

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: P234838

Luminaire Tested: **ARCH-M-AF48-110-D-U-T4W-8027**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P234838  
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-8027  
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE  
(2) 80 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: 11011 lumens  
Efficiency: N/A  
Efficacy: 99.2 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

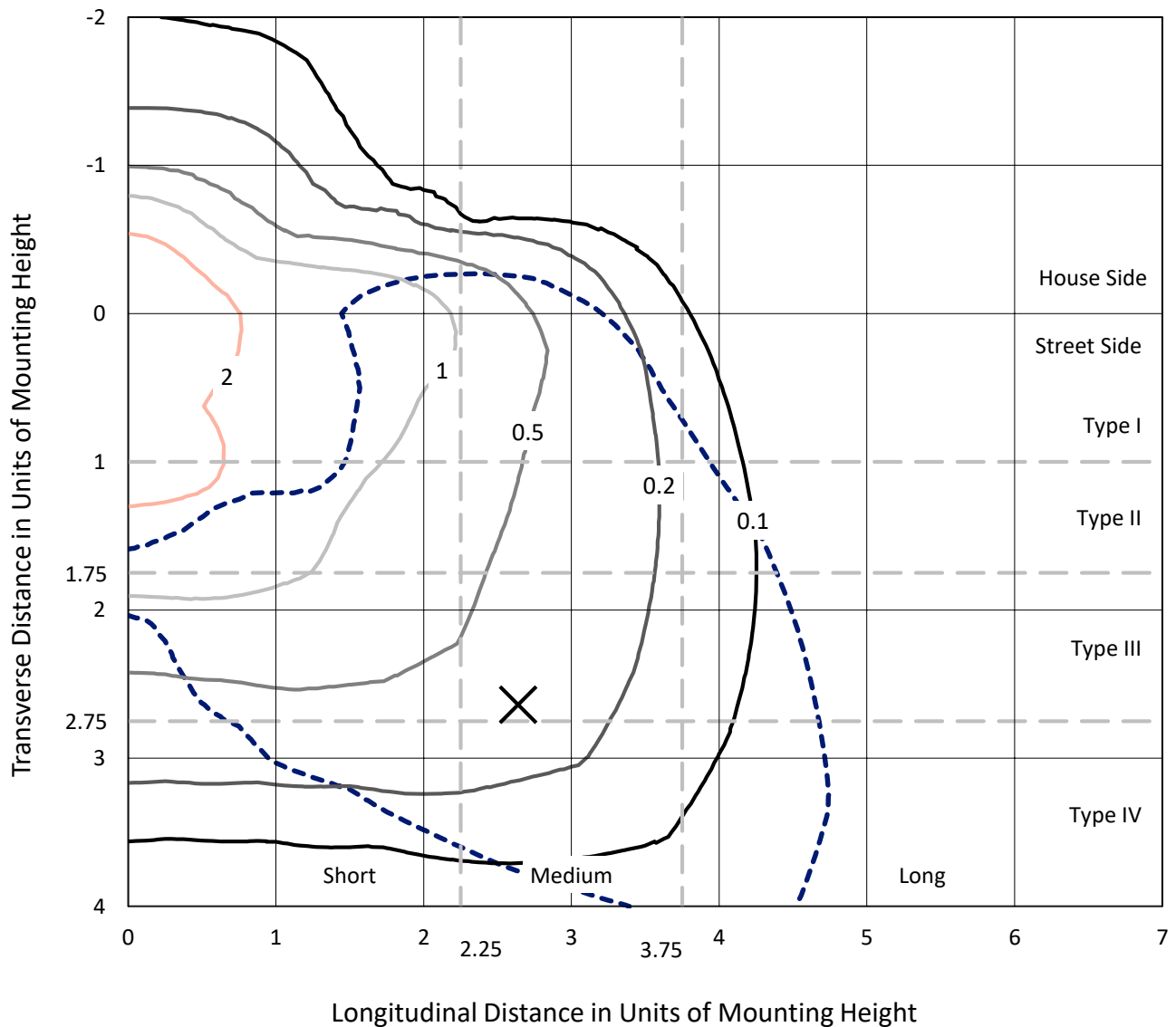


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

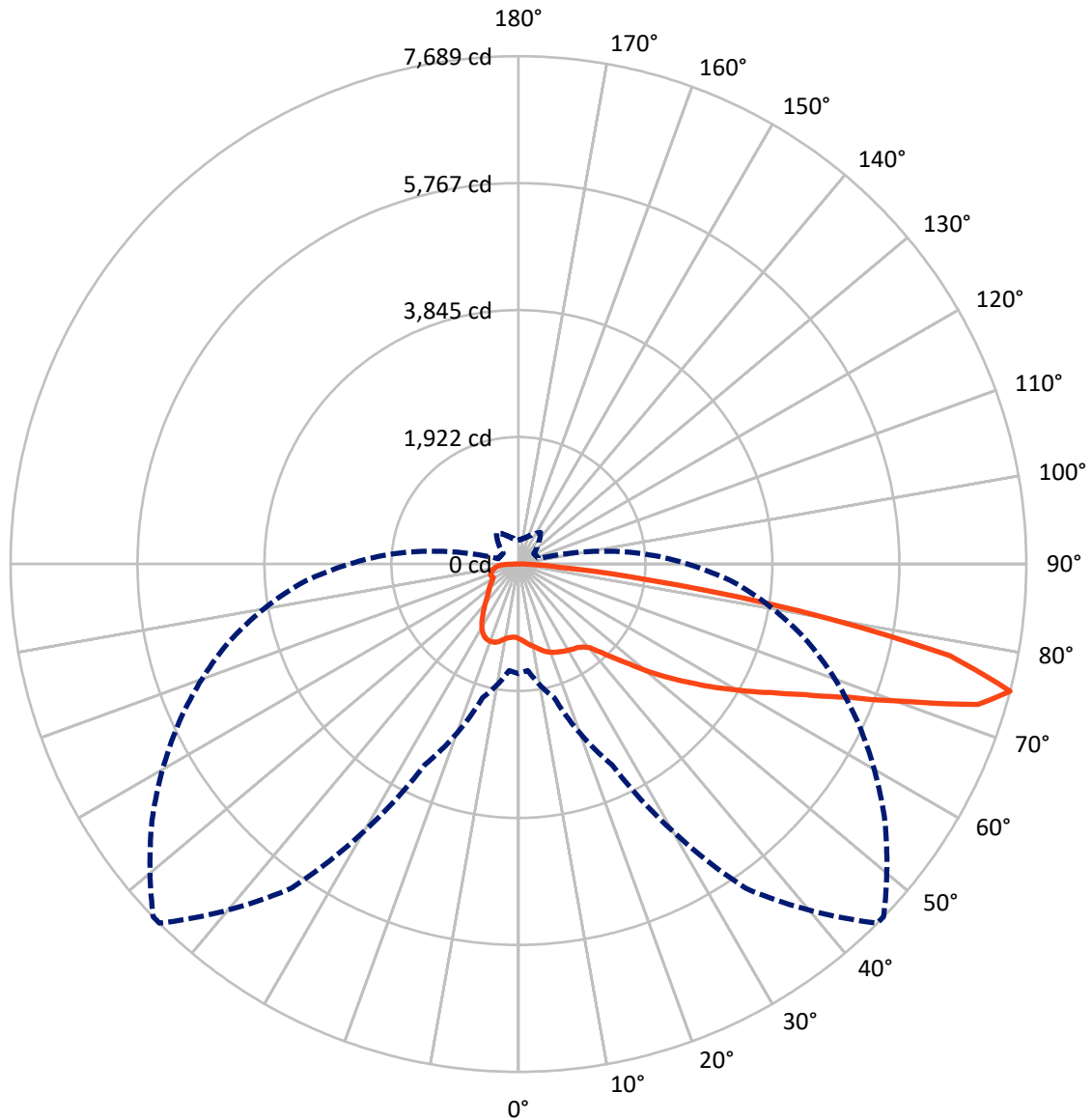


Based on 20 foot mounting height. Maximum calculated value = 3.3 fc  
 Type IV - Medium - Non-Cutoff

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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
<b>House Side</b>	Lumens	2550.8	0.0	2550.8
	% Fixture	23.2	0.0	23.2
<b>Street Side</b>	Lumens	8460.2	0.0	8460.2
	% Fixture	76.8	0.0	76.8
<b>Total</b>	Lumens	11011.0	0.0	11011.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	111.9	1.0
10°-20°	362.5	3.3
20°-30°	622.1	5.6
30°-40°	870.0	7.9
40°-50°	1276.2	11.6
50°-60°	1988.0	18.1
60°-70°	2860.6	26.0
70°-80°	2491.9	22.6
80°-90°	427.9	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°	11011.0	100.0
0°-180°	11011.0	100.0



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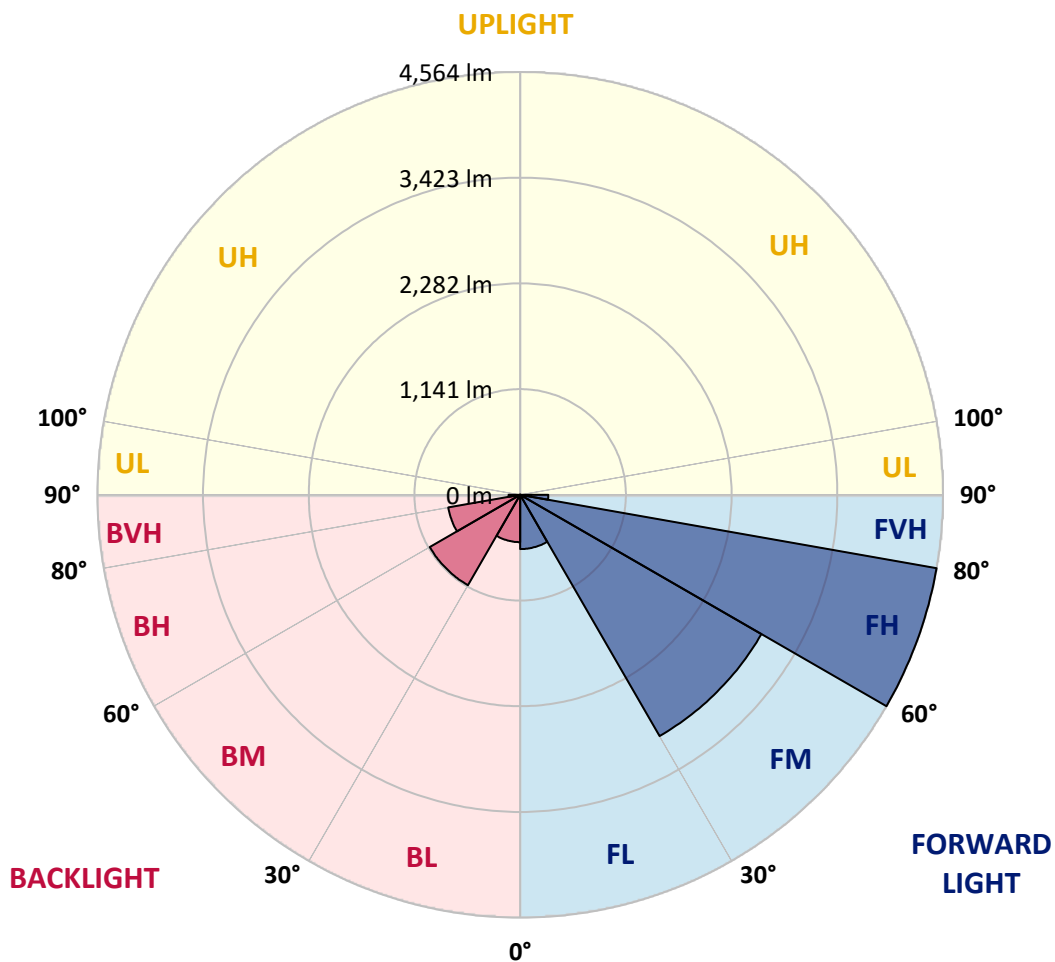
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	585.5	5.3			
FM	(30°-60°)	3006.9	27.3			
