

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: P301134

Luminaire Tested: **GLNA-AF-10-LED-E1-T3R-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301134
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-7027
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(10) 70 CRI, 2700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III
Roadway OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 52154.4 lumens
Efficiency: N/A
Efficacy: 93.5 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): 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

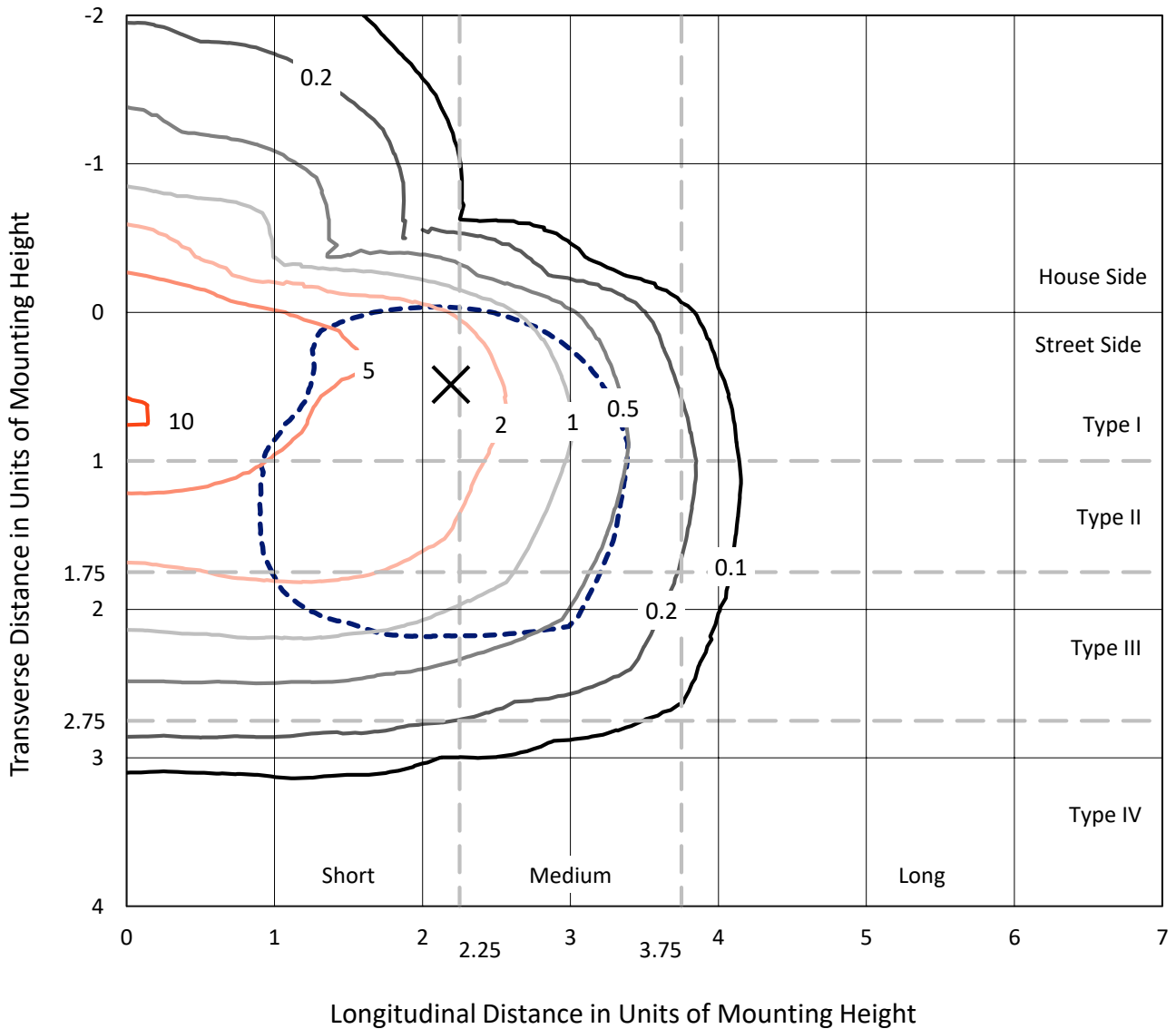


REPORT NUMBER: P301134

CATALOG NUMBER: GLNA-AF-10-LED-E1-T3R-7027

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

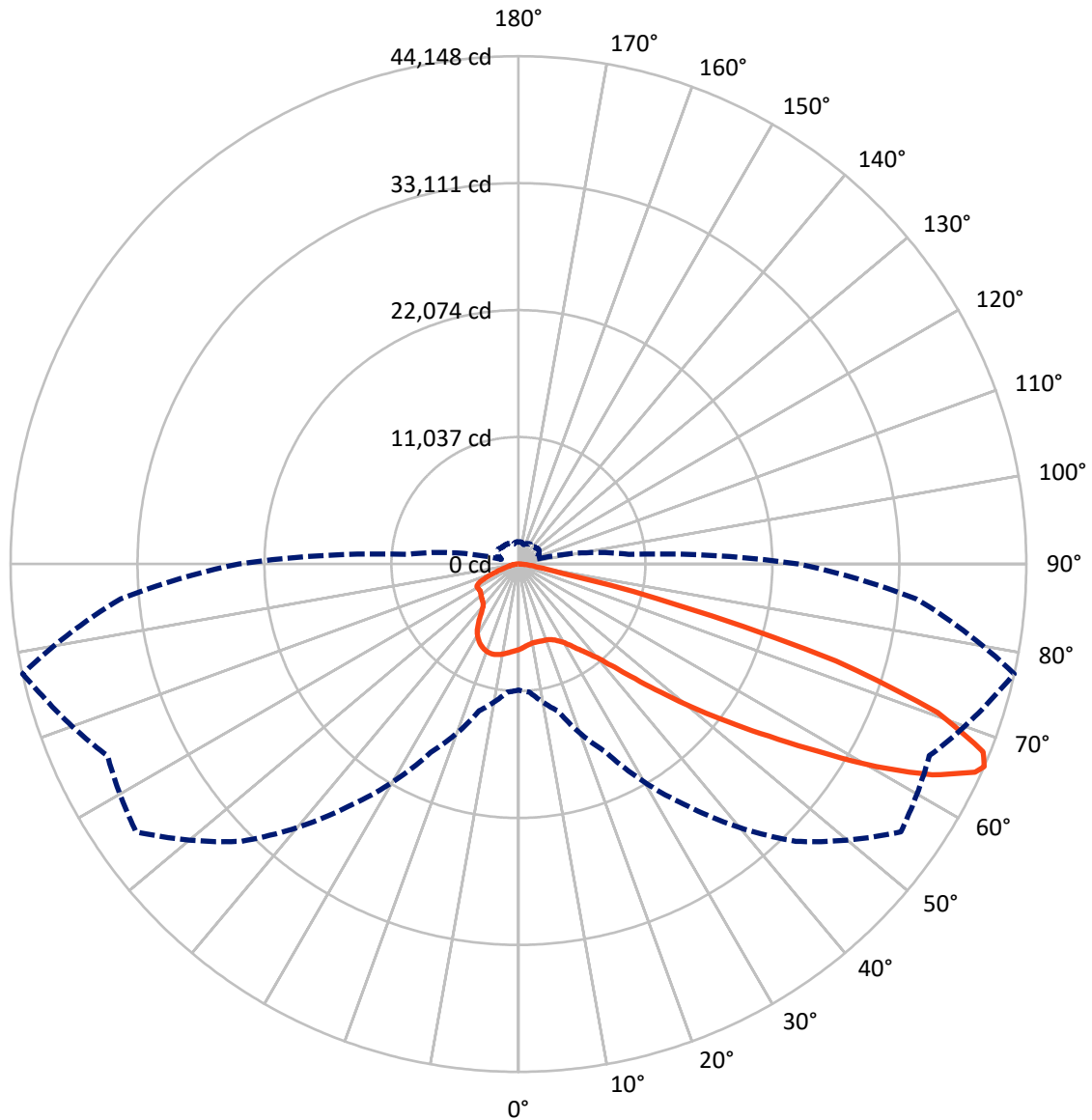


Based on 30 foot mounting height. Maximum calculated value = 10.2 fc
 Type III - Short - Full Cutoff

