

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: P234840

Luminaire Tested: **ARCH-M-AF48-130-D-U-T4W-8027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P234840
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-8027
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 80 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: 12483 lumens
Efficiency: N/A
Efficacy: 95.3 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 (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

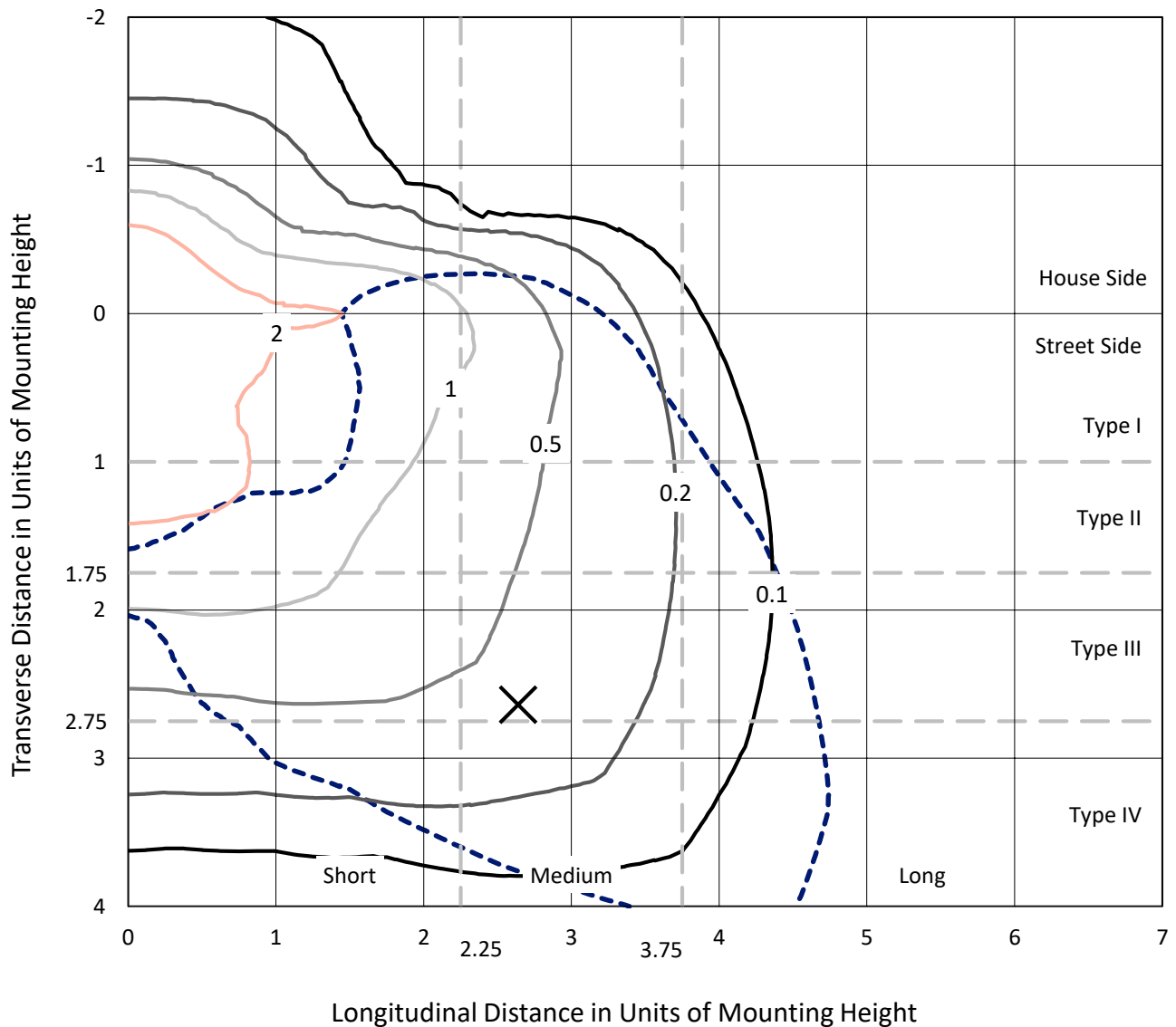


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

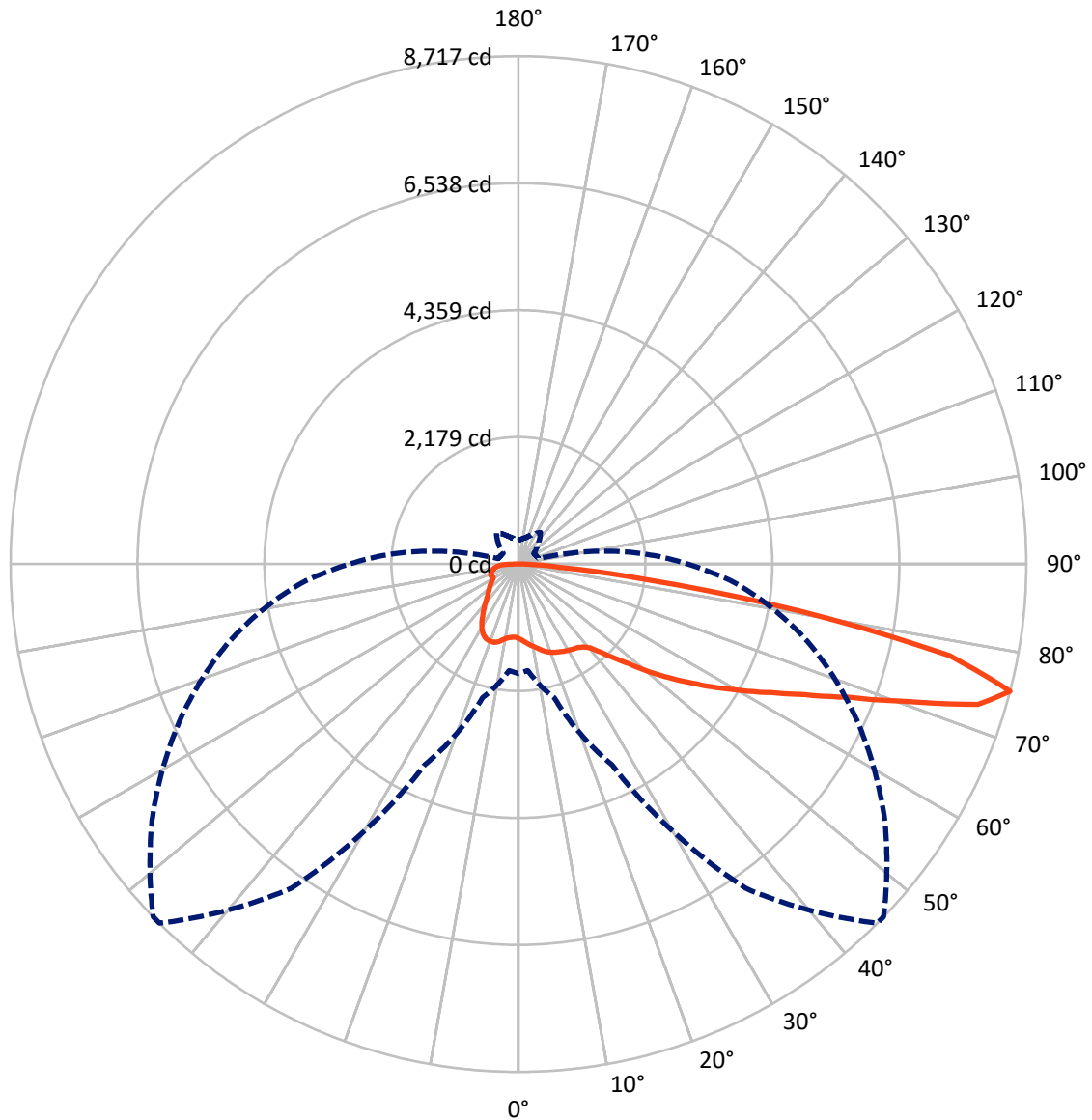


Based on 20 foot mounting height. Maximum calculated value = 3.7 fc
 Type IV - Medium - Non-Cutoff

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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	2891.8	0.0	2891.8
	% Fixture	23.2	0.0	23.2
Street Side	Lumens	9591.2	0.0	9591.2
	% Fixture	76.8	0.0	76.8
Total	Lumens	12483.0	0.0	12483.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	126.8	1.0
10°-20°	411.0	3.3
20°-30°	705.2	5.6
30°-40°	986.3	7.9
40°-50°	1446.8	11.6
50°-60°	2253.8	18.1
60°-70°	3243.0	26.0
70°-80°	2825.0	22.6
80°-90°	485.2	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°	12483.0	100.0
0°-180°	12483.0	100.0



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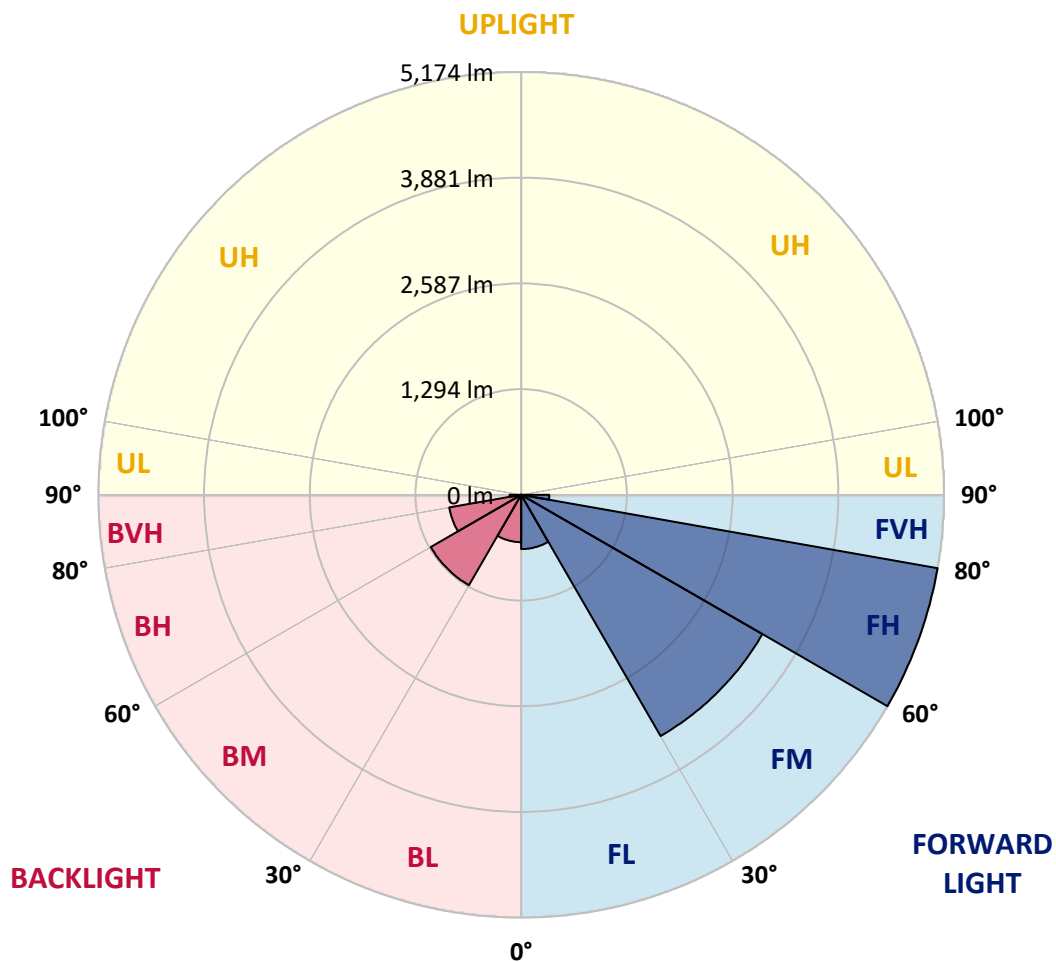
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	663.8	5.3			
FM (30°-60°)	3408.9	27.3			
FH (60°-80°)	5174.3	41.5			G3/7500
