

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: P300347

Luminaire Tested: **GLNA-AF-09-LED-E1-AFL-7050**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P300347  
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-7050  
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE  
(9) 70 CRI, 5000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Automotive Frontline OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 54407.3 lumens  
Efficiency: N/A  
Efficacy: 108.6 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 - G4

Input Watts (W): 501  
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

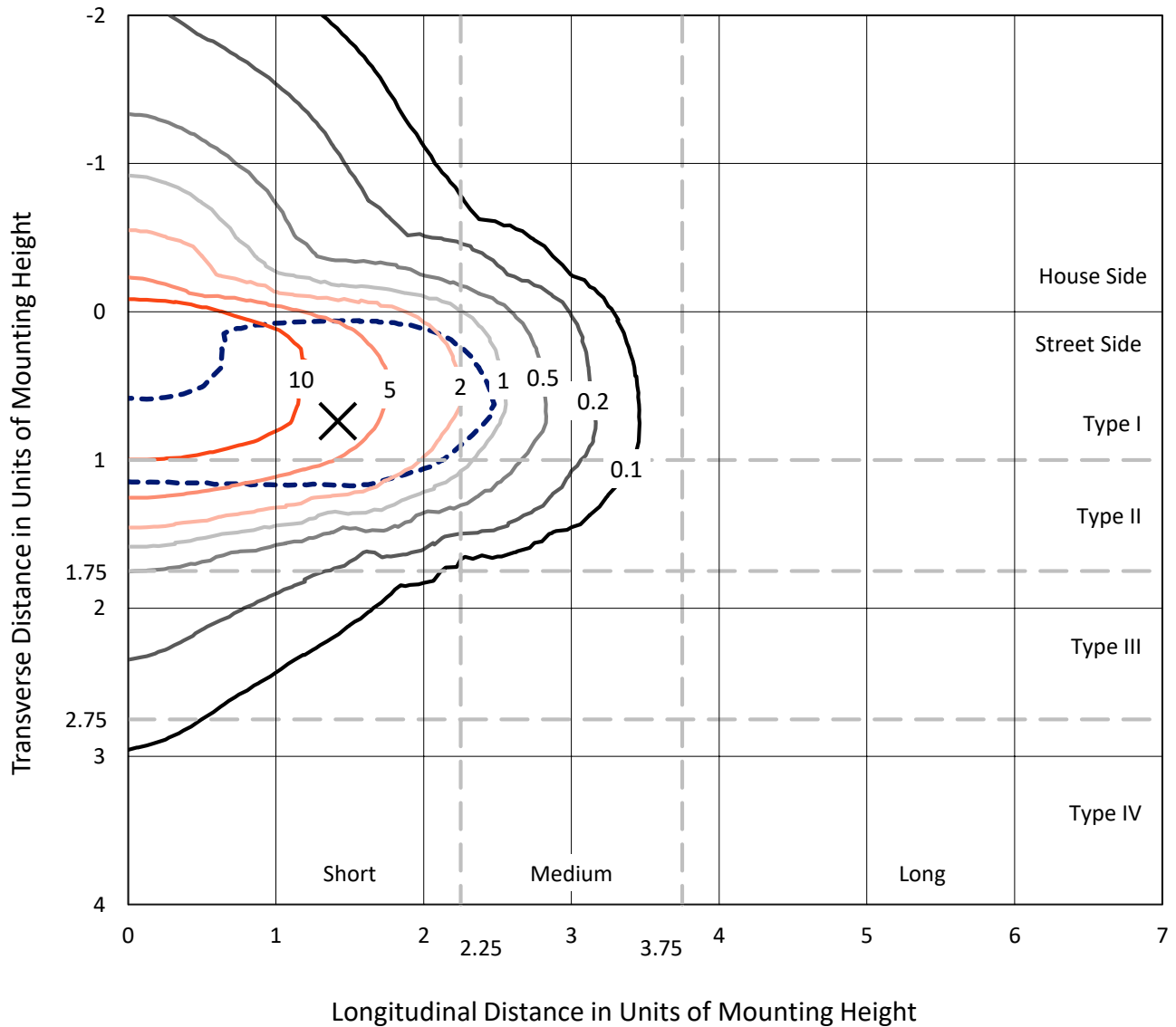


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### Iso-Footcandle Lines of Horizontal Illumination

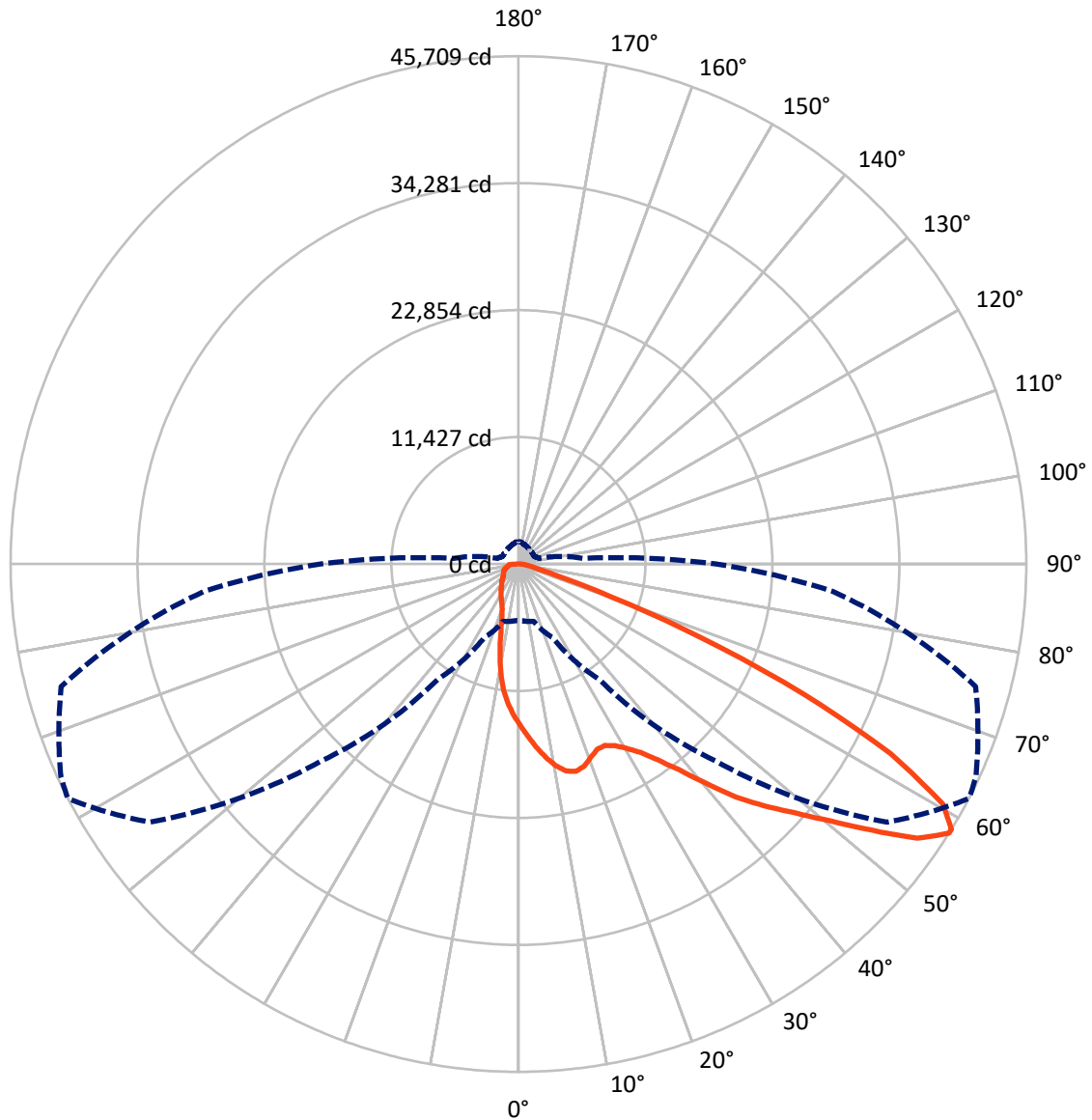
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 19.6 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	8297.3	0.0	8297.3
	% Fixture	15.3	0.0	15.3
<b>Street Side</b>	Lumens	46110.0	0.0	46110.0
	% Fixture	84.7	0.0	84.7
<b>Total</b>	Lumens	54407.3	0.0	54407.3
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1292.5	2.4
10°-20°	3303.9	6.1
20°-30°	5340.9	9.8
30°-40°	8478.6	15.6
40°-50°	12406.0	22.8
50°-60°	12975.7	23.8
60°-70°	7666.0	14.1
70°-80°	2159.6	4.0
80°-90°	784.0	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°	54407.3	100.0
0°-180°	54407.3	100.0



