

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: P300400

Luminaire Tested: **GLNA-AF-08-LED-E1-AFL-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P300400  
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-08-LED-E1-AFL-800  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(8) 70 CRI, 4000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Automotive Frontline OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 39403.5 lumens  
Efficiency: N/A  
Efficacy: 118.0 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

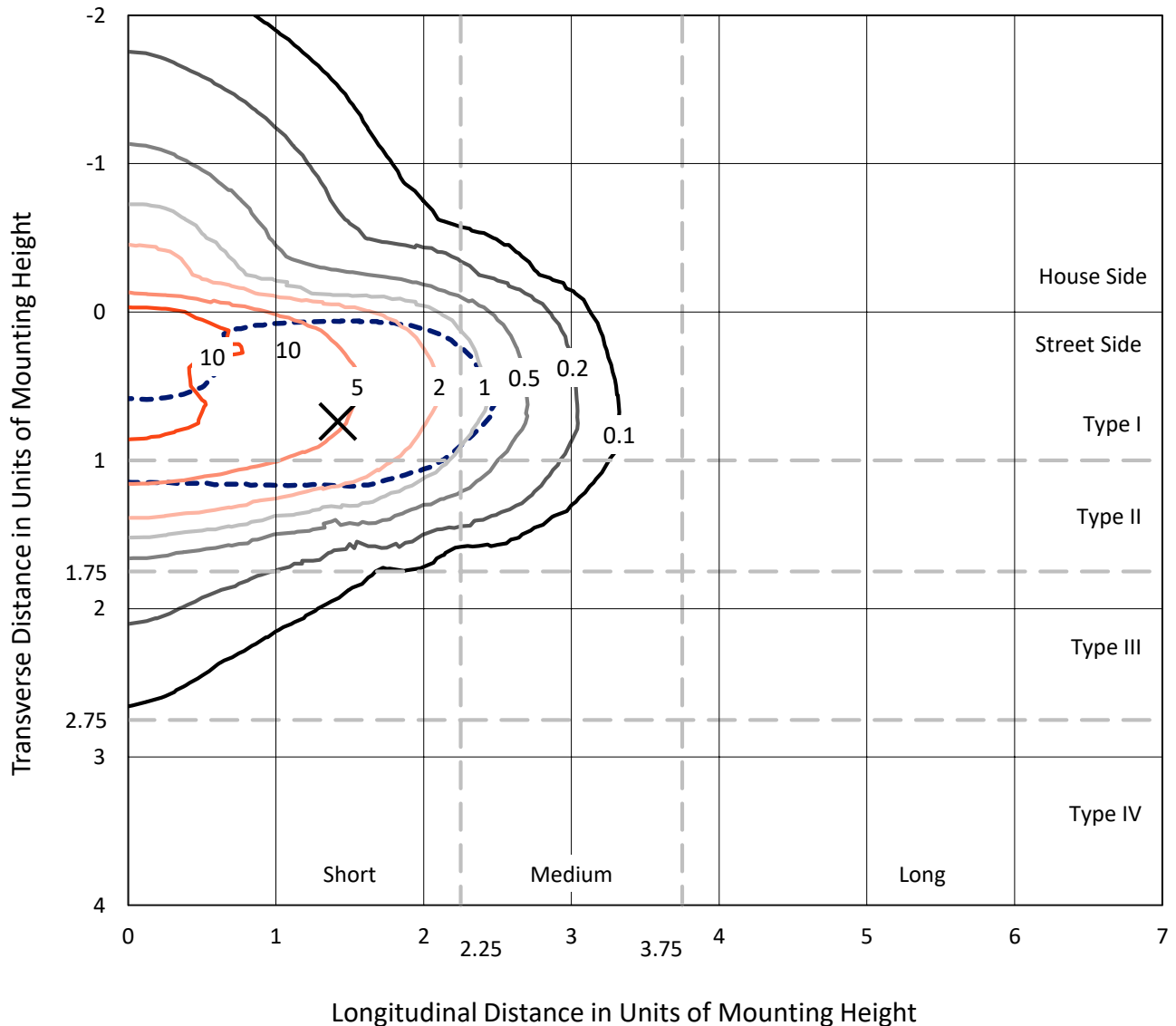
Input Watts (W): 334  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

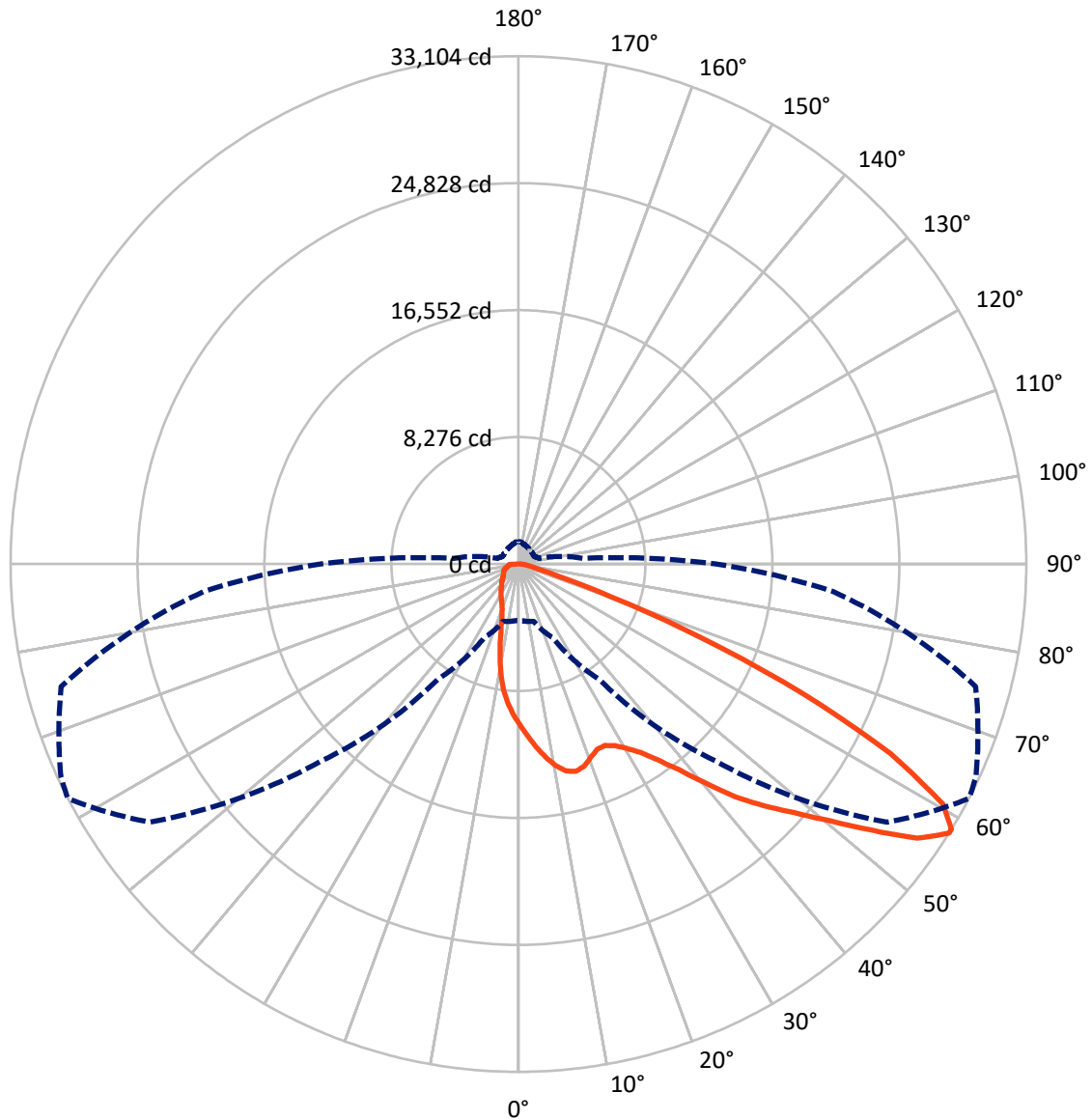
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 14.2 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	6009.2	0.0	6009.2
	% Fixture	15.3	0.0	15.3
<b>Street Side</b>	Lumens	33394.3	0.0	33394.3
	% Fixture	84.7	0.0	84.7
<b>Total</b>	Lumens	39403.5	0.0	39403.5
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	936.1	2.4
10°-20°	2392.8	6.1
20°-30°	3868.1	9.8
30°-40°	6140.5	15.6
40°-50°	8984.8	22.8
50°-60°	9397.4	23.8
60°-70°	5552.0	14.1
70°-80°	1564.0	4.0
80°-90°	567.8	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°	39403.5	100.0
0°-180°	39403.5	100.0



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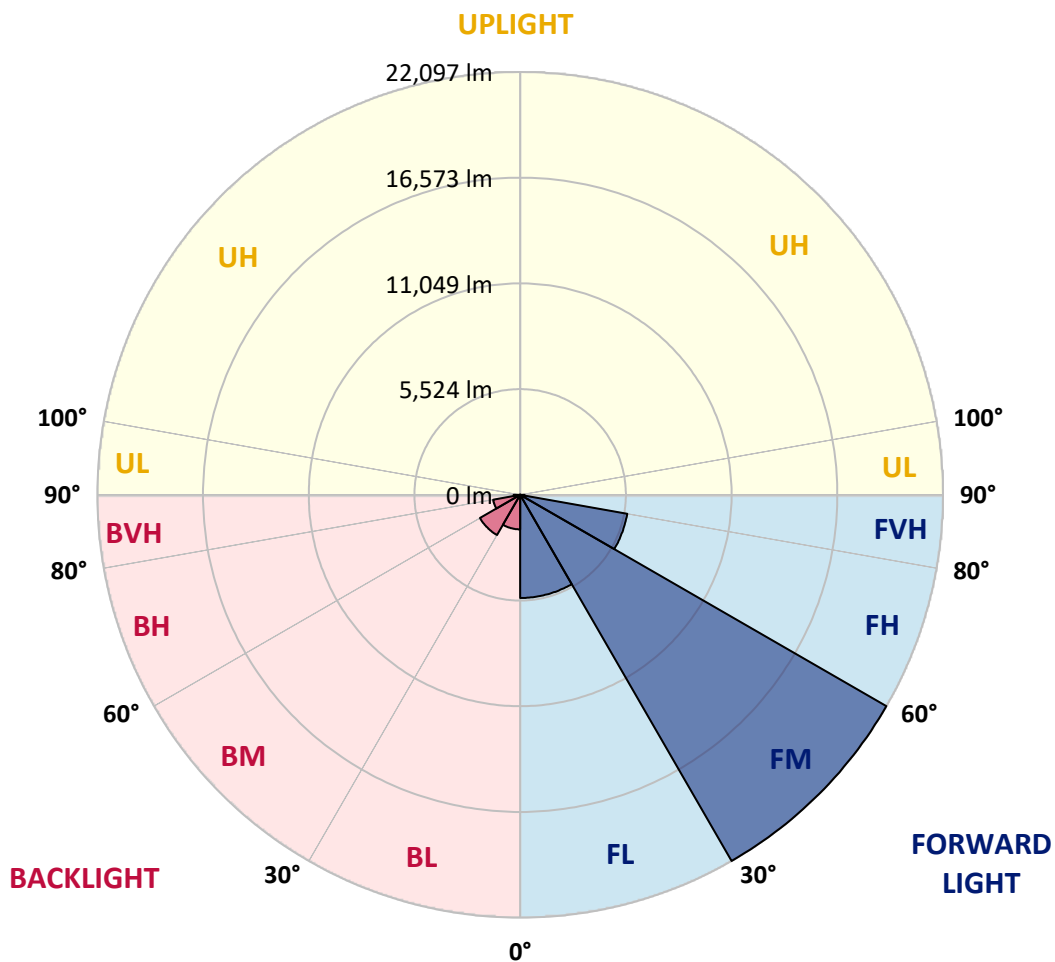
