

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: P231288

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231288
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
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 4000K, 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: 12523 lumens
Efficiency: N/A
Efficacy: 136.1 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 (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

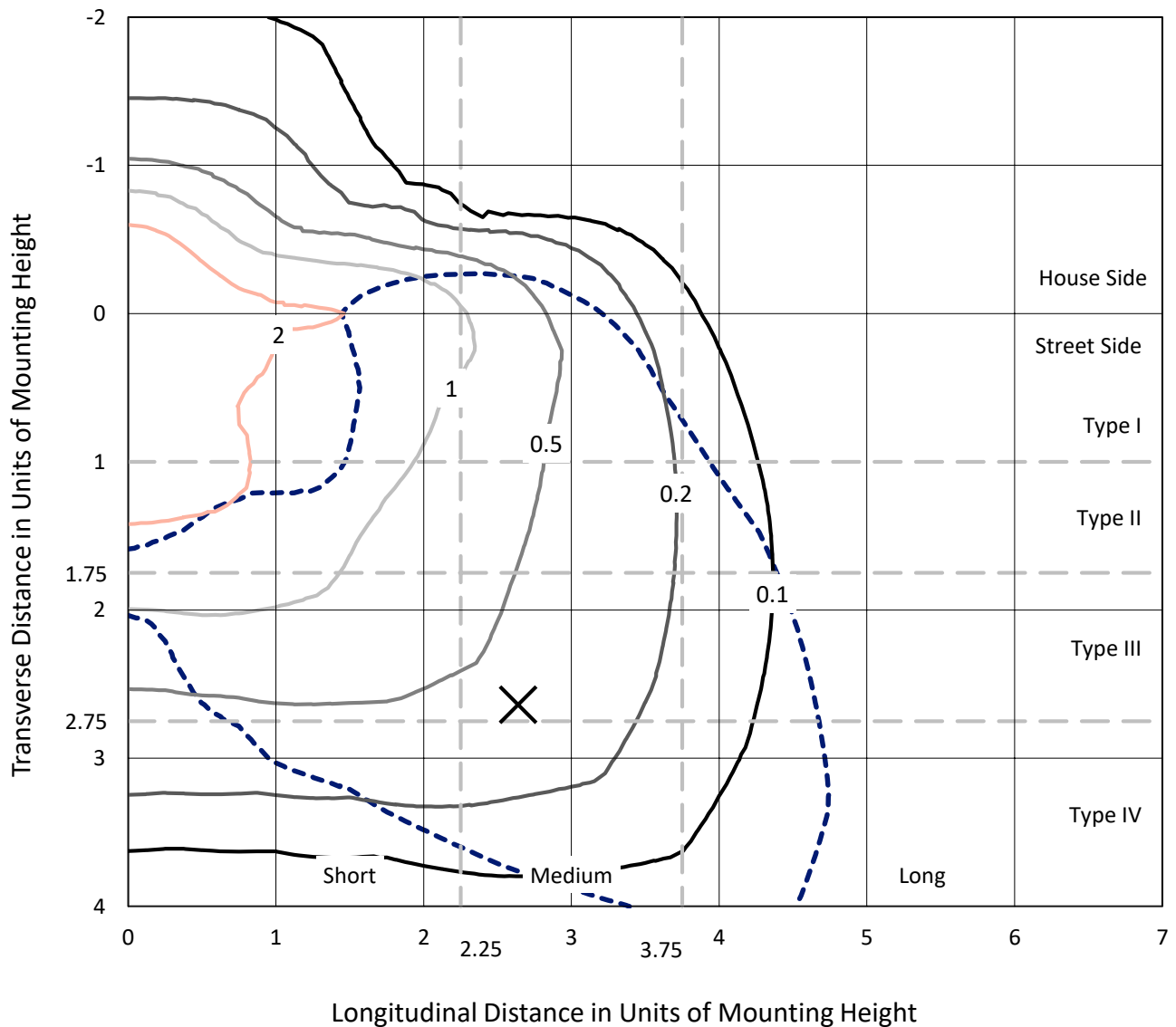


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Iso-Footcandle Lines of Horizontal Illumination

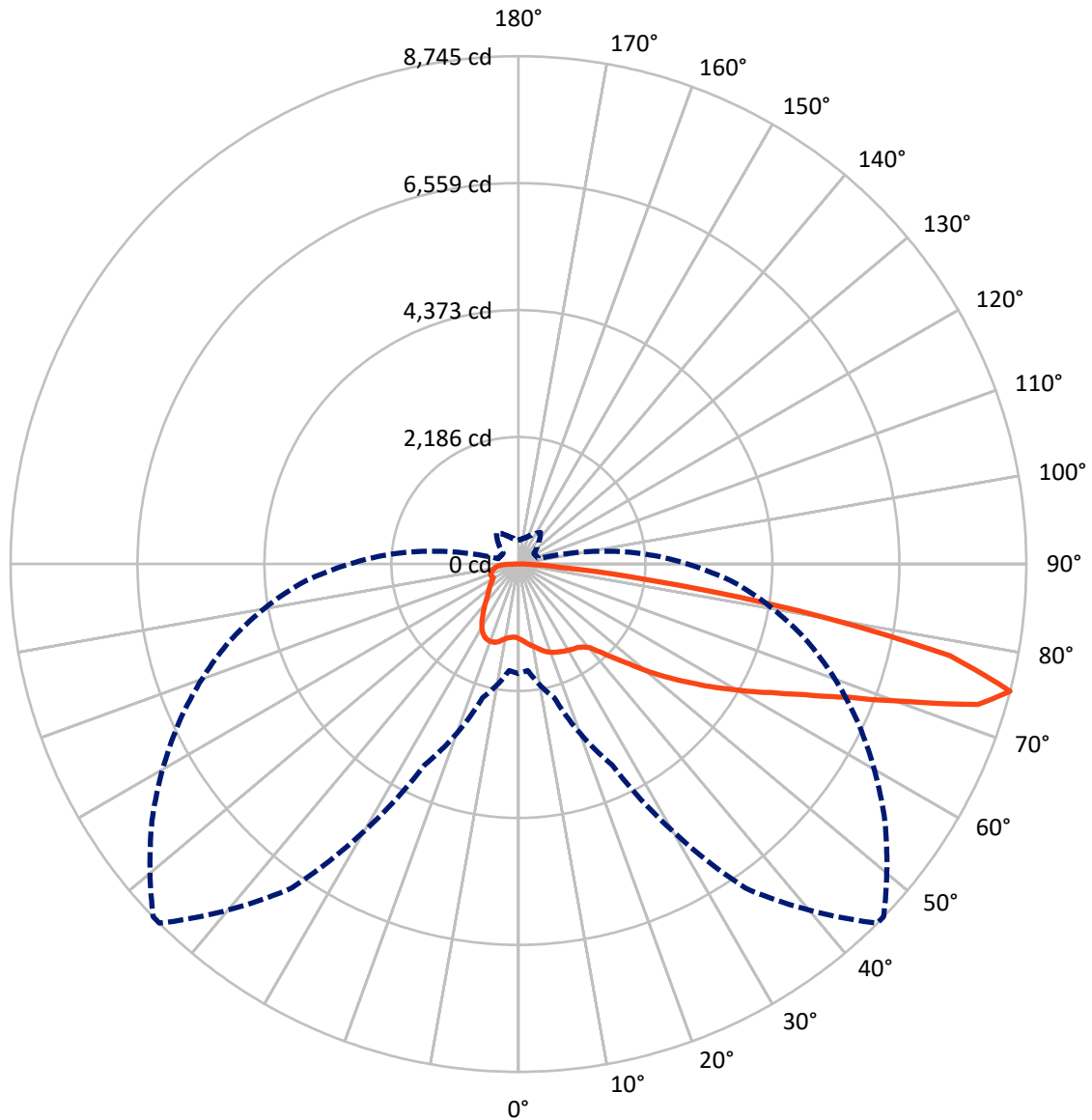
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 3.8 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	2901.0	0.0	2901.0
	% Fixture	23.2	0.0	23.2
Street Side	Lumens	9621.9	0.0	9621.9
	% Fixture	76.8	0.0	76.8
Total	Lumens	12523.0	0.0	12523.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	127.2	1.0
10°-20°	412.3	3.3
20°-30°	707.5	5.6
30°-40°	989.5	7.9
40°-50°	1451.4	11.6
50°-60°	2261.0	18.1
60°-70°	3253.4	26.0
70°-80°	2834.0	22.6
80°-90°	486.7	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°	12523.0	100.0
0°-180°	12523.0	100.0

Coefficient of Utilization



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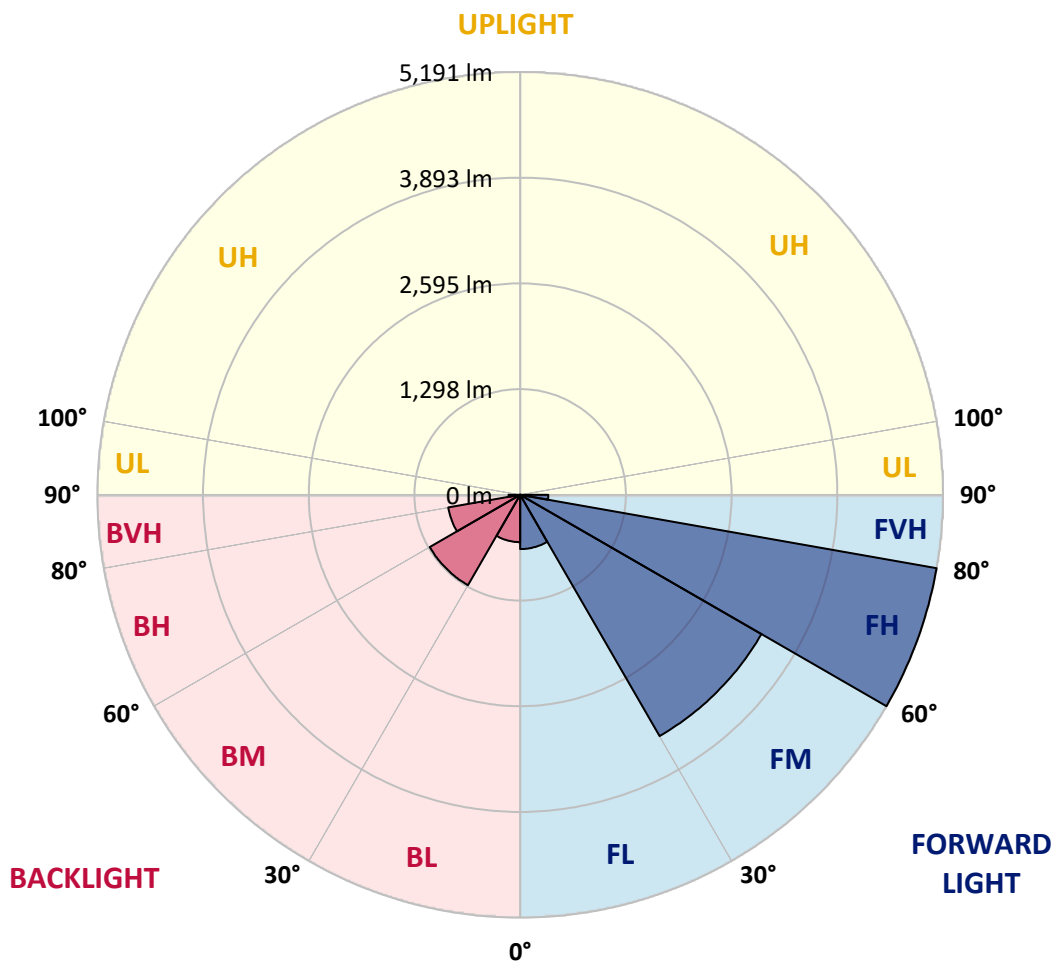
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	665.9	5.3			
FM	(30°-60°)	3419.8	27.3			
FH	(60°-80°)	5190.9	41.5			G3/7500
FVH	(80°-90°)	345.3	2.8			G3/500
