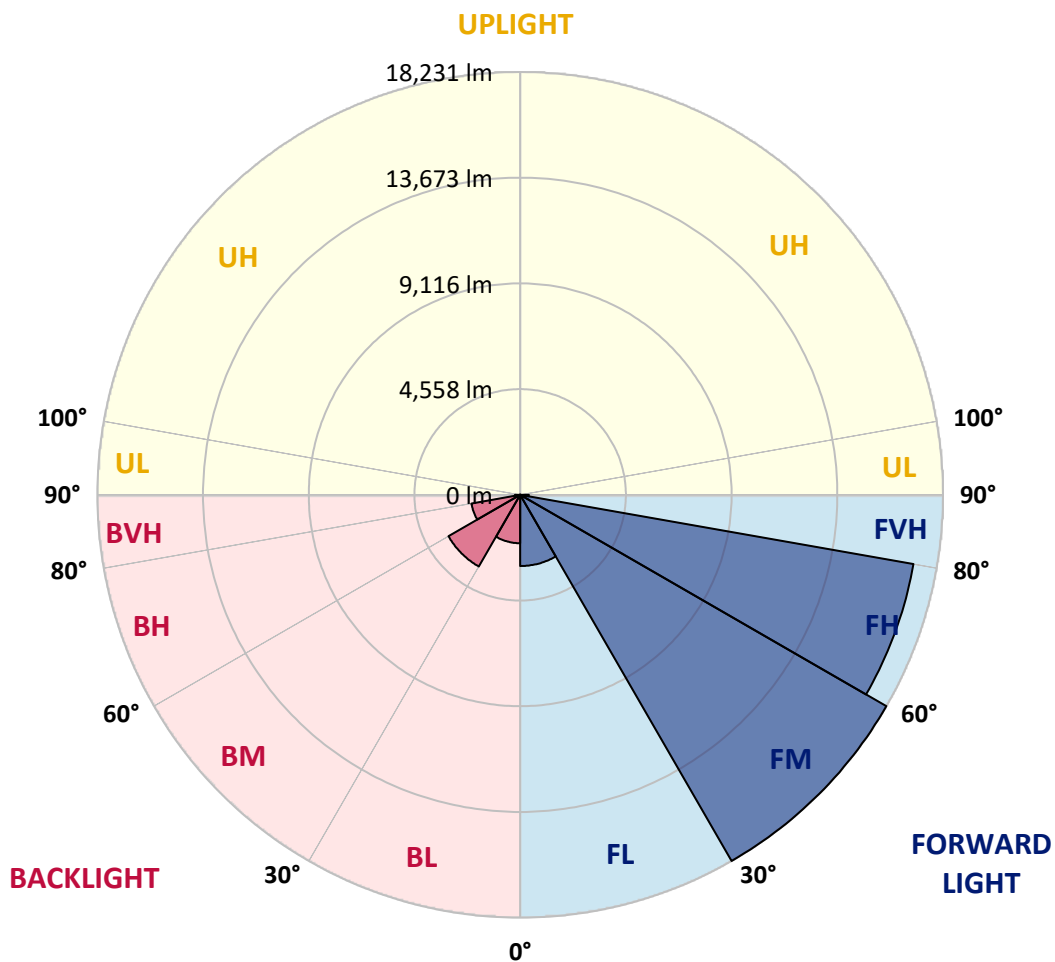
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3070.4	6.5			
FM	(30°-60°)	18231.1	38.9			
FH	(60°-80°)	17218.3	36.7			G5
FVH	(80°-90°)	374.7	0.8			G3/500
BL	(0°-30°)	2087.2	4.4	B3/2500		
BM	(30°-60°)	3569.8	7.6	B3/5000		
BH	(60°-80°)	2134.3	4.5	B3/2500		G3/2500
BVH	(80°-90°)	222.8	0.5			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 III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77.5°	85°
0°	6684.6	6684.6	6684.6	6684.6	6684.6	6684.6	6684.6	6684.6	6684.6	6684.6	6684.6
2.5°	5913.5	5953.1	5986.7	6017.6	6079.3	6181.3	6298.7	6394.0	6531.6	6558.4	6631.6
5°	5370.6	5370.6	5396.8	5443.8	5527.7	5680.7	5840.4	6053.1	6352.4	6422.9	6618.2
7.5°	5106.9	5108.9	5124.4	5163.9	5237.1	5376.7	5551.8	5802.8	6208.1	6325.6	6657.8
10°	5204.2	5182.1	5148.5	5129.1	5139.8	5221.7	5388.1	5667.3	6119.6	6269.9	6747.0
12.5°	5749.1	5707.5	5592.1	5439.1	5292.8	5233.1	5330.4	5602.8	6082.0	6257.1	6864.5
15°	6640.3	6622.9	6407.5	6090.7	5736.4	5439.1	5372.7	5578.7	6086.0	6272.6	7004.0
17.5°	7757.7	7732.8	7449.6	6988.6	6410.1	5831.7	5521.0	5598.8	6101.4	6298.7	7138.9
20°	8885.7	8809.9	8504.6	7955.0	7212.1	6365.2	5767.2	5649.8	6121.6	6327.6	7281.2
22.5°	9728.0	9665.5	9391.1	8856.9	8001.3	6983.9	6097.4	5738.4	6186.0	6412.2	7455.7
25°	10468.2	10472.2	10199.7	9683.7	8799.2	7640.2	6522.9	5975.3	6349.7	6584.6	7695.3
27.5°	11383.5	11330.5	11075.5	10563.4	9588.4	8302.6	7036.9	6301.4	6594.0	6830.9	8010.0
30°	12478.0	12440.4	12145.8	11565.4	10463.5	9013.9	7624.1	6679.9	6908.8	7154.4	8422.0
32.5°	13765.8	13748.4	13442.4	12695.5	11474.1	9852.1	8314.0	7181.2	7378.5	7633.5	9013.9
35°	15277.8	15279.8	14918.7	14020.8	12580.0	10827.2	9095.8	7826.1	7950.3	8216.0	9719.2
37.5°	16208.6	16321.3	16186.4	15271.1	13832.3	11917.7	10111.1	8681.7	8601.9	8870.3	10474.9
40°	16407.9	16545.4	16972.9	16507.9	15233.5	13118.9	11011.1	9503.8	9404.5	9732.0	11447.9
42.5°	16128.7	16319.3	17223.9	17551.4	16720.6	14599.3	12221.0	10725.2	10599.0	11039.9	12657.9
45°	15962.3	16104.5	17150.7	18095.0	18010.4	16273.0	13761.8	12258.6	12212.3	12790.8	14054.4
47.5°	15674.4	15803.2	16809.2	18221.1	18768.7	17806.4	15612.6	14134.3	14224.8	14983.2	15630.1
50°	15829.4	15882.4	16428.0	17899.7	18988.2	18930.4	17680.2	16305.9	16616.6	17562.8	17414.5
