

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: P300334

Luminaire Tested: **GLNA-AF-07-LED-E1-AFL**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P300334
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-07-LED-E1-AFL
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(7) 70 CRI, 4000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Automotive Frontline OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 43046.8 lumens
Efficiency: N/A
Efficacy: 110.1 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B3 - U0 - G3

Input Watts (W): 391
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

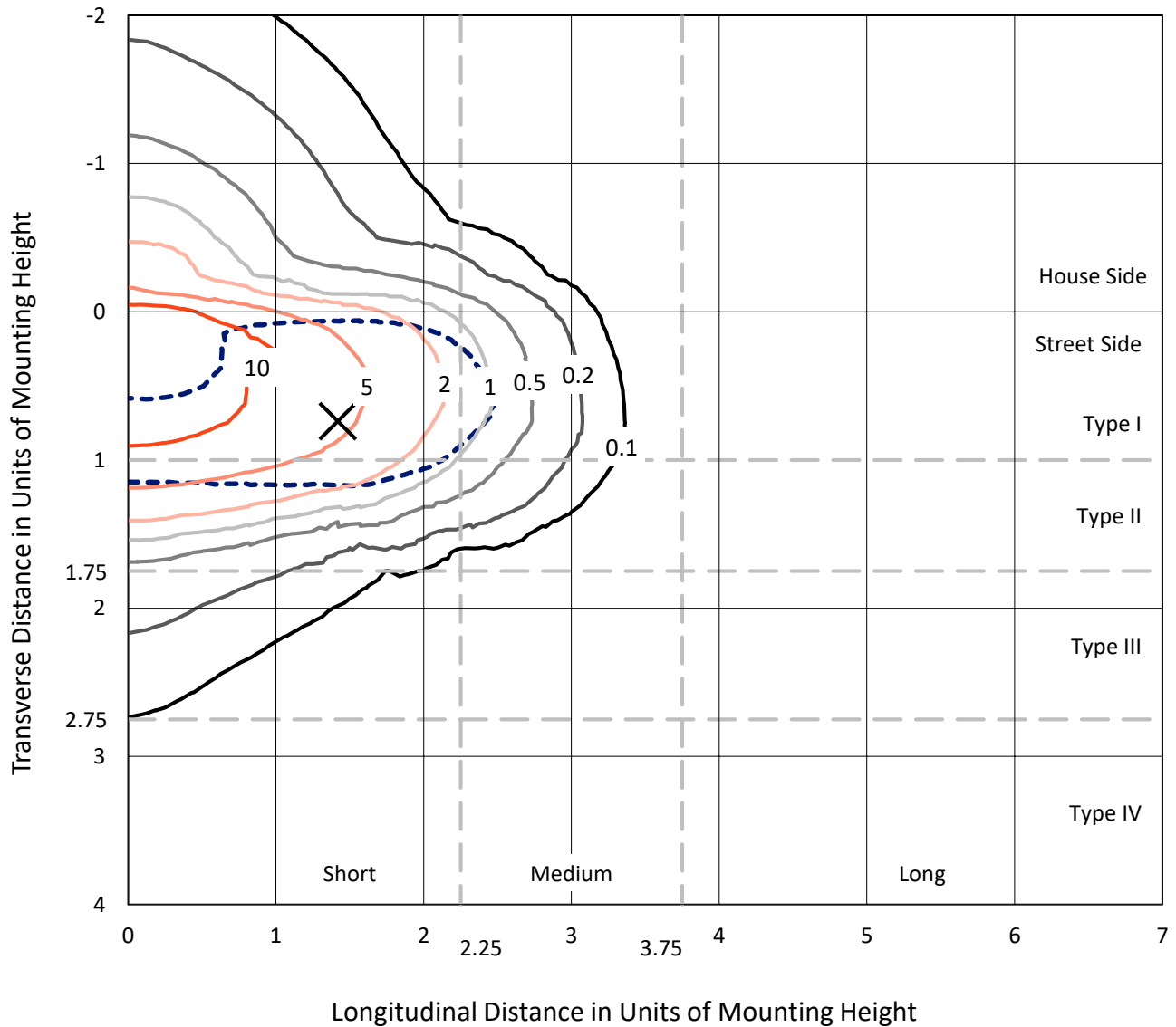


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

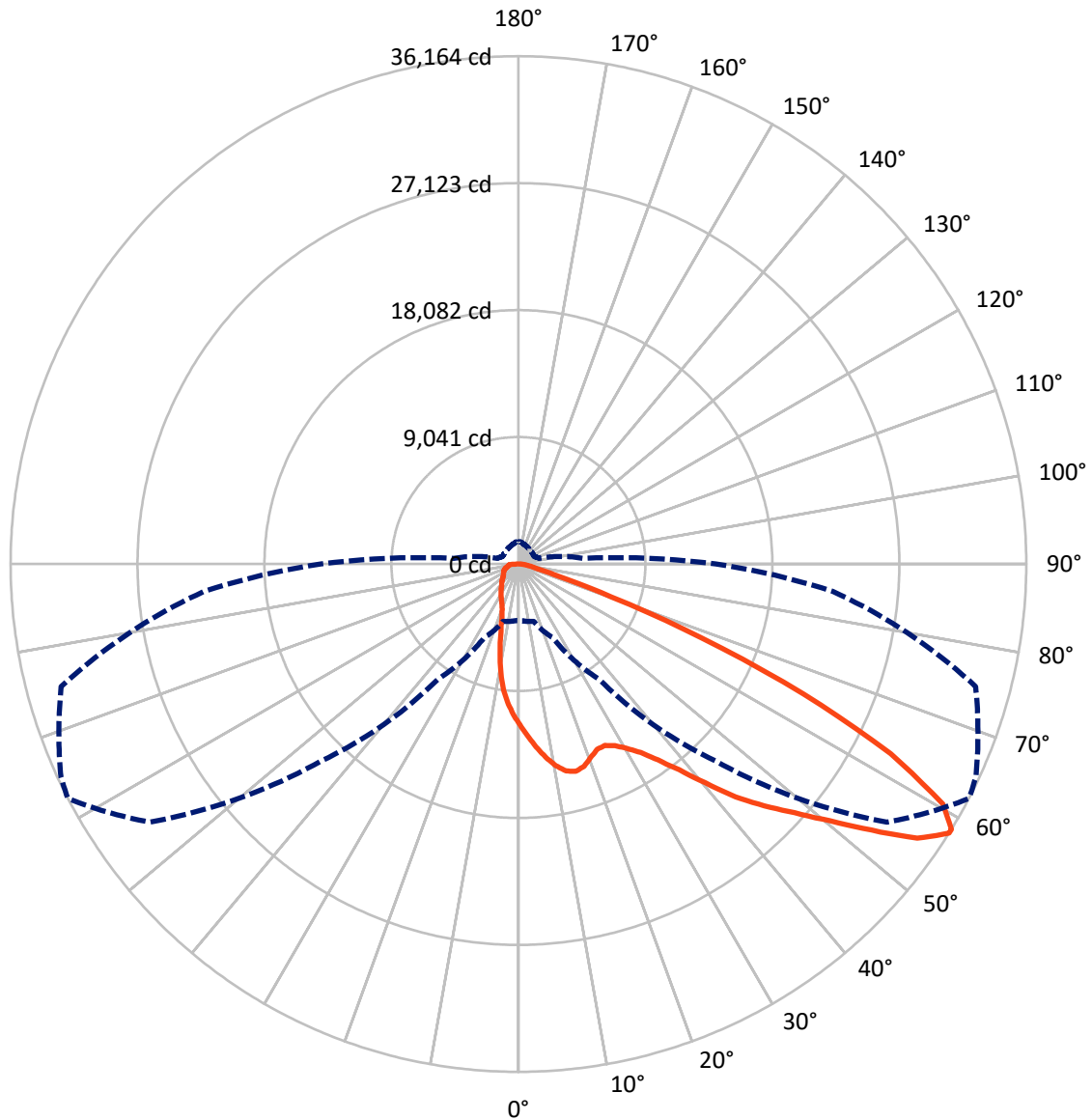


Based on 30 foot mounting height. Maximum calculated value = 15.5 fc
 Type II - Short - Full Cutoff

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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
House Side	Lumens	6564.8	0.0	6564.8
	% Fixture	15.3	0.0	15.3
Street Side	Lumens	36482.0	0.0	36482.0
	% Fixture	84.7	0.0	84.7
Total	Lumens	43046.8	0.0	43046.8
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1022.7	2.4
10°-20°	2614.1	6.1
20°-30°	4225.7	9.8
30°-40°	6708.3	15.6
40°-50°	9815.6	22.8
50°-60°	10266.3	23.8
60°-70°	6065.3	14.1
70°-80°	1708.6	4.0
80°-90°	620.3	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°	43046.8	100.0
