

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: P265821

Luminaire Tested: **ARCH-M-AF48-110-D-U-T4W-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P265821
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-7027
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 2700K, 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: 12311.7 lumens
Efficiency: N/A
Efficacy: 110.9 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): 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

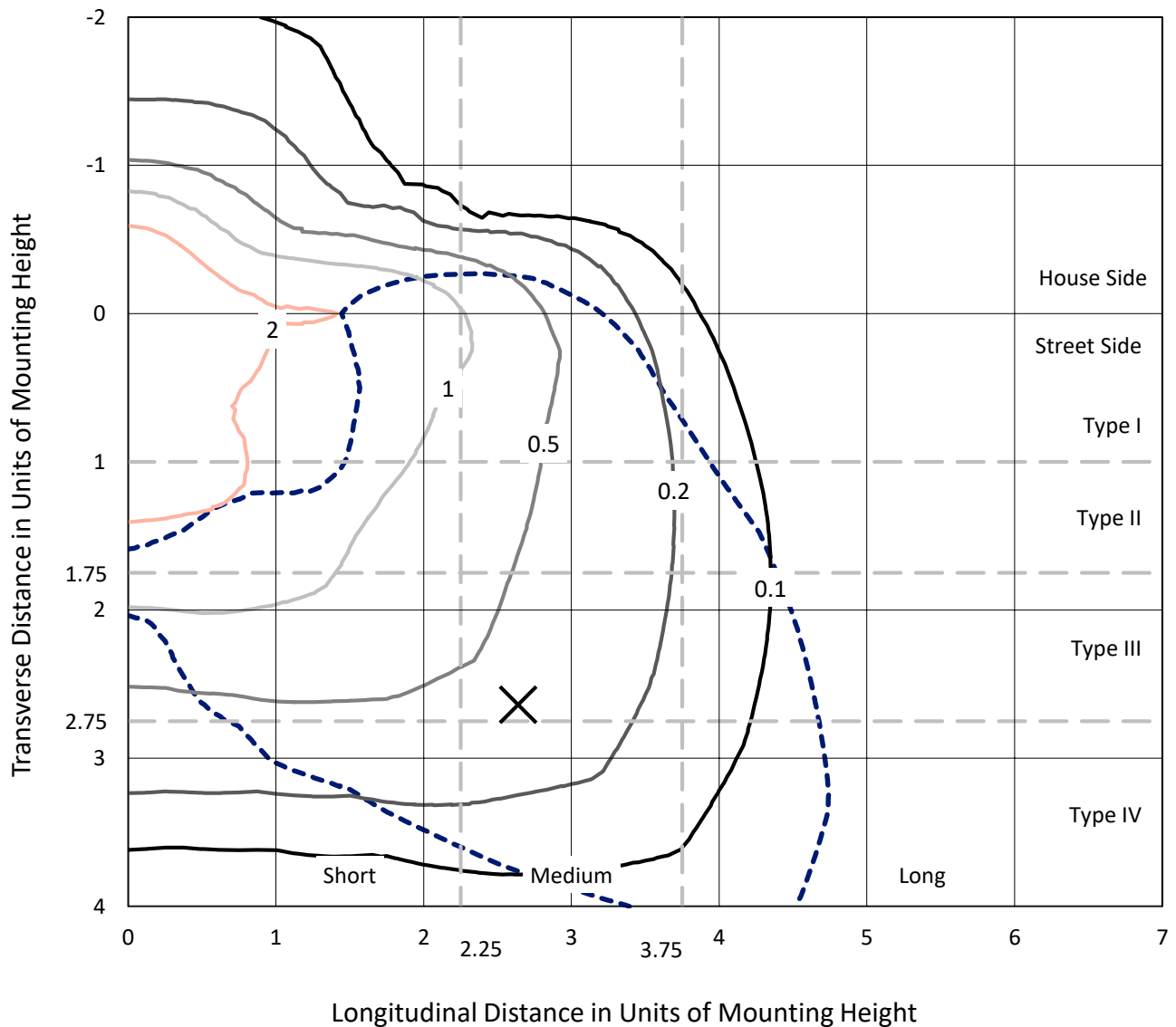


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

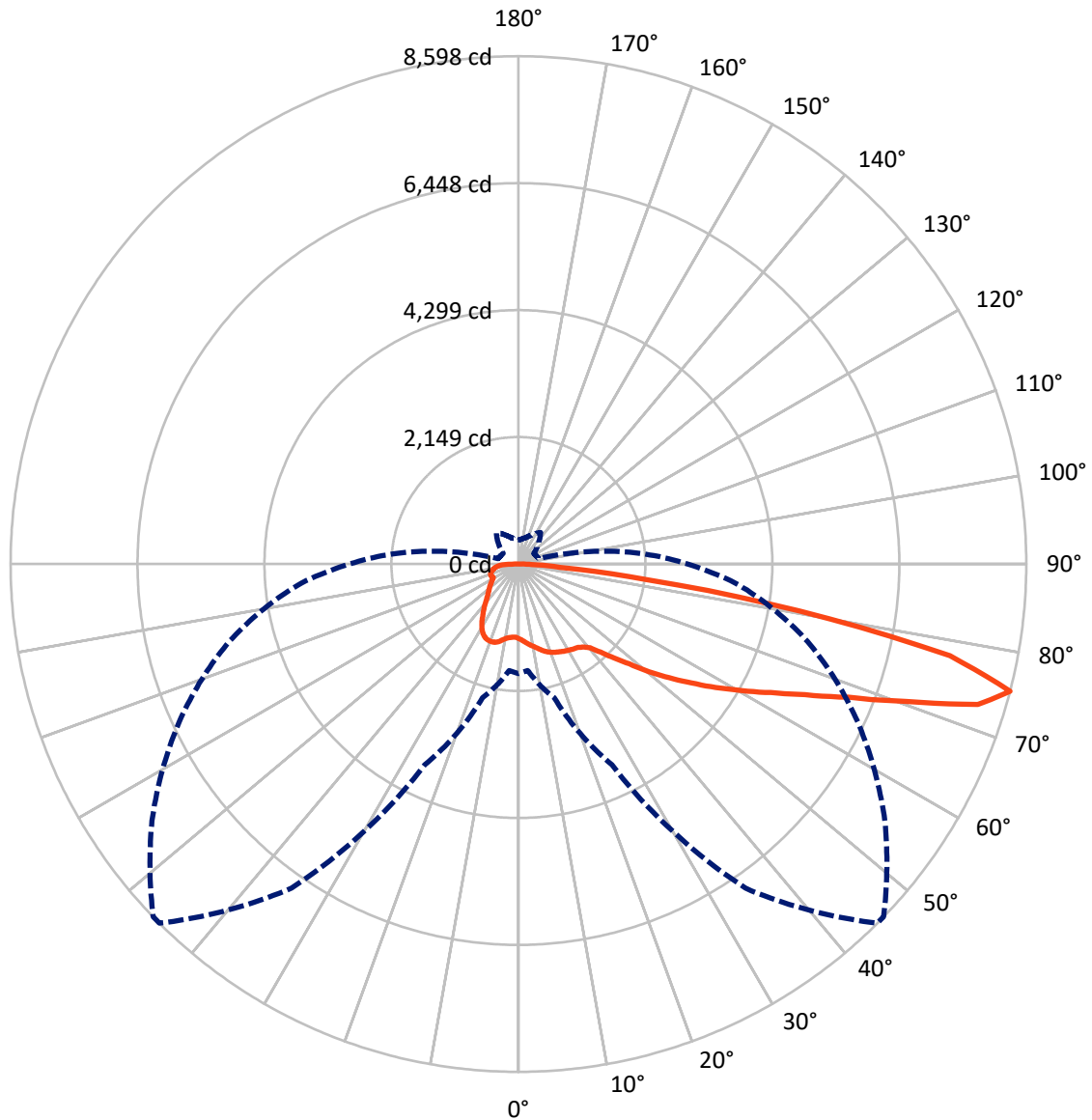


Based on 20 foot mounting height. Maximum calculated value = 3.7 fc
 Type IV - Medium - Non-Cutoff

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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	2852.1	0.0	2852.1
	% Fixture	23.2	0.0	23.2
Street Side	Lumens	9459.6	0.0	9459.6
	% Fixture	76.8	0.0	76.8
Total	Lumens	12311.7	0.0	12311.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	125.1	1.0
10°-20°	405.3	3.3
20°-30°	695.5	5.6
30°-40°	972.8	7.9
40°-50°	1427.0	11.6
50°-60°	2222.8	18.1
60°-70°	3198.5	26.0
70°-80°	2786.2	22.6
80°-90°	478.5	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°	12311.7	100.0
0°-180°	12311.7	100.0