REPORT NUMBER: P301134

CATALOG NUMBER: GLNA-AF-10-LED-E1-T3R-7027

Luminous Intensity Polar Plot



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

REPORT NUMBER: P301134

CATALOG NUMBER: GLNA-AF-10-LED-E1-T3R-7027

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8910.3	0.0	8910.3
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	43244.1	0.0	43244.1
	% Fixture	82.9	0.0	82.9
Total	Lumens	52154.4	0.0	52154.4
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	664.0	1.3
10°-20°	1873.3	3.6
20°-30°	3197.0	6.1
30°-40°	5117.9	9.8
40°-50°	7906.7	15.2
50°-60°	11214.4	21.5
60°-70°	15001.8	28.8
70°-80°	6515.0	12.5
80°-90°	664.3	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°	52154.4	100.0
0°-180°	52154.4	100.0



REPORT NUMBER: P301134

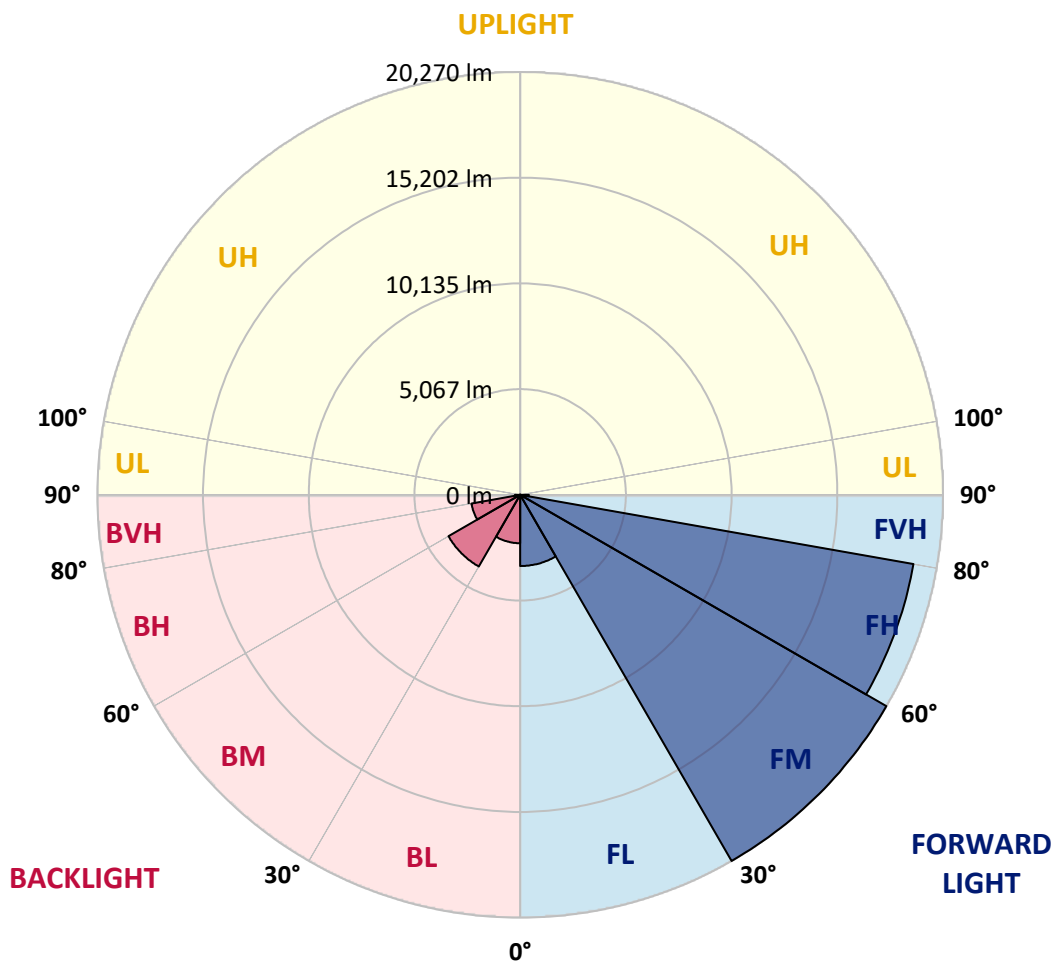
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3413.7	6.5			
FM	(30°-60°)	20269.9	38.9			
FH	(60°-80°)	19143.8	36.7			G5
FVH	(80°-90°)	416.7	0.8			G3/500
BL	(0°-30°)	2320.6	4.4	B3/2500		
BM	(30°-60°)	3969.0	7.6	B3/5000		
BH	(60°-80°)	2373.0	4.5	B3/2500		G3/2500
BVH	(80°-90°)	247.7	0.5			G3/500
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





