

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: P234836

Luminaire Tested: **ARCH-M-AF48-90-D-U-T4W-8027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P234836
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-8027
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 80 CRI, 2700K, 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: 9512 lumens
Efficiency: N/A
Efficacy: 103.4 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

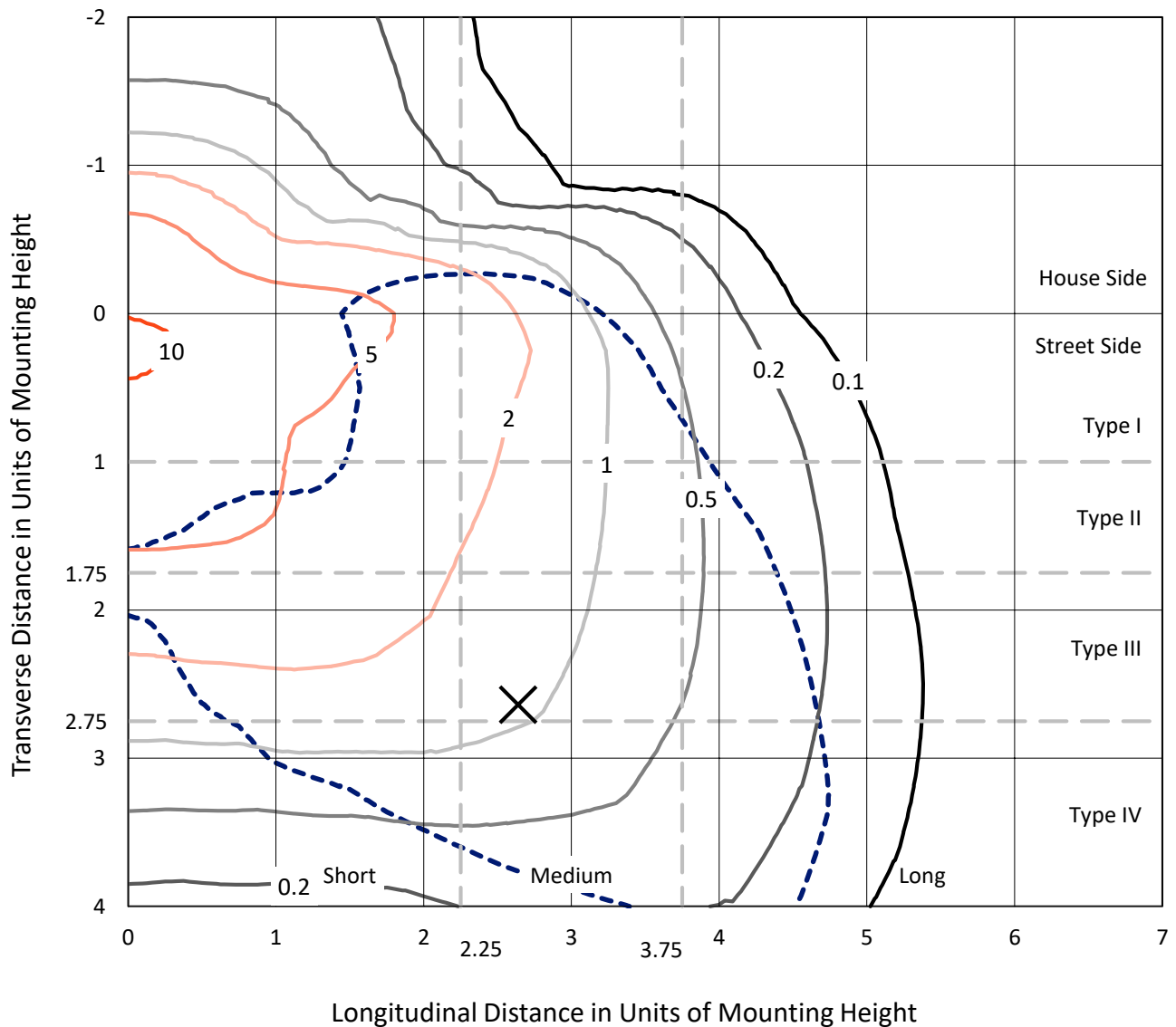


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

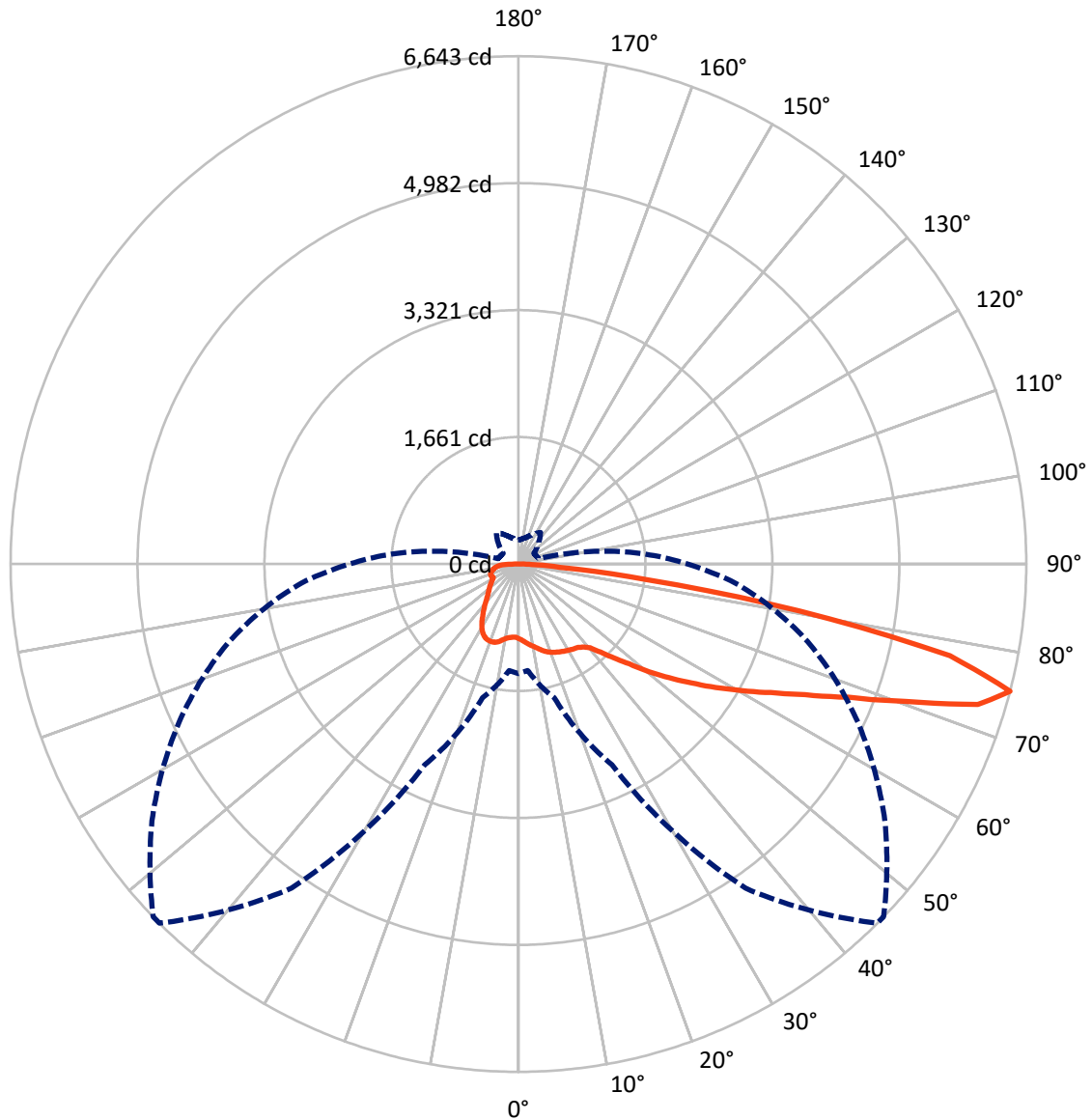


Based on 10 foot mounting height. Maximum calculated value = 11.4 fc
 Type IV - Medium - Non-Cutoff

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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	2203.5	0.0	2203.5
	% Fixture	23.2	0.0	23.2
Street Side	Lumens	7308.5	0.0	7308.5
	% Fixture	76.8	0.0	76.8
Total	Lumens	9512.0	0.0	9512.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	96.6	1.0
10°-20°	313.1	3.3
20°-30°	537.4	5.6
30°-40°	751.6	7.9
40°-50°	1102.5	11.6
50°-60°	1717.4	18.1
60°-70°	2471.1	26.0
70°-80°	2152.6	22.6
80°-90°	369.7	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°	9512.0	100.0
0°-180°	9512.0	100.0