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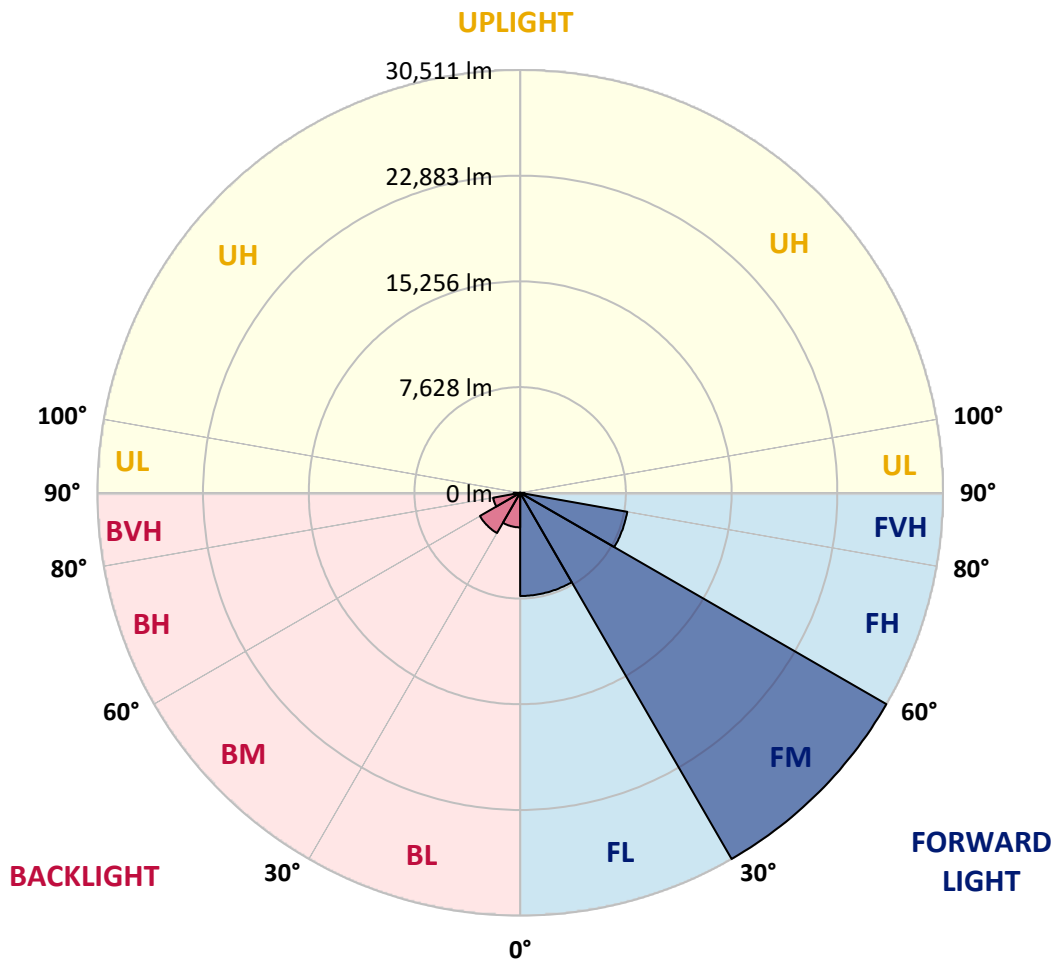
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	7443.6	13.7			
FM	(30°-60°)	30511.3	56.1			
FH	(60°-80°)	7845.8	14.4			G4/12000
FVH	(80°-90°)	309.3	0.6			G3/500
BL	(0°-30°)	2493.8	4.6	B3/2500		
BM	(30°-60°)	3349.0	6.2	B3/5000		
BH	(60°-80°)	1979.8	3.6	B3/2500		G3/2500
BVH	(80°-90°)	474.7	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-G4**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	62.5°	65°	75°	85°
0°	14452.2	14452.2	14452.2	14452.2	14452.2	14452.2	14452.2	14452.2	14452.2	14452.2	14452.2
2.5°	16514.6	16381.4	16296.8	16222.5	16125.2	15917.7	15638.4	15461.6	15372.0	15067.1	14705.8
5°	18133.8	18015.9	17928.8	17828.9	17654.7	17329.3	16878.4	16519.7	16342.9	15733.2	15010.7
7.5°	17754.6	17803.3	17954.4	18218.3	18443.8	18400.2	17998.0	17542.0	17308.8	16460.8	15364.3
10°	15469.3	15553.9	15815.2	16432.6	17431.8	18456.6	18769.2	18454.0	18218.3	17180.7	15728.1
12.5°	15010.7	15008.2	15028.6	15192.6	15787.0	17229.4	18794.8	19112.5	18971.6	17867.3	16099.6
15°	15197.7	15202.9	15187.5	15256.7	15441.1	16012.5	18010.8	19366.1	19466.0	18559.1	16483.9
17.5°	15689.6	15676.8	15617.9	15617.9	15684.5	15907.4	17088.5	19130.4	19591.6	19171.4	16822.0
20°	16514.6	16455.7	16299.4	16155.9	16084.2	16204.6	16709.3	18587.3	19373.8	19706.8	17101.3
