

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: P300403

Luminaire Tested: **GLNA-AF-09-LED-E1-AFL-7027-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P300403  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24165)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GLNA-AF-09-LED-E1-AFL-7027-800  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(9) 70 CRI, 2700K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Automotive Frontline OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 38189.5 lumens  
Efficiency: N/A  
Efficacy: 102.1 lumens/watt  
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')  
IES Classification: Type II - Short - Full Cutoff  
BUG Rating: B3 - U0 - G3

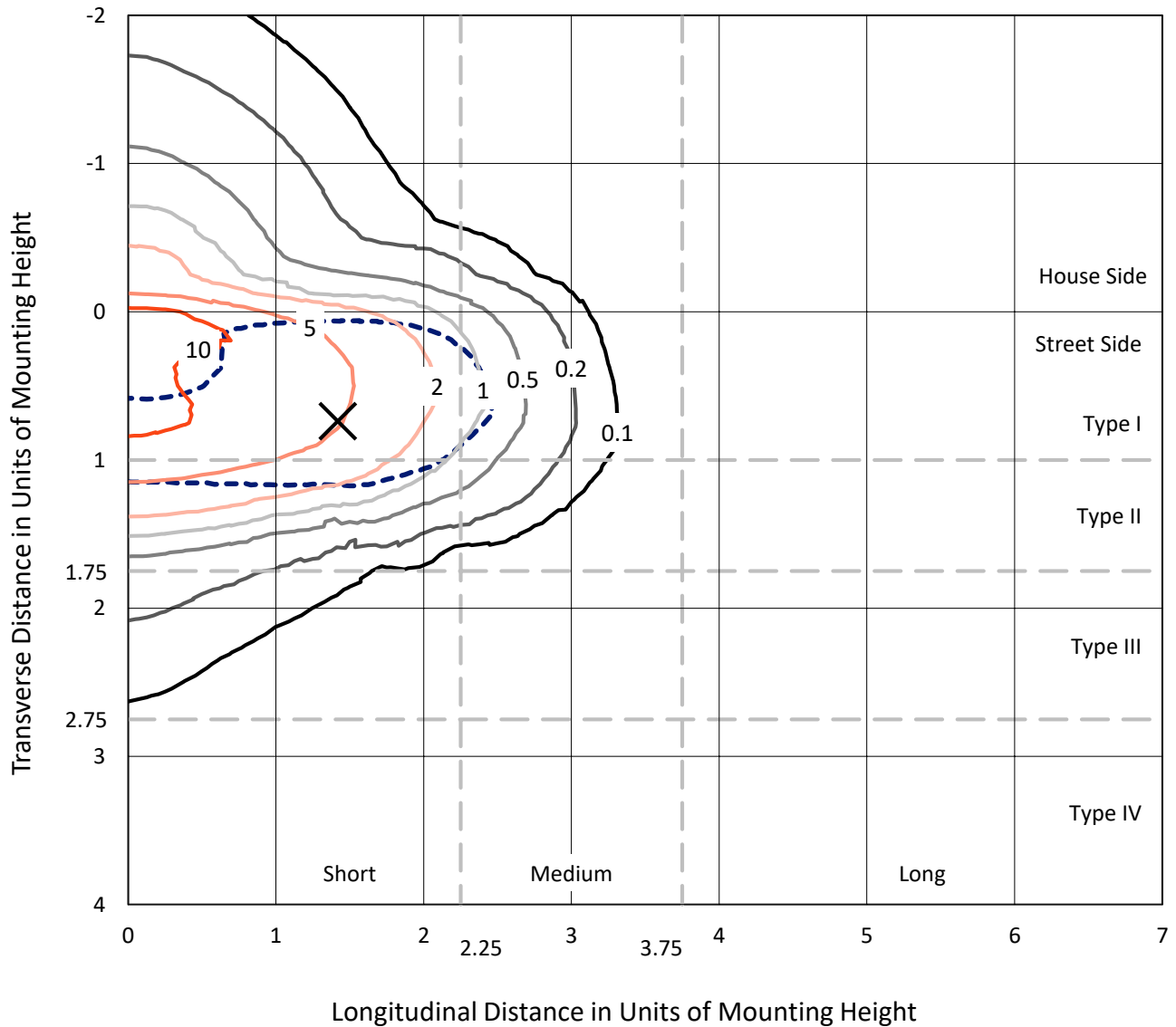
Input Watts (W): 374  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

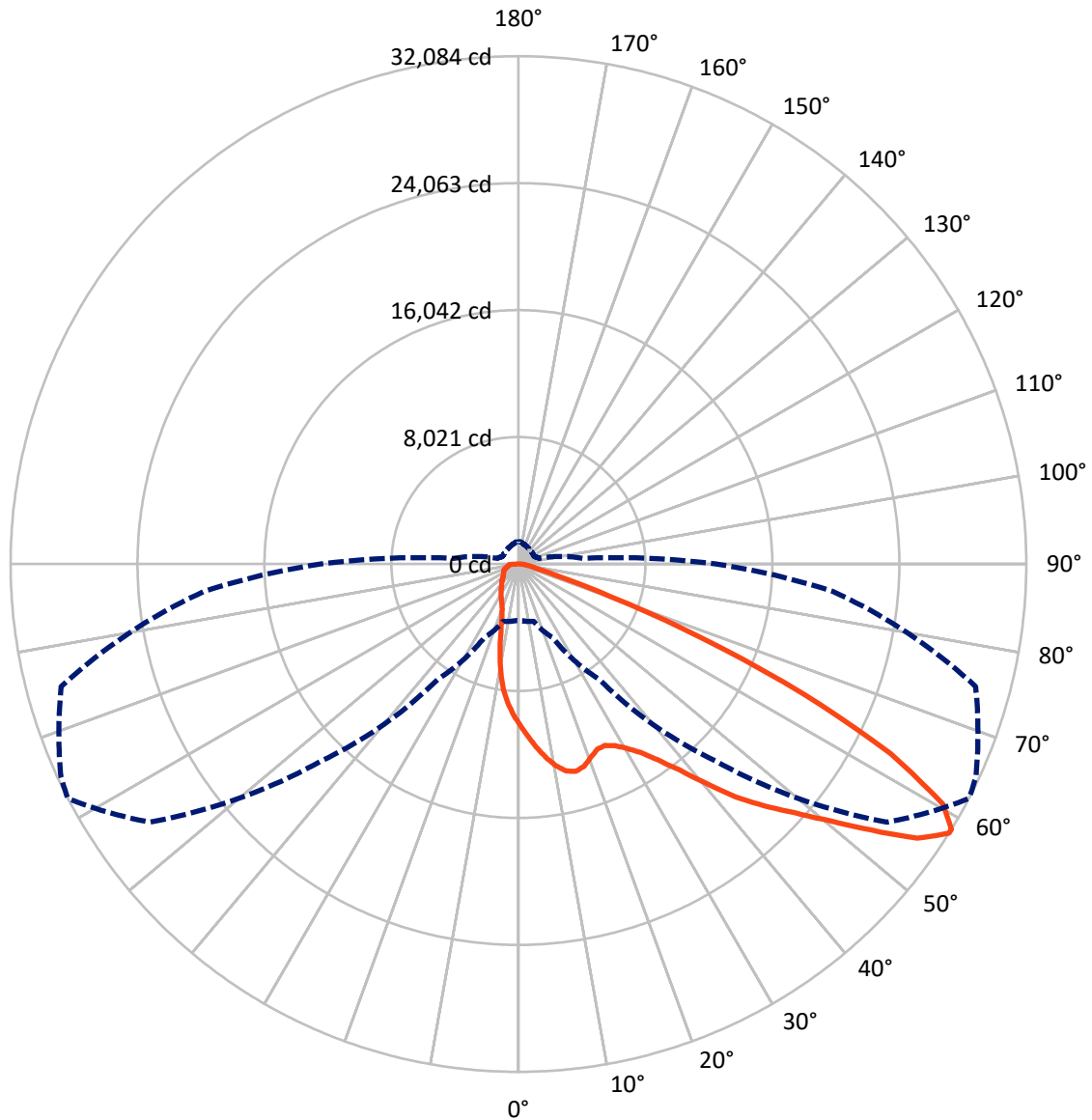
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 13.7 fc  
 Type II - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 62.5-Deg Lateral    - - - Horizontal Cone Through 58-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	5824.0	0.0	5824.0
	% Fixture	15.3	0.0	15.3
<b>Street Side</b>	Lumens	32365.5	0.0	32365.5
	% Fixture	84.7	0.0	84.7
<b>Total</b>	Lumens	38189.5	0.0	38189.5
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	907.3	2.4
10°-20°	2319.1	6.1
20°-30°	3748.9	9.8
30°-40°	5951.3	15.6
40°-50°	8708.0	22.8
