

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: P231031

Luminaire Tested: **ARCH-M-AF48-120-D-U-T2R**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231031
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29635)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-M-AF48-120-D-U-T2R
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 4000K, 785mA LIGHT ENGINES WITH 24 LEDS AND TYPE II ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15735 lumens
Efficiency: N/A
Efficacy: 129.0 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type II - Medium - Semi-Cutoff
BUG Rating: B2 - U0 - G2

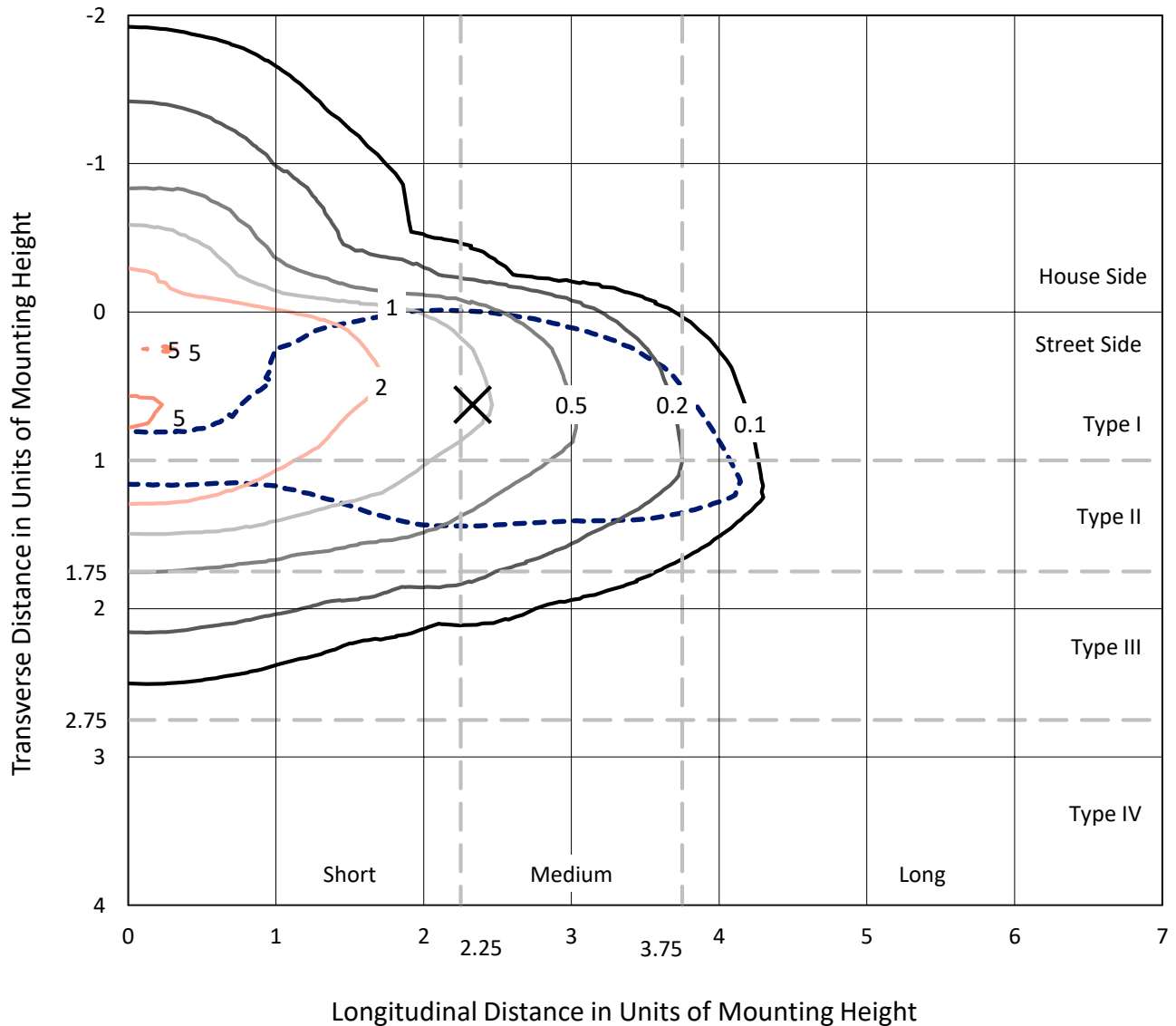
Input Watts (W): 122
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

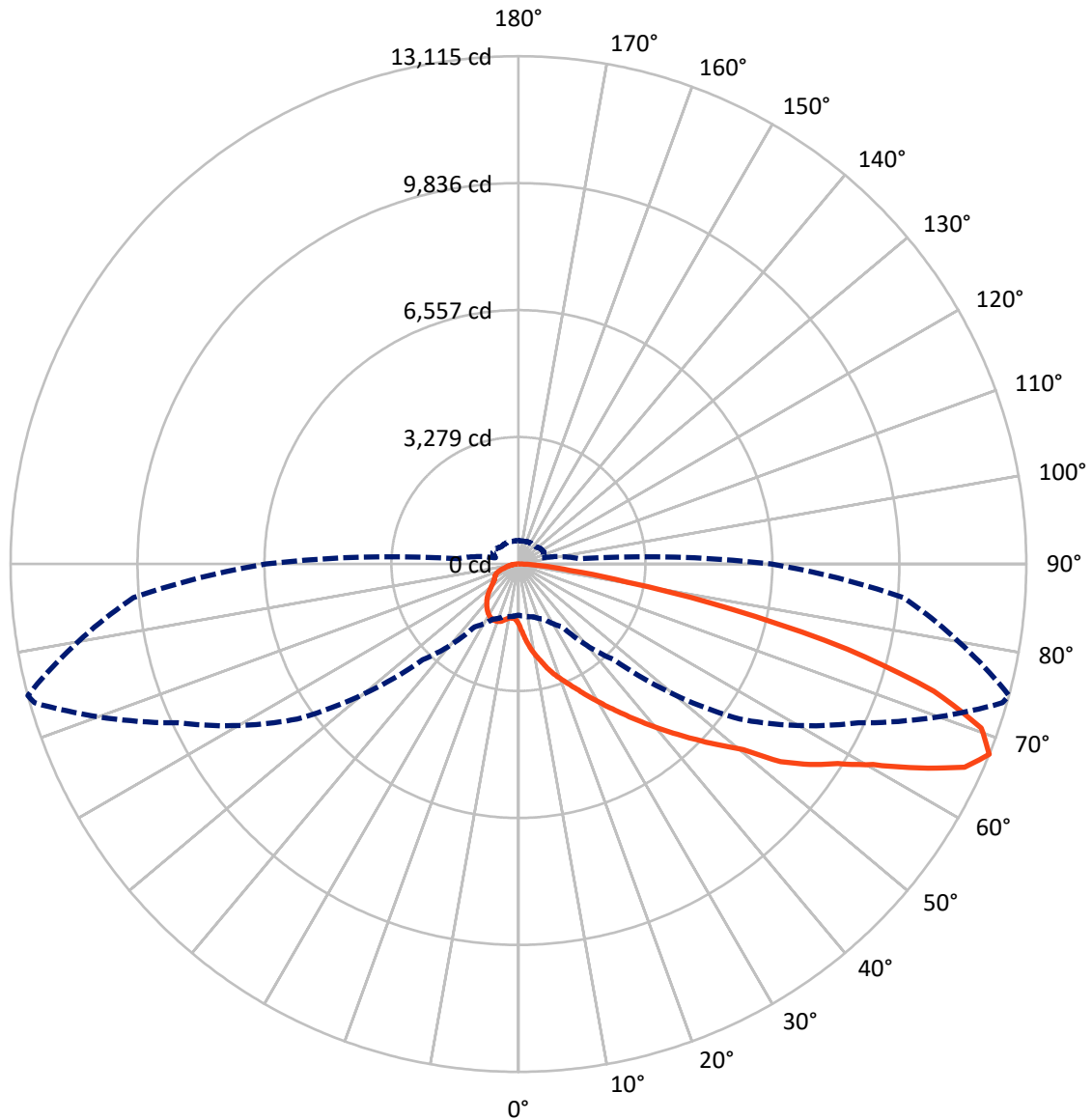
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.2 fc
 Type II - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2687.0	0.0	2687.0
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	13048.1	0.0	13048.1
	% Fixture	82.9	0.0	82.9
Total	Lumens	15735.0	0.0	15735.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	183.2	1.2
10°-20°	662.0	4.2
20°-30°	1207.4	7.7
30°-40°	1981.8	12.6
40°-50°	2865.9	18.2
50°-60°	3377.5	21.5
60°-70°	3282.1	20.9
70°-80°	1824.4	11.6
80°-90°	350.8	2.2
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°	15735.0	100.0
0°-180°	15735.0	100.0



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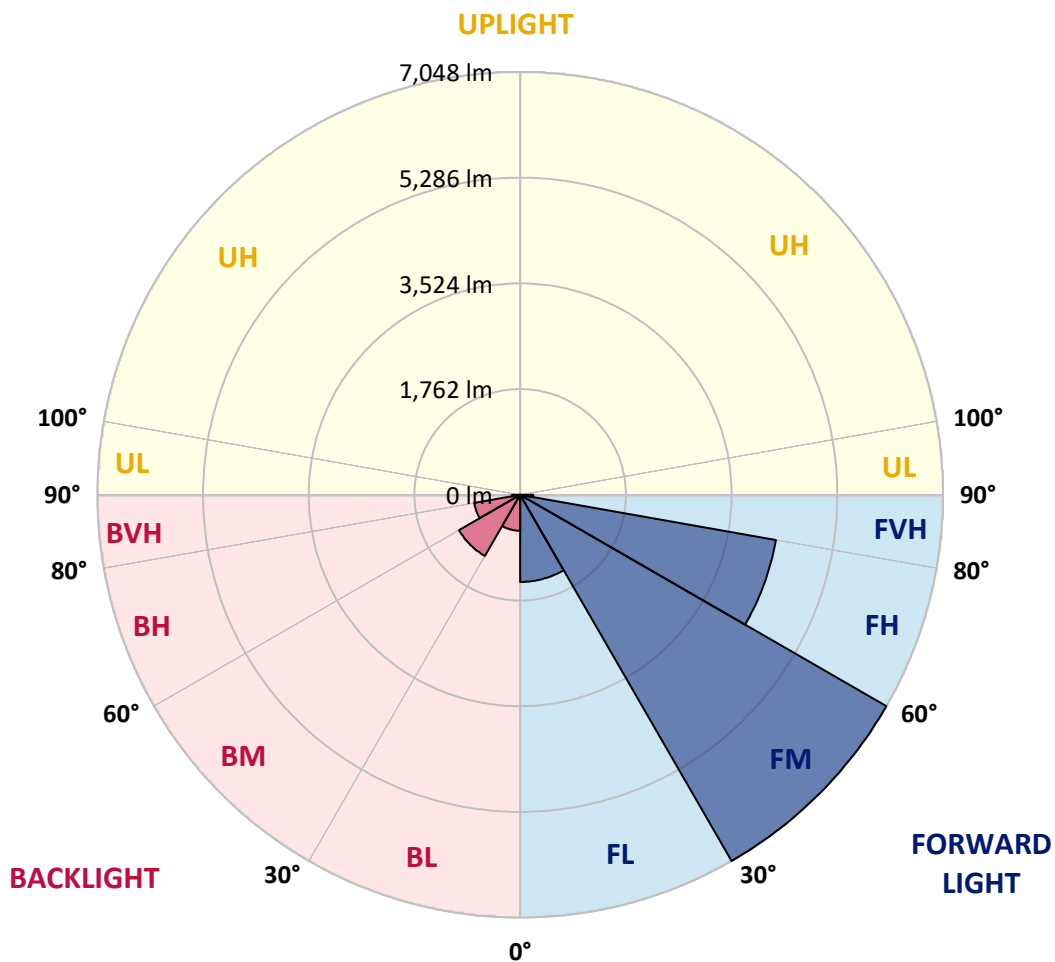
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1452.8	9.2			