BL	(0°-30°)	581.0	4.6	B2/1000		
BM	(30°-60°)	1282.1	10.2	B2/2500		
BH	(60°-80°)	896.5	7.2	B2/1000		G2/1000
BVH	(80°-90°)	141.4	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°	1283.8	1283.8	1283.8	1283.8	1283.8	1283.8	1283.8	1283.8	1283.8	1283.8	1283.8
2.5°	1347.1	1337.4	1337.4	1330.0	1330.0	1317.9	1313.1	1310.6	1298.4	1291.1	1283.8
5°	1425.1	1412.9	1410.4	1393.4	1386.1	1359.3	1356.8	1339.9	1317.9	1296.0	1278.9
7.5°	1495.8	1488.4	1476.2	1459.1	1437.2	1403.2	1400.7	1373.9	1337.4	1308.1	1283.8
10°	1546.9	1542.0	1524.9	1503.0	1478.7	1444.5	1442.2	1412.9	1369.0	1335.0	1300.8
12.5°	1607.8	1600.5	1578.5	1549.3	1522.6	1490.8	1488.4	1464.0	1415.4	1371.5	1327.6
15°	1666.3	1656.5	1629.7	1600.5	1571.3	1544.5	1544.5	1517.6	1466.5	1415.4	1364.2
17.5°	1695.4	1690.6	1663.8	1632.1	1607.8	1588.2	1585.9	1561.5	1510.3	1456.8	1400.7
20°	1705.3	1707.6	1683.3	1649.2	1632.1	1622.4	1619.9	1602.9	1546.9	1495.8	1442.2
22.5°	1702.8	1710.1	1690.6	1654.0	1649.2	1649.2	1649.2	1629.7	1585.9	1534.7	1481.1
25°	1712.5	1722.2	1707.6	1663.8	1663.8	1673.5	1673.5	1663.8	1624.9	1581.0	1527.4
27.5°	1746.6	1754.0	1741.8	1680.8	1683.3	1697.9	1695.4	1697.9	1673.5	1632.1	1578.5
30°	1788.0	1797.7	1783.2	1707.6	1705.3	1719.8	1719.8	1732.0	1715.0	1671.1	1627.3
32.5°	1900.1	1897.7	1851.3	1736.9	1729.6	1744.2	1744.2	1756.4	1746.6	1712.5	1671.1
35°	2233.8	2197.3	2095.0	1831.9	1758.8	1766.1	1766.1	1788.0	1792.9	1766.1	1729.6
37.5°	2574.9	2562.7	2484.7	2085.2	1866.0	1812.4	1810.0	1841.6	1863.5	1841.6	1817.3
