

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: P298900

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P298900
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
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(8) 70 CRI, 4000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 46653.1 lumens
Efficiency: N/A
Efficacy: 104.8 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type II - Medium - Full Cutoff
BUG Rating: B4 - U0 - G5

Input Watts (W): 445
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

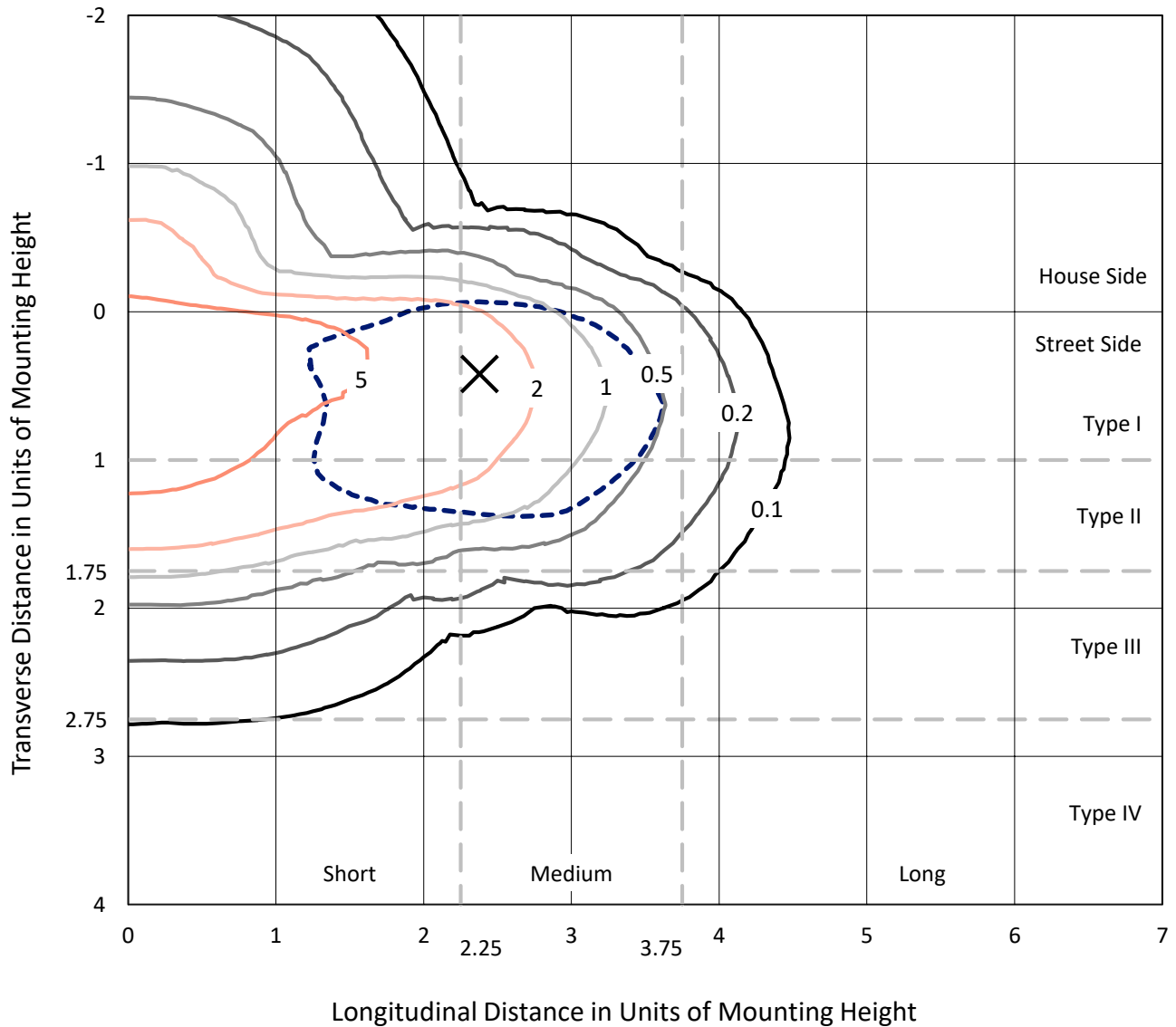


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Iso-Footcandle Lines of Horizontal Illumination