FM	(30°-60°)	7048.5	44.8			
FH	(60°-80°)	4328.5	27.5			G2/5000
FVH	(80°-90°)	218.3	1.4			G2/225
BL	(0°-30°)	599.7	3.8	B2/1000		
BM	(30°-60°)	1176.7	7.5	B2/2500		
BH	(60°-80°)	778.0	4.9	B2/1000		G2/1000
BVH	(80°-90°)	132.5	0.8			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	74°	75°	85°
0°	1559.2	1559.2	1559.2	1559.2	1559.2	1559.2	1559.2	1559.2	1559.2	1559.2	1559.2
2.5°	2210.5	2217.0	2203.9	2174.3	2131.5	2052.6	1983.5	1861.8	1753.2	1740.1	1625.0
5°	2598.6	2605.3	2588.8	2552.6	2506.5	2421.0	2325.6	2167.7	1993.4	1960.5	1717.1
7.5°	2865.1	2868.4	2848.6	2812.5	2776.3	2690.8	2595.3	2417.7	2203.9	2177.6	1835.5
10°	3092.1	3098.6	3072.3	3049.3	3009.8	2924.3	2825.6	2638.1	2417.7	2381.5	1957.2
12.5°	3302.6	3309.1	3292.7	3272.9	3259.8	3180.9	3072.3	2848.6	2611.8	2572.3	2102.0
15°	3444.1	3450.6	3453.9	3480.2	3496.7	3440.7	3332.2	3088.8	2822.3	2786.1	2273.0
17.5°	3404.6	3421.0	3470.4	3565.7	3667.7	3671.0	3582.2	3325.6	3029.6	2990.1	2447.3
20°	3289.4	3302.6	3361.8	3506.6	3707.2	3822.4	3815.7	3565.7	3223.6	3180.9	2608.5
22.5°	3384.8	3401.3	3401.3	3490.1	3687.4	3901.2	3986.7	3802.6	3417.7	3378.2	2769.7
25°	3792.7	3802.6	3733.5	3697.4	3769.7	3967.0	4128.2	4059.2	3654.6	3608.5	2944.1
27.5°	4361.8	4345.3	4259.8	4115.0	4036.2	4088.7	4253.2	4302.5	3927.6	3871.7	3124.9
30°	4927.6	4917.7	4819.0	4625.0	4447.3	4335.5	4391.4	4519.7	4223.7	4157.8	3299.3
32.5°	5457.1	5440.7	5332.1	5105.1	4904.5	4697.3	4588.8	4717.0	4539.4	4463.7	3493.4
35°	5944.0	5901.2	5792.7	5555.9	5348.6	5151.3	4884.8	4904.5	4881.5	4802.5	3707.2
