

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: P231290

Luminaire Tested: **ARCH-M-AF48-110-D-U-T4W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231290
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-AF48-110-D-U-T4W
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 4000K, 720mA LIGHT ENGINES WITH 24 LEDS AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14496.3 lumens
Efficiency: N/A
Efficacy: 130.6 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

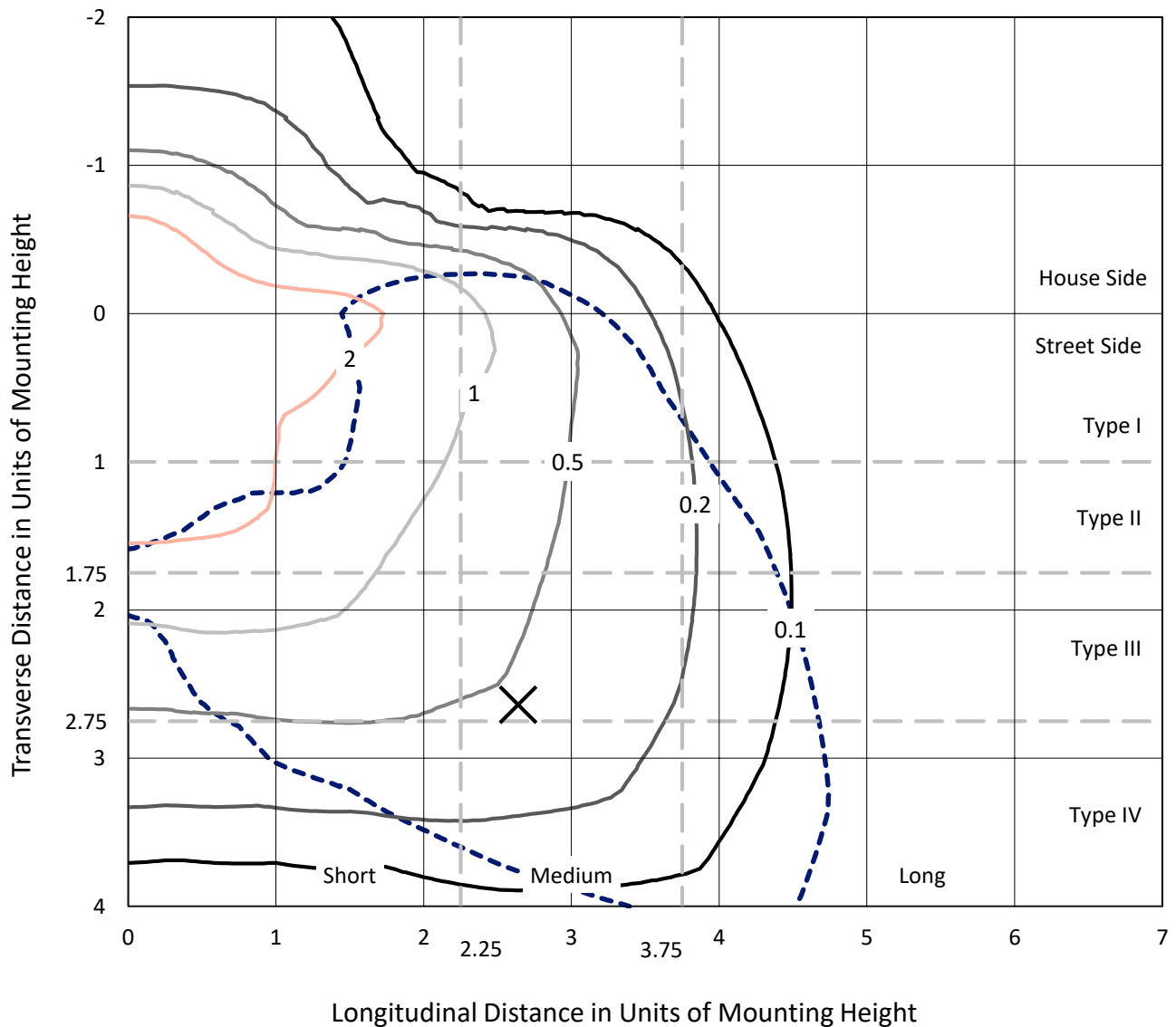
Input Watts (W): 111
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

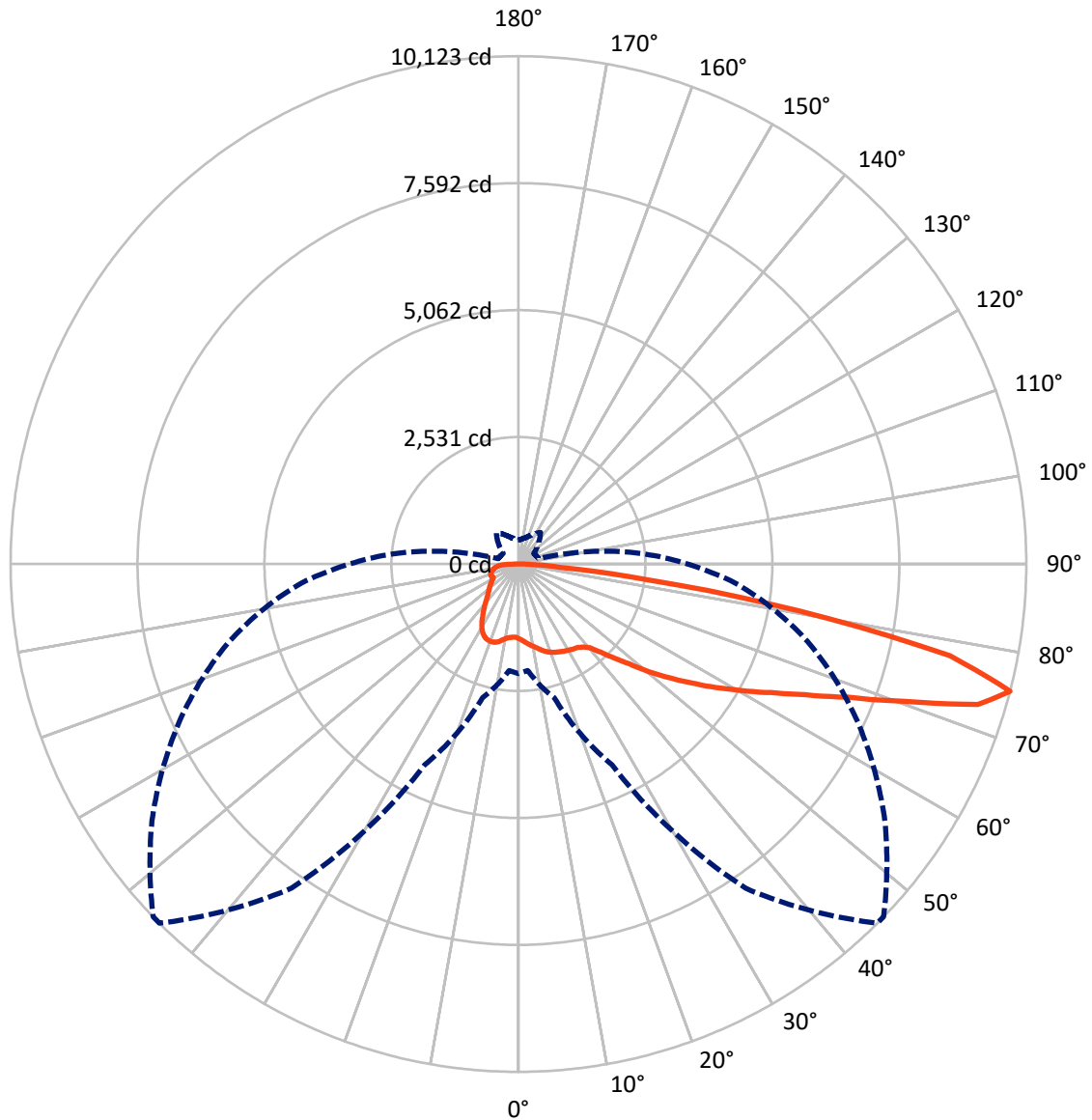
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 4.3 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
House Side	Lumens	3358.2	0.0	3358.2
	% Fixture	23.2	0.0	23.2
Street Side	Lumens	11138.1	0.0	11138.1
	% Fixture	76.8	0.0	76.8
Total	Lumens	14496.3	0.0	14496.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	147.3	1.0
10°-20°	477.2	3.3
20°-30°	818.9	5.6
30°-40°	1145.4	7.9
40°-50°	1680.2	11.6
50°-60°	2617.2	18.1
60°-70°	3766.0	26.0
70°-80°	3280.6	22.6
80°-90°	563.4	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°	14496.3	100.0
0°-180°	14496.3	100.0



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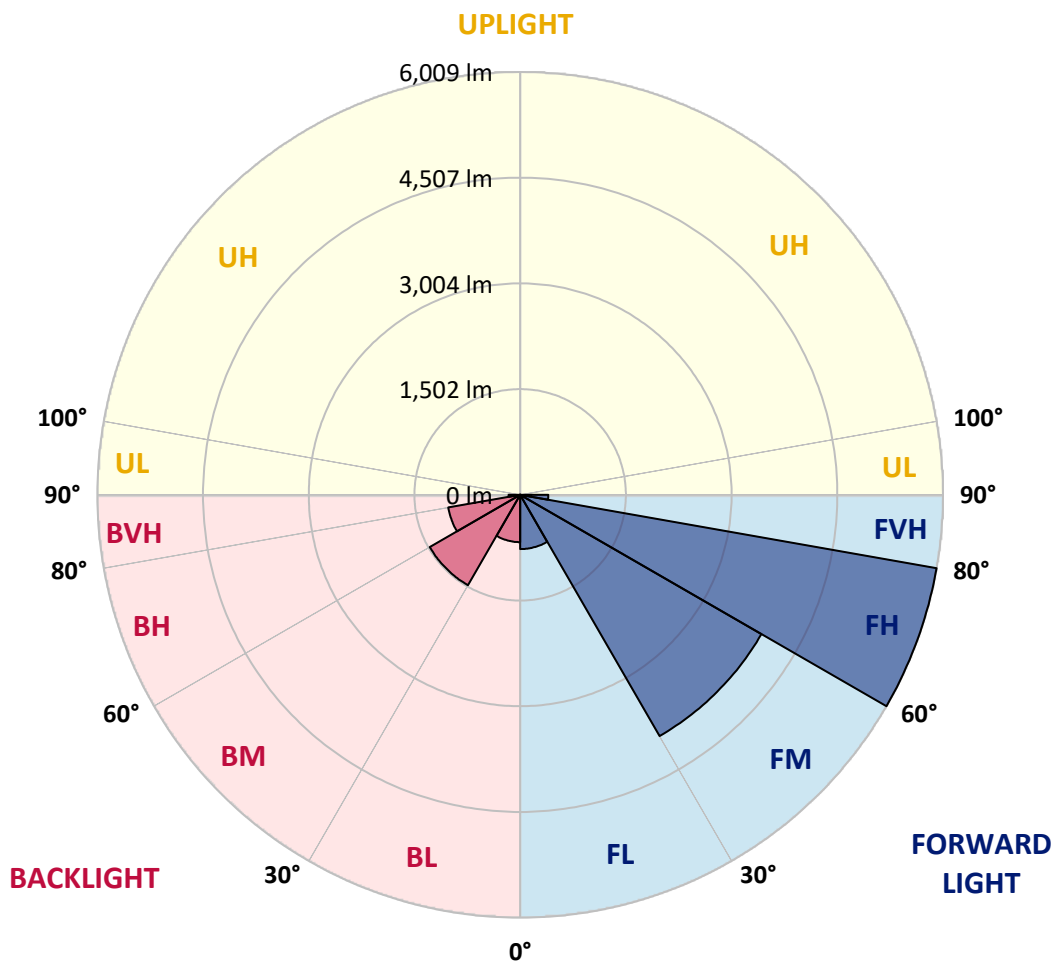
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	770.9	5.3			
FM	(30°-60°)	3958.6	27.3			
FH	(60°-80°)	6008.8	41.5			G3/7500
FVH	(80°-90°)	399.7	2.8			G3/500
