

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: P234841

Luminaire Tested: **ARCH-M-AF48-140-D-U-T4W-8027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P234841
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-8027
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 80 CRI, 2700K, 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: 13134 lumens
Efficiency: N/A
Efficacy: 93.1 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): 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

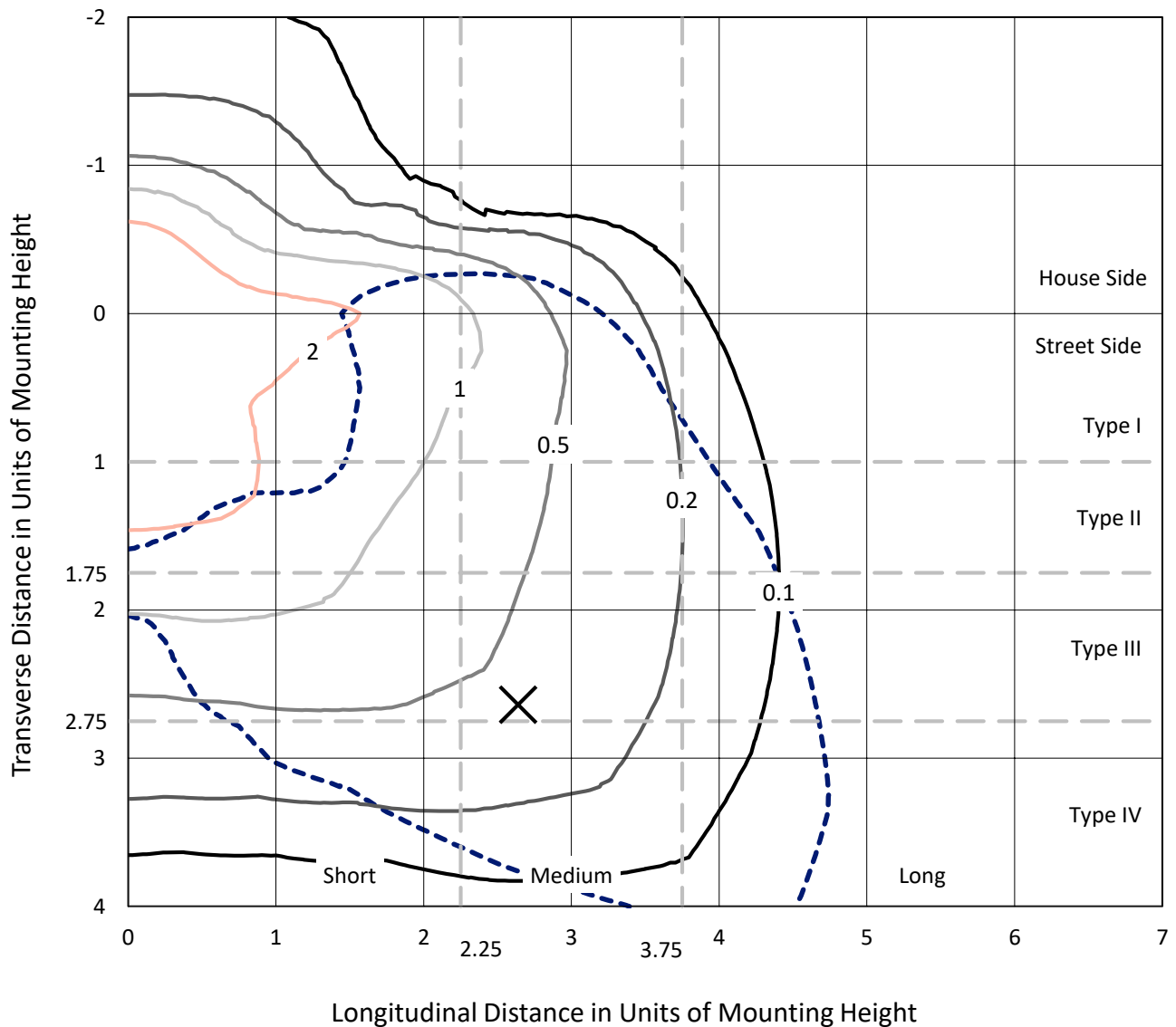


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

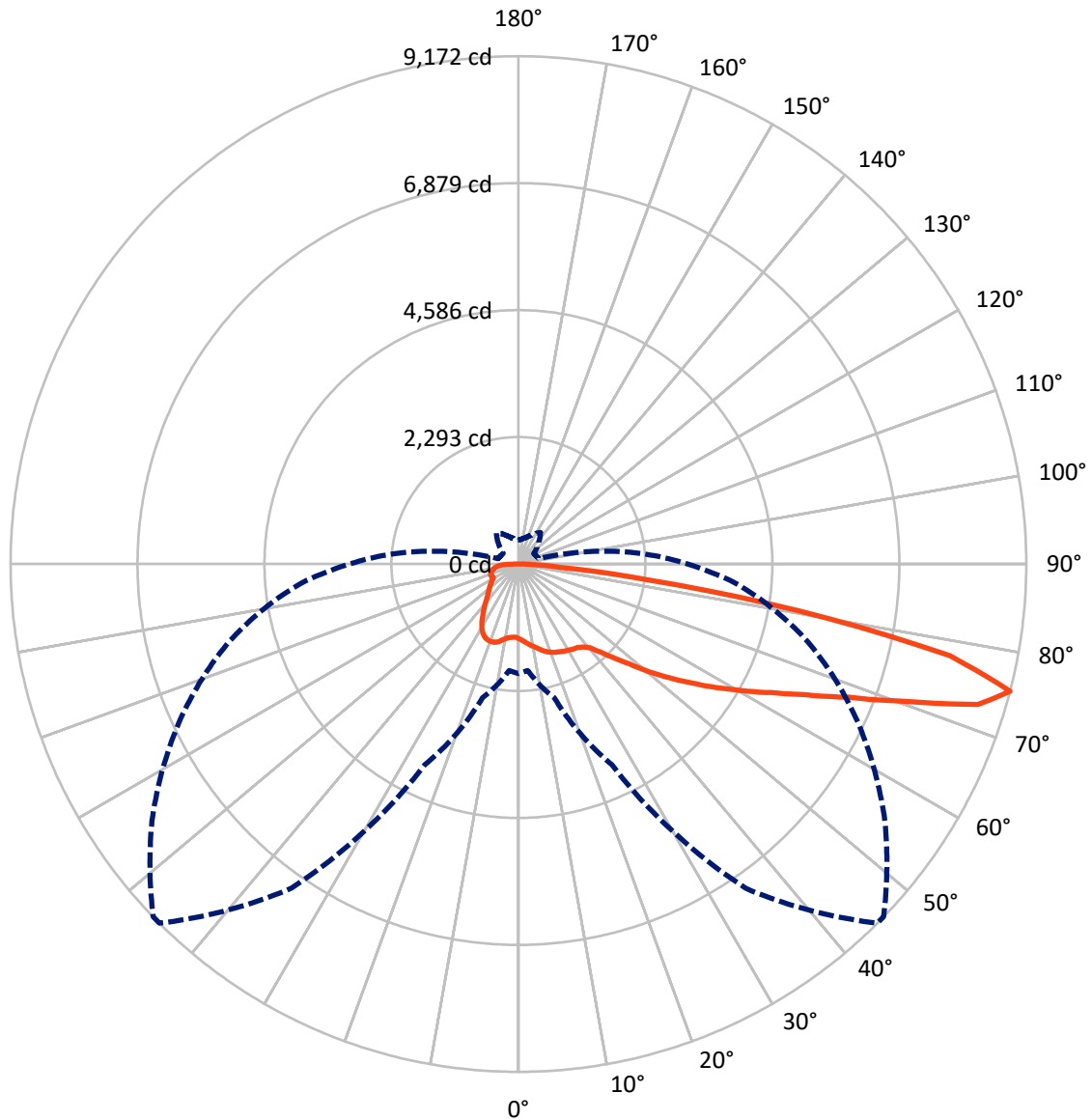


Based on 20 foot mounting height. Maximum calculated value = 3.9 fc
 Type IV - Medium - Non-Cutoff

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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	3042.6	0.0	3042.6
	% Fixture	23.2	0.0	23.2
Street Side	Lumens	10091.4	0.0	10091.4
	% Fixture	76.8	0.0	76.8
Total	Lumens	13134.0	0.0	13134.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	133.4	1.0
10°-20°	432.4	3.3
20°-30°	742.0	5.6
30°-40°	1037.7	7.9
40°-50°	1522.3	11.6
50°-60°	2371.3	18.1
60°-70°	3412.1	26.0
70°-80°	2972.3	22.6
80°-90°	510.5	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°	13134.0	100.0
0°-180°	13134.0	100.0

