

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: P301125

Luminaire Tested: **GLNA-AF-08-LED-E1-T3R**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301125
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-08-LED-E1-T3R
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(8) 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: 48604 lumens
Efficiency: N/A
Efficacy: 109.2 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): 445
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

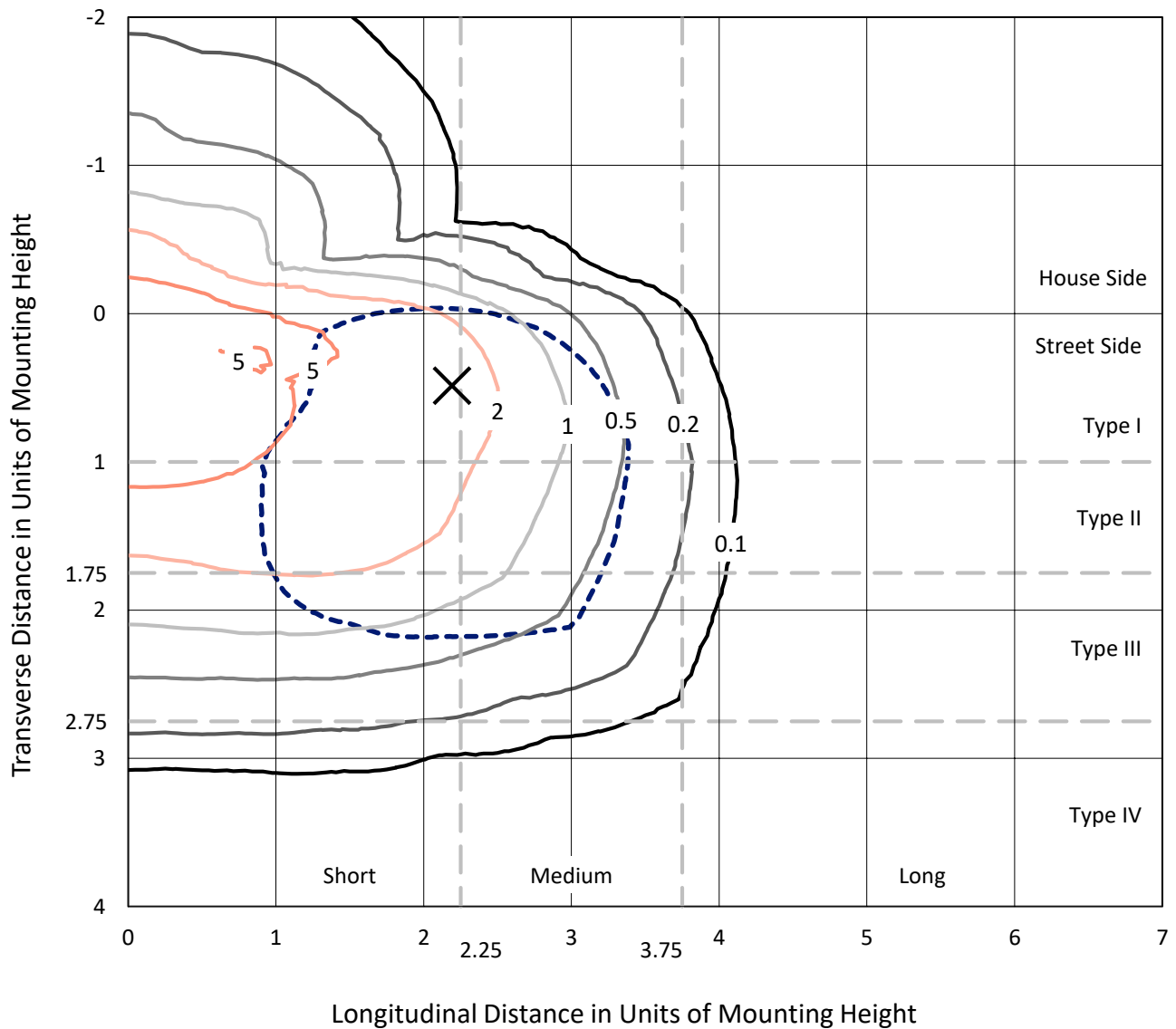


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

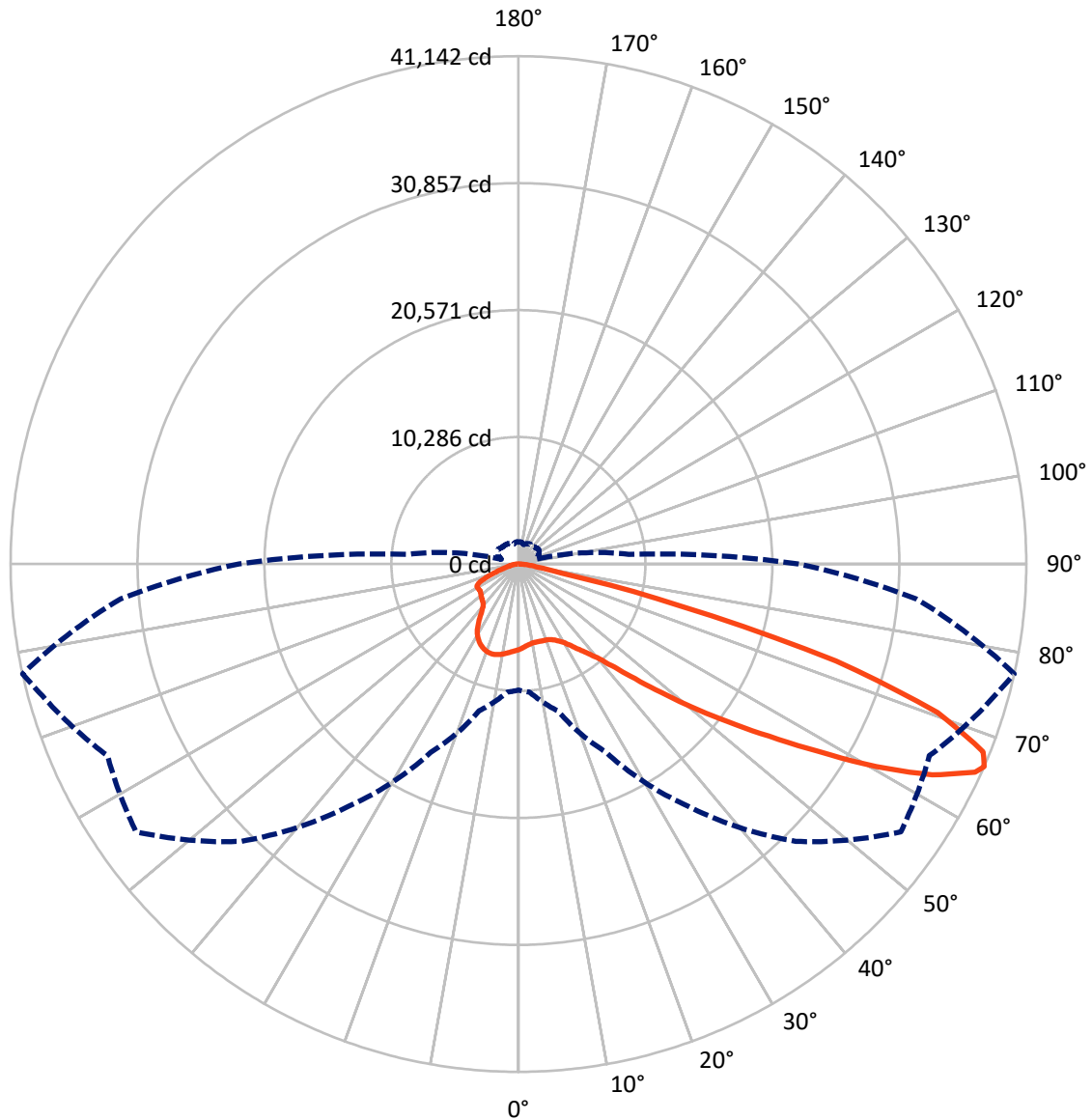


Based on 30 foot mounting height. Maximum calculated value = 9.5 fc
 Type III - Short - Full Cutoff

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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	8303.7	0.0	8303.7
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	40300.3	0.0	40300.3
	% Fixture	82.9	0.0	82.9
Total	Lumens	48604.0	0.0	48604.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	618.8	1.3
10°-20°	1745.8	3.6
20°-30°	2979.4	6.1
30°-40°	4769.5	9.8
40°-50°	7368.4	15.2
50°-60°	10451.0	21.5
60°-70°	13980.6	28.8
70°-80°	6071.5	12.5
80°-90°	619.1	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°	48604.0	100.0
0°-180°	48604.0	100.0



