

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: P214889

Luminaire Tested: **ARCH-AF24-100-D-U-T4W-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P214889
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-AF24-100-D-U-T4W-7050
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 5000K, 1200mA LIGHT ENGINE WITH 24 LEDS AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9855 lumens
Efficiency: N/A
Efficacy: 102.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')
IES Classification: Type IV - Medium - Non-Cutoff
BUG Rating: B2 - U0 - G3

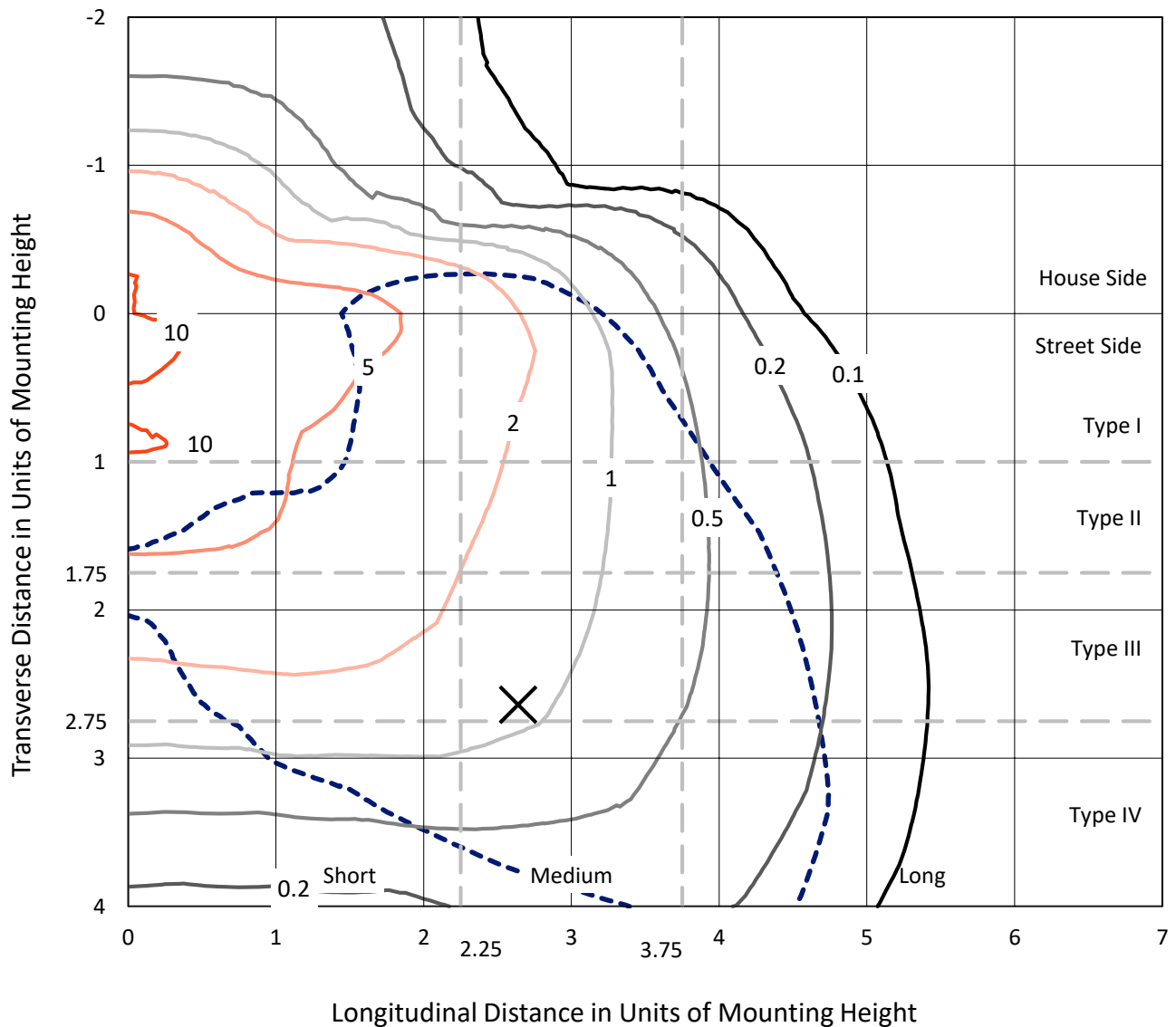
Input Watts (W): 96
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

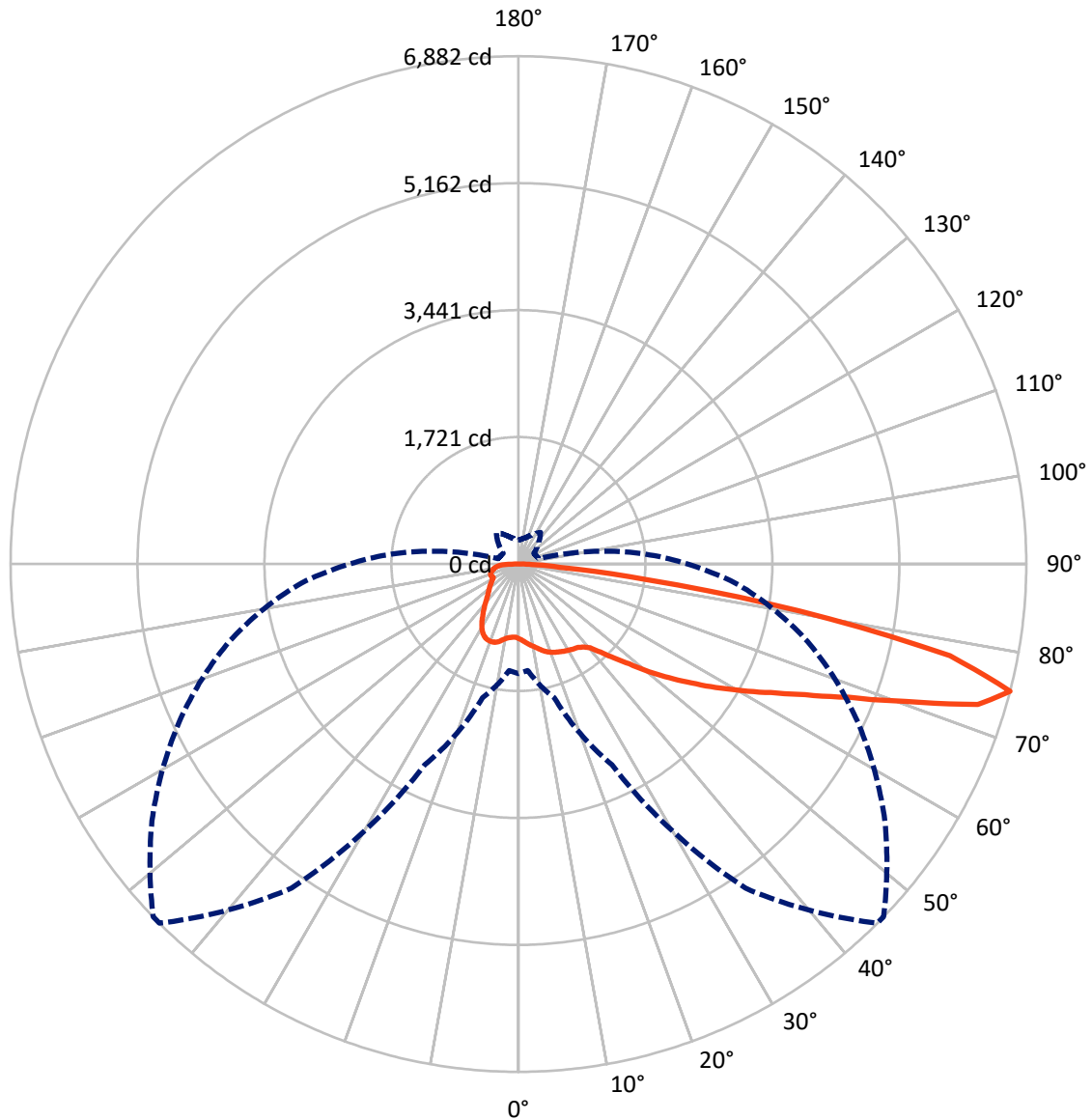
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 11.8 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	2283.0	0.0	2283.0
	% Fixture	23.2	0.0	23.2
Street Side	Lumens	7572.0	0.0	7572.0
	% Fixture	76.8	0.0	76.8
Total	Lumens	9855.0	0.0	9855.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.1	1.0
10°-20°	324.4	3.3
20°-30°	556.7	5.6
30°-40°	778.7	7.9
40°-50°	1142.2	11.6
50°-60°	1779.3	18.1
60°-70°	2560.2	26.0
70°-80°	2230.3	22.6
80°-90°	383.0	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°	9855.0	100.0
0°-180°	9855.0	100.0



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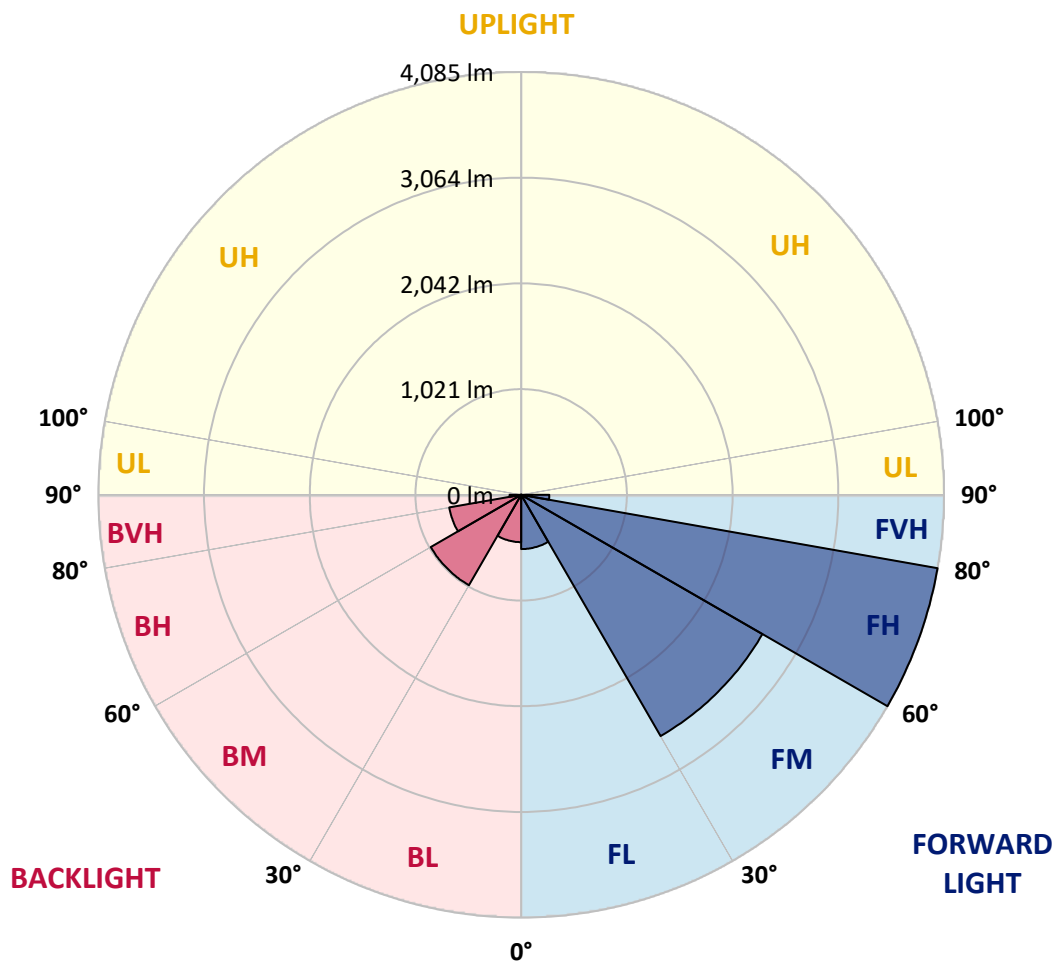
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	524.1	5.3			
FM (30°-60°)	2691.2	27.3			
FH (60°-80°)	4085.0	41.5			G2/5000
