

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: STREETWORKS

Report Number: P231293

Luminaire Tested: **ARCH-M-AF48-140-D-U-T4W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231293
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29615)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-M-AF48-140-D-U-T4W
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 4000K, 905mA LIGHT ENGINES WITH 24 LEDS AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17291 lumens
Efficiency: N/A
Efficacy: 122.6 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type IV - Medium - Non-Cutoff
BUG Rating: B3 - U0 - G3

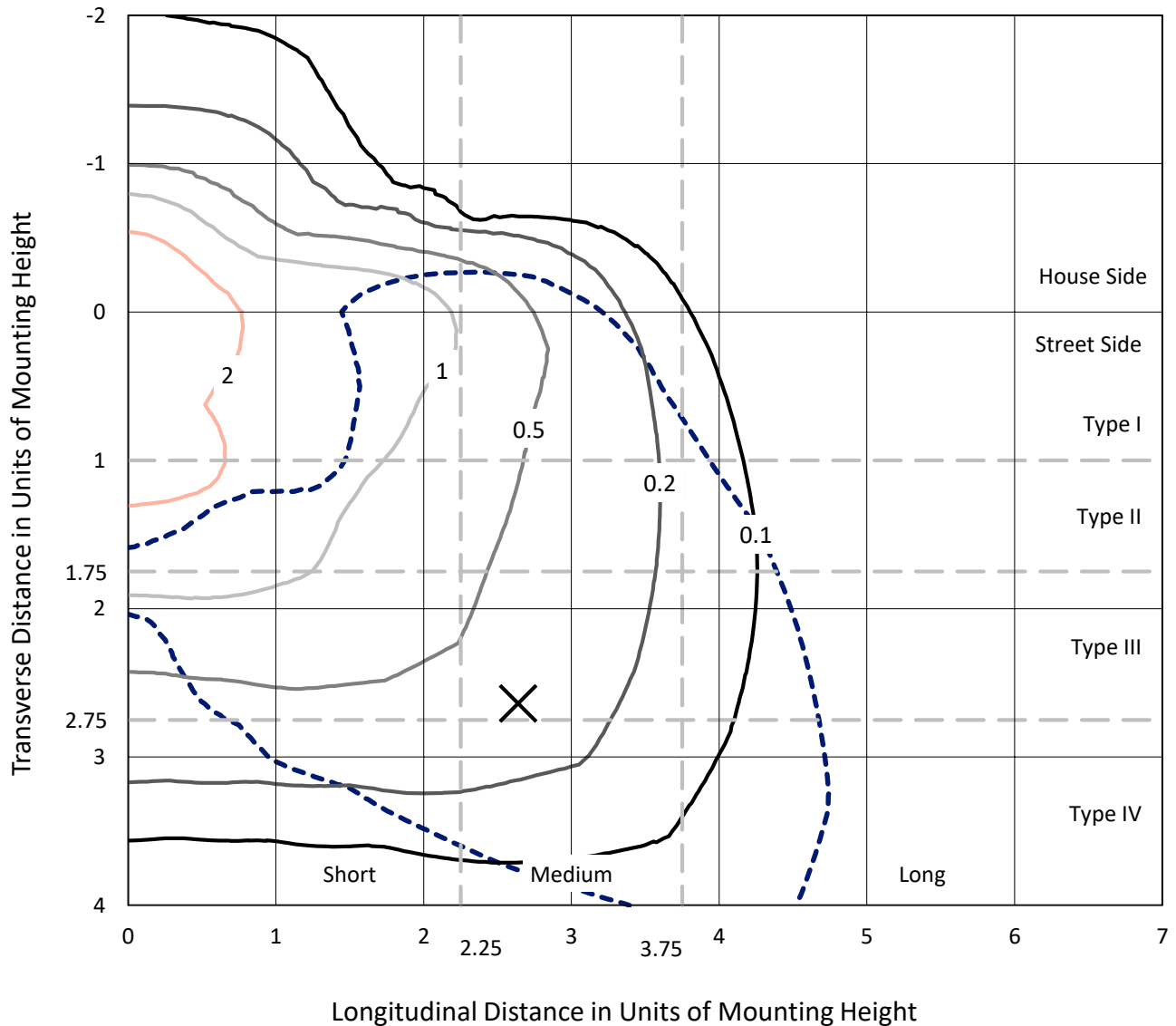
Input Watts (W): 141
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

