

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: P234837

Luminaire Tested: **ARCH-M-AF48-100-D-U-T4W-8027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P234837
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-AF48-100-D-U-T4W-8027
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 80 CRI, 2700K, 660mA LIGHT ENGINES WITH 24 LEDS AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10294 lumens
Efficiency: N/A
Efficacy: 101.9 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): 101
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

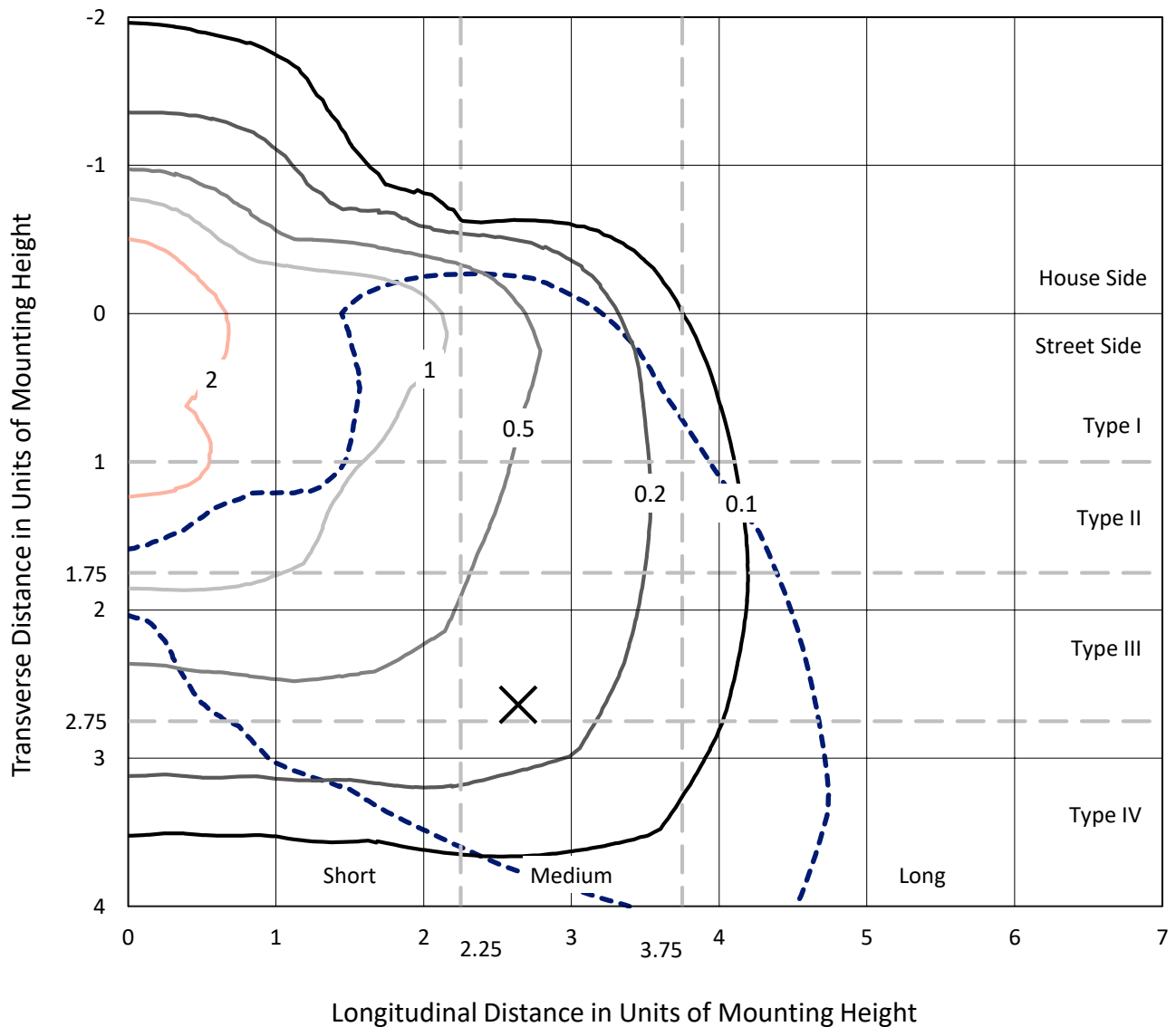


REPORT NUMBER: P234837

CATALOG NUMBER: ARCH-M-AF48-100-D-U-T4W-8027

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

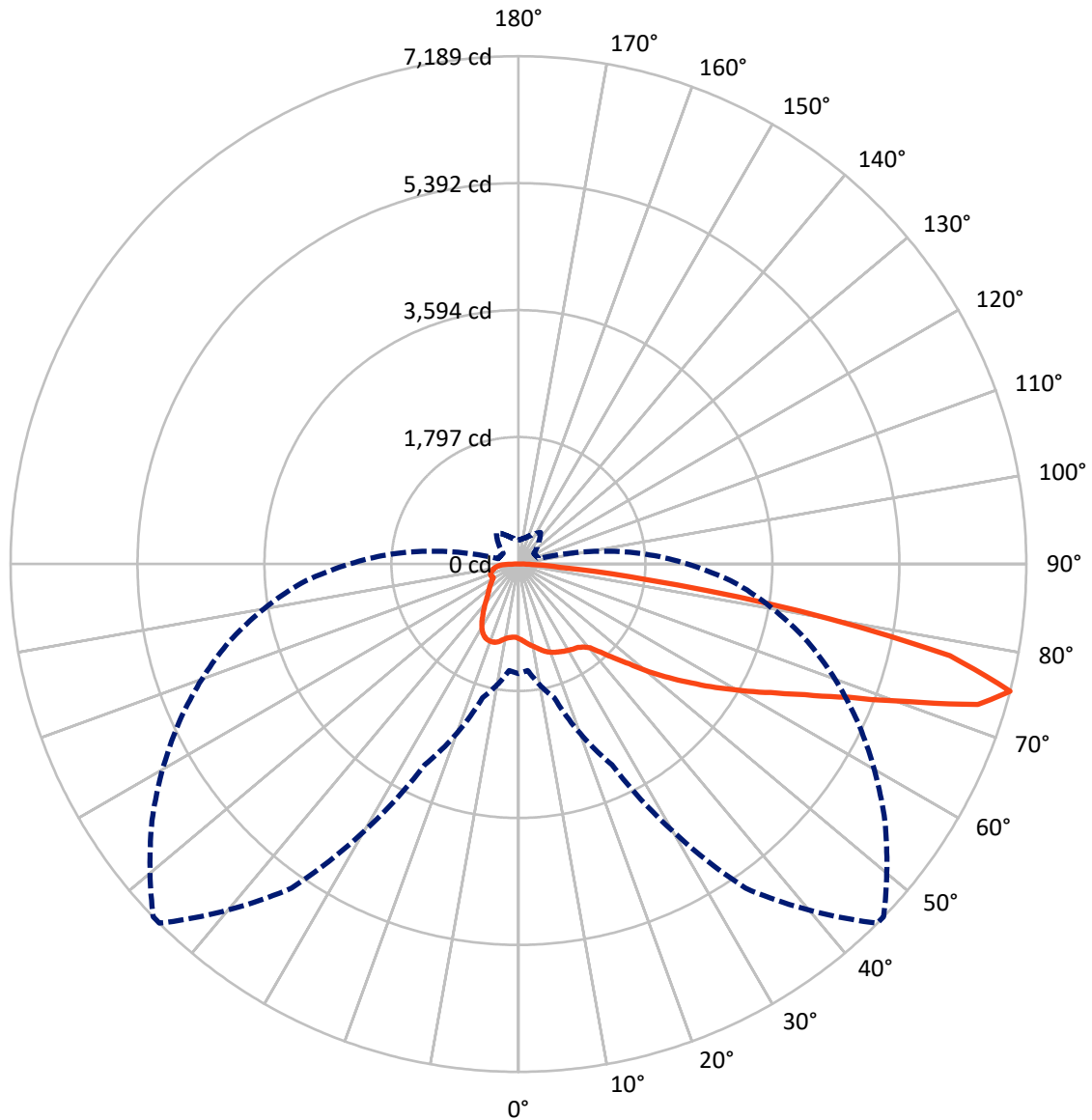


Based on 20 foot mounting height. Maximum calculated value = 3.1 fc
 Type IV - Medium - Non-Cutoff