FVH (80°-90°)	344.2	2.8			G3/500
BL (0°-30°)	579.2	4.6	B2/1000		
BM (30°-60°)	1278.0	10.2	B2/2500		
BH (60°-80°)	893.7	7.2	B2/1000		G2/1000
BVH (80°-90°)	140.9	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°	1279.7	1279.7	1279.7	1279.7	1279.7	1279.7	1279.7	1279.7	1279.7	1279.7	1279.7
2.5°	1342.8	1333.1	1333.1	1325.8	1325.8	1313.7	1308.8	1306.4	1294.3	1287.0	1279.7
5°	1420.5	1408.4	1406.0	1389.0	1381.7	1355.0	1352.5	1335.5	1313.7	1291.8	1274.8
7.5°	1490.9	1483.7	1471.5	1454.5	1432.7	1398.7	1396.2	1369.5	1333.1	1304.0	1279.7
10°	1541.9	1537.1	1520.1	1498.2	1473.9	1439.9	1437.5	1408.4	1364.7	1330.7	1296.7
12.5°	1602.6	1595.4	1573.5	1544.4	1517.7	1486.1	1483.7	1459.4	1410.8	1367.1	1323.4
15°	1660.9	1651.2	1624.5	1595.4	1566.2	1539.5	1539.5	1512.8	1461.8	1410.8	1359.8
17.5°	1690.1	1685.2	1658.5	1626.9	1602.6	1583.2	1580.8	1556.5	1505.5	1452.1	1396.2
20°	1699.8	1702.2	1677.9	1643.9	1626.9	1617.2	1614.8	1597.8	1541.9	1490.9	1437.5
22.5°	1697.3	1704.6	1685.2	1648.8	1643.9	1643.9	1643.9	1624.5	1580.8	1529.8	1476.4
25°	1707.1	1716.8	1702.2	1658.5	1658.5	1668.2	1668.2	1658.5	1619.6	1575.9	1522.5
27.5°	1741.1	1748.3	1736.2	1675.5	1677.9	1692.5	1690.1	1692.5	1668.2	1626.9	1573.5
30°	1782.3	1792.0	1777.5	1702.2	1699.8	1714.3	1714.3	1726.5	1709.5	1665.8	1622.1
32.5°	1894.0	1891.6	1845.5	1731.3	1724.1	1738.6	1738.6	1750.8	1741.1	1707.1	1665.8
35°	2226.7	2190.3	2088.3	1826.0	1753.2	1760.5	1760.5	1782.3	1787.2	1760.5	1724.1
37.5°	2566.7	2554.5	2476.8	2078.6	1860.0	1806.6	1804.2	1835.8	1857.6	1835.8	1811.5