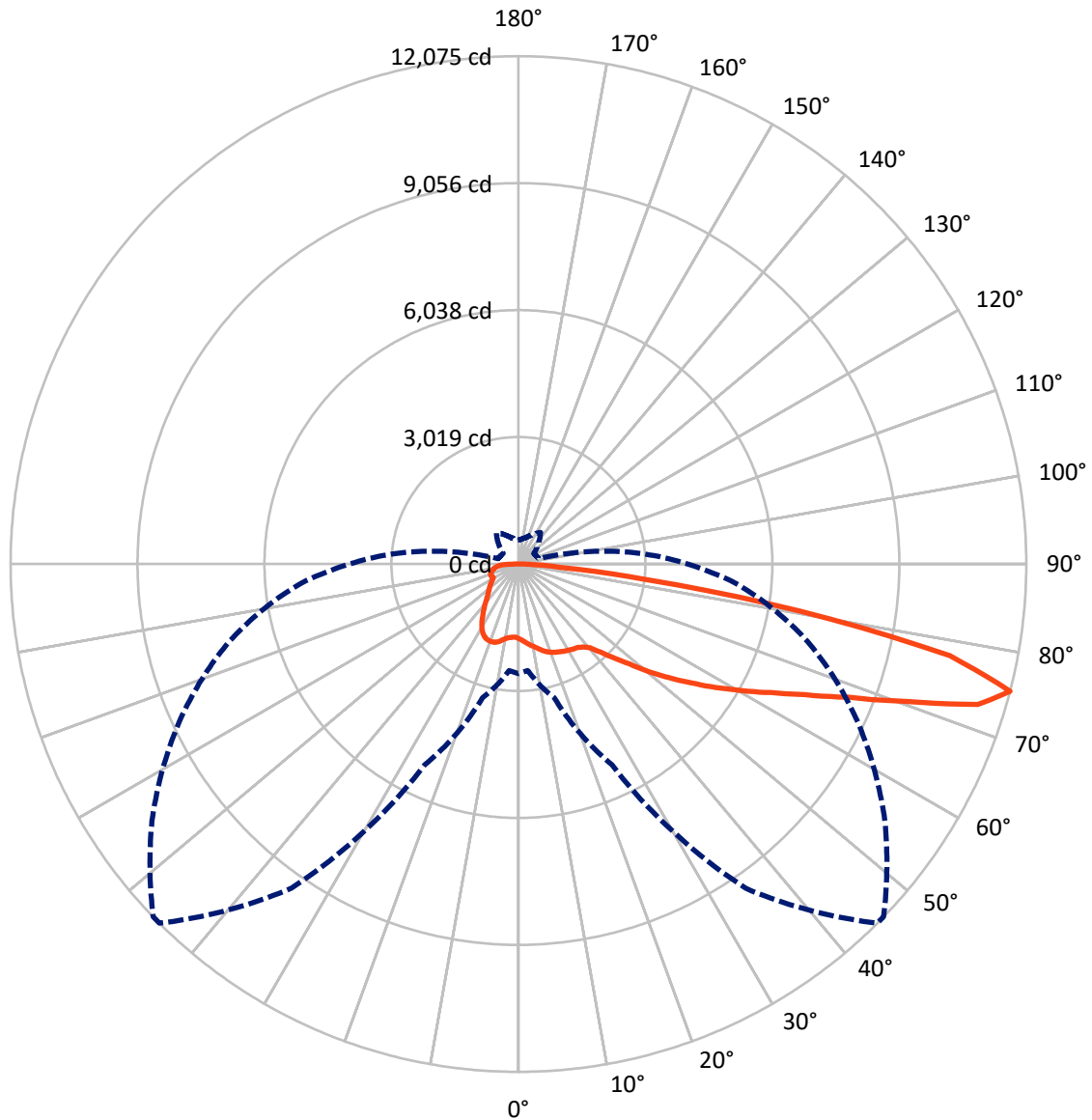
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.3 fc
 Type IV - Medium - Non-Cutoff

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CATALOG NUMBER: ARCH-M-AF48-140-D-U-T4W

Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4005.6	0.0	4005.6
	% Fixture	23.2	0.0	23.2
Street Side	Lumens	13285.3	0.0	13285.3
	% Fixture	76.8	0.0	76.8
Total	Lumens	17291.0	0.0	17291.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	175.7	1.0
10°-20°	569.2	3.3
20°-30°	976.8	5.6
30°-40°	1366.2	7.9
40°-50°	2004.1	11.6
50°-60°	3121.8	18.1
60°-70°	4492.1	26.0
70°-80°	3913.1	22.6
80°-90°	672.0	3.9
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°	17291.0	100.0
0°-180°	17291.0	100.0