40°	2918.4	2908.6	2891.6	2423.9	2090.1	1895.2	1888.0	1914.8	1953.7	1939.1	1924.5
42.5°	3237.4	3232.6	3249.6	2757.6	2375.1	2073.0	2051.1	2019.5	2075.5	2070.7	2070.7
45°	3488.4	3500.5	3510.3	3069.4	2684.5	2302.0	2275.2	2168.0	2243.5	2263.1	2277.7
47.5°	3629.6	3639.5	3673.5	3373.9	2993.9	2567.6	2548.1	2372.6	2472.6	2531.0	2572.4
50°	3831.9	3805.1	3834.3	3671.1	3366.5	2913.5	2859.9	2647.9	2774.7	2876.9	2974.3
52.5°	4026.7	3982.9	4007.2	4014.6	3790.4	3252.1	3196.0	2972.0	3130.3	3291.0	3464.0
55°	4202.2	4199.7	4224.1	4348.3	4199.7	3615.0	3551.7	3330.0	3559.1	3731.9	4024.3
57.5°	4343.4	4367.8	4475.0	4735.6	4672.3	4009.7	3939.1	3746.6	4017.0	4189.9	4674.7
60°	4509.1	4548.0	4725.8	5064.5	5103.5	4423.9	4350.7	4211.9	4487.2	4662.5	5427.5
62.5°	4565.1	4621.1	4986.6	5410.4	5554.1	4876.9	4811.1	4718.6	4981.7	5140.0	6177.7
65°	4192.4	4299.6	5130.3	5588.2	6038.9	5422.6	5366.5	5286.2	5473.7	5578.5	6686.8
67.5°	4090.1	4138.8	4850.1	5844.0	6494.4	6124.1	6068.1	5929.2	5934.1	5890.3	6852.5
70°	3946.3	3999.9	4562.7	6036.4	7147.3	7083.9	7015.7	6606.5	6355.6	6090.0	6526.1
72.5°	3361.7	3344.6	3931.7	5517.6	7461.5	8272.7	8192.3	7334.9	6667.4	5917.1	5507.9
75°	1888.0	1839.2	2384.9	3817.2	6813.6	8745.3	8742.9	7702.7	6448.2	5154.6	3749.0
77.5°	548.1	533.5	786.9	1600.5	4587.0	7598.0	7690.5	6947.5	5381.1	3702.8	2058.5
80°	258.2	263.1	338.6	528.7	1958.5	4903.7	5169.3	4574.8	3215.5	1707.6	850.2
82.5°	163.3	165.6	231.4	341.1	828.3	2226.6	2445.8	2058.5	1274.1	738.2	375.1
85°	102.3	102.3	153.4	224.1	494.5	711.4	772.2	701.5	545.6	401.9	204.6
