

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: P214734

Luminaire Tested: **ARCH-AF24-90-D-U-T3**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P214734
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-AF24-90-D-U-T3
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 4000K, 1180mA LIGHT ENGINE WITH 24 LEDS AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10041.3 lumens
Efficiency: N/A
Efficacy: 106.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')
IES Classification: Type III - Short - Non-Cutoff
BUG Rating: B2 - U0 - G2

Input Watts (W): 94
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

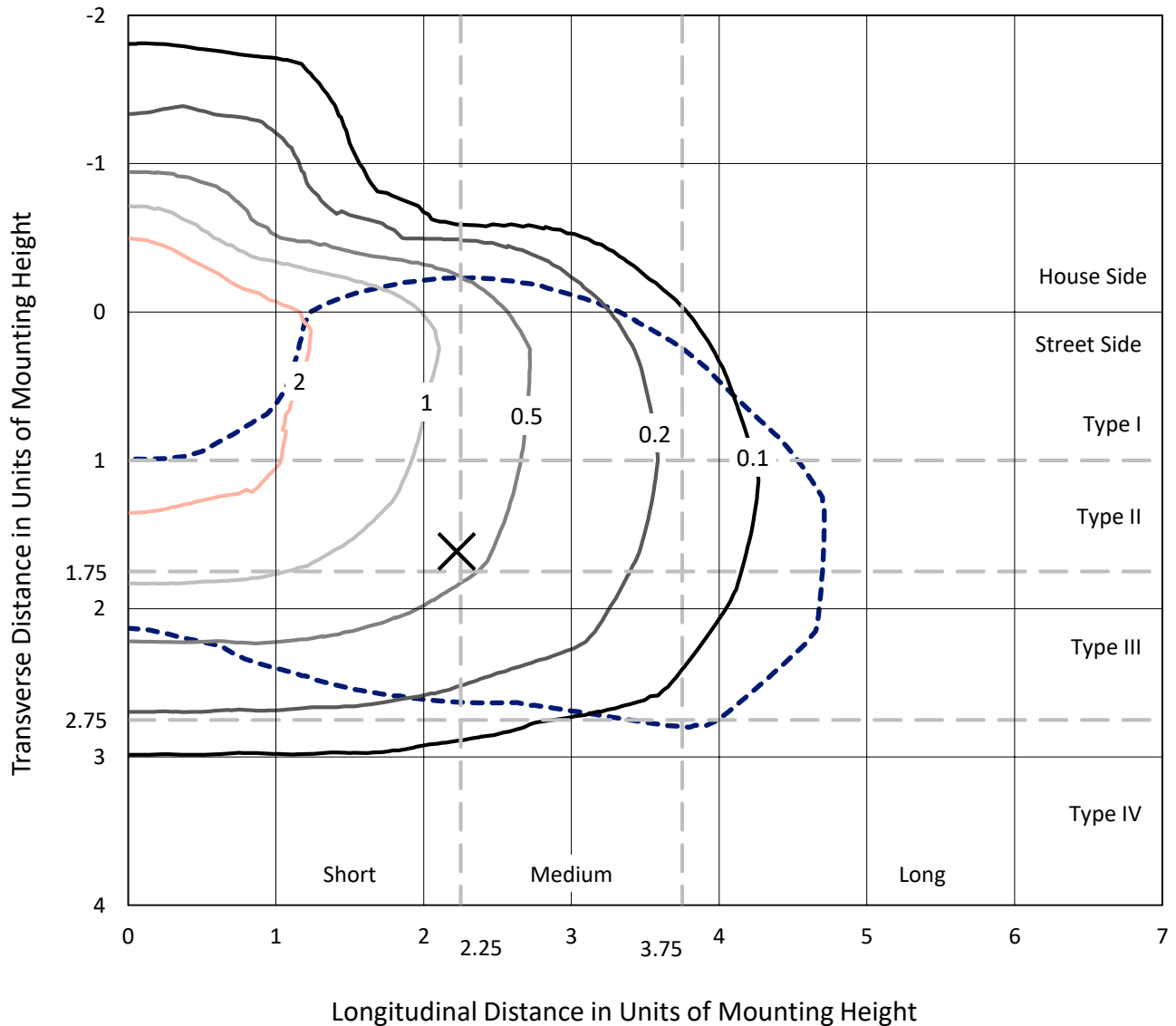


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