Coefficient of Utilization



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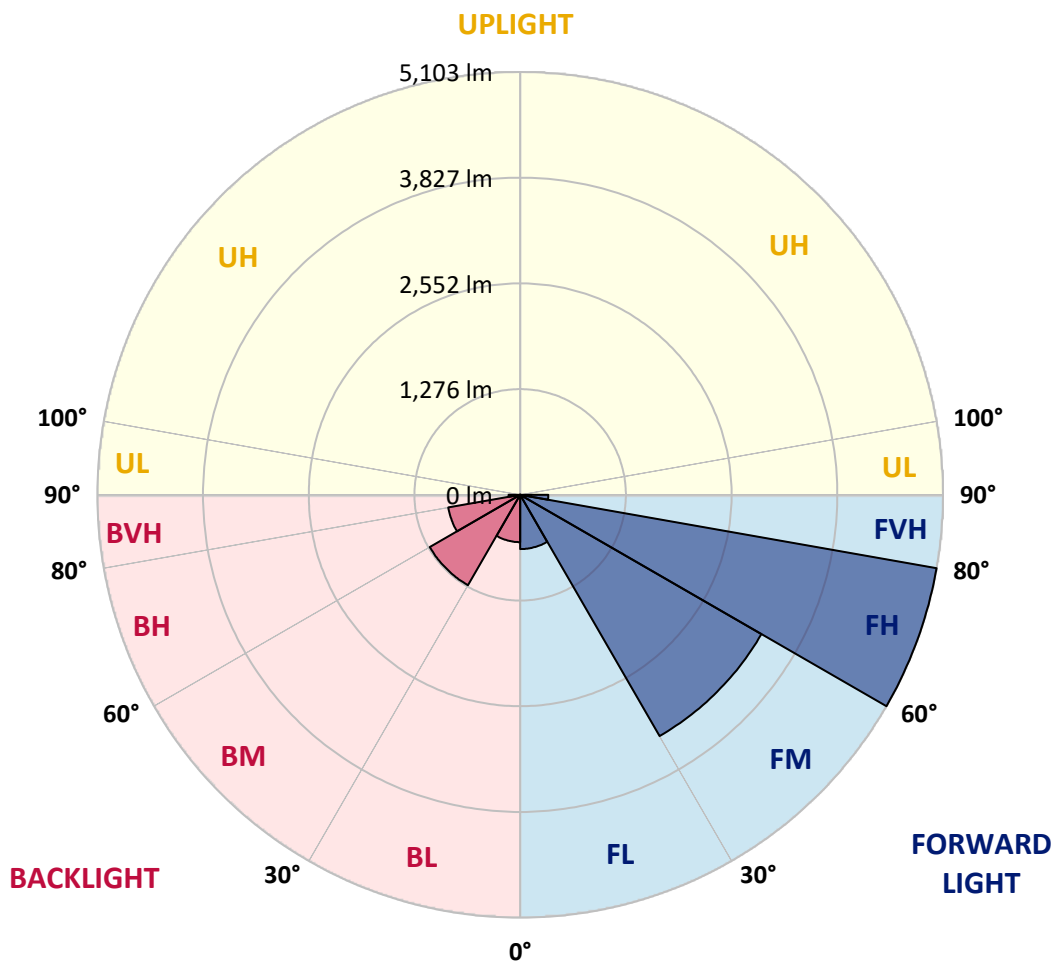
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	654.7	5.3			
FM	(30°-60°)	3362.1	27.3			
FH	(60°-80°)	5103.3	41.5			G3/7500
FVH	(80°-90°)	339.5	2.8			G3/500
BL	(0°-30°)	571.2	4.6	B2/1000		
BM	(30°-60°)	1260.5	10.2	B2/2500		
BH	(60°-80°)	881.4	7.2	B2/1000		G2/1000
BVH	(80°-90°)	139.0	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°	1262.1	1262.1	1262.1	1262.1	1262.1	1262.1	1262.1	1262.1	1262.1	1262.1	1262.1
2.5°	1324.5	1314.8	1314.8	1307.7	1307.7	1295.6	1290.9	1288.4	1276.5	1269.3	1262.1
5°	1401.0	1389.0	1386.7	1369.8	1362.6	1336.4	1334.0	1317.3	1295.6	1274.1	1257.4
7.5°	1470.4	1463.2	1451.3	1434.6	1413.0	1379.4	1377.1	1350.7	1314.8	1286.1	1262.1
10°	1520.8	1516.0	1499.2	1477.6	1453.6	1420.2	1417.7	1389.0	1345.9	1312.5	1278.8
12.5°	1580.7	1573.6	1551.9	1523.2	1496.8	1465.7	1463.2	1439.4	1391.5	1348.4	1305.2
15°	1638.1	1628.5	1602.1	1573.6	1544.7	1518.3	1518.3	1492.1	1441.7	1391.5	1341.2
17.5°	1666.8	1662.0	1635.8	1604.6	1580.7	1561.6	1559.1	1535.2	1484.9	1432.2	1377.1
20°	1676.4	1678.8	1654.9	1621.4	1604.6	1595.0	1592.7	1575.8	1520.8	1470.4	1417.7
22.5°	1674.0	1681.3	1662.0	1626.1	1621.4	1621.4	1621.4	1602.1	1559.1	1508.9	1456.2
25°	1683.7	1693.2	1678.8	1635.8	1635.8	1645.3	1645.3	1635.8	1597.5	1554.2	1501.5
27.5°	1717.2	1724.3	1712.3	1652.5	1654.9	1669.3	1666.8	1669.3	1645.3	1604.6	1551.9
30°	1757.9	1767.4	1753.1	1678.8	1676.4	1690.8	1690.8	1702.7	1685.9	1642.9	1599.8
32.5°	1868.0	1865.6	1820.1	1707.6	1700.4	1714.8	1714.8	1726.7	1717.2	1683.7	1642.9
35°	2196.1	2160.2	2059.6	1801.0	1729.1	1736.3	1736.3	1757.9	1762.7	1736.3	1700.4
37.5°	2531.5	2519.4	2442.9	2050.0	1834.5	1781.8	1779.5	1810.5	1832.2	1810.5	1786.5
40°	2869.1	2859.6	2842.7	2382.9	2054.9	1863.3	1856.1	1882.4	1920.8	1906.4	1892.0
42.5°	3182.9	3178.1	3194.8	2711.1	2335.1	2038.1	2016.5	1985.4	2040.5	2035.6	2035.6
45°	3429.5	3441.4	3451.1	3017.5	2639.2	2263.2	2236.9	2131.5	2205.7	2224.9	2239.3
47.5°	3568.4	3577.9	3611.5	3317.0	2943.3	2524.2	2505.2	2332.7	2430.9	2488.3	2529.1
