

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: P231144

Luminaire Tested: **ARCH-M-AF48-80-D-U-T3-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231144
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29465)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-M-AF48-80-D-U-T3-7030
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 3000K, 535mA LIGHT ENGINES WITH 24 LEDS AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9845 lumens
Efficiency: N/A
Efficacy: 118.6 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type III - Short - Non-Cutoff
BUG Rating: B2 - U0 - G2

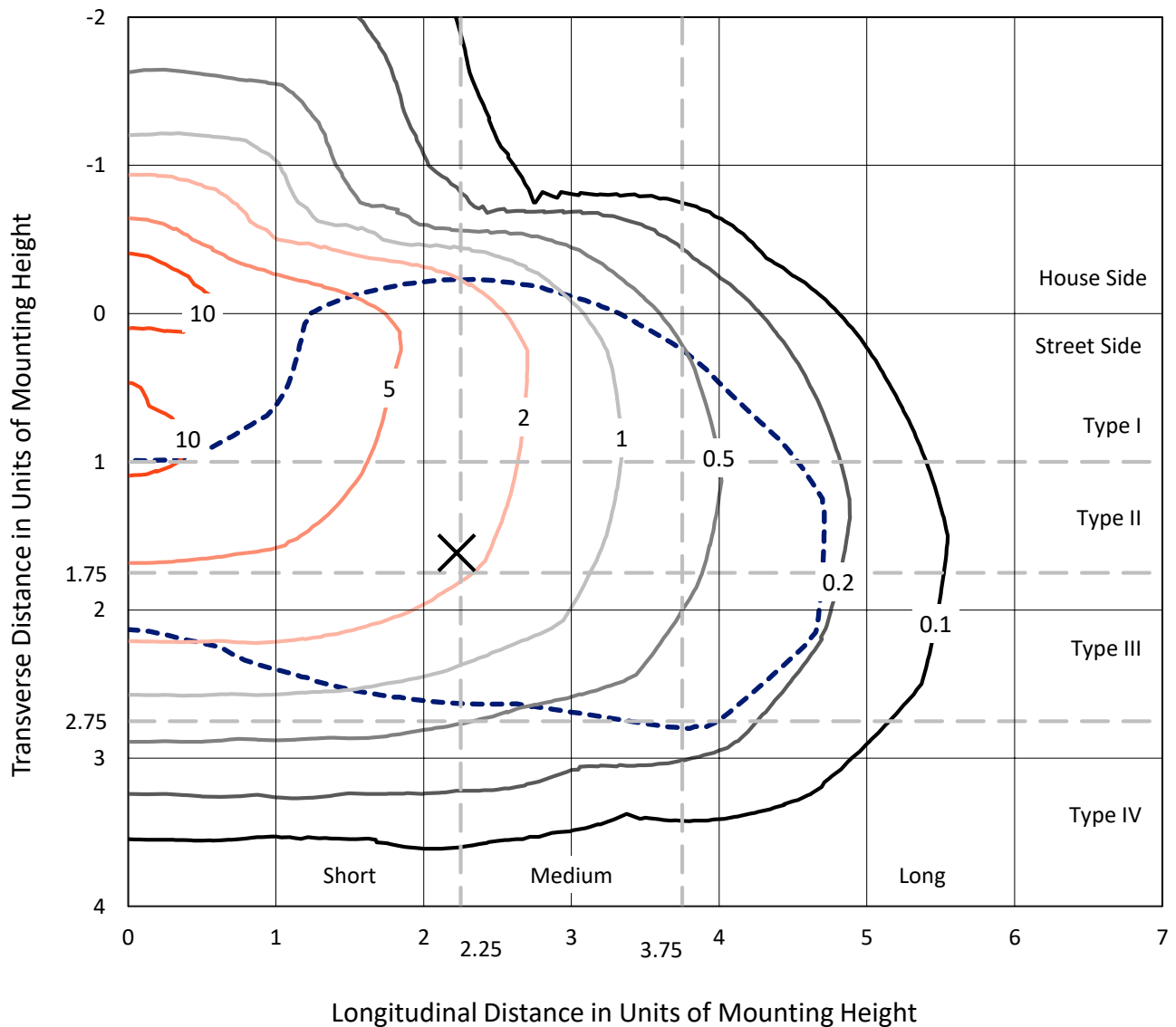
Input Watts (W): 83
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

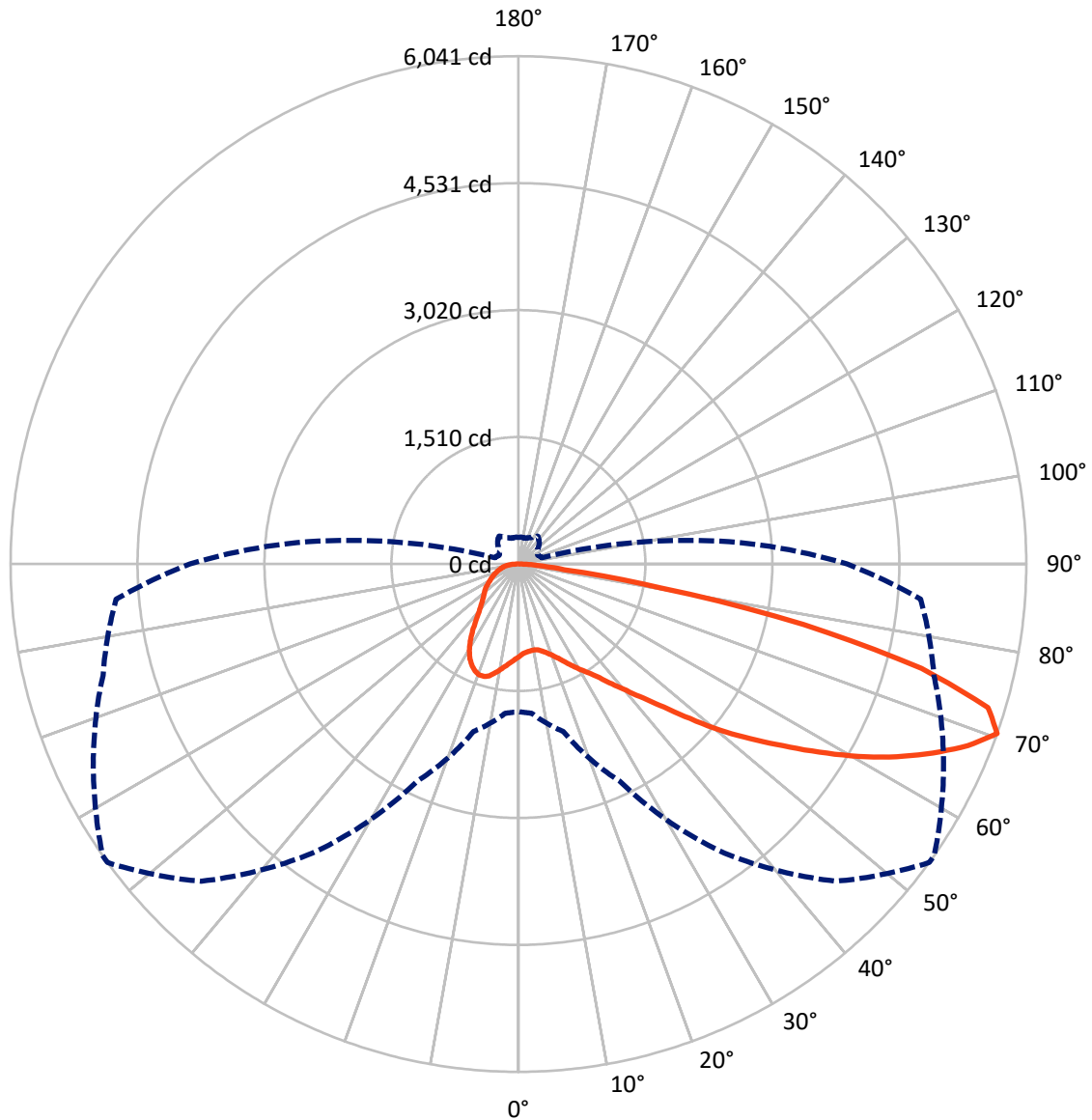
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 12.8 fc
 Type III - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 54-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2232.8	0.0	2232.8
	% Fixture	22.7	0.0	22.7
Street Side	Lumens	7612.2	0.0	7612.2
	% Fixture	77.3	0.0	77.3
Total	Lumens	9845.0	0.0	9845.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	108.1	1.1
10°-20°	345.4	3.5
20°-30°	600.1	6.1
30°-40°	876.9	8.9
40°-50°	1376.3	14.0
50°-60°	2116.4	21.5
60°-70°	2585.7	26.3
70°-80°	1603.2	16.3
80°-90°	232.9	2.4
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°	9845.0	100.0
0°-180°	9845.0	100.0

Coefficient of Utilization



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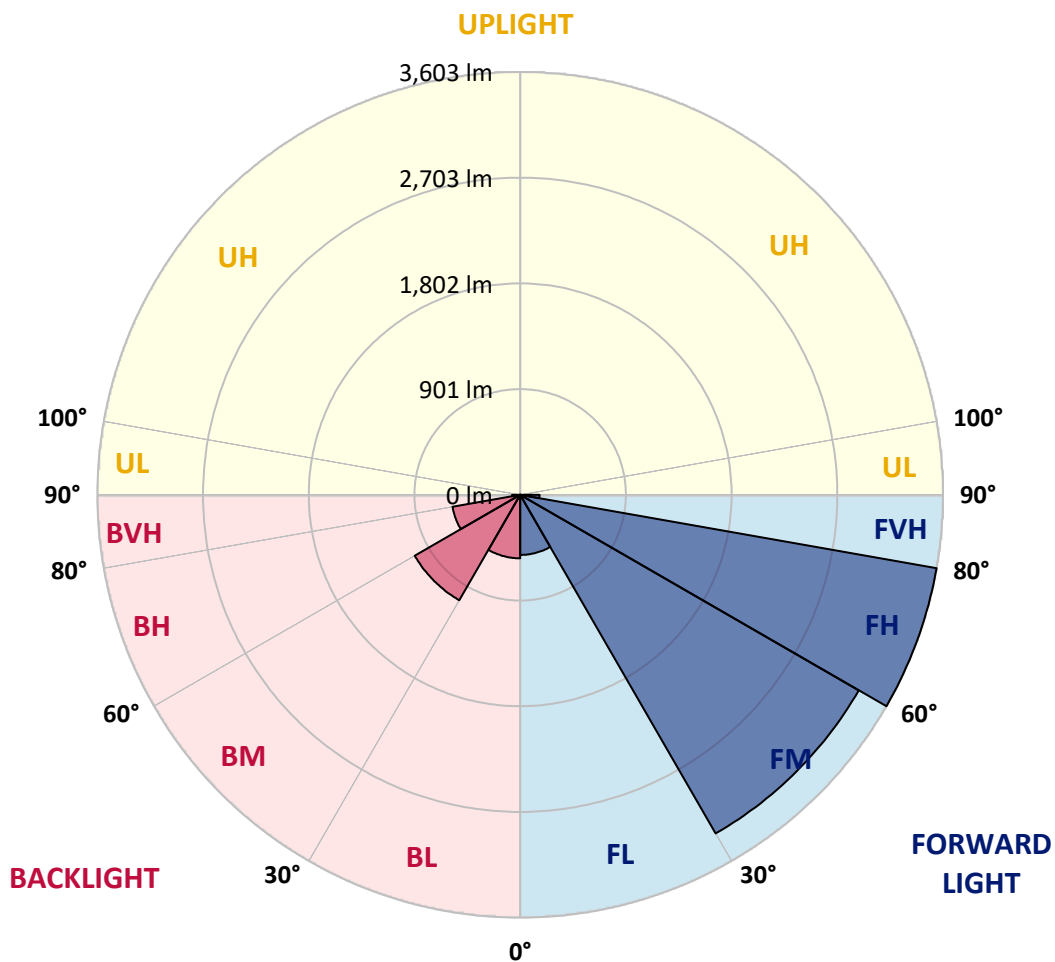