50°-60°	9107.9	23.8
60°-70°	5380.9	14.1
70°-80°	1515.8	4.0
80°-90°	550.3	1.4
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°	38189.5	100.0
0°-180°	38189.5	100.0



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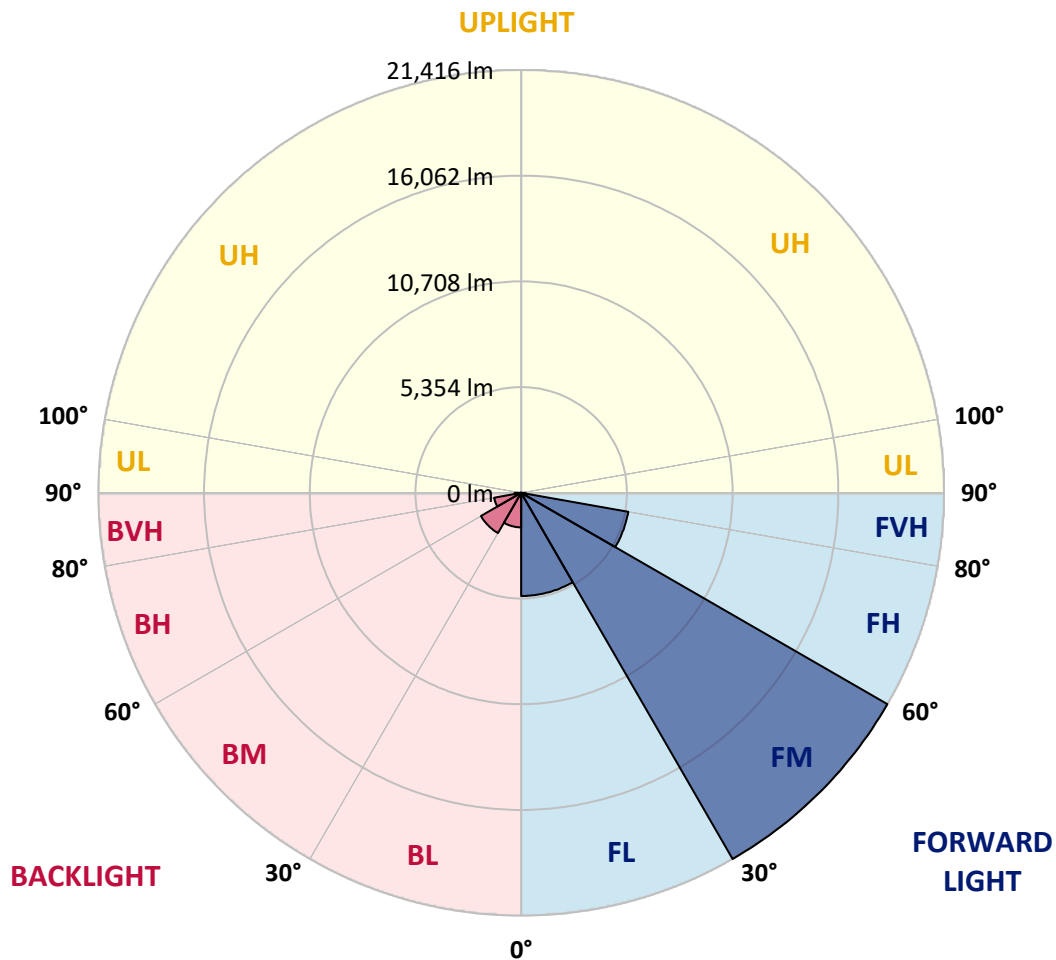
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	5224.8	13.7			
FM	(30°-60°)	21416.5	56.1			
FH	(60°-80°)	5507.1	14.4			G3/7500
FVH	(80°-90°)	217.1	0.6			G2/225
BL	(0°-30°)	1750.4	4.6	B3/2500		
BM	(30°-60°)	2350.7	6.2	B2/2500		
BH	(60°-80°)	1389.7	3.6	B3/2500		G3/2500
BVH	(80°-90°)	333.2	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-G3**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	62.5°	65°	75°	85°
0°	10144.3	10144.3	10144.3	10144.3	10144.3	10144.3	10144.3	10144.3	10144.3	10144.3	10144.3
2.5°	11591.9	11498.4	11439.0	11386.9	11318.6	11172.9	10976.9	10852.8	10789.9	10575.9	10322.3
5°	12728.4	12645.7	12584.6	12514.4	12392.2	12163.8	11847.3	11595.5	11471.4	11043.4	10536.3
7.5°	12462.3	12496.5	12602.6	12787.8	12946.0	12915.5	12633.1	12313.0	12149.4	11554.1	10784.5
10°	10858.2	10917.5	11101.0	11534.4	12235.7	12955.0	13174.4	12953.2	12787.8	12059.5	11039.8
12.5°	10536.3	10534.5	10548.9	10664.0	11081.2	12093.6	13192.4	13415.4	13316.5	12541.4	11300.6
15°	10667.6	10671.2	10660.4	10708.9	10838.4	11239.4	12642.1	13593.4	13663.6	13027.0	11570.3
17.5°	11012.8	11003.9	10962.5	10962.5	11009.3	11165.7	11994.7	13428.0	13751.7	13456.7	11807.7
