

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: P299034

Luminaire Tested: **GLNA-AF-10-LED-E1-T2-7060-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299034  
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-10-LED-E1-T2-7060-600  
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE  
(10) 70 CRI, 5700K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 37956.8 lumens  
Efficiency: N/A  
Efficacy: 117.5 lumens/watt  
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')  
IES Classification: Type II - Medium - Full Cutoff  
BUG Rating: B3 - U0 - G4

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

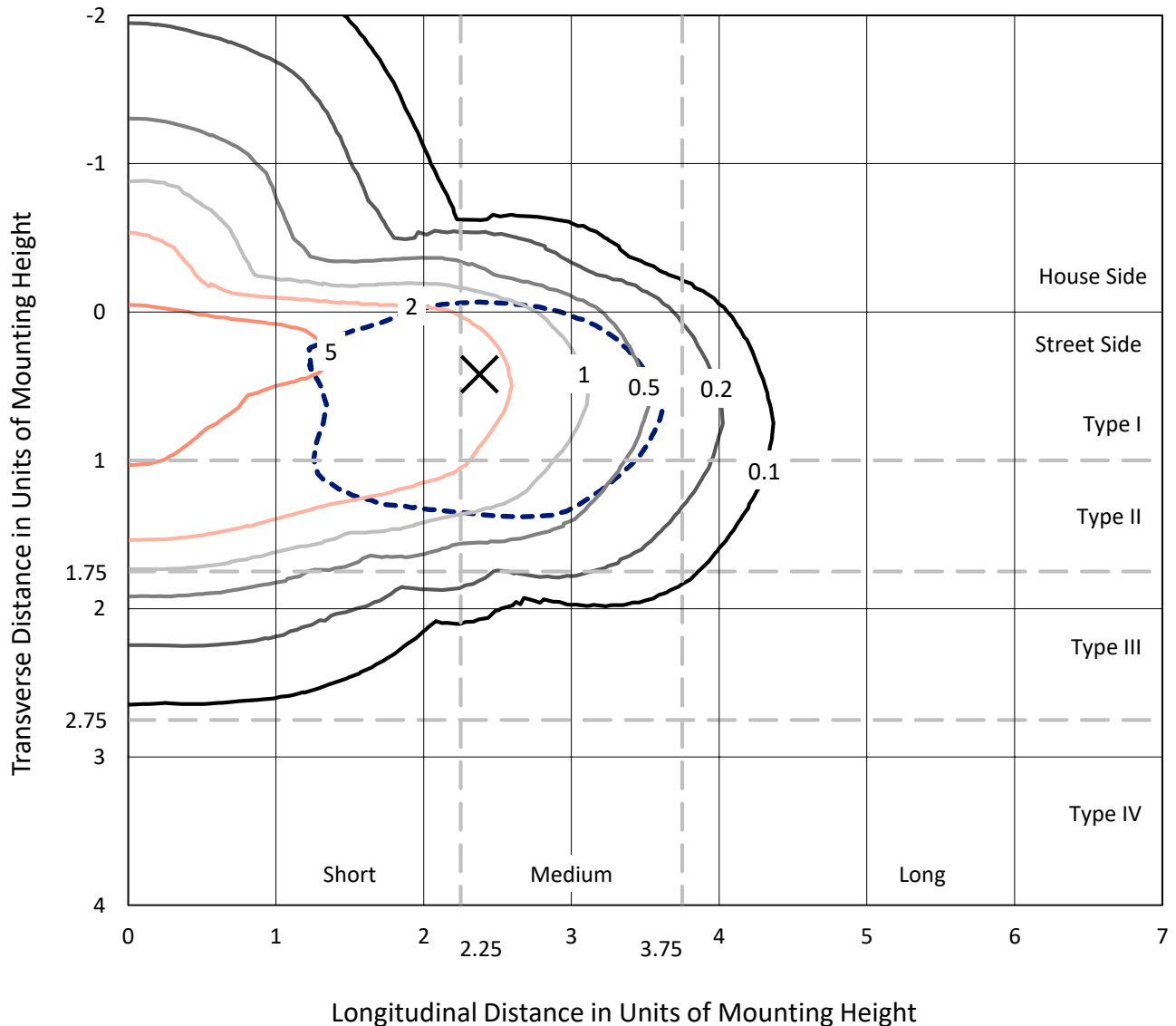


REPORT NUMBER: P299034

CATALOG NUMBER: GLNA-AF-10-LED-E1-T2-7060-600

### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

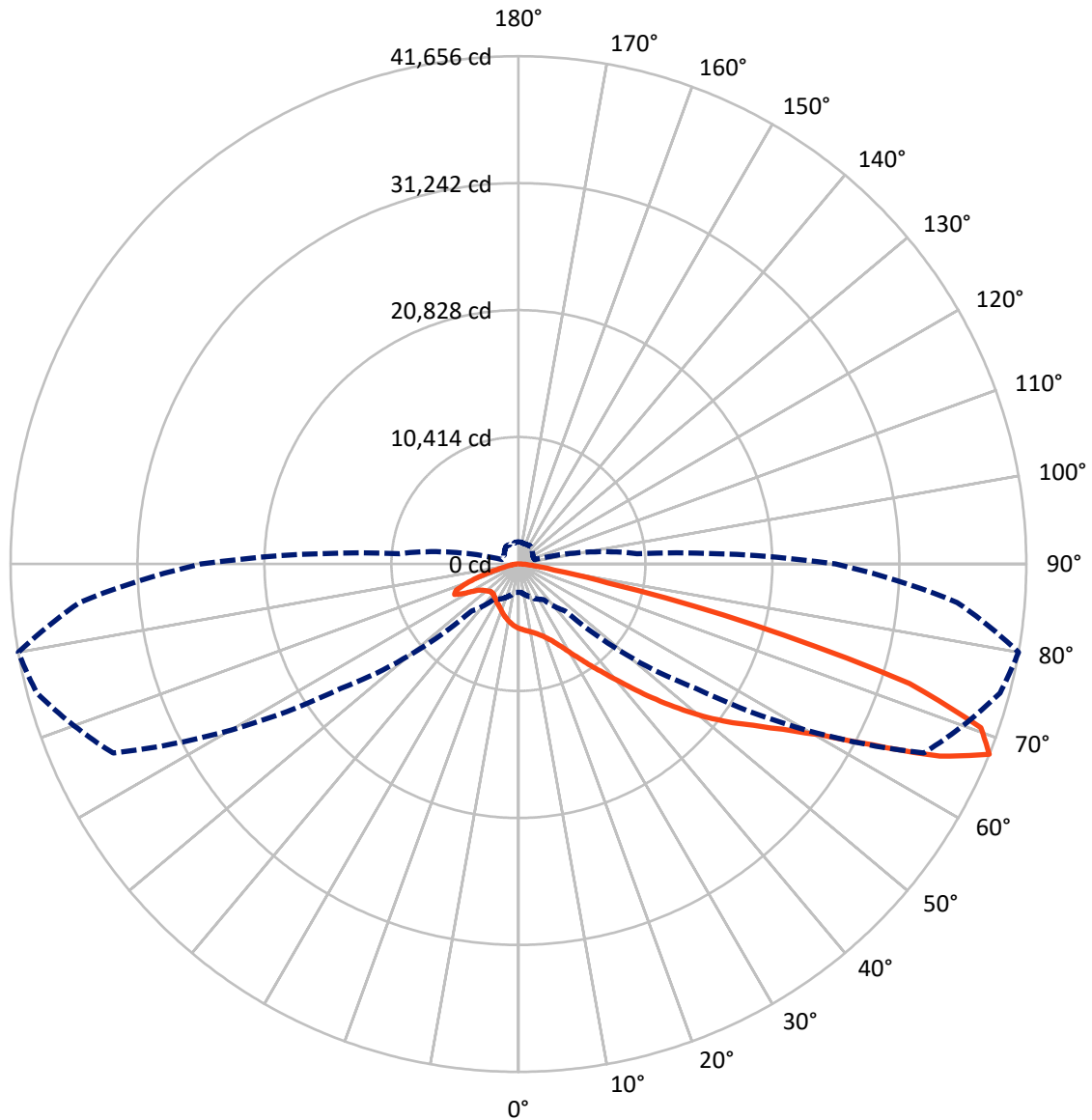


Based on 30 foot mounting height. Maximum calculated value = 7.1 fc  
 Type II - Medium - Full Cutoff