BL	(0°-30°)	672.6	4.6	B2/1000		
BM	(30°-60°)	1484.1	10.2	B2/2500		
BH	(60°-80°)	1037.8	7.2	B3/2500		G3/2500
BVH	(80°-90°)	163.7	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°	1486.0	1486.0	1486.0	1486.0	1486.0	1486.0	1486.0	1486.0	1486.0	1486.0	1486.0
2.5°	1559.4	1548.1	1548.1	1539.6	1539.6	1525.5	1519.9	1517.1	1503.0	1494.5	1486.0
5°	1649.6	1635.5	1632.7	1613.0	1604.5	1573.5	1570.6	1550.9	1525.5	1500.2	1480.4
7.5°	1731.4	1723.0	1708.8	1689.1	1663.7	1624.2	1621.4	1590.4	1548.1	1514.3	1486.0
10°	1790.6	1784.9	1765.2	1739.8	1711.7	1672.2	1669.4	1635.5	1584.8	1545.3	1505.8
12.5°	1861.2	1852.7	1827.3	1793.4	1762.4	1725.7	1723.0	1694.7	1638.4	1587.6	1536.8
15°	1928.8	1917.5	1886.5	1852.7	1818.8	1787.8	1787.8	1756.8	1697.6	1638.4	1579.1
17.5°	1962.6	1957.0	1926.0	1889.3	1861.2	1838.5	1835.7	1807.6	1748.3	1686.2	1621.4
20°	1973.9	1976.8	1948.5	1909.0	1889.3	1878.0	1875.2	1855.4	1790.6	1731.4	1669.4
22.5°	1971.1	1979.5	1957.0	1914.7	1909.0	1909.0	1909.0	1886.5	1835.7	1776.6	1714.5
25°	1982.4	1993.6	1976.8	1926.0	1926.0	1937.3	1937.3	1926.0	1880.9	1830.1	1768.1
27.5°	2021.9	2030.4	2016.2	1945.8	1948.5	1965.5	1962.6	1965.5	1937.3	1889.3	1827.3
30°	2069.7	2081.1	2064.1	1976.8	1973.9	1990.9	1990.9	2004.9	1985.1	1934.4	1883.7
32.5°	2199.4	2196.7	2143.1	2010.6	2002.1	2019.0	2019.0	2033.1	2021.9	1982.4	1934.4
35°	2585.8	2543.6	2425.1	2120.6	2036.0	2044.4	2044.4	2069.7	2075.5	2044.4	2002.1
37.5°	2980.6	2966.5	2876.2	2413.9	2160.1	2098.0	2095.2	2131.8	2157.2	2131.8	2103.6
