

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: P300331

Luminaire Tested: **GLNA-AF-07-LED-E1-AFL-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P300331
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-7027
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(7) 70 CRI, 2700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Automotive Frontline OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 37400.7 lumens
Efficiency: N/A
Efficacy: 95.7 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

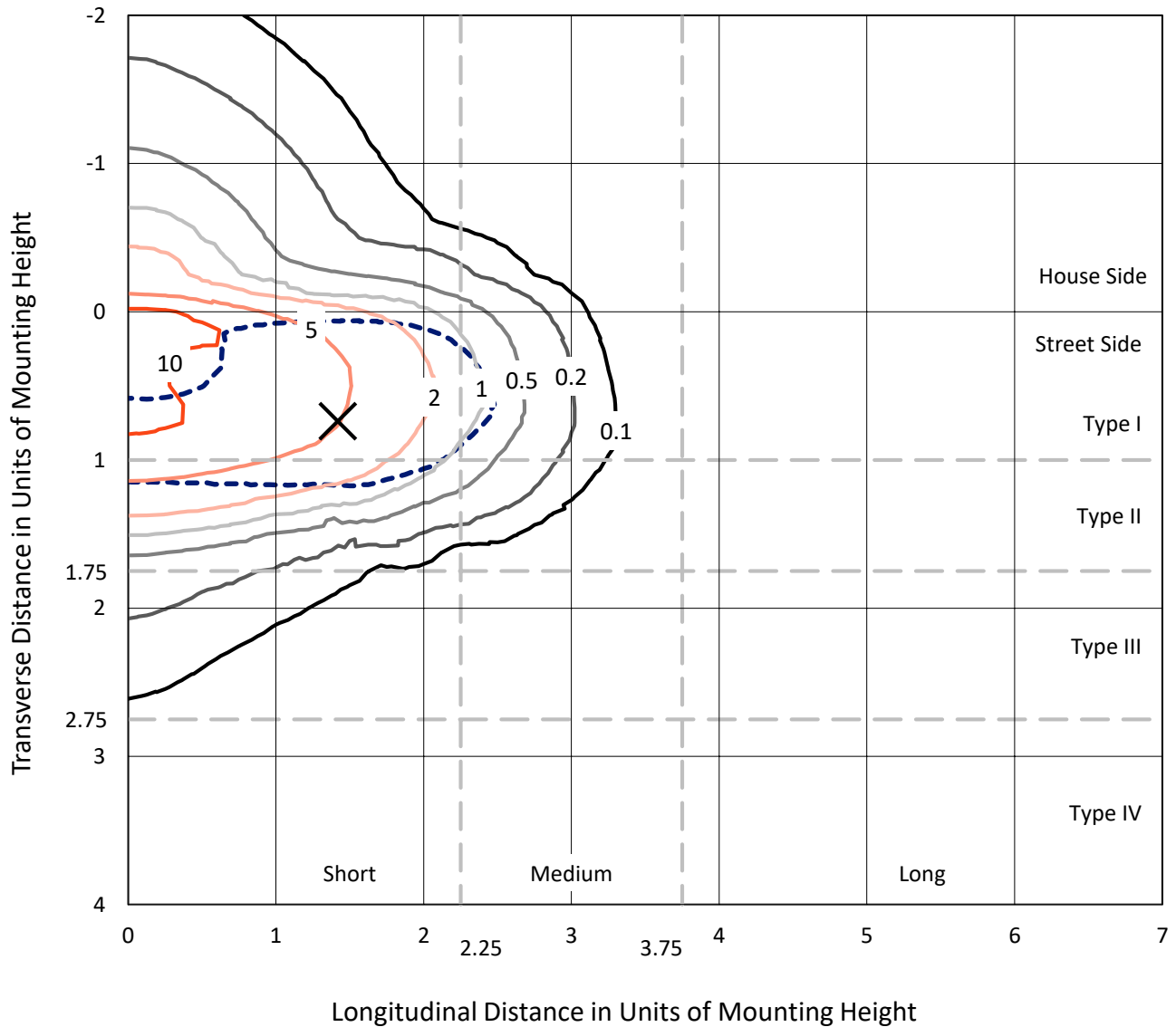


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Iso-Footcandle Lines of Horizontal Illumination

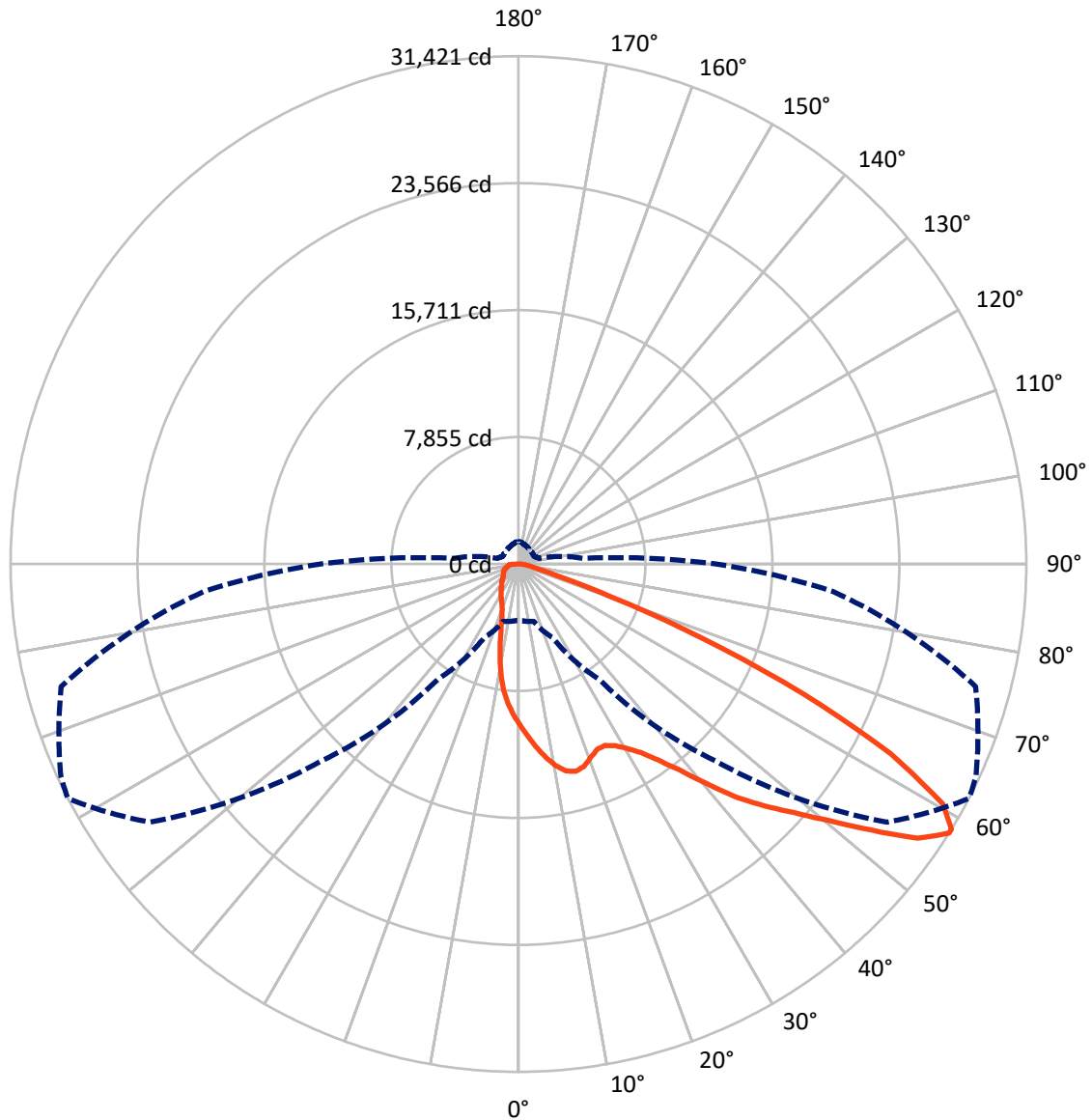
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 13.5 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	5703.8	0.0	5703.8
	% Fixture	15.3	0.0	15.3
Street Side	Lumens	31697.0	0.0	31697.0
	% Fixture	84.7	0.0	84.7
Total	Lumens	37400.7	0.0	37400.7
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	888.5	2.4
10°-20°	2271.2	6.1
20°-30°	3671.4	9.8
30°-40°	5828.4	15.6
40°-50°	8528.2	22.8
50°-60°	8919.7	23.8
60°-70°	5269.8	14.1
70°-80°	1484.5	4.0
80°-90°	539.0	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°	37400.7	100.0
0°-180°	37400.7	100.0



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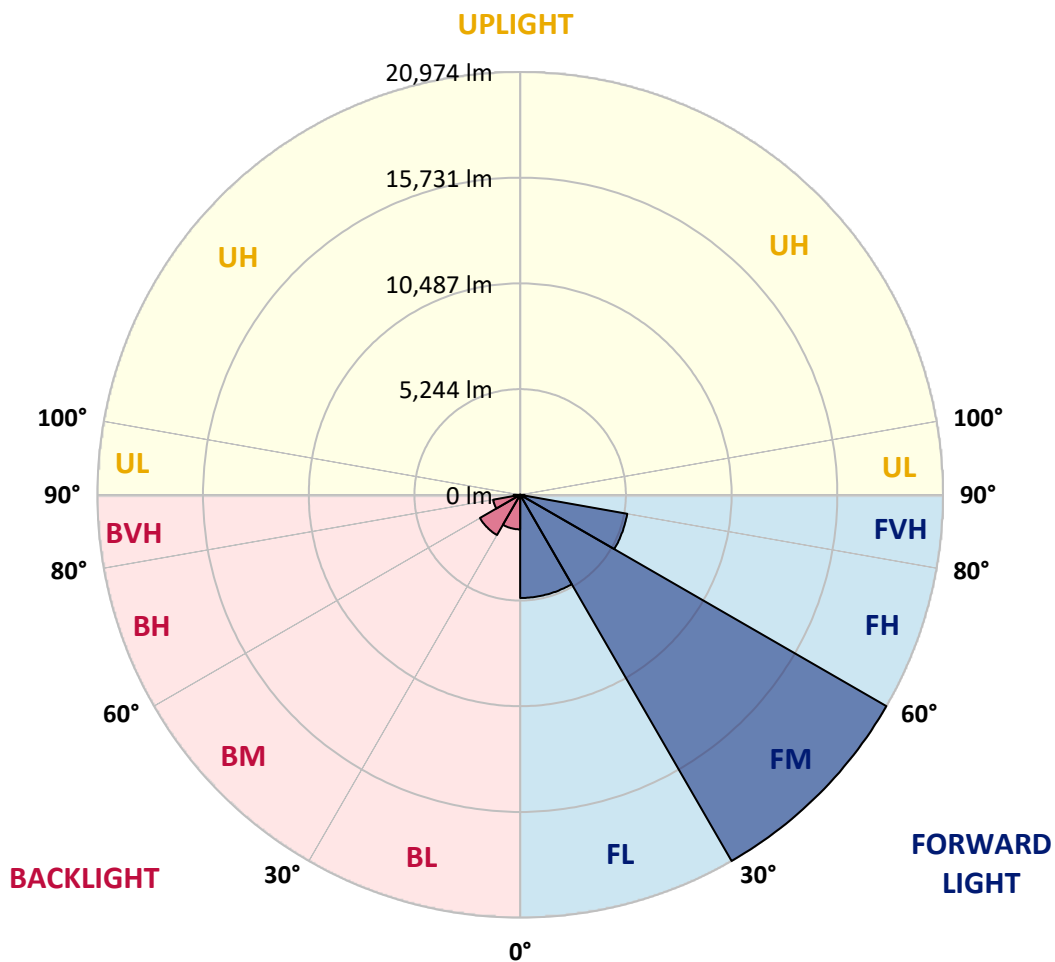