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	5390.9	13.7			
FM (30°-60°)	22097.3	56.1			
FH (60°-80°)	5682.2	14.4			G3/7500
FVH (80°-90°)	224.0	0.6			G2/225
BL (0°-30°)	1806.1	4.6	B3/2500		
BM (30°-60°)	2425.5	6.2	B2/2500		
BH (60°-80°)	1433.9	3.6	B3/2500		G3/2500
BVH (80°-90°)	343.8	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°	10466.8	10466.8	10466.8	10466.8	10466.8	10466.8	10466.8	10466.8	10466.8	10466.8	10466.8
2.5°	11960.4	11863.9	11802.7	11748.9	11678.4	11528.1	11325.8	11197.8	11132.9	10912.1	10650.4
5°	13133.1	13047.7	12984.6	12912.3	12786.1	12550.5	12223.9	11964.1	11836.1	11394.5	10871.2
7.5°	12858.5	12893.7	13003.2	13194.3	13357.6	13326.0	13034.7	12704.5	12535.6	11921.4	11127.3
10°	11203.4	11264.6	11453.9	11901.0	12624.7	13366.9	13593.2	13365.0	13194.3	12442.8	11390.8
12.5°	10871.2	10869.4	10884.2	11003.0	11433.5	12478.1	13611.8	13841.9	13739.8	12940.1	11659.8
15°	11006.7	11010.4	10999.3	11049.4	11183.0	11596.7	13044.0	14025.6	14097.9	13441.1	11938.1
17.5°	11362.9	11353.7	11311.0	11311.0	11359.2	11520.7	12376.0	13854.9	14188.8	13884.5	12183.1
20°	11960.4	11917.7	11804.6	11700.6	11648.7	11735.9	12101.4	13461.5	14031.1	14272.3	12385.3
22.5°	12684.0	12650.6	12467.0	12244.3	12064.3	12062.5	12242.4	13118.2	13758.4	14637.9	12556.0
25°	13619.2	13565.4	13292.6	12936.4	12621.0	12500.4	12550.5	13101.5	13609.9	15034.9	12708.2
