

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: P298972

Luminaire Tested: **GLNA-AF-10-LED-E1-T2-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P298972
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-T2-800
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(10) 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: 46548.7 lumens
Efficiency: N/A
Efficacy: 111.1 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type II - Medium - Full Cutoff
BUG Rating: B4 - U0 - G5

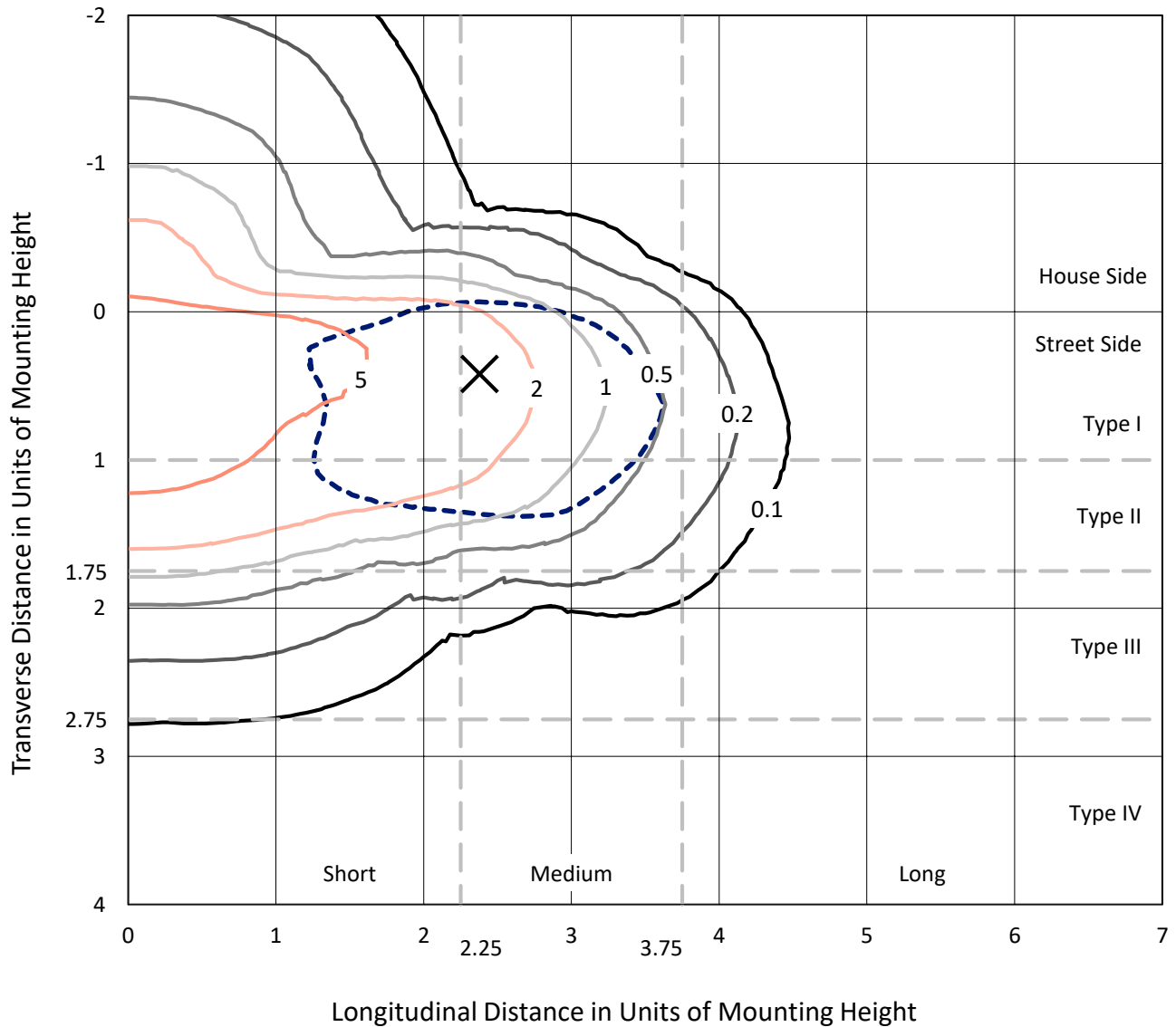
Input Watts (W): 419
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

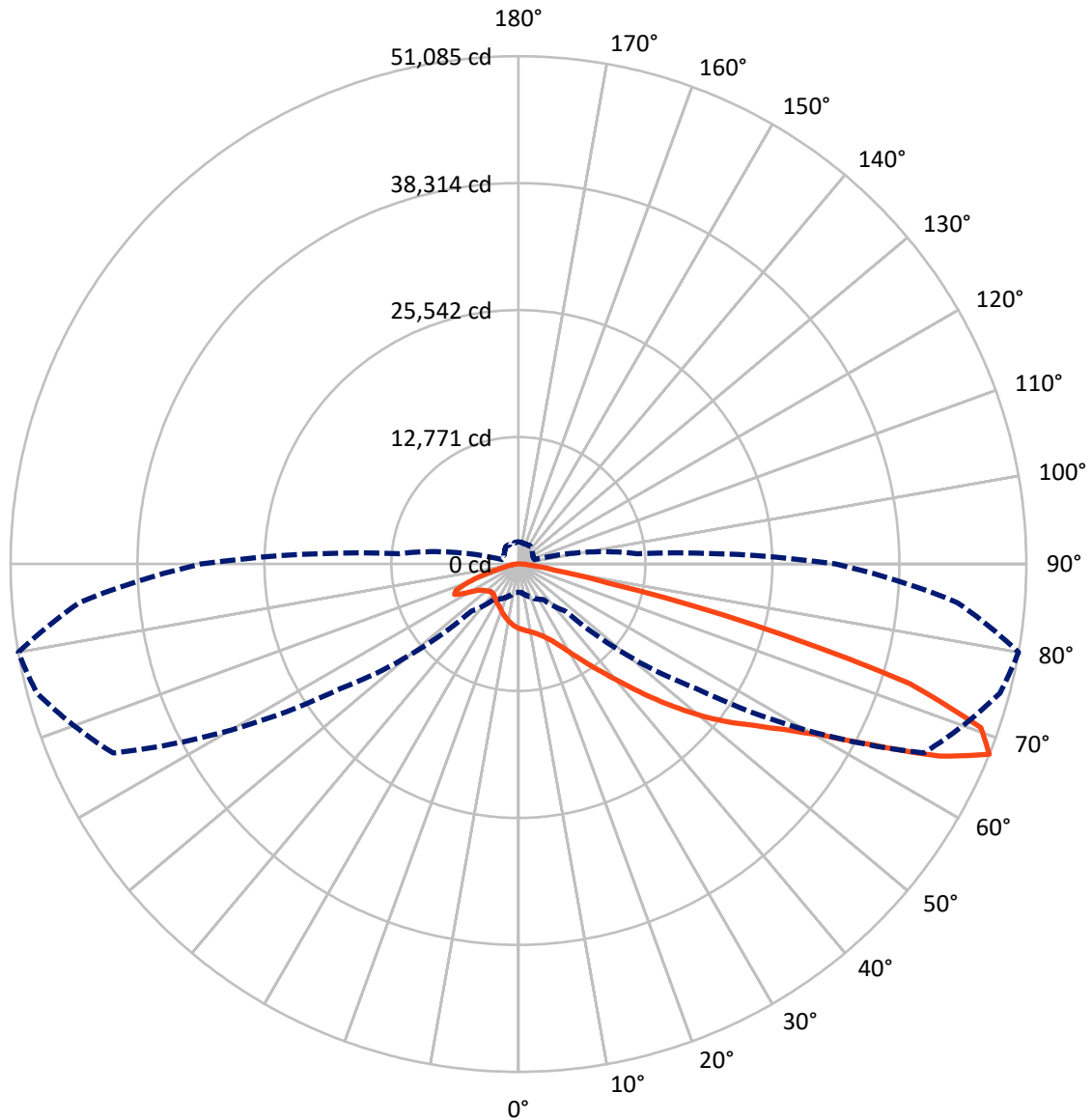
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 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	8572.5	0.0	8572.5
	% Fixture	18.4	0.0	18.4
Street Side	Lumens	37976.2	0.0	37976.2
	% Fixture	81.6	0.0	81.6
Total	Lumens	46548.7	0.0	46548.7
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	596.6	1.3
10°-20°	1718.5	3.7
20°-30°	2844.5	6.1
30°-40°	4652.8	10.0
40°-50°	7512.4	16.1
50°-60°	10845.7	23.3
60°-70°	11968.9	25.7
70°-80°	5516.9	11.9
80°-90°	892.3	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°	46548.7	100.0
0°-180°	46548.7	100.0



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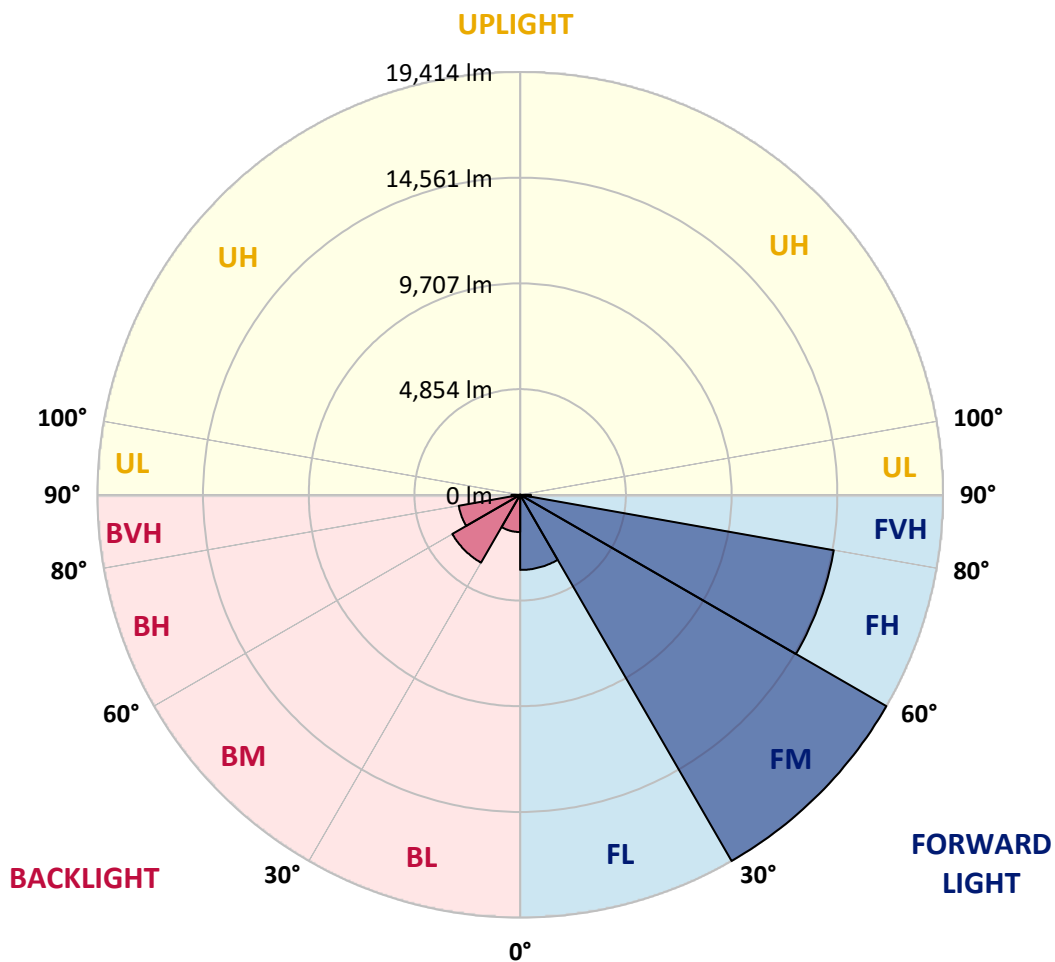