20°	11591.9	11550.5	11440.8	11340.1	11289.8	11374.3	11728.6	13046.7	13598.8	13832.6	12003.7
22.5°	12293.2	12260.9	12082.8	11867.0	11692.6	11690.8	11865.2	12714.0	13334.5	14186.9	12169.2
25°	13199.6	13147.4	12883.1	12537.8	12232.1	12115.2	12163.8	12697.9	13190.6	14571.7	12316.6
27.5°	14264.2	14168.9	13856.0	13357.8	12908.3	12672.7	12602.6	12991.0	13321.9	15048.3	12521.6
30°	15555.4	15445.7	15044.7	14395.5	13760.7	13374.0	13224.8	13510.7	13757.1	15629.1	12850.7
32.5°	17024.6	16866.3	16402.4	15686.7	14852.2	14262.4	14019.6	14197.7	14393.7	16328.6	13262.5
35°	19054.9	18866.1	18195.3	17208.0	16265.7	15454.7	15066.2	15195.7	15386.3	17371.7	13857.8
37.5°	20439.6	20355.1	19909.1	18981.2	17956.1	17022.8	16422.2	16497.7	16605.6	18675.4	14620.3
40°	20427.0	20461.2	20470.2	20479.1	19781.4	18887.6	18242.1	18162.9	18141.3	20106.9	15487.0
42.5°	19403.8	19544.0	19997.2	20916.1	21340.5	20930.5	20338.9	20110.5	19997.2	21793.7	16406.0
45°	17837.4	17913.0	18761.8	20556.5	22139.0	22953.6	22505.8	21786.5	21581.5	23343.9	17168.5
47.5°	17030.0	17112.7	17646.8	19603.4	22130.0	24588.3	24847.2	23476.9	23110.1	24692.6	17826.6
50°	15107.6	15280.2	15952.8	17945.3	21322.6	25340.0	27294.7	25491.0	24732.1	26005.4	18486.6
52.5°	11577.5	11843.7	12597.2	15219.1	19274.3	24967.7	29253.1	27933.1	26861.3	27364.9	19053.1
55°	7302.9	7500.7	8133.8	10748.5	15418.7	23030.9	29995.8	30574.9	29621.8	28652.5	19544.0
