

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: P298939

Luminaire Tested: **GLNA-AF-05-LED-E1-T2-7027-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P298939  
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-05-LED-E1-T2-7027-800  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(5) 70 CRI, 2700K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 20422 lumens  
Efficiency: N/A  
Efficacy: 97.2 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
IES Classification: Type II - Medium - Full Cutoff  
BUG Rating: B3 - U0 - G3

Input Watts (W): 210  
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

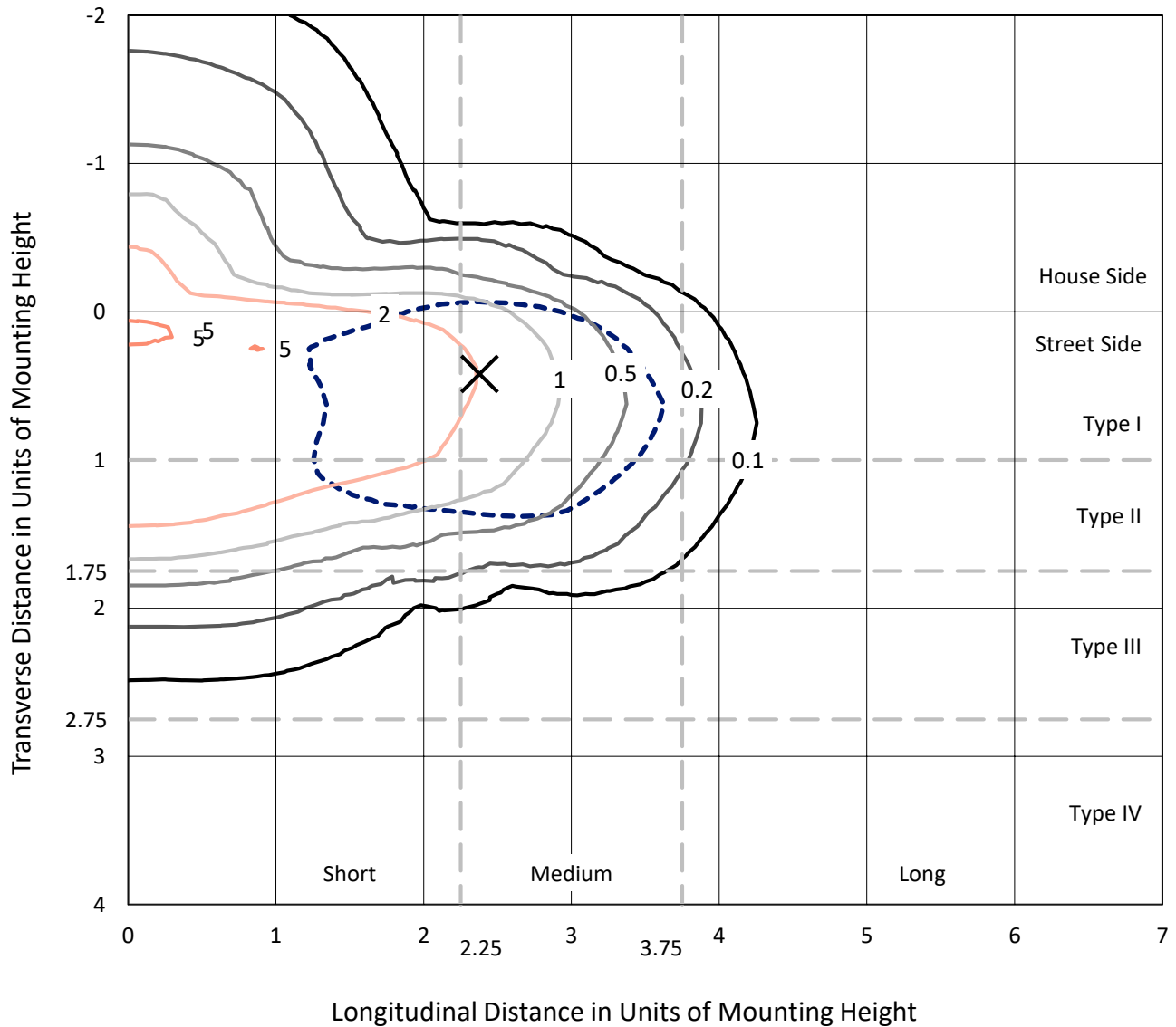


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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

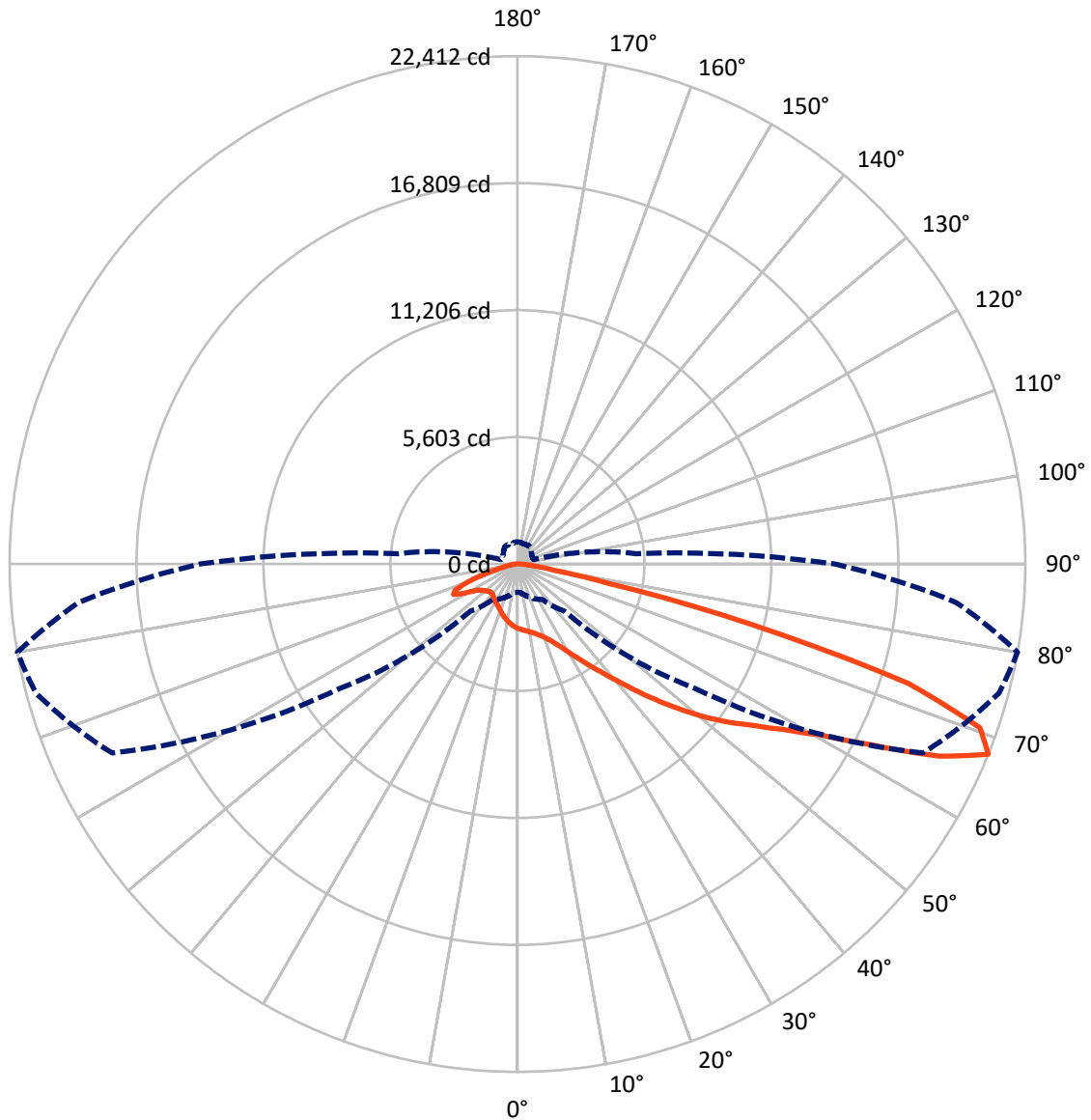


Based on 25 foot mounting height. Maximum calculated value = 5.5 fc  
 Type II - Medium - Full Cutoff

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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
<b>House Side</b>	Lumens	3761.0	0.0	3761.0
	% Fixture	18.4	0.0	18.4
<b>Street Side</b>	Lumens	16661.1	0.0	16661.1
	% Fixture	81.6	0.0	81.6
<b>Total</b>	Lumens	20422.0	0.0	20422.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	261.7	1.3
10°-20°	753.9	3.7
20°-30°	1247.9	6.1