FVH (80°-90°)	271.8	2.8			G3/500
BL (0°-30°)	457.2	4.6	B1/500		
BM (30°-60°)	1009.0	10.2	B2/2500		
BH (60°-80°)	705.5	7.2	B2/1000		G2/1000
BVH (80°-90°)	111.3	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°	1010.3	1010.3	1010.3	1010.3	1010.3	1010.3	1010.3	1010.3	1010.3	1010.3	1010.3
2.5°	1060.1	1052.5	1052.5	1046.7	1046.7	1037.1	1033.3	1031.4	1021.8	1016.0	1010.3
5°	1121.5	1111.9	1110.0	1096.5	1090.8	1069.7	1067.8	1054.4	1037.1	1019.9	1006.4
7.5°	1177.1	1171.3	1161.7	1148.3	1131.1	1104.2	1102.3	1081.2	1052.5	1029.4	1010.3
10°	1217.3	1213.5	1200.1	1182.8	1163.6	1136.8	1134.9	1111.9	1077.4	1050.5	1023.7
12.5°	1265.2	1259.5	1242.2	1219.2	1198.1	1173.2	1171.3	1152.1	1113.8	1079.3	1044.8
15°	1311.3	1303.6	1282.5	1259.5	1236.5	1215.4	1215.4	1194.3	1154.1	1113.8	1073.5
17.5°	1334.3	1330.4	1309.3	1284.4	1265.2	1249.9	1248.0	1228.8	1188.6	1146.4	1102.3
20°	1341.9	1343.8	1324.7	1297.8	1284.4	1276.7	1274.8	1261.4	1217.3	1177.1	1134.9
22.5°	1340.0	1345.8	1330.4	1301.7	1297.8	1297.8	1297.8	1282.5	1248.0	1207.7	1165.6
25°	1347.7	1355.3	1343.8	1309.3	1309.3	1317.0	1317.0	1309.3	1278.7	1244.2	1202.0
27.5°	1374.5	1380.3	1370.7	1322.8	1324.7	1336.2	1334.3	1336.2	1317.0	1284.4	1242.2
30°	1407.1	1414.8	1403.3	1343.8	1341.9	1353.4	1353.4	1363.0	1349.6	1315.1	1280.6
32.5°	1495.3	1493.4	1456.9	1366.8	1361.1	1372.6	1372.6	1382.2	1374.5	1347.7	1315.1
35°	1757.9	1729.2	1648.6	1441.6	1384.1	1389.9	1389.9	1407.1	1410.9	1389.9	1361.1
37.5°	2026.3	2016.7	1955.4	1641.0	1468.4	1426.3	1424.4	1449.3	1466.5	1449.3	1430.1