57.5°	3970.7	4058.8	4296.2	5934.4	10029.2	18749.2	28913.2	32078.2	31682.6	29745.8	19914.5
58°	3553.5	3612.8	3760.3	5143.2	8894.4	17578.5	28433.1	32083.6	31885.8	29905.9	19943.3
60°	2636.3	2605.8	2474.5	2934.8	4950.7	12144.0	25530.6	30799.6	31380.5	30101.9	19803.0
62.5°	2316.2	2242.5	1974.5	1944.0	2407.9	5594.5	19535.0	26383.0	27755.1	28983.4	18950.6
65°	2176.0	2096.8	1751.6	1640.1	1737.2	2366.6	11507.4	19786.8	21507.8	25591.7	16771.0
67.5°	2071.7	1969.1	1609.5	1456.6	1463.8	1564.5	4612.7	12462.3	14399.1	19430.7	13044.9
70°	1970.9	1859.5	1489.0	1312.8	1271.4	1237.2	1834.3	6238.3	7995.3	12273.5	8317.2
72.5°	1863.0	1753.4	1382.9	1199.5	1118.5	1005.3	1197.7	2551.8	3564.2	5806.7	3772.9
75°	1706.6	1607.7	1276.8	1098.8	983.7	832.6	904.5	1332.5	1598.7	2312.6	1818.1
77.5°	1514.2	1433.3	1158.1	1016.0	872.2	676.2	695.9	924.3	1025.0	1323.6	1080.8
80°	1088.0	1116.8	1030.4	913.5	776.9	548.5	534.1	674.4	728.3	850.6	703.1
82.5°	764.3	780.5	852.4	746.3	642.0	431.6	393.8	474.8	507.1	559.3	379.4
85°	526.9	508.9	584.5	519.7	464.0	287.7	269.7	321.9	341.7	347.1	196.0
87.5°	316.5	316.5	338.1	278.7	250.0	149.3	145.7	183.4	196.0	187.0	107.9
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°	10144.3	10144.3	10144.3	10144.3	10144.3	10144.3	10144.3	10144.3	10144.3	10144.3	10144.3
2.5°	10171.2	10043.6	9772.0	9554.4	9279.3	8993.3	8833.3	8662.5	8545.6	8461.0	8595.9
5°	10248.6	9987.8	9426.7	8894.4	8306.4	7695.0	7231.0	6799.4	6499.1	6312.1	6488.3