27.5°	14717.7	14619.3	14296.5	13782.5	13318.6	13075.6	13003.2	13404.0	13745.4	15526.6	12919.7
30°	16049.9	15936.7	15522.9	14853.1	14198.1	13799.2	13645.2	13940.2	14194.4	16126.0	13259.2
32.5°	17565.8	17402.5	16923.8	16185.3	15324.4	14715.8	14465.3	14649.0	14851.2	16847.7	13684.1
35°	19660.6	19465.8	18773.7	17755.1	16782.8	15946.0	15545.2	15678.8	15875.5	17923.9	14298.3
37.5°	21089.4	21002.2	20542.0	19584.6	18526.9	17564.0	16944.2	17022.2	17133.5	19269.1	15085.0
40°	21076.4	21111.6	21120.9	21130.2	20410.3	19488.1	18822.0	18740.3	18718.1	20746.1	15979.4
42.5°	20020.6	20165.3	20632.9	21581.1	22019.0	21595.9	20985.5	20749.8	20632.9	22486.5	16927.5
45°	18404.5	18482.4	19358.2	21210.0	22842.8	23683.3	23221.3	22479.1	22267.6	24086.0	17714.2
47.5°	17571.4	17656.7	18207.8	20226.6	22833.5	25369.9	25637.1	24223.3	23844.7	25477.6	18393.4
50°	15587.9	15766.0	16459.9	18515.8	22000.4	26145.5	28162.4	26301.4	25518.4	26832.1	19074.3
52.5°	11945.6	12220.2	12997.6	15702.9	19887.0	25761.5	30183.1	28821.1	27715.3	28234.8	19658.8
55°	7535.1	7739.2	8392.3	11090.2	15908.9	23763.1	30949.4	31546.8	30563.4	29563.3	20165.3
57.5°	4096.9	4187.8	4432.7	6123.1	10348.0	19345.2	29832.4	33098.0	32689.8	30691.5	20547.6
58°	3666.4	3727.7	3879.8	5306.7	9177.2	18137.3	29337.0	33103.6	32899.5	30856.6	20577.3