40°	2909.0	2899.3	2882.3	2416.1	2083.4	1889.2	1881.9	1908.6	1947.5	1932.9	1918.3
42.5°	3227.1	3222.3	3239.3	2748.8	2367.5	2066.4	2044.6	2013.0	2068.9	2064.0	2064.0
45°	3477.2	3489.4	3499.1	3059.6	2675.9	2294.7	2268.0	2161.1	2236.4	2255.8	2270.4
47.5°	3618.1	3627.8	3661.8	3363.1	2984.3	2559.4	2539.9	2365.1	2464.7	2522.9	2564.2
50°	3819.6	3792.9	3822.1	3659.4	3355.8	2904.2	2850.8	2639.5	2765.8	2867.8	2964.9
52.5°	4013.9	3970.2	3994.5	4001.7	3778.3	3241.7	3185.9	2962.5	3120.3	3280.6	3453.0
55°	4188.7	4186.3	4210.6	4334.4	4186.3	3603.5	3540.4	3319.4	3547.7	3720.1	4011.5
57.5°	4329.6	4353.8	4460.7	4720.5	4657.4	3996.9	3926.5	3734.6	4004.2	4176.6	4659.8
60°	4494.7	4533.5	4710.8	5048.3	5087.2	4409.7	4336.8	4198.4	4472.8	4647.7	5410.1
62.5°	4550.5	4606.4	4970.6	5393.1	5536.4	4861.3	4795.8	4703.5	4965.8	5123.6	6158.0
65°	4179.0	4285.9	5113.9	5570.4	6019.6	5405.3	5349.4	5269.3	5456.3	5560.7	6665.5
67.5°	4077.0	4125.6	4834.6	5825.4	6473.7	6104.6	6048.8	5910.3	5915.2	5871.5	6830.7
70°	3933.8	3987.2	4548.1	6017.2	7124.5	7061.3	6993.3	6585.4	6335.3	6070.6	6505.3
72.5°	3351.0	3334.0	3919.2	5500.0	7437.7	8246.3	8166.2	7311.4	6646.1	5898.2	5490.3
75°	1881.9	1833.3	2377.3	3805.1	6791.8	8717.4	8715.0	7678.1	6427.6	5138.2	3737.1
77.5°	546.4	531.8	784.3	1595.4	4572.4	7573.7	7666.0	6925.4	5364.0	3690.9	2051.9
80°	257.4	262.3	337.5	526.9	1952.3	4888.1	5152.7	4560.2	3205.3	1702.2	847.5
82.5°	162.7	165.1	230.7	340.0	825.6	2219.4	2438.0	2051.9	1270.0	735.8	373.9
