

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: P234813

Luminaire Tested: **ARCH-M-AF48-120-D-U-T3-8027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P234813
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29465)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-M-AF48-120-D-U-T3-8027
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 80 CRI, 2700K, 785mA LIGHT ENGINES WITH 24 LEDS AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11877 lumens
Efficiency: N/A
Efficacy: 97.4 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type III - Short - Non-Cutoff
BUG Rating: B2 - U0 - G2

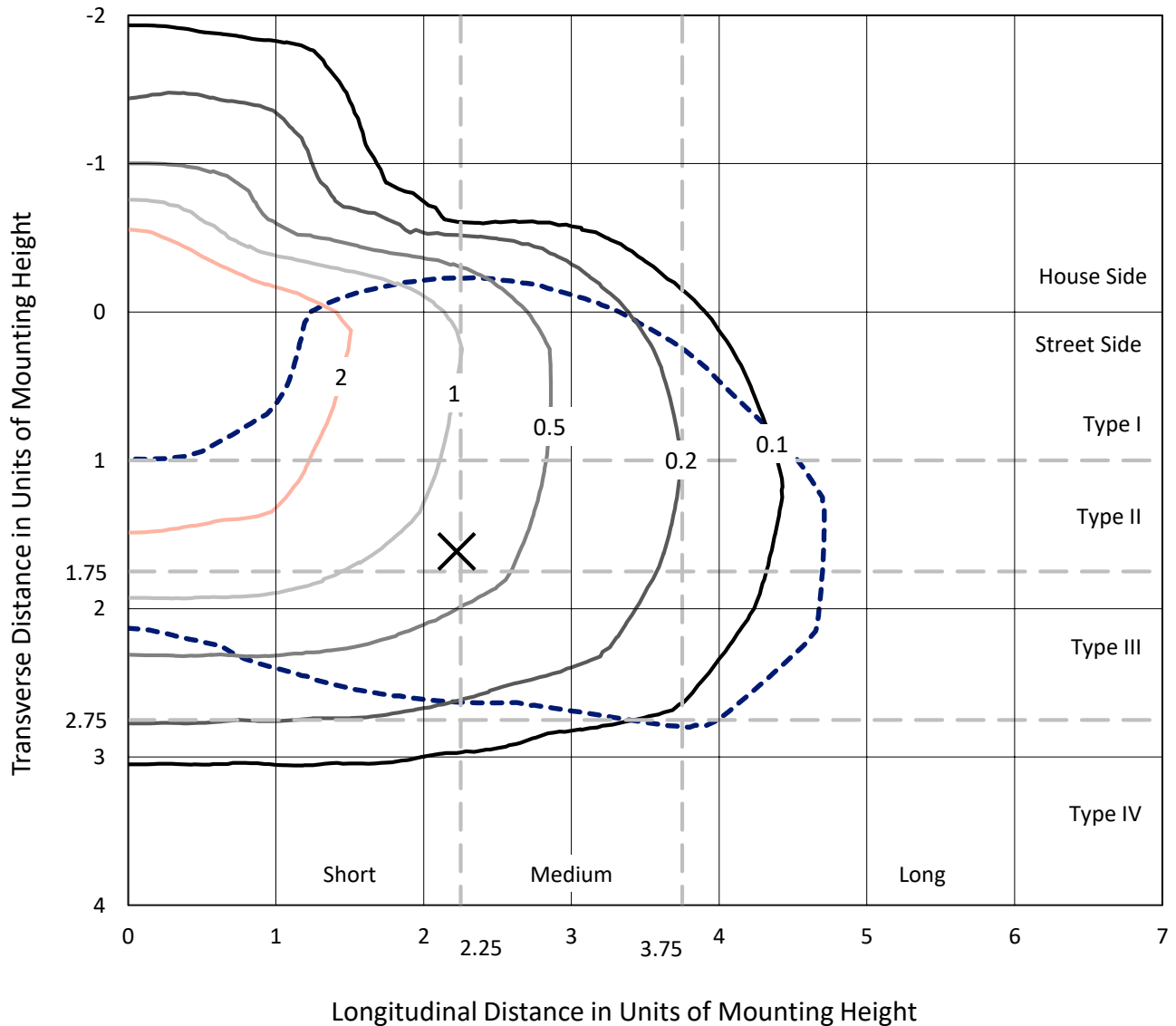
Input Watts (W): 122
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

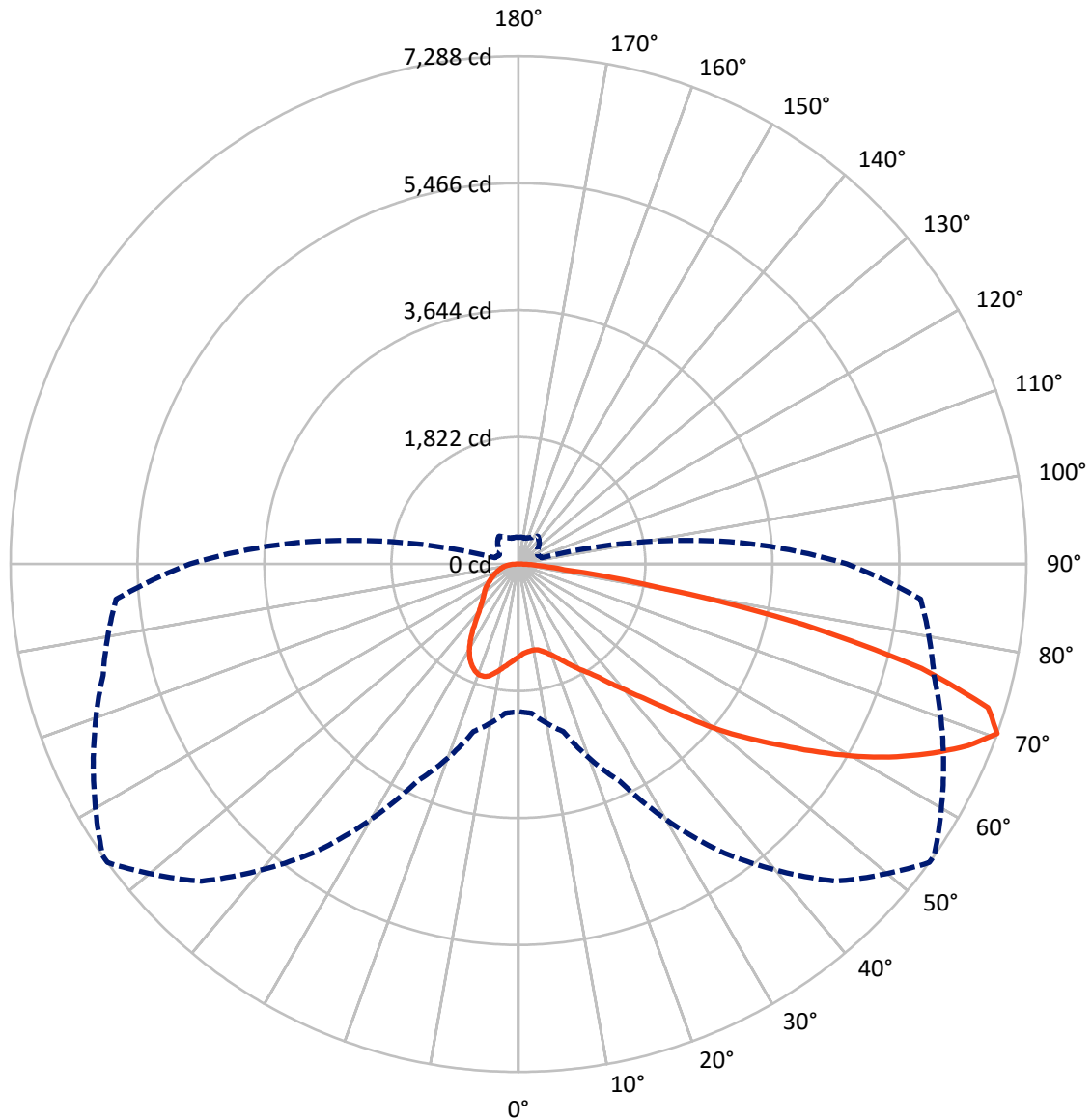
× Max cd
 - - - 1/2 Max cd



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

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Luminous Intensity Polar Plot



— Vertical Plane Through 54-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2693.7	0.0	2693.7
	% Fixture	22.7	0.0	22.7
Street Side	Lumens	9183.3	0.0	9183.3
	% Fixture	77.3	0.0	77.3
Total	Lumens	11877.0	0.0	11877.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	130.4	1.1
10°-20°	416.7	3.5
20°-30°	723.9	6.1
30°-40°	1057.9	8.9
40°-50°	1660.4	14.0
50°-60°	2553.3	21.5
60°-70°	3119.5	26.3
70°-80°	1934.1	16.3
80°-90°	281.0	2.4
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°	11877.0	100.0
0°-180°	11877.0	100.0



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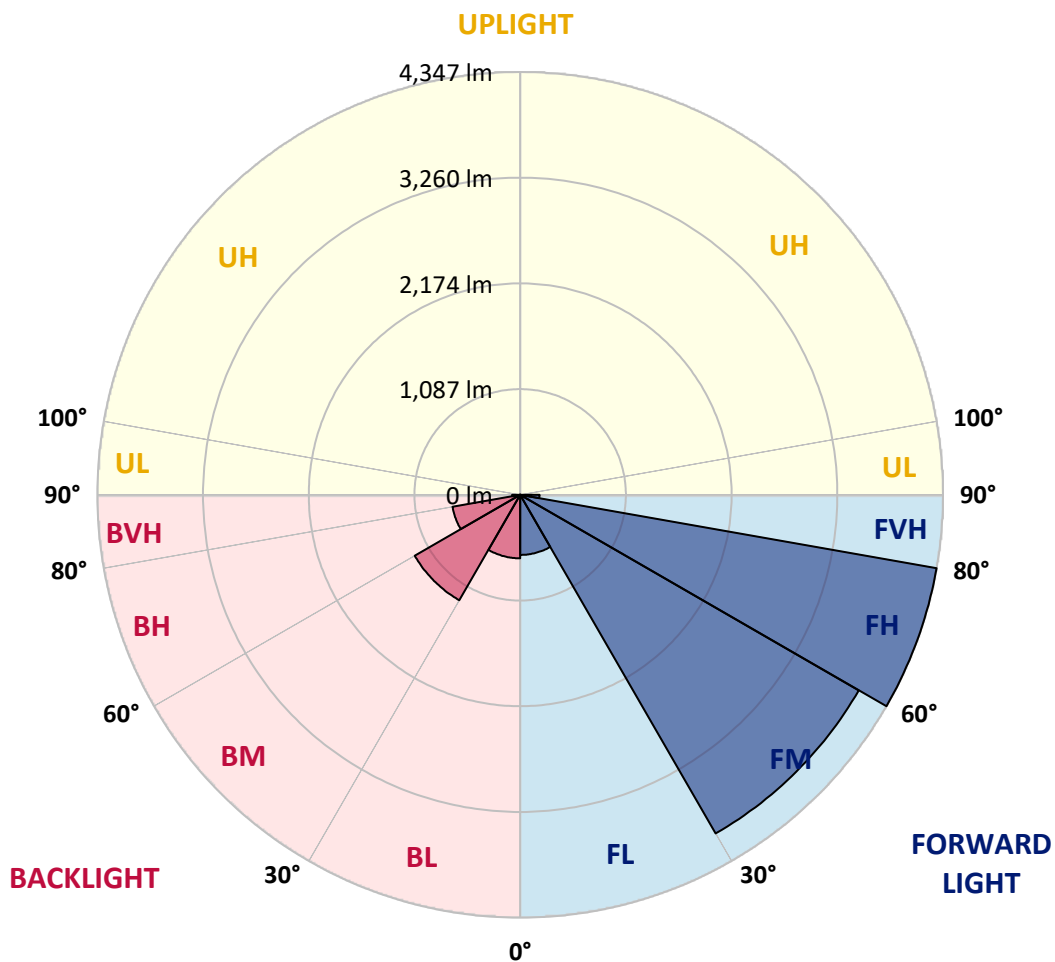