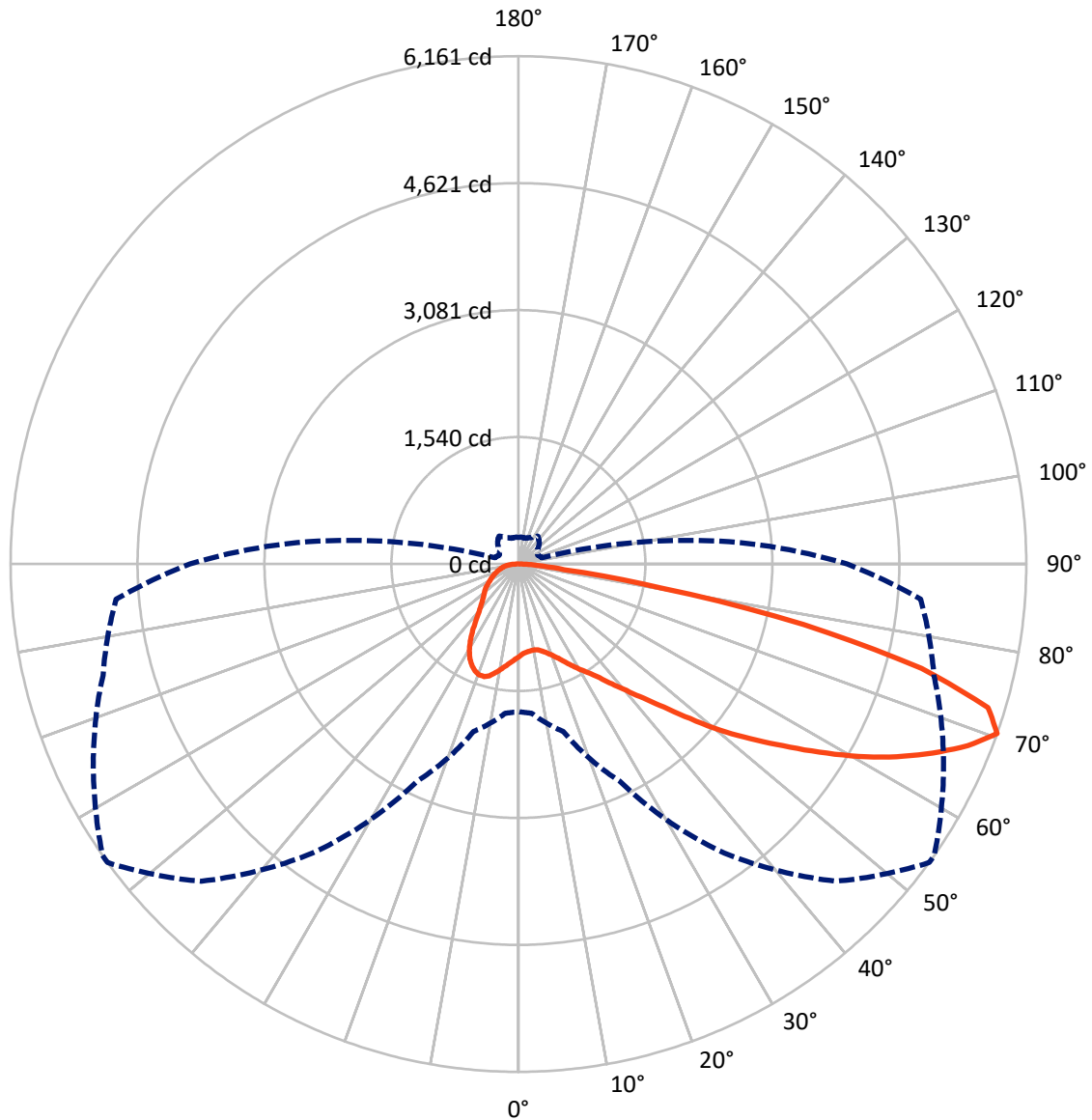


Based on 20 foot mounting height. Maximum calculated value = 3.3 fc
 Type III - Short - Non-Cutoff

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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	2277.3	0.0	2277.3
	% Fixture	22.7	0.0	22.7
Street Side	Lumens	7764.0	0.0	7764.0
	% Fixture	77.3	0.0	77.3
Total	Lumens	10041.3	0.0	10041.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	110.2	1.1
10°-20°	352.3	3.5
20°-30°	612.0	6.1
30°-40°	894.4	8.9
40°-50°	1403.7	14.0
50°-60°	2158.6	21.5
60°-70°	2637.3	26.3
70°-80°	1635.1	16.3
80°-90°	237.5	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°	10041.3	100.0
0°-180°	10041.3	100.0