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	512.2	5.2			
FM	(30°-60°)	3332.1	33.8			
FH	(60°-80°)	3603.4	36.6			G2/5000
FVH	(80°-90°)	164.5	1.7			G2/225
BL	(0°-30°)	541.3	5.5	B2/1000		
BM	(30°-60°)	1037.6	10.5	B2/2500		
BH	(60°-80°)	585.5	5.9	B2/1000		G2/1000
BVH	(80°-90°)	68.4	0.7			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	54°	55°	65°	75°	85°
0°	1101.5	1101.5	1101.5	1101.5	1101.5	1101.5	1101.5	1101.5	1101.5	1101.5	1101.5
2.5°	1058.2	1054.6	1054.6	1060.0	1061.8	1067.2	1067.2	1069.0	1074.4	1083.4	1094.2
5°	1025.7	1023.9	1025.7	1033.0	1036.6	1047.4	1051.0	1052.8	1063.6	1078.0	1094.2
7.5°	993.3	991.5	995.1	1005.9	1016.7	1033.0	1042.0	1043.8	1060.0	1079.8	1101.5
10°	982.5	980.7	986.1	995.1	1005.9	1023.9	1038.4	1040.2	1063.6	1087.0	1117.7
12.5°	996.9	995.1	1000.5	1009.5	1020.3	1033.0	1049.2	1051.0	1081.6	1112.3	1144.7
15°	1033.0	1033.0	1034.8	1040.2	1051.0	1061.8	1076.2	1078.0	1110.5	1146.5	1179.0
17.5°	1088.8	1085.2	1085.2	1083.4	1090.6	1096.0	1114.1	1115.9	1150.1	1182.6	1215.0
20°	1157.3	1155.5	1148.3	1139.3	1137.5	1141.1	1159.1	1160.9	1195.2	1222.2	1252.9
22.5°	1240.3	1242.1	1225.8	1206.0	1197.0	1202.4	1218.6	1220.4	1245.7	1269.1	1296.1
25°	1350.2	1344.8	1321.4	1292.5	1274.5	1274.5	1290.7	1290.7	1314.2	1328.6	1346.6
27.5°	1454.8	1444.0	1422.3	1380.9	1352.0	1357.4	1373.7	1373.7	1395.3	1400.7	1409.7
30°	1568.4	1557.5	1530.5	1478.2	1440.4	1436.8	1456.6	1454.8	1483.6	1481.8	1474.6
32.5°	1707.2	1701.8	1656.7	1590.0	1539.5	1526.9	1544.9	1546.7	1564.8	1559.3	1535.9
