

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: P265839

Luminaire Tested: **ARCH-M-AF48-130-D-U-T4W-7027**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P265839  
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-AF48-130-D-U-T4W-7027  
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 2700K, 845mA LIGHT ENGINES WITH 24 LEDS AND TYPE IV WIDE OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 13957.7 lumens  
Efficiency: N/A  
Efficacy: 106.5 lumens/watt  
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')  
IES Classification: Type IV - Medium - Non-Cutoff  
BUG Rating: B2 - U0 - G3

Input Watts (W): 131  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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

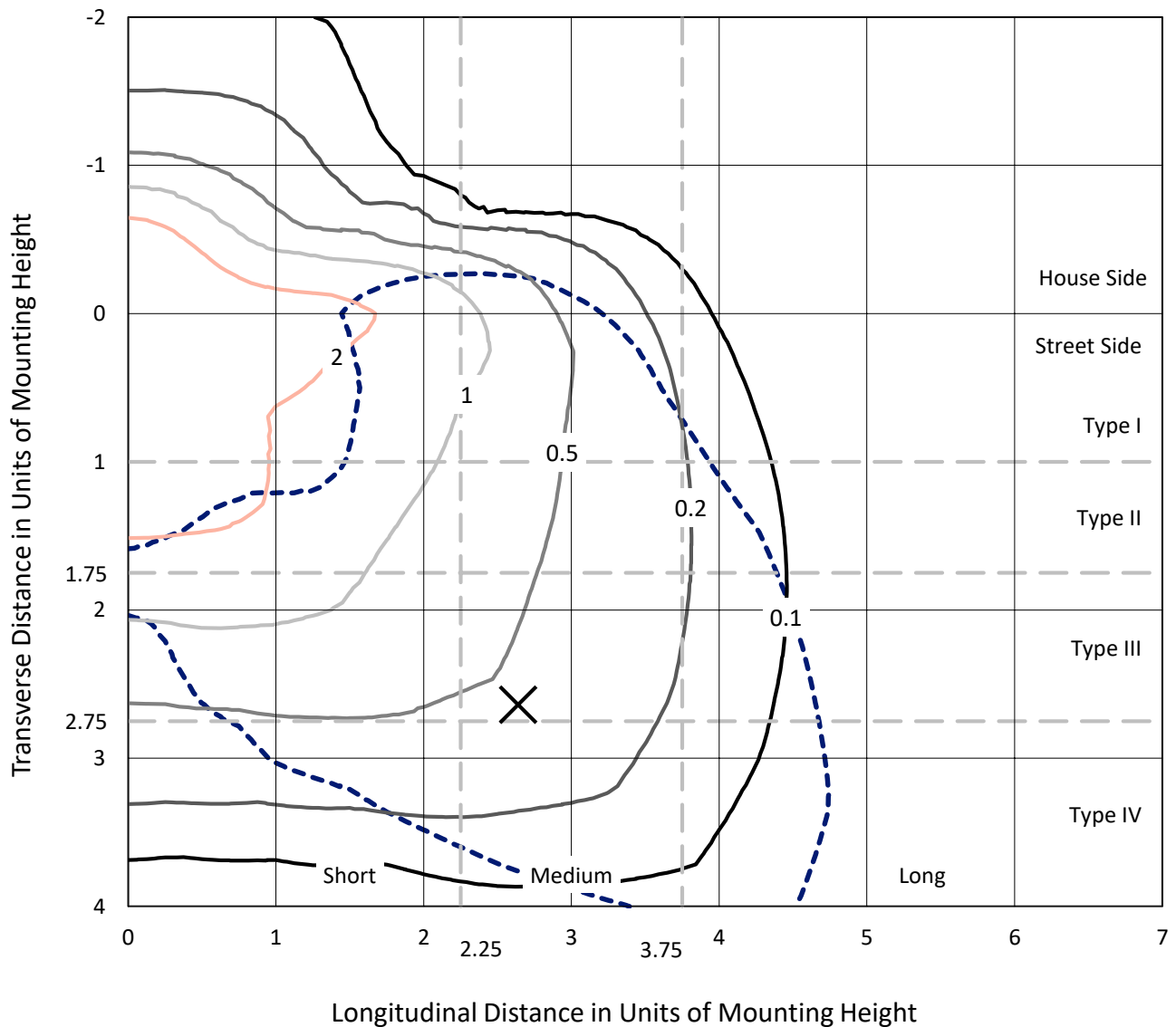


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

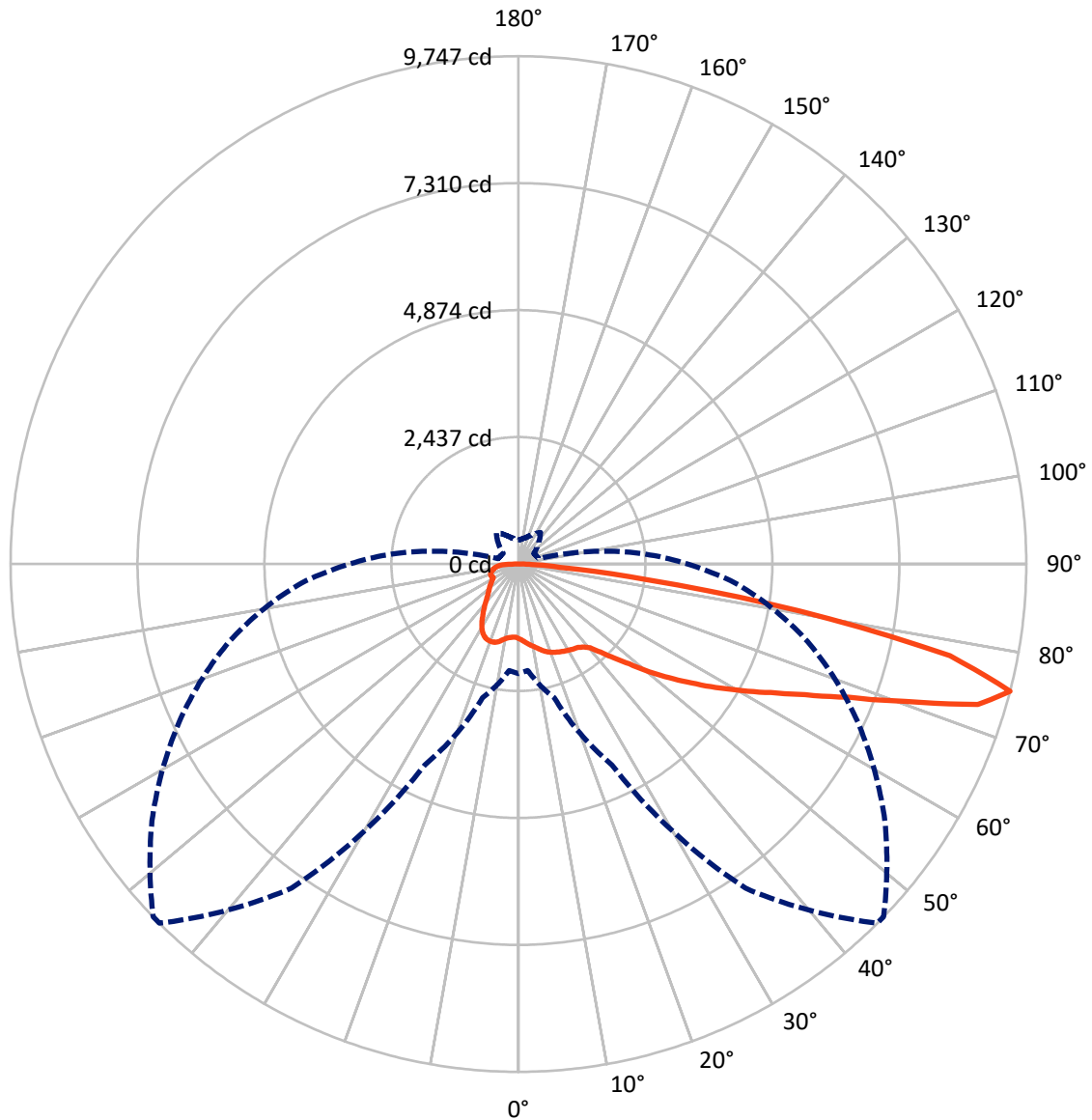


Based on 20 foot mounting height. Maximum calculated value = 4.2 fc  
 Type IV - Medium - Non-Cutoff

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### 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
<b>House Side</b>	Lumens	3233.4	0.0	3233.4
	% Fixture	23.2	0.0	23.2
<b>Street Side</b>	Lumens	10724.2	0.0	10724.2
	% Fixture	76.8	0.0	76.8
<b>Total</b>	Lumens	13957.7	0.0	13957.7
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	141.8	1.0
10°-20°	459.5	3.3
20°-30°	788.5	5.6