0°-180°	43046.8	100.0



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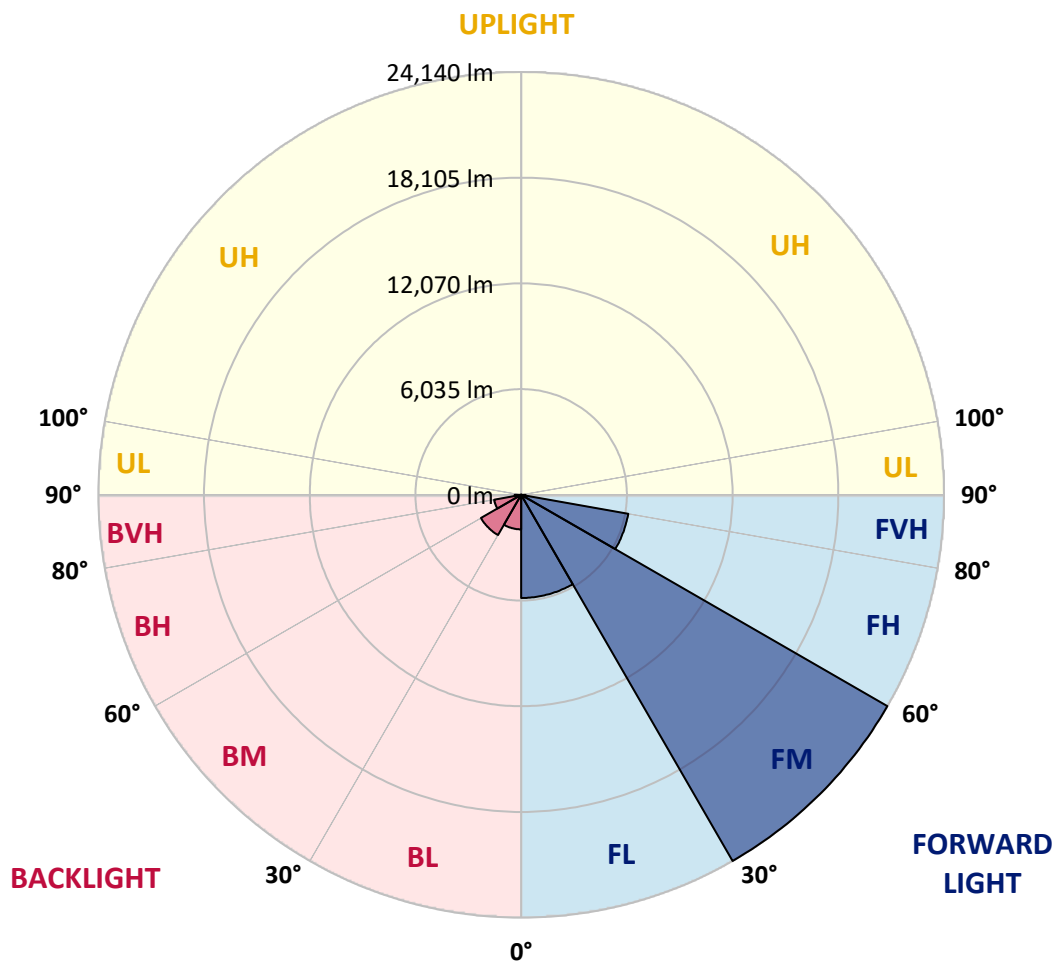
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	5889.3	13.7			
FM (30°-60°)	24140.4	56.1			
FH (60°-80°)	6207.5	14.4			G3/7500
FVH (80°-90°)	244.7	0.6			G3/500
BL (0°-30°)	1973.1	4.6	B3/2500		
BM (30°-60°)	2649.7	6.2	B3/5000		
BH (60°-80°)	1566.4	3.6	B3/2500		G3/2500
BVH (80°-90°)	375.6	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-G3

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	62.5°	65°	75°	85°
0°	11434.5	11434.5	11434.5	11434.5	11434.5	11434.5	11434.5	11434.5	11434.5	11434.5	11434.5
2.5°	13066.3	12960.9	12894.0	12835.2	12758.2	12594.0	12373.0	12233.2	12162.2	11921.0	11635.2
5°	14347.4	14254.1	14185.2	14106.1	13968.3	13710.9	13354.1	13070.3	12930.5	12448.0	11876.4
7.5°	14047.4	14085.9	14205.5	14414.3	14592.6	14558.2	14239.9	13879.1	13694.7	13023.7	12156.1
10°	12239.2	12306.1	12512.9	13001.4	13792.0	14602.8	14850.1	14600.7	14414.3	13593.3	12444.0
12.5°	11876.4	11874.4	11890.6	12020.3	12490.6	13631.8	14870.3	15121.7	15010.2	14136.5	12737.9
15°	12024.4	12028.4	12016.3	12071.0	12216.9	12669.0	14250.1	15322.4	15401.4	14683.8	13041.9
17.5°	12413.6	12403.4	12356.8	12356.8	12409.5	12585.9	13520.3	15135.9	15500.7	15168.3	13309.5
20°	13066.3	13019.7	12896.0	12782.5	12725.7	12821.0	13220.3	14706.1	15328.4	15592.0	13530.5
