

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: P231301

Luminaire Tested: **ARCH-M-AF48-90-D-U-T4W-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231301
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-AF48-90-D-U-T4W-7050
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 5000K, 600mA LIGHT ENGINES WITH 24 LEDS AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12242 lumens
Efficiency: N/A
Efficacy: 133.1 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): 92
Input Voltage (V): NR
Input Current (A_{in}): 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

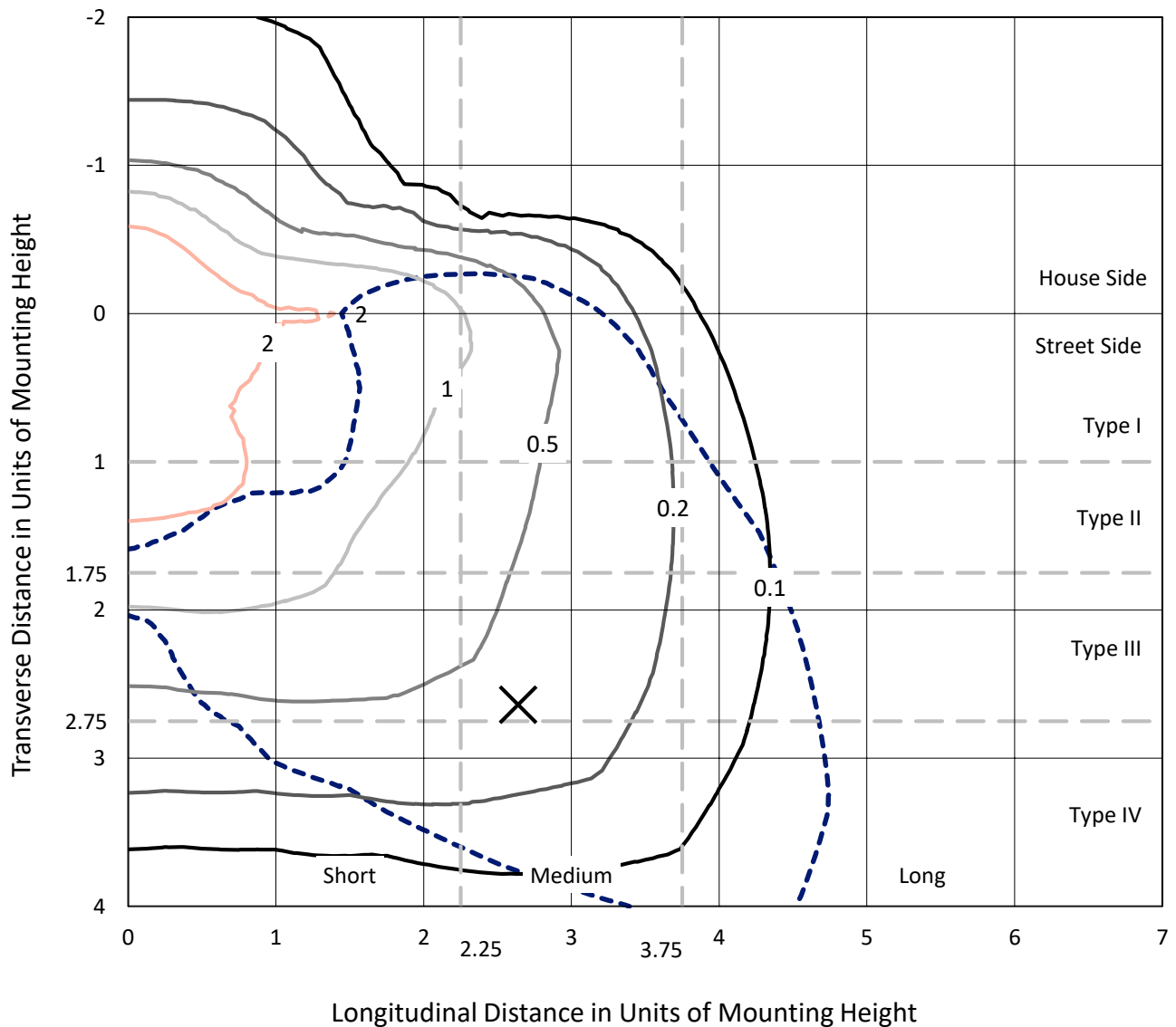


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

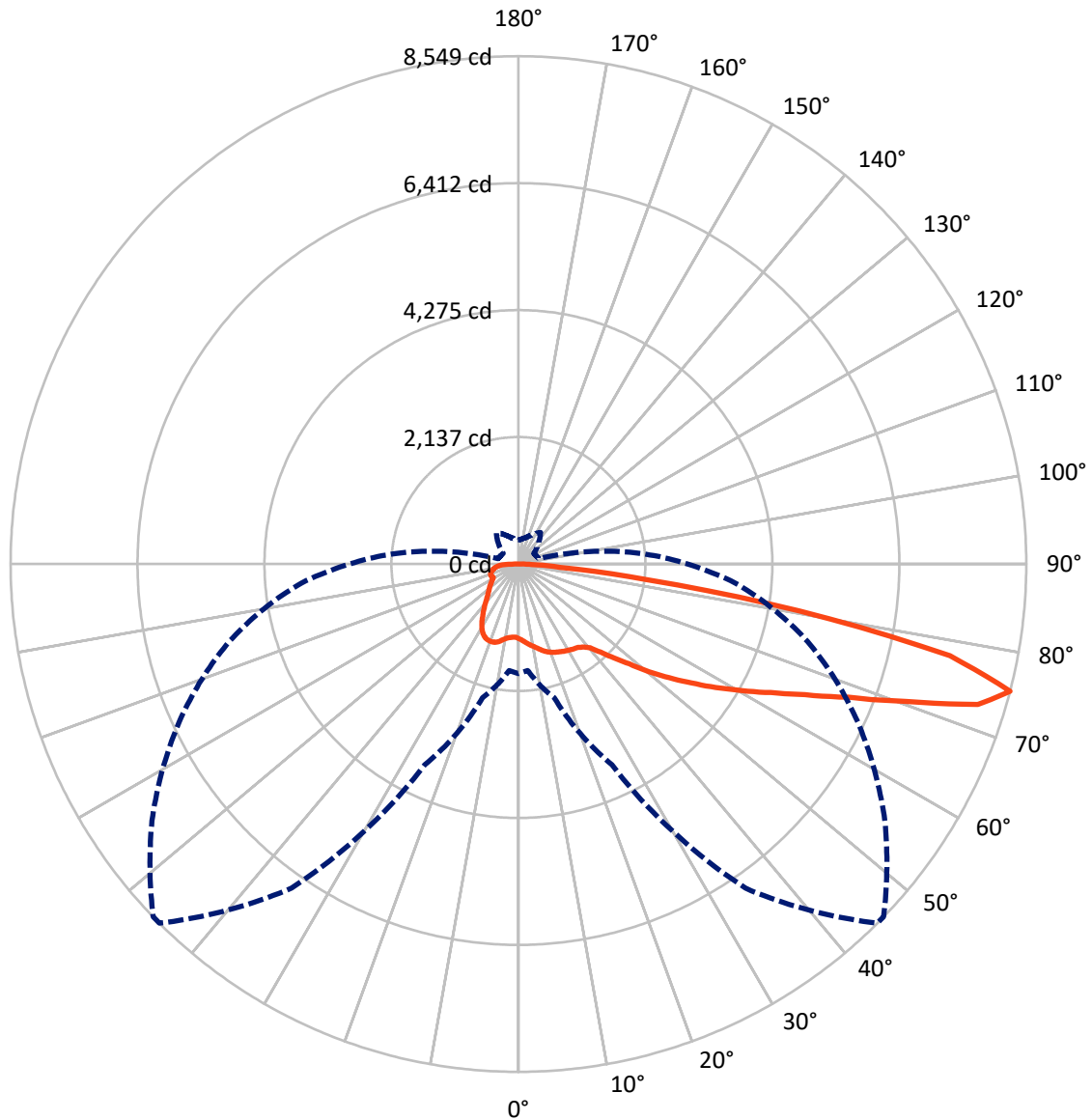


Based on 20 foot mounting height. Maximum calculated value = 3.7 fc
 Type IV - Medium - Non-Cutoff

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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	2836.0	0.0	2836.0
	% Fixture	23.2	0.0	23.2
Street Side	Lumens	9406.0	0.0	9406.0
	% Fixture	76.8	0.0	76.8
Total	Lumens	12242.0	0.0	12242.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	124.4	1.0
10°-20°	403.0	3.3
20°-30°	691.6	5.6
30°-40°	967.3	7.9
40°-50°	1418.9	11.6
50°-60°	2210.3	18.1
60°-70°	3180.4	26.0
70°-80°	2770.5	22.6
80°-90°	475.8	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°	12242.0	100.0
0°-180°	12242.0	100.0



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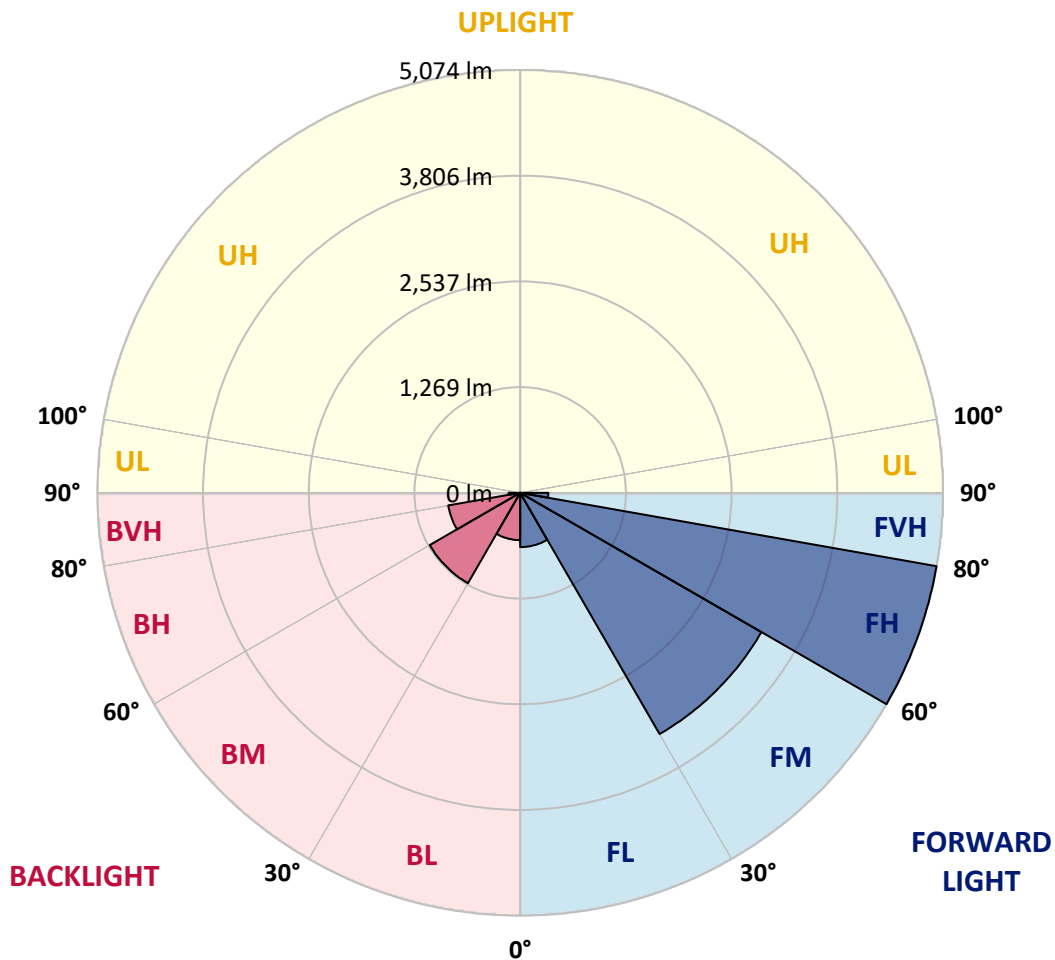
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	651.0	5.3			