22.5°	17513.8	17467.7	17214.0	16906.6	16658.1	16655.5	16904.0	18113.3	18997.2	20211.6	17337.0
25°	18805.0	18730.7	18354.1	17862.2	17426.7	17260.1	17329.3	18090.2	18792.2	20759.8	17547.1
27.5°	20321.7	20185.9	19740.2	19030.5	18390.0	18054.4	17954.4	18507.8	18979.2	21438.8	17839.2
30°	22161.2	22005.0	21433.6	20508.7	19604.4	19053.5	18840.9	19248.2	19599.2	22266.3	18308.0
32.5°	24254.4	24028.9	23367.9	22348.3	21159.5	20319.2	19973.3	20226.9	20506.2	23262.9	18894.7
35°	27146.9	26877.9	25922.2	24515.7	23173.2	22017.8	21464.4	21648.8	21920.4	24748.8	19742.7
37.5°	29119.6	28999.2	28363.8	27041.8	25581.5	24251.8	23396.1	23503.7	23657.4	26606.3	20829.0
40°	29101.7	29150.4	29163.2	29176.0	28181.9	26908.6	25988.9	25876.1	25845.4	28645.6	22063.9
42.5°	27643.9	27843.7	28489.4	29798.5	30403.2	29819.0	28976.1	28650.8	28489.4	31048.8	23373.1
45°	25412.4	25520.0	26729.3	29286.1	31540.7	32701.3	32063.3	31038.5	30746.5	33257.2	24459.3
47.5°	24262.1	24379.9	25140.8	27928.3	31527.9	35030.1	35399.0	33446.8	32924.2	35178.7	25397.0
50°	21523.3	21769.2	22727.4	25566.1	30377.5	36101.0	38885.9	36316.2	35235.1	37049.0	26337.3
52.5°	16494.1	16873.3	17946.8	21682.1	27459.4	35570.7	41675.9	39795.4	38268.5	38985.8	27144.3
55°	10404.3	10686.1	11587.9	15313.0	21966.5	32811.4	42734.0	43559.0	42201.1	40820.2	27843.7
57.5°	5656.9	5782.4	6120.6	8454.6	14288.2	26711.3	41191.7	45700.8	45137.2	42377.9	28371.5
58°	5062.5	5147.0	5357.1	7327.3	12671.6	25043.5	40507.7	45708.5	45426.7	42605.9	28412.5