REPORT NUMBER: P234837

CATALOG NUMBER: ARCH-M-AF48-100-D-U-T4W-8027

Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

REPORT NUMBER: P234837

CATALOG NUMBER: ARCH-M-AF48-100-D-U-T4W-8027

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2384.7	0.0	2384.7
	% Fixture	23.2	0.0	23.2
Street Side	Lumens	7909.3	0.0	7909.3
	% Fixture	76.8	0.0	76.8
Total	Lumens	10294.0	0.0	10294.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.6	1.0
10°-20°	338.9	3.3
20°-30°	581.5	5.6
30°-40°	813.3	7.9
40°-50°	1193.1	11.6
50°-60°	1858.5	18.1
60°-70°	2674.3	26.0
70°-80°	2329.6	22.6
80°-90°	400.1	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°	10294.0	100.0
0°-180°	10294.0	100.0

Coefficient of Utilization



REPORT NUMBER: P234837

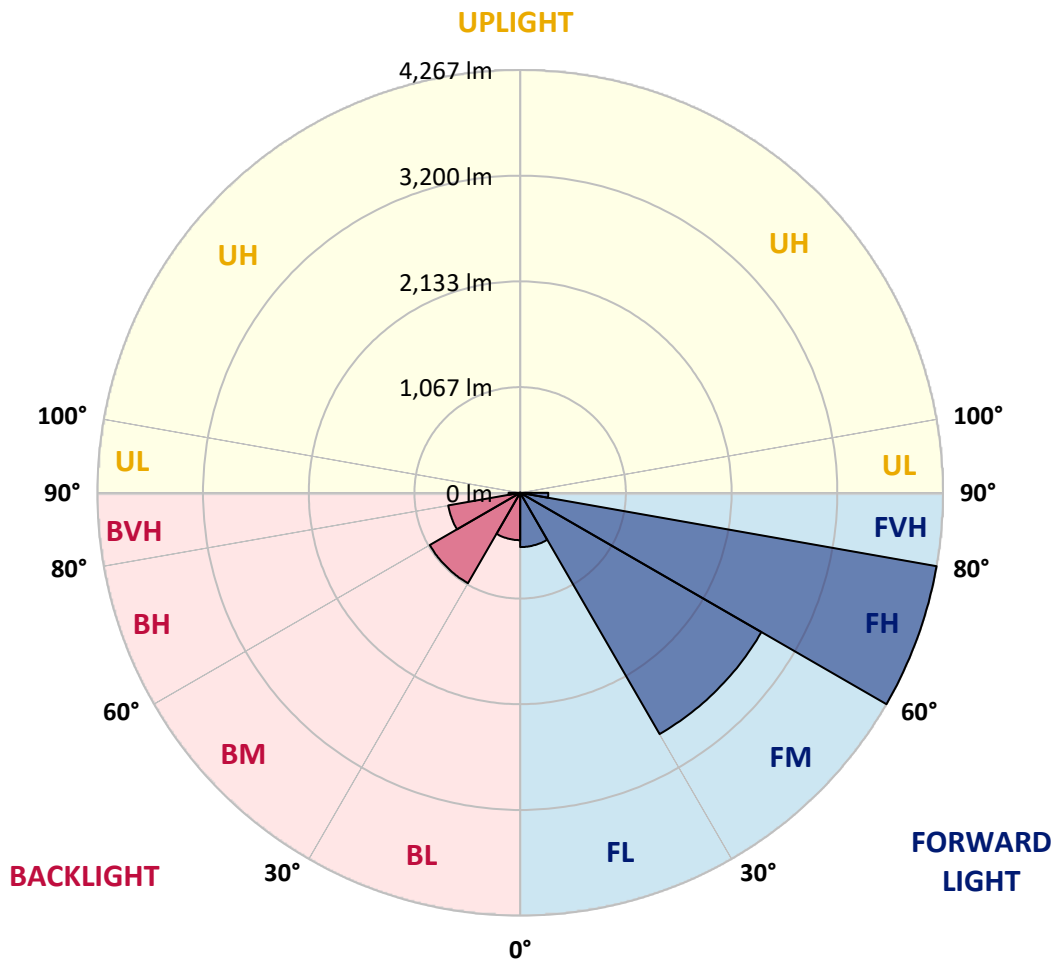
CATALOG NUMBER: ARCH-M-AF48-100-D-U-T4W-8027