87.5°	56.1	56.1	92.6	129.1	270.4	228.9	236.3	280.2	341.1	246.0	102.3
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°	1283.8	1283.8	1283.8	1283.8	1283.8	1283.8	1283.8	1283.8	1283.8	1283.8	1283.8
2.5°	1281.3	1276.4	1269.2	1266.7	1264.3	1261.8	1264.3	1269.2	1264.3	1264.3	1266.7
5°	1274.1	1269.2	1259.5	1259.5	1261.8	1264.3	1276.4	1283.8	1286.3	1286.3	1286.3
7.5°	1274.1	1266.7	1259.5	1261.8	1266.7	1276.4	1296.0	1308.1	1317.9	1320.3	1320.3
10°	1286.3	1276.4	1271.6	1276.4	1291.1	1298.4	1317.9	1337.4	1349.6	1354.4	1354.4
12.5°	1308.1	1298.4	1298.4	1308.1	1327.6	1337.4	1354.4	1369.0	1383.6	1391.0	1391.0
15°	1344.7	1332.5	1335.0	1352.0	1373.9	1383.6	1395.8	1400.7	1412.9	1422.6	1422.6
17.5°	1378.8	1366.6	1371.5	1391.0	1405.5	1410.4	1417.8	1415.4	1420.2	1427.5	1430.0
20°	1417.8	1405.5	1408.0	1420.2	1422.6	1417.8	1417.8	1410.4	1408.0	1420.2	1425.1
22.5°	1456.8	1444.5	1442.2	1434.8	1422.6	1410.4	1403.2	1395.8	1391.0	1403.2	1408.0
25°	1503.0	1485.9	1473.8	1442.2	1410.4	1388.6	1378.8	1373.9	1371.5	1383.6	1388.6
27.5°	1554.2	1537.1	1500.6	1432.3	1381.2	1344.7	1337.4	1337.4	1342.2	1349.6	1354.4
30°	1602.9	1585.9	1520.1	1410.4	1330.0	1276.4	1269.2	1276.4	1288.6	1296.0	1303.2
32.5°	1651.7	1634.6	1532.3	1376.4	1254.5	1186.3	1181.5	1193.7	1213.1	1218.0	1222.8
35°	1717.4	1700.3	1546.9	1327.6	1159.5	1086.5	1081.6	1088.9	1105.9	1113.3	1120.5
37.5°	1810.0	1800.2	1568.8	1274.1	1071.8	991.4	976.8	972.0	981.7	979.3	989.0