Coefficient of Utilization



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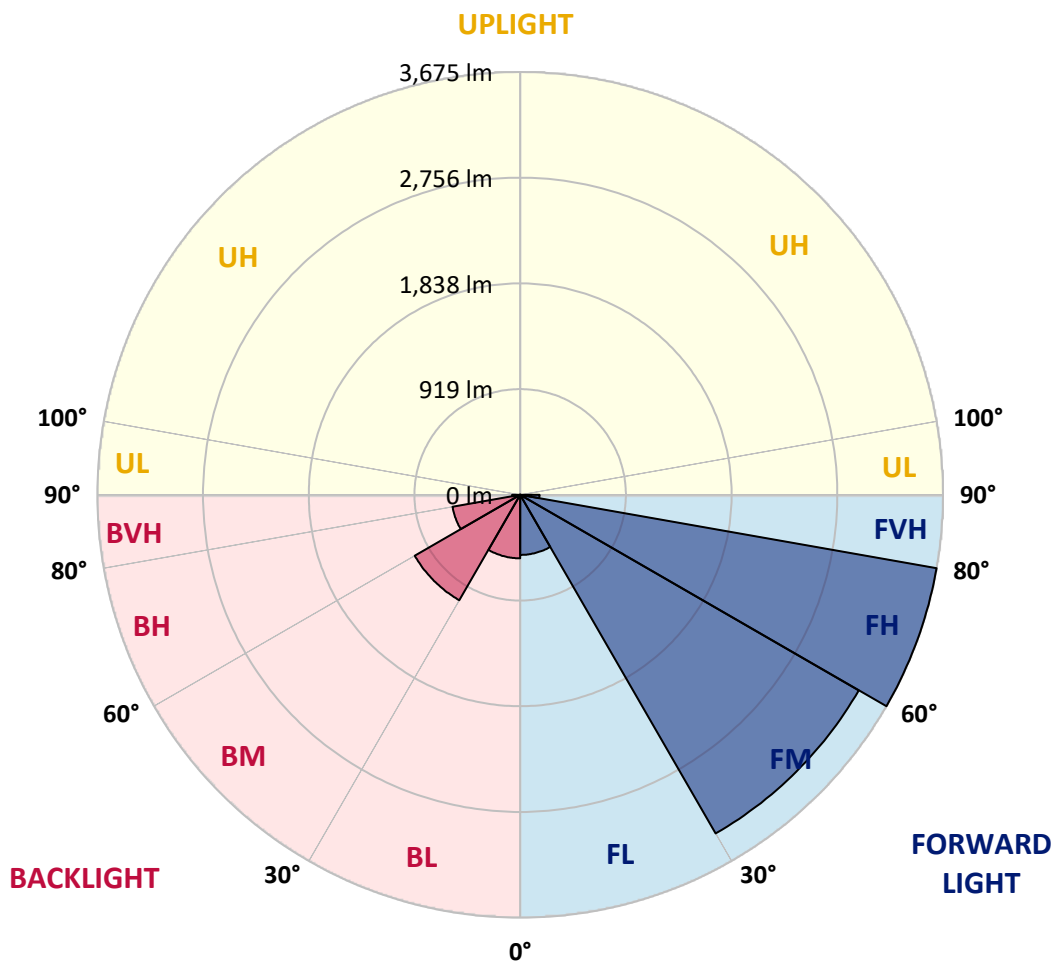
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	522.4	5.2			
FM	(30°-60°)	3398.5	33.8			
FH	(60°-80°)	3675.3	36.6			G2/5000
FVH	(80°-90°)	167.7	1.7			G2/225
BL	(0°-30°)	552.1	5.5	B2/1000		
BM	(30°-60°)	1058.2	10.5	B2/2500		
BH	(60°-80°)	597.2	5.9	B2/1000		G2/1000
BVH	(80°-90°)	69.8	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°	1123.4	1123.4	1123.4	1123.4	1123.4	1123.4	1123.4	1123.4	1123.4	1123.4	1123.4
2.5°	1079.3	1075.6	1075.6	1081.2	1083.0	1088.5	1088.5	1090.4	1095.9	1105.0	1116.0
5°	1046.2	1044.3	1046.2	1053.5	1057.2	1068.3	1072.0	1073.8	1084.8	1099.5	1116.0
7.5°	1013.1	1011.3	1015.0	1025.9	1037.0	1053.5	1062.7	1064.6	1081.2	1101.3	1123.4
10°	1002.1	1000.2	1005.8	1015.0	1025.9	1044.3	1059.1	1060.9	1084.8	1108.7	1140.0
12.5°	1016.8	1015.0	1020.5	1029.6	1040.6	1053.5	1070.1	1072.0	1103.2	1134.5	1167.5
15°	1053.5	1053.5	1055.4	1060.9	1072.0	1083.0	1097.6	1099.5	1132.6	1169.3	1202.5
17.5°	1110.5	1106.8	1106.8	1105.0	1112.4	1117.9	1136.3	1138.1	1173.0	1206.2	1239.2
20°	1180.4	1178.5	1171.2	1162.1	1160.2	1163.9	1182.2	1184.1	1219.1	1246.6	1277.9
22.5°	1265.0	1266.8	1250.3	1230.1	1220.9	1226.4	1242.9	1244.7	1270.5	1294.4	1322.0
25°	1377.2	1371.7	1347.7	1318.3	1300.0	1300.0	1316.4	1316.4	1340.4	1355.1	1373.5
27.5°	1483.8	1472.7	1450.6	1408.4	1379.0	1384.5	1401.0	1401.0	1423.1	1428.7	1437.9
30°	1599.6	1588.6	1561.0	1507.7	1469.1	1465.4	1485.6	1483.8	1513.3	1511.4	1504.0
32.5°	1741.2	1735.6	1689.7	1621.7	1570.2	1557.3	1575.8	1577.6	1595.9	1590.5	1566.5
35°	1939.8	1938.0	1895.6	1776.1	1708.1	1684.2	1695.2	1695.2	1708.1	1693.4	1653.0
37.5°	2189.8	2193.5	2156.8	1980.2	1884.6	1844.2	1846.0	1844.2	1847.9	1831.3	1789.0
40°	2439.9	2449.0	2447.2	2233.9	2112.6	2042.7	2017.0	2013.4	2022.5	2015.2	1974.7
42.5°	2769.0	2791.1	2739.6	2546.5	2410.5	2292.8	2223.0	2213.8	2233.9	2243.1	2204.6
45°	3111.0	3103.6	3022.7	2883.0	2759.8	2609.0	2476.7	2461.9	2476.7	2504.3	2463.8
47.5°	3289.4	3283.9	3263.6	3193.8	3175.3	3002.6	2802.1	2789.3	2761.7	2800.2	2752.5
