

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: P298960

Luminaire Tested: **GLNA-AF-08-LED-E1-T2-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P298960  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24139)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GLNA-AF-08-LED-E1-T2-800  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(8) 70 CRI, 4000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 37690.1 lumens  
Efficiency: N/A  
Efficacy: 112.8 lumens/watt  
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')  
IES Classification: Type II - Medium - Full Cutoff  
BUG Rating: B3 - U0 - G4

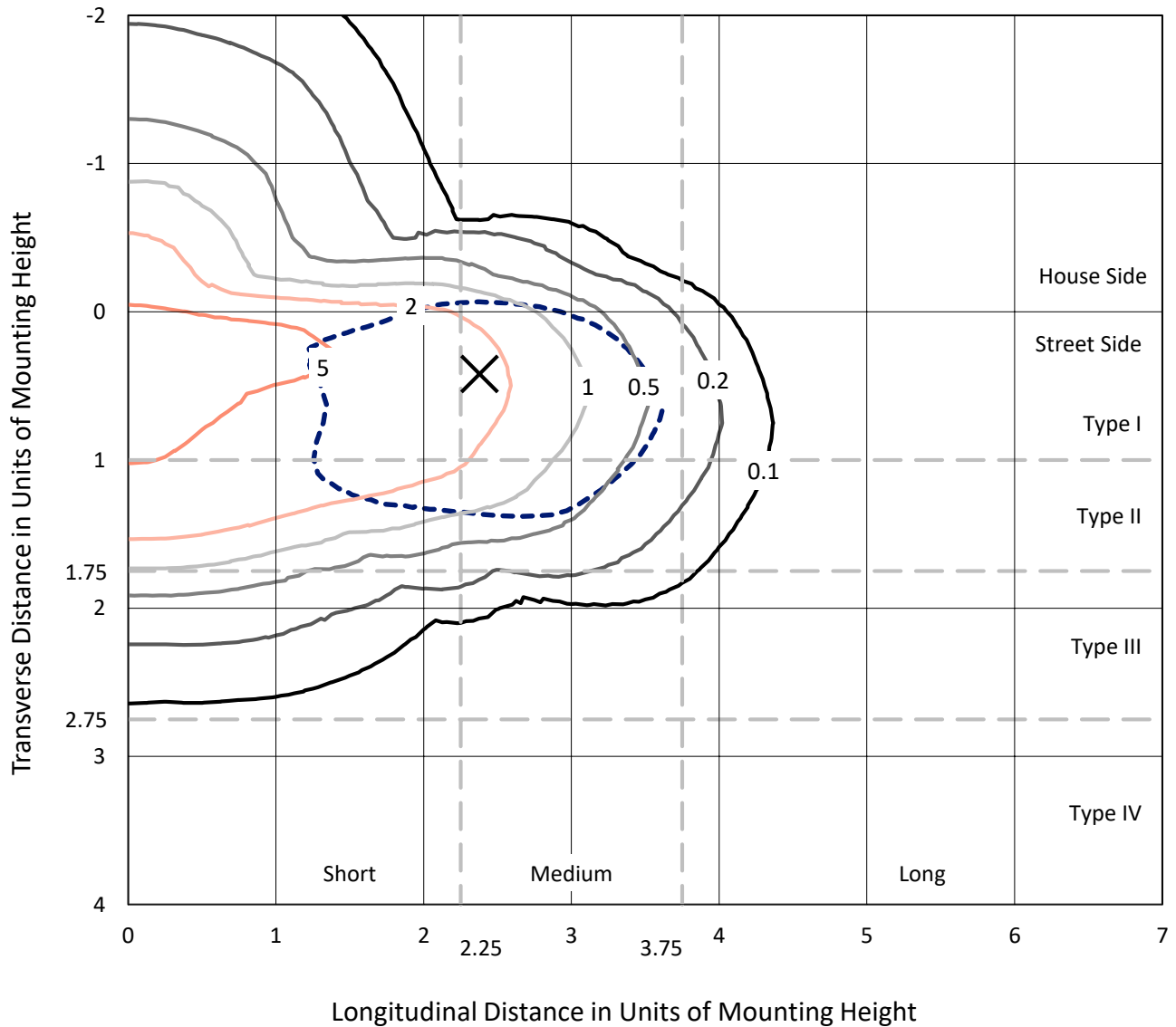
Input Watts (W): 334  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



