

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: P301189

Luminaire Tested: **GLNA-AF-09-LED-E1-T3R-7030-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301189
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-09-LED-E1-T3R-7030-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(9) 70 CRI, 3000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III
Roadway OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 42368.3 lumens
Efficiency: N/A
Efficacy: 113.3 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type III - Short - Full Cutoff
BUG Rating: B3 - U0 - G5

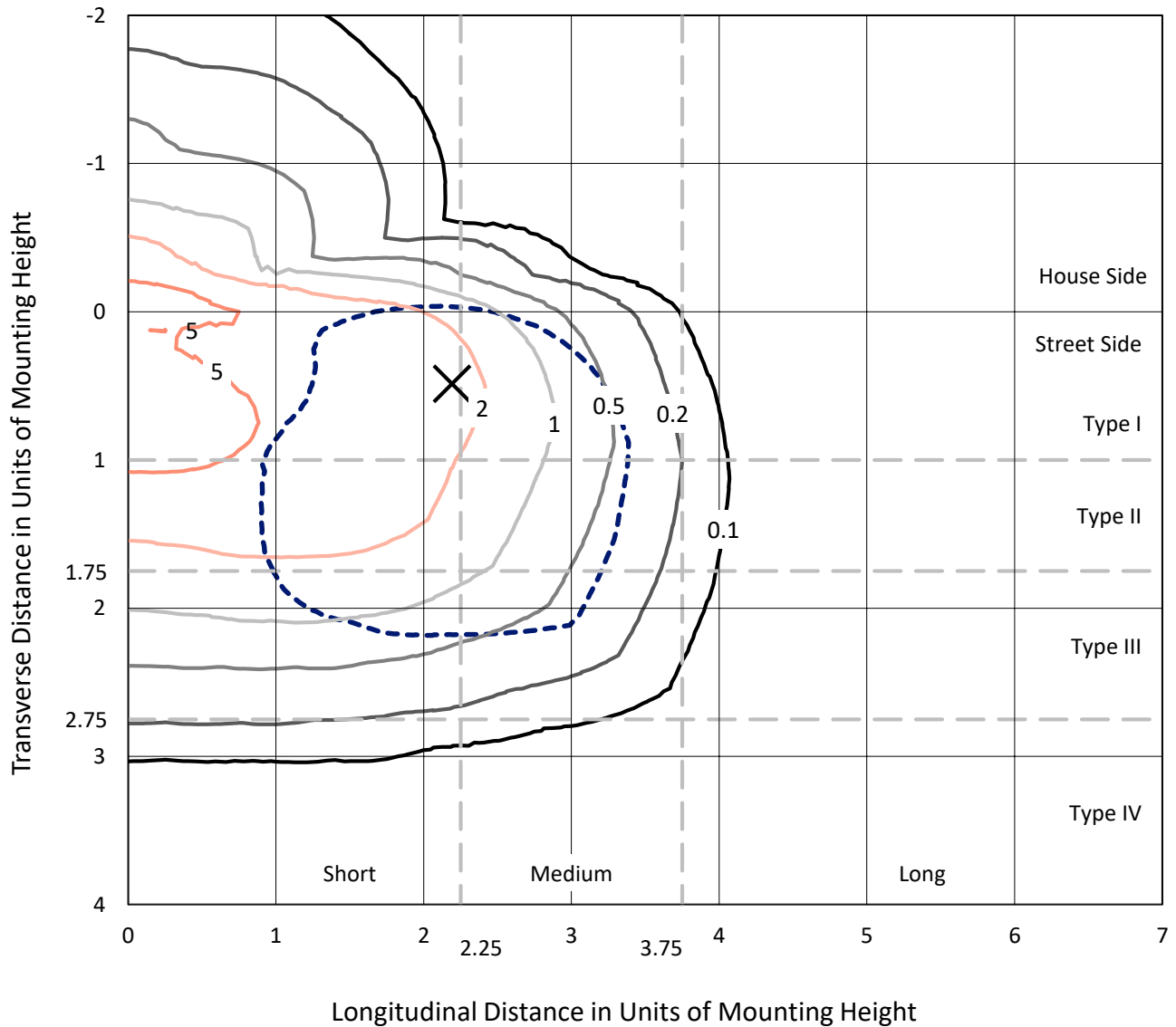
Input Watts (W): 374
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

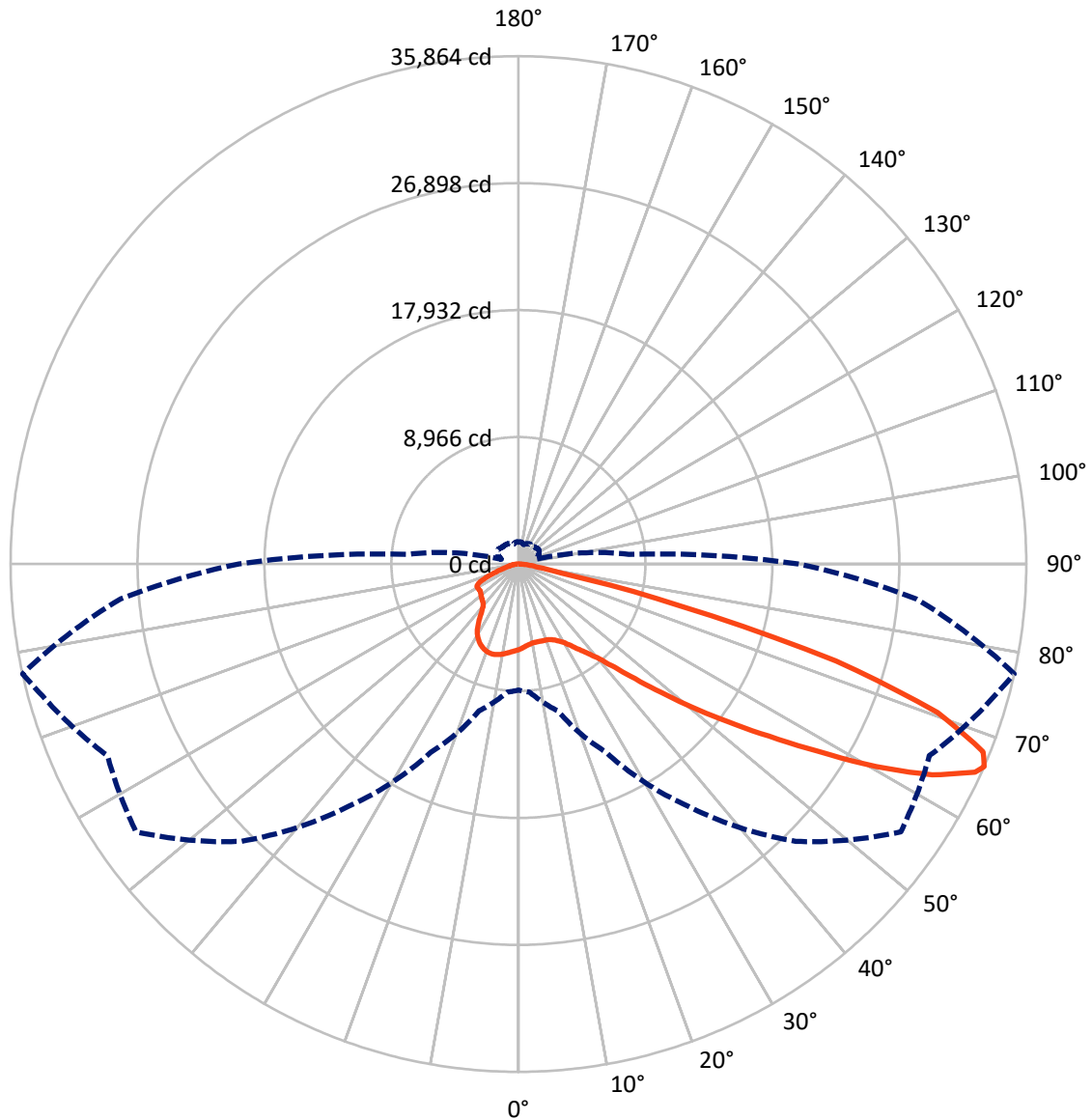
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 8.3 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
House Side	Lumens	7238.4	0.0	7238.4
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	35129.9	0.0	35129.9
	% Fixture	82.9	0.0	82.9
Total	Lumens	42368.3	0.0	42368.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	539.4	1.3
10°-20°	1521.8	3.6
20°-30°	2597.2	6.1
30°-40°	4157.6	9.8
40°-50°	6423.1	15.2
50°-60°	9110.1	21.5
60°-70°	12186.9	28.8
70°-80°	5292.6	12.5
80°-90°	539.7	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°	42368.3	100.0
0°-180°	42368.3	100.0



