

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: P231287

Luminaire Tested: **ARCH-M-AF48-80-D-U-T4W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231287
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-AF48-80-D-U-T4W
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 4000K, 535mA LIGHT ENGINES WITH 24 LEDS AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11317.9 lumens
Efficiency: N/A
Efficacy: 136.4 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

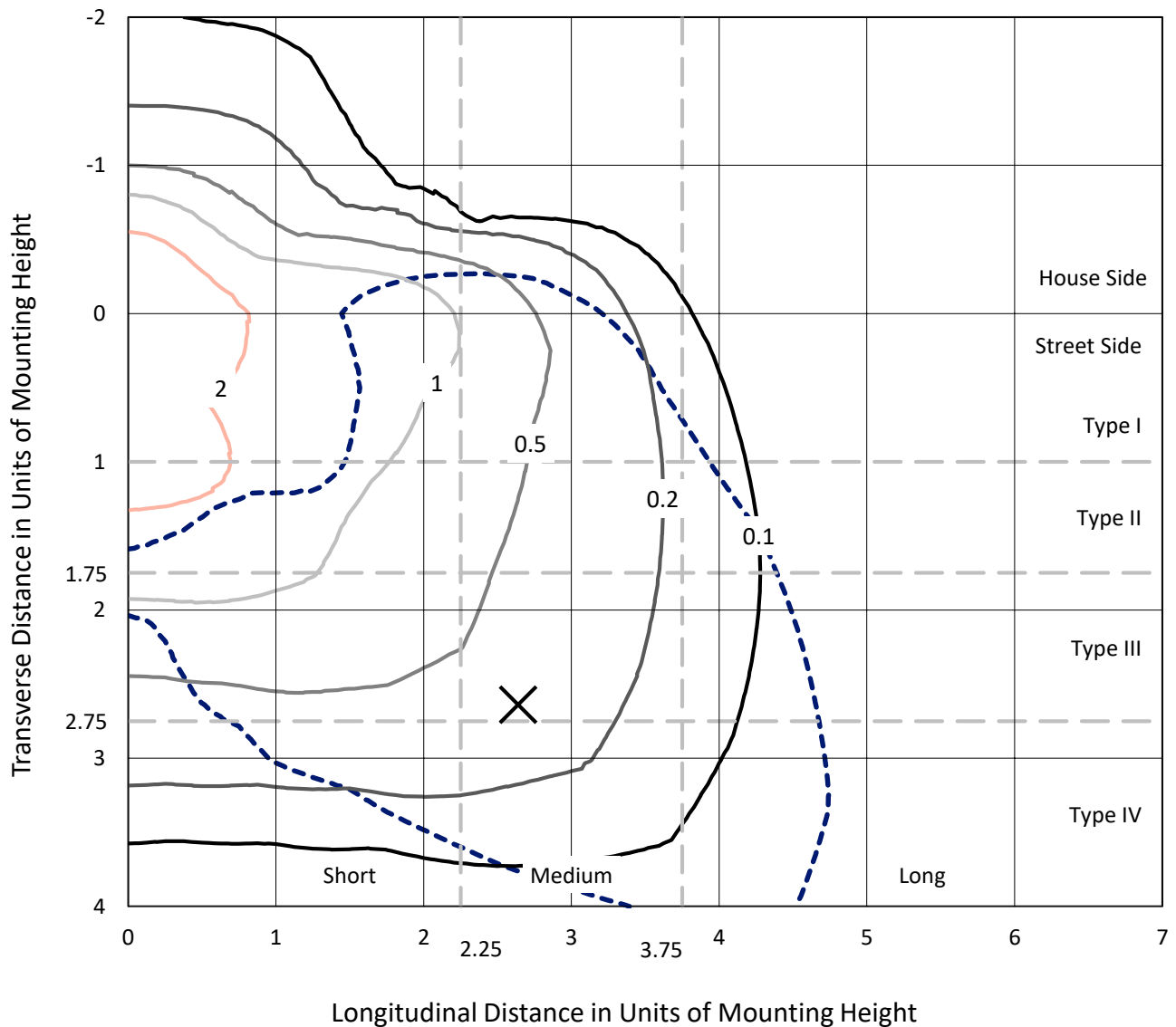
Input Watts (W): 83
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