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	5116.9	13.7			
FM	(30°-60°)	20974.1	56.1			
FH	(60°-80°)	5393.3	14.4			G3/7500
FVH	(80°-90°)	212.6	0.6			G2/225
BL	(0°-30°)	1714.3	4.6	B3/2500		
BM	(30°-60°)	2302.2	6.2	B2/2500		
BH	(60°-80°)	1361.0	3.6	B3/2500		G3/2500
BVH	(80°-90°)	326.3	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°	9934.7	9934.7	9934.7	9934.7	9934.7	9934.7	9934.7	9934.7	9934.7	9934.7	9934.7
2.5°	11352.5	11260.9	11202.8	11151.7	11084.8	10942.1	10750.2	10628.6	10567.0	10357.4	10109.1
5°	12465.5	12384.5	12324.6	12256.0	12136.2	11912.5	11602.6	11356.0	11234.5	10815.3	10318.7
7.5°	12204.9	12238.4	12342.3	12523.7	12678.6	12648.7	12372.2	12058.7	11898.4	11315.5	10561.7
10°	10633.9	10692.0	10871.7	11296.1	11983.0	12687.4	12902.3	12685.7	12523.7	11810.4	10811.8
12.5°	10318.7	10316.9	10331.0	10443.7	10852.3	11843.9	12919.9	13138.3	13041.4	12282.4	11067.2
15°	10447.2	10450.8	10440.2	10487.8	10614.6	11007.3	12381.0	13312.7	13381.3	12757.9	11331.4
17.5°	10785.4	10776.6	10736.1	10736.1	10781.9	10935.1	11747.0	13150.6	13467.6	13178.8	11563.8
20°	11352.5	11312.0	11204.5	11105.9	11056.6	11139.4	11486.3	12777.3	13317.9	13546.9	11755.8
22.5°	12039.3	12007.6	11833.3	11621.9	11451.1	11449.3	11620.2	12451.5	13059.1	13893.8	11917.8
25°	12927.0	12875.9	12617.0	12278.9	11979.5	11865.0	11912.5	12435.6	12918.2	14270.7	12062.2