40°	3378.2	3366.9	3347.2	2805.7	2419.5	2193.8	2185.4	2216.4	2261.5	2244.7	2227.7
42.5°	3747.6	3742.0	3761.7	3192.1	2749.4	2399.7	2374.4	2337.6	2402.5	2396.9	2396.9
45°	4038.1	4052.1	4063.5	3553.0	3107.5	2664.8	2633.8	2509.7	2597.1	2619.7	2636.6
47.5°	4201.6	4212.9	4252.4	3905.5	3465.7	2972.2	2949.6	2746.5	2862.1	2929.8	2977.8
50°	4435.6	4404.6	4438.5	4249.5	3897.0	3372.6	3310.5	3065.2	3211.9	3330.2	3443.0
52.5°	4661.3	4610.4	4638.7	4647.2	4387.7	3764.6	3699.7	3440.3	3623.5	3809.7	4009.9
55°	4864.2	4861.5	4889.6	5033.4	4861.5	4184.7	4111.3	3854.8	4119.8	4320.0	4658.4
57.5°	5027.8	5056.0	5180.1	5481.8	5408.5	4641.5	4559.7	4337.0	4649.9	4850.2	5411.3
60°	5219.6	5264.7	5470.5	5862.5	5907.6	5120.9	5036.3	4875.6	5194.2	5397.2	6282.7
62.5°	5284.5	5349.3	5772.3	6262.9	6429.2	5645.4	5569.3	5462.0	5766.6	5949.9	7151.1
65°	4853.0	4977.1	5938.6	6468.7	6990.4	6277.0	6212.2	6119.1	6336.3	6457.5	7740.6
67.5°	4734.5	4791.0	5614.4	6764.9	7517.8	7089.2	7024.3	6863.6	6869.2	6818.5	7932.3
70°	4568.2	4630.2	5281.6	6987.7	8273.5	8200.2	8121.2	7647.5	7357.1	7049.7	7554.4
72.5°	3891.4	3871.7	4551.3	6387.0	8637.3	9576.3	9483.2	8490.6	7718.0	6849.5	6375.7
75°	2185.4	2129.0	2760.6	4418.7	7887.2	10123.3	10120.5	8916.4	7464.2	5966.9	4339.8
77.5°	634.4	617.6	910.8	1852.7	5309.8	8795.1	8902.3	8042.2	6229.1	4286.2	2382.8
80°	298.9	304.5	392.0	611.9	2267.2	5676.4	5983.8	5295.7	3722.2	1976.8	984.2
82.5°	188.9	191.7	267.9	394.8	958.7	2577.3	2831.1	2382.8	1474.8	854.5	434.2
85°	118.5	118.5	177.7	259.4	572.4	823.4	893.9	812.1	631.7	465.2	236.9