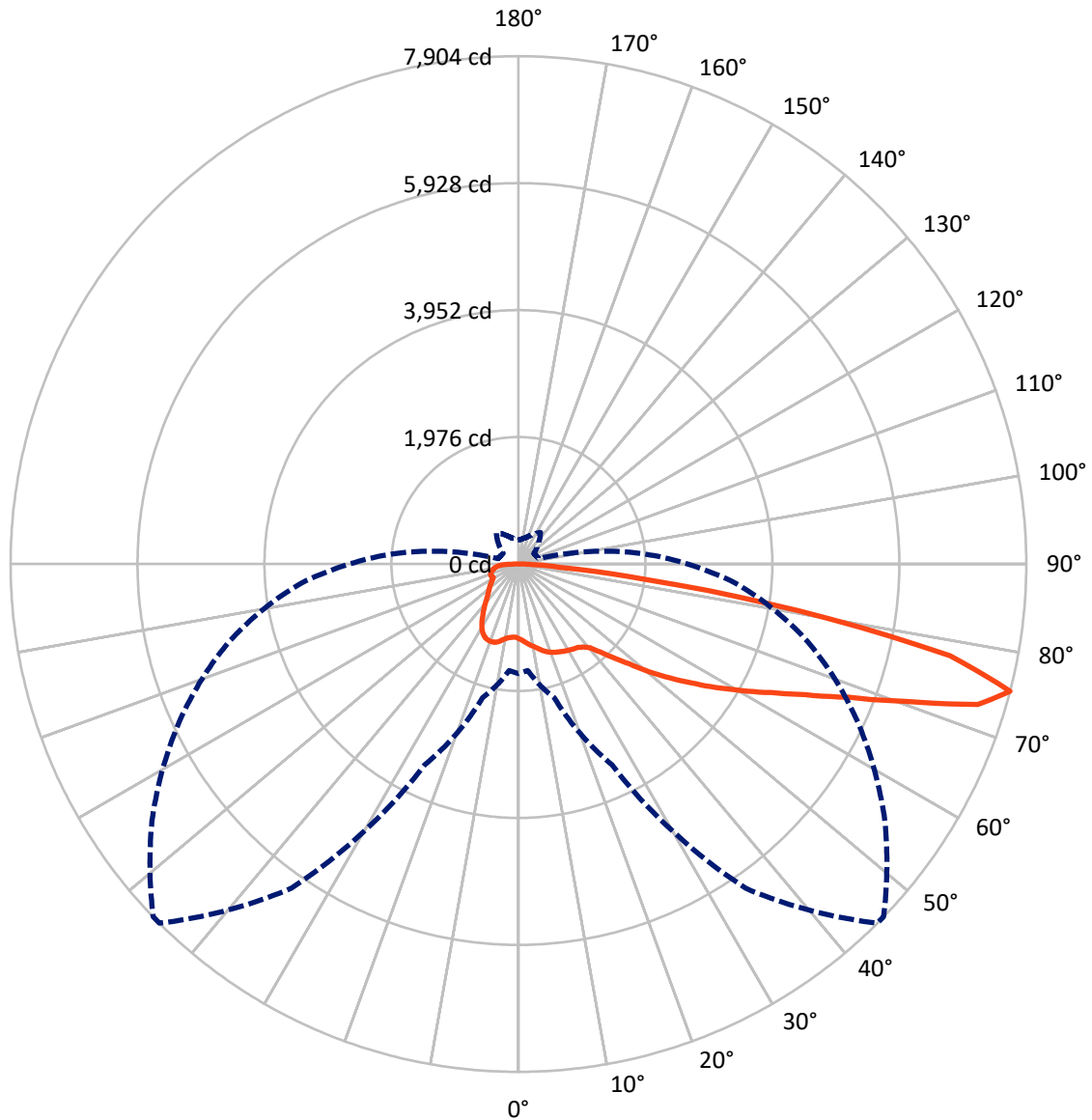


Based on 20 foot mounting height. Maximum calculated value = 3.4 fc
 Type IV - Medium - Non-Cutoff

REPORT NUMBER: P231287

CATALOG NUMBER: ARCH-M-AF48-80-D-U-T4W

Luminous Intensity Polar Plot



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

REPORT NUMBER: P231287

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2621.9	0.0	2621.9
	% Fixture	23.2	0.0	23.2
Street Side	Lumens	8696.0	0.0	8696.0
	% Fixture	76.8	0.0	76.8
Total	Lumens	11317.9	0.0	11317.9
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	115.0	1.0
10°-20°	372.6	3.3
20°-30°	639.4	5.6
30°-40°	894.3	7.9
40°-50°	1311.8	11.6
50°-60°	2043.4	18.1
60°-70°	2940.3	26.0
70°-80°	2561.3	22.6
80°-90°	439.9	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°	11317.9	100.0
0°-180°	11317.9	100.0