27.5°	13969.6	13876.2	13569.8	13082.0	12641.7	12410.9	12342.3	12722.7	13046.7	14737.4	12263.0
30°	15234.1	15126.7	14733.9	14098.1	13476.5	13097.8	12951.6	13231.7	13472.9	15306.3	12585.3
32.5°	16673.0	16518.0	16063.6	15362.7	14545.5	13967.8	13730.1	13904.4	14096.4	15991.4	12988.6
35°	18661.3	18476.4	17819.5	16852.6	15929.8	15135.5	14755.1	14881.9	15068.5	17012.9	13571.6
37.5°	20017.4	19934.7	19497.9	18589.1	17585.3	16671.2	16083.0	16156.9	16262.6	18289.7	14318.3
40°	20005.1	20038.6	20047.4	20056.2	19372.8	18497.5	17865.3	17787.8	17766.7	19691.6	15167.2
42.5°	19003.0	19140.4	19584.2	20484.1	20899.8	20498.2	19918.8	19695.1	19584.2	21343.6	16067.1
45°	17469.0	17543.0	18374.3	20131.9	21681.7	22479.5	22041.0	21336.5	21135.8	22861.7	16813.9
47.5°	16678.3	16759.3	17282.3	19198.5	21672.9	24080.4	24334.0	22992.0	22632.8	24182.6	17458.5
50°	14795.6	14964.6	15623.3	17574.7	20882.2	24816.6	26731.0	24964.5	24221.3	25468.2	18104.8
52.5°	11338.4	11599.0	12337.0	14904.8	18876.2	24452.0	28648.9	27356.2	26306.6	26799.7	18659.6
55°	7152.1	7345.8	7965.8	10526.5	15100.2	22555.3	29376.3	29943.4	29009.9	28060.7	19140.4
57.5°	3888.7	3975.0	4207.4	5811.9	9822.0	18361.9	28316.0	31415.7	31028.2	29131.5	19503.2
58°	3480.1	3538.2	3682.6	5036.9	8710.7	17215.4	27845.8	31421.0	31227.3	29288.2	19531.3
