

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: P301191

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301191
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-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(9) 70 CRI, 4000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III
Roadway OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 43801.5 lumens
Efficiency: N/A
Efficacy: 117.1 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

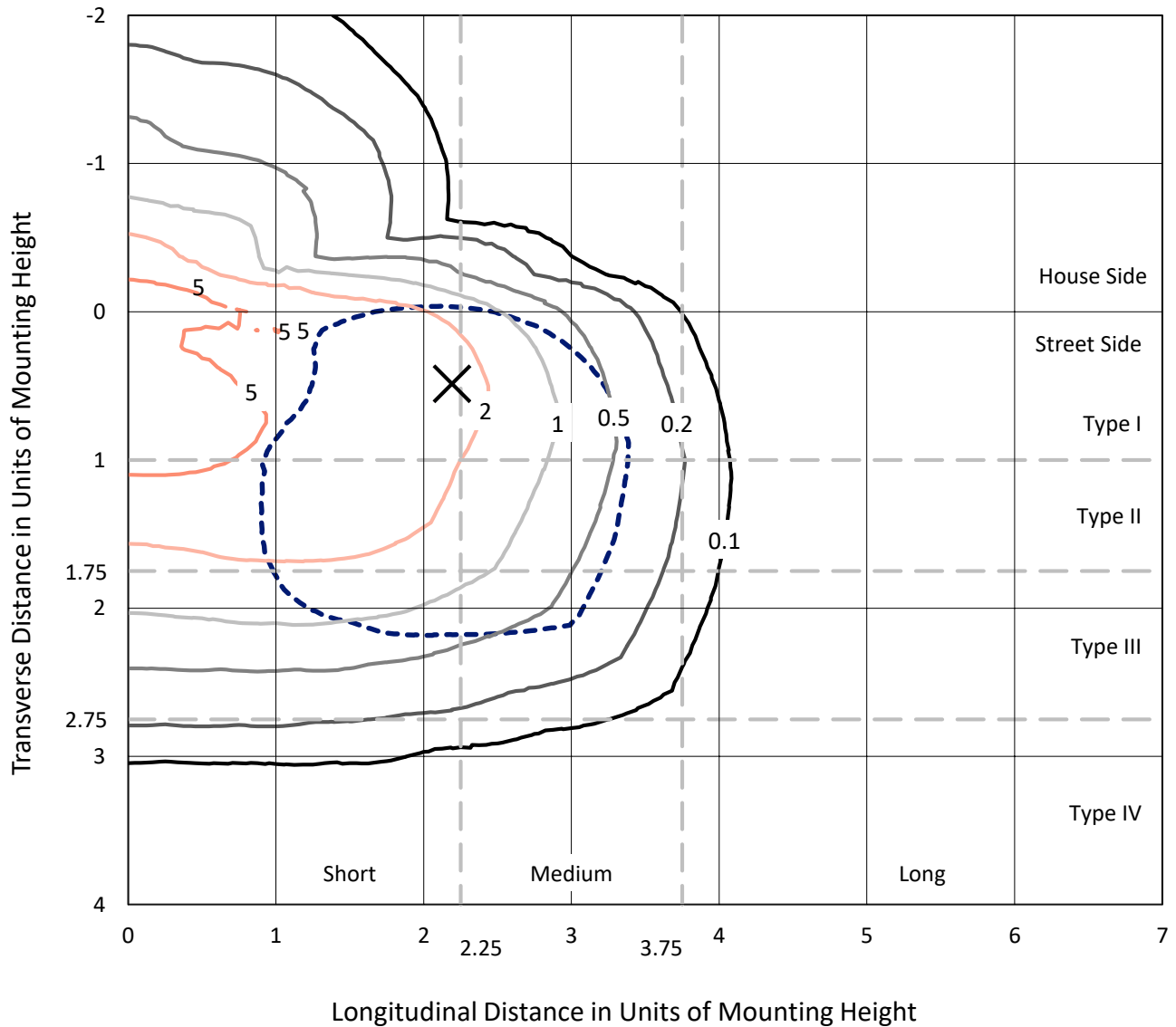
Input Watts (W): 374
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

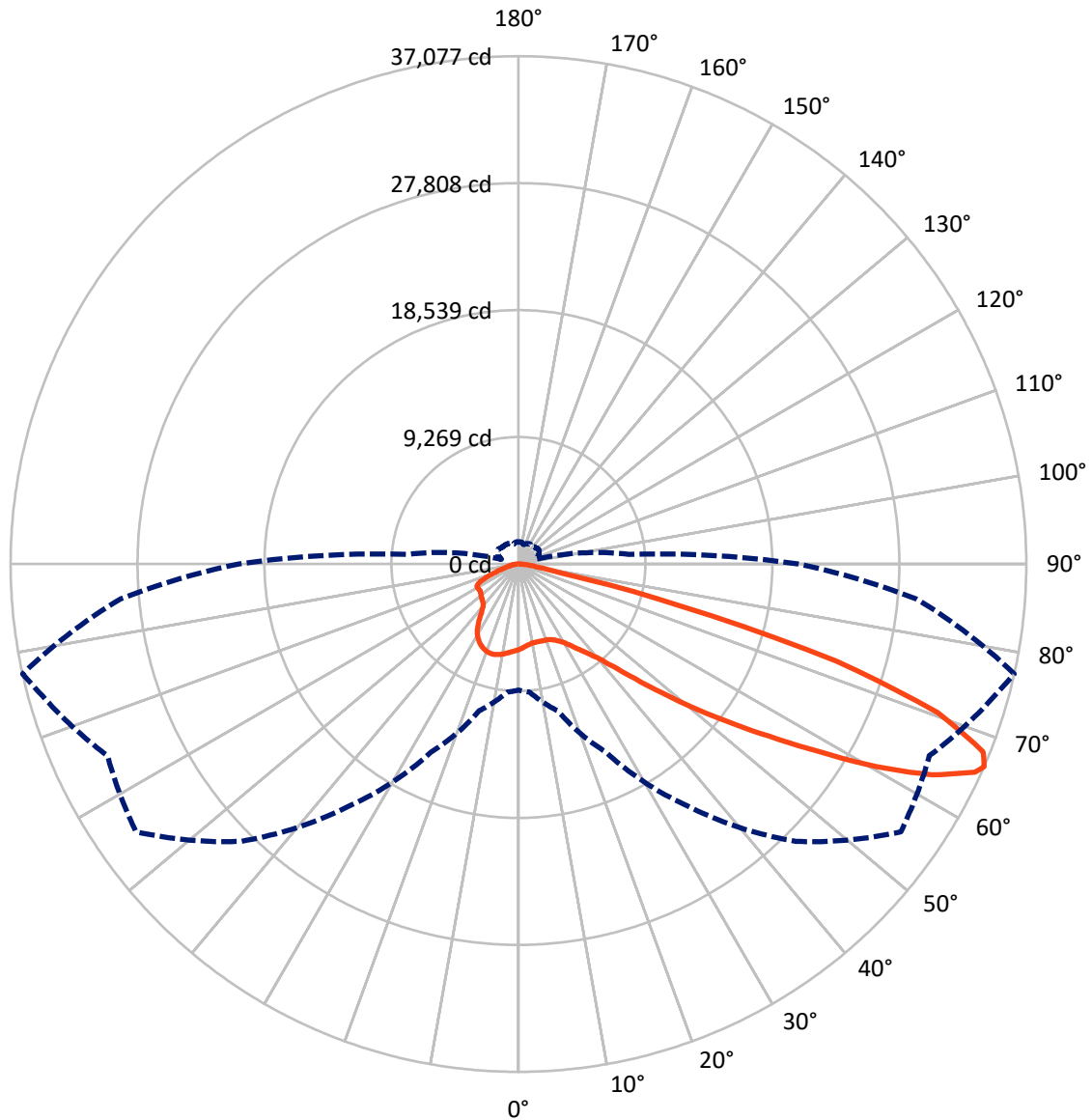
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 8.5 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	7483.2	0.0	7483.2
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	36318.3	0.0	36318.3
	% Fixture	82.9	0.0	82.9
Total	Lumens	43801.5	0.0	43801.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	557.7	1.3
10°-20°	1573.3	3.6
20°-30°	2685.0	6.1
30°-40°	4298.2	9.8
40°-50°	6640.4	15.2
50°-60°	9418.3	21.5
60°-70°	12599.2	28.8
70°-80°	5471.6	12.5
80°-90°	557.9	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°	43801.5	100.0
0°-180°	43801.5	100.0

Coefficient of Utilization



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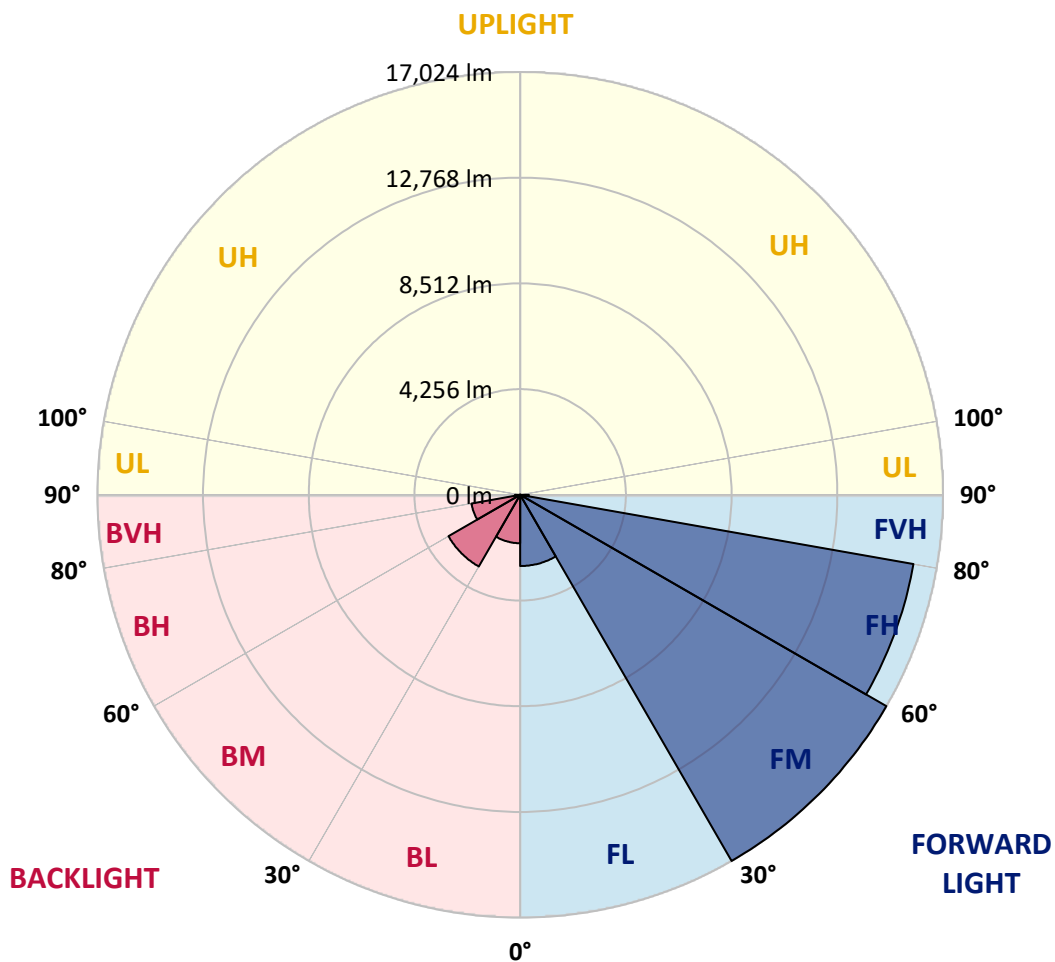