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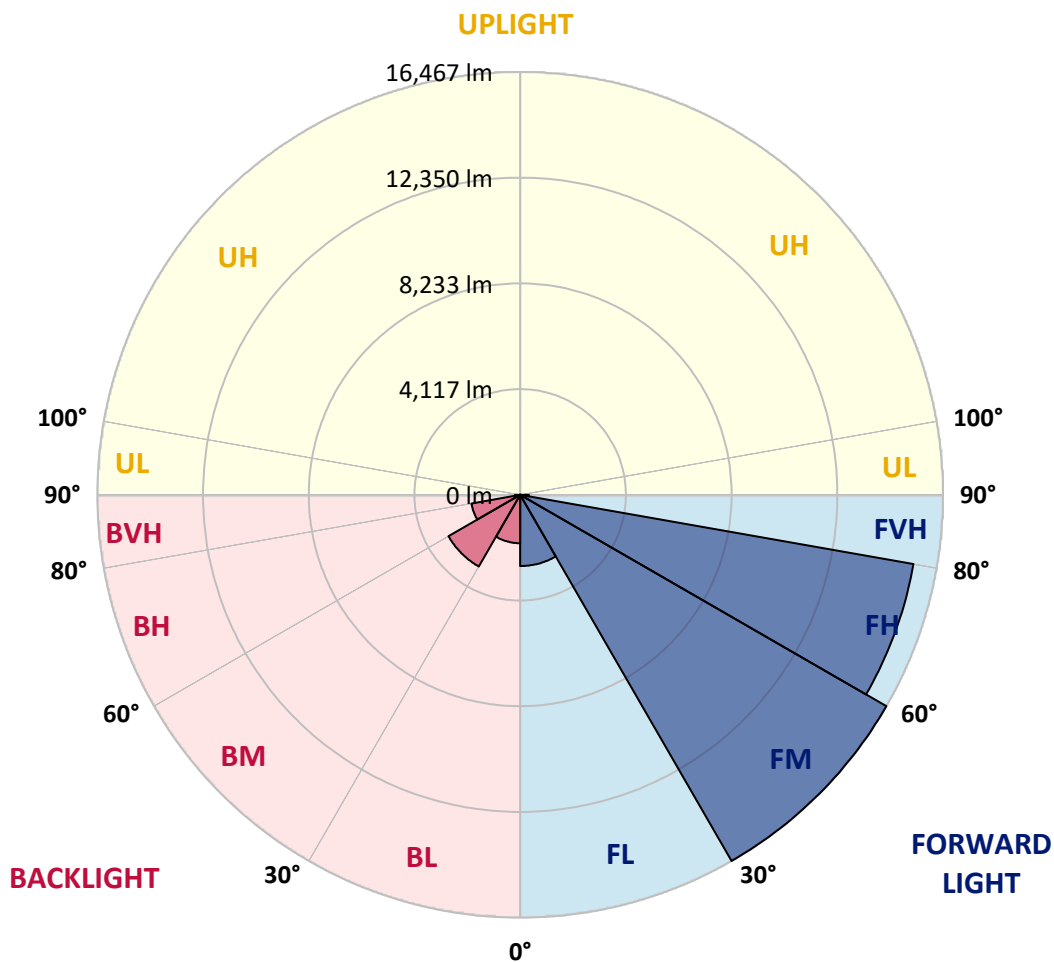
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2773.2	6.5			
FM	(30°-60°)	16466.5	38.9			
FH	(60°-80°)	15551.7	36.7			G5
FVH	(80°-90°)	338.5	0.8			G3/500
BL	(0°-30°)	1885.2	4.4	B3/2500		
BM	(30°-60°)	3224.3	7.6	B3/5000		
BH	(60°-80°)	1927.7	4.5	B3/2500		G3/2500
BVH	(80°-90°)	201.2	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°	6037.6	6037.6	6037.6	6037.6	6037.6	6037.6	6037.6	6037.6	6037.6	6037.6	6037.6
2.5°	5341.2	5376.9	5407.2	5435.1	5490.9	5583.0	5689.1	5775.2	5899.4	5923.7	5989.7
5°	4850.8	4850.8	4874.5	4916.9	4992.7	5130.9	5275.1	5467.3	5737.6	5801.2	5977.6
7.5°	4612.6	4614.4	4628.4	4664.1	4730.2	4856.3	5014.5	5241.2	5607.3	5713.3	6013.4
10°	4700.5	4680.5	4650.2	4632.6	4642.3	4716.3	4866.6	5118.7	5527.3	5663.0	6094.0
12.5°	5192.7	5155.1	5050.8	4912.7	4780.5	4726.6	4814.5	5060.5	5493.3	5651.5	6200.1
15°	5997.6	5981.9	5787.3	5501.2	5181.2	4912.7	4852.6	5038.7	5497.0	5665.5	6326.1
17.5°	7006.8	6984.4	6728.6	6312.2	5789.7	5267.2	4986.6	5056.9	5510.9	5689.1	6448.0
20°	8025.7	7957.2	7681.4	7185.0	6514.0	5749.1	5209.0	5103.0	5529.1	5715.2	6576.5
22.5°	8786.4	8730.0	8482.1	7999.6	7226.8	6308.0	5507.3	5183.0	5587.3	5791.5	6734.1
25°	9455.0	9458.6	9212.5	8746.4	7947.5	6900.7	5891.5	5396.9	5735.2	5947.3	6950.4