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3449.2	7.4			
FM (30°-60°)	19414.3	41.7			
FH (60°-80°)	14622.1	31.4			G5
FVH (80°-90°)	490.6	1.1			G3/500
BL (0°-30°)	1710.3	3.7	B3/2500		
BM (30°-60°)	3596.7	7.7	B3/5000		
BH (60°-80°)	2863.7	6.2	B4/5000		G4/5000
BVH (80°-90°)	401.7	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°	6467.0	6467.0	6467.0	6467.0	6467.0	6467.0	6467.0	6467.0	6467.0	6467.0	6467.0
2.5°	7074.2	7033.0	7039.9	7028.4	6994.0	6934.5	6870.3	6753.4	6632.0	6567.8	6517.4
5°	7665.5	7654.0	7638.0	7601.3	7514.2	7390.5	7236.9	7030.7	6808.4	6691.5	6579.3
7.5°	8107.8	8100.9	8080.3	8057.4	7972.6	7823.6	7592.2	7298.8	6975.7	6815.3	6641.1
10°	8144.4	8155.9	8171.9	8233.8	8245.3	8165.1	7929.0	7573.8	7149.9	6943.6	6721.3
12.5°	7832.8	7858.0	7919.9	8078.0	8245.3	8343.8	8222.3	7862.6	7353.8	7104.0	6822.2
15°	7420.3	7434.0	7509.7	7727.4	8027.6	8332.3	8446.9	8181.1	7617.4	7310.3	6973.4
17.5°	7243.8	7250.7	7303.4	7447.8	7727.4	8162.8	8573.0	8527.1	7940.5	7566.9	7159.0
20°	7154.5	7170.5	7246.1	7388.2	7564.7	7945.1	8591.3	8900.7	8325.5	7887.8	7392.8
22.5°	7408.8	7401.9	7429.4	7500.5	7649.4	7878.6	8577.5	9285.7	8815.9	8300.3	7697.6
25°	8002.4	8027.6	7979.4	7899.2	7947.4	8107.8	8650.9	9702.7	9430.0	8829.6	8096.3
27.5°	8848.0	8822.8	8751.7	8563.8	8465.3	8534.0	8893.8	10151.9	10193.1	9526.3	8623.4