50°	3583.5	3589.0	3506.3	3499.0	3576.1	3480.6	3169.8	3140.5	3090.7	3122.0	3081.5
52.5°	3796.8	3772.9	3721.4	3785.7	4026.6	3975.2	3515.5	3502.6	3456.7	3449.3	3431.0
55°	3883.2	3883.2	3892.4	4041.4	4385.2	4317.2	3890.6	3903.5	3841.0	3789.4	3813.4
57.5°	3909.0	3920.0	3999.0	4245.5	4806.2	4583.7	4304.3	4322.7	4232.6	4129.7	4205.0
60°	3782.2	3815.2	4004.5	4361.2	5043.5	4866.9	4740.0	4745.6	4615.0	4464.3	4596.6
62.5°	3456.7	3497.2	3835.5	4409.1	5004.8	5157.4	5151.9	5164.8	4986.5	4798.9	4964.4
65°	3057.7	3098.1	3458.5	4274.9	4975.4	5365.2	5528.8	5563.7	5334.0	5082.0	5194.2
67.5°	2471.1	2524.4	2866.4	3822.6	4832.0	5536.2	5881.9	5918.6	5602.4	5229.1	5174.0
70°	1790.9	1816.6	2103.4	2905.1	4247.3	5442.4	6161.3	6159.5	5690.7	5218.1	4898.2
72.5°	862.3	882.6	1130.8	1803.8	3037.4	4618.7	5959.1	5994.0	5569.3	5058.2	4267.5
75°	354.9	375.1	457.9	761.2	1594.1	3052.2	5050.8	5133.5	5058.2	4539.7	3339.0
77.5°	220.7	228.0	268.4	393.4	728.1	1425.0	3535.7	3647.8	4008.2	3636.9	2204.6
80°	165.5	171.0	200.4	275.8	459.7	525.9	1755.9	1897.5	2428.9	2086.9	998.4
82.5°	137.9	139.7	160.0	200.4	312.6	301.6	562.6	627.0	1132.6	796.2	343.8
85°	128.7	132.4	143.4	143.4	198.6	189.3	233.5	244.6	329.1	272.1	119.5
87.5°	66.2	62.5	126.8	112.1	103.0	92.0	99.3	106.6	123.2	130.5	53.3
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°	1123.4	1123.4	1123.4	1123.4	1123.4	1123.4	1123.4	1123.4	1123.4	1123.4	1123.4
2.5°	1119.7	1125.2	1134.5	1143.7	1154.7	1167.5	1174.9	1184.1	1191.4	1187.7	1185.9
5°	1125.2	1134.5	1154.7	1173.0	1195.1	1220.9	1237.5	1255.8	1270.5	1274.2	1268.7
7.5°	1134.5	1151.0	1178.5	1211.7	1241.0	1274.2	1300.0	1325.6	1344.1	1347.7	1347.7
10°	1156.5	1174.9	1211.7	1255.8	1290.8	1325.6	1355.1	1375.4	1391.8	1399.2	1399.2
12.5°	1187.7	1209.8	1253.9	1307.3	1345.9	1379.0	1395.5	1404.7	1412.1	1419.4	1421.3
15°	1224.6	1248.4	1301.8	1358.8	1399.2	1415.8	1415.8	1413.9	1413.9	1417.6	1421.3
17.5°	1261.3	1287.1	1342.2	1402.9	1428.7	1419.4	1406.6	1401.0	1397.4	1395.5	1401.0
20°	1300.0	1325.6	1380.8	1437.9	1430.5	1391.8	1373.5	1360.6	1349.6	1344.1	1351.4