40°	2296.6	2288.9	2275.5	1907.4	1644.8	1491.5	1485.7	1506.8	1537.5	1526.0	1514.5
42.5°	2547.7	2543.9	2557.3	2170.1	1869.1	1631.4	1614.1	1589.2	1633.3	1629.5	1629.5
45°	2745.2	2754.8	2762.4	2415.5	2112.6	1811.6	1790.5	1706.2	1765.6	1780.9	1792.4
47.5°	2856.4	2864.0	2890.9	2655.1	2356.0	2020.6	2005.2	1867.2	1945.8	1991.8	2024.4
50°	3015.5	2994.4	3017.4	2889.0	2649.3	2292.8	2250.6	2083.8	2183.5	2264.0	2340.7
52.5°	3168.9	3134.4	3153.5	3159.3	2982.9	2559.2	2515.1	2338.8	2463.4	2589.9	2726.0
55°	3306.9	3305.0	3324.1	3421.9	3305.0	2844.9	2795.0	2620.6	2800.8	2936.9	3166.9
57.5°	3418.1	3437.2	3521.6	3726.7	3676.9	3155.4	3099.8	2948.4	3161.2	3297.3	3678.8
60°	3548.4	3579.1	3719.0	3985.5	4016.2	3481.3	3423.8	3314.6	3531.2	3669.2	4271.2
62.5°	3592.5	3636.6	3924.2	4257.7	4370.8	3837.9	3786.1	3713.3	3920.3	4044.9	4861.6
65°	3299.2	3383.6	4037.3	4397.7	4752.3	4267.3	4223.2	4160.0	4307.6	4390.0	5262.3
67.5°	3218.7	3257.0	3816.8	4599.0	5110.8	4819.4	4775.3	4666.1	4669.9	4635.4	5392.6
70°	3105.6	3147.8	3590.6	4750.4	5624.6	5574.7	5521.1	5199.0	5001.5	4792.6	5135.7
72.5°	2645.5	2632.1	3094.1	4342.1	5871.9	6510.3	6447.0	5772.2	5246.9	4656.5	4334.4
75°	1485.7	1447.4	1876.8	3004.0	5361.9	6882.2	6880.2	6061.7	5074.4	4056.4	2950.3
77.5°	431.3	419.8	619.2	1259.5	3609.8	5979.2	6052.1	5467.4	4234.7	2913.9	1619.9
80°	203.2	207.0	266.5	416.0	1541.3	3859.0	4067.9	3600.2	2530.5	1343.8	669.0
82.5°	128.4	130.4	182.1	268.4	651.8	1752.2	1924.7	1619.9	1002.6	580.9	295.2