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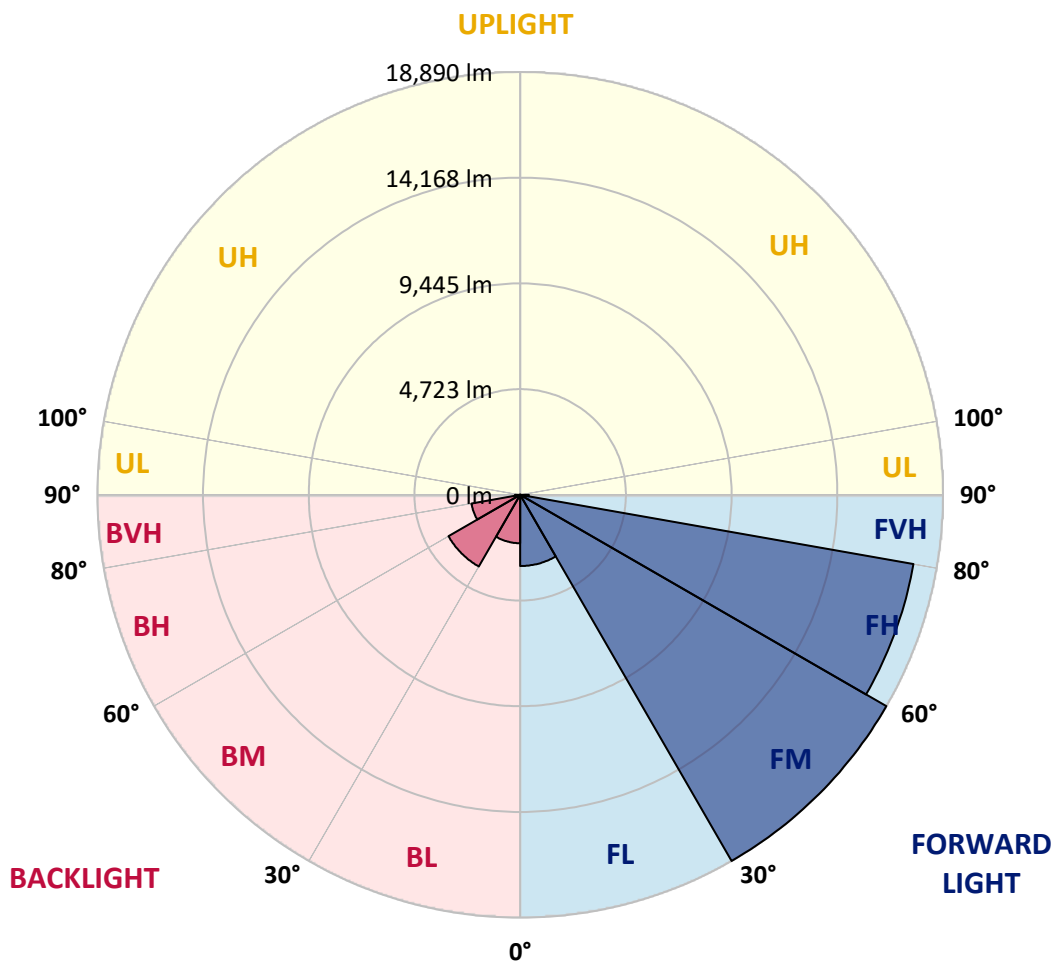
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3181.4	6.5			
FM	(30°-60°)	18890.0	38.9			
FH	(60°-80°)	17840.6	36.7			G5
FVH	(80°-90°)	388.3	0.8			G3/500
BL	(0°-30°)	2162.6	4.4	B3/2500		
BM	(30°-60°)	3698.8	7.6	B3/5000		
BH	(60°-80°)	2211.5	4.5	B3/2500		G3/2500
BVH	(80°-90°)	230.8	0.5			G3/500
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°	6926.2	6926.2	6926.2	6926.2	6926.2	6926.2	6926.2	6926.2	6926.2	6926.2	6926.2
2.5°	6127.3	6168.3	6203.1	6235.1	6299.0	6404.7	6526.4	6625.2	6767.7	6795.5	6871.3
5°	5564.8	5564.8	5591.9	5640.6	5727.5	5886.0	6051.5	6271.9	6582.0	6655.1	6857.4
7.5°	5291.5	5293.6	5309.6	5350.6	5426.4	5571.0	5752.5	6012.6	6432.5	6554.2	6898.4
10°	5392.3	5369.4	5334.6	5314.4	5325.6	5410.4	5582.8	5872.1	6340.8	6496.5	6990.9
12.5°	5956.9	5913.8	5794.2	5635.7	5484.1	5422.2	5523.0	5805.4	6301.8	6483.3	7112.6
15°	6880.3	6862.3	6639.1	6310.9	5943.7	5635.7	5566.9	5780.3	6306.0	6499.3	7257.2
17.5°	8038.1	8012.3	7718.9	7241.2	6641.8	6042.5	5720.5	5801.2	6322.0	6526.4	7397.0
20°	9206.9	9128.4	8812.0	8242.5	7472.8	6595.3	5975.7	5854.0	6342.8	6556.3	7544.4
22.5°	10079.6	10014.9	9730.5	9177.0	8290.5	7236.4	6317.8	5945.8	6409.6	6643.9	7725.2
25°	10846.5	10850.7	10568.4	10033.7	9117.2	7916.4	6758.7	6191.3	6579.3	6822.6	7973.4