37.5°	6338.7	6305.8	6187.4	5967.0	5746.6	5559.1	5279.6	5118.3	5249.9	5174.3	3953.9
40°	6687.4	6651.2	6529.5	6309.2	6105.2	5927.6	5707.1	5378.2	5664.4	5578.9	4230.2
42.5°	6950.5	6924.3	6825.5	6608.5	6411.0	6249.9	6141.4	5707.1	6095.3	6013.1	4532.8
45°	7092.0	7065.7	7013.0	6838.7	6657.8	6532.8	6542.7	6098.6	6546.0	6476.9	4891.3
47.5°	6917.7	6937.3	6983.5	6950.5	6838.7	6779.5	6901.2	6503.2	7049.3	6983.5	5279.6
50°	6450.5	6470.3	6654.5	6881.5	6921.0	6993.3	7223.6	6970.3	7582.1	7529.5	5759.8
52.5°	5302.6	5411.1	5920.9	6463.7	6835.5	7134.8	7582.1	7664.4	8480.2	8480.2	6608.5
55°	4006.5	4101.9	4684.1	5631.4	6503.2	7147.9	7845.3	8134.7	9128.2	9141.3	7052.5
57.5°	3246.6	3305.9	3592.1	4562.5	5805.9	6983.5	8157.7	8539.4	9667.6	9726.8	7624.9
60°	2634.8	2667.8	2855.3	3529.6	4842.0	6539.4	8381.4	9118.3	10437.4	10519.6	8355.2
62.5°	2118.4	2151.3	2276.3	2680.8	3799.2	5707.1	8342.0	9720.3	11463.6	11598.5	9312.3
65°	1690.7	1726.9	1809.2	2059.2	2815.8	4674.3	7937.4	10029.4	12526.1	12657.7	9947.2
67.5°	1319.1	1351.9	1407.9	1572.4	1983.5	3496.7	6980.2	9703.8	13003.1	13114.9	9980.1
70°	996.7	1013.1	1059.2	1164.4	1417.7	2322.3	5463.8	8611.7	12575.4	12677.4	9322.3
72.5°	773.0	769.8	796.1	848.6	990.1	1598.7	3621.7	7003.2	11118.2	11223.5	7953.9
75°	631.6	628.3	644.8	661.1	717.1	1072.4	2138.2	5272.9	8973.5	8772.9	5967.0
77.5°	532.9	529.6	546.1	549.3	572.3	740.1	1217.1	3470.4	5986.7	5641.4	3361.8
80°	450.6	447.3	467.1	473.6	490.1	542.8	700.6	1878.2	3006.6	2848.6	1605.2
82.5°	338.8	352.0	388.1	404.6	424.3	401.3	434.2	828.9	1394.7	1332.2	697.3