Coefficient of Utilization



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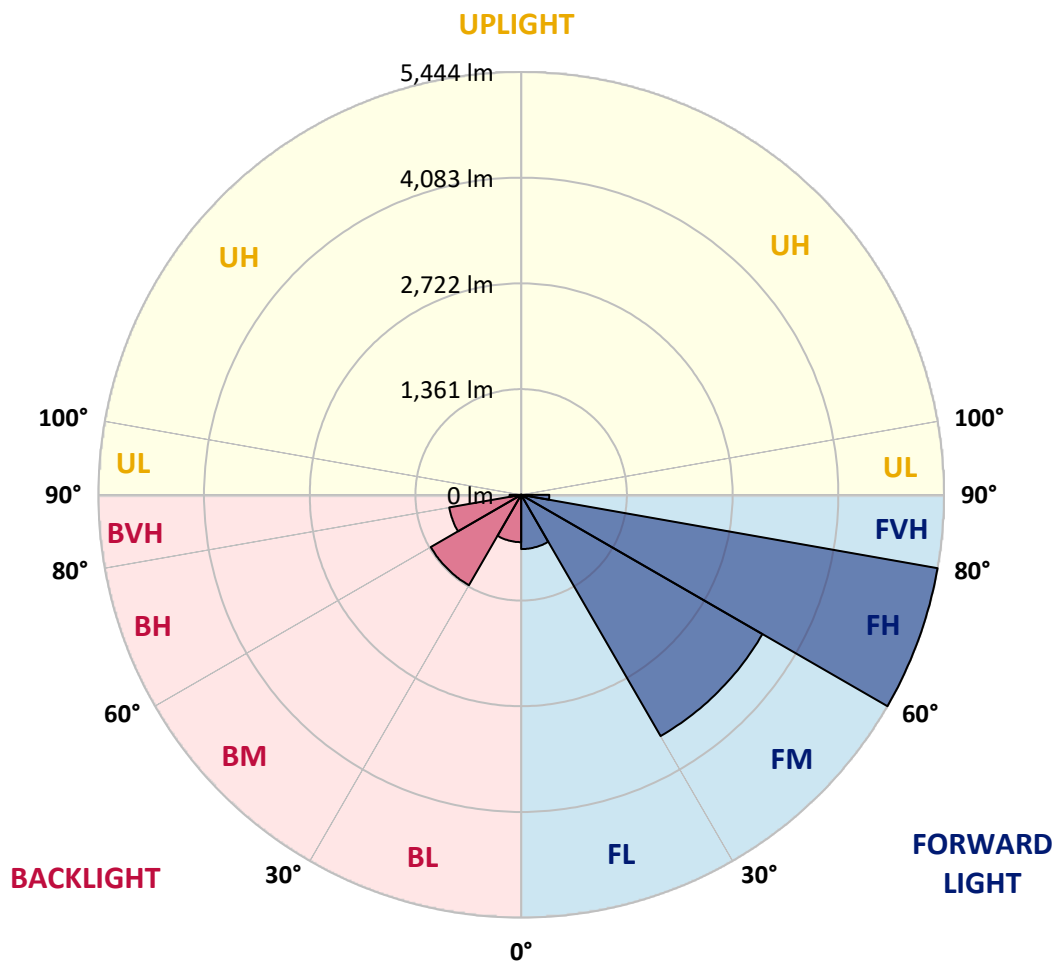
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	698.4	5.3			
FM	(30°-60°)	3586.6	27.3			
FH	(60°-80°)	5444.2	41.5			G3/7500
FVH	(80°-90°)	362.2	2.8			G3/500
BL	(0°-30°)	609.4	4.6	B2/1000		
BM	(30°-60°)	1344.7	10.2	B2/2500		
BH	(60°-80°)	940.3	7.2	B2/1000		G2/1000
BVH	(80°-90°)	148.3	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°	1346.4	1346.4	1346.4	1346.4	1346.4	1346.4	1346.4	1346.4	1346.4	1346.4	1346.4
2.5°	1412.8	1402.6	1402.6	1395.0	1395.0	1382.2	1377.1	1374.5	1361.8	1354.1	1346.4
5°	1494.6	1481.8	1479.3	1461.4	1453.7	1425.6	1423.1	1405.2	1382.2	1359.2	1341.3
7.5°	1568.7	1561.0	1548.3	1530.4	1507.4	1471.6	1469.1	1441.0	1402.6	1372.0	1346.4
10°	1622.3	1617.2	1599.4	1576.4	1550.8	1515.0	1512.5	1481.8	1435.8	1400.1	1364.3
12.5°	1686.2	1678.6	1655.6	1624.9	1596.8	1563.6	1561.0	1535.5	1484.4	1438.4	1392.4
15°	1747.5	1737.3	1709.2	1678.6	1647.9	1619.8	1619.8	1591.7	1538.0	1484.4	1430.7
17.5°	1778.2	1773.1	1745.0	1711.8	1686.2	1665.8	1663.2	1637.7	1584.0	1527.8	1469.1
20°	1788.4	1791.0	1765.4	1729.7	1711.8	1701.5	1699.0	1681.1	1622.3	1568.7	1512.5
22.5°	1785.9	1793.5	1773.1	1734.8	1729.7	1729.7	1729.7	1709.2	1663.2	1609.6	1553.4
25°	1796.1	1806.3	1791.0	1745.0	1745.0	1755.2	1755.2	1745.0	1704.1	1658.1	1601.9
27.5°	1831.8	1839.5	1826.7	1762.9	1765.4	1780.8	1778.2	1780.8	1755.2	1711.8	1655.6
30°	1875.3	1885.5	1870.2	1791.0	1788.4	1803.7	1803.7	1816.5	1798.6	1752.6	1706.7
32.5°	1992.8	1990.3	1941.7	1821.6	1814.0	1829.3	1829.3	1842.1	1831.8	1796.1	1752.6
35°	2342.8	2304.5	2197.2	1921.3	1844.6	1852.3	1852.3	1875.3	1880.4	1852.3	1814.0
37.5°	2700.5	2687.7	2606.0	2187.0	1957.0	1900.8	1898.3	1931.5	1954.5	1931.5	1905.9
40°	3060.7	3050.5	3032.6	2542.1	2192.1	1987.7	1980.0	2008.1	2049.0	2033.7	2018.4
42.5°	3395.4	3390.3	3408.2	2892.1	2491.0	2174.2	2151.2	2118.0	2176.8	2171.6	2171.6
45°	3658.6	3671.4	3681.6	3219.1	2815.5	2414.4	2386.3	2273.8	2353.0	2373.5	2388.8
47.5°	3806.8	3817.0	3852.8	3538.5	3139.9	2692.8	2672.4	2488.5	2593.2	2654.5	2698.0
