

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: P301119

Luminaire Tested: **GLNA-AF-07-LED-E1-T3R**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P301119  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P194839)  
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-T3R  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(7) 70 CRI, 4000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III  
Roadway OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 42896.8 lumens  
Efficiency: N/A  
Efficacy: 109.7 lumens/watt  
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')  
IES Classification: Type III - Short - Full Cutoff  
BUG Rating: B3 - U0 - G5  
  
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

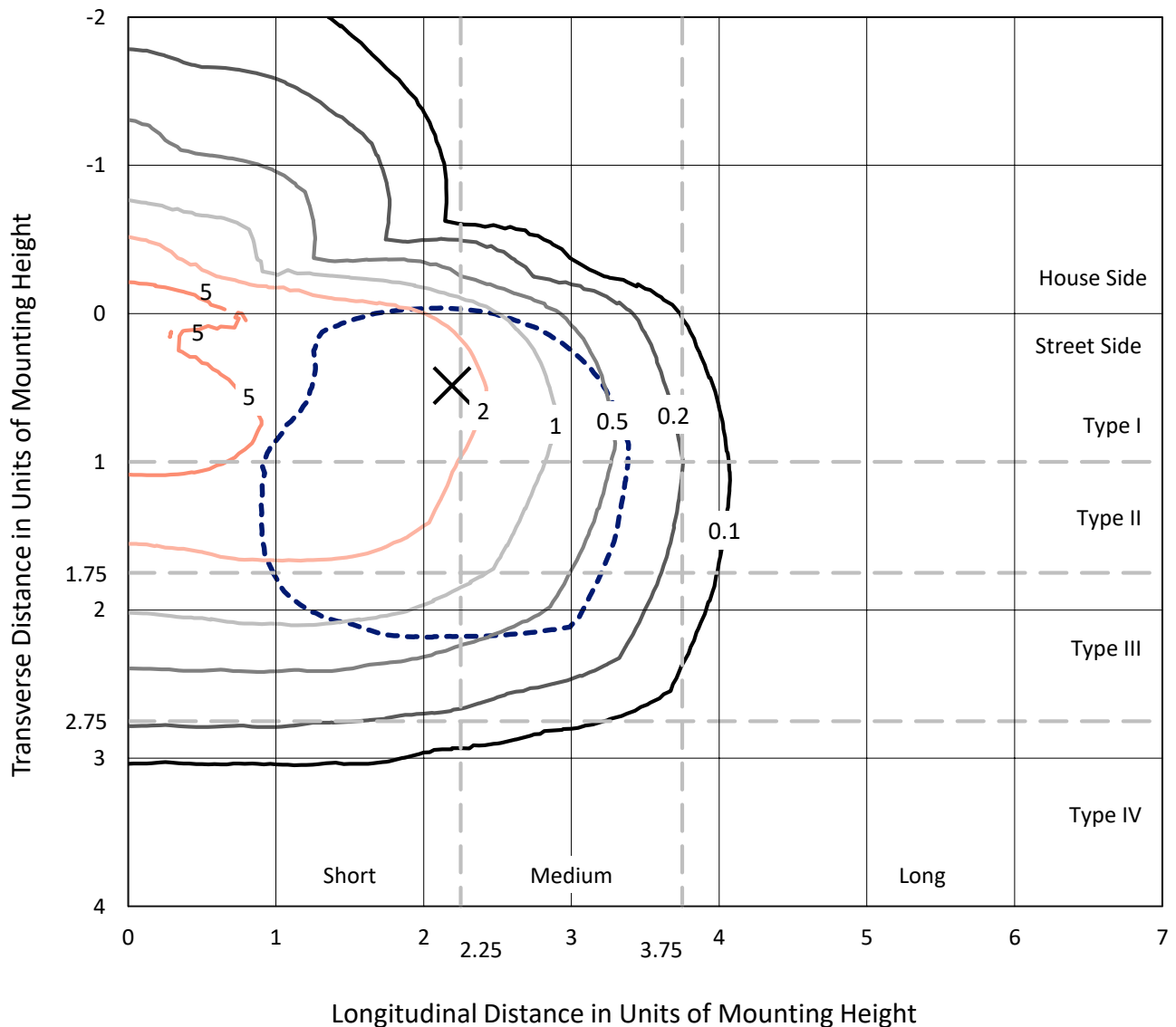


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

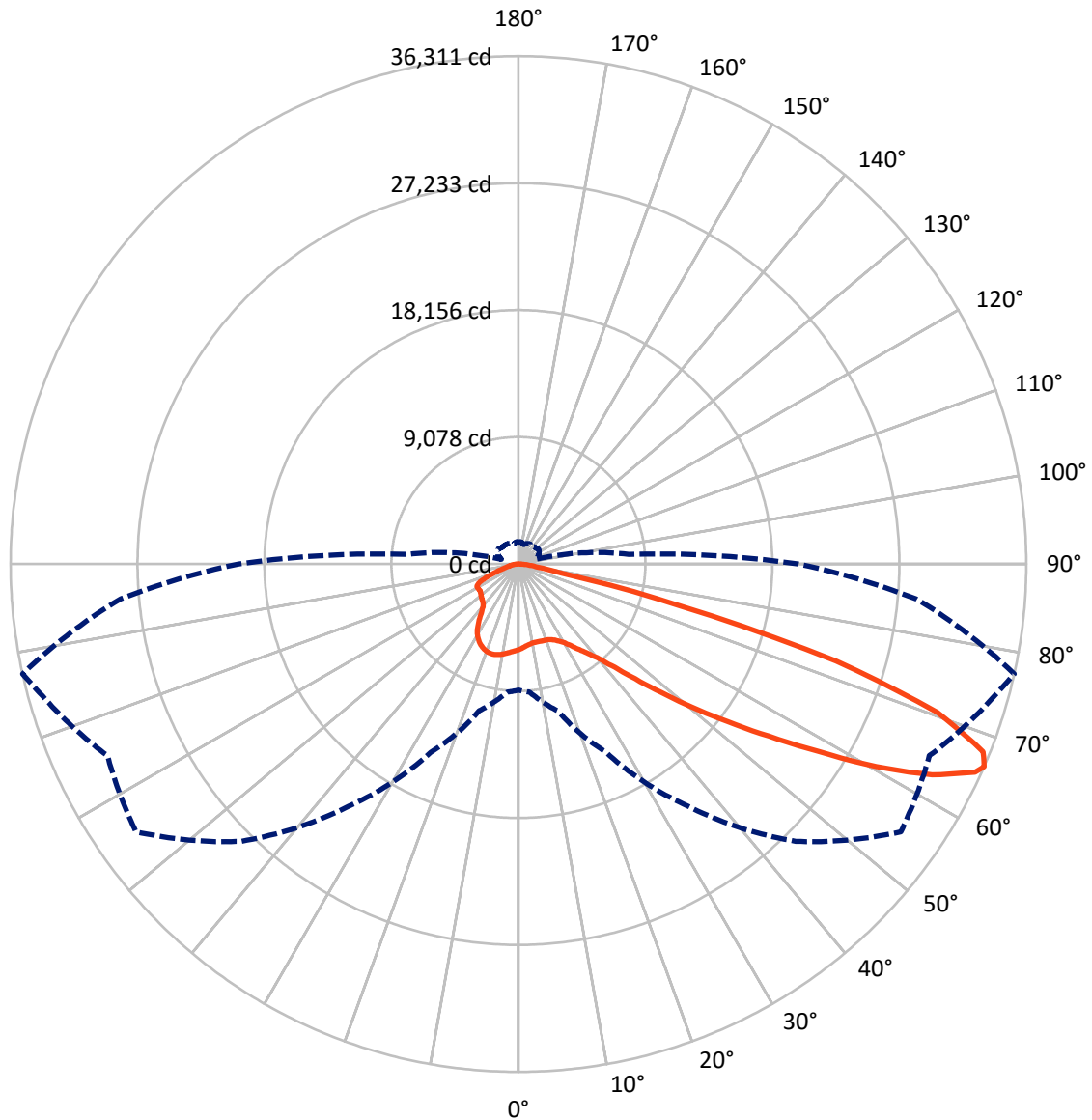


Based on 30 foot mounting height. Maximum calculated value = 8.4 fc  
 Type III - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 77.5-Deg Lateral    - - - Horizontal Cone Through 66-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	7328.7	0.0	7328.7
	% Fixture	17.1	0.0	17.1
<b>Street Side</b>	Lumens	35568.2	0.0	35568.2
	% Fixture	82.9	0.0	82.9
<b>Total</b>	Lumens	42896.8	0.0	42896.8
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	546.1	1.3
10°-20°	1540.8	3.6
20°-30°	2629.6	6.1
30°-40°	4209.4	9.8