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	547.4	5.3			
FM	(30°-60°)	2811.1	27.3			
FH	(60°-80°)	4267.0	41.5			G2/5000
FVH	(80°-90°)	283.9	2.8			G3/500
BL	(0°-30°)	477.6	4.6	B1/500		
BM	(30°-60°)	1053.9	10.2	B2/2500		
BH	(60°-80°)	736.9	7.2	B2/1000		G2/1000
BVH	(80°-90°)	116.2	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





REPORT NUMBER: P234837

CATALOG NUMBER: ARCH-M-AF48-100-D-U-T4W-8027

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	1055.3	1055.3	1055.3	1055.3	1055.3	1055.3	1055.3	1055.3	1055.3	1055.3	1055.3
2.5°	1107.3	1099.3	1099.3	1093.3	1093.3	1083.3	1079.3	1077.3	1067.3	1061.3	1055.3
5°	1171.4	1161.4	1159.4	1145.4	1139.4	1117.4	1115.4	1101.3	1083.3	1065.3	1051.3
7.5°	1229.5	1223.5	1213.5	1199.5	1181.4	1153.4	1151.4	1129.4	1099.3	1075.3	1055.3
10°	1271.5	1267.5	1253.5	1235.5	1215.5	1187.4	1185.4	1161.4	1125.4	1097.3	1069.3
12.5°	1321.6	1315.6	1297.6	1273.5	1251.5	1225.5	1223.5	1203.5	1163.4	1127.4	1091.3
15°	1369.7	1361.7	1339.6	1315.6	1291.6	1269.5	1269.5	1247.5	1205.5	1163.4	1121.4
17.5°	1393.7	1389.7	1367.7	1341.6	1321.6	1305.6	1303.6	1283.6	1241.5	1197.5	1151.4
20°	1401.7	1403.7	1383.7	1355.6	1341.6	1333.6	1331.6	1317.6	1271.5	1229.5	1185.4
22.5°	1399.7	1405.7	1389.7	1359.7	1355.6	1355.6	1355.6	1339.6	1303.6	1261.5	1217.5
25°	1407.7	1415.7	1403.7	1367.7	1367.7	1375.7	1375.7	1367.7	1335.6	1299.6	1255.5
27.5°	1435.7	1441.8	1431.7	1381.7	1383.7	1395.7	1393.7	1395.7	1375.7	1341.6	1297.6
30°	1469.8	1477.8	1465.8	1403.7	1401.7	1413.7	1413.7	1423.7	1409.7	1373.7	1337.6
32.5°	1561.9	1559.9	1521.8	1427.7	1421.7	1433.7	1433.7	1443.8	1435.7	1407.7	1373.7
35°	1836.2	1806.2	1722.1	1505.8	1445.8	1451.8	1451.8	1469.8	1473.8	1451.8	1421.7