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2867.0	6.5			
FM	(30°-60°)	17023.5	38.9			
FH	(60°-80°)	16077.8	36.7			G5
FVH	(80°-90°)	349.9	0.8			G3/500
BL	(0°-30°)	1948.9	4.4	B3/2500		
BM	(30°-60°)	3333.3	7.6	B3/5000		
BH	(60°-80°)	1992.9	4.5	B3/2500		G3/2500
BVH	(80°-90°)	208.0	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°	6241.9	6241.9	6241.9	6241.9	6241.9	6241.9	6241.9	6241.9	6241.9	6241.9	6241.9
2.5°	5521.9	5558.8	5590.2	5619.0	5676.6	5771.9	5881.5	5970.5	6099.0	6124.1	6192.4
5°	5014.9	5014.9	5039.4	5083.2	5161.5	5304.4	5453.6	5652.2	5931.7	5997.5	6179.8
7.5°	4768.7	4770.5	4784.9	4821.9	4890.2	5020.6	5184.1	5418.5	5797.0	5906.6	6216.8
10°	4859.5	4838.8	4807.5	4789.3	4799.4	4875.8	5031.2	5291.9	5714.2	5854.6	6300.1
12.5°	5368.3	5329.5	5221.7	5078.8	4942.2	4886.5	4977.3	5231.7	5679.1	5842.7	6409.8
15°	6200.5	6184.2	5983.1	5687.3	5356.4	5078.8	5016.8	5209.2	5682.9	5857.1	6540.1
17.5°	7243.8	7220.7	6956.2	6525.7	5985.6	5445.4	5155.3	5228.0	5697.3	5881.5	6666.1
20°	8297.2	8226.4	7941.3	7428.1	6734.4	5943.6	5385.3	5275.6	5716.1	5908.5	6798.9
22.5°	9083.6	9025.3	8769.1	8270.3	7471.3	6521.3	5693.6	5358.3	5776.3	5987.4	6961.9
25°	9774.8	9778.6	9524.1	9042.3	8216.4	7134.2	6090.8	5579.5	5929.2	6148.5	7185.6
27.5°	10629.5	10580.0	10341.9	9863.8	8953.3	7752.7	6570.8	5884.1	6157.3	6378.5	7479.5