50°	3767.2	3740.9	3769.6	3609.1	3309.7	2864.3	2811.7	2603.3	2727.9	2828.5	2924.3
52.5°	3958.8	3915.7	3939.6	3946.9	3726.4	3197.2	3142.1	2921.7	3077.5	3235.5	3405.6
55°	4131.2	4128.8	4152.9	4274.9	4128.8	3554.1	3491.8	3273.9	3499.0	3668.9	3956.4
57.5°	4270.2	4294.1	4399.4	4655.7	4593.5	3942.0	3872.7	3683.4	3949.2	4119.3	4595.9
60°	4433.0	4471.4	4646.2	4979.0	5017.4	4349.1	4277.3	4140.8	4411.4	4584.0	5335.9
62.5°	4488.1	4543.2	4902.4	5319.1	5460.4	4794.7	4729.9	4638.9	4897.6	5053.2	6073.5
65°	4121.7	4227.1	5043.8	5493.9	5937.0	5331.1	5276.0	5197.0	5381.3	5484.4	6574.1
67.5°	4021.1	4069.0	4768.4	5745.4	6384.9	6020.8	5965.7	5829.2	5834.0	5791.0	6736.8
70°	3879.8	3932.5	4485.6	5934.7	7026.7	6964.4	6897.4	6495.0	6248.3	5987.4	6416.1
72.5°	3305.0	3288.2	3865.3	5424.4	7335.6	8133.2	8054.2	7211.1	6554.9	5817.2	5415.0
75°	1856.1	1808.2	2344.7	3752.8	6698.7	8597.8	8595.4	7572.7	6339.3	5067.7	3685.7
77.5°	538.9	524.5	773.6	1573.6	4509.6	7469.8	7560.8	6830.4	5290.4	3640.3	2023.7
80°	254.0	258.6	332.9	519.7	1925.4	4820.9	5082.0	4497.6	3161.2	1678.8	835.9
82.5°	160.4	162.9	227.5	335.2	814.3	2189.0	2404.6	2023.7	1252.5	725.7	368.8
85°	100.6	100.6	150.8	220.4	486.2	699.3	759.2	689.8	536.5	395.2	201.2
87.5°	55.1	55.1	91.0	126.9	265.9	225.1	232.3	275.4	335.2	242.0	100.6
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°	1262.1	1262.1	1262.1	1262.1	1262.1	1262.1	1262.1	1262.1	1262.1	1262.1	1262.1
2.5°	1259.8	1254.9	1247.7	1245.4	1243.0	1240.6	1243.0	1247.7	1243.0	1243.0	1245.4
5°	1252.5	1247.7	1238.1	1238.1	1240.6	1243.0	1254.9	1262.1	1264.5	1264.5	1264.5
7.5°	1252.5	1245.4	1238.1	1240.6	1245.4	1254.9	1274.1	1286.1	1295.6	1298.1	1298.1
10°	1264.5	1254.9	1250.1	1254.9	1269.3	1276.5	1295.6	1314.8	1326.7	1331.6	1331.6
12.5°	1286.1	1276.5	1276.5	1286.1	1305.2	1314.8	1331.6	1345.9	1360.4	1367.5	1367.5
15°	1321.9	1310.0	1312.5	1329.2	1350.7	1360.4	1372.3	1377.1	1389.0	1398.7	1398.7
17.5°	1355.5	1343.5	1348.4	1367.5	1381.9	1386.7	1393.8	1391.5	1396.2	1403.4	1405.8
20°	1393.8	1381.9	1384.3	1396.2	1398.7	1393.8	1393.8	1386.7	1384.3	1396.2	1401.0