30°	9691.3	9670.7	9601.9	9372.7	9171.1	9113.8	9365.9	10667.5	11102.9	10362.7	9269.6
32.5°	10566.7	10543.8	10479.6	10250.4	10007.5	9874.6	10037.3	11263.3	12175.4	11361.9	10030.4
35°	11646.0	11602.5	11467.3	11148.8	10910.4	10807.3	10882.9	12012.7	13412.9	12544.4	10954.0
37.5°	12661.2	12727.7	12590.2	12150.2	11840.8	11804.2	11888.9	12927.1	14746.6	13866.6	12015.0
40°	13681.0	13692.5	13568.7	13208.9	12890.4	12830.8	13043.9	14036.2	16320.9	15447.8	13305.2
42.5°	14735.1	14758.1	14549.5	14217.2	13983.5	13994.9	14237.9	15335.6	18126.7	17310.9	14790.1
45°	15984.1	16018.5	15789.3	15353.9	15140.8	15569.3	15468.5	16793.0	20106.7	19428.4	16495.1
47.5°	17290.3	17343.0	17168.8	16760.9	16495.1	17084.1	16699.1	18408.6	22237.9	21699.4	18367.4
50°	18003.0	18078.6	18248.2	18218.4	18161.1	18062.6	18071.7	20141.1	24435.6	24064.3	20292.3
52.5°	17620.3	17618.0	18236.7	18988.4	19790.5	19850.1	19744.6	21967.5	26488.9	26376.6	22105.0
55°	15869.5	15988.7	16925.9	18381.1	20571.9	21940.0	22251.7	24059.8	28505.5	28636.1	23945.2
57.5°	12954.6	13053.1	14318.1	16346.2	19517.8	23182.1	25817.4	27100.7	30760.5	31370.0	26394.9
60°	8786.1	8905.3	10245.9	12681.8	16680.7	22490.0	29211.3	32527.3	33460.0	34846.4	29832.4
62.5°	5163.0	5270.7	6363.8	8000.1	11744.6	19274.9	30700.9	40247.8	37747.6	40092.0	35075.6