30°	11651.6	11616.5	11341.4	10799.3	9770.4	8416.9	7119.1	6237.5	6451.2	6680.5	7864.2
32.5°	12854.1	12837.8	12552.0	11854.6	10714.1	9199.5	7763.3	6705.6	6889.8	7127.9	8416.9
35°	14265.9	14267.7	13930.6	13092.2	11746.8	10110.0	8493.3	7307.8	7423.7	7671.8	9075.5
37.5°	15135.0	15240.3	15114.3	14259.6	12916.1	11128.3	9441.4	8106.7	8032.1	8282.8	9781.1
40°	15321.1	15449.6	15848.7	15414.5	14224.5	12250.0	10281.7	8874.3	8781.6	9087.4	10689.7
42.5°	15060.4	15238.4	16083.1	16388.9	15613.1	13632.3	11411.6	10014.8	9897.0	10308.7	11819.5
45°	14905.0	15037.9	16014.8	16896.4	16817.5	15195.1	12850.3	11446.6	11403.4	11943.6	13123.5
47.5°	14636.2	14756.5	15695.8	17014.2	17525.6	16627.0	14578.5	13198.1	13282.7	13990.8	14594.8
50°	14780.9	14830.4	15339.9	16714.1	17730.5	17676.6	16509.2	15225.8	15516.0	16399.5	16261.0
52.5°	14760.3	14888.7	15298.5	16221.6	17757.4	18324.5	18411.0	17488.0	18098.9	19112.8	18109.0
55°	11933.5	12169.1	14812.3	16097.5	17852.1	18959.3	20104.2	19872.3	21010.3	22192.1	20195.0
57.5°	11395.3	11544.4	13009.5	16358.2	18357.1	20172.5	21987.2	22496.6	24400.3	25772.7	22736.6
60°	11289.4	11473.6	12990.7	16677.1	19381.7	22148.9	24779.4	25673.6	28525.4	30028.1	25683.7
62.5°	10960.4	11159.0	12868.5	16635.1	20836.7	24882.8	28353.7	29051.2	32436.9	33898.2	28148.8