FH	(60°-80°)	4564.2	41.5			G2/5000
FVH	(80°-90°)	303.6	2.8			G3/500
BL	(0°-30°)	510.9	4.6	B2/1000		
BM	(30°-60°)	1127.3	10.2	B2/2500		
BH	(60°-80°)	788.3	7.2	B2/1000		G2/1000
BVH	(80°-90°)	124.3	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°	1128.8	1128.8	1128.8	1128.8	1128.8	1128.8	1128.8	1128.8	1128.8	1128.8	1128.8
2.5°	1184.5	1175.9	1175.9	1169.5	1169.5	1158.8	1154.5	1152.3	1141.6	1135.2	1128.8
5°	1253.0	1242.3	1240.2	1225.2	1218.7	1195.2	1193.0	1178.0	1158.8	1139.5	1124.5
7.5°	1315.1	1308.7	1298.0	1283.0	1263.7	1233.7	1231.6	1208.0	1175.9	1150.2	1128.8
10°	1360.1	1355.8	1340.8	1321.6	1300.1	1270.1	1268.0	1242.3	1203.8	1173.8	1143.8
12.5°	1413.7	1407.2	1388.0	1362.3	1338.7	1310.8	1308.7	1287.3	1244.4	1205.9	1167.3
15°	1465.1	1456.5	1432.9	1407.2	1381.5	1358.0	1358.0	1334.4	1289.4	1244.4	1199.5
17.5°	1490.8	1486.5	1462.9	1435.1	1413.7	1396.5	1394.4	1373.0	1328.0	1280.9	1231.6
20°	1499.3	1501.5	1480.1	1450.1	1435.1	1426.5	1424.4	1409.4	1360.1	1315.1	1268.0
22.5°	1497.2	1503.6	1486.5	1454.4	1450.1	1450.1	1450.1	1432.9	1394.4	1349.4	1302.3
25°	1505.8	1514.3	1501.5	1462.9	1462.9	1471.5	1471.5	1462.9	1428.7	1390.1	1343.0
27.5°	1535.7	1542.2	1531.5	1477.9	1480.1	1492.9	1490.8	1492.9	1471.5	1435.1	1388.0
30°	1572.2	1580.7	1567.9	1501.5	1499.3	1512.2	1512.2	1522.9	1507.9	1469.3	1430.8
32.5°	1670.7	1668.5	1627.8	1527.2	1520.8	1533.6	1533.6	1544.3	1535.7	1505.8	1469.3
35°	1964.1	1932.0	1842.0	1610.7	1546.5	1552.9	1552.9	1572.2	1576.4	1552.9	1520.8
37.5°	2264.0	2253.3	2184.7	1833.5	1640.7	1593.6	1591.4	1619.3	1638.6	1619.3	1597.9