30°-40°	2041.3	10.0
40°-50°	3295.9	16.1
50°-60°	4758.3	23.3
60°-70°	5251.1	25.7
70°-80°	2420.4	11.9
80°-90°	391.5	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°	20422.0	100.0
0°-180°	20422.0	100.0



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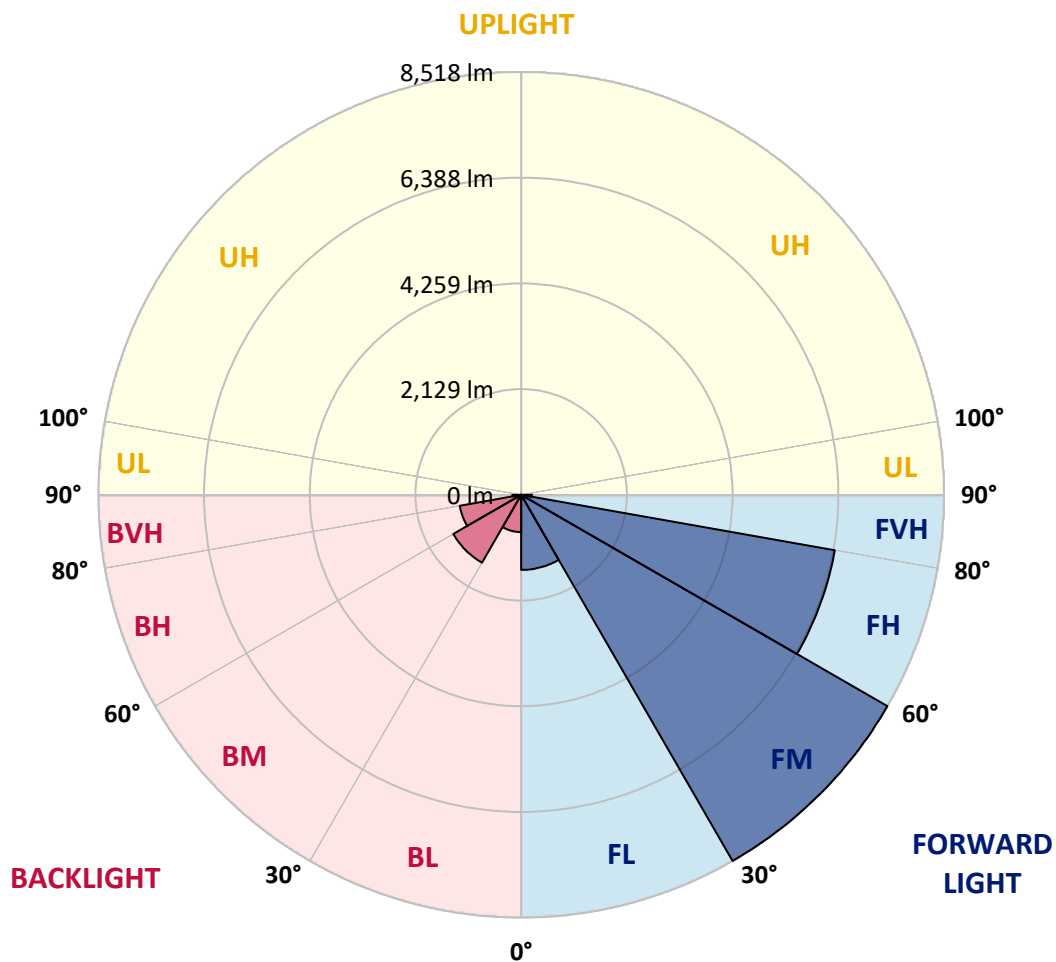
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1513.2	7.4			
FM (30°-60°)	8517.5	41.7			
FH (60°-80°)	6415.1	31.4			G3/7500
FVH (80°-90°)	215.2	1.1			G2/225
BL (0°-30°)	750.4	3.7	B2/1000		
BM (30°-60°)	1578.0	7.7	B2/2500		
BH (60°-80°)	1256.4	6.2	B3/2500		G3/2500
BVH (80°-90°)	176.2	0.9			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G3**

Type II Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	80°	85°
0°	2837.2	2837.2	2837.2	2837.2	2837.2	2837.2	2837.2	2837.2	2837.2	2837.2	2837.2
2.5°	3103.6	3085.5	3088.6	3083.5	3068.5	3042.3	3014.2	2962.9	2909.6	2881.5	2859.3
5°	3363.0	3358.0	3351.0	3334.9	3296.7	3242.4	3175.0	3084.5	2987.0	2935.7	2886.5
7.5°	3557.1	3554.1	3545.0	3535.0	3497.8	3432.4	3330.9	3202.2	3060.4	2990.0	2913.6
10°	3573.2	3578.2	3585.2	3612.4	3617.4	3582.2	3478.7	3322.8	3136.8	3046.3	2948.8
12.5°	3436.4	3447.5	3474.6	3544.0	3617.4	3660.6	3607.3	3449.5	3226.3	3116.7	2993.1
15°	3255.5	3261.5	3294.7	3390.2	3521.9	3655.6	3705.9	3589.3	3341.9	3207.2	3059.4