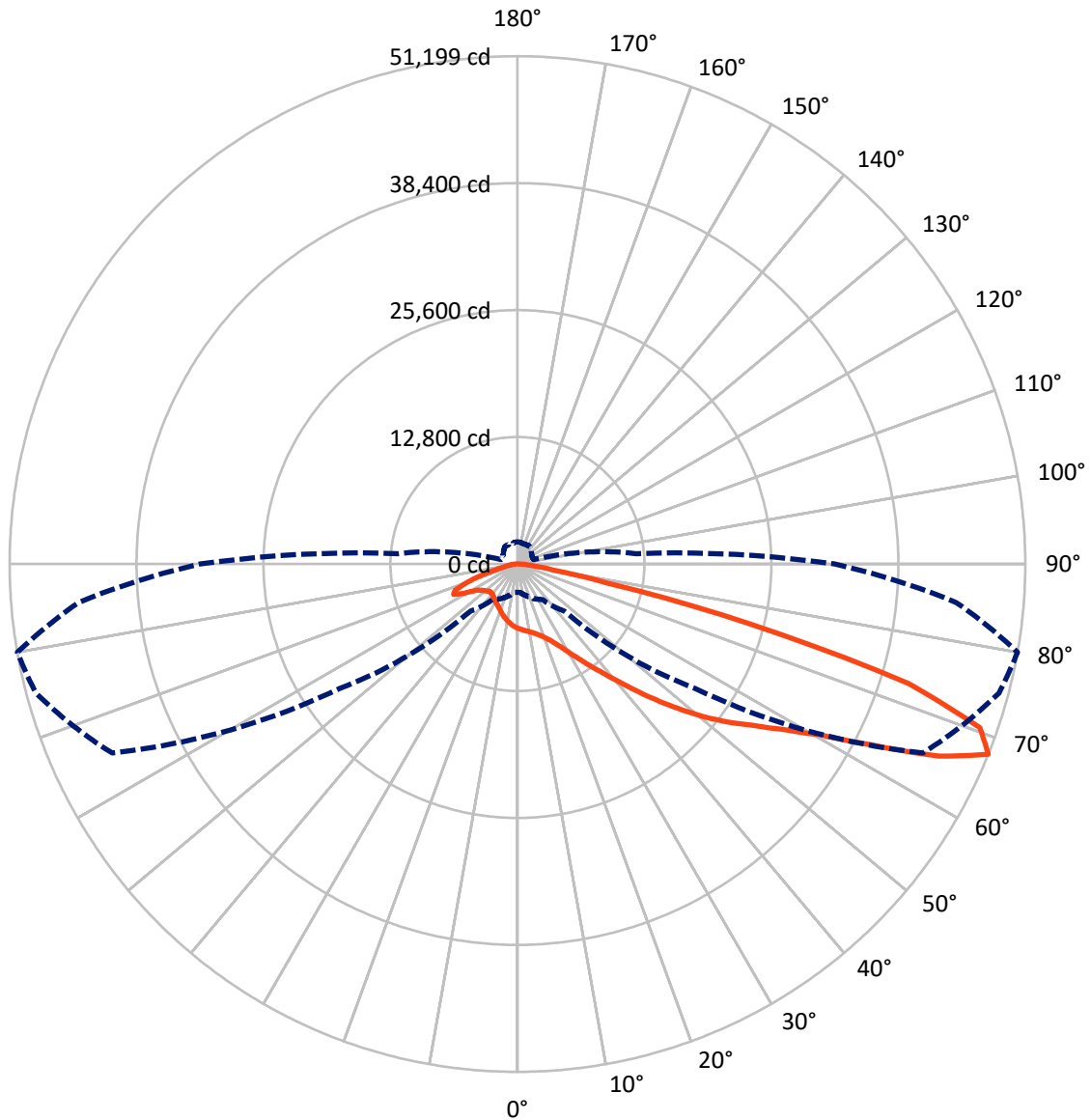
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 8.7 fc
 Type II - Medium - Full Cutoff