40°-50°	6503.2	15.2
50°-60°	9223.8	21.5
60°-70°	12338.9	28.8
70°-80°	5358.6	12.5
80°-90°	546.4	1.3
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°	42896.8	100.0
0°-180°	42896.8	100.0



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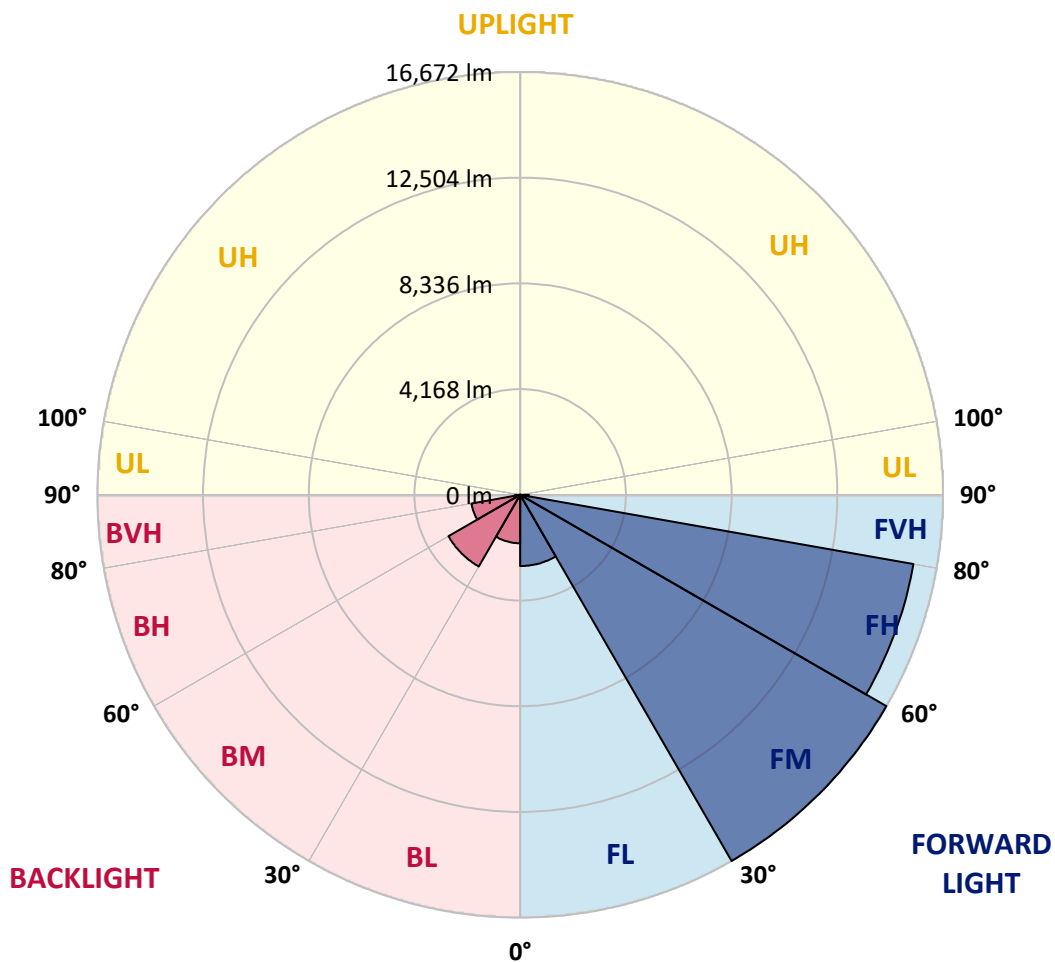
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2807.8	6.5			
FM	(30°-60°)	16671.9	38.9			
FH	(60°-80°)	15745.7	36.7			G5
FVH	(80°-90°)	342.7	0.8			G3/500
BL	(0°-30°)	1908.7	4.4	B3/2500		
BM	(30°-60°)	3264.5	7.6	B3/5000		
BH	(60°-80°)	1951.8	4.5	B3/2500		G3/2500
BVH	(80°-90°)	203.7	0.5			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G5**

Type III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77.5°	85°
0°	6112.9	6112.9	6112.9	6112.9	6112.9	6112.9	6112.9	6112.9	6112.9	6112.9	6112.9
2.5°	5407.8	5444.0	5474.7	5502.9	5559.4	5652.7	5760.1	5847.2	5973.0	5997.6	6064.5
5°	4911.3	4911.3	4935.3	4978.2	5054.9	5194.9	5340.9	5535.5	5809.2	5873.6	6052.2
7.5°	4670.2	4672.0	4686.1	4722.3	4789.2	4916.9	5077.0	5306.6	5677.2	5784.6	6088.4
10°	4759.1	4738.9	4708.2	4690.4	4700.2	4775.1	4927.3	5182.6	5596.2	5733.7	6170.0
12.5°	5257.5	5219.4	5113.9	4973.9	4840.2	4785.5	4874.5	5123.7	5561.8	5722.0	6277.4
15°	6072.4	6056.5	5859.5	5569.8	5245.8	4973.9	4913.2	5101.6	5565.5	5736.1	6405.1
17.5°	7094.2	7071.5	6812.5	6390.9	5861.9	5332.9	5048.8	5120.0	5579.6	5760.1	6528.4