35°	1901.9	1900.1	1858.6	1741.4	1674.7	1651.3	1662.1	1662.1	1674.7	1660.3	1620.6
37.5°	2147.0	2150.6	2114.6	1941.5	1847.8	1808.1	1809.9	1808.1	1811.7	1795.5	1754.0
40°	2392.2	2401.2	2399.4	2190.3	2071.3	2002.8	1977.6	1974.0	1983.0	1975.8	1936.1
42.5°	2714.9	2736.5	2686.0	2496.8	2363.4	2248.0	2179.5	2170.5	2190.3	2199.3	2161.5
45°	3050.2	3043.0	2963.7	2826.7	2705.9	2558.0	2428.3	2413.8	2428.3	2455.3	2415.6
47.5°	3225.1	3219.6	3199.8	3131.3	3113.3	2943.8	2747.3	2734.7	2707.7	2745.5	2698.7
50°	3513.5	3518.9	3437.8	3430.6	3506.3	3412.5	3107.9	3079.0	3030.4	3061.0	3021.3
52.5°	3722.6	3699.2	3648.7	3711.8	3947.9	3897.5	3446.8	3434.2	3389.1	3381.9	3363.9
55°	3807.3	3807.3	3816.3	3962.4	4299.5	4232.8	3814.5	3827.2	3765.9	3715.4	3738.8
57.5°	3832.6	3843.4	3920.9	4162.5	4712.3	4494.2	4220.1	4238.2	4149.8	4048.9	4122.8
60°	3708.2	3740.6	3926.3	4276.0	4944.8	4771.8	4647.4	4652.8	4524.8	4377.0	4506.8
62.5°	3389.1	3428.8	3760.5	4322.9	4907.0	5056.6	5051.2	5063.8	4889.0	4705.1	4867.3
65°	2997.9	3037.6	3390.9	4191.3	4878.1	5260.3	5420.8	5455.0	5229.7	4982.7	5092.7
67.5°	2422.8	2475.1	2810.4	3747.8	4737.5	5428.0	5766.9	5802.9	5492.9	5126.9	5072.8
70°	1755.8	1781.1	2062.3	2848.3	4164.3	5336.0	6040.9	6039.1	5579.4	5116.1	4802.4
72.5°	845.5	865.3	1108.7	1768.5	2978.1	4528.4	5842.6	5876.8	5460.4	4959.3	4184.1
75°	347.9	367.8	448.9	746.3	1563.0	2992.5	4952.0	5033.2	4959.3	4450.9	3273.7
77.5°	216.3	223.5	263.2	385.8	713.9	1397.1	3466.6	3576.6	3929.9	3565.8	2161.5
80°	162.2	167.7	196.5	270.4	450.7	515.6	1721.6	1860.4	2381.4	2046.1	978.9