85°	164.5	194.1	292.8	325.6	348.7	253.3	296.0	391.5	628.3	598.6	282.8
87.5°	56.0	49.3	174.3	207.2	227.0	115.1	164.5	217.1	259.8	236.8	88.8
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°	1559.2	1559.2	1559.2	1559.2	1559.2	1559.2	1559.2	1559.2	1559.2	1559.2	1559.2
2.5°	1575.7	1526.2	1453.9	1398.0	1361.9	1332.2	1319.1	1315.7	1309.2	1305.9	1305.9
5°	1608.5	1519.7	1407.9	1348.7	1332.2	1319.1	1325.6	1328.9	1328.9	1328.9	1328.9
7.5°	1657.9	1532.9	1398.0	1358.6	1355.2	1355.2	1374.9	1384.9	1391.4	1391.4	1391.4
10°	1723.7	1555.9	1414.4	1381.6	1391.4	1398.0	1421.0	1434.2	1440.7	1444.1	1447.4
12.5°	1812.5	1605.2	1447.4	1421.0	1434.2	1437.5	1453.9	1460.5	1467.1	1470.4	1470.4
15°	1930.9	1677.6	1500.0	1467.1	1470.4	1467.1	1467.1	1460.5	1457.2	1457.2	1463.8
17.5°	2052.6	1746.7	1546.0	1500.0	1486.9	1460.5	1440.7	1424.4	1414.4	1407.9	1411.2
20°	2174.3	1809.2	1572.4	1506.6	1470.4	1427.6	1391.4	1368.4	1355.2	1342.1	1348.7
22.5°	2296.0	1868.4	1582.2	1486.9	1434.2	1371.7	1332.2	1296.1	1266.4	1246.7	1249.9
25°	2430.8	1934.2	1582.2	1463.8	1384.9	1319.1	1269.7	1210.5	1167.7	1151.3	1157.9
27.5°	2565.8	1990.2	1565.7	1421.0	1328.9	1263.1	1190.8	1121.7	1095.4	1085.6	1088.8
30°	2700.6	2032.9	1529.6	1368.4	1269.7	1197.4	1101.9	1055.9	1023.1	996.7	999.9
32.5°	2835.5	2062.5	1480.2	1302.6	1207.2	1115.1	1036.1	983.6	924.3	891.4	894.7
35°	2990.1	2085.5	1421.0	1236.8	1138.1	1042.8	983.6	898.0	835.5	809.2	802.6
37.5°	3151.3	2102.0	1358.6	1164.4	1069.1	990.1	930.9	825.6	766.4	730.3	727.0