85°	80.5	80.5	120.8	176.4	389.2	559.8	607.7	552.1	429.4	316.3	161.0
87.5°	44.1	44.1	72.8	101.6	212.8	180.2	186.0	220.5	268.4	193.6	80.5
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°	1010.3	1010.3	1010.3	1010.3	1010.3	1010.3	1010.3	1010.3	1010.3	1010.3	1010.3
2.5°	1008.4	1004.5	998.8	996.9	994.9	993.0	994.9	998.8	994.9	994.9	996.9
5°	1002.6	998.8	991.1	991.1	993.0	994.9	1004.5	1010.3	1012.2	1012.2	1012.2
7.5°	1002.6	996.9	991.1	993.0	996.9	1004.5	1019.9	1029.4	1037.1	1039.0	1039.0
10°	1012.2	1004.5	1000.7	1004.5	1016.0	1021.8	1037.1	1052.5	1062.0	1065.9	1065.9
12.5°	1029.4	1021.8	1021.8	1029.4	1044.8	1052.5	1065.9	1077.4	1088.9	1094.6	1094.6
15°	1058.2	1048.6	1050.5	1064.0	1081.2	1088.9	1098.5	1102.3	1111.9	1119.5	1119.5
17.5°	1085.0	1075.5	1079.3	1094.6	1106.1	1110.0	1115.7	1113.8	1117.6	1123.4	1125.3
20°	1115.7	1106.1	1108.0	1117.6	1119.5	1115.7	1115.7	1110.0	1108.0	1117.6	1121.5
22.5°	1146.4	1136.8	1134.9	1129.1	1119.5	1110.0	1104.2	1098.5	1094.6	1104.2	1108.0
25°	1182.8	1169.4	1159.8	1134.9	1110.0	1092.7	1085.0	1081.2	1079.3	1088.9	1092.7
27.5°	1223.1	1209.6	1180.9	1127.2	1087.0	1058.2	1052.5	1052.5	1056.3	1062.0	1065.9
30°	1261.4	1248.0	1196.2	1110.0	1046.7	1004.5	998.8	1004.5	1014.1	1019.9	1025.6
32.5°	1299.7	1286.3	1205.8	1083.1	987.3	933.6	929.8	939.3	954.7	958.5	962.4
35°	1351.5	1338.1	1217.3	1044.8	912.5	855.0	851.2	856.9	870.3	876.1	881.8
37.5°	1424.4	1416.7	1234.6	1002.6	843.5	780.2	768.7	764.9	772.6	770.6	778.3