85°	102.0	102.0	153.0	223.4	492.9	709.0	769.8	699.3	543.9	400.7	204.0
87.5°	55.8	55.8	92.3	128.7	269.5	228.3	235.5	279.2	340.0	245.3	102.0
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°	1279.7	1279.7	1279.7	1279.7	1279.7	1279.7	1279.7	1279.7	1279.7	1279.7	1279.7
2.5°	1277.3	1272.4	1265.1	1262.7	1260.3	1257.8	1260.3	1265.1	1260.3	1260.3	1262.7
5°	1270.0	1265.1	1255.4	1255.4	1257.8	1260.3	1272.4	1279.7	1282.1	1282.1	1282.1
7.5°	1270.0	1262.7	1255.4	1257.8	1262.7	1272.4	1291.8	1304.0	1313.7	1316.1	1316.1
10°	1282.1	1272.4	1267.5	1272.4	1287.0	1294.3	1313.7	1333.1	1345.2	1350.1	1350.1
12.5°	1304.0	1294.3	1294.3	1304.0	1323.4	1333.1	1350.1	1364.7	1379.2	1386.5	1386.5
15°	1340.4	1328.2	1330.7	1347.7	1369.5	1379.2	1391.4	1396.2	1408.4	1418.1	1418.1
17.5°	1374.4	1362.2	1367.1	1386.5	1401.1	1406.0	1413.2	1410.8	1415.7	1423.0	1425.4
20°	1413.2	1401.1	1403.5	1415.7	1418.1	1413.2	1413.2	1406.0	1403.5	1415.7	1420.5
22.5°	1452.1	1439.9	1437.5	1430.2	1418.1	1406.0	1398.7	1391.4	1386.5	1398.7	1403.5
25°	1498.2	1481.2	1469.1	1437.5	1406.0	1384.1	1374.4	1369.5	1367.1	1379.2	1384.1
27.5°	1549.2	1532.2	1495.8	1427.8	1376.8	1340.4	1333.1	1333.1	1338.0	1345.2	1350.1
30°	1597.8	1580.8	1515.2	1406.0	1325.8	1272.4	1265.1	1272.4	1284.5	1291.8	1299.1
32.5°	1646.3	1629.4	1527.4	1372.0	1250.5	1182.6	1177.7	1189.8	1209.3	1214.1	1219.0
35°	1711.9	1694.9	1541.9	1323.4	1155.8	1083.0	1078.1	1085.4	1102.4	1109.7	1117.0
37.5°	1804.2	1794.5	1563.8	1270.0	1068.4	988.3	973.7	968.9	978.6	976.2	985.9