40°	2566.0	2557.4	2542.4	2131.2	1837.8	1666.4	1660.0	1683.5	1717.8	1705.0	1692.1
42.5°	2846.6	2842.3	2857.3	2424.6	2088.4	1822.8	1803.5	1775.6	1824.9	1820.6	1820.6
45°	3067.2	3077.9	3086.5	2698.8	2360.4	2024.1	2000.5	1906.3	1972.7	1989.8	2002.7
47.5°	3191.4	3200.0	3230.0	2966.5	2632.4	2257.6	2240.4	2086.2	2174.0	2225.4	2261.9
50°	3369.2	3345.7	3371.4	3227.9	2960.1	2561.7	2514.6	2328.3	2439.6	2529.6	2615.3
52.5°	3540.6	3502.0	3523.4	3529.9	3332.8	2859.4	2810.2	2613.1	2752.3	2893.7	3045.8
55°	3694.8	3692.6	3714.1	3823.3	3692.6	3178.6	3122.9	2928.0	3129.3	3281.4	3538.4
57.5°	3819.0	3840.4	3934.7	4163.9	4108.2	3525.6	3463.5	3294.2	3532.0	3684.1	4110.3
60°	3964.7	3998.9	4155.3	4453.0	4487.3	3889.7	3825.4	3703.4	3945.4	4099.6	4772.2
62.5°	4013.9	4063.2	4384.5	4757.2	4883.5	4288.1	4230.3	4148.9	4380.2	4519.4	5431.9
65°	3686.2	3780.5	4510.9	4913.5	5309.8	4767.9	4718.6	4647.9	4812.9	4905.0	5879.5
67.5°	3596.3	3639.1	4264.5	5138.4	5710.3	5384.7	5335.5	5213.4	5217.7	5179.1	6025.2
70°	3469.9	3517.0	4011.8	5307.6	6284.3	6228.7	6168.7	5808.8	5588.2	5354.8	5738.2
72.5°	2955.8	2940.8	3457.0	4851.4	6560.7	7273.9	7203.2	6449.3	5862.4	5202.7	4842.8
75°	1660.0	1617.1	2096.9	3356.4	5990.9	7689.4	7687.3	6772.7	5669.6	4532.3	3296.4
77.5°	481.9	469.1	691.8	1407.2	4033.2	6680.6	6762.0	6108.7	4731.5	3255.7	1809.9
80°	227.0	231.3	297.7	464.8	1722.1	4311.7	4545.1	4022.5	2827.3	1501.5	747.5
82.5°	143.5	145.6	203.5	299.9	728.2	1957.7	2150.5	1809.9	1120.2	649.0	329.9