27.5°	10281.7	10233.8	10003.5	9541.0	8660.3	7499.0	6355.8	5691.5	5955.8	6169.8	7234.7
30°	11270.3	11236.4	10970.3	10446.0	9450.7	8141.5	6886.2	6033.4	6240.1	6461.9	7606.9
32.5°	12433.5	12417.7	12141.3	11466.7	10363.5	8898.5	7509.3	6486.2	6664.4	6894.7	8141.5
35°	13799.1	13800.9	13474.8	12663.8	11362.4	9779.2	8215.4	7068.6	7180.8	7420.8	8778.5
37.5°	14639.8	14741.6	14619.8	13793.0	12493.5	10764.2	9132.5	7841.5	7769.3	8011.8	9461.0
40°	14819.8	14944.0	15330.1	14910.1	13759.1	11849.2	9945.3	8584.0	8494.2	8790.0	10339.9
42.5°	14567.6	14739.8	15556.8	15852.6	15102.2	13186.3	11038.2	9687.1	9573.2	9971.4	11432.7
45°	14417.3	14545.8	15490.8	16343.6	16267.2	14697.9	12429.8	11072.1	11030.3	11552.8	12694.1
47.5°	14157.3	14273.7	15182.2	16457.5	16952.1	16082.9	14101.5	12766.2	12848.1	13533.0	14117.3
50°	14297.3	14345.2	14838.0	16167.2	17150.3	17098.2	15969.0	14727.6	15008.3	15862.9	15729.0
52.5°	14277.3	14401.6	14798.0	15690.8	17176.4	17724.9	17808.6	16915.8	17506.7	18487.4	17516.4
55°	11543.1	11771.0	14327.6	15570.8	17267.9	18338.9	19446.3	19222.1	20322.8	21465.9	19534.2
57.5°	11022.4	11166.7	12583.8	15822.9	17756.5	19512.4	21267.7	21760.5	23601.9	24929.4	21992.7
60°	10920.0	11098.2	12565.6	16131.4	18747.5	21424.1	23968.6	24833.6	27592.1	29045.6	24843.3
62.5°	10601.7	10793.9	12447.4	16090.8	20154.9	24068.7	27426.0	28100.6	31375.5	32789.0	27227.8