REPORT NUMBER: P231293

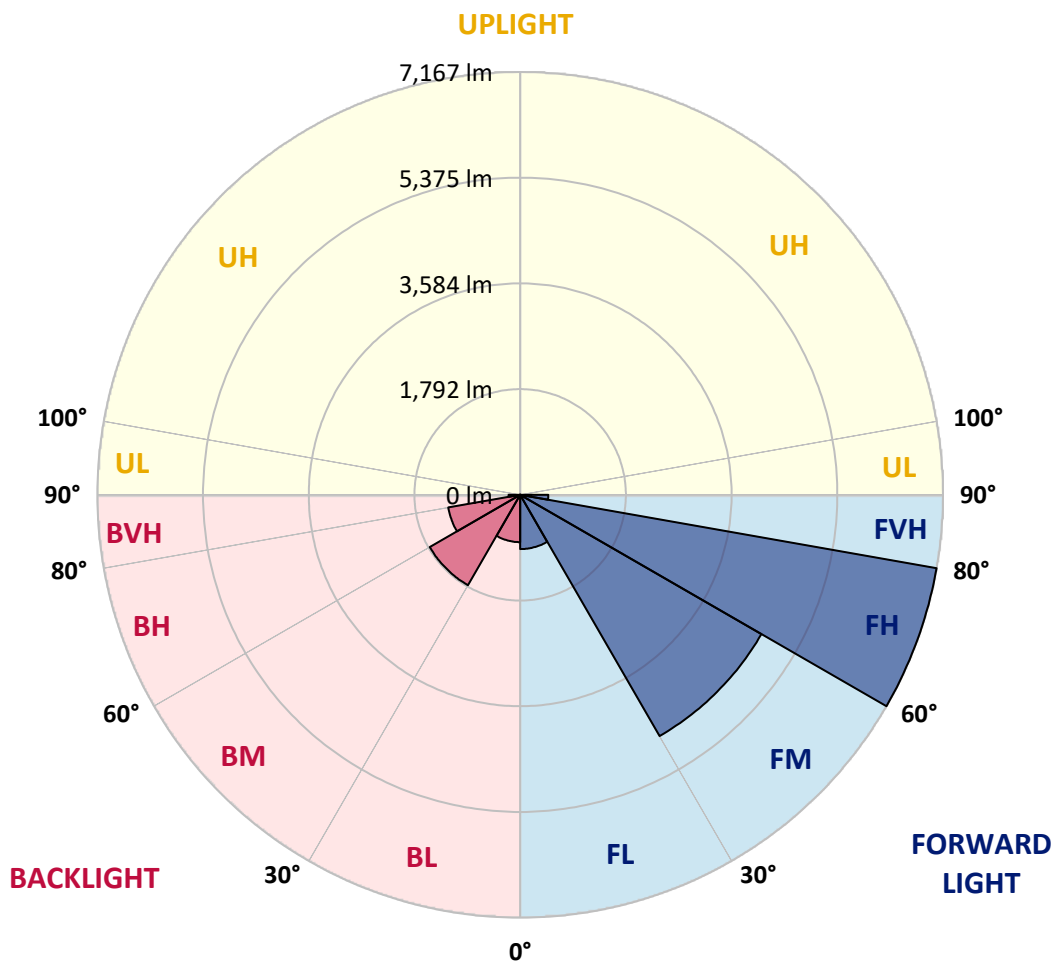
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	919.5	5.3			
FM (30°-60°)	4721.8	27.3			
FH (60°-80°)	7167.3	41.5			G3/7500
FVH (80°-90°)	476.8	2.8			G3/500
BL (0°-30°)	802.3	4.6	B2/1000		
BM (30°-60°)	1770.3	10.2	B2/2500		
BH (60°-80°)	1237.9	7.2	B3/2500		G3/2500
BVH (80°-90°)	195.2	1.1			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type IV Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	1772.6	1772.6	1772.6	1772.6	1772.6	1772.6	1772.6	1772.6	1772.6	1772.6	1772.6
2.5°	1860.0	1846.5	1846.5	1836.5	1836.5	1819.6	1813.0	1809.6	1792.7	1782.7	1772.6
5°	1967.6	1950.9	1947.5	1924.0	1913.8	1876.8	1873.4	1849.9	1819.6	1789.3	1765.8
7.5°	2065.2	2055.1	2038.3	2014.7	1984.4	1937.4	1934.0	1897.1	1846.5	1806.2	1772.6
10°	2135.8	2129.1	2105.5	2075.3	2041.6	1994.5	1991.2	1950.9	1890.3	1843.2	1796.1
12.5°	2219.9	2209.8	2179.6	2139.2	2102.2	2058.5	2055.1	2021.5	1954.2	1893.7	1833.1
15°	2300.6	2287.2	2250.2	2209.8	2169.5	2132.4	2132.4	2095.4	2024.8	1954.2	1883.6
17.5°	2341.0	2334.3	2297.2	2253.6	2219.9	2193.0	2189.6	2156.0	2085.4	2011.3	1934.0
20°	2354.4	2357.8	2324.1	2277.1	2253.6	2240.1	2236.7	2213.2	2135.8	2065.2	1991.2
22.5°	2351.0	2361.2	2334.3	2283.8	2277.1	2277.1	2277.1	2250.2	2189.6	2119.0	2045.0
25°	2364.6	2378.0	2357.8	2297.2	2297.2	2310.7	2310.7	2297.2	2243.4	2182.9	2108.9
27.5°	2411.6	2421.7	2404.9	2320.8	2324.1	2344.4	2341.0	2344.4	2310.7	2253.6	2179.6
30°	2468.8	2482.3	2462.0	2357.8	2354.4	2374.7	2374.7	2391.5	2367.9	2307.4	2246.8
32.5°	2623.6	2620.2	2556.3	2398.2	2388.1	2408.2	2408.2	2425.1	2411.6	2364.6	2307.4
35°	3084.3	3033.9	2892.6	2529.3	2428.5	2438.5	2438.5	2468.8	2475.5	2438.5	2388.1
37.5°	3555.3	3538.4	3430.8	2879.2	2576.4	2502.4	2499.1	2542.9	2573.1	2542.9	2509.2
40°	4029.5	4016.0	3992.5	3346.7	2885.8	2616.8	2606.7	2643.7	2697.5	2677.4	2657.2
42.5°	4470.1	4463.3	4486.9	3807.5	3279.4	2862.3	2832.0	2788.4	2865.7	2858.9	2858.9
45°	4816.6	4833.3	4846.8	4238.0	3706.6	3178.5	3141.5	2993.6	3097.8	3124.7	3144.9
47.5°	5011.6	5025.0	5072.2	4658.4	4133.7	3545.1	3518.2	3276.1	3414.0	3494.7	3551.9
