

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: P234812

Luminaire Tested: **ARCH-M-AF48-110-D-U-T3-8027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P234812
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-AF48-110-D-U-T3-8027
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 80 CRI, 2700K, 720mA LIGHT ENGINES WITH 24 LEDS AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11068 lumens
Efficiency: N/A
Efficacy: 99.7 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

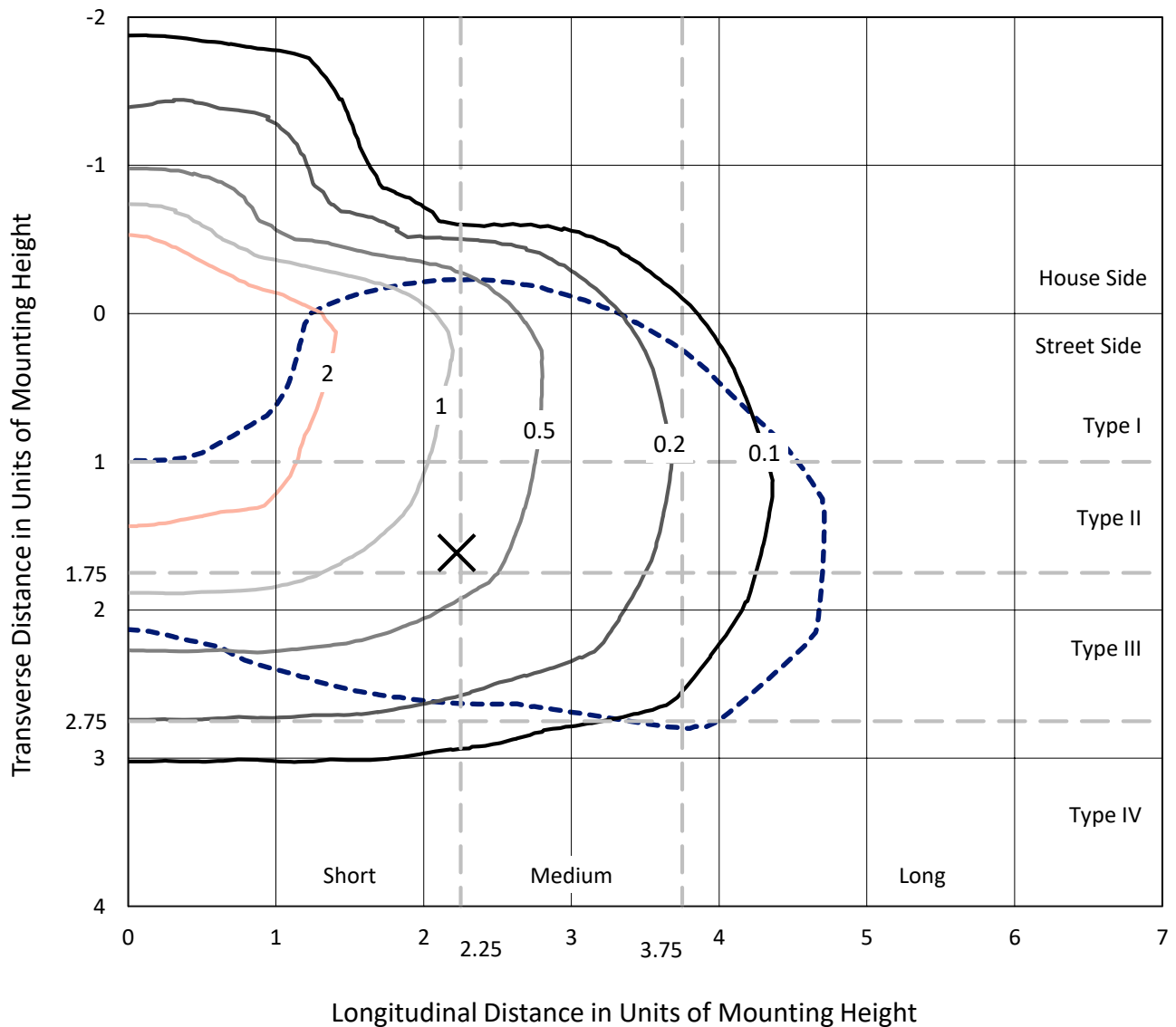
Input Watts (W): 111
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