FM	(30°-60°)	3343.1	27.3			
FH	(60°-80°)	5074.4	41.5			G3/7500
FVH	(80°-90°)	337.6	2.8			G3/500
BL	(0°-30°)	568.0	4.6	B2/1000		
BM	(30°-60°)	1253.3	10.2	B2/2500		
BH	(60°-80°)	876.4	7.2	B2/1000		G2/1000
BVH	(80°-90°)	138.2	1.1			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: 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°	1255.0	1255.0	1255.0	1255.0	1255.0	1255.0	1255.0	1255.0	1255.0	1255.0	1255.0
2.5°	1316.9	1307.4	1307.4	1300.2	1300.2	1288.3	1283.6	1281.2	1269.3	1262.1	1255.0
5°	1393.1	1381.2	1378.8	1362.1	1355.0	1328.8	1326.4	1309.8	1288.3	1266.9	1250.2
7.5°	1462.2	1455.0	1443.1	1426.4	1405.0	1371.7	1369.3	1343.1	1307.4	1278.8	1255.0
10°	1512.2	1507.4	1490.7	1469.3	1445.5	1412.1	1409.8	1381.2	1338.3	1305.0	1271.6
12.5°	1571.7	1564.6	1543.1	1514.5	1488.4	1457.4	1455.0	1431.2	1383.6	1340.7	1297.8
15°	1628.9	1619.3	1593.1	1564.6	1536.0	1509.8	1509.8	1483.6	1433.6	1383.6	1333.6
17.5°	1657.4	1652.7	1626.5	1595.5	1571.7	1552.6	1550.3	1526.5	1476.4	1424.1	1369.3
20°	1667.0	1669.3	1645.5	1612.2	1595.5	1586.0	1583.6	1566.9	1512.2	1462.2	1409.8
22.5°	1664.6	1671.7	1652.7	1616.9	1612.2	1612.2	1612.2	1593.1	1550.3	1500.3	1447.9
25°	1674.1	1683.6	1669.3	1626.5	1626.5	1636.0	1636.0	1626.5	1588.4	1545.5	1493.1
27.5°	1707.4	1714.6	1702.7	1643.1	1645.5	1659.8	1657.4	1659.8	1636.0	1595.5	1543.1
30°	1747.9	1757.4	1743.2	1669.3	1667.0	1681.2	1681.2	1693.1	1676.5	1633.6	1590.8
32.5°	1857.5	1855.1	1809.8	1697.9	1690.8	1705.1	1705.1	1717.0	1707.4	1674.1	1633.6