60°	2720.1	2688.6	2553.1	3028.1	5108.1	12530.0	26342.2	31778.8	32378.1	31058.8	20432.5
62.5°	2389.9	2313.8	2037.3	2005.8	2484.5	5772.4	20156.1	27221.7	28637.4	29904.7	19553.0
65°	2245.1	2163.5	1807.2	1692.2	1792.4	2441.8	11873.2	20415.8	22191.5	26405.3	17304.2
67.5°	2137.5	2031.7	1660.7	1502.9	1510.4	1614.3	4759.3	12858.5	14856.8	20048.4	13459.6
70°	2033.6	1918.6	1536.3	1354.5	1311.8	1276.6	1892.6	6436.7	8249.5	12663.6	8581.6
72.5°	1922.3	1809.1	1426.9	1237.6	1154.1	1037.2	1235.7	2632.9	3677.6	5991.3	3892.8
75°	1760.8	1658.8	1317.4	1133.7	1014.9	859.1	933.3	1374.9	1649.5	2386.1	1875.9
77.5°	1562.3	1478.8	1194.9	1048.3	899.9	697.7	718.1	953.7	1057.6	1365.6	1115.1
80°	1122.6	1152.3	1063.2	942.6	801.6	565.9	551.1	695.8	751.5	877.6	725.5
82.5°	788.6	805.3	879.5	770.0	662.4	445.3	406.3	489.8	523.2	577.1	391.5
85°	543.7	525.1	603.0	536.2	478.7	296.9	278.3	332.1	352.5	358.1	202.2
87.5°	326.6	326.6	348.8	287.6	257.9	154.0	150.3	189.3	202.2	193.0	111.3
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°	10466.8	10466.8	10466.8	10466.8	10466.8	10466.8	10466.8	10466.8	10466.8	10466.8	10466.8
2.5°	10494.6	10362.8	10082.7	9858.2	9574.3	9279.2	9114.1	8937.8	8817.2	8730.0	8869.2
5°	10574.4	10305.3	9726.4	9177.2	8570.5	7939.6	7460.9	7015.6	6705.7	6512.7	6694.6
7.5°	10700.5	10286.8	9364.6	8425.7	7336.6	6286.4	5347.5	4759.3	4416.0	4247.2	4353.0