37.5°	2116.6	2106.6	2042.5	1714.1	1533.9	1489.8	1487.8	1513.8	1531.9	1513.8	1493.8
40°	2398.9	2390.9	2376.9	1992.4	1718.1	1557.9	1551.9	1573.9	1605.9	1593.9	1581.9
42.5°	2661.2	2657.2	2671.2	2266.8	1952.4	1704.1	1686.0	1660.0	1706.1	1702.1	1702.1
45°	2867.5	2877.5	2885.5	2523.1	2206.7	1892.3	1870.3	1782.2	1844.2	1860.3	1872.3
47.5°	2983.6	2991.6	3019.7	2773.4	2461.0	2110.6	2094.5	1950.4	2032.5	2080.5	2114.6
50°	3149.8	3127.8	3151.8	3017.7	2767.4	2394.9	2350.9	2176.6	2280.8	2364.9	2445.0
52.5°	3310.0	3274.0	3294.0	3300.0	3115.8	2673.2	2627.2	2443.0	2573.1	2705.3	2847.5
55°	3454.2	3452.2	3472.2	3574.3	3452.2	2971.6	2919.5	2737.3	2925.6	3067.7	3308.0
57.5°	3570.3	3590.4	3678.5	3892.7	3840.7	3296.0	3237.9	3079.7	3302.0	3444.2	3842.7
60°	3706.5	3738.5	3884.7	4163.1	4195.1	3636.4	3576.3	3462.2	3688.5	3832.7	4461.4
62.5°	3752.6	3798.6	4099.0	4447.4	4565.5	4008.9	3954.8	3878.7	4095.0	4225.1	5078.2
65°	3446.2	3534.3	4217.1	4593.6	4964.0	4457.4	4411.4	4345.3	4499.5	4585.6	5496.7
67.5°	3362.1	3402.1	3986.8	4803.8	5338.5	5034.1	4988.1	4873.9	4877.9	4841.9	5632.8
70°	3243.9	3288.0	3750.6	4962.0	5875.1	5823.1	5767.0	5430.6	5224.3	5006.1	5364.5
72.5°	2763.4	2749.3	3231.9	4535.5	6133.4	6800.3	6734.2	6029.3	5480.7	4863.9	4527.5
75°	1551.9	1511.8	1960.4	3137.8	5600.8	7188.7	7186.7	6331.7	5300.4	4237.1	3081.7
77.5°	450.5	438.5	646.8	1315.6	3770.6	6245.6	6321.7	5710.9	4423.4	3043.7	1692.1
80°	212.3	216.3	278.3	434.5	1610.0	4030.9	4249.2	3760.6	2643.2	1403.7	698.8
82.5°	134.2	136.2	190.2	280.3	680.8	1830.2	2010.4	1692.1	1047.3	606.7	308.4
85°	84.1	84.1	126.2	184.2	406.5	584.7	634.8	576.7	448.5	330.4	168.2
87.5°	46.1	46.1	76.1	106.1	222.3	188.2	194.2	230.3	280.3	202.2	84.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P234837