REPORT NUMBER: P299034

CATALOG NUMBER: GLNA-AF-10-LED-E1-T2-7060-600

### Luminous Intensity Polar Plot



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

REPORT NUMBER: P299034

CATALOG NUMBER: GLNA-AF-10-LED-E1-T2-7060-600

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	6990.2	0.0	6990.2
	% Fixture	18.4	0.0	18.4
<b>Street Side</b>	Lumens	30966.6	0.0	30966.6
	% Fixture	81.6	0.0	81.6
<b>Total</b>	Lumens	37956.8	0.0	37956.8
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	486.4	1.3
10°-20°	1401.3	3.7
20°-30°	2319.4	6.1
30°-40°	3794.0	10.0
40°-50°	6125.8	16.1
50°-60°	8843.9	23.3
60°-70°	9759.7	25.7
70°-80°	4498.6	11.9
80°-90°	727.6	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°	37956.8	100.0
0°-180°	37956.8	100.0



REPORT NUMBER: P299034

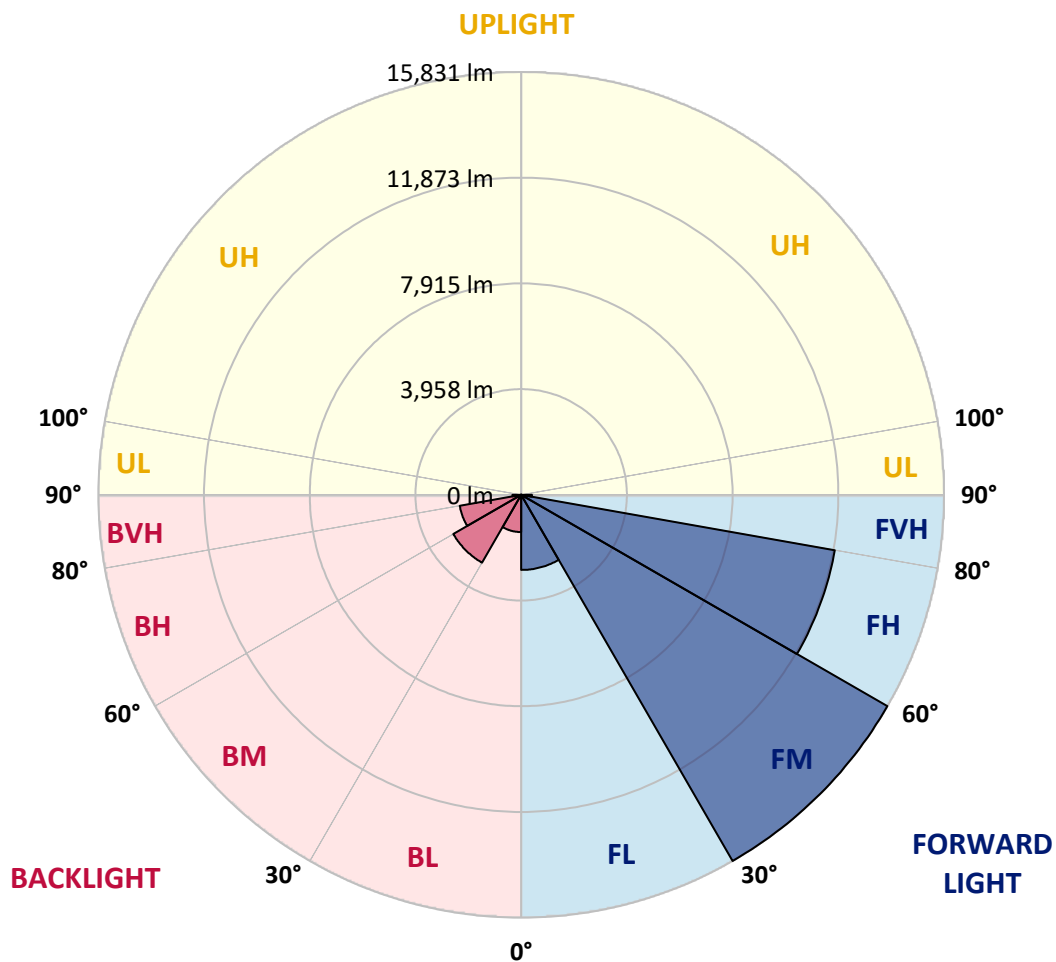
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2812.5	7.4			
FM	(30°-60°)	15830.8	41.7			
FH	(60°-80°)	11923.2	31.4			G4/12000
FVH	(80°-90°)	400.0	1.1			G3/500
BL	(0°-30°)	1394.6	3.7	B3/2500		
BM	(30°-60°)	2932.8	7.7	B3/5000		
BH	(60°-80°)	2335.1	6.2	B3/2500		G3/2500
BVH	(80°-90°)	327.6	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: P299034