22.5°	13856.8	13820.3	13619.7	13376.4	13179.8	13177.8	13374.4	14331.1	15030.5	15991.3	13717.0
25°	14878.4	14819.7	14521.7	14132.5	13787.9	13656.1	13710.9	14312.9	14868.3	16425.1	13883.2
27.5°	16078.4	15971.0	15618.3	15056.8	14550.1	14284.5	14205.5	14643.3	15016.3	16962.2	14114.3
30°	17533.9	17410.2	16958.2	16226.4	15510.9	15075.1	14906.8	15229.1	15506.8	17617.0	14485.2
32.5°	19189.9	19011.6	18488.6	17681.8	16741.3	16076.4	15802.8	16003.4	16224.4	18405.5	14949.4
35°	21478.5	21265.6	20509.5	19396.7	18334.5	17420.3	16982.5	17128.5	17343.3	19581.2	15620.3
37.5°	23039.3	22944.0	22441.3	21395.4	20240.0	19187.9	18510.9	18596.0	18717.6	21050.8	16479.8
40°	23025.1	23063.6	23073.7	23083.9	22297.4	21290.0	20562.3	20473.1	20448.7	22664.3	17456.8
42.5°	21871.7	22029.8	22540.6	23576.5	24054.8	23592.7	22925.8	22668.3	22540.6	24565.6	18492.6
45°	20106.2	20191.3	21148.1	23171.0	24954.8	25873.1	25368.4	24557.5	24326.5	26313.0	19352.1
47.5°	19196.0	19289.3	19891.3	22096.7	24944.7	27715.7	28007.6	26463.0	26049.4	27833.2	20094.0
50°	17029.1	17223.7	17981.8	20227.8	24034.6	28563.0	30766.4	28733.2	27877.8	29313.0	20837.9
52.5°	13050.1	13350.1	14199.4	17154.8	21725.8	28143.4	32973.8	31485.9	30277.8	30845.4	21476.4
55°	8231.8	8454.8	9168.3	12115.6	17379.8	25960.2	33811.0	34463.7	33389.3	32296.8	22029.8
57.5°	4475.7	4575.0	4842.6	6689.2	11304.8	21133.9	32590.7	36158.3	35712.3	33529.2	22447.4