27.5°	11795.0	11740.0	11475.8	10945.3	9934.9	8602.7	7291.3	6529.2	6832.4	7077.8	8299.5
30°	12929.1	12890.1	12584.9	11983.4	10841.7	9339.7	7899.7	6921.4	7158.5	7413.0	8726.5
32.5°	14263.4	14245.3	13928.3	13154.3	11888.8	10208.2	8614.5	7440.8	7645.2	7909.4	9339.7
35°	15830.0	15832.1	15458.0	14527.6	13034.8	11218.5	9424.6	8109.0	8237.6	8513.0	10070.5
37.5°	16794.4	16911.2	16771.5	15823.0	14332.2	12348.5	10476.6	8995.5	8912.8	9190.9	10853.5
40°	17000.9	17143.5	17586.4	17104.5	15784.1	13593.1	11409.1	9847.3	9744.4	10083.7	11861.7
42.5°	16711.7	16909.2	17846.5	18185.8	17325.0	15127.0	12662.7	11112.8	10982.1	11439.0	13115.4
45°	16539.2	16686.7	17770.7	18749.0	18661.4	16861.2	14259.2	12701.7	12653.7	13253.1	14562.4
47.5°	16240.9	16374.4	17416.8	18879.7	19447.1	18450.0	16177.0	14645.1	14739.0	15524.7	16195.0
50°	16401.6	16456.5	17021.8	18546.7	19674.5	19614.7	18319.3	16895.3	17217.2	18197.6	18043.9
52.5°	16378.6	16521.2	16975.9	18000.1	19704.4	20333.7	20429.6	19405.4	20083.4	21208.4	20094.5
55°	13242.0	13503.4	16436.3	17862.5	19809.4	21038.1	22308.4	22051.2	23313.9	24625.3	22409.3
57.5°	12644.7	12810.2	14435.9	18151.7	20369.8	22384.2	24397.9	24963.2	27075.7	28598.4	25229.5
60°	12527.2	12731.6	14415.0	18505.6	21506.7	24577.3	27496.3	28488.6	31653.0	33320.5	28499.7
62.5°	12162.1	12382.5	14279.4	18459.1	23121.3	27611.1	31462.5	32236.4	35993.3	37614.8	31235.1