REPORT NUMBER: P231287

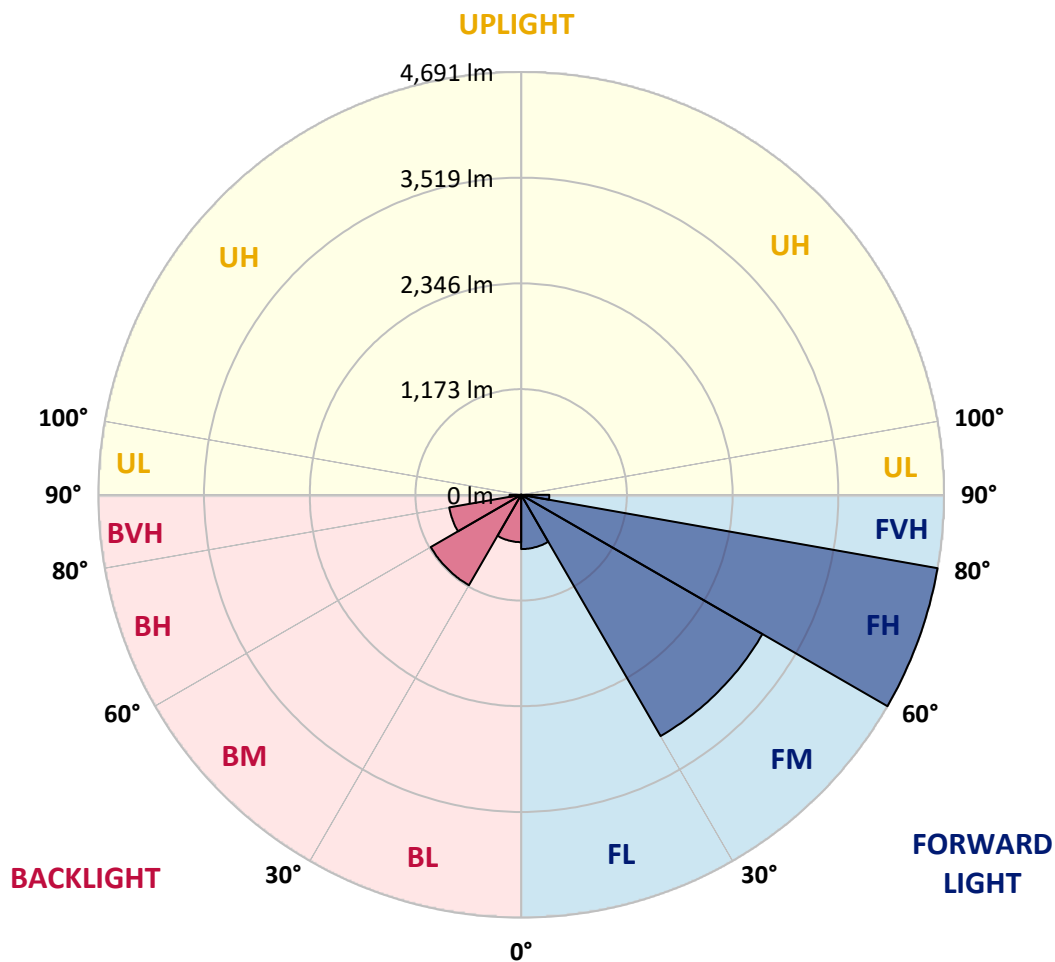
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	601.8	5.3			
FM (30°-60°)	3090.7	27.3			
FH (60°-80°)	4691.4	41.5			G2/5000
FVH (80°-90°)	312.1	2.8			G3/500
BL (0°-30°)	525.1	4.6	B2/1000		
BM (30°-60°)	1158.7	10.2	B2/2500		
BH (60°-80°)	810.2	7.2	B2/1000		G2/1000
BVH (80°-90°)	127.8	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: P231287