58°	4005.4	4072.3	4238.5	5797.3	10025.7	19814.3	32049.5	36164.3	35941.4	33709.6	22479.8
60°	2971.6	2937.2	2789.2	3308.1	5580.4	13688.6	28777.8	34717.0	35371.8	33930.6	22321.7
62.5°	2610.8	2527.7	2225.7	2191.2	2714.2	6306.1	22019.7	29738.6	31285.3	32669.7	21360.9
65°	2452.7	2363.5	1974.3	1848.7	1958.1	2667.6	12971.0	22303.5	24243.3	28846.7	18904.1
67.5°	2335.1	2219.6	1814.2	1641.9	1650.0	1763.5	5199.3	14047.4	16230.5	21902.1	14704.1
70°	2221.6	2096.0	1678.4	1479.7	1433.1	1394.6	2067.6	7031.8	9012.2	13834.5	9375.0
72.5°	2100.0	1976.4	1558.8	1352.0	1260.8	1133.1	1350.0	2876.4	4017.6	6545.3	4252.7
75°	1923.7	1812.2	1439.2	1238.5	1108.8	938.5	1019.6	1502.0	1802.0	2606.8	2049.3
77.5°	1706.8	1615.5	1305.4	1145.3	983.1	762.2	784.5	1041.9	1155.4	1491.9	1218.2
80°	1226.4	1258.8	1161.5	1029.7	875.7	618.2	602.0	760.1	820.9	958.8	792.6
82.5°	861.5	879.7	960.8	841.2	723.7	486.5	443.9	535.1	571.6	630.4	427.7
85°	593.9	573.7	658.8	585.8	523.0	324.3	304.1	362.8	385.1	391.2	220.9
87.5°	356.8	356.8	381.1	314.2	281.8	168.2	164.2	206.8	220.9	210.8	121.6
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°	11434.5	11434.5	11434.5	11434.5	11434.5	11434.5	11434.5	11434.5	11434.5	11434.5	11434.5
2.5°	11464.9	11321.0	11014.9	10769.6	10459.5	10137.2	9956.8	9764.2	9632.5	9537.2	9689.2
5°	11552.1	11258.2	10625.7	10025.7	9362.9	8673.7	8150.7	7664.2	7325.7	7114.9	7313.5