40°	3325.6	2108.5	1282.9	1088.8	1003.3	957.2	861.8	782.9	680.9	657.9	657.9
42.5°	3532.9	2105.2	1207.2	1013.1	930.9	881.6	812.5	776.3	687.5	664.5	651.3
45°	3769.7	2105.2	1124.9	924.3	858.6	786.1	756.6	733.6	674.3	684.1	690.8
47.5°	4039.4	2098.7	1026.3	851.9	799.3	736.8	720.4	671.1	648.0	654.6	661.1
50°	4411.2	2108.5	937.5	792.8	756.6	703.9	684.1	657.9	648.0	651.3	648.0
52.5°	4927.6	2075.7	851.9	756.6	723.6	654.6	654.6	651.3	654.6	651.3	651.3
55°	5210.4	2003.2	789.4	736.8	700.6	631.6	644.8	651.3	657.9	654.6	654.6
57.5°	5611.8	1953.9	740.1	723.6	687.5	625.0	638.1	651.3	654.6	651.3	651.3
60°	6085.4	1921.0	707.3	727.0	677.6	625.0	641.4	651.3	648.0	644.8	644.8
62.5°	6634.8	1907.9	684.1	736.8	667.8	628.3	641.4	651.3	638.1	634.8	634.8
65°	6842.0	1789.4	654.6	743.4	674.3	628.3	638.1	641.4	625.0	621.7	618.4
67.5°	6522.9	1585.5	611.8	730.3	694.1	628.3	628.3	625.0	605.3	602.0	595.4
70°	5809.1	1315.7	546.1	687.5	707.3	631.6	615.1	598.6	578.9	578.9	565.8
72.5°	4756.5	1036.1	460.5	611.8	697.3	641.4	588.8	565.8	542.8	542.8	529.6
75°	3427.6	773.0	368.4	509.8	654.6	638.1	555.9	526.3	500.0	496.7	480.3
77.5°	1953.9	542.8	299.3	398.0	582.3	621.7	526.3	480.3	450.6	440.8	430.9
80°	1003.3	365.1	243.5	312.5	483.5	575.6	503.3	427.6	394.8	378.3	361.8
82.5°	477.0	243.5	187.5	230.3	365.1	503.3	473.6	368.4	332.3	312.5	292.8
85°	213.8	144.7	125.0	148.0	259.8	391.5	417.8	302.6	259.8	325.6	240.1
87.5°	69.0	65.8	65.8	69.0	125.0	171.0	306.0	223.7	207.2	171.0	144.7
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)