20°	8125.8	8056.5	7777.3	7274.6	6595.3	5820.8	5274.0	5166.6	5598.1	5786.5	6658.5
22.5°	8896.0	8838.9	8587.9	8099.4	7317.0	6386.6	5576.0	5247.6	5657.0	5863.8	6818.1
25°	9572.9	9576.6	9327.4	8855.5	8046.7	6986.8	5965.0	5464.3	5806.7	6021.5	7037.2
27.5°	10410.0	10361.5	10128.3	9660.1	8768.4	7592.5	6435.1	5762.5	6030.1	6246.7	7325.0
30°	11410.9	11376.5	11107.1	10576.3	9568.6	8243.0	6972.1	6108.6	6317.9	6542.5	7701.8
32.5°	12588.6	12572.6	12292.8	11609.7	10492.8	9009.5	7603.0	6567.1	6747.5	6980.7	8243.0
35°	13971.2	13973.0	13642.9	12821.8	11504.2	9901.2	8317.9	7156.8	7270.4	7513.4	8888.0
37.5°	14822.4	14925.5	14802.1	13965.1	12649.3	10898.5	9246.4	7939.3	7866.2	8111.7	9579.0
40°	15004.7	15130.5	15521.4	15096.1	13930.7	11997.0	10069.4	8691.0	8600.2	8899.7	10468.9
42.5°	14749.4	14923.6	15750.9	16050.4	15290.6	13350.8	11175.9	9808.0	9692.6	10095.8	11575.4
45°	14597.2	14727.3	15684.0	16547.5	16470.1	14881.3	12584.9	11210.2	11167.9	11696.9	12852.5
47.5°	14333.9	14451.7	15371.6	16662.8	17163.6	16283.6	14277.4	12925.5	13008.3	13701.8	14293.4
50°	14475.7	14524.1	15023.1	16368.9	17364.3	17311.5	16168.2	14911.4	15195.5	16060.8	15925.2
52.5°	14455.4	14581.2	14982.6	15886.5	17390.7	17946.1	18030.7	17126.8	17725.1	18718.1	17734.9
55°	11687.1	11917.8	14506.3	15765.0	17483.3	18567.7	19688.9	19461.9	20576.3	21733.7	19777.9
57.5°	11159.9	11306.0	12740.8	16020.3	17978.0	19755.8	21533.1	22032.0	23896.4	25240.3	22267.0