17.5°	3178.0	3181.1	3204.2	3267.5	3390.2	3581.2	3761.2	3741.1	3483.7	3319.8	3140.8
20°	3138.8	3145.9	3179.1	3241.4	3318.8	3485.7	3769.2	3904.9	3652.6	3460.6	3243.4
22.5°	3250.4	3247.4	3259.5	3290.6	3356.0	3456.5	3763.2	4073.8	3867.7	3641.5	3377.1
25°	3510.8	3521.9	3500.8	3465.6	3486.7	3557.1	3795.4	4256.8	4137.2	3873.8	3552.1
27.5°	3881.8	3870.8	3839.6	3757.2	3713.9	3744.1	3901.9	4453.9	4472.0	4179.4	3783.3
30°	4251.8	4242.8	4212.6	4112.1	4023.6	3998.4	4109.0	4680.1	4871.1	4546.4	4066.8
32.5°	4635.9	4625.8	4597.7	4497.1	4390.5	4332.2	4403.6	4941.5	5341.6	4984.7	4400.6
35°	5109.4	5090.3	5031.0	4891.2	4786.7	4741.4	4774.6	5270.3	5884.6	5503.5	4805.8
37.5°	5554.8	5583.9	5523.6	5330.6	5194.9	5178.8	5216.0	5671.4	6469.7	6083.6	5271.3
40°	6002.2	6007.2	5952.9	5795.1	5655.3	5629.2	5722.7	6158.0	7160.4	6777.3	5837.3
42.5°	6464.7	6474.7	6383.2	6237.5	6134.9	6139.9	6246.5	6728.1	7952.7	7594.7	6488.8
45°	7012.6	7027.7	6927.2	6736.1	6642.6	6830.6	6786.4	7367.5	8821.3	8523.7	7236.8
47.5°	7585.7	7608.8	7532.4	7353.4	7236.8	7495.2	7326.3	8076.3	9756.3	9520.1	8058.2
50°	7898.4	7931.5	8005.9	7992.9	7967.7	7924.5	7928.5	8836.4	10720.5	10557.6	8902.7
52.5°	7730.5	7729.5	8000.9	8330.7	8682.6	8708.7	8662.5	9637.7	11621.3	11572.1	9698.0
55°	6962.3	7014.6	7425.8	8064.3	9025.4	9625.6	9762.4	10555.6	12506.1	12563.4	10505.3