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Luminous Intensity Polar Plot



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

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8591.7	0.0	8591.7
	% Fixture	18.4	0.0	18.4
Street Side	Lumens	38061.3	0.0	38061.3
	% Fixture	81.6	0.0	81.6
Total	Lumens	46653.1	0.0	46653.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	597.9	1.3
10°-20°	1722.3	3.7
20°-30°	2850.8	6.1
30°-40°	4663.2	10.0
40°-50°	7529.3	16.1
50°-60°	10870.1	23.3
60°-70°	11995.8	25.7
70°-80°	5529.3	11.9
80°-90°	894.3	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°	46653.1	100.0
0°-180°	46653.1	100.0



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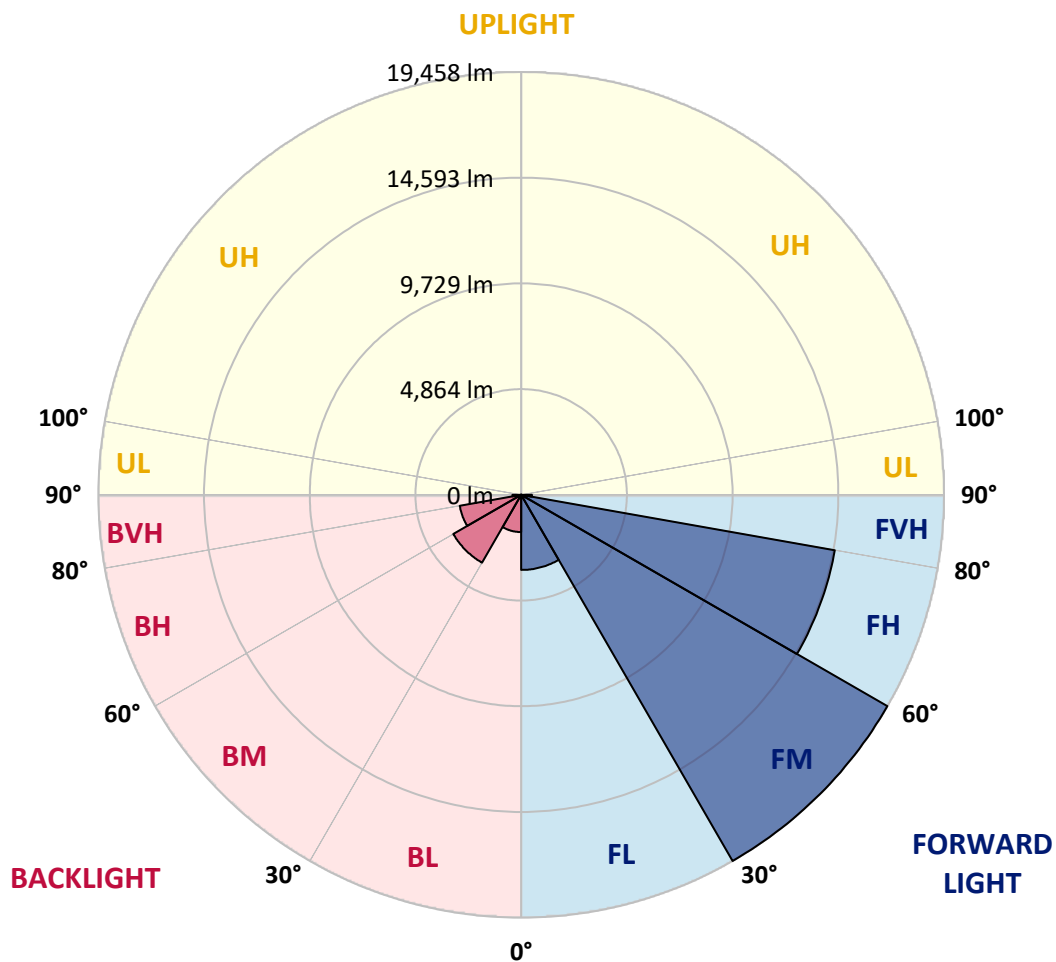
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3456.9	7.4			
FM	(30°-60°)	19457.8	41.7			
FH	(60°-80°)	14654.9	31.4			G5
FVH	(80°-90°)	491.7	1.1			G3/500
BL	(0°-30°)	1714.2	3.7	B3/2500		
BM	(30°-60°)	3604.8	7.7	B3/5000		
BH	(60°-80°)	2870.2	6.2	B4/5000		G4/5000
BVH	(80°-90°)	402.6	0.9			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G5