65°	9593.2	9773.2	11484.9	15444.7	21104.1	26891.4	31517.3	31095.5	34362.5	35425.0	28416.4
66°	8902.2	9078.6	10726.0	14684.0	20883.5	27692.1	32967.2	32022.2	35031.0	35863.9	28184.2
67.5°	7639.0	7777.2	9252.5	12980.2	19712.4	27916.3	34186.1	32718.7	35100.7	35395.3	26857.4
70°	4826.6	4866.6	6013.4	8960.4	14922.2	24210.5	32330.1	30989.4	32206.5	31409.4	22515.2
72.5°	2094.2	2080.2	2887.0	4558.1	8448.2	16245.4	26152.5	25570.0	25263.9	23446.2	15761.1
75°	1165.0	1181.3	1499.6	2116.0	3433.1	7979.6	17107.9	16371.5	13822.7	11795.2	7146.8
77.5°	934.6	957.1	1243.2	1501.4	1541.4	2782.7	8005.7	6514.0	3921.6	3147.0	1985.7
80°	738.9	778.9	1085.0	1169.2	1038.9	1146.8	2586.3	2068.1	1551.7	1423.2	1029.2
82.5°	584.3	612.8	931.0	884.9	726.7	772.8	1238.9	1207.4	1009.2	918.9	594.6
85°	420.7	472.2	764.9	666.7	476.4	520.7	822.5	788.6	578.2	472.2	262.5
87.5°	172.1	224.3	540.7	442.5	266.1	242.5	410.3	386.1	274.0	200.0	130.3
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°	6037.6	6037.6	6037.6	6037.6	6037.6	6037.6	6037.6	6037.6	6037.6	6037.6	6037.6
2.5°	6031.6	6079.4	6141.9	6180.1	6200.1	6214.0	6235.8	6234.0	6240.1	6241.9	6249.8
5°	6071.6	6151.6	6241.9	6266.1	6266.1	6243.7	6221.9	6185.5	6171.6	6167.9	6171.6
7.5°	6175.8	6263.7	6341.9	6314.0	6254.0	6165.5	6051.6	5951.5	5897.6	5879.4	5875.8