REPORT NUMBER: P301134

CATALOG NUMBER: GLNA-AF-10-LED-E1-T3R-7027

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77.5°	85°
0°	7432.2	7432.2	7432.2	7432.2	7432.2	7432.2	7432.2	7432.2	7432.2	7432.2	7432.2
2.5°	6574.9	6618.9	6656.2	6690.5	6759.2	6872.6	7003.2	7109.1	7262.1	7291.9	7373.2
5°	5971.3	5971.3	6000.4	6052.6	6145.9	6316.0	6493.5	6730.1	7062.8	7141.2	7358.3
7.5°	5678.0	5680.3	5697.4	5741.5	5822.8	5978.0	6172.7	6451.8	6902.4	7033.0	7402.3
10°	5786.2	5761.6	5724.3	5702.7	5714.6	5805.6	5990.7	6301.0	6803.9	6971.1	7501.6
12.5°	6392.1	6345.8	6217.5	6047.4	5884.7	5818.3	5926.5	6229.4	6762.2	6956.9	7632.1
15°	7382.9	7363.5	7124.0	6771.9	6377.9	6047.4	5973.5	6202.6	6766.6	6974.1	7787.3
17.5°	8625.2	8597.6	8282.8	7770.2	7127.0	6483.8	6138.4	6224.9	6783.8	7003.2	7937.3
20°	9879.5	9795.2	9455.7	8844.6	8018.6	7077.0	6412.2	6281.6	6806.2	7035.2	8095.5
22.5°	10815.9	10746.5	10441.3	9847.4	8896.1	7764.9	6779.3	6380.1	6877.8	7129.2	8289.5
25°	11638.8	11643.3	11340.4	10766.6	9783.2	8494.7	7252.4	6643.5	7059.9	7321.0	8555.8
27.5°	12656.6	12597.6	12314.1	11744.8	10660.7	9231.1	7823.9	7006.1	7331.4	7594.8	8905.8
30°	13873.5	13831.7	13504.2	12858.8	11633.6	10022.0	8476.8	7427.0	7681.4	7954.5	9363.9
32.5°	15305.3	15285.9	14945.7	14115.2	12757.3	10953.9	9243.8	7984.3	8203.7	8487.2	10022.0
35°	16986.3	16988.6	16587.2	15588.8	13986.9	12038.0	10113.0	8701.3	8839.4	9134.8	10806.2
37.5°	18021.2	18146.6	17996.6	16978.9	15379.2	13250.5	11241.9	9652.7	9563.9	9862.3	11646.3
40°	18242.8	18395.8	18871.1	18354.0	16937.1	14586.0	12242.5	10566.7	10456.2	10820.3	12728.2
42.5°	17932.4	18144.3	19150.1	19514.2	18590.5	16232.0	13587.7	11924.6	11784.3	12274.5	14073.5