65°	9917.7	10103.8	11873.4	15967.1	21818.0	27801.1	32583.5	32147.4	35524.9	36623.4	29377.7
66°	9203.3	9385.7	11088.8	15180.7	21589.9	28628.8	34082.4	33105.5	36216.1	37077.0	29137.7
67.5°	7897.4	8040.3	9565.5	13419.3	20379.2	28860.7	35342.5	33825.5	36288.1	36592.7	27766.0
70°	4989.9	5031.2	6216.8	9263.5	15427.0	25029.5	33423.8	32037.7	33296.0	32471.9	23276.8
72.5°	2165.0	2150.6	2984.6	4712.3	8734.0	16794.9	27037.2	26435.0	26118.5	24239.3	16294.3
75°	1204.4	1221.3	1550.3	2187.6	3549.2	8249.6	17686.6	16925.3	14290.3	12194.2	7388.6
77.5°	966.3	989.4	1285.2	1552.2	1593.5	2876.9	8276.5	6734.4	4054.3	3253.5	2052.8
80°	763.9	805.2	1121.7	1208.8	1074.0	1185.6	2673.8	2138.1	1604.2	1471.3	1064.0
82.5°	604.1	633.5	962.5	914.9	751.3	799.0	1280.8	1248.2	1043.3	950.0	614.7
85°	434.9	488.1	790.8	689.3	492.5	538.3	850.3	815.2	597.8	488.1	271.3
87.5°	178.0	231.9	559.0	457.4	275.1	250.7	424.2	399.2	283.2	206.8	134.7
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°	6241.9	6241.9	6241.9	6241.9	6241.9	6241.9	6241.9	6241.9	6241.9	6241.9	6241.9
2.5°	6235.6	6285.1	6349.6	6389.1	6409.8	6424.2	6446.8	6444.9	6451.2	6453.0	6461.2
5°	6276.9	6359.7	6453.0	6478.1	6478.1	6454.9	6432.4	6394.8	6380.3	6376.6	6380.3
7.5°	6384.7	6475.6	6556.4	6527.6	6465.6	6374.1	6256.3	6152.9	6097.1	6078.3	6074.5
10°	6521.3	6631.0	6664.2	6554.5	6372.2	6152.9	5919.1	5749.3	5652.2	5625.3	5617.1