65°	11005.1	11211.6	13175.2	17717.8	24210.2	30849.2	36156.0	35672.1	39419.9	40638.9	32598.7
66°	10212.4	10414.7	12304.6	16845.2	23957.1	31767.8	37819.3	36735.2	40186.9	41142.3	32332.4
67.5°	8763.3	8921.8	10614.3	14890.6	22613.7	32025.0	39217.6	37534.2	40266.9	40604.8	30810.3
70°	5537.0	5582.8	6898.4	10279.1	17118.5	27773.8	37088.5	35550.4	36946.6	36032.3	25828.9
72.5°	2402.4	2386.4	3311.9	5228.9	9691.6	18636.4	30001.6	29333.4	28982.3	26897.0	18080.8
75°	1336.4	1355.2	1720.3	2427.4	3938.4	9154.1	19625.8	18781.0	15857.1	13531.2	8198.7
77.5°	1072.2	1097.9	1426.1	1722.3	1768.2	3192.3	9184.0	7472.8	4498.8	3610.2	2277.9
80°	847.6	893.5	1244.6	1341.3	1191.8	1315.6	2967.0	2372.5	1780.1	1632.6	1180.7
82.5°	670.3	703.0	1068.0	1015.2	833.7	886.6	1421.3	1385.1	1157.7	1054.1	682.1
85°	482.6	541.7	877.5	764.9	546.5	597.3	943.6	904.6	663.3	541.7	301.1
87.5°	197.5	257.3	620.2	507.6	305.3	278.1	470.7	442.9	314.3	229.5	149.5
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°	6926.2	6926.2	6926.2	6926.2	6926.2	6926.2	6926.2	6926.2	6926.2	6926.2	6926.2
2.5°	6919.3	6974.2	7045.8	7089.6	7112.6	7128.6	7153.6	7151.5	7158.5	7160.6	7169.6
5°	6965.2	7057.0	7160.6	7188.4	7188.4	7162.6	7137.6	7095.9	7079.9	7075.7	7079.9
7.5°	7084.8	7185.6	7275.3	7243.3	7174.5	7072.9	6942.2	6827.5	6765.6	6744.7	6740.6