82.5°	135.2	137.0	156.8	196.5	306.5	295.6	551.6	614.7	1110.5	780.6	337.1
85°	126.2	129.8	140.6	140.6	194.7	185.7	228.9	239.8	322.7	266.8	117.2
87.5°	64.9	61.3	124.4	110.0	101.0	90.1	97.3	104.6	120.8	128.0	52.3
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°	1101.5	1101.5	1101.5	1101.5	1101.5	1101.5	1101.5	1101.5	1101.5	1101.5	1101.5
2.5°	1097.9	1103.3	1112.3	1121.3	1132.1	1144.7	1151.9	1160.9	1168.2	1164.6	1162.7
5°	1103.3	1112.3	1132.1	1150.1	1171.8	1197.0	1213.2	1231.3	1245.7	1249.3	1243.9
7.5°	1112.3	1128.5	1155.5	1188.0	1216.8	1249.3	1274.5	1299.8	1317.8	1321.4	1321.4
10°	1133.9	1151.9	1188.0	1231.3	1265.5	1299.8	1328.6	1348.4	1364.7	1371.9	1371.9
12.5°	1164.6	1186.2	1229.4	1281.7	1319.6	1352.0	1368.3	1377.3	1384.5	1391.7	1393.5
15°	1200.6	1224.0	1276.3	1332.2	1371.9	1388.1	1388.1	1386.3	1386.3	1389.9	1393.5
17.5°	1236.7	1261.9	1316.0	1375.5	1400.7	1391.7	1379.1	1373.7	1370.1	1368.3	1373.7
20°	1274.5	1299.8	1353.8	1409.7	1402.5	1364.7	1346.6	1334.0	1323.2	1317.8	1325.0
22.5°	1316.0	1339.4	1395.3	1433.2	1379.1	1321.4	1287.1	1267.3	1249.3	1238.5	1245.7
25°	1364.7	1388.1	1442.2	1440.4	1337.6	1256.5	1202.4	1170.0	1150.1	1139.3	1139.3
27.5°	1422.3	1442.2	1494.4	1422.3	1279.9	1170.0	1090.6	1060.0	1054.6	1045.6	1045.6
30°	1481.8	1498.1	1543.1	1380.9	1200.6	1056.4	969.9	955.4	957.2	948.2	950.0
32.5°	1543.1	1559.3	1572.0	1319.6	1097.9	928.4	870.7	859.9	858.1	850.9	843.7
35°	1629.7	1653.1	1575.6	1236.7	973.5	822.0	780.6	769.8	758.9	733.7	733.7
37.5°	1761.2	1786.5	1566.6	1133.9	845.5	739.1	701.3	686.8	668.8	643.6	634.6