REPORT NUMBER: P298960  
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### Iso-Footcandle Lines of Horizontal Illumination

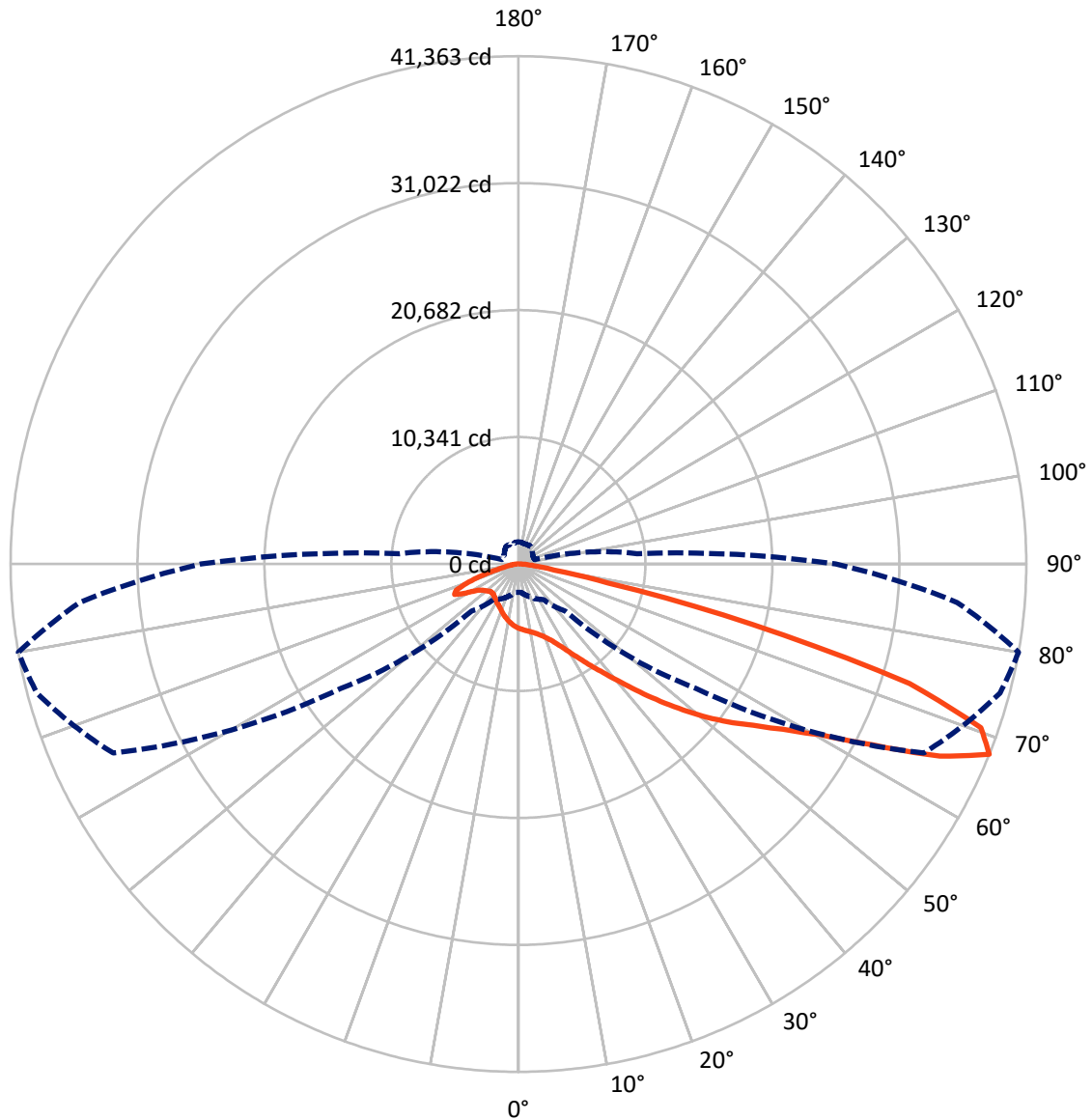
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 7.1 fc  
 Type II - Medium - Full Cutoff