30°-40°	1102.8	7.9
40°-50°	1617.7	11.6
50°-60°	2520.0	18.1
60°-70°	3626.1	26.0
70°-80°	3158.7	22.6
80°-90°	542.5	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°	13957.7	100.0
0°-180°	13957.7	100.0

**Coefficient of Utilization**



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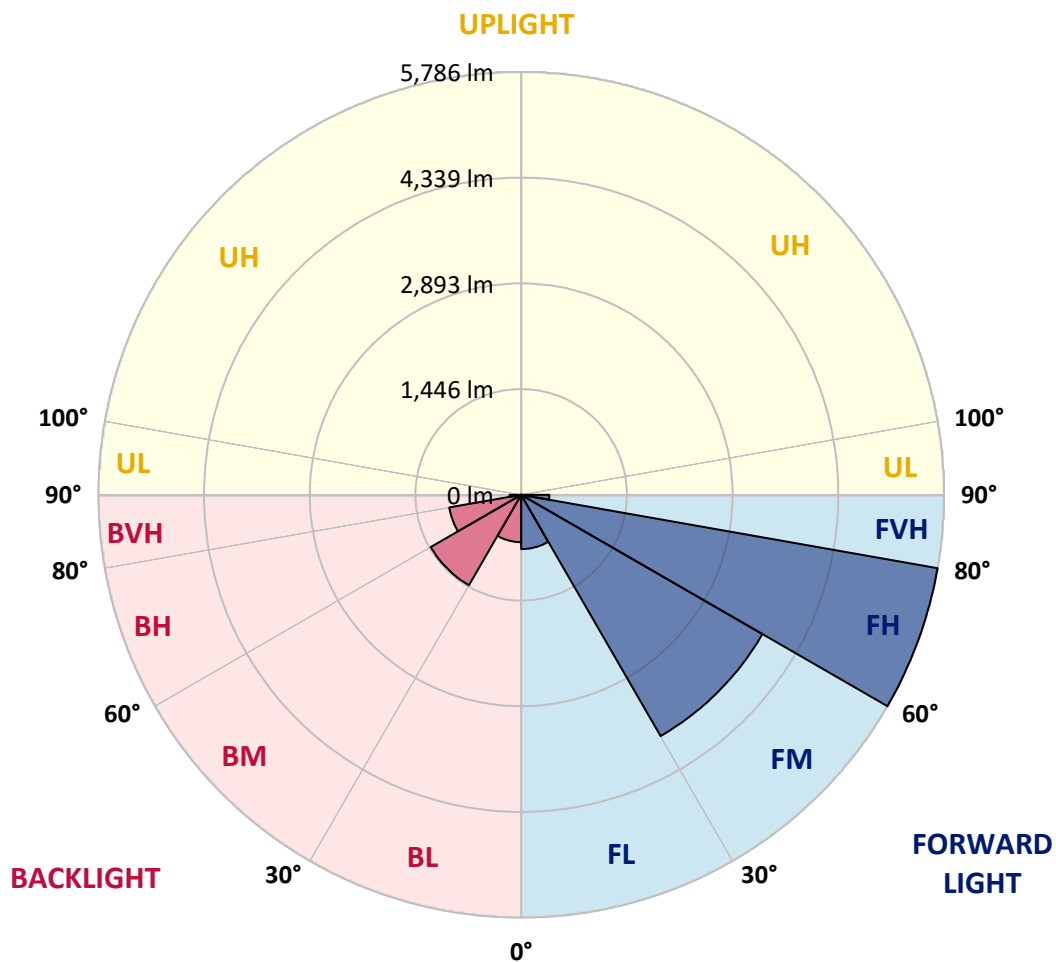
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	742.2	5.3			
FM	(30°-60°)	3811.6	27.3			
FH	(60°-80°)	5785.6	41.5			G3/7500
FVH	(80°-90°)	384.9	2.8			G3/500
BL	(0°-30°)	647.6	4.6	B2/1000		
BM	(30°-60°)	1429.0	10.2	B2/2500		
BH	(60°-80°)	999.2	7.2	B2/1000		G2/1000
BVH	(80°-90°)	157.6	1.1			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G3**