12.5°	6686.8	6790.2	6745.0	6513.2	6175.4	5822.0	5498.7	5228.0	5024.9	4961.0	4956.6
15°	6869.1	6949.9	6790.2	6384.7	5881.5	5360.2	4784.9	4317.5	4064.9	3984.1	3977.8
17.5°	7038.9	7080.3	6763.2	6161.0	5449.2	4605.1	3841.2	3480.9	3394.5	3415.1	3418.9
20°	7183.7	7183.7	6672.4	5840.2	4768.7	3609.4	3126.9	3121.2	3183.3	3245.3	3257.8
22.5°	7342.8	7247.6	6513.2	5387.1	3803.6	2953.3	2883.1	2940.8	3011.0	3079.3	3089.9
25°	7539.6	7299.6	6291.4	4700.3	2990.3	2682.0	2708.9	2756.5	2791.6	2835.5	2841.8
27.5°	7758.9	7365.4	6000.0	3754.1	2595.5	2512.8	2533.5	2549.8	2545.4	2562.3	2566.0
30°	8021.5	7442.5	5600.2	2934.5	2431.9	2367.4	2330.4	2316.0	2316.0	2343.0	2353.0
32.5°	8373.7	7555.9	5026.8	2514.7	2353.0	2264.0	2144.3	2090.4	2111.1	2202.0	2222.7
35°	8760.9	7678.1	4251.1	2371.8	2336.7	2216.4	2030.3	1930.6	1933.2	2017.7	2044.7
37.5°	9182.6	7833.5	3400.1	2344.8	2373.7	2218.9	1970.1	1833.5	1777.7	1777.7	1788.4
40°	9722.8	7992.7	2752.8	2363.6	2452.6	2243.3	1939.4	1757.1	1599.8	1604.2	1612.3
42.5°	10426.5	8129.3	2405.0	2402.5	2547.9	2276.5	1936.9	1655.6	1519.0	1612.3	1696.9
45°	11209.2	8197.6	2251.5	2438.2	2624.3	2297.2	1904.3	1639.3	1529.6	1806.6	1968.2
47.5°	12109.0	8158.1	2166.9	2450.1	2643.1	2297.2	1866.7	1678.7	1601.7	2092.3	2280.9
50°	13096.6	8044.7	2084.2	2425.7	2636.9	2292.8	1901.8	1717.6	1628.6	2141.8	2272.2