40°	1925.6	1932.9	1602.6	1199.6	983.4	900.9	869.3	854.7	845.0	825.6	835.3
42.5°	2102.9	2107.7	1646.3	1119.4	910.6	818.3	777.0	750.3	730.9	699.3	704.2
45°	2362.7	2321.4	1697.3	1034.4	845.0	752.8	704.2	672.6	645.9	619.2	621.6
47.5°	2707.5	2581.2	1753.2	964.0	779.5	699.3	655.6	619.2	587.6	565.8	568.2
50°	3132.4	2904.2	1809.0	898.5	713.9	658.1	619.2	580.4	548.8	526.9	524.5
52.5°	3693.4	3292.7	1845.5	825.6	648.3	621.6	587.6	551.2	512.4	485.6	483.2
55°	4276.1	3744.4	1877.0	738.2	585.2	580.4	563.4	522.1	475.9	441.9	437.1
57.5°	4917.2	4227.6	1901.3	653.2	536.6	546.4	541.5	492.9	441.9	410.4	407.9
60°	5500.0	4727.8	1823.6	577.9	492.9	512.4	517.2	475.9	449.2	456.5	458.9
62.5°	6087.6	5113.9	1527.4	522.1	463.8	490.5	531.8	529.4	517.2	529.4	531.8
65°	6298.9	5194.0	1083.0	475.9	434.7	500.2	577.9	573.1	517.2	495.4	490.5
67.5°	6179.9	4956.0	728.5	439.5	412.8	512.4	626.5	573.1	497.8	468.7	458.9
70°	5614.1	4370.8	534.2	403.1	393.4	509.9	653.2	570.6	488.1	456.5	444.4
72.5°	4477.7	3372.8	429.8	369.1	364.2	497.8	667.8	565.8	478.4	444.4	429.8
75°	2899.3	2098.0	361.8	335.1	320.5	478.4	660.5	551.2	466.2	422.5	412.8
77.5°	1345.2	903.3	308.4	296.2	279.2	449.2	638.6	522.1	439.5	398.2	386.1
80°	626.5	427.4	259.8	257.4	250.1	424.9	609.5	488.1	407.9	373.9	354.5
82.5°	335.1	257.4	211.3	211.3	218.5	395.8	573.1	446.8	366.7	349.7	298.7
85°	177.3	148.1	153.0	165.1	187.0	349.7	524.5	403.1	320.5	267.1	259.8
87.5°	89.8	94.7	94.7	111.7	143.3	284.1	432.2	332.7	272.0	218.5	213.7
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)