45°	17747.4	17905.6	19068.8	20118.6	20024.6	18092.8	15300.8	13629.5	13578.0	14221.2	15626.2
47.5°	17427.3	17570.6	18689.0	20258.9	20867.7	19797.7	17358.7	15714.9	15815.7	16658.8	17378.1
50°	17599.7	17658.6	18265.2	19901.5	21111.7	21047.5	19657.5	18129.4	18474.9	19526.9	19362.0
52.5°	17575.0	17728.0	18216.0	19315.0	21143.8	21819.0	21922.0	20822.9	21550.4	22757.6	21562.3
55°	14209.3	14489.8	17637.0	19167.3	21256.4	22574.8	23938.0	23661.9	25016.9	26424.1	24046.2
57.5°	13568.3	13745.9	15490.4	19477.7	21857.8	24019.3	26180.1	26786.7	29053.5	30687.5	27072.5
60°	13442.2	13661.6	15468.0	19857.4	23077.7	26372.6	29504.9	30569.6	33965.2	35754.4	30581.5
62.5°	13050.5	13287.0	15322.5	19807.4	24810.2	29628.0	33760.8	34591.2	38622.5	40362.5	33516.8
65°	11809.0	12030.6	14137.6	19012.1	25978.7	33102.7	38797.1	38277.8	42299.5	43607.4	34980.0
66°	10958.4	11175.5	13203.5	18075.7	25707.1	34088.3	40581.9	39418.7	43122.4	44147.6	34694.2
67.5°	9403.4	9573.6	11389.6	15978.3	24265.6	34364.4	42082.3	40276.0	43208.2	43570.9	33060.9
70°	5941.4	5990.7	7402.3	11030.0	18368.9	29802.6	39797.7	38147.3	39645.5	38664.3	27715.7
72.5°	2577.9	2560.7	3553.8	5610.9	10399.5	19997.7	32193.2	31476.1	31099.3	28861.7	19401.6
75°	1434.1	1454.2	1845.9	2604.7	4226.1	9822.8	21059.5	20152.9	17015.4	14519.6	8797.6
77.5°	1150.5	1178.1	1530.3	1848.2	1897.4	3425.5	9854.9	8018.6	4827.4	3873.9	2444.3
80°	909.5	958.8	1335.6	1439.3	1278.9	1411.7	3183.7	2545.8	1910.1	1751.9	1266.9
82.5°	719.3	754.3	1146.1	1089.3	894.6	951.3	1525.1	1486.3	1242.3	1131.1	732.0
85°	517.8	581.2	941.6	820.7	586.5	640.9	1012.5	970.7	711.8	581.2	323.1
87.5°	211.9	276.1	665.5	544.7	327.6	298.5	505.1	475.3	337.2	246.2	160.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P301134