50°	5290.8	5253.8	5294.2	5068.8	4648.4	4022.8	3948.8	3656.1	3831.1	3972.3	4106.8
52.5°	5559.8	5499.3	5532.9	5543.1	5233.6	4490.2	4412.9	4103.5	4322.1	4544.0	4782.9
55°	5802.1	5798.7	5832.4	6003.9	5798.7	4991.5	4904.0	4598.0	4914.1	5152.9	5556.5
57.5°	5997.2	6030.8	6178.7	6538.7	6451.2	5536.3	5438.8	5173.1	5546.4	5785.2	6454.5
60°	6225.9	6279.7	6525.2	6992.7	7046.5	6108.1	6007.2	5815.5	6195.6	6437.7	7493.9
62.5°	6303.2	6380.6	6885.1	7470.3	7668.8	6733.8	6642.9	6515.1	6878.3	7097.0	8529.9
65°	5788.6	5936.6	7083.5	7715.9	8338.2	7487.2	7409.8	7298.8	7557.8	7702.4	9232.8
67.5°	5647.3	5714.6	6696.7	8069.0	8967.1	8455.8	8378.5	8186.8	8193.5	8133.0	9461.6
70°	5448.8	5522.9	6299.8	8334.8	9868.5	9781.0	9686.9	9121.9	8775.4	8408.8	9010.9
72.5°	4641.6	4618.1	5428.7	7618.3	10302.4	11422.5	11311.5	10127.5	9205.9	8170.0	7604.9
75°	2606.7	2539.5	3292.9	5270.7	9407.7	12075.0	12071.6	10635.4	8903.2	7117.2	5176.4
77.5°	756.8	736.6	1086.4	2209.8	6333.5	10490.8	10618.5	9592.7	7430.0	5112.5	2842.2
80°	356.5	363.2	467.5	729.9	2704.3	6770.7	7137.3	6316.6	4439.8	2357.8	1173.8
82.5°	225.4	228.7	319.6	470.9	1143.6	3074.3	3377.0	2842.2	1759.1	1019.2	518.0
85°	141.3	141.3	211.9	309.4	682.8	982.1	1066.2	968.7	753.4	555.0	282.5
87.5°	77.3	77.3	127.8	178.3	373.4	316.2	326.2	386.8	470.9	339.7	141.3
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°	1772.6	1772.6	1772.6	1772.6	1772.6	1772.6	1772.6	1772.6	1772.6	1772.6	1772.6
2.5°	1769.2	1762.4	1752.4	1749.0	1745.7	1742.3	1745.7	1752.4	1745.7	1745.7	1749.0
5°	1759.1	1752.4	1738.9	1738.9	1742.3	1745.7	1762.4	1772.6	1775.9	1775.9	1775.9
7.5°	1759.1	1749.0	1738.9	1742.3	1749.0	1762.4	1789.3	1806.2	1819.6	1823.0	1823.0
10°	1775.9	1762.4	1755.8	1762.4	1782.7	1792.7	1819.6	1846.5	1863.4	1870.2	1870.2
12.5°	1806.2	1792.7	1792.7	1806.2	1833.1	1846.5	1870.2	1890.3	1910.5	1920.6	1920.6
15°	1856.7	1839.9	1843.2	1866.8	1897.1	1910.5	1927.2	1934.0	1950.9	1964.3	1964.3
17.5°	1903.7	1886.9	1893.7	1920.6	1940.7	1947.5	1957.5	1954.2	1960.9	1971.0	1974.4
20°	1957.5	1940.7	1944.1	1960.9	1964.3	1957.5	1957.5	1947.5	1944.1	1960.9	1967.6