REPORT NUMBER: P298960  
CATALOG NUMBER: GLNA-AF-08-LED-E1-T2-800

### Luminous Intensity Polar Plot



— Vertical Plane Through 80-Deg Lateral      - - - Horizontal Cone Through 67.5-Deg Vertical

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CATALOG NUMBER: GLNA-AF-08-LED-E1-T2-800

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	6941.1	0.0	6941.1
	% Fixture	18.4	0.0	18.4
<b>Street Side</b>	Lumens	30749.0	0.0	30749.0
	% Fixture	81.6	0.0	81.6
<b>Total</b>	Lumens	37690.1	0.0	37690.1
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	483.0	1.3
10°-20°	1391.4	3.7
20°-30°	2303.1	6.1
30°-40°	3767.3	10.0
40°-50°	6082.8	16.1
50°-60°	8781.7	23.3
60°-70°	9691.2	25.7
70°-80°	4467.0	11.9
80°-90°	722.5	1.9
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°	37690.1	100.0
0°-180°	37690.1	100.0



REPORT NUMBER: P298960

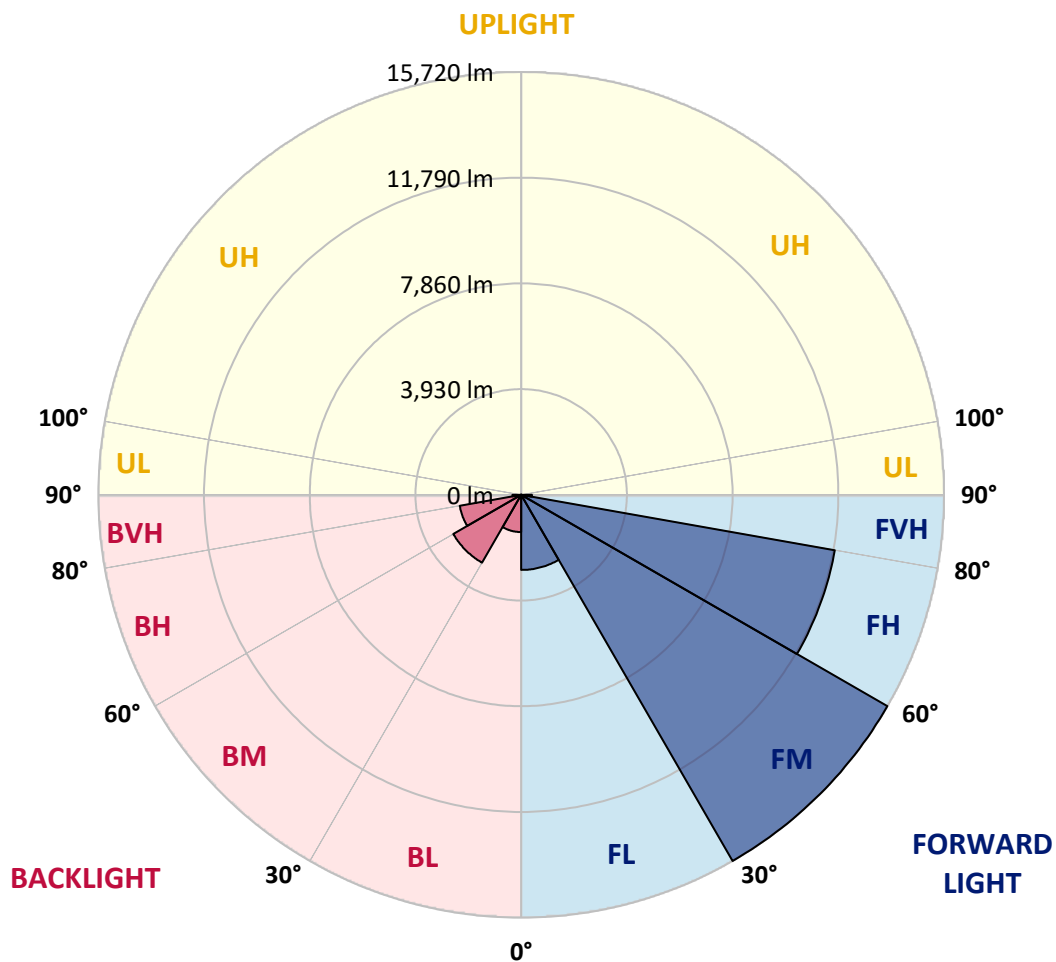
CATALOG NUMBER: GLNA-AF-08-LED-E1-T2-800