60°	3755.9	3712.3	3525.3	4181.2	7053.2	17301.1	36372.6	43879.2	44706.8	42885.2	28212.7
62.5°	3299.8	3194.8	2813.1	2769.5	3430.5	7970.4	27830.9	37587.0	39541.8	41291.6	26998.3
65°	3100.0	2987.3	2495.4	2336.5	2474.9	3371.6	16394.2	28189.6	30641.4	36459.7	23893.1
67.5°	2951.4	2805.4	2293.0	2075.2	2085.5	2228.9	6571.5	17754.6	20513.9	27682.3	18584.7
70°	2807.9	2649.1	2121.3	1870.3	1811.3	1762.7	2613.2	8887.6	11390.6	17485.6	11849.2
72.5°	2654.2	2497.9	1970.2	1708.8	1593.6	1432.2	1706.3	3635.5	5077.9	8272.7	5375.1
75°	2431.3	2290.4	1819.0	1565.4	1401.4	1186.2	1288.7	1898.4	2277.6	3294.7	2590.2
77.5°	2157.2	2041.9	1649.9	1447.5	1242.6	963.3	991.5	1316.9	1460.3	1885.6	1539.8
80°	1550.0	1591.0	1468.0	1301.5	1106.8	781.4	760.9	960.7	1037.6	1211.8	1001.7
82.5°	1088.8	1111.9	1214.4	1063.2	914.6	614.9	561.1	676.4	722.5	796.8	540.6
85°	750.7	725.0	832.6	740.4	661.0	409.9	384.3	458.6	486.8	494.5	279.3
87.5°	450.9	450.9	481.7	397.1	356.1	212.6	207.5	261.3	279.3	266.4	153.7
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°	14452.2	14452.2	14452.2	14452.2	14452.2	14452.2	14452.2	14452.2	14452.2	14452.2	14452.2
2.5°	14490.6	14308.7	13921.9	13611.9	13219.9	12812.5	12584.5	12341.1	12174.6	12054.2	12246.3
5°	14600.8	14229.3	13430.0	12671.6	11833.8	10962.8	10301.8	9686.9	9259.0	8992.6	9243.7
7.5°	14775.0	14203.7	12930.4	11634.0	10130.1	8680.0	7383.7	6571.5	6097.5	5864.4	6010.4