40°	1520.2	1526.0	1265.2	947.0	776.4	711.2	686.3	674.8	667.1	651.8	659.5
42.5°	1660.2	1664.0	1299.7	883.8	718.9	646.0	613.5	592.4	577.0	552.1	555.9
45°	1865.3	1832.7	1340.0	816.7	667.1	594.3	555.9	531.0	509.9	488.8	490.8
47.5°	2137.5	2037.8	1384.1	761.1	615.4	552.1	517.6	488.8	463.9	446.7	448.6
50°	2473.0	2292.8	1428.2	709.3	563.6	519.5	488.8	458.2	433.2	416.0	414.1
52.5°	2915.8	2599.5	1456.9	651.8	511.8	490.8	463.9	435.2	404.5	383.4	381.5
55°	3375.9	2956.1	1481.9	582.8	462.0	458.2	444.8	412.2	375.7	348.9	345.1
57.5°	3882.0	3337.6	1501.0	515.7	423.7	431.3	427.5	389.2	348.9	324.0	322.1
60°	4342.1	3732.5	1439.7	456.3	389.2	404.5	408.3	375.7	354.7	360.4	362.3
62.5°	4806.0	4037.3	1205.8	412.2	366.2	387.2	419.8	417.9	408.3	417.9	419.8
65°	4972.8	4100.5	855.0	375.7	343.1	394.9	456.3	452.4	408.3	391.1	387.2
67.5°	4878.9	3912.7	575.1	347.0	325.9	404.5	494.6	452.4	393.0	370.0	362.3
70°	4432.2	3450.7	421.7	318.2	310.6	402.6	515.7	450.5	385.3	360.4	350.8
72.5°	3535.0	2662.8	339.3	291.4	287.6	393.0	527.2	446.7	377.7	350.8	339.3
75°	2288.9	1656.3	285.6	264.6	253.0	377.7	521.4	435.2	368.1	333.6	325.9
77.5°	1062.0	713.1	243.5	233.9	220.5	354.7	504.2	412.2	347.0	314.4	304.8
80°	494.6	337.4	205.1	203.2	197.5	335.5	481.2	385.3	322.1	295.2	279.9
82.5°	264.6	203.2	166.8	166.8	172.5	312.5	452.4	352.7	289.5	276.1	235.8
85°	139.9	116.9	120.8	130.4	147.6	276.1	414.1	318.2	253.0	210.9	205.1
87.5°	70.9	74.8	74.8	88.2	113.1	224.3	341.2	262.6	214.7	172.5	168.7
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)