22.5°	1432.2	1420.2	1417.7	1410.6	1398.7	1386.7	1379.4	1372.3	1367.5	1379.4	1384.3
25°	1477.6	1461.0	1449.0	1417.7	1386.7	1365.2	1355.5	1350.7	1348.4	1360.4	1365.2
27.5°	1527.9	1511.2	1475.2	1408.3	1357.9	1321.9	1314.8	1314.8	1319.6	1326.7	1331.6
30°	1575.8	1559.1	1494.4	1386.7	1307.7	1254.9	1247.7	1254.9	1266.9	1274.1	1281.3
32.5°	1623.7	1607.0	1506.4	1353.1	1233.5	1166.3	1161.6	1173.5	1192.7	1197.5	1202.2
35°	1688.5	1671.7	1520.8	1305.2	1139.9	1068.2	1063.4	1070.5	1087.3	1094.5	1101.7
37.5°	1779.5	1769.8	1542.3	1252.5	1053.7	974.8	960.4	955.5	965.1	962.8	972.3
40°	1899.1	1906.4	1580.7	1183.1	969.9	888.6	857.4	843.0	833.4	814.3	823.8
42.5°	2073.9	2078.8	1623.7	1104.0	898.0	807.0	766.3	740.1	720.9	689.8	694.5
45°	2330.3	2289.5	1674.0	1020.3	833.4	742.4	694.5	663.4	637.1	610.7	613.2
47.5°	2670.3	2545.7	1729.1	950.8	768.8	689.8	646.6	610.7	579.5	557.9	560.5
50°	3089.5	2864.3	1784.3	886.1	704.1	649.0	610.7	572.4	541.3	519.7	517.3
52.5°	3642.6	3247.6	1820.1	814.3	639.5	613.2	579.5	543.7	505.3	478.9	476.6
55°	4217.5	3692.9	1851.2	728.0	577.3	572.4	555.6	514.9	469.5	435.9	431.0
57.5°	4849.7	4169.6	1875.2	644.3	529.3	538.9	534.0	486.2	435.9	404.7	402.4
60°	5424.4	4662.9	1798.5	570.0	486.2	505.3	510.1	469.5	443.0	450.2	452.7
62.5°	6004.1	5043.8	1506.4	514.9	457.4	483.7	524.5	522.0	510.1	522.0	524.5
65°	6212.4	5122.8	1068.2	469.5	428.8	493.3	570.0	565.3	510.1	488.6	483.7
67.5°	6095.1	4888.0	718.5	433.5	407.1	505.3	617.9	565.3	491.0	462.2	452.7
70°	5537.1	4310.8	526.9	397.6	388.0	503.0	644.3	562.8	481.4	450.2	438.3
72.5°	4416.2	3326.6	423.9	364.1	359.2	491.0	658.5	557.9	471.8	438.3	423.9
75°	2859.6	2069.2	356.8	330.4	316.2	471.8	651.5	543.7	459.8	416.8	407.1
77.5°	1326.7	890.8	304.2	292.2	275.4	443.0	629.8	514.9	433.5	392.7	380.8
80°	617.9	421.6	256.2	254.0	246.7	419.1	601.1	481.4	402.4	368.8	349.7
82.5°	330.4	254.0	208.3	208.3	215.6	390.4	565.3	440.7	361.7	344.9	294.6
85°	174.8	146.1	150.8	162.9	184.4	344.9	517.3	397.6	316.2	263.5	256.2
87.5°	88.7	93.5	93.5	110.1	141.4	280.2	426.2	328.2	268.2	215.6	210.7
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)