7.5°	11689.9	11237.9	10230.5	9204.8	8014.9	6867.6	5841.9	5199.3	4824.3	4639.9	4755.4
10°	11848.0	11205.5	9766.3	8091.9	6389.2	4943.9	4177.7	3918.3	3833.1	3798.7	3814.9
12.5°	11979.8	11136.5	9196.7	6746.0	4798.0	3904.1	3683.1	3677.0	3695.3	3699.3	3705.4
15°	12073.0	11035.2	8351.4	5343.3	3837.2	3557.4	3545.3	3581.8	3616.2	3630.4	3638.5
17.5°	12135.9	10826.4	7396.7	4224.3	3437.9	3389.2	3417.6	3464.2	3500.7	3510.8	3518.9
20°	12129.8	10520.3	6259.5	3523.0	3221.0	3221.0	3269.6	3306.1	3308.1	3296.0	3302.0
22.5°	12066.9	10100.7	5156.8	3150.0	3028.4	3062.9	3111.5	3077.0	2935.1	2841.9	2848.0
25°	11961.5	9600.0	4212.2	2912.9	2850.0	2910.8	2896.6	2637.2	2434.5	2343.3	2343.3
27.5°	11868.3	9008.1	3486.5	2706.1	2671.6	2746.6	2495.3	2260.1	2175.0	2132.4	2118.3
30°	11801.4	8369.6	3002.0	2507.4	2503.4	2448.7	2164.9	2100.0	2085.8	2051.4	2039.2
32.5°	11817.6	7723.0	2691.9	2333.1	2347.3	2096.0	2006.8	2021.0	2008.8	1972.3	1956.1
35°	11951.4	7108.8	2489.2	2175.0	2132.4	1893.3	1913.5	1939.9	1935.8	1885.1	1868.9
37.5°	12190.6	6527.1	2355.4	2043.3	1860.8	1791.9	1824.3	1864.9	1854.7	1820.3	1808.1
40°	12441.9	5979.8	2246.0	1939.9	1700.7	1723.0	1751.4	1773.7	1783.8	1793.9	1785.8
42.5°	12687.2	5408.1	2112.2	1834.5	1633.8	1658.1	1670.3	1692.6	1747.3	1785.8	1783.8
45°	12833.2	4871.0	1974.3	1684.5	1581.1	1595.3	1587.2	1631.8	1698.7	1761.5	1763.5
47.5°	12995.3	4453.4	1864.9	1546.6	1530.4	1540.5	1516.2	1560.8	1621.6	1698.7	1706.8