CATALOG NUMBER: GLNA-AF-10-LED-E1-T2-7060-600

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	80°	85°
0°	5273.3	5273.3	5273.3	5273.3	5273.3	5273.3	5273.3	5273.3	5273.3	5273.3	5273.3
2.5°	5768.5	5734.9	5740.5	5731.1	5703.1	5654.5	5602.2	5506.9	5407.8	5355.5	5314.4
5°	6250.6	6241.3	6228.2	6198.3	6127.3	6026.4	5901.2	5733.0	5551.7	5456.4	5364.9
7.5°	6611.3	6605.6	6588.8	6570.1	6501.0	6379.5	6190.8	5951.6	5688.1	5557.3	5415.3
10°	6641.1	6650.5	6663.6	6714.0	6723.4	6658.0	6465.5	6175.9	5830.2	5662.0	5480.7
12.5°	6387.0	6407.6	6458.0	6587.0	6723.4	6803.7	6704.7	6411.3	5996.5	5792.8	5562.9
15°	6050.7	6061.9	6123.5	6301.1	6545.8	6794.4	6887.8	6671.0	6211.4	5961.0	5686.3
17.5°	5906.8	5912.4	5955.4	6073.1	6301.1	6656.1	6990.6	6953.2	6474.8	6170.3	5837.6
20°	5833.9	5847.0	5908.6	6024.5	6168.4	6478.6	7005.5	7257.8	6788.8	6431.9	6028.2
22.5°	6041.3	6035.7	6058.1	6116.1	6237.5	6424.4	6994.3	7571.7	7188.7	6768.2	6276.8
25°	6525.3	6545.8	6506.6	6441.2	6480.4	6611.3	7054.1	7911.8	7689.5	7199.9	6601.9
27.5°	7214.8	7194.3	7136.3	6983.1	6902.8	6958.8	7252.2	8278.1	8311.7	7767.9	7031.7
30°	7902.5	7885.7	7829.6	7642.7	7478.3	7431.6	7637.1	8698.5	9053.6	8450.0	7558.7
32.5°	8616.3	8597.6	8545.3	8358.4	8160.4	8052.0	8184.6	9184.4	9928.1	9264.7	8179.0
35°	9496.4	9460.9	9350.7	9090.9	8896.6	8812.5	8874.2	9795.4	10937.2	10228.9	8932.1
37.5°	10324.2	10378.4	10266.3	9907.5	9655.3	9625.4	9694.5	10541.0	12024.7	11307.1	9797.3
40°	11155.8	11165.1	11064.2	10770.8	10511.1	10462.5	10636.3	11445.4	13308.5	12596.5	10849.3
42.5°	12015.4	12034.0	11864.0	11593.0	11402.4	11411.8	11609.9	12504.9	14780.9	14115.7	12060.2