Coefficient of Utilization



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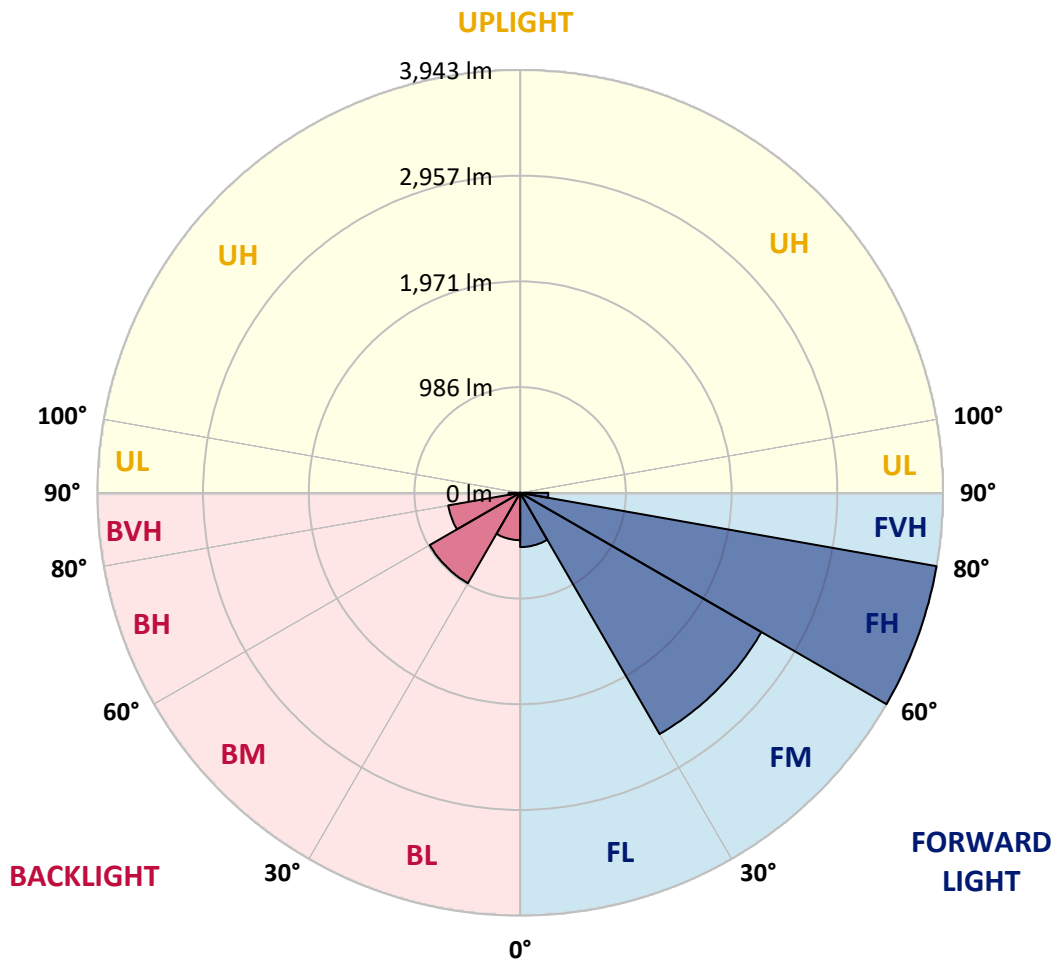
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	505.8	5.3			
FM	(30°-60°)	2597.5	27.3			
FH	(60°-80°)	3942.8	41.5			G2/5000
FVH	(80°-90°)	262.3	2.8			G3/500
BL	(0°-30°)	441.3	4.6	B1/500		
BM	(30°-60°)	973.8	10.2	B1/1000		
BH	(60°-80°)	681.0	7.2	B2/1000		G2/1000
BVH	(80°-90°)	107.4	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°	975.1	975.1	975.1	975.1	975.1	975.1	975.1	975.1	975.1	975.1	975.1
2.5°	1023.2	1015.8	1015.8	1010.3	1010.3	1001.0	997.3	995.5	986.2	980.7	975.1
5°	1082.4	1073.2	1071.3	1058.4	1052.8	1032.5	1030.6	1017.7	1001.0	984.4	971.4
7.5°	1136.1	1130.5	1121.3	1108.3	1091.7	1065.8	1063.9	1043.6	1015.8	993.6	975.1
10°	1174.9	1171.2	1158.3	1141.6	1123.1	1097.2	1095.4	1073.2	1039.9	1014.0	988.1
12.5°	1221.2	1215.7	1199.0	1176.8	1156.4	1132.4	1130.5	1112.0	1075.0	1041.7	1008.4
15°	1265.6	1258.2	1237.9	1215.7	1193.5	1173.1	1173.1	1152.7	1113.9	1075.0	1036.2
17.5°	1287.8	1284.1	1263.8	1239.7	1221.2	1206.4	1204.6	1186.1	1147.2	1106.5	1063.9
20°	1295.2	1297.1	1278.6	1252.7	1239.7	1232.3	1230.5	1217.5	1174.9	1136.1	1095.4
22.5°	1293.4	1298.9	1284.1	1256.4	1252.7	1252.7	1252.7	1237.9	1204.6	1165.7	1125.0
25°	1300.8	1308.2	1297.1	1263.8	1263.8	1271.2	1271.2	1263.8	1234.2	1200.9	1160.1
27.5°	1326.7	1332.2	1323.0	1276.7	1278.6	1289.7	1287.8	1289.7	1271.2	1239.7	1199.0
30°	1358.1	1365.5	1354.4	1297.1	1295.2	1306.3	1306.3	1315.6	1302.6	1269.3	1236.0
32.5°	1443.2	1441.4	1406.2	1319.3	1313.7	1324.8	1324.8	1334.1	1326.7	1300.8	1269.3
35°	1696.7	1669.0	1591.3	1391.4	1335.9	1341.5	1341.5	1358.1	1361.8	1341.5	1313.7
37.5°	1955.8	1946.5	1887.3	1583.9	1417.3	1376.6	1374.8	1398.8	1415.5	1398.8	1380.3
40°	2216.7	2209.3	2196.3	1841.1	1587.6	1439.5	1434.0	1454.3	1484.0	1472.8	1461.7
42.5°	2459.1	2455.4	2468.3	2094.6	1804.1	1574.6	1558.0	1533.9	1576.5	1572.8	1572.8
45°	2649.6	2658.9	2666.3	2331.4	2039.0	1748.5	1728.2	1646.8	1704.1	1718.9	1730.0
47.5°	2757.0	2764.4	2790.3	2562.7	2274.0	1950.2	1935.4	1802.2	1878.1	1922.5	1953.9