10°	14974.8	14162.7	12343.7	10227.5	8075.4	6248.7	5280.3	4952.3	4844.7	4801.2	4821.7
12.5°	15141.4	14075.6	11623.8	8526.3	6064.2	4934.4	4655.1	4647.5	4670.5	4675.6	4683.3
15°	15259.2	13947.5	10555.4	6753.4	4849.9	4496.3	4480.9	4527.0	4570.6	4588.5	4598.8
17.5°	15338.6	13683.6	9348.7	5339.2	4345.1	4283.7	4319.5	4378.4	4424.6	4437.4	4447.6
20°	15331.0	13296.7	7911.4	4452.7	4071.0	4071.0	4132.5	4178.6	4181.2	4165.8	4173.5
22.5°	15251.5	12766.4	6517.7	3981.3	3827.6	3871.2	3932.7	3889.1	3709.8	3591.9	3599.6
25°	15118.3	12133.6	5323.8	3681.6	3602.2	3679.0	3661.1	3333.2	3077.0	2961.7	2961.7
27.5°	15000.5	11385.5	4406.6	3420.3	3376.7	3471.5	3153.8	2856.6	2749.0	2695.2	2677.3
30°	14915.9	10578.5	3794.3	3169.2	3164.1	3094.9	2736.2	2654.2	2636.3	2592.7	2577.4
32.5°	14936.4	9761.2	3402.3	2948.9	2966.8	2649.1	2536.4	2554.3	2538.9	2492.8	2472.3
35°	15105.5	8984.9	3146.1	2749.0	2695.2	2392.9	2418.5	2451.8	2446.7	2382.7	2362.2
37.5°	15407.8	8249.6	2977.0	2582.5	2351.9	2264.8	2305.8	2357.0	2344.2	2300.7	2285.3
40°	15725.5	7557.9	2838.7	2451.8	2149.5	2177.7	2213.6	2241.7	2254.6	2267.4	2257.1
42.5°	16035.5	6835.4	2669.6	2318.6	2065.0	2095.7	2111.1	2139.3	2208.4	2257.1	2254.6
45°	16220.0	6156.5	2495.4	2129.0	1998.4	2016.3	2006.0	2062.4	2146.9	2226.4	2228.9
47.5°	16424.9	5628.7	2357.0	1954.8	1934.3	1947.1	1916.4	1972.7	2049.6	2146.9	2157.2