85°	90.0	90.0	134.9	197.1	434.8	625.4	679.0	616.9	479.8	353.4	179.9
87.5°	49.3	49.3	81.4	113.5	237.8	201.3	207.8	246.3	299.9	216.3	90.0
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°	1128.8	1128.8	1128.8	1128.8	1128.8	1128.8	1128.8	1128.8	1128.8	1128.8	1128.8
2.5°	1126.6	1122.4	1115.9	1113.8	1111.6	1109.5	1111.6	1115.9	1111.6	1111.6	1113.8
5°	1120.2	1115.9	1107.4	1107.4	1109.5	1111.6	1122.4	1128.8	1130.9	1130.9	1130.9
7.5°	1120.2	1113.8	1107.4	1109.5	1113.8	1122.4	1139.5	1150.2	1158.8	1160.9	1160.9
10°	1130.9	1122.4	1118.1	1122.4	1135.2	1141.6	1158.8	1175.9	1186.6	1190.9	1190.9
12.5°	1150.2	1141.6	1141.6	1150.2	1167.3	1175.9	1190.9	1203.8	1216.6	1223.0	1223.0
15°	1182.3	1171.6	1173.8	1188.8	1208.0	1216.6	1227.3	1231.6	1242.3	1250.9	1250.9
17.5°	1212.3	1201.6	1205.9	1223.0	1235.9	1240.2	1246.6	1244.4	1248.7	1255.2	1257.3
20°	1246.6	1235.9	1238.0	1248.7	1250.9	1246.6	1246.6	1240.2	1238.0	1248.7	1253.0
22.5°	1280.9	1270.1	1268.0	1261.6	1250.9	1240.2	1233.7	1227.3	1223.0	1233.7	1238.0
25°	1321.6	1306.6	1295.9	1268.0	1240.2	1220.9	1212.3	1208.0	1205.9	1216.6	1220.9
27.5°	1366.5	1351.5	1319.4	1259.4	1214.5	1182.3	1175.9	1175.9	1180.2	1186.6	1190.9
30°	1409.4	1394.4	1336.5	1240.2	1169.5	1122.4	1115.9	1122.4	1133.1	1139.5	1145.9
32.5°	1452.2	1437.2	1347.3	1210.2	1103.1	1043.1	1038.8	1049.5	1066.7	1071.0	1075.2
35°	1510.0	1495.0	1360.1	1167.3	1019.5	955.3	951.0	957.4	972.4	978.9	985.3
37.5°	1591.4	1582.9	1379.4	1120.2	942.4	871.8	858.9	854.6	863.2	861.0	869.6