40°	1931.7	1939.1	1607.8	1203.4	986.6	903.8	872.1	857.4	847.7	828.3	838.0
42.5°	2109.6	2114.4	1651.7	1123.0	913.5	820.9	779.5	752.7	733.3	701.5	706.4
45°	2370.3	2328.8	1702.8	1037.8	847.7	755.1	706.4	674.7	647.9	621.1	623.6
47.5°	2716.1	2589.5	1758.8	967.1	781.9	701.5	657.8	621.1	589.5	567.6	570.0
50°	3142.5	2913.5	1814.8	901.3	716.2	660.1	621.1	582.2	550.6	528.7	526.2
52.5°	3705.2	3303.2	1851.3	828.3	650.4	623.6	589.5	553.0	514.0	487.2	484.8
55°	4289.8	3756.4	1883.0	740.5	587.1	582.2	565.2	523.8	477.4	443.3	438.4
57.5°	4933.0	4241.2	1907.4	655.3	538.4	548.1	543.2	494.5	443.3	411.7	409.3
60°	5517.6	4742.9	1829.4	579.8	494.5	514.0	518.8	477.4	450.7	458.0	460.4
62.5°	6107.1	5130.3	1532.3	523.8	465.2	492.0	533.5	531.0	518.8	531.0	533.5
65°	6319.1	5210.6	1086.5	477.4	436.1	501.9	579.8	574.9	518.8	496.9	492.0
67.5°	6199.7	4972.0	730.8	440.9	414.1	514.0	628.5	574.9	499.4	470.1	460.4
70°	5632.1	4384.9	535.9	404.4	394.7	511.6	655.3	572.4	489.7	458.0	445.8
72.5°	4492.0	3383.6	431.2	370.3	365.4	499.4	669.9	567.6	479.9	445.8	431.2
75°	2908.6	2104.7	362.9	336.1	321.5	479.9	662.6	553.0	467.7	423.9	414.1
77.5°	1349.6	906.2	309.3	297.2	280.2	450.7	640.7	523.8	440.9	399.5	387.3
80°	628.5	428.7	260.6	258.2	250.9	426.3	611.4	489.7	409.3	375.1	355.7
82.5°	336.1	258.2	212.0	212.0	219.2	397.1	574.9	448.3	367.9	350.8	299.6
85°	177.8	148.6	153.4	165.6	187.6	350.8	526.2	404.4	321.5	268.0	260.6
87.5°	90.1	95.0	95.0	112.0	143.7	285.0	433.6	333.7	272.8	219.2	214.4
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)