50°	16673.4	5313.6	2246.9	1816.5	1847.2	1847.2	1839.5	1890.8	1998.4	2111.1	2131.6
52.5°	16955.3	5252.1	2154.6	1716.5	1760.1	1757.5	1765.2	1842.1	1959.9	2070.1	2088.0
55°	17298.6	5418.6	2054.7	1642.2	1675.5	1685.8	1711.4	1798.5	1898.4	2024.0	2031.7
57.5°	17698.2	5756.8	1975.3	1583.3	1598.7	1632.0	1673.0	1752.4	1860.0	1998.4	2006.0
58°	17764.9	5828.5	1962.5	1578.2	1583.3	1621.7	1667.9	1744.7	1852.3	2003.5	2011.2
60°	17767.4	6066.8	1934.3	1555.1	1524.4	1588.4	1639.7	1716.5	1839.5	2021.4	2039.3
62.5°	17137.2	6064.2	1913.8	1521.8	1462.9	1542.3	1601.2	1690.9	1826.7	2065.0	2100.8
65°	15090.1	5510.8	1816.5	1470.6	1414.2	1501.3	1567.9	1673.0	1862.6	2254.6	2277.6
67.5°	11803.1	4516.8	1634.6	1398.8	1350.2	1460.3	1547.4	1670.4	1901.0	2298.1	2313.5
70°	7803.8	3379.3	1434.7	1316.9	1283.6	1411.7	1557.7	1757.5	1857.4	2205.9	2164.9
72.5°	4050.5	2372.4	1273.3	1214.4	1206.7	1368.1	1706.3	1747.3	1813.9	2075.2	2024.0
75°	2126.5	1647.4	1132.4	1101.7	1114.5	1357.9	2013.7	1701.2	1757.5	1985.5	2082.9
77.5°	1301.5	1329.7	1012.0	999.2	1024.8	1327.1	2011.2	1642.2	1675.5	1826.7	1934.3
80°	871.1	1078.6	919.8	922.3	940.3	1214.4	1806.2	1550.0	1575.6	1726.8	1836.9
82.5°	550.8	637.9	835.2	878.8	855.7	1001.7	1534.6	1411.7	1447.5	1975.3	2088.0
85°	279.3	399.7	725.0	845.5	771.2	702.0	1245.1	1237.4	1255.4	1424.5	1488.5
87.5°	128.1	220.3	566.2	737.9	581.6	438.1	904.4	917.2	988.9	1012.0	1012.0
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)