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	80°	85°
0°	6481.5	6481.5	6481.5	6481.5	6481.5	6481.5	6481.5	6481.5	6481.5	6481.5	6481.5
2.5°	7090.1	7048.8	7055.7	7044.2	7009.7	6950.0	6885.7	6768.6	6646.8	6582.5	6532.0
5°	7682.7	7671.2	7655.1	7618.4	7531.1	7407.1	7253.2	7046.5	6823.7	6706.5	6594.0
7.5°	8125.9	8119.1	8098.4	8075.4	7990.4	7841.2	7609.2	7315.2	6991.3	6830.6	6656.0
10°	8162.7	8174.2	8190.3	8252.3	8263.8	8183.4	7946.8	7590.8	7165.9	6959.2	6736.4
12.5°	7850.3	7875.6	7937.6	8096.1	8263.8	8362.5	8240.8	7880.2	7370.3	7120.0	6837.5
15°	7436.9	7450.7	7526.5	7744.7	8045.6	8351.0	8465.9	8199.4	7634.4	7326.7	6989.1
17.5°	7260.1	7267.0	7319.8	7464.5	7744.7	8181.1	8592.2	8546.3	7958.3	7583.9	7175.1
20°	7170.5	7186.6	7262.4	7404.8	7581.6	7962.9	8610.6	8920.6	8344.1	7905.5	7409.4
22.5°	7425.4	7418.5	7446.1	7517.3	7666.6	7896.3	8596.8	9306.5	8835.6	8318.9	7714.8
25°	8020.3	8045.6	7997.3	7916.9	7965.2	8125.9	8670.3	9724.5	9451.2	8849.4	8114.5
27.5°	8867.8	8842.5	8771.3	8583.0	8484.2	8553.1	8913.7	10174.7	10216.0	9547.6	8642.7
30°	9713.0	9692.3	9623.4	9393.8	9191.6	9134.2	9386.9	10691.4	11127.8	10386.0	9290.4
32.5°	10590.4	10567.4	10503.1	10273.4	10030.0	9896.8	10059.8	11288.6	12202.7	11387.4	10052.9
35°	11672.2	11628.5	11493.0	11173.8	10934.9	10831.5	10907.3	12039.6	13443.0	12572.5	10978.5
37.5°	12689.6	12756.2	12618.4	12177.4	11867.4	11830.6	11915.6	12956.0	14779.7	13897.7	12041.9
40°	13711.7	13723.2	13599.1	13238.5	12919.3	12859.6	13073.2	14067.7	16357.5	15482.5	13335.0
42.5°	14768.2	14791.2	14582.2	14249.1	14014.8	14026.3	14269.8	15369.9	18167.4	17349.8	14823.3
45°	16019.9	16054.4	15824.7	15388.3	15174.7	15604.2	15503.2	16830.7	20151.8	19472.0	16532.1
47.5°	17329.1	17381.9	17207.4	16798.5	16532.1	17122.4	16736.5	18449.9	22287.8	21748.1	18408.6
50°	18043.4	18119.2	18289.1	18259.3	18201.8	18103.1	18112.3	20186.3	24490.4	24118.3	20337.8
52.5°	17659.8	17657.5	18277.6	19031.0	19834.8	19894.6	19788.9	22016.8	26548.3	26435.7	22154.6
55°	15905.1	16024.5	16963.9	18422.3	20618.0	21989.2	22301.6	24113.7	28569.4	28700.4	23998.9