57.5°	5683.5	5726.7	6281.7	7171.5	8562.9	10170.5	11326.7	11889.8	13495.4	13762.8	11580.1
60°	3854.7	3907.0	4495.1	5563.8	7318.3	9866.9	12815.7	14270.5	14679.7	15288.0	13088.2
62.5°	2265.1	2312.4	2792.0	3509.8	5152.6	8456.4	13469.2	17657.7	16560.8	17589.3	15388.5
65°	1559.4	1591.5	1824.8	2184.7	2960.9	5695.5	12658.9	19996.2	19455.3	20440.6	18055.8
67.5°	1254.7	1250.7	1435.7	1681.0	1906.2	2936.8	9572.3	19731.8	22001.0	22412.2	19440.3
70°	1033.5	1029.5	1155.2	1358.3	1523.2	1653.9	5214.0	16651.3	21482.2	21649.1	18165.4
72.5°	864.6	868.7	949.1	1099.9	1249.7	1245.7	2291.3	11713.8	16899.6	18053.8	14480.7
75°	729.9	731.9	785.2	891.8	1014.4	1003.4	1242.7	6346.0	9823.7	10627.0	8027.1
77.5°	621.3	623.3	657.5	716.8	804.3	800.3	906.9	2741.7	4098.0	4047.7	2745.7
80°	554.0	554.0	570.1	581.1	629.4	611.3	672.6	1317.1	1732.3	1599.6	1095.9
82.5°	434.3	436.3	534.9	530.8	495.7	472.5	472.5	776.2	917.9	848.6	641.4
85°	244.3	243.3	344.8	416.2	436.3	332.8	329.8	434.3	499.7	440.4	310.7
87.5°	104.6	106.6	159.9	185.0	247.3	207.1	204.1	224.2	254.4	220.2	143.8
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°	2837.2	2837.2	2837.2	2837.2	2837.2	2837.2	2837.2	2837.2	2837.2	2837.2	2837.2
2.5°	2838.2	2812.1	2754.8	2683.4	2619.0	2576.8	2538.6	2483.3	2486.3	2448.1	2420.0
5°	2836.2	2781.9	2649.2	2491.4	2339.5	2230.0	2147.5	2073.1	2055.0	2019.8	1998.7