35°	2183.7	2148.0	2048.0	1790.8	1719.3	1726.5	1726.5	1747.9	1752.7	1726.5	1690.8
37.5°	2517.1	2505.2	2429.0	2038.4	1824.1	1771.7	1769.4	1800.3	1821.7	1800.3	1776.5
40°	2852.9	2843.3	2826.7	2369.5	2043.2	1852.7	1845.6	1871.8	1909.9	1895.6	1881.3
42.5°	3164.8	3160.1	3176.7	2695.7	2321.8	2026.5	2005.1	1974.2	2028.9	2024.2	2024.2
45°	3410.1	3422.0	3431.5	3000.5	2624.3	2250.4	2224.2	2119.4	2193.2	2212.3	2226.6
47.5°	3548.2	3557.8	3591.1	3298.2	2926.7	2510.0	2490.9	2319.4	2417.1	2474.2	2514.7
50°	3745.9	3719.7	3748.3	3588.7	3291.0	2848.1	2795.7	2588.5	2712.4	2812.4	2907.6
52.5°	3936.4	3893.5	3917.3	3924.5	3705.4	3179.1	3124.3	2905.3	3060.1	3217.2	3386.3
55°	4107.9	4105.5	4129.3	4250.7	4105.5	3533.9	3472.0	3255.3	3479.2	3648.2	3934.0
57.5°	4246.0	4269.8	4374.6	4629.4	4567.5	3919.7	3850.7	3662.5	3926.9	4095.9	4569.8
60°	4407.9	4446.0	4619.8	4950.9	4989.0	4324.6	4253.1	4117.4	4386.5	4557.9	5305.7
62.5°	4462.7	4517.4	4874.7	5289.0	5429.5	4767.5	4703.2	4612.7	4869.9	5024.7	6039.1
65°	4098.3	4203.1	5015.2	5462.8	5903.4	5300.9	5246.1	5167.6	5350.9	5453.3	6536.8
67.5°	3998.3	4045.9	4741.3	5712.9	6348.7	5986.7	5932.0	5796.2	5801.0	5758.1	6698.8
70°	3857.8	3910.2	4460.3	5901.0	6986.9	6925.0	6858.3	6458.3	6213.0	5953.4	6379.7
72.5°	3286.3	3269.6	3843.5	5393.8	7294.1	8087.1	8008.5	7170.3	6517.8	5784.3	5384.3
75°	1845.6	1797.9	2331.4	3731.6	6660.7	8549.1	8546.7	7529.9	6303.5	5039.0	3664.9
77.5°	535.8	521.5	769.2	1564.6	4484.1	7427.5	7518.0	6791.6	5260.4	3619.7	2012.3
80°	252.4	257.2	331.0	516.8	1914.6	4793.7	5053.3	4472.2	3143.4	1669.3	831.1