87.5°	64.9	64.9	107.2	149.5	313.0	265.0	273.5	324.3	394.8	284.8	118.5
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°	1486.0	1486.0	1486.0	1486.0	1486.0	1486.0	1486.0	1486.0	1486.0	1486.0	1486.0
2.5°	1483.3	1477.7	1469.2	1466.3	1463.5	1460.7	1463.5	1469.2	1463.5	1463.5	1466.3
5°	1474.8	1469.2	1457.9	1457.9	1460.7	1463.5	1477.7	1486.0	1488.9	1488.9	1488.9
7.5°	1474.8	1466.3	1457.9	1460.7	1466.3	1477.7	1500.2	1514.3	1525.5	1528.4	1528.4
10°	1488.9	1477.7	1471.9	1477.7	1494.5	1503.0	1525.5	1548.1	1562.3	1567.9	1567.9
12.5°	1514.3	1503.0	1503.0	1514.3	1536.8	1548.1	1567.9	1584.8	1601.6	1610.1	1610.1
15°	1556.5	1542.5	1545.3	1565.0	1590.4	1601.6	1615.8	1621.4	1635.5	1646.8	1646.8
17.5°	1596.0	1582.0	1587.6	1610.1	1627.1	1632.7	1641.1	1638.4	1644.0	1652.5	1655.2
20°	1641.1	1627.1	1629.9	1644.0	1646.8	1641.1	1641.1	1632.7	1629.9	1644.0	1649.6
22.5°	1686.2	1672.2	1669.4	1660.9	1646.8	1632.7	1624.2	1615.8	1610.1	1624.2	1629.9
25°	1739.8	1720.1	1706.0	1669.4	1632.7	1607.4	1596.0	1590.4	1587.6	1601.6	1607.4
27.5°	1799.1	1779.3	1737.1	1658.1	1598.9	1556.5	1548.1	1548.1	1553.8	1562.3	1567.9
30°	1855.4	1835.7	1759.6	1632.7	1539.6	1477.7	1469.2	1477.7	1491.7	1500.2	1508.6
32.5°	1911.9	1892.2	1773.7	1593.2	1452.2	1373.3	1367.7	1381.7	1404.3	1409.9	1415.6
35°	1988.0	1968.3	1790.6	1536.8	1342.2	1257.6	1252.0	1260.5	1280.2	1288.7	1297.1
37.5°	2095.2	2083.9	1816.0	1474.8	1240.7	1147.6	1130.8	1125.1	1136.4	1133.6	1144.9