60°	11056.2	11236.6	12722.4	16332.7	18981.3	21691.4	24267.7	25143.4	27936.3	29407.9	25153.2
62.5°	10734.0	10928.5	12602.7	16291.6	20406.3	24368.9	27768.1	28451.2	31766.9	33198.0	27567.4
65°	9712.8	9895.1	11628.1	15637.4	21367.4	27226.9	31910.5	31483.4	34791.2	35867.0	28770.9
66°	9013.2	9191.8	10859.8	14867.2	21144.0	28037.5	33378.5	32421.7	35468.1	36311.3	28535.8
67.5°	7734.3	7874.2	9367.9	13142.1	19958.3	28264.6	34612.6	33126.8	35538.6	35836.9	27192.5
70°	4886.8	4927.3	6088.4	9072.1	15108.4	24512.5	32733.5	31376.0	32608.3	31801.3	22796.0
72.5°	2120.3	2106.2	2923.0	4614.9	8553.6	16448.0	26478.8	25889.0	25579.1	23738.7	15957.7
75°	1179.5	1196.1	1518.3	2142.4	3475.9	8079.2	17321.3	16575.7	13995.1	11942.4	7236.0
77.5°	946.3	969.0	1258.7	1520.1	1560.6	2817.4	8105.6	6595.3	3970.6	3186.3	2010.4
80°	748.1	788.6	1098.5	1183.8	1051.9	1161.1	2618.6	2093.9	1571.0	1440.9	1042.0
82.5°	591.6	620.4	942.6	896.0	735.8	782.5	1254.4	1222.5	1021.8	930.3	602.0
85°	425.9	478.1	774.5	675.1	482.4	527.2	832.8	798.4	585.5	478.1	265.7
87.5°	174.3	227.1	547.4	448.0	269.4	245.5	415.5	390.9	277.4	202.5	131.9
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°	6112.9	6112.9	6112.9	6112.9	6112.9	6112.9	6112.9	6112.9	6112.9	6112.9	6112.9
2.5°	6106.8	6155.3	6218.5	6257.2	6277.4	6291.5	6313.6	6311.8	6317.9	6319.8	6327.7
5°	6147.3	6228.3	6319.8	6344.3	6344.3	6321.6	6299.5	6262.7	6248.6	6244.9	6248.6