52.5°	15807.2	15944.8	16383.7	17372.2	19017.0	19624.3	19717.0	18728.5	19382.8	20468.6	19393.5
55°	12780.0	13032.3	15862.9	17239.3	19118.3	20304.1	21530.2	21281.9	22500.6	23766.2	21627.5
57.5°	12203.6	12363.3	13932.3	17518.5	19659.2	21603.4	23546.8	24092.4	26131.1	27600.8	24349.4
60°	12090.1	12287.4	13912.1	17860.1	20756.5	23719.9	26537.1	27494.7	30548.8	32158.1	27505.5
62.5°	11737.8	11950.6	13781.3	17815.1	22314.7	26647.8	30365.0	31111.9	34737.7	36302.7	30145.5
65°	10621.2	10820.5	12715.6	17099.7	23365.6	29773.1	34894.7	34427.7	38044.8	39221.2	31461.5
66°	9856.1	10051.4	11875.4	16257.5	23121.3	30659.6	36499.9	35453.7	38785.0	39707.0	31204.5
67.5°	8457.6	8610.6	10244.0	14371.1	21824.8	30907.9	37849.5	36224.8	38862.1	39188.3	29735.5
70°	5343.8	5388.1	6657.8	9920.6	16521.3	26804.9	35794.6	34310.2	35657.7	34775.3	24927.9
72.5°	2318.6	2303.1	3196.3	5046.5	9353.5	17986.2	28955.0	28310.1	27971.2	25958.7	17450.0
75°	1289.8	1307.9	1660.2	2342.7	3801.0	8834.7	18941.2	18125.8	15303.9	13059.2	7912.7
77.5°	1034.8	1059.6	1376.4	1662.3	1706.6	3080.9	8863.6	7212.1	4341.9	3484.2	2198.5
80°	818.0	862.3	1201.2	1294.5	1150.2	1269.7	2863.5	2289.7	1718.0	1575.7	1139.5
82.5°	646.9	678.5	1030.8	979.8	804.6	855.6	1371.7	1336.8	1117.3	1017.4	658.3
85°	465.7	522.8	846.9	738.2	527.5	576.5	910.7	873.1	640.2	522.8	290.6
87.5°	190.6	248.3	598.6	489.9	294.6	268.4	454.3	427.5	303.3	221.5	144.3
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°	6684.6	6684.6	6684.6	6684.6	6684.6	6684.6	6684.6	6684.6	6684.6	6684.6	6684.6
2.5°	6677.9	6730.9	6800.0	6842.3	6864.5	6879.9	6904.1	6902.0	6908.8	6910.8	6919.5
5°	6722.2	6810.8	6910.8	6937.6	6937.6	6912.8	6888.6	6848.4	6832.9	6828.9	6832.9
7.5°	6837.6	6934.9	7021.5	6990.6	6924.2	6826.2	6700.0	6589.3	6529.6	6509.5	6505.4
10°	6983.9	7101.4	7136.9	7019.5	6824.2	6589.3	6339.0	6157.1	6053.1	6024.3	6015.5
12.5°	7161.1	7271.8	7223.5	6975.2	6613.5	6235.0	5888.7	5598.8	5381.4	5312.9	5308.2
15°	7356.4	7442.9	7271.8	6837.6	6298.7	5740.4	5124.4	4623.7	4353.3	4266.7	4260.0
17.5°	7538.2	7582.5	7242.9	6598.0	5835.7	4931.8	4113.7	3727.8	3635.2	3657.4	3661.4
20°	7693.2	7693.2	7145.6	6254.4	5106.9	3865.4	3348.7	3342.6	3409.1	3475.5	3488.9
22.5°	7863.7	7761.7	6975.2	5769.3	4073.4	3162.8	3087.6	3149.4	3224.5	3297.7	3309.1