7.5°	2838.2	2749.7	2526.6	2274.2	2086.2	1947.4	1877.1	1837.9	1828.8	1816.7	1817.7
10°	2845.3	2720.6	2391.8	2071.1	1874.1	1782.6	1765.5	1777.5	1791.6	1795.6	1796.6
12.5°	2861.3	2694.5	2244.0	1890.1	1741.3	1713.2	1742.3	1783.6	1810.7	1823.8	1822.8
15°	2897.5	2674.3	2102.3	1748.4	1667.9	1683.0	1737.3	1795.6	1834.8	1852.9	1853.9
17.5°	2936.8	2645.2	1956.5	1639.8	1613.7	1651.9	1719.2	1787.6	1835.8	1856.0	1860.0
20°	2988.0	2609.0	1803.7	1558.4	1562.4	1605.6	1669.0	1737.3	1790.6	1807.7	1815.7
22.5°	3055.4	2569.8	1670.0	1492.0	1504.1	1537.2	1586.5	1645.8	1692.1	1700.1	1707.2
25°	3145.9	2527.6	1563.4	1431.7	1436.7	1455.8	1489.0	1524.2	1556.3	1547.3	1554.3
27.5°	3267.5	2491.4	1484.0	1376.4	1367.3	1371.4	1388.4	1399.5	1416.6	1391.5	1394.5
30°	3410.3	2452.2	1422.6	1328.1	1303.0	1296.0	1300.0	1306.0	1319.1	1284.9	1279.9
32.5°	3576.2	2404.9	1365.3	1285.9	1250.7	1236.6	1238.6	1254.7	1305.0	1283.9	1272.8
35°	3769.2	2351.6	1305.0	1239.6	1215.5	1195.4	1193.4	1243.7	1393.5	1380.4	1370.3
37.5°	3995.4	2298.3	1244.7	1187.4	1189.4	1167.3	1160.2	1217.5	1410.6	1359.3	1352.3
40°	4283.0	2270.2	1193.4	1132.1	1157.2	1154.2	1140.1	1169.3	1298.0	1204.5	1192.4
42.5°	4638.9	2274.2	1155.2	1072.8	1119.0	1151.2	1129.1	1130.1	1176.3	1105.9	1094.9
45°	5078.2	2321.5	1128.1	1025.5	1075.8	1148.2	1125.0	1108.9	1113.0	1075.8	1069.7