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2792.8	7.4			
FM (30°-60°)	15719.6	41.7			
FH (60°-80°)	11839.4	31.4			G4/12000
FVH (80°-90°)	397.2	1.1			G3/500
BL (0°-30°)	1384.8	3.7	B3/2500		
BM (30°-60°)	2912.2	7.7	B3/5000		
BH (60°-80°)	2318.7	6.2	B3/2500		G3/2500
BVH (80°-90°)	325.3	0.9			G3/500
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G4**

Type II Medium





REPORT NUMBER: P298960

CATALOG NUMBER: GLNA-AF-08-LED-E1-T2-800

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	80°	85°
0°	5236.3	5236.3	5236.3	5236.3	5236.3	5236.3	5236.3	5236.3	5236.3	5236.3	5236.3
2.5°	5728.0	5694.6	5700.1	5690.9	5663.0	5614.8	5562.8	5468.2	5369.8	5317.9	5277.1
5°	6206.7	6197.4	6184.4	6154.7	6084.2	5984.0	5859.7	5692.7	5512.7	5418.1	5327.2
7.5°	6564.8	6559.2	6542.5	6524.0	6455.3	6334.7	6147.3	5909.8	5648.2	5518.3	5377.3
10°	6594.5	6603.8	6616.8	6666.9	6676.1	6611.2	6420.1	6132.5	5789.2	5622.2	5442.2
12.5°	6342.1	6362.5	6412.6	6540.7	6676.1	6755.9	6657.6	6366.3	5954.3	5752.1	5523.9
15°	6008.1	6019.3	6080.5	6256.8	6499.9	6746.6	6839.4	6624.2	6167.7	5919.1	5646.3
17.5°	5865.3	5870.8	5913.5	6030.4	6256.8	6609.3	6941.5	6904.4	6429.3	6126.9	5796.6
20°	5792.9	5805.9	5867.1	5982.2	6125.0	6433.1	6956.3	7206.8	6741.1	6386.7	5985.9
22.5°	5998.9	5993.3	6015.6	6073.1	6193.7	6379.2	6945.2	7518.5	7138.2	6720.7	6232.7
25°	6479.4	6499.9	6460.9	6395.9	6434.9	6564.8	7004.6	7856.2	7635.4	7149.3	6555.5
27.5°	7164.1	7143.7	7086.2	6934.0	6854.3	6909.9	7201.2	8219.9	8253.3	7713.4	6982.3
30°	7847.0	7830.3	7774.6	7589.0	7425.8	7379.4	7583.5	8637.4	8990.0	8390.6	7505.5
32.5°	8555.8	8537.2	8485.3	8299.7	8103.0	7995.4	8127.1	9119.8	9858.3	9199.6	8121.6
35°	9429.7	9394.5	9285.0	9027.1	8834.1	8750.6	8811.8	9726.6	10860.3	10157.1	8869.3
37.5°	10251.7	10305.5	10194.2	9837.9	9587.4	9557.7	9626.4	10466.9	11940.2	11227.7	9728.4