10°	7236.4	7358.0	7394.9	7273.2	7070.9	6827.5	6568.1	6379.7	6271.9	6242.0	6233.0
12.5°	7419.9	7534.7	7484.6	7227.3	6852.5	6460.4	6101.6	5801.2	5575.9	5505.0	5500.1
15°	7622.3	7712.0	7534.7	7084.8	6526.4	5947.9	5309.6	4790.9	4510.6	4420.9	4414.0
17.5°	7810.7	7856.6	7504.8	6836.5	6046.6	5110.0	4262.4	3862.6	3766.6	3789.6	3793.7
20°	7971.3	7971.3	7403.9	6480.5	5291.5	4005.1	3469.7	3463.5	3532.3	3601.1	3615.0
22.5°	8147.9	8042.2	7227.3	5977.8	4220.7	3277.1	3199.2	3263.2	3341.1	3416.9	3428.7
25°	8366.3	8100.0	6981.2	5215.7	3318.1	2976.0	3005.9	3058.8	3097.7	3146.4	3153.3
27.5°	8609.6	8173.0	6657.8	4165.8	2880.1	2788.3	2811.2	2829.3	2824.5	2843.2	2847.4
30°	8901.0	8258.5	6214.2	3256.3	2698.6	2627.0	2586.0	2570.0	2570.0	2599.9	2611.0
32.5°	9291.8	8384.3	5578.0	2790.4	2611.0	2512.2	2379.4	2319.6	2342.6	2443.4	2466.4
35°	9721.5	8519.9	4717.2	2631.8	2592.9	2459.4	2252.9	2142.3	2145.1	2239.0	2268.9
37.5°	10189.4	8692.4	3772.9	2601.9	2633.9	2462.2	2186.1	2034.6	1972.7	1972.7	1984.5
40°	10788.8	8869.0	3054.6	2622.8	2721.5	2489.3	2152.1	1949.7	1775.2	1780.1	1789.1
42.5°	11569.7	9020.6	2668.7	2665.9	2827.2	2526.2	2149.3	1837.1	1685.5	1789.1	1883.0
45°	12438.2	9096.4	2498.3	2705.5	2912.1	2549.1	2113.1	1819.0	1697.3	2004.7	2184.0
47.5°	13436.7	9052.6	2404.5	2718.8	2932.9	2549.1	2071.4	1862.8	1777.3	2321.7	2531.0
50°	14532.5	8926.7	2312.7	2691.6	2926.0	2544.2	2110.3	1905.9	1807.2	2376.7	2521.3