82.5°	159.6	161.9	226.2	333.4	809.7	2176.6	2390.9	2012.3	1245.5	721.6	366.7
85°	100.0	100.0	150.0	219.1	483.4	695.4	754.9	685.8	533.4	392.9	200.0
87.5°	54.8	54.8	90.5	126.2	264.3	223.8	231.0	273.9	333.4	240.5	100.0
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°	1255.0	1255.0	1255.0	1255.0	1255.0	1255.0	1255.0	1255.0	1255.0	1255.0	1255.0
2.5°	1252.6	1247.8	1240.7	1238.3	1235.9	1233.5	1235.9	1240.7	1235.9	1235.9	1238.3
5°	1245.5	1240.7	1231.2	1231.2	1233.5	1235.9	1247.8	1255.0	1257.4	1257.4	1257.4
7.5°	1245.5	1238.3	1231.2	1233.5	1238.3	1247.8	1266.9	1278.8	1288.3	1290.7	1290.7
10°	1257.4	1247.8	1243.1	1247.8	1262.1	1269.3	1288.3	1307.4	1319.3	1324.0	1324.0
12.5°	1278.8	1269.3	1269.3	1278.8	1297.8	1307.4	1324.0	1338.3	1352.6	1359.8	1359.8
15°	1314.5	1302.6	1305.0	1321.7	1343.1	1352.6	1364.5	1369.3	1381.2	1390.7	1390.7
17.5°	1347.9	1335.9	1340.7	1359.8	1374.0	1378.8	1386.0	1383.6	1388.3	1395.5	1397.9
20°	1386.0	1374.0	1376.4	1388.3	1390.7	1386.0	1386.0	1378.8	1376.4	1388.3	1393.1
22.5°	1424.1	1412.1	1409.8	1402.6	1390.7	1378.8	1371.7	1364.5	1359.8	1371.7	1376.4
25°	1469.3	1452.6	1440.7	1409.8	1378.8	1357.4	1347.9	1343.1	1340.7	1352.6	1357.4
27.5°	1519.3	1502.6	1466.9	1400.2	1350.2	1314.5	1307.4	1307.4	1312.1	1319.3	1324.0
30°	1566.9	1550.3	1486.0	1378.8	1300.2	1247.8	1240.7	1247.8	1259.7	1266.9	1274.0
32.5°	1614.6	1597.9	1497.9	1345.5	1226.4	1159.7	1155.0	1166.9	1185.9	1190.7	1195.4
35°	1678.9	1662.2	1512.2	1297.8	1133.5	1062.1	1057.3	1064.5	1081.1	1088.3	1095.4
37.5°	1769.4	1759.8	1533.6	1245.5	1047.8	969.2	954.9	950.2	959.7	957.3	966.8