57.5°	12983.6	13082.4	14350.2	16382.8	19561.5	23234.1	25875.3	27161.5	30829.5	31440.4	26454.1
60°	8805.8	8925.2	10268.8	12710.3	16718.1	22540.4	29276.8	32600.3	33535.0	34924.6	29899.3
62.5°	5174.6	5282.6	6378.1	8018.0	11770.9	19318.1	30769.7	40338.1	37832.3	40181.9	35154.3
65°	3562.3	3635.8	4168.6	4990.9	6764.0	13011.2	28918.5	45680.3	44444.7	46695.5	41247.6
67.5°	2866.4	2857.2	3279.8	3840.2	4354.7	6708.8	21867.5	45076.3	50260.1	51199.4	44410.2
70°	2361.1	2351.9	2639.0	3102.9	3479.6	3778.2	11911.0	38039.0	49074.9	49456.2	41497.9
72.5°	1975.2	1984.4	2168.1	2512.7	2854.9	2845.7	5234.3	26759.6	38606.3	41243.0	33080.3
75°	1667.5	1672.0	1793.8	2037.2	2317.4	2292.2	2838.8	14497.2	22441.7	24276.8	18337.4
77.5°	1419.4	1424.0	1502.1	1637.6	1837.4	1828.2	2071.7	6263.3	9361.6	9246.8	6272.5
80°	1265.5	1265.5	1302.3	1327.5	1437.8	1396.4	1536.5	3008.8	3957.3	3654.2	2503.5
82.5°	992.2	996.8	1221.9	1212.7	1132.3	1079.5	1079.5	1773.1	2096.9	1938.5	1465.3
85°	558.1	555.8	787.8	950.9	996.8	760.2	753.3	992.2	1141.5	1006.0	709.7
87.5°	238.9	243.5	365.2	422.6	565.0	473.1	466.2	512.2	581.1	503.0	328.4
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°	6481.5	6481.5	6481.5	6481.5	6481.5	6481.5	6481.5	6481.5	6481.5	6481.5	6481.5
2.5°	6483.8	6424.0	6293.1	6130.1	5983.1	5886.6	5799.3	5673.0	5679.9	5592.6	5528.3
5°	6479.2	6355.1	6052.0	5691.4	5344.6	5094.2	4905.9	4735.9	4694.6	4614.2	4566.0
7.5°	6483.8	6281.6	5771.8	5195.3	4765.8	4448.8	4288.1	4198.5	4177.8	4150.3	4152.5
10°	6499.8	6215.0	5464.0	4731.3	4281.2	4072.2	4033.1	4060.7	4092.8	4102.0	4104.3
12.5°	6536.6	6155.3	5126.4	4317.9	3978.0	3913.7	3980.3	4074.5	4136.5	4166.3	4164.0
15°	6619.3	6109.4	4802.5	3994.1	3810.3	3844.8	3968.8	4102.0	4191.6	4232.9	4235.2
17.5°	6708.8	6042.8	4469.5	3746.0	3686.3	3773.6	3927.5	4083.6	4193.9	4239.8	4249.0
20°	6826.0	5960.1	4120.4	3560.0	3569.2	3667.9	3812.6	3968.8	4090.5	4129.6	4148.0
22.5°	6979.9	5870.5	3814.9	3408.4	3436.0	3511.8	3624.3	3759.8	3865.5	3883.8	3899.9
25°	7186.6	5774.1	3571.5	3270.6	3282.1	3325.7	3401.5	3481.9	3555.4	3534.7	3550.8