22.5°	2011.3	1994.5	1991.2	1981.1	1964.3	1947.5	1937.4	1927.2	1920.6	1937.4	1944.1
25°	2075.3	2051.7	2035.0	1991.2	1947.5	1917.2	1903.7	1897.1	1893.7	1910.5	1917.2
27.5°	2145.9	2122.4	2071.9	1977.8	1907.1	1856.7	1846.5	1846.5	1853.3	1863.4	1870.2
30°	2213.2	2189.6	2098.8	1947.5	1836.5	1762.4	1752.4	1762.4	1779.3	1789.3	1799.5
32.5°	2280.5	2256.9	2115.7	1900.3	1732.2	1638.1	1631.3	1648.1	1675.0	1681.7	1688.5
35°	2371.3	2347.8	2135.8	1833.1	1601.0	1500.2	1493.4	1503.5	1527.1	1537.1	1547.2
37.5°	2499.1	2485.7	2166.1	1759.1	1479.9	1368.9	1348.8	1342.0	1355.5	1352.1	1365.5
40°	2667.2	2677.4	2219.9	1661.6	1362.3	1247.9	1204.1	1184.0	1170.5	1143.6	1157.1
42.5°	2912.8	2919.5	2280.5	1550.6	1261.3	1133.5	1076.3	1039.3	1012.4	968.7	975.4
45°	3272.7	3215.5	2351.0	1432.8	1170.5	1042.7	975.4	931.7	894.7	857.7	861.0
47.5°	3750.3	3575.4	2428.5	1335.4	1079.7	968.7	908.2	857.7	814.0	783.7	787.1
50°	4338.9	4022.8	2505.8	1244.5	988.9	911.6	857.7	803.8	760.2	729.9	726.5
52.5°	5115.9	4560.9	2556.3	1143.6	898.0	861.0	814.0	763.5	709.7	672.7	669.3
55°	5923.1	5186.6	2600.0	1022.5	810.6	803.8	780.3	723.1	659.3	612.1	605.4
57.5°	6811.1	5855.9	2633.6	904.8	743.4	756.8	750.0	682.8	612.1	568.5	565.1
60°	7618.3	6548.7	2526.0	800.6	682.8	709.7	716.5	659.3	622.3	632.4	635.7
62.5°	8432.3	7083.5	2115.7	723.1	642.4	679.4	736.6	733.3	716.5	733.3	736.6
65°	8725.0	7194.5	1500.2	659.3	602.1	692.8	800.6	793.8	716.5	686.2	679.4
67.5°	8560.2	6864.9	1009.0	608.8	571.8	709.7	867.8	793.8	689.5	649.2	635.7
70°	7776.4	6054.3	740.0	558.3	544.9	706.3	904.8	790.4	676.1	632.4	615.5
72.5°	6202.3	4671.9	595.4	511.3	504.5	689.5	925.0	783.7	662.6	615.5	595.4
75°	4016.0	2906.1	501.1	464.1	444.0	662.6	914.8	763.5	645.8	585.2	571.8
77.5°	1863.4	1251.3	427.2	410.3	386.8	622.3	884.6	723.1	608.8	551.6	534.8
80°	867.8	592.0	359.9	356.5	346.5	588.6	844.2	676.1	565.1	518.0	491.1
82.5°	464.1	356.5	292.7	292.7	302.7	548.3	793.8	618.9	507.9	484.4	413.7
85°	245.5	205.2	211.9	228.7	259.0	484.4	726.5	558.3	444.0	370.0	359.9
87.5°	124.5	131.1	131.1	154.7	198.5	393.5	598.7	460.8	376.8	302.7	295.9
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)