22.5°	1342.2	1366.2	1423.1	1461.7	1406.6	1347.7	1312.8	1292.6	1274.2	1263.1	1270.5
25°	1391.8	1415.8	1470.9	1469.1	1364.3	1281.6	1226.4	1193.3	1173.0	1162.1	1162.1
27.5°	1450.6	1470.9	1524.2	1450.6	1305.5	1193.3	1112.4	1081.2	1075.6	1066.4	1066.4
30°	1511.4	1527.9	1573.9	1408.4	1224.6	1077.5	989.2	974.5	976.3	967.1	968.9
32.5°	1573.9	1590.5	1603.3	1345.9	1119.7	946.9	888.0	877.1	875.2	867.9	860.5
35°	1662.2	1686.0	1607.0	1261.3	992.9	838.4	796.2	785.1	774.1	748.3	748.3
37.5°	1796.4	1822.1	1597.7	1156.5	862.3	753.8	715.2	700.5	682.1	656.4	647.2
40°	1980.2	1980.2	1577.6	1038.8	757.5	685.8	649.1	630.6	610.4	584.7	579.2
42.5°	2197.2	2145.7	1546.3	919.3	680.3	639.9	606.7	586.6	562.6	533.2	529.6
45°	2450.9	2311.2	1502.2	812.7	623.3	612.2	592.1	557.1	516.7	485.4	479.9
47.5°	2697.3	2460.1	1459.9	737.3	575.5	601.3	584.7	525.9	470.7	426.6	421.0
50°	2967.6	2592.5	1410.2	674.7	538.7	593.9	575.5	479.9	419.2	388.0	384.3
52.5°	3237.8	2726.7	1356.9	608.6	507.5	579.2	553.4	446.8	417.4	375.1	369.6
55°	3522.8	2883.0	1294.4	535.0	470.7	549.7	524.1	445.0	430.3	375.1	362.2
57.5°	3800.5	3055.9	1193.3	463.3	430.3	505.6	513.0	433.9	402.6	371.4	356.7
60°	4107.6	3239.7	1025.9	402.6	395.3	468.8	498.3	410.0	371.4	360.4	353.0
62.5°	4353.9	3405.2	801.7	360.4	365.9	439.5	479.9	395.3	358.5	349.3	347.5
65°	4460.6	3408.9	575.5	323.6	336.4	411.8	461.5	382.5	347.5	343.8	342.0
67.5°	4348.5	3221.3	404.5	288.7	305.2	386.2	437.6	369.6	336.4	338.3	334.6
70°	3986.2	2826.0	296.0	255.5	275.8	358.5	411.8	353.0	323.6	327.2	321.7
72.5°	3335.3	2202.7	237.2	228.0	251.9	329.1	386.2	334.6	303.4	305.2	294.2
75°	2463.8	1459.9	198.6	204.1	224.3	301.6	353.0	310.8	281.3	273.9	266.6
77.5°	1465.4	750.1	163.7	178.3	200.4	268.4	316.3	281.3	257.4	244.6	239.1
80°	604.9	303.4	134.2	150.8	174.7	239.1	279.5	246.4	229.9	217.0	209.6
82.5°	240.9	148.9	106.6	123.2	147.1	207.8	244.6	217.0	200.4	191.2	171.0
85°	92.0	73.6	71.7	86.4	110.3	160.0	202.2	182.0	169.2	145.3	139.7
87.5°	36.7	33.1	33.1	42.2	62.5	101.2	145.3	126.8	132.4	104.9	106.6
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)