10°	10845.3	10257.1	8939.7	7407.1	5848.5	4525.5	3824.1	3586.6	3508.7	3477.2	3492.0
12.5°	10965.9	10194.0	8418.3	6175.0	4391.9	3573.7	3371.4	3365.8	3382.5	3386.2	3391.8
15°	11051.2	10101.2	7644.6	4891.0	3512.4	3256.4	3245.2	3278.6	3310.2	3323.2	3330.6
17.5°	11108.7	9910.1	6770.6	3866.8	3146.9	3102.4	3128.3	3171.0	3204.4	3213.7	3221.1
20°	11103.2	9629.9	5729.7	3224.8	2948.4	2948.4	2992.9	3026.3	3028.1	3017.0	3022.6
22.5°	11045.7	9245.8	4720.3	2883.4	2772.1	2803.6	2848.2	2816.6	2686.7	2601.4	2606.9
25°	10949.2	8787.5	3855.7	2666.3	2608.8	2664.5	2651.5	2414.0	2228.4	2144.9	2144.9
27.5°	10863.8	8245.7	3191.4	2477.1	2445.5	2514.2	2284.1	2068.9	1990.9	1952.0	1939.0
30°	10802.6	7661.3	2748.0	2295.2	2291.5	2241.4	1981.7	1922.3	1909.3	1877.7	1866.6
32.5°	10817.4	7069.4	2464.1	2135.7	2148.6	1918.6	1836.9	1849.9	1838.8	1805.4	1790.5
35°	10939.9	6507.2	2278.5	1990.9	1952.0	1733.0	1751.6	1775.7	1772.0	1725.6	1710.8
37.5°	11158.8	5974.6	2156.1	1870.3	1703.3	1640.2	1669.9	1707.0	1697.8	1666.2	1655.1
40°	11388.9	5473.7	2055.9	1775.7	1556.7	1577.2	1603.1	1623.5	1632.8	1642.1	1634.7
42.5°	11613.4	4950.4	1933.4	1679.2	1495.5	1517.8	1528.9	1549.3	1599.4	1634.7	1632.8
45°	11747.0	4458.7	1807.2	1541.9	1447.3	1460.3	1452.8	1493.7	1554.9	1612.4	1614.3
47.5°	11895.5	4076.5	1707.0	1415.7	1400.9	1410.2	1387.9	1428.7	1484.4	1554.9	1562.3
50°	12075.5	3848.3	1627.3	1315.5	1337.8	1337.8	1332.2	1369.3	1447.3	1528.9	1543.8