65°	3554.3	3627.6	4159.3	4979.7	6748.8	12982.1	28853.8	45578.1	44345.2	46591.0	41155.3
67.5°	2859.9	2850.8	3272.4	3831.6	4344.9	6693.8	21818.6	44975.4	50147.6	51084.9	44310.8
70°	2355.8	2346.6	2633.1	3096.0	3471.8	3769.7	11884.4	37953.9	48965.1	49345.5	41405.1
72.5°	1970.8	1980.0	2163.3	2507.0	2848.5	2839.3	5222.6	26699.7	38519.9	41150.7	33006.3
75°	1663.7	1668.3	1789.8	2032.7	2312.2	2287.0	2832.4	14464.7	22391.5	24222.5	18296.3
77.5°	1416.2	1420.8	1498.7	1633.9	1833.3	1824.1	2067.0	6249.3	9340.7	9226.1	6258.4
80°	1262.7	1262.7	1299.4	1324.6	1434.6	1393.3	1533.1	3002.0	3948.5	3646.0	2497.9
82.5°	990.0	994.6	1219.1	1210.0	1129.8	1077.1	1077.1	1769.1	2092.3	1934.1	1462.1
85°	556.9	554.6	786.0	948.7	994.6	758.5	751.7	990.0	1138.9	1003.7	708.1
87.5°	238.3	242.9	364.4	421.7	563.7	472.1	465.2	511.0	579.8	501.9	327.7
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°	6467.0	6467.0	6467.0	6467.0	6467.0	6467.0	6467.0	6467.0	6467.0	6467.0	6467.0
2.5°	6469.3	6409.7	6279.1	6116.3	5969.7	5873.4	5786.4	5660.3	5667.2	5580.1	5515.9
5°	6464.7	6340.9	6038.4	5678.6	5332.6	5082.8	4894.9	4725.3	4684.1	4603.9	4555.7
7.5°	6469.3	6267.6	5758.9	5183.7	4755.1	4438.9	4278.5	4189.1	4168.5	4141.0	4143.3
10°	6485.3	6201.1	5451.8	4720.7	4271.6	4063.0	4024.1	4051.6	4083.7	4092.8	4095.1