50°	13191.9	4204.1	1777.7	1437.2	1461.5	1461.5	1455.4	1496.0	1581.1	1670.3	1686.5
52.5°	13414.9	4155.4	1704.7	1358.1	1392.6	1390.5	1396.6	1457.4	1550.7	1637.8	1652.0
55°	13686.5	4287.2	1625.7	1299.3	1325.7	1333.8	1354.1	1423.0	1502.0	1601.4	1607.4
57.5°	14002.8	4554.7	1562.8	1252.7	1264.9	1291.2	1323.7	1386.5	1471.6	1581.1	1587.2
58°	14055.5	4611.5	1552.7	1248.7	1252.7	1283.1	1319.6	1380.4	1465.5	1585.1	1591.2
60°	14057.5	4800.0	1530.4	1230.4	1206.1	1256.8	1297.3	1358.1	1455.4	1599.3	1613.5
62.5°	13558.8	4798.0	1514.2	1204.1	1157.4	1220.3	1266.9	1337.8	1445.3	1633.8	1662.2
65°	11939.2	4360.2	1437.2	1163.5	1118.9	1187.8	1240.5	1323.7	1473.7	1783.8	1802.0
67.5°	9338.6	3573.7	1293.2	1106.8	1068.2	1155.4	1224.3	1321.6	1504.1	1818.3	1830.4
70°	6174.4	2673.7	1135.1	1041.9	1015.5	1116.9	1232.4	1390.5	1469.6	1745.3	1712.8
72.5°	3204.7	1877.0	1007.4	960.8	954.7	1082.4	1350.0	1382.4	1435.1	1641.9	1601.4
75°	1682.4	1303.4	895.9	871.6	881.8	1074.3	1593.3	1346.0	1390.5	1571.0	1648.0
77.5°	1029.7	1052.0	800.7	790.5	810.8	1050.0	1591.2	1299.3	1325.7	1445.3	1530.4
80°	689.2	853.4	727.7	729.7	743.9	960.8	1429.1	1226.4	1246.6	1366.2	1453.4
82.5°	435.8	504.7	660.8	695.3	677.0	792.6	1214.2	1116.9	1145.3	1562.8	1652.0
85°	220.9	316.2	573.7	668.9	610.1	555.4	985.1	979.1	993.2	1127.0	1177.7
87.5°	101.4	174.3	448.0	583.8	460.1	346.6	715.5	725.7	782.4	800.7	800.7
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)