45°	13033.8	13061.8	12874.9	12519.9	12346.1	12695.5	12613.3	13693.4	16395.5	15842.3	13450.5
47.5°	14098.9	14141.9	13999.9	13667.2	13450.5	13930.7	13616.8	15010.8	18133.3	17694.2	14977.2
50°	14680.0	14741.7	14880.0	14855.7	14809.0	14728.6	14736.1	16423.5	19925.3	19622.6	16546.8
52.5°	14368.0	14366.1	14870.6	15483.6	16137.6	16186.2	16100.2	17912.8	21599.6	21508.1	18024.9
55°	12940.3	13037.5	13801.8	14988.4	16774.8	17890.4	18144.5	19618.9	23244.0	23350.5	19525.4
57.5°	10563.4	10643.8	11675.3	13329.0	15915.2	18903.2	21052.1	22098.5	25082.8	25579.8	21523.0
60°	7164.4	7261.5	8354.7	10341.1	13601.8	18338.8	23819.6	26523.5	27284.0	28414.6	24326.0
62.5°	4210.0	4297.9	5189.2	6523.4	9576.8	15717.1	25034.2	32818.9	30780.3	32691.9	28601.4
65°	2898.3	2958.1	3391.6	4060.6	5503.1	10585.9	23528.1	37165.4	36160.1	37991.3	33558.9
67.5°	2332.1	2324.6	2668.4	3124.4	3542.9	5458.3	17791.3	36673.9	40891.5	41655.7	36132.0
70°	1921.0	1913.5	2147.1	2524.5	2831.0	3073.9	9690.8	30948.4	39927.2	40237.4	33762.6
72.5°	1607.0	1614.5	1764.0	2044.3	2322.7	2315.2	4258.6	21771.5	31410.0	33555.2	26914.0
75°	1356.6	1360.4	1459.4	1657.5	1885.5	1864.9	2309.6	11794.9	18258.5	19751.5	14919.2
77.5°	1154.8	1158.6	1222.1	1332.3	1494.9	1487.4	1685.5	5095.8	7616.6	7523.1	5103.3
80°	1029.6	1029.6	1059.5	1080.1	1169.8	1136.1	1250.1	2447.9	3219.7	2973.0	2036.8
82.5°	807.3	811.0	994.1	986.6	921.2	878.3	878.3	1442.6	1706.1	1577.1	1192.2
85°	454.1	452.2	640.9	773.6	811.0	618.5	612.9	807.3	928.7	818.5	577.4
87.5°	194.3	198.1	297.1	343.8	459.7	384.9	379.3	416.7	472.8	409.2	267.2
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: P299034