50°	4018.8	3990.7	4021.4	3850.2	3530.8	3055.6	2999.4	2777.2	2910.0	3017.3	3119.5
52.5°	4223.2	4177.2	4202.8	4210.4	3975.4	3410.8	3352.0	3117.0	3283.0	3451.6	3633.0
55°	4407.2	4404.6	4430.2	4560.5	4404.6	3791.4	3725.0	3492.5	3732.7	3914.1	4220.7
57.5°	4555.3	4580.9	4693.3	4966.7	4900.3	4205.3	4131.2	3929.4	4213.0	4394.4	4902.8
60°	4729.1	4770.0	4956.5	5311.6	5352.5	4639.7	4563.0	4417.4	4706.1	4890.0	5692.3
62.5°	4787.8	4846.6	5229.8	5674.4	5825.1	5114.9	5045.9	4948.8	5224.7	5390.8	6479.2
65°	4396.9	4509.4	5380.6	5860.9	6333.5	5687.2	5628.4	5544.1	5740.8	5850.7	7013.1
67.5°	4289.6	4340.7	5086.8	6129.2	6811.3	6423.0	6364.2	6218.6	6223.7	6177.7	7186.9
70°	4138.9	4195.1	4785.3	6331.0	7496.0	7429.6	7358.1	6928.8	6665.7	6387.2	6844.5
72.5°	3525.7	3507.8	4123.6	5786.8	7825.6	8676.4	8592.1	7692.7	6992.7	6205.8	5776.6
75°	1980.0	1928.9	2501.2	4003.5	7146.0	9172.0	9169.5	8078.5	6762.8	5406.1	3932.0
77.5°	574.8	559.5	825.2	1678.6	4810.8	7968.7	8065.8	7286.5	5643.7	3883.4	2158.9
80°	270.8	275.9	355.1	554.4	2054.1	5143.0	5421.5	4798.1	3372.4	1791.0	891.7
82.5°	171.2	173.7	242.7	357.7	868.7	2335.2	2565.1	2158.9	1336.2	774.1	393.5
85°	107.3	107.3	161.0	235.0	518.6	746.0	809.9	735.8	572.3	421.6	214.6
87.5°	58.8	58.8	97.1	135.4	283.6	240.2	247.8	293.8	357.7	258.0	107.3
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°	1346.4	1346.4	1346.4	1346.4	1346.4	1346.4	1346.4	1346.4	1346.4	1346.4	1346.4
2.5°	1343.9	1338.8	1331.1	1328.5	1326.0	1323.4	1326.0	1331.1	1326.0	1326.0	1328.5
5°	1336.2	1331.1	1320.9	1320.9	1323.4	1326.0	1338.8	1346.4	1349.0	1349.0	1349.0
7.5°	1336.2	1328.5	1320.9	1323.4	1328.5	1338.8	1359.2	1372.0	1382.2	1384.7	1384.7
10°	1349.0	1338.8	1333.6	1338.8	1354.1	1361.8	1382.2	1402.6	1415.4	1420.5	1420.5
12.5°	1372.0	1361.8	1361.8	1372.0	1392.4	1402.6	1420.5	1435.8	1451.2	1458.8	1458.8
15°	1410.3	1397.5	1400.1	1418.0	1441.0	1451.2	1463.9	1469.1	1481.8	1492.0	1492.0
17.5°	1446.1	1433.3	1438.4	1458.8	1474.2	1479.3	1486.9	1484.4	1489.5	1497.2	1499.7
20°	1486.9	1474.2	1476.7	1489.5	1492.0	1486.9	1486.9	1479.3	1476.7	1489.5	1494.6