40°	1941.5	1941.5	1546.7	1018.5	742.7	672.4	636.4	618.3	598.5	573.3	567.9
42.5°	2154.2	2103.8	1516.1	901.4	667.0	627.3	594.9	575.1	551.6	522.8	519.2
45°	2403.0	2266.0	1472.8	796.8	611.1	600.3	580.5	546.2	506.6	475.9	470.5
47.5°	2644.6	2412.0	1431.4	722.9	564.2	589.5	573.3	515.6	461.5	418.2	412.8
50°	2909.6	2541.8	1382.7	661.6	528.2	582.3	564.2	470.5	411.0	380.4	376.8
52.5°	3174.6	2673.4	1330.4	596.7	497.5	567.9	542.6	438.1	409.2	367.8	362.3
55°	3454.0	2826.7	1269.1	524.6	461.5	539.0	513.8	436.3	421.8	367.8	355.1
57.5°	3726.2	2996.1	1170.0	454.3	421.8	495.7	503.0	425.4	394.8	364.1	349.7
60°	4027.3	3176.4	1005.9	394.8	387.6	459.7	488.5	402.0	364.1	353.3	346.1
62.5°	4268.8	3338.6	786.0	353.3	358.7	430.8	470.5	387.6	351.5	342.5	340.7
65°	4373.4	3342.2	564.2	317.3	329.9	403.8	452.5	375.0	340.7	337.1	335.3
67.5°	4263.4	3158.4	396.6	283.0	299.3	378.6	429.0	362.3	329.9	331.7	328.1
70°	3908.3	2770.8	290.2	250.6	270.4	351.5	403.8	346.1	317.3	320.9	315.5
72.5°	3270.1	2159.6	232.5	223.5	247.0	322.7	378.6	328.1	297.4	299.3	288.4
75°	2415.6	1431.4	194.7	200.1	219.9	295.6	346.1	304.7	275.8	268.6	261.4
77.5°	1436.8	735.5	160.4	174.9	196.5	263.2	310.1	275.8	252.4	239.8	234.4
80°	593.1	297.4	131.6	147.8	171.3	234.4	274.0	241.6	225.3	212.7	205.5
82.5°	236.2	146.0	104.6	120.8	144.2	203.7	239.8	212.7	196.5	187.5	167.7
85°	90.1	72.1	70.3	84.7	108.2	156.8	198.3	178.5	165.8	142.4	137.0
87.5°	36.1	32.4	32.4	41.5	61.3	99.1	142.4	124.4	129.8	102.8	104.6
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)