12.5°	6522.0	6141.6	5114.9	4308.3	3969.1	3904.9	3971.4	4065.3	4127.2	4157.0	4154.7
15°	6604.5	6095.7	4791.8	3985.1	3801.8	3836.2	3959.9	4092.8	4182.2	4223.5	4225.8
17.5°	6693.8	6029.3	4459.5	3737.6	3678.1	3765.1	3918.7	4074.5	4184.5	4230.3	4239.5
20°	6810.7	5946.8	4111.2	3552.0	3561.2	3659.7	3804.1	3959.9	4081.4	4120.3	4138.7
22.5°	6964.2	5857.4	3806.4	3400.8	3428.3	3503.9	3616.2	3751.4	3856.8	3875.1	3891.2
25°	7170.5	5761.1	3563.5	3263.3	3274.7	3318.3	3393.9	3474.1	3547.4	3526.8	3542.9
27.5°	7447.8	5678.6	3382.4	3137.2	3116.6	3125.8	3164.7	3189.9	3228.9	3171.6	3178.5
30°	7773.2	5589.3	3242.6	3027.2	2969.9	2953.9	2963.1	2976.8	3006.6	2928.7	2917.2
32.5°	8151.3	5481.6	3112.0	2931.0	2850.8	2818.7	2823.3	2859.9	2974.5	2926.4	2901.2
35°	8591.3	5360.1	2974.5	2825.6	2770.6	2724.7	2720.2	2834.7	3176.2	3146.4	3123.5
37.5°	9106.9	5238.7	2837.0	2706.4	2711.0	2660.6	2644.5	2775.2	3215.1	3098.3	3082.2
40°	9762.3	5174.5	2720.2	2580.4	2637.7	2630.8	2598.7	2665.2	2958.5	2745.4	2717.9
42.5°	10573.6	5183.7	2633.1	2445.2	2550.6	2623.9	2573.5	2575.8	2681.2	2520.8	2495.6
45°	11575.0	5291.4	2571.2	2337.5	2452.0	2617.0	2564.3	2527.7	2536.8	2452.0	2438.3
47.5°	12743.7	5513.6	2527.7	2248.1	2358.1	2591.8	2562.0	2513.9	2493.3	2447.5	2436.0
50°	14043.1	5836.8	2495.6	2163.3	2273.3	2550.6	2564.3	2500.2	2477.2	2458.9	2452.0