CATALOG NUMBER: GLNA-AF-10-LED-E1-T2-7060-600

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	5273.3	5273.3	5273.3	5273.3	5273.3	5273.3	5273.3	5273.3	5273.3	5273.3	5273.3
2.5°	5275.2	5226.6	5120.1	4987.4	4867.8	4789.3	4718.3	4615.5	4621.1	4550.1	4497.8
5°	5271.4	5170.5	4923.9	4630.5	4348.3	4144.6	3991.4	3853.1	3819.5	3754.1	3714.9
7.5°	5275.2	5110.7	4695.9	4226.9	3877.4	3619.6	3488.8	3415.9	3399.1	3376.6	3378.5
10°	5288.3	5056.5	4445.5	3849.4	3483.1	3313.1	3281.3	3303.8	3329.9	3337.4	3339.3
12.5°	5318.2	5008.0	4170.8	3513.0	3236.5	3184.2	3238.4	3315.0	3365.4	3389.7	3387.8
15°	5385.4	4970.6	3907.3	3249.6	3100.1	3128.1	3229.0	3337.4	3410.3	3443.9	3445.8
17.5°	5458.3	4916.4	3636.4	3047.8	2999.2	3070.2	3195.4	3322.4	3412.1	3449.5	3457.0
20°	5553.6	4849.1	3352.3	2896.4	2903.9	2984.2	3101.9	3229.0	3328.0	3359.8	3374.8
22.5°	5678.8	4776.2	3103.8	2773.1	2795.5	2857.2	2948.7	3059.0	3144.9	3159.9	3173.0
25°	5847.0	4697.8	2905.7	2660.9	2670.3	2705.8	2767.5	2832.9	2892.7	2875.8	2888.9
27.5°	6073.1	4630.5	2758.1	2558.2	2541.4	2548.8	2580.6	2601.1	2632.9	2586.2	2591.8
30°	6338.4	4557.6	2644.1	2468.5	2421.8	2408.7	2416.2	2427.4	2451.7	2388.1	2378.8
32.5°	6646.8	4469.8	2537.6	2390.0	2324.6	2298.4	2302.2	2332.1	2425.5	2386.3	2365.7
35°	7005.5	4370.8	2425.5	2304.0	2259.2	2221.8	2218.1	2311.5	2589.9	2565.6	2547.0
37.5°	7426.0	4271.7	2313.4	2206.9	2210.6	2169.5	2156.4	2262.9	2621.7	2526.4	2513.3
40°	7960.4	4219.4	2218.1	2104.1	2150.8	2145.2	2119.0	2173.2	2412.4	2238.6	2216.2
42.5°	8621.9	4226.9	2147.1	1993.8	2079.8	2139.6	2098.5	2100.4	2186.3	2055.5	2034.9
45°	9438.5	4314.7	2096.6	1906.0	1999.4	2134.0	2091.0	2061.1	2068.6	1999.4	1988.2
47.5°	10391.5	4495.9	2061.1	1833.1	1922.8	2113.4	2089.1	2049.9	2033.1	1995.7	1986.4
50°	11451.0	4759.4	2034.9	1764.0	1853.7	2079.8	2091.0	2038.7	2020.0	2005.1	1999.4
52.5°	12491.9	5060.3	1995.7	1704.2	1799.5	2038.7	2096.6	2027.5	2006.9	1995.7	1990.1
55°	13652.3	5435.9	1935.9	1653.7	1754.7	1986.4	2096.6	2010.7	1988.2	1990.1	1988.2
57.5°	15220.1	6043.2	1864.9	1610.8	1700.5	1922.8	2061.1	1992.0	1963.9	1965.8	1967.7
60°	17669.9	7113.9	1778.9	1567.8	1633.2	1848.1	2012.5	1950.9	1922.8	1930.3	1932.2
62.5°	21272.6	8685.4	1666.8	1504.3	1562.2	1767.7	1945.3	1898.5	1870.5	1889.2	1889.2
65°	25017.4	10072.0	1528.5	1423.9	1487.4	1679.9	1861.2	1833.1	1805.1	1848.1	1846.2
67.5°	26024.6	9761.8	1390.3	1336.1	1412.7	1582.7	1760.3	1745.3	1730.4	1805.1	1801.4
70°	23118.8	7837.1	1263.2	1246.4	1330.5	1478.1	1651.9	1651.9	1642.5	1698.6	1685.5
72.5°	17613.8	5557.3	1141.7	1151.1	1237.0	1364.1	1534.2	1547.2	1532.3	1560.3	1549.1
75°	9429.2	3180.4	1020.3	1046.4	1121.2	1248.3	1403.3	1416.4	1407.1	1405.2	1410.8
77.5°	3133.7	1554.7	893.2	934.3	999.7	1128.7	1266.9	1287.5	1265.1	1261.3	1259.5
80°	1395.9	977.3	753.1	807.3	865.2	992.2	1123.1	1139.9	1115.6	1149.2	1106.2
82.5°	896.9	642.8	603.6	663.4	719.4	855.8	979.2	982.9	960.5	1115.6	951.1
85°	435.4	398.0	454.1	508.3	556.9	672.7	811.0	812.9	756.8	689.5	665.2
87.5°	216.8	231.7	302.7	351.3	375.6	461.6	590.5	579.3	555.0	504.5	465.3
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)