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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	7432.2	7432.2	7432.2	7432.2	7432.2	7432.2	7432.2	7432.2	7432.2	7432.2	7432.2
2.5°	7424.7	7483.7	7560.5	7607.5	7632.1	7649.3	7676.2	7673.9	7681.4	7683.6	7693.3
5°	7474.0	7572.4	7683.6	7713.5	7713.5	7685.9	7659.0	7614.2	7597.1	7592.6	7597.1
7.5°	7602.3	7710.5	7806.7	7772.4	7698.5	7589.6	7449.3	7326.2	7259.8	7237.4	7233.0
10°	7764.9	7895.5	7935.1	7804.5	7587.4	7326.2	7047.9	6845.7	6730.1	6698.0	6688.3
12.5°	7961.9	8085.0	8031.3	7755.3	7353.1	6932.3	6547.3	6224.9	5983.2	5907.1	5901.9
15°	8179.1	8275.3	8085.0	7602.3	7003.2	6382.4	5697.4	5140.8	4840.1	4743.9	4736.4
17.5°	8381.3	8430.5	8053.0	7335.9	6488.3	5483.3	4573.8	4144.7	4041.8	4066.4	4070.9
20°	8553.6	8553.6	7944.8	6953.9	5678.0	4297.7	3723.2	3716.5	3790.3	3864.2	3879.1
22.5°	8743.1	8629.7	7755.3	6414.5	4529.0	3516.5	3432.9	3501.6	3585.1	3666.5	3679.2
25°	8977.4	8691.6	7491.1	5596.7	3560.5	3193.4	3225.5	3282.2	3324.0	3376.2	3383.7
27.5°	9238.6	8770.0	7144.2	4470.1	3090.5	2992.0	3016.6	3036.0	3030.8	3050.9	3055.4
30°	9551.2	8861.8	6668.1	3494.1	2895.7	2818.9	2774.8	2757.7	2757.7	2789.8	2801.7
32.5°	9970.5	8996.8	5985.4	2994.2	2801.7	2695.8	2553.2	2489.1	2513.7	2621.9	2646.5
35°	10431.6	9142.3	5061.7	2824.1	2782.3	2639.1	2417.5	2298.8	2301.8	2402.5	2434.6
37.5°	10933.8	9327.3	4048.5	2792.0	2826.3	2642.0	2345.8	2183.2	2116.8	2116.8	2129.4
40°	11576.9	9516.9	3277.7	2814.4	2920.3	2671.1	2309.3	2092.1	1904.9	1910.1	1919.8
42.5°	12414.8	9679.5	2863.6	2860.7	3033.8	2710.7	2306.3	1971.3	1808.6	1919.8	2020.5
45°	13346.7	9760.8	2680.8	2903.2	3124.8	2735.3	2267.5	1951.9	1821.3	2151.1	2343.6
47.5°	14418.2	9713.8	2580.1	2917.4	3147.2	2735.3	2222.7	1998.9	1907.1	2491.3	2715.9
50°	15594.1	9578.8	2481.6	2888.3	3139.7	2730.1	2264.5	2045.1	1939.2	2550.3	2705.5
52.5°	16976.6	9465.4	2377.9	2824.1	3087.5	2703.2	2313.7	2025.7	1838.5	2319.0	2427.2
55°	18553.2	9497.5	2262.3	2733.1	3006.1	2651.7	2296.6	1946.6	1732.5	2042.9	2109.3
57.5°	20569.2	9879.5	2124.2	2617.4	2895.7	2565.2	2235.4	1910.1	1700.4	1853.4	1892.9
60°	22818.8	10544.3	1951.9	2501.0	2757.7	2427.2	2188.4	1927.2	1715.3	1838.5	1857.9
62.5°	24470.0	10931.5	1804.1	2330.9	2570.4	2274.2	2129.4	1948.9	1754.9	1889.9	1885.5
65°	24918.4	10295.8	1619.1	2082.4	2316.7	2114.5	2054.8	1973.5	1772.1	1931.7	1910.1
66°	24290.2	9610.9	1537.8	1966.8	2188.4	2035.4	2018.3	1971.3	1764.6	1936.9	1899.6
67.5°	22765.1	8205.9	1397.5	1796.7	1984.0	1917.5	1959.3	1948.9	1744.4	1931.7	1880.2
70°	18565.9	5598.9	1195.3	1496.0	1651.2	1687.7	1845.9	1870.5	1680.3	1845.9	1732.5
72.5°	12972.2	3410.5	1057.3	1161.0	1335.6	1439.3	1690.7	1761.6	1594.5	1611.6	1503.4
75°	6269.0	1811.6	958.8	899.8	1037.1	1202.8	1503.4	1613.9	1458.7	1348.3	1308.7
77.5°	1954.1	1106.5	813.3	724.5	813.3	970.7	1256.5	1414.7	1299.0	1128.9	1114.0
80°	1049.8	813.3	626.0	581.2	643.2	761.8	987.9	1180.4	1116.2	1012.5	904.3
82.5°	692.4	527.5	463.3	450.7	490.2	581.2	734.2	978.2	978.2	867.7	631.2
85°	357.4	323.1	317.9	317.9	342.5	387.2	499.9	754.3	803.6	458.1	379.8
87.5°	177.6	185.0	172.4	179.8	192.5	189.5	238.8	379.8	453.6	278.3	231.3
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)