52.5°	15319.5	6205.7	2447.5	2090.0	2206.8	2500.2	2571.2	2486.4	2461.2	2447.5	2440.6
55°	16742.6	6666.3	2374.1	2028.1	2151.8	2436.0	2571.2	2465.8	2438.3	2440.6	2438.3
57.5°	18665.3	7411.1	2287.0	1975.4	2085.4	2358.1	2527.7	2442.9	2408.5	2410.8	2413.1
60°	21669.6	8724.2	2181.6	1922.7	2002.9	2266.4	2468.1	2392.5	2358.1	2367.2	2369.5
62.5°	26087.9	10651.5	2044.1	1844.8	1915.8	2167.9	2385.6	2328.3	2293.9	2316.8	2316.8
65°	30680.3	12351.9	1874.5	1746.2	1824.1	2060.2	2282.5	2248.1	2213.7	2266.4	2264.1
67.5°	31915.5	11971.4	1705.0	1638.5	1732.5	1941.0	2158.7	2140.4	2122.0	2213.7	2209.1
70°	28352.0	9611.1	1549.1	1528.5	1631.6	1812.7	2025.8	2025.8	2014.3	2083.1	2067.0
72.5°	21600.9	6815.3	1400.2	1411.6	1517.1	1672.9	1881.4	1897.5	1879.1	1913.5	1899.8
75°	11563.5	3900.3	1251.2	1283.3	1375.0	1530.8	1721.0	1737.1	1725.6	1723.3	1730.2
77.5°	3843.1	1906.6	1095.4	1145.8	1226.0	1384.1	1553.7	1578.9	1551.4	1546.8	1544.6
80°	1711.8	1198.5	923.5	990.0	1061.0	1216.9	1377.3	1397.9	1368.1	1409.3	1356.6
82.5°	1100.0	788.3	740.2	813.5	882.3	1049.6	1200.8	1205.4	1177.9	1368.1	1166.4
85°	533.9	488.1	556.9	623.3	682.9	825.0	994.6	996.9	928.1	845.6	815.8
87.5°	265.8	284.2	371.2	430.8	460.6	566.0	724.2	710.4	680.6	618.7	570.6
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)