CATALOG NUMBER: ARCH-M-AF48-100-D-U-T4W-8027

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1055.3	1055.3	1055.3	1055.3	1055.3	1055.3	1055.3	1055.3	1055.3	1055.3	1055.3
2.5°	1053.3	1049.3	1043.3	1041.3	1039.3	1037.3	1039.3	1043.3	1039.3	1039.3	1041.3
5°	1047.3	1043.3	1035.3	1035.3	1037.3	1039.3	1049.3	1055.3	1057.3	1057.3	1057.3
7.5°	1047.3	1041.3	1035.3	1037.3	1041.3	1049.3	1065.3	1075.3	1083.3	1085.3	1085.3
10°	1057.3	1049.3	1045.3	1049.3	1061.3	1067.3	1083.3	1099.3	1109.3	1113.4	1113.4
12.5°	1075.3	1067.3	1067.3	1075.3	1091.3	1099.3	1113.4	1125.4	1137.4	1143.4	1143.4
15°	1105.3	1095.3	1097.3	1111.3	1129.4	1137.4	1147.4	1151.4	1161.4	1169.4	1169.4
17.5°	1133.4	1123.4	1127.4	1143.4	1155.4	1159.4	1165.4	1163.4	1167.4	1173.4	1175.4
20°	1165.4	1155.4	1157.4	1167.4	1169.4	1165.4	1165.4	1159.4	1157.4	1167.4	1171.4
22.5°	1197.5	1187.4	1185.4	1179.4	1169.4	1159.4	1153.4	1147.4	1143.4	1153.4	1157.4
25°	1235.5	1221.5	1211.5	1185.4	1159.4	1141.4	1133.4	1129.4	1127.4	1137.4	1141.4
27.5°	1277.6	1263.5	1233.5	1177.4	1135.4	1105.3	1099.3	1099.3	1103.3	1109.3	1113.4
30°	1317.6	1303.6	1249.5	1159.4	1093.3	1049.3	1043.3	1049.3	1059.3	1065.3	1071.3
32.5°	1357.6	1343.6	1259.5	1131.4	1031.3	975.2	971.2	981.2	997.2	1001.2	1005.2
35°	1411.7	1397.7	1271.5	1091.3	953.2	893.1	889.1	895.1	909.1	915.1	921.1
37.5°	1487.8	1479.8	1289.6	1047.3	881.1	815.0	803.0	799.0	807.0	805.0	813.0
40°	1587.9	1593.9	1321.6	989.2	811.0	742.9	716.9	704.9	696.8	680.8	688.8
42.5°	1734.1	1738.1	1357.6	923.1	750.9	674.8	640.8	618.8	602.7	576.7	580.7
45°	1948.4	1914.3	1399.7	853.0	696.8	620.8	580.7	554.7	532.6	510.6	512.6
47.5°	2232.7	2128.6	1445.8	795.0	642.8	576.7	540.7	510.6	484.6	466.6	468.6
50°	2583.1	2394.9	1491.8	740.9	588.7	542.7	510.6	478.6	452.5	434.5	432.5
52.5°	3045.7	2715.3	1521.8	680.8	534.6	512.6	484.6	454.6	422.5	400.5	398.5
55°	3526.3	3087.7	1547.9	608.7	482.6	478.6	464.6	430.5	392.5	364.4	360.4
57.5°	4054.9	3486.2	1567.9	538.7	442.5	450.5	446.5	406.5	364.4	338.4	336.4
60°	4535.5	3898.7	1503.8	476.6	406.5	422.5	426.5	392.5	370.4	376.5	378.5
62.5°	5020.1	4217.1	1259.5	430.5	382.5	404.5	438.5	436.5	426.5	436.5	438.5
65°	5194.3	4283.2	893.1	392.5	358.4	412.5	476.6	472.6	426.5	408.5	404.5
67.5°	5096.2	4087.0	600.7	362.4	340.4	422.5	516.6	472.6	410.5	386.5	378.5
70°	4629.6	3604.4	440.5	332.4	324.4	420.5	538.7	470.6	402.5	376.5	366.4
72.5°	3692.5	2781.4	354.4	304.4	300.4	410.5	550.7	466.6	394.5	366.4	354.4
75°	2390.9	1730.1	298.4	276.3	264.3	394.5	544.7	454.6	384.5	348.4	340.4
77.5°	1109.3	744.9	254.3	244.3	230.3	370.4	526.6	430.5	362.4	328.4	318.4
80°	516.6	352.4	214.3	212.3	206.3	350.4	502.6	402.5	336.4	308.4	292.4
82.5°	276.3	212.3	174.2	174.2	180.2	326.4	472.6	368.4	302.4	288.4	246.3
85°	146.2	122.1	126.2	136.2	154.2	288.4	432.5	332.4	264.3	220.3	214.3
87.5°	74.1	78.1	78.1	92.1	118.1	234.3	356.4	274.3	224.3	180.2	176.2
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)