CATALOG NUMBER: ARCH-M-AF48-80-D-U-T4W

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	1160.2	1160.2	1160.2	1160.2	1160.2	1160.2	1160.2	1160.2	1160.2	1160.2	1160.2
2.5°	1217.5	1208.7	1208.7	1202.1	1202.1	1191.0	1186.6	1184.5	1173.4	1166.9	1160.2
5°	1287.9	1276.9	1274.7	1259.4	1252.7	1228.5	1226.3	1210.9	1191.0	1171.3	1155.8
7.5°	1351.8	1345.2	1334.1	1318.8	1298.9	1268.2	1265.9	1241.7	1208.7	1182.2	1160.2
10°	1398.1	1393.7	1378.2	1358.4	1336.4	1305.6	1303.3	1276.9	1237.3	1206.5	1175.7
12.5°	1453.1	1446.5	1426.6	1400.2	1376.0	1347.4	1345.2	1323.2	1279.1	1239.5	1199.9
15°	1505.9	1497.1	1472.8	1446.5	1420.1	1395.8	1395.8	1371.6	1325.3	1279.1	1232.9
17.5°	1532.3	1527.9	1503.7	1475.1	1453.1	1435.4	1433.3	1411.3	1365.0	1316.5	1265.9
20°	1541.2	1543.3	1521.3	1490.4	1475.1	1466.3	1464.0	1448.7	1398.1	1351.8	1303.3
22.5°	1538.9	1545.6	1527.9	1494.9	1490.4	1490.4	1490.4	1472.8	1433.3	1387.0	1338.5
25°	1547.7	1556.5	1543.3	1503.7	1503.7	1512.5	1512.5	1503.7	1468.4	1428.9	1380.4
27.5°	1578.5	1585.2	1574.1	1519.1	1521.3	1534.5	1532.3	1534.5	1512.5	1475.1	1426.6
30°	1616.0	1624.8	1611.6	1543.3	1541.2	1554.4	1554.4	1565.3	1550.0	1510.3	1470.7
32.5°	1717.2	1715.1	1673.2	1569.7	1563.2	1576.4	1576.4	1587.3	1578.5	1547.7	1510.3
35°	2018.9	1985.9	1893.4	1655.6	1589.6	1596.2	1596.2	1616.0	1620.4	1596.2	1563.2
37.5°	2327.1	2316.1	2245.7	1884.6	1686.4	1637.9	1635.8	1664.4	1684.2	1664.4	1642.4
40°	2637.6	2628.7	2613.3	2190.6	1889.0	1712.8	1706.3	1730.4	1765.7	1752.5	1739.2
42.5°	2925.9	2921.5	2937.0	2492.2	2146.6	1873.5	1853.8	1825.1	1875.8	1871.4	1871.4
45°	3152.7	3163.7	3172.5	2774.0	2426.1	2080.5	2056.3	1959.5	2027.7	2045.3	2058.5
47.5°	3280.4	3289.2	3320.0	3049.2	2705.8	2320.5	2302.9	2144.4	2234.6	2287.5	2324.9
50°	3463.1	3439.0	3465.3	3317.8	3042.7	2633.1	2584.7	2393.2	2507.7	2600.1	2688.2
52.5°	3639.2	3599.7	3621.7	3628.2	3425.7	2939.1	2888.5	2686.0	2829.1	2974.3	3130.6
55°	3797.8	3795.6	3817.6	3929.9	3795.6	3267.2	3209.9	3009.6	3216.6	3372.9	3637.1
57.5°	3925.5	3947.5	4044.3	4279.9	4222.6	3623.8	3560.0	3386.1	3630.5	3786.8	4224.9
60°	4075.1	4110.4	4271.1	4577.2	4612.4	3998.1	3932.1	3806.6	4055.4	4213.8	4905.2
62.5°	4125.8	4176.5	4506.7	4889.8	5019.6	4407.6	4348.2	4264.5	4502.3	4645.4	5583.3
65°	3789.0	3885.9	4636.6	5050.5	5457.7	4900.8	4850.1	4777.5	4947.0	5041.7	6043.4
67.5°	3696.5	3740.5	4383.4	5281.7	5869.5	5534.9	5484.2	5358.7	5363.1	5323.5	6193.1
70°	3566.6	3615.0	4123.6	5455.6	6459.5	6402.2	6340.7	5970.8	5744.0	5504.0	5898.1
72.5°	3038.3	3022.8	3553.4	4986.7	6743.5	7476.6	7404.0	6629.0	6025.8	5347.7	4977.9
75°	1706.3	1662.2	2155.4	3449.9	6157.9	7903.7	7901.6	6961.5	5827.6	4658.6	3388.3
77.5°	495.3	482.1	711.2	1446.5	4145.6	6866.9	6950.4	6279.0	4863.3	3346.5	1860.3
80°	233.3	237.7	306.1	477.7	1770.1	4431.8	4671.8	4134.7	2906.1	1543.3	768.3
82.5°	147.5	149.8	209.2	308.2	748.6	2012.2	2210.4	1860.3	1151.4	667.1	339.0
85°	92.5	92.5	138.7	202.5	446.9	642.8	698.0	634.0	493.2	363.2	184.9