60°	2581.9	2551.9	2423.4	2874.2	4848.5	11893.2	25003.3	30163.5	30732.4	29480.2	19394.0
62.5°	2268.4	2196.2	1933.8	1903.8	2358.2	5479.0	19131.6	25838.1	27181.9	28384.7	18559.2
65°	2131.0	2053.5	1715.4	1606.2	1701.3	2317.7	11269.7	19378.1	21063.6	25063.2	16424.6
67.5°	2028.9	1928.5	1576.2	1426.5	1433.6	1532.2	4517.4	12204.9	14101.7	19029.4	12775.5
70°	1930.2	1821.0	1458.2	1285.7	1245.1	1211.7	1796.4	6109.5	7830.2	12020.0	8145.4
72.5°	1824.6	1717.1	1354.3	1174.7	1095.4	984.5	1172.9	2499.1	3490.6	5686.8	3694.9
75°	1671.3	1574.5	1250.4	1076.1	963.4	815.4	885.9	1305.0	1565.7	2264.9	1780.5
77.5°	1482.9	1403.7	1134.2	995.1	854.2	662.2	681.6	905.2	1003.9	1296.2	1058.5
80°	1065.5	1093.7	1009.1	894.7	760.8	537.2	523.1	660.4	713.3	833.0	688.6
82.5°	748.5	764.3	834.8	730.9	628.7	422.7	385.7	464.9	496.6	547.7	371.6
85°	516.0	498.4	572.4	509.0	454.4	281.8	264.2	315.2	334.6	339.9	192.0
87.5°	310.0	310.0	331.1	273.0	244.8	146.2	142.7	179.6	192.0	183.2	105.7
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°	9934.7	9934.7	9934.7	9934.7	9934.7	9934.7	9934.7	9934.7	9934.7	9934.7	9934.7
2.5°	9961.2	9836.1	9570.2	9357.1	9087.6	8807.6	8650.9	8483.5	8369.1	8286.3	8418.4
5°	10036.9	9781.5	9232.0	8710.7	8134.8	7536.0	7081.7	6659.0	6364.9	6181.7	6354.3
7.5°	10156.7	9763.9	8888.6	7997.5	6963.7	5966.8	5075.7	4517.4	4191.6	4031.3	4131.7