40°	2236.2	2244.7	1861.2	1393.1	1142.0	1046.2	1009.6	992.6	981.3	958.7	970.1
42.5°	2442.0	2447.6	1911.9	1300.0	1057.4	950.3	902.3	871.3	848.7	812.1	817.7
45°	2743.8	2695.8	1971.1	1201.3	981.3	874.1	817.7	781.1	750.1	719.0	721.9
47.5°	3144.1	2997.6	2036.0	1119.5	905.2	812.1	761.4	719.0	682.4	657.0	659.8
50°	3637.6	3372.6	2100.8	1043.3	829.0	764.1	719.0	673.9	637.3	611.9	609.1
52.5°	4289.0	3823.8	2143.1	958.7	752.9	721.9	682.4	640.1	594.9	564.0	561.2
55°	4965.8	4348.3	2179.8	857.2	679.5	673.9	654.2	606.3	552.7	513.2	507.6
57.5°	5710.2	4909.3	2207.9	758.5	623.2	634.4	628.8	572.4	513.2	476.6	473.7
60°	6387.0	5490.3	2117.7	671.2	572.4	594.9	600.7	552.7	521.7	530.1	533.0
62.5°	7069.4	5938.6	1773.7	606.3	538.6	569.6	617.6	614.7	600.7	614.7	617.6
65°	7314.7	6031.7	1257.6	552.7	504.7	580.9	671.2	665.5	600.7	575.2	569.6
67.5°	7176.5	5755.3	846.0	510.4	479.4	594.9	727.5	665.5	578.1	544.2	533.0
70°	6519.6	5075.8	620.4	468.1	456.8	592.2	758.5	662.7	566.8	530.1	516.1
72.5°	5199.9	3916.8	499.1	428.6	423.0	578.1	775.5	657.0	555.6	516.1	499.1
75°	3366.9	2436.4	420.1	389.1	372.3	555.6	767.0	640.1	541.4	490.6	479.4
77.5°	1562.3	1049.0	358.1	344.0	324.3	521.7	741.6	606.3	510.4	462.5	448.4
80°	727.5	496.3	301.8	298.9	290.4	493.5	707.8	566.8	473.7	434.2	411.7
82.5°	389.1	298.9	245.3	245.3	253.8	459.6	665.5	518.8	425.8	406.1	346.9
85°	205.8	172.1	177.7	191.7	217.2	406.1	609.1	468.1	372.3	310.2	301.8
87.5°	104.3	110.0	110.0	129.7	166.3	329.9	502.0	386.4	315.8	253.8	248.2
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)