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	618.0	5.2			
FM	(30°-60°)	4019.8	33.8			
FH	(60°-80°)	4347.2	36.6			G2/5000
FVH	(80°-90°)	198.4	1.7			G2/225
BL	(0°-30°)	653.0	5.5	B2/1000		
BM	(30°-60°)	1251.7	10.5	B2/2500		
BH	(60°-80°)	706.4	5.9	B2/1000		G2/1000
BVH	(80°-90°)	82.6	0.7			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	54°	55°	65°	75°	85°
0°	1328.8	1328.8	1328.8	1328.8	1328.8	1328.8	1328.8	1328.8	1328.8	1328.8	1328.8
2.5°	1276.6	1272.3	1272.3	1278.8	1281.0	1287.5	1287.5	1289.7	1296.2	1307.0	1320.1
5°	1237.5	1235.3	1237.5	1246.2	1250.5	1263.6	1267.9	1270.1	1283.1	1300.5	1320.1
7.5°	1198.3	1196.1	1200.5	1213.5	1226.6	1246.2	1257.0	1259.2	1278.8	1302.7	1328.8
10°	1185.3	1183.1	1189.6	1200.5	1213.5	1235.3	1252.7	1254.9	1283.1	1311.4	1348.4
12.5°	1202.7	1200.5	1207.0	1217.9	1230.9	1246.2	1265.7	1267.9	1304.9	1341.8	1381.0
15°	1246.2	1246.2	1248.3	1254.9	1267.9	1281.0	1298.3	1300.5	1339.7	1383.2	1422.3
17.5°	1313.6	1309.2	1309.2	1307.0	1315.7	1322.3	1344.0	1346.2	1387.5	1426.7	1465.8
20°	1396.2	1394.0	1385.3	1374.5	1372.3	1376.6	1398.4	1400.6	1441.9	1474.5	1511.5
22.5°	1496.3	1498.4	1478.9	1454.9	1444.1	1450.6	1470.2	1472.3	1502.8	1531.1	1563.7
25°	1628.9	1622.4	1594.1	1559.3	1537.6	1537.6	1557.1	1557.1	1585.4	1602.8	1624.6
27.5°	1755.1	1742.0	1715.9	1665.9	1631.1	1637.6	1657.2	1657.2	1683.3	1689.8	1700.7
30°	1892.1	1879.0	1846.4	1783.3	1737.7	1733.3	1757.2	1755.1	1789.9	1787.7	1779.0
32.5°	2059.5	2053.0	1998.6	1918.2	1857.3	1842.0	1863.8	1866.0	1887.7	1881.2	1852.9