10°	10294.0	9735.7	8485.3	7030.6	5551.2	4295.5	3629.8	3404.3	3330.4	3300.4	3314.5
12.5°	10408.5	9675.9	7990.4	5861.2	4168.7	3392.0	3200.0	3194.8	3210.6	3214.1	3219.4
15°	10489.5	9587.8	7256.0	4642.4	3333.9	3090.8	3080.3	3112.0	3141.9	3154.3	3161.3
17.5°	10544.1	9406.4	6426.5	3670.3	2986.9	2944.7	2969.3	3009.8	3041.5	3050.3	3057.4
20°	10538.8	9140.5	5438.5	3060.9	2798.5	2798.5	2840.8	2872.5	2874.2	2863.7	2868.9
22.5°	10484.2	8775.9	4480.4	2736.9	2631.2	2661.1	2703.4	2673.5	2550.2	2469.2	2474.4
25°	10392.6	8340.9	3659.7	2530.8	2476.2	2529.0	2516.7	2291.3	2115.2	2035.9	2035.9
27.5°	10311.6	7826.6	3029.2	2351.2	2321.2	2386.4	2168.0	1963.7	1889.7	1852.7	1840.4
30°	10253.5	7271.9	2608.3	2178.6	2175.0	2127.5	1880.9	1824.6	1812.2	1782.3	1771.7
32.5°	10267.6	6710.0	2338.8	2027.1	2039.4	1821.0	1743.6	1755.9	1745.3	1713.6	1699.5
35°	10383.8	6176.4	2162.7	1889.7	1852.7	1644.9	1662.5	1685.4	1681.9	1637.9	1623.8
37.5°	10591.7	5671.0	2046.5	1775.3	1616.8	1556.9	1585.1	1620.3	1611.5	1581.5	1571.0
40°	10810.0	5195.4	1951.4	1685.4	1477.6	1497.0	1521.6	1541.0	1549.8	1558.6	1551.6
42.5°	11023.1	4698.8	1835.1	1593.9	1419.5	1440.6	1451.2	1470.6	1518.1	1551.6	1549.8
45°	11150.0	4232.1	1715.4	1463.5	1373.7	1386.0	1379.0	1417.7	1475.9	1530.5	1532.2
47.5°	11290.8	3869.3	1620.3	1343.8	1329.7	1338.5	1317.4	1356.1	1408.9	1475.9	1482.9
50°	11461.7	3652.7	1544.5	1248.7	1269.8	1269.8	1264.5	1299.7	1373.7	1451.2	1465.3