47.5°	5591.0	2419.0	1108.9	986.3	1034.5	1137.1	1124.0	1102.9	1093.9	1073.8	1068.7
50°	6161.0	2560.7	1094.9	949.1	997.3	1119.0	1125.0	1096.9	1086.8	1078.8	1075.8
52.5°	6721.0	2722.6	1073.8	916.9	968.2	1096.9	1128.1	1090.9	1079.8	1073.8	1070.7
55°	7345.4	2924.7	1041.6	889.8	944.1	1068.7	1128.1	1081.8	1069.7	1070.7	1069.7
57.5°	8188.9	3251.4	1003.4	866.6	914.9	1034.5	1108.9	1071.7	1056.7	1057.7	1058.7
60°	9507.0	3827.5	957.1	843.5	878.7	994.3	1082.8	1049.6	1034.5	1038.6	1039.6
62.5°	11445.4	4673.1	896.8	809.3	840.5	951.1	1046.6	1021.5	1006.4	1016.5	1016.5
65°	13460.2	5419.1	822.4	766.1	800.3	903.8	1001.4	986.3	971.2	994.3	993.3
67.5°	14002.1	5252.2	748.0	718.9	760.1	851.6	947.1	939.0	931.0	971.2	969.2
70°	12438.7	4216.6	679.6	670.6	715.8	795.3	888.8	888.8	883.7	913.9	906.9
72.5°	9476.8	2990.0	614.3	619.3	665.6	733.9	825.4	832.5	824.4	839.5	833.5
75°	5073.2	1711.2	548.9	563.0	603.2	671.6	755.0	762.1	757.1	756.1	759.1
77.5°	1686.0	836.5	480.6	502.7	537.9	607.3	681.7	692.7	680.7	678.6	677.6
80°	751.0	525.8	405.2	434.3	465.5	533.9	604.2	613.3	600.2	618.3	595.2
82.5°	482.6	345.9	324.7	356.9	387.1	460.5	526.8	528.8	516.8	600.2	511.7
85°	234.3	214.1	244.3	273.5	299.6	361.9	436.3	437.3	407.2	371.0	357.9
87.5°	116.6	124.7	162.9	189.0	202.1	248.3	317.7	311.7	298.6	271.5	250.3
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)