Type IV Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	1430.9	1430.9	1430.9	1430.9	1430.9	1430.9	1430.9	1430.9	1430.9	1430.9	1430.9
2.5°	1501.4	1490.6	1490.6	1482.5	1482.5	1468.9	1463.5	1460.7	1447.2	1439.1	1430.9
5°	1588.4	1574.8	1572.0	1553.0	1544.8	1515.0	1512.2	1493.3	1468.9	1444.5	1425.4
7.5°	1667.1	1658.9	1645.3	1626.3	1601.9	1563.9	1561.2	1531.3	1490.6	1457.9	1430.9
10°	1724.0	1718.6	1699.7	1675.2	1648.1	1610.0	1607.3	1574.8	1526.0	1487.9	1449.9
12.5°	1791.9	1783.9	1759.4	1726.8	1697.0	1661.7	1658.9	1631.9	1577.5	1528.6	1479.7
15°	1857.2	1846.2	1816.5	1783.9	1751.2	1721.4	1721.4	1691.5	1634.5	1577.5	1520.4
17.5°	1889.8	1884.3	1854.5	1819.1	1791.9	1770.2	1767.5	1740.3	1683.3	1623.6	1561.2
20°	1900.5	1903.2	1876.1	1838.1	1819.1	1808.3	1805.6	1786.5	1724.0	1667.1	1607.3
22.5°	1897.8	1906.1	1884.3	1843.5	1838.1	1838.1	1816.5	1767.5	1710.6	1710.6	1650.7
25°	1908.7	1919.6	1903.2	1854.5	1854.5	1865.3	1865.3	1854.5	1811.0	1762.0	1702.4
27.5°	1946.7	1954.9	1941.2	1873.4	1876.1	1892.4	1889.8	1892.4	1865.3	1819.1	1759.4
30°	1992.9	2003.7	1987.5	1903.2	1900.5	1916.9	1916.9	1930.5	1911.5	1862.5	1813.7
32.5°	2117.8	2115.1	2063.4	1935.8	1927.8	1944.0	1944.0	1957.5	1946.7	1908.7	1862.5
35°	2489.7	2449.0	2335.0	2041.8	1960.3	1968.5	1968.5	1992.9	1998.3	1968.5	1927.8
37.5°	2869.8	2856.3	2769.5	2324.2	2079.8	2020.0	2017.4	2052.5	2077.1	2052.5	2025.5
40°	3252.8	3241.9	3222.8	2701.6	2329.6	2112.4	2104.2	2134.1	2177.5	2161.2	2145.0
42.5°	3608.3	3602.9	3622.0	3073.6	2647.2	2310.5	2286.0	2250.9	2313.2	2307.8	2307.8
45°	3888.0	3901.6	3912.5	3421.0	2992.1	2565.7	2535.8	2416.4	2500.6	2522.4	2538.6
47.5°	4045.4	4056.3	4094.4	3760.5	3336.8	2861.7	2840.0	2644.5	2755.8	2820.9	2867.1
50°	4270.8	4241.0	4273.5	4091.7	3752.3	3247.3	3187.5	2951.3	3092.4	3206.5	3315.1
52.5°	4488.0	4439.2	4466.4	4474.5	4224.6	3624.7	3562.1	3312.4	3488.8	3668.0	3860.8
55°	4683.6	4680.8	4707.9	4846.4	4680.8	4029.2	3958.7	3711.5	3966.7	4159.5	4485.3