50°	2910.5	2890.2	2912.4	2788.4	2557.1	2213.0	2172.3	2011.3	2107.5	2185.2	2259.2
52.5°	3058.6	3025.3	3043.8	3049.3	2879.1	2470.2	2427.6	2257.4	2377.7	2499.8	2631.1
55°	3191.8	3189.9	3208.4	3302.8	3189.9	2745.9	2697.8	2529.4	2703.3	2834.7	3056.7
57.5°	3299.1	3317.6	3399.0	3597.0	3548.9	3045.6	2992.0	2845.8	3051.2	3182.5	3550.8
60°	3424.9	3454.5	3589.6	3846.8	3876.4	3360.2	3304.7	3199.2	3408.3	3541.5	4122.5
62.5°	3467.5	3510.0	3787.6	4109.5	4218.7	3704.3	3654.4	3584.1	3783.9	3904.2	4692.4
65°	3184.4	3265.8	3896.8	4244.6	4586.9	4118.8	4076.2	4015.2	4157.7	4237.2	5079.1
67.5°	3106.7	3143.7	3684.0	4438.9	4932.9	4651.7	4609.1	4503.7	4507.4	4474.1	5204.9
70°	2997.5	3038.2	3465.6	4585.1	5428.8	5380.7	5328.9	5018.0	4827.5	4625.8	4957.0
72.5°	2553.4	2540.5	2986.4	4191.0	5667.5	6283.7	6222.6	5571.3	5064.3	4494.4	4183.6
75°	1434.0	1397.0	1811.5	2899.4	5175.3	6642.6	6640.8	5850.7	4897.8	3915.3	2847.6
77.5°	416.3	405.2	597.7	1215.7	3484.1	5771.1	5841.4	5277.1	4087.3	2812.5	1563.5
80°	196.1	199.8	257.2	401.5	1487.7	3724.7	3926.4	3474.9	2442.4	1297.1	645.8
82.5°	124.0	125.8	175.8	259.0	629.1	1691.2	1857.7	1563.5	967.7	560.6	284.9
85°	77.7	77.7	116.6	170.2	375.6	540.3	586.5	532.9	414.5	305.3	155.4
87.5°	42.6	42.6	70.3	98.1	205.4	173.9	179.5	212.8	259.0	186.9	77.7
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°	975.1	975.1	975.1	975.1	975.1	975.1	975.1	975.1	975.1	975.1	975.1
2.5°	973.3	969.6	964.0	962.2	960.3	958.5	960.3	964.0	960.3	960.3	962.2
5°	967.7	964.0	956.6	956.6	958.5	960.3	969.6	975.1	977.0	977.0	977.0
7.5°	967.7	962.2	956.6	958.5	962.2	969.6	984.4	993.6	1001.0	1002.9	1002.9
10°	977.0	969.6	965.9	969.6	980.7	986.2	1001.0	1015.8	1025.1	1028.8	1028.8
12.5°	993.6	986.2	986.2	993.6	1008.4	1015.8	1028.8	1039.9	1051.0	1056.5	1056.5
15°	1021.4	1012.1	1014.0	1026.9	1043.6	1051.0	1060.2	1063.9	1073.2	1080.6	1080.6
17.5°	1047.3	1038.0	1041.7	1056.5	1067.6	1071.3	1076.9	1075.0	1078.7	1084.3	1086.1
20°	1076.9	1067.6	1069.5	1078.7	1080.6	1076.9	1076.9	1071.3	1069.5	1078.7	1082.4