10°	6308.0	6414.0	6446.1	6340.1	6163.7	5951.5	5725.5	5561.2	5467.3	5441.2	5433.3
12.5°	6468.0	6568.0	6524.3	6300.1	5973.4	5631.5	5318.8	5056.9	4860.5	4798.7	4794.5
15°	6644.4	6722.5	6568.0	6175.8	5689.1	5184.8	4628.4	4176.2	3931.9	3853.7	3847.7
17.5°	6808.6	6848.6	6541.9	5959.4	5270.9	4454.4	3715.6	3367.0	3283.4	3303.4	3307.0
20°	6948.6	6948.6	6454.0	5649.1	4612.6	3491.3	3024.6	3019.1	3079.1	3139.1	3151.2
22.5°	7102.6	7010.5	6300.1	5210.9	3679.2	2856.7	2788.8	2844.5	2912.4	2978.5	2988.8
25°	7292.9	7060.8	6085.5	4546.6	2892.4	2594.2	2620.3	2666.3	2700.3	2742.7	2748.8
27.5°	7505.1	7124.4	5803.7	3631.3	2510.6	2430.6	2450.6	2466.3	2462.1	2478.4	2482.1
30°	7759.0	7199.0	5416.9	2838.5	2352.4	2289.9	2254.2	2240.2	2240.2	2266.3	2276.0
32.5°	8099.7	7308.7	4862.3	2432.4	2276.0	2189.9	2074.2	2022.0	2042.0	2129.9	2149.9
35°	8474.2	7426.9	4112.0	2294.2	2260.2	2143.9	1963.8	1867.5	1869.9	1951.7	1977.8
37.5°	8882.2	7577.2	3288.8	2268.1	2296.0	2146.3	1905.7	1773.5	1719.6	1719.6	1729.9
40°	9404.6	7731.1	2662.7	2286.3	2372.4	2169.9	1876.0	1699.6	1547.4	1551.7	1559.6
42.5°	10085.3	7863.3	2326.3	2323.9	2464.5	2202.1	1873.5	1601.4	1469.2	1559.6	1641.4
45°	10842.4	7929.3	2177.8	2358.4	2538.5	2222.1	1842.0	1585.6	1479.6	1747.5	1903.8
47.5°	11712.8	7891.2	2096.0	2370.0	2556.6	2222.1	1805.6	1623.8	1549.3	2023.9	2206.3
50°	12668.0	7781.4	2016.0	2346.3	2550.6	2217.8	1839.6	1661.4	1575.3	2071.7	2197.8