40°	1698.5	1705.0	1413.7	1058.1	867.5	794.6	766.8	754.0	745.4	728.2	736.8
42.5°	1854.9	1859.2	1452.2	987.4	803.2	721.8	685.4	661.8	644.7	616.9	621.2
45°	2084.1	2047.7	1497.2	912.5	745.4	664.0	621.2	593.3	569.7	546.2	548.3
47.5°	2388.2	2276.8	1546.5	850.3	687.6	616.9	578.3	546.2	518.3	499.1	501.2
50°	2763.1	2561.7	1595.7	792.5	629.7	580.5	546.2	511.9	484.1	464.8	462.7
52.5°	3257.8	2904.4	1627.8	728.2	571.9	548.3	518.3	486.2	451.9	428.4	426.2
55°	3771.9	3302.8	1655.7	651.1	516.2	511.9	496.9	460.5	419.8	389.8	385.5
57.5°	4337.4	3729.1	1677.1	576.2	473.4	481.9	477.6	434.8	389.8	362.0	359.8
60°	4851.4	4170.3	1608.6	509.8	434.8	451.9	456.2	419.8	396.3	402.7	404.8
62.5°	5369.8	4510.9	1347.3	460.5	409.1	432.7	469.1	466.9	456.2	466.9	469.1
65°	5556.1	4581.5	955.3	419.8	383.4	441.2	509.8	505.5	456.2	436.9	432.7
67.5°	5451.1	4371.6	642.6	387.7	364.1	451.9	552.6	505.5	439.1	413.4	404.8
70°	4952.1	3855.4	471.2	355.6	347.0	449.8	576.2	503.3	430.5	402.7	392.0
72.5°	3949.7	2975.1	379.1	325.6	321.3	439.1	589.0	499.1	422.0	392.0	379.1
75°	2557.4	1850.6	319.1	295.6	282.7	422.0	582.6	486.2	411.2	372.7	364.1
77.5°	1186.6	796.8	272.0	261.3	246.3	396.3	563.3	460.5	387.7	351.3	340.6
80°	552.6	377.0	229.2	227.0	220.6	374.8	537.6	430.5	359.8	329.9	312.7
82.5°	295.6	227.0	186.3	186.3	192.8	349.1	505.5	394.1	323.4	308.4	263.5
85°	156.4	130.7	134.9	145.6	164.9	308.4	462.7	355.6	282.7	235.6	229.2
87.5°	79.3	83.5	83.5	98.5	126.4	250.6	381.3	293.4	239.9	192.8	188.5
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)