57.5°	4841.1	4868.2	4987.6	5278.1	5207.6	4469.1	4390.3	4175.9	4477.2	4670.0	5210.3
60°	5025.7	5069.0	5267.3	5644.7	5688.2	4930.5	4849.2	4694.5	5001.3	5196.6	6049.2
62.5°	5088.1	5150.5	5557.9	6030.2	6190.4	5435.6	5362.3	5259.1	5552.3	5728.9	6885.5
65°	4672.7	4792.2	5718.0	6228.5	6730.7	6043.7	5981.4	5891.8	6100.7	6217.6	7453.0
67.5°	4558.7	4612.9	5405.8	6513.5	7238.5	6825.7	6763.2	6608.6	6614.0	6565.2	7637.6
70°	4398.5	4458.2	5085.3	6728.0	7966.1	7895.6	7819.4	7363.3	7083.7	6787.8	7273.8
72.5°	3746.8	3727.8	4382.2	6149.6	8316.4	9220.5	9130.9	8175.1	7431.1	6594.9	6138.8
75°	2104.2	2049.9	2658.1	4254.6	7594.1	9747.1	9744.5	8585.1	7186.9	5745.1	4178.6
77.5°	610.8	594.6	876.9	1783.9	5112.6	8468.4	8571.5	7743.5	5997.7	4127.0	2294.2
80°	287.7	293.2	377.4	589.2	2182.9	5465.5	5761.4	5099.0	3584.0	1903.2	947.5
82.5°	181.8	184.6	258.0	380.2	923.2	2481.6	2725.9	2294.2	1420.0	822.7	418.2
85°	114.1	114.1	171.0	249.8	551.2	792.8	860.7	782.0	608.2	448.0	228.1
87.5°	62.4	62.4	103.1	143.9	301.4	255.2	263.4	312.3	380.2	274.3	114.1
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°	1430.9	1430.9	1430.9	1430.9	1430.9	1430.9	1430.9	1430.9	1430.9	1430.9	1430.9
2.5°	1428.1	1422.7	1414.7	1411.9	1409.1	1406.4	1409.1	1414.7	1409.1	1409.1	1411.9
5°	1420.0	1414.7	1403.7	1403.7	1406.4	1409.1	1422.7	1430.9	1433.5	1433.5	1433.5
7.5°	1420.0	1411.9	1403.7	1406.4	1411.9	1422.7	1444.5	1457.9	1468.9	1471.6	1471.6
10°	1433.5	1422.7	1417.3	1422.7	1439.1	1447.2	1468.9	1490.6	1504.1	1509.6	1509.6
12.5°	1457.9	1447.2	1447.2	1457.9	1479.7	1490.6	1509.6	1526.0	1542.2	1550.4	1550.4
15°	1498.7	1485.2	1487.9	1506.8	1531.3	1542.2	1555.8	1561.2	1574.8	1585.6	1585.6
17.5°	1536.7	1523.2	1528.6	1550.4	1566.6	1572.0	1580.2	1577.5	1583.0	1591.1	1593.8
20°	1580.2	1566.6	1569.2	1583.0	1585.6	1580.2	1580.2	1572.0	1569.2	1583.0	1588.4
22.5°	1623.6	1610.0	1607.3	1599.3	1585.6	1572.0	1563.9	1555.8	1550.4	1563.9	1569.2
25°	1675.2	1656.2	1642.6	1607.3	1572.0	1547.6	1536.7	1531.3	1528.6	1542.2	1547.6