52.5°	13791.2	7689.3	1931.7	2294.2	2508.1	2196.0	1879.6	1645.6	1493.5	1883.8	1971.7
55°	15071.9	7715.4	1837.8	2220.2	2442.1	2154.2	1865.7	1581.4	1407.4	1659.6	1713.5
57.5°	16709.7	8025.7	1725.6	2126.3	2352.4	2083.9	1816.0	1551.7	1381.4	1505.6	1537.7
60°	18537.1	8565.8	1585.6	2031.7	2240.2	1971.7	1777.8	1565.6	1393.5	1493.5	1509.3
62.5°	19878.5	8880.4	1465.6	1893.5	2088.1	1847.5	1729.9	1583.2	1425.6	1535.3	1531.7
65°	20242.8	8363.9	1315.3	1691.7	1882.0	1717.8	1669.3	1603.2	1439.5	1569.3	1551.7
66°	19732.4	7807.5	1249.2	1597.7	1777.8	1653.5	1639.6	1601.4	1433.5	1573.5	1543.2
67.5°	18493.5	6666.2	1135.3	1459.6	1611.7	1557.7	1591.7	1583.2	1417.1	1569.3	1527.4
70°	15082.2	4548.4	971.0	1215.3	1341.4	1371.1	1499.6	1519.6	1365.0	1499.6	1407.4
72.5°	10538.1	2770.6	858.9	943.1	1085.0	1169.2	1373.5	1431.1	1295.3	1309.2	1221.3
75°	5092.7	1471.7	778.9	731.0	842.5	977.1	1221.3	1311.1	1185.0	1095.3	1063.1
77.5°	1587.4	898.9	660.7	588.5	660.7	788.6	1020.7	1149.2	1055.3	917.1	904.9
80°	852.8	660.7	508.5	472.2	522.5	618.9	802.5	958.9	906.8	822.5	734.6
82.5°	562.5	428.5	376.4	366.1	398.2	472.2	596.4	794.6	794.6	704.9	512.8
85°	290.3	262.5	258.2	258.2	278.2	314.6	406.1	612.8	652.8	372.2	308.5
87.5°	144.3	150.3	140.0	146.1	156.4	154.0	194.0	308.5	368.5	226.1	187.9
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)