7.5°	6252.9	6341.8	6421.0	6392.8	6332.0	6242.4	6127.1	6025.8	5971.2	5952.8	5949.1
10°	6386.6	6494.0	6526.6	6419.2	6240.6	6025.8	5796.9	5630.6	5535.5	5509.1	5501.1
12.5°	6548.7	6649.9	6605.7	6378.7	6047.9	5701.8	5385.1	5120.0	4921.2	4858.6	4854.3
15°	6727.2	6806.4	6649.9	6252.9	5760.1	5249.5	4686.1	4228.3	3981.0	3901.8	3895.7
17.5°	6893.5	6934.1	6623.5	6033.8	5336.6	4510.0	3761.9	3409.0	3324.3	3344.6	3348.3
20°	7035.3	7035.3	6534.5	5719.6	4670.2	3534.8	3062.3	3056.8	3117.5	3178.3	3190.6
22.5°	7191.2	7097.9	6378.7	5275.9	3725.1	2892.3	2823.6	2880.0	2948.8	3015.7	3026.1
25°	7383.9	7148.8	6161.4	4603.3	2928.5	2626.6	2653.0	2699.6	2734.0	2776.9	2783.1
27.5°	7598.7	7213.3	5876.1	3676.6	2541.9	2460.9	2481.1	2497.1	2492.8	2509.4	2513.0
30°	7855.8	7288.8	5484.5	2873.9	2381.7	2318.5	2282.3	2268.2	2268.2	2294.6	2304.4
32.5°	8200.7	7399.8	4923.0	2462.7	2304.4	2217.3	2100.0	2047.3	2067.5	2156.5	2176.7
35°	8580.0	7519.5	4163.3	2322.8	2288.4	2170.6	1988.3	1890.8	1893.2	1976.1	2002.5
37.5°	8993.0	7671.7	3329.9	2296.4	2324.6	2173.1	1929.4	1795.6	1741.0	1741.0	1751.5
40°	9522.0	7827.6	2695.9	2314.8	2402.0	2197.0	1899.4	1720.8	1566.7	1571.0	1579.0
42.5°	10211.1	7961.4	2355.3	2352.9	2495.3	2229.5	1896.9	1621.4	1487.6	1579.0	1661.9
45°	10977.6	8028.3	2205.0	2387.9	2570.1	2249.8	1865.0	1605.4	1498.0	1769.3	1927.6
47.5°	11858.9	7989.6	2122.1	2399.5	2588.5	2249.8	1828.2	1644.1	1568.6	2049.1	2233.8