40°	11077.4	11086.7	10986.5	10695.2	10437.3	10389.0	10561.6	11365.0	13215.0	12508.0	10773.1
42.5°	11930.9	11949.5	11780.6	11511.6	11322.3	11331.6	11528.3	12417.1	14677.1	14016.5	11975.5
45°	12942.2	12970.0	12784.5	12431.9	12259.4	12606.3	12524.7	13597.2	16280.3	15731.0	13356.0
47.5°	13999.8	14042.5	13901.5	13571.2	13356.0	13832.8	13521.1	14905.3	18005.9	17569.8	14871.9
50°	14576.9	14638.1	14775.4	14751.3	14704.9	14625.1	14632.6	16308.1	19785.3	19484.7	16430.6
52.5°	14267.0	14265.2	14766.2	15374.8	16024.2	16072.4	15987.1	17786.9	21447.9	21356.9	17898.3
55°	12849.4	12945.9	13704.8	14883.1	16656.9	17764.7	18017.0	19481.0	23080.7	23186.5	19388.2
57.5°	10489.2	10569.0	11593.2	13235.4	15803.4	18770.4	20904.2	21943.3	24906.5	25400.1	21371.8
60°	7114.0	7210.5	8296.0	10268.4	13506.3	18210.0	23652.2	26337.1	27092.3	28214.9	24155.0
62.5°	4180.5	4267.7	5152.8	6477.6	9509.5	15606.7	24858.3	32588.3	30564.0	32462.2	28400.5
65°	2877.9	2937.3	3367.8	4032.0	5464.5	10511.5	23362.7	36904.3	35906.0	37724.4	33323.1
67.5°	2315.7	2308.3	2649.7	3102.4	3518.0	5419.9	17666.3	36416.3	40604.2	41363.1	35878.2
70°	1907.5	1900.0	2132.0	2506.8	2811.1	3052.3	9622.7	30731.0	39646.7	39954.7	33525.4
72.5°	1595.7	1603.2	1751.6	2029.9	2306.4	2299.0	4228.7	21618.6	31189.3	33319.4	26724.9
75°	1347.1	1350.8	1449.2	1645.8	1872.2	1851.8	2293.4	11712.0	18130.2	19612.8	14814.4
77.5°	1146.7	1150.4	1213.5	1323.0	1484.4	1477.0	1673.7	5060.0	7563.1	7470.3	5067.4
80°	1022.4	1022.4	1052.1	1072.5	1161.6	1128.2	1241.3	2430.7	3197.0	2952.1	2022.5
82.5°	801.6	805.3	987.1	979.7	914.8	872.1	872.1	1432.5	1694.1	1566.1	1183.8
85°	450.9	449.0	636.4	768.2	805.3	614.2	608.6	801.6	922.2	812.7	573.4
87.5°	193.0	196.7	295.0	341.4	456.5	382.2	376.7	413.8	469.4	406.4	265.3
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: P298960