22.5°	1106.5	1097.2	1095.4	1089.8	1080.6	1071.3	1065.8	1060.2	1056.5	1065.8	1069.5
25°	1141.6	1128.7	1119.4	1095.4	1071.3	1054.7	1047.3	1043.6	1041.7	1051.0	1054.7
27.5°	1180.5	1167.5	1139.8	1088.0	1049.1	1021.4	1015.8	1015.8	1019.5	1025.1	1028.8
30°	1217.5	1204.6	1154.6	1071.3	1010.3	969.6	964.0	969.6	978.8	984.4	989.9
32.5°	1254.5	1241.6	1163.8	1045.4	952.9	901.1	897.4	906.7	921.5	925.2	928.9
35°	1304.5	1291.5	1174.9	1008.4	880.7	825.2	821.5	827.1	840.0	845.6	851.1
37.5°	1374.8	1367.4	1191.6	967.7	814.1	753.1	742.0	738.3	745.7	743.8	751.2
40°	1467.3	1472.8	1221.2	914.1	749.4	686.5	662.4	651.3	643.9	629.1	636.5
42.5°	1602.4	1606.1	1254.5	853.0	693.9	623.6	592.1	571.7	556.9	532.9	536.6
45°	1800.4	1768.9	1293.4	788.2	643.9	573.6	536.6	512.5	492.2	471.8	473.7
47.5°	2063.1	1966.9	1335.9	734.6	594.0	532.9	499.6	471.8	447.8	431.1	433.0
50°	2386.9	2213.0	1378.5	684.6	544.0	501.4	471.8	442.2	418.2	401.5	399.7
52.5°	2814.3	2509.0	1406.2	629.1	494.0	473.7	447.8	420.0	390.4	370.1	368.2
55°	3258.4	2853.2	1430.3	562.5	445.9	442.2	429.3	397.8	362.7	336.8	333.1
57.5°	3746.9	3221.4	1448.8	497.7	408.9	416.3	412.6	375.6	336.8	312.7	310.9
60°	4191.0	3602.6	1389.6	440.4	375.6	390.4	394.1	362.7	342.3	347.9	349.7
62.5°	4638.7	3896.8	1163.8	397.8	353.4	373.8	405.2	403.4	394.1	403.4	405.2
65°	4799.7	3957.8	825.2	362.7	331.2	381.2	440.4	436.7	394.1	377.5	373.8
67.5°	4709.0	3776.5	555.1	334.9	314.6	390.4	477.4	436.7	379.3	357.1	349.7
70°	4277.9	3330.6	407.1	307.2	299.8	388.6	497.7	434.8	371.9	347.9	338.6
72.5°	3412.0	2570.1	327.5	281.2	277.5	379.3	508.8	431.1	364.5	338.6	327.5
75°	2209.3	1598.7	275.7	255.3	244.2	364.5	503.3	420.0	355.3	322.0	314.6
77.5°	1025.1	688.3	235.0	225.7	212.8	342.3	486.6	397.8	334.9	303.5	294.2
80°	477.4	325.7	198.0	196.1	190.6	323.8	464.4	371.9	310.9	284.9	270.1
82.5°	255.3	196.1	161.0	161.0	166.5	301.6	436.7	340.5	279.4	266.4	227.6
85°	135.1	112.9	116.6	125.8	142.5	266.4	399.7	307.2	244.2	203.5	198.0
87.5°	68.5	72.2	72.2	85.1	109.2	216.5	329.4	253.5	207.2	166.5	162.8
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)