25°	8074.4	7817.4	6737.6	5033.8	3202.4	2872.2	2901.1	2952.1	2989.7	3036.6	3043.3
27.5°	8309.3	7887.9	6425.6	4020.4	2779.6	2691.0	2713.2	2730.6	2725.9	2744.0	2748.1
30°	8590.5	7970.4	5997.4	3142.7	2604.5	2535.3	2495.7	2480.3	2480.3	2509.2	2519.9
32.5°	8967.6	8091.9	5383.4	2693.0	2519.9	2424.6	2296.4	2238.7	2260.9	2358.2	2380.3
35°	9382.3	8222.7	4552.6	2540.0	2502.5	2373.6	2174.3	2067.6	2070.3	2160.9	2189.7
37.5°	9834.0	8389.1	3641.3	2511.2	2542.0	2376.3	2109.9	1963.6	1903.8	1903.8	1915.3
40°	10412.5	8559.6	2948.0	2531.3	2626.6	2402.5	2077.0	1881.7	1713.3	1718.0	1726.7
42.5°	11166.1	8705.9	2575.6	2572.9	2728.6	2438.0	2074.3	1773.0	1626.7	1726.7	1817.3
45°	12004.2	8779.0	2411.2	2611.2	2810.5	2460.2	2039.4	1755.5	1638.1	1934.7	2107.9
47.5°	12967.9	8736.8	2320.6	2623.9	2830.6	2460.2	1999.1	1797.8	1715.3	2240.7	2442.7
50°	14025.5	8615.3	2232.0	2597.7	2823.9	2455.5	2036.7	1839.4	1744.1	2293.7	2433.3
52.5°	15269.0	8513.3	2138.7	2540.0	2776.9	2431.3	2081.0	1822.0	1653.5	2085.7	2183.0
55°	16687.0	8542.2	2034.7	2458.2	2703.8	2385.0	2065.6	1750.8	1558.2	1837.4	1897.1
57.5°	18500.3	8885.7	1910.6	2354.1	2604.5	2307.2	2010.6	1718.0	1529.4	1667.0	1702.5
60°	20523.6	9483.7	1755.5	2249.5	2480.3	2183.0	1968.3	1733.4	1542.8	1653.5	1671.0
62.5°	22008.7	9832.0	1622.7	2096.4	2311.9	2045.4	1915.3	1752.9	1578.4	1699.8	1695.8
65°	22412.0	9260.2	1456.2	1873.0	2083.7	1901.8	1848.1	1775.0	1593.8	1737.4	1718.0
66°	21847.0	8644.2	1383.1	1769.0	1968.3	1830.7	1815.3	1773.0	1587.1	1742.1	1708.6
67.5°	20475.3	7380.5	1256.9	1616.0	1784.4	1724.7	1762.3	1752.9	1569.0	1737.4	1691.1
70°	16698.4	5035.8	1075.1	1345.5	1485.1	1518.0	1660.2	1682.4	1511.3	1660.2	1558.2
72.5°	11667.4	3067.5	950.9	1044.2	1201.2	1294.5	1520.7	1584.4	1434.1	1449.5	1352.2
75°	5638.4	1629.4	862.3	809.3	932.8	1081.8	1352.2	1451.5	1312.0	1212.6	1177.1
77.5°	1757.6	995.2	731.5	651.6	731.5	873.1	1130.1	1272.4	1168.3	1015.3	1001.9
80°	944.2	731.5	563.0	522.8	578.5	685.2	888.5	1061.6	1003.9	910.7	813.3
82.5°	622.8	474.5	416.7	405.3	440.9	522.8	660.3	879.8	879.8	780.5	567.7
85°	321.4	290.6	285.9	285.9	308.0	348.3	449.6	678.5	722.8	412.0	341.6
87.5°	159.7	166.4	155.0	161.7	173.1	170.5	214.7	341.6	408.0	250.3	208.0
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)