40°	1888.4	1895.6	1571.7	1176.4	964.5	883.5	852.5	838.2	828.7	809.7	819.2
42.5°	2062.3	2067.0	1614.6	1097.8	893.0	802.5	762.0	735.8	716.8	685.8	690.6
45°	2317.1	2276.6	1664.6	1014.5	828.7	738.2	690.6	659.6	633.4	607.2	609.6
47.5°	2655.2	2531.4	1719.3	945.4	764.4	685.8	643.0	607.2	576.3	554.9	557.2
50°	3072.0	2848.1	1774.1	881.1	700.1	645.3	607.2	569.1	538.2	516.8	514.4
52.5°	3622.1	3229.1	1809.8	809.7	635.8	609.6	576.3	540.6	502.5	476.3	473.9
55°	4193.6	3672.1	1840.8	723.9	573.9	569.1	552.5	512.0	466.7	433.4	428.6
57.5°	4822.3	4146.0	1864.6	640.6	526.3	535.8	531.0	483.4	433.4	402.5	400.1
60°	5393.8	4636.5	1788.4	566.8	483.4	502.5	507.2	466.7	440.6	447.7	450.1
62.5°	5970.1	5015.2	1497.9	512.0	454.8	481.0	521.5	519.1	507.2	519.1	521.5
65°	6177.3	5093.7	1062.1	466.7	426.3	490.6	566.8	562.0	507.2	485.8	481.0
67.5°	6060.6	4860.4	714.4	431.0	404.8	502.5	614.4	562.0	488.2	459.6	450.1
70°	5505.7	4286.5	523.9	395.3	385.8	500.1	640.6	559.6	478.7	447.7	435.8
72.5°	4391.2	3307.7	421.5	362.0	357.2	488.2	654.9	554.9	469.1	435.8	421.5
75°	2843.3	2057.5	354.8	328.6	314.3	469.1	647.7	540.6	457.2	414.4	404.8
77.5°	1319.3	885.9	302.4	290.5	273.9	440.6	626.3	512.0	431.0	390.5	378.6
80°	614.4	419.1	254.8	252.4	245.3	416.7	597.7	478.7	400.1	366.7	347.7
82.5°	328.6	252.4	207.2	207.2	214.3	388.2	562.0	438.2	359.6	342.9	292.9
85°	173.8	145.3	150.0	161.9	183.4	342.9	514.4	395.3	314.3	262.0	254.8
87.5°	88.1	92.9	92.9	109.5	140.5	278.6	423.9	326.2	266.7	214.3	209.6
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)