35°	2294.4	2292.2	2242.2	2100.8	2020.4	1992.1	2005.2	2005.2	2020.4	2003.0	1955.1
37.5°	2590.2	2594.5	2551.0	2342.2	2229.2	2181.3	2183.5	2181.3	2185.7	2166.1	2116.1
40°	2885.9	2896.8	2894.6	2642.4	2498.8	2416.2	2385.7	2381.4	2392.3	2383.6	2335.7
42.5°	3275.2	3301.3	3240.4	3012.1	2851.1	2712.0	2629.3	2618.4	2642.4	2653.2	2607.6
45°	3679.7	3671.0	3575.4	3410.1	3264.4	3086.0	2929.4	2912.0	2929.4	2962.1	2914.2
47.5°	3890.7	3884.2	3860.3	3777.6	3755.9	3551.4	3314.4	3299.2	3266.5	3312.2	3255.7
50°	4238.7	4245.2	4147.3	4138.6	4230.0	4116.9	3749.3	3714.5	3655.8	3692.8	3644.9
52.5°	4490.9	4462.7	4401.8	4477.9	4762.8	4701.9	4158.2	4143.0	4088.6	4079.9	4058.2
55°	4593.2	4593.2	4604.0	4780.2	5186.9	5106.4	4601.9	4617.1	4543.1	4482.2	4510.5
57.5°	4623.6	4636.7	4730.2	5021.6	5684.9	5421.8	5091.2	5112.9	5006.4	4884.6	4973.7
60°	4473.5	4512.7	4736.7	5158.6	5965.4	5756.7	5606.6	5613.1	5458.7	5280.4	5437.0
62.5°	4088.6	4136.4	4536.6	5215.1	5919.8	6100.3	6093.8	6109.0	5898.0	5676.2	5871.9
65°	3616.7	3664.5	4090.8	5056.4	5885.0	6346.0	6539.6	6580.9	6309.1	6011.1	6143.8
67.5°	2922.9	2986.0	3390.5	4521.4	5715.3	6548.3	6957.2	7000.6	6626.6	6185.1	6119.9
70°	2118.2	2148.7	2488.0	3436.2	5023.8	6437.4	7287.7	7285.5	6731.0	6172.1	5793.6
72.5°	1020.0	1043.9	1337.5	2133.5	3592.8	5463.1	7048.5	7089.8	6587.4	5982.8	5047.7
75°	419.7	443.7	541.5	900.4	1885.5	3610.2	5974.1	6072.0	5982.8	5369.6	3949.4
77.5°	261.0	269.7	317.5	465.4	861.2	1685.5	4182.1	4314.8	4741.0	4301.7	2607.6
80°	195.7	202.3	237.1	326.2	543.7	622.0	2076.9	2244.4	2872.9	2468.4	1180.9