27.5°	7464.5	5691.4	3390.0	3144.3	3123.6	3132.8	3171.8	3197.1	3236.1	3178.7	3185.6
30°	7790.6	5601.8	3249.9	3034.0	2976.6	2960.5	2969.7	2983.5	3013.4	2935.3	2923.8
32.5°	8169.6	5493.9	3119.0	2937.6	2857.2	2825.0	2829.6	2866.4	2981.2	2933.0	2907.7
35°	8610.6	5372.1	2981.2	2831.9	2776.8	2730.9	2726.3	2841.1	3183.3	3153.5	3130.5
37.5°	9127.3	5250.4	2843.4	2712.5	2717.1	2666.5	2650.5	2781.4	3222.4	3105.2	3089.1
40°	9784.2	5186.1	2726.3	2586.2	2643.6	2636.7	2604.5	2671.1	2965.1	2751.5	2724.0
42.5°	10597.3	5195.3	2639.0	2450.6	2556.3	2629.8	2579.3	2581.6	2687.2	2526.4	2501.2
45°	11601.0	5303.2	2577.0	2342.7	2457.5	2622.9	2570.1	2533.3	2542.5	2457.5	2443.8
47.5°	12772.3	5526.0	2533.3	2253.1	2363.4	2597.6	2567.8	2519.5	2498.9	2452.9	2441.5
50°	14074.6	5849.9	2501.2	2168.1	2278.4	2556.3	2570.1	2505.8	2482.8	2464.4	2457.5
52.5°	15353.9	6219.6	2452.9	2094.6	2211.8	2505.8	2577.0	2492.0	2466.7	2452.9	2446.1
55°	16780.2	6681.3	2379.4	2032.6	2156.7	2441.5	2577.0	2471.3	2443.8	2446.1	2443.8
57.5°	18707.1	7427.7	2292.2	1979.8	2090.1	2363.4	2533.3	2448.3	2413.9	2416.2	2418.5
60°	21718.2	8743.8	2186.5	1927.0	2007.4	2271.5	2473.6	2397.8	2363.4	2372.6	2374.9
62.5°	26146.4	10675.4	2048.7	1848.9	1920.1	2172.7	2390.9	2333.5	2299.1	2322.0	2322.0
65°	30749.1	12379.6	1878.8	1750.1	1828.2	2064.8	2287.6	2253.1	2218.7	2271.5	2269.2
67.5°	31987.0	11998.3	1708.8	1642.2	1736.4	1945.4	2163.6	2145.2	2126.8	2218.7	2214.1
70°	28415.6	9632.6	1552.6	1531.9	1635.3	1816.7	2030.3	2030.3	2018.9	2087.8	2071.7
72.5°	21649.3	6830.6	1403.3	1414.8	1520.5	1676.6	1885.6	1901.7	1883.3	1917.8	1904.0
75°	11589.5	3909.1	1254.0	1286.2	1378.1	1534.2	1724.9	1740.9	1729.5	1727.2	1734.1
77.5°	3851.7	1910.9	1097.9	1148.4	1228.8	1387.2	1557.2	1582.5	1554.9	1550.3	1548.0
80°	1715.7	1201.2	925.6	992.2	1063.4	1219.6	1380.4	1401.0	1371.2	1412.5	1359.7
82.5°	1102.4	790.1	741.9	815.4	884.3	1051.9	1203.5	1208.1	1180.5	1371.2	1169.1
85°	535.1	489.2	558.1	624.7	684.4	826.8	996.8	999.1	930.2	847.5	817.6
87.5°	266.4	284.8	372.1	431.8	461.6	567.3	725.8	712.0	682.1	620.1	571.9
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)