27.5°	1732.2	1713.2	1672.6	1596.5	1539.4	1498.7	1490.6	1490.6	1495.9	1504.1	1509.6
30°	1786.5	1767.5	1694.3	1572.0	1482.5	1422.7	1414.7	1422.7	1436.3	1444.5	1452.6
32.5°	1840.8	1821.9	1707.8	1534.0	1398.3	1322.2	1316.8	1330.4	1352.0	1357.6	1363.0
35°	1914.2	1895.2	1724.0	1479.7	1292.4	1210.9	1205.4	1213.6	1232.7	1240.7	1249.0
37.5°	2017.4	2006.5	1748.6	1420.0	1194.7	1105.0	1088.7	1083.4	1094.1	1091.5	1102.3
40°	2153.1	2161.2	1791.9	1341.3	1099.6	1007.3	972.0	955.6	944.8	923.2	934.0
42.5°	2351.3	2356.8	1840.8	1251.7	1018.1	915.1	868.8	838.9	817.3	782.0	787.4
45°	2641.7	2595.7	1897.8	1156.7	944.8	841.7	787.4	752.2	722.1	692.4	695.1
47.5°	3027.4	2886.2	1960.3	1077.8	871.5	782.0	733.0	692.4	657.1	632.6	635.3
50°	3502.5	3247.3	2022.8	1004.6	798.2	735.8	692.4	648.9	613.6	589.2	586.5
52.5°	4129.7	3681.7	2063.4	923.2	724.9	695.1	657.1	616.3	572.8	543.0	540.3
55°	4781.3	4186.7	2098.8	825.5	654.3	648.9	629.9	583.8	532.2	494.2	488.7
57.5°	5498.0	4727.1	2125.8	730.3	600.1	610.8	605.5	551.2	494.2	458.9	456.1
60°	6149.6	5286.3	2039.1	646.2	551.2	572.8	578.2	532.2	502.3	510.4	513.1
62.5°	6806.7	5718.0	1707.8	583.8	518.6	548.4	594.6	592.0	578.2	592.0	594.6
65°	7043.0	5807.6	1210.9	532.2	486.1	559.4	646.2	640.9	578.2	553.9	548.4
67.5°	6909.9	5541.6	814.6	491.5	461.5	572.8	700.5	640.9	556.6	524.0	513.1
70°	6277.3	4887.1	597.4	450.7	439.8	570.2	730.3	638.1	545.7	510.4	496.9
72.5°	5006.7	3771.3	480.6	412.7	407.2	556.6	746.6	632.6	534.9	496.9	480.6
75°	3241.9	2345.8	404.5	374.8	358.5	534.9	738.4	616.3	521.2	472.4	461.5
77.5°	1504.1	1010.1	344.8	331.3	312.3	502.3	714.1	583.8	491.5	445.3	431.6
80°	700.5	477.9	290.5	287.7	279.6	475.2	681.5	545.7	456.1	418.2	396.4
82.5°	374.8	287.7	236.3	236.3	244.3	442.5	640.9	499.5	409.9	391.0	334.0
85°	198.2	165.6	171.0	184.6	209.0	391.0	586.5	450.7	358.5	298.6	290.5
87.5°	100.5	105.9	105.9	125.0	160.2	317.7	483.3	372.0	304.0	244.3	238.9
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)