52.5°	15821.0	8821.0	2216.0	2631.8	2877.3	2519.2	2156.2	1887.8	1713.3	2161.1	2261.9
55°	17290.2	8850.9	2108.3	2547.0	2801.5	2471.2	2140.2	1814.1	1614.6	1903.8	1965.7
57.5°	19169.0	9206.9	1979.6	2439.2	2698.6	2390.6	2083.2	1780.1	1584.7	1727.2	1764.1
60°	21265.4	9826.5	1819.0	2330.8	2570.0	2261.9	2039.4	1796.1	1598.6	1713.3	1731.4
62.5°	22804.2	10187.4	1681.3	2172.2	2395.4	2119.4	1984.5	1816.2	1635.4	1761.3	1757.1
65°	23222.1	9594.9	1508.9	1940.7	2159.0	1970.6	1915.0	1839.2	1651.4	1800.2	1780.1
66°	22636.6	8956.6	1433.1	1832.9	2039.4	1896.9	1880.9	1837.1	1644.5	1805.1	1770.3
67.5°	21215.4	7647.3	1302.4	1674.4	1848.9	1787.0	1825.9	1816.2	1625.7	1800.2	1752.2
70°	17302.0	5217.8	1113.9	1394.1	1538.8	1572.8	1720.3	1743.2	1565.9	1720.3	1614.6
72.5°	12089.1	3178.4	985.3	1081.9	1244.6	1341.3	1575.6	1641.7	1485.9	1501.9	1401.1
75°	5842.2	1688.3	893.5	838.6	966.5	1120.9	1401.1	1504.0	1359.4	1256.5	1219.6
77.5°	1821.1	1031.2	757.9	675.2	757.9	904.6	1170.9	1318.4	1210.6	1052.0	1038.1
80°	978.3	757.9	583.4	541.7	599.4	709.9	920.6	1100.0	1040.2	943.6	842.7
82.5°	645.3	491.6	431.8	420.0	456.8	541.7	684.2	911.6	911.6	808.7	588.3
85°	333.1	301.1	296.2	296.2	319.2	360.9	465.9	703.0	748.9	426.9	353.9
87.5°	165.5	172.4	160.6	167.6	179.4	176.6	222.5	353.9	422.8	259.4	215.6
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)