82.5°	163.1	165.3	189.2	237.1	369.7	356.7	665.5	741.6	1339.7	941.7	406.7
85°	152.2	156.6	169.6	169.6	234.9	224.0	276.2	289.2	389.3	321.9	141.4
87.5°	78.3	73.9	150.1	132.7	121.8	108.7	117.4	126.1	145.7	154.4	63.1
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°	1328.8	1328.8	1328.8	1328.8	1328.8	1328.8	1328.8	1328.8	1328.8	1328.8	1328.8
2.5°	1324.4	1331.0	1341.8	1352.7	1365.8	1381.0	1389.7	1400.6	1409.3	1404.9	1402.7
5°	1331.0	1341.8	1365.8	1387.5	1413.6	1444.1	1463.6	1485.4	1502.8	1507.1	1500.6
7.5°	1341.8	1361.4	1394.0	1433.2	1468.0	1507.1	1537.6	1568.0	1589.8	1594.1	1594.1
10°	1367.9	1389.7	1433.2	1485.4	1526.7	1568.0	1602.8	1626.7	1646.3	1655.0	1655.0
12.5°	1404.9	1431.0	1483.2	1546.3	1591.9	1631.1	1650.7	1661.5	1670.2	1678.9	1681.1
15°	1448.4	1476.7	1539.8	1607.2	1655.0	1674.6	1674.6	1672.4	1672.4	1676.8	1681.1
17.5°	1491.9	1522.4	1587.6	1659.4	1689.8	1678.9	1663.7	1657.2	1652.8	1650.7	1657.2
20°	1537.6	1568.0	1633.3	1700.7	1692.0	1646.3	1624.6	1609.3	1596.3	1589.8	1598.5
22.5°	1587.6	1615.9	1683.3	1729.0	1663.7	1594.1	1552.8	1528.9	1507.1	1494.1	1502.8
25°	1646.3	1674.6	1739.8	1737.7	1613.7	1515.8	1450.6	1411.4	1387.5	1374.5	1374.5
27.5°	1715.9	1739.8	1802.9	1715.9	1544.1	1411.4	1315.7	1278.8	1272.3	1261.4	1261.4
30°	1787.7	1807.3	1861.6	1665.9	1448.4	1274.4	1170.0	1152.6	1154.8	1143.9	1146.1
32.5°	1861.6	1881.2	1896.4	1591.9	1324.4	1120.0	1050.4	1037.4	1035.2	1026.5	1017.8
35°	1966.0	1994.3	1900.8	1491.9	1174.4	991.7	941.7	928.6	915.6	885.1	885.1
37.5°	2124.8	2155.2	1889.9	1367.9	1020.0	891.7	846.0	828.6	806.8	776.4	765.5