7.5°	10370.9	9969.8	9076.1	8166.1	7110.5	6092.7	5182.7	4612.7	4280.0	4116.3	4218.8
10°	10511.1	9941.1	8664.3	7178.9	5668.3	4386.1	3706.3	3476.1	3400.6	3370.0	3384.4
12.5°	10628.0	9879.9	8158.9	5984.8	4256.6	3463.5	3267.5	3262.1	3278.3	3281.9	3287.3
15°	10710.7	9790.0	7409.0	4740.3	3404.2	3156.0	3145.2	3177.6	3208.2	3220.8	3228.0
17.5°	10766.5	9604.8	6562.0	3747.7	3049.9	3006.8	3031.9	3073.3	3105.7	3114.7	3121.9
20°	10761.1	9333.2	5553.2	3125.5	2857.5	2857.5	2900.7	2933.0	2934.8	2924.1	2929.4
22.5°	10705.3	8961.0	4574.9	2794.6	2686.7	2717.2	2760.4	2729.8	2604.0	2521.2	2526.6
25°	10611.8	8516.8	3736.9	2584.2	2528.4	2582.4	2569.8	2339.6	2159.8	2078.8	2078.8
27.5°	10529.1	7991.7	3093.1	2400.7	2370.2	2436.7	2213.7	2005.1	1929.6	1891.8	1879.2
30°	10469.8	7425.2	2663.3	2224.5	2220.9	2172.4	1920.6	1863.0	1850.5	1819.9	1809.1
32.5°	10484.1	6851.6	2388.2	2069.9	2082.4	1859.5	1780.3	1792.9	1782.1	1749.8	1735.4
35°	10602.8	6306.7	2208.3	1929.6	1891.8	1679.6	1697.6	1721.0	1717.4	1672.4	1658.0
37.5°	10815.0	5790.6	2089.6	1812.7	1650.8	1589.7	1618.5	1654.4	1645.5	1614.9	1604.1
40°	11038.0	5305.0	1992.5	1721.0	1508.8	1528.6	1553.7	1573.5	1582.5	1591.5	1584.3
42.5°	11255.6	4797.9	1873.8	1627.5	1449.4	1471.0	1481.8	1501.6	1550.1	1584.3	1582.5
45°	11385.1	4321.3	1751.6	1494.4	1402.7	1415.3	1408.1	1447.6	1507.0	1562.7	1564.5
47.5°	11529.0	3950.9	1654.4	1372.1	1357.7	1366.7	1345.1	1384.7	1438.6	1507.0	1514.2