CATALOG NUMBER: GLNA-AF-08-LED-E1-T2-800

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	5236.3	5236.3	5236.3	5236.3	5236.3	5236.3	5236.3	5236.3	5236.3	5236.3	5236.3
2.5°	5238.1	5189.9	5084.1	4952.4	4833.6	4755.7	4685.2	4583.1	4588.7	4518.2	4466.2
5°	5234.4	5134.2	4889.3	4598.0	4317.8	4115.5	3963.4	3826.1	3792.7	3727.7	3688.8
7.5°	5238.1	5074.8	4662.9	4197.2	3850.2	3594.1	3464.2	3391.9	3375.2	3352.9	3354.8
10°	5251.1	5021.0	4414.3	3822.4	3458.7	3289.8	3258.3	3280.5	3306.5	3313.9	3315.8
12.5°	5280.8	4972.8	4141.5	3488.4	3213.7	3161.8	3215.6	3291.7	3341.8	3365.9	3364.0
15°	5347.6	4935.7	3879.9	3226.7	3078.3	3106.1	3206.3	3313.9	3386.3	3419.7	3421.6
17.5°	5419.9	4881.9	3610.8	3026.3	2978.1	3048.6	3172.9	3299.1	3388.2	3425.3	3432.7
20°	5514.6	4815.1	3328.8	2876.0	2883.5	2963.3	3080.1	3206.3	3304.7	3336.2	3351.1
22.5°	5638.9	4742.7	3082.0	2753.6	2775.8	2837.1	2928.0	3037.5	3122.8	3137.7	3150.7
25°	5805.9	4664.8	2885.3	2642.2	2651.5	2686.8	2748.0	2813.0	2872.3	2855.6	2868.6
27.5°	6030.4	4598.0	2738.7	2540.2	2523.5	2530.9	2562.5	2582.9	2614.4	2568.0	2573.6
30°	6293.9	4525.6	2625.5	2451.1	2404.7	2391.8	2399.2	2410.3	2434.4	2371.3	2362.1
32.5°	6600.1	4438.4	2519.8	2373.2	2308.3	2282.3	2286.0	2315.7	2408.5	2369.5	2349.1
35°	6956.3	4340.0	2408.5	2287.8	2243.3	2206.2	2202.5	2295.3	2571.7	2547.6	2529.1
37.5°	7373.8	4241.7	2297.1	2191.4	2195.1	2154.2	2141.3	2247.0	2603.3	2508.7	2495.7
40°	7904.5	4189.7	2202.5	2089.3	2135.7	2130.1	2104.1	2158.0	2395.5	2222.9	2200.6
42.5°	8561.3	4197.2	2132.0	1979.8	2065.2	2124.6	2083.7	2085.6	2170.9	2041.1	2020.7
45°	9372.2	4284.4	2081.9	1892.6	1985.4	2119.0	2076.3	2046.6	2054.1	1985.4	1974.3
47.5°	10318.5	4464.4	2046.6	1820.3	1909.3	2098.6	2074.5	2035.5	2018.8	1981.7	1972.4
50°	11370.6	4726.0	2020.7	1751.6	1840.7	2065.2	2076.3	2024.4	2005.8	1991.0	1985.4
52.5°	12404.1	5024.7	1981.7	1692.2	1786.9	2024.4	2081.9	2013.2	1992.8	1981.7	1976.1
55°	13556.4	5397.7	1922.3	1642.1	1742.3	1972.4	2081.9	1996.5	1974.3	1976.1	1974.3
57.5°	15113.1	6000.7	1851.8	1599.5	1688.5	1909.3	2046.6	1978.0	1950.1	1952.0	1953.9
60°	17545.7	7063.9	1766.4	1556.8	1621.7	1835.1	1998.4	1937.2	1909.3	1916.7	1918.6
62.5°	21123.1	8624.4	1655.1	1493.7	1551.2	1755.3	1931.6	1885.2	1857.4	1875.9	1875.9
65°	24841.6	10001.2	1517.8	1413.9	1477.0	1668.1	1848.1	1820.3	1792.4	1835.1	1833.2
67.5°	25841.7	9693.2	1380.5	1326.7	1402.8	1571.6	1747.9	1733.0	1718.2	1792.4	1788.7
70°	22956.4	7782.0	1254.3	1237.6	1321.1	1467.7	1640.3	1640.3	1631.0	1686.7	1673.7
72.5°	17490.1	5518.3	1133.7	1143.0	1228.3	1354.5	1523.4	1536.4	1521.5	1549.4	1538.2
75°	9362.9	3158.1	1013.1	1039.1	1113.3	1239.5	1393.5	1406.5	1397.2	1395.3	1400.9
77.5°	3111.7	1543.8	886.9	927.8	992.7	1120.7	1258.0	1278.4	1256.2	1252.5	1250.6
80°	1386.1	970.4	747.8	801.6	859.1	985.3	1115.2	1131.9	1107.7	1141.1	1098.5
82.5°	890.6	638.3	599.3	658.7	714.4	849.8	972.3	976.0	953.7	1107.7	944.5
85°	432.3	395.2	450.9	504.7	552.9	668.0	805.3	807.1	751.5	684.7	660.6
87.5°	215.2	230.1	300.6	348.8	373.0	458.3	586.3	575.2	551.1	501.0	462.0
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)