40°	2342.2	2342.2	1866.0	1228.8	896.0	811.2	767.7	746.0	722.0	691.6	685.1
42.5°	2598.9	2538.0	1829.0	1087.4	804.7	756.8	717.7	693.8	665.5	630.7	626.3
45°	2899.0	2733.7	1776.8	961.3	737.3	724.2	700.3	659.0	611.1	574.1	567.6
47.5°	3190.4	2909.9	1726.8	872.1	680.7	711.2	691.6	622.0	556.7	504.6	498.0
50°	3510.1	3066.5	1668.1	798.1	637.2	702.5	680.7	567.6	495.9	458.9	454.5
52.5°	3829.8	3225.2	1605.0	719.9	600.2	685.1	654.6	528.5	493.7	443.7	437.1
55°	4166.9	3410.1	1531.1	632.9	556.7	650.3	619.8	526.3	508.9	443.7	428.4
57.5°	4495.3	3614.5	1411.4	548.0	508.9	598.1	606.8	513.3	476.3	439.3	421.9
60°	4858.5	3832.0	1213.5	476.3	467.6	554.6	589.4	485.0	439.3	426.3	417.6
62.5°	5149.9	4027.7	948.2	426.3	432.8	519.8	567.6	467.6	424.1	413.2	411.0
65°	5276.0	4032.1	680.7	382.8	398.0	487.2	545.9	452.4	411.0	406.7	404.5
67.5°	5143.4	3810.2	478.5	341.4	361.0	456.7	517.6	437.1	398.0	400.2	395.8
70°	4714.9	3342.7	350.1	302.3	326.2	424.1	487.2	417.6	382.8	387.1	380.6
72.5°	3945.1	2605.4	280.5	269.7	297.9	389.3	456.7	395.8	358.8	361.0	348.0
75°	2914.2	1726.8	234.9	241.4	265.3	356.7	417.6	367.5	332.7	324.0	315.3
77.5°	1733.3	887.3	193.6	211.0	237.1	317.5	374.1	332.7	304.5	289.2	282.7
80°	715.5	358.8	158.8	178.3	206.6	282.7	330.6	291.4	271.8	256.6	247.9
82.5°	284.9	176.2	126.1	145.7	174.0	245.8	289.2	256.6	237.1	226.2	202.3
85°	108.7	87.0	84.8	102.2	130.5	189.2	239.2	215.3	200.1	171.8	165.3
87.5°	43.5	39.1	39.1	50.0	73.9	119.6	171.8	150.1	156.6	124.0	126.1
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)