50°	11703.4	3729.7	1577.1	1275.0	1296.6	1296.6	1291.2	1327.2	1402.7	1481.8	1496.2
52.5°	11901.2	3686.5	1512.4	1204.9	1235.4	1233.6	1239.0	1293.0	1375.7	1453.0	1465.6
55°	12142.2	3803.4	1442.2	1152.7	1176.1	1183.3	1201.3	1262.4	1332.5	1420.7	1426.1
57.5°	12422.7	4040.8	1386.5	1111.4	1122.1	1145.5	1174.3	1230.0	1305.6	1402.7	1408.1
58°	12469.5	4091.2	1377.5	1107.8	1111.4	1138.3	1170.7	1224.6	1300.2	1406.3	1411.7
60°	12471.3	4258.4	1357.7	1091.6	1070.0	1115.0	1150.9	1204.9	1291.2	1418.9	1431.5
62.5°	12028.9	4256.6	1343.3	1068.2	1026.8	1082.6	1123.9	1186.9	1282.2	1449.4	1474.6
65°	10592.0	3868.2	1275.0	1032.2	992.7	1053.8	1100.6	1174.3	1307.4	1582.5	1598.7
67.5°	8284.8	3170.4	1147.3	981.9	947.7	1025.0	1086.2	1172.5	1334.3	1613.1	1623.9
70°	5477.7	2372.0	1007.1	924.3	901.0	990.9	1093.4	1233.6	1303.8	1548.3	1519.6
72.5°	2843.1	1665.2	893.8	852.4	847.0	960.3	1197.7	1226.4	1273.2	1456.6	1420.7
75°	1492.6	1156.3	794.9	773.3	782.3	953.1	1413.5	1194.1	1233.6	1393.7	1462.0
77.5°	913.5	933.3	710.3	701.3	719.3	931.5	1411.7	1152.7	1176.1	1282.2	1357.7
80°	611.4	757.1	645.6	647.4	660.0	852.4	1267.8	1088.0	1106.0	1212.1	1289.4
82.5°	386.6	447.8	586.2	616.8	600.6	703.1	1077.2	990.9	1016.0	1386.5	1465.6
85°	196.0	280.5	508.9	593.4	541.3	492.7	874.0	868.6	881.2	999.9	1044.8
87.5°	89.9	154.7	397.4	517.9	408.2	307.5	634.8	643.8	694.1	710.3	710.3
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)