52.5°	12279.6	3803.7	1560.5	1243.2	1274.7	1272.9	1278.4	1334.1	1419.4	1499.2	1512.2
55°	12528.2	3924.3	1488.1	1189.4	1213.5	1220.9	1239.5	1302.5	1374.9	1465.8	1471.4
57.5°	12817.6	4169.3	1430.6	1146.7	1157.8	1181.9	1211.6	1269.1	1347.1	1447.3	1452.8
58°	12865.9	4221.2	1421.3	1143.0	1146.7	1174.5	1207.9	1263.6	1341.5	1451.0	1456.6
60°	12867.7	4393.8	1400.9	1126.3	1104.0	1150.4	1187.5	1243.2	1332.2	1464.0	1477.0
62.5°	12411.3	4391.9	1386.0	1102.2	1059.5	1117.0	1159.7	1224.6	1323.0	1495.5	1521.5
65°	10928.8	3991.1	1315.5	1065.0	1024.2	1087.3	1135.6	1211.6	1348.9	1632.8	1649.5
67.5°	8548.2	3271.2	1183.8	1013.1	977.8	1057.6	1120.7	1209.8	1376.8	1664.4	1675.5
70°	5651.8	2447.4	1039.1	953.7	929.6	1022.4	1128.1	1272.9	1345.2	1597.6	1567.9
72.5°	2933.5	1718.2	922.2	879.5	873.9	990.8	1235.7	1265.4	1313.7	1502.9	1465.8
75°	1540.0	1193.1	820.1	797.9	807.1	983.4	1458.4	1232.0	1272.9	1438.0	1508.5
77.5°	942.6	963.0	732.9	723.6	742.2	961.1	1456.6	1189.4	1213.5	1323.0	1400.9
80°	630.9	781.2	666.1	668.0	681.0	879.5	1308.1	1122.6	1141.1	1250.6	1330.4
82.5°	398.9	462.0	604.9	636.4	619.7	725.5	1111.4	1022.4	1048.3	1430.6	1512.2
85°	202.2	289.5	525.1	612.3	558.5	508.4	901.8	896.2	909.2	1031.6	1078.0
87.5°	92.8	159.6	410.1	534.4	421.2	317.3	655.0	664.3	716.2	732.9	732.9
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)