50°	12826.1	7878.5	2041.1	2375.6	2582.4	2245.5	1862.5	1682.1	1595.0	2097.6	2225.2
52.5°	13963.2	7785.2	1955.8	2322.8	2539.4	2223.4	1903.0	1666.2	1512.1	1907.3	1996.3
55°	15259.9	7811.6	1860.7	2247.9	2472.5	2181.0	1888.9	1601.1	1425.0	1680.3	1734.9
57.5°	16918.1	8125.8	1747.2	2152.8	2381.7	2109.9	1838.6	1571.0	1398.6	1524.4	1556.9
60°	18768.4	8672.6	1605.4	2057.1	2268.2	1996.3	1799.9	1585.2	1410.9	1512.1	1528.1
62.5°	20126.5	8991.1	1483.9	1917.2	2114.2	1870.5	1751.5	1603.0	1443.4	1554.5	1550.8
65°	20495.3	8468.3	1331.7	1712.8	1905.5	1739.2	1690.1	1623.2	1457.5	1588.8	1571.0
66°	19978.6	7904.9	1264.8	1617.7	1799.9	1674.1	1660.0	1621.4	1451.4	1593.1	1562.4
67.5°	18724.2	6749.3	1149.4	1477.8	1631.8	1577.2	1611.5	1603.0	1434.8	1588.8	1546.5
70°	15270.4	4605.1	983.1	1230.4	1358.1	1388.2	1518.3	1538.5	1382.0	1518.3	1425.0
72.5°	10669.6	2805.2	869.6	954.9	1098.5	1183.8	1390.6	1448.9	1311.4	1325.6	1236.6
75°	5156.2	1490.0	788.6	740.1	853.0	989.3	1236.6	1327.4	1199.8	1108.9	1076.4
77.5°	1607.2	910.1	668.9	595.9	668.9	798.4	1033.4	1163.6	1068.4	928.5	916.2
80°	863.5	668.9	514.9	478.1	529.0	626.6	812.5	970.9	918.1	832.8	743.8
82.5°	569.5	433.9	381.1	370.7	403.2	478.1	603.9	804.5	804.5	713.7	519.2
85°	294.0	265.7	261.4	261.4	281.7	318.5	411.2	620.4	660.9	376.8	312.4
87.5°	146.1	152.2	141.8	147.9	158.3	155.9	196.4	312.4	373.1	228.9	190.2
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)