52.5°	11655.4	3610.4	1481.1	1180.0	1209.9	1208.2	1213.4	1266.3	1347.3	1423.0	1435.4
55°	11891.4	3724.9	1412.5	1128.9	1151.8	1158.8	1176.5	1236.3	1305.0	1391.3	1396.6
57.5°	12166.1	3957.3	1357.9	1088.4	1099.0	1121.9	1150.0	1204.6	1278.6	1373.7	1379.0
58°	12211.9	4006.7	1349.1	1084.9	1088.4	1114.8	1146.5	1199.4	1273.3	1377.2	1382.5
60°	12213.7	4170.4	1329.7	1069.0	1047.9	1091.9	1127.1	1180.0	1264.5	1389.6	1401.9
62.5°	11780.4	4168.7	1315.6	1046.1	1005.6	1060.2	1100.7	1162.4	1255.7	1419.5	1444.2
65°	10373.3	3788.3	1248.7	1010.9	972.2	1032.0	1077.8	1150.0	1280.4	1549.8	1565.7
67.5°	8113.7	3104.9	1123.6	961.6	928.1	1003.9	1063.7	1148.3	1306.8	1579.8	1590.3
70°	5364.5	2323.0	986.3	905.2	882.3	970.4	1070.8	1208.2	1276.8	1516.4	1488.2
72.5°	2784.4	1630.8	875.3	834.8	829.5	940.5	1172.9	1201.1	1246.9	1426.5	1391.3
75°	1461.8	1132.4	778.4	757.3	766.1	933.4	1384.3	1169.4	1208.2	1364.9	1431.8
77.5°	894.7	914.0	695.7	686.9	704.5	912.3	1382.5	1128.9	1151.8	1255.7	1329.7
80°	598.8	741.5	632.3	634.0	646.3	834.8	1241.6	1065.5	1083.1	1187.0	1262.8
82.5°	378.7	438.5	574.1	604.1	588.2	688.6	1054.9	970.4	995.1	1357.9	1435.4
85°	192.0	274.7	498.4	581.2	530.1	482.6	855.9	850.6	863.0	979.2	1023.2
87.5°	88.1	151.5	389.2	507.2	399.8	301.2	621.7	630.5	679.8	695.7	695.7
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)