87.5°	50.6	50.6	83.7	116.7	244.4	206.9	213.6	253.2	308.2	222.4	92.5
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°	1160.2	1160.2	1160.2	1160.2	1160.2	1160.2	1160.2	1160.2	1160.2	1160.2	1160.2
2.5°	1158.1	1153.7	1147.0	1144.9	1142.6	1140.4	1142.6	1147.0	1142.6	1142.6	1144.9
5°	1151.4	1147.0	1138.2	1138.2	1140.4	1142.6	1153.7	1160.2	1162.5	1162.5	1162.5
7.5°	1151.4	1144.9	1138.2	1140.4	1144.9	1153.7	1171.3	1182.2	1191.0	1193.3	1193.3
10°	1162.5	1153.7	1149.3	1153.7	1166.9	1173.4	1191.0	1208.7	1219.7	1224.1	1224.1
12.5°	1182.2	1173.4	1173.4	1182.2	1199.9	1208.7	1224.1	1237.3	1250.6	1257.1	1257.1
15°	1215.3	1204.3	1206.5	1221.9	1241.7	1250.6	1261.5	1265.9	1276.9	1285.7	1285.7
17.5°	1246.2	1235.1	1239.5	1257.1	1270.3	1274.7	1281.3	1279.1	1283.5	1290.1	1292.3
20°	1281.3	1270.3	1272.6	1283.5	1285.7	1281.3	1281.3	1274.7	1272.6	1283.5	1287.9
22.5°	1316.5	1305.6	1303.3	1296.8	1285.7	1274.7	1268.2	1261.5	1257.1	1268.2	1272.6
25°	1358.4	1343.0	1332.0	1303.3	1274.7	1255.0	1246.2	1241.7	1239.5	1250.6	1255.0
27.5°	1404.6	1389.2	1356.2	1294.5	1248.3	1215.3	1208.7	1208.7	1213.1	1219.7	1224.1
30°	1448.7	1433.3	1373.8	1274.7	1202.1	1153.7	1147.0	1153.7	1164.6	1171.3	1177.8
32.5°	1492.7	1477.2	1384.8	1243.9	1133.8	1072.2	1067.8	1078.8	1096.4	1100.8	1105.2
35°	1552.1	1536.7	1398.1	1199.9	1048.0	981.9	977.5	984.1	999.5	1006.2	1012.7
37.5°	1635.8	1627.0	1417.8	1151.4	968.7	896.1	882.8	878.4	887.2	885.1	893.9
40°	1745.9	1752.5	1453.1	1087.6	891.6	816.8	788.2	775.0	766.2	748.6	757.4
42.5°	1906.6	1911.0	1492.7	1015.0	825.6	741.9	704.5	680.3	662.7	634.0	638.4
45°	2142.2	2104.7	1538.9	937.8	766.2	682.5	638.4	609.9	585.6	561.4	563.6
47.5°	2454.8	2340.3	1589.6	874.0	706.8	634.0	594.4	561.4	532.8	513.0	515.2
50°	2840.1	2633.1	1640.2	814.6	647.3	596.7	561.4	526.2	497.6	477.7	475.6
52.5°	3348.6	2985.4	1673.2	748.6	587.8	563.6	532.8	499.8	464.5	440.3	438.1
55°	3877.0	3394.9	1701.9	669.3	530.6	526.2	510.8	473.3	431.5	400.7	396.3
57.5°	4458.2	3833.0	1723.9	592.2	486.5	495.3	490.9	446.9	400.7	372.0	369.9
60°	4986.7	4286.6	1653.4	524.0	446.9	464.5	468.9	431.5	407.3	413.9	416.1
62.5°	5519.4	4636.6	1384.8	473.3	420.5	444.7	482.1	480.0	468.9	480.0	482.1
65°	5710.9	4709.3	981.9	431.5	394.0	453.6	524.0	519.6	468.9	449.2	444.7
67.5°	5603.1	4493.5	660.5	398.5	374.3	464.5	568.0	519.6	451.3	424.9	416.1
70°	5090.1	3962.9	484.4	365.5	356.7	462.4	592.2	517.4	442.5	413.9	402.9
72.5°	4059.8	3058.0	389.6	334.6	330.2	451.3	605.5	513.0	433.7	402.9	389.6
75°	2628.7	1902.2	328.1	303.8	290.6	433.7	598.8	499.8	422.7	383.1	374.3
77.5°	1219.7	819.0	279.6	268.6	253.2	407.3	579.0	473.3	398.5	361.1	350.1
80°	568.0	387.5	235.6	233.3	226.8	385.2	552.6	442.5	369.9	339.0	321.4
82.5°	303.8	233.3	191.5	191.5	198.1	358.9	519.6	405.1	332.5	317.0	270.8
85°	160.7	134.3	138.7	149.8	169.5	317.0	475.6	365.5	290.6	242.1	235.6
87.5°	81.4	85.8	85.8	101.3	129.9	257.6	391.9	301.7	246.5	198.1	193.7
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)