52.5°	14257.7	7949.4	1997.1	2371.8	2593.0	2270.3	1943.2	1701.3	1544.0	1947.6	2038.4
55°	15581.8	7976.4	1899.9	2295.3	2524.7	2227.0	1928.8	1634.9	1455.0	1715.7	1771.5
57.5°	17274.9	8297.2	1784.0	2198.2	2431.9	2154.4	1877.4	1604.2	1428.1	1556.5	1589.8
60°	19164.2	8855.5	1639.3	2100.5	2316.0	2038.4	1837.9	1618.6	1440.6	1544.0	1560.3
62.5°	20550.9	9180.8	1515.2	1957.6	2158.7	1910.0	1788.4	1636.8	1473.8	1587.3	1583.5
65°	20927.5	8646.9	1359.8	1748.9	1945.7	1775.9	1725.7	1657.4	1488.2	1622.3	1604.2
66°	20399.9	8071.6	1291.5	1651.8	1837.9	1709.4	1695.0	1655.6	1482.0	1626.7	1595.4
67.5°	19119.1	6891.7	1173.7	1508.9	1666.2	1610.4	1645.5	1636.8	1465.1	1622.3	1579.1
70°	15592.4	4702.2	1003.9	1256.4	1386.7	1417.4	1550.3	1571.0	1411.2	1550.3	1455.0
72.5°	10894.6	2864.3	887.9	975.0	1121.7	1208.8	1419.9	1479.5	1339.1	1353.5	1262.7
75°	5264.9	1521.5	805.2	755.7	871.0	1010.1	1262.7	1355.4	1225.1	1132.3	1099.1
77.5°	1641.1	929.3	683.0	608.5	683.0	815.2	1055.2	1188.1	1091.0	948.1	935.6
80°	881.7	683.0	525.7	488.1	540.2	639.8	829.7	991.3	937.4	850.3	759.5
82.5°	581.5	443.0	389.1	378.5	411.7	488.1	616.6	821.5	821.5	728.8	530.1
85°	300.2	271.3	266.9	266.9	287.6	325.2	419.8	633.5	674.9	384.8	319.0
87.5°	149.1	155.4	144.8	151.0	161.7	159.2	200.5	319.0	381.0	233.7	194.3
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)