22.5°	1527.8	1515.0	1512.5	1504.8	1492.0	1479.3	1471.6	1463.9	1458.8	1471.6	1476.7
25°	1576.4	1558.5	1545.7	1512.5	1479.3	1456.3	1446.1	1441.0	1438.4	1451.2	1456.3
27.5°	1630.0	1612.1	1573.8	1502.3	1448.6	1410.3	1402.6	1402.6	1407.7	1415.4	1420.5
30°	1681.1	1663.2	1594.2	1479.3	1395.0	1338.8	1331.1	1338.8	1351.5	1359.2	1366.9
32.5°	1732.2	1714.3	1607.0	1443.5	1315.8	1244.2	1239.1	1251.9	1272.3	1277.4	1282.5
35°	1801.2	1783.3	1622.3	1392.4	1216.1	1139.5	1134.4	1142.0	1159.9	1167.6	1175.2
37.5°	1898.3	1888.1	1645.3	1336.2	1124.1	1039.8	1024.5	1019.4	1029.6	1027.1	1037.3
40°	2026.0	2033.7	1686.2	1262.1	1034.7	947.9	914.6	899.3	889.1	868.7	878.9
42.5°	2212.5	2217.6	1732.2	1177.8	958.1	861.0	817.6	789.5	769.0	735.8	740.9
45°	2485.9	2442.5	1785.9	1088.4	889.1	792.0	740.9	707.7	679.6	651.5	654.0
47.5°	2848.7	2715.8	1844.6	1014.3	820.1	735.8	689.8	651.5	618.3	595.3	597.8
50°	3295.8	3055.6	1903.4	945.3	751.1	692.4	651.5	610.6	577.4	554.4	551.9
52.5°	3886.0	3464.4	1941.7	868.7	682.2	654.0	618.3	580.0	539.1	511.0	508.4
55°	4499.1	3939.6	1974.9	776.7	615.7	610.6	592.7	549.3	500.8	465.0	459.9
57.5°	5173.6	4448.0	2000.5	687.3	564.6	574.8	569.7	518.6	465.0	431.8	429.2
60°	5786.8	4974.3	1918.7	608.1	518.6	539.1	544.2	500.8	472.7	480.3	482.9
62.5°	6405.1	5380.6	1607.0	549.3	488.0	516.1	559.5	557.0	544.2	557.0	559.5
65°	6627.4	5464.9	1139.5	500.8	457.3	526.3	608.1	603.0	544.2	521.2	516.1
67.5°	6502.2	5214.5	766.5	462.4	434.3	539.1	659.2	603.0	523.8	493.1	482.9
70°	5906.9	4598.8	562.1	424.1	413.9	536.5	687.3	600.4	513.5	480.3	467.5
72.5°	4711.2	3548.7	452.2	388.3	383.2	523.8	702.6	595.3	503.3	467.5	452.2
75°	3050.5	2207.4	380.7	352.6	337.2	503.3	694.9	580.0	490.5	444.5	434.3
77.5°	1415.4	950.4	324.5	311.7	293.8	472.7	671.9	549.3	462.4	419.0	406.2
80°	659.2	449.7	273.4	270.8	263.2	447.1	641.3	513.5	429.2	393.5	373.0
82.5°	352.6	270.8	222.3	222.3	229.9	416.4	603.0	470.1	385.8	367.9	314.3
85°	186.5	155.8	161.0	173.7	196.7	367.9	551.9	424.1	337.2	281.0	273.4
87.5°	94.5	99.6	99.6	117.5	150.7	298.9	454.8	350.0	286.1	229.9	224.8
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)