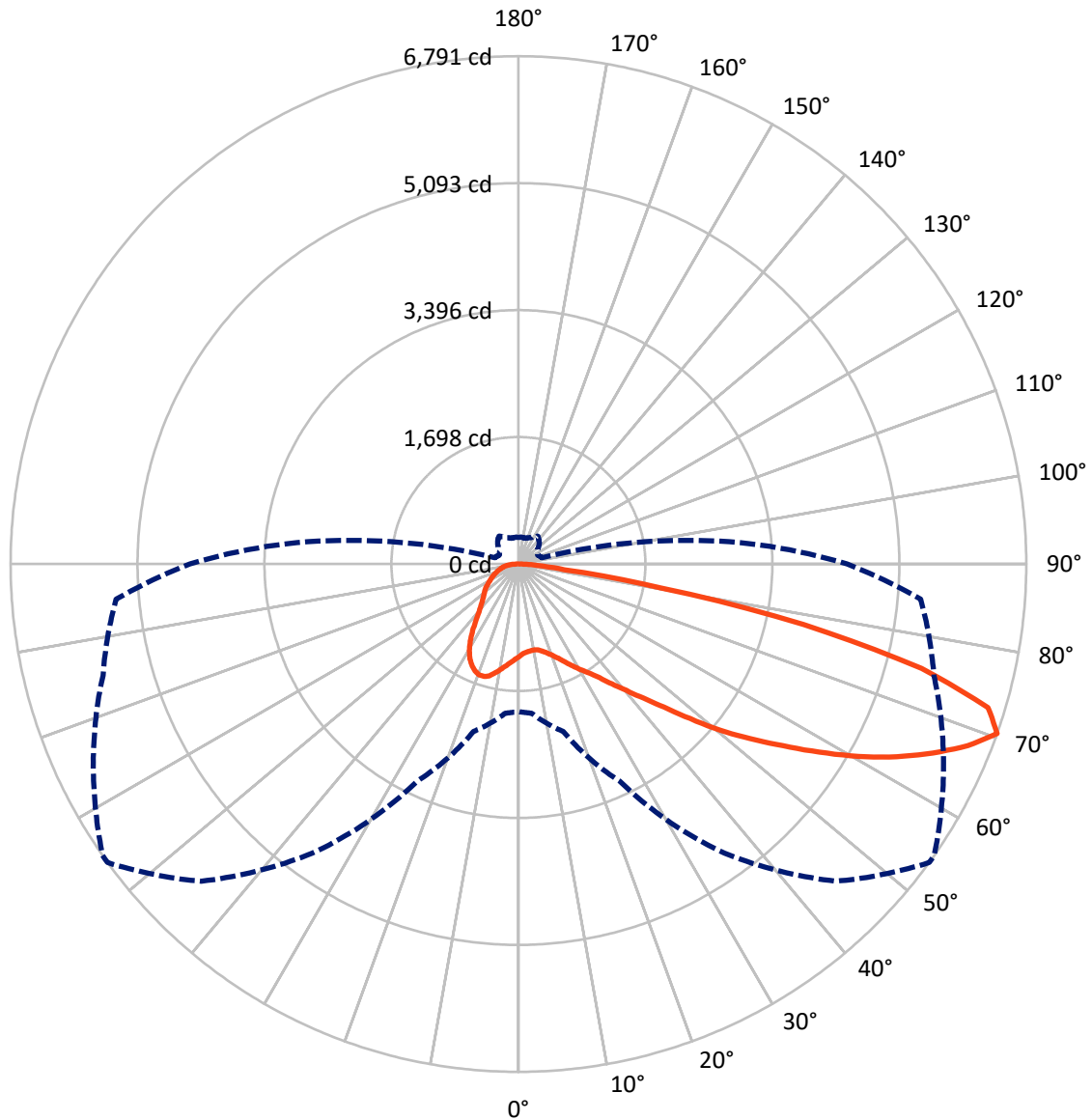


Based on 20 foot mounting height. Maximum calculated value = 3.6 fc
 Type III - Short - Non-Cutoff

REPORT NUMBER: P234812

CATALOG NUMBER: ARCH-M-AF48-110-D-U-T3-8027

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	2510.2	0.0	2510.2
	% Fixture	22.7	0.0	22.7
Street Side	Lumens	8557.8	0.0	8557.8
	% Fixture	77.3	0.0	77.3
Total	Lumens	11068.0	0.0	11068.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	121.5	1.1
10°-20°	388.3	3.5
20°-30°	674.6	6.1
30°-40°	985.9	8.9
40°-50°	1547.3	14.0
50°-60°	2379.3	21.5
60°-70°	2907.0	26.3
70°-80°	1802.3	16.3
80°-90°	261.8	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°	11068.0	100.0
0°-180°	11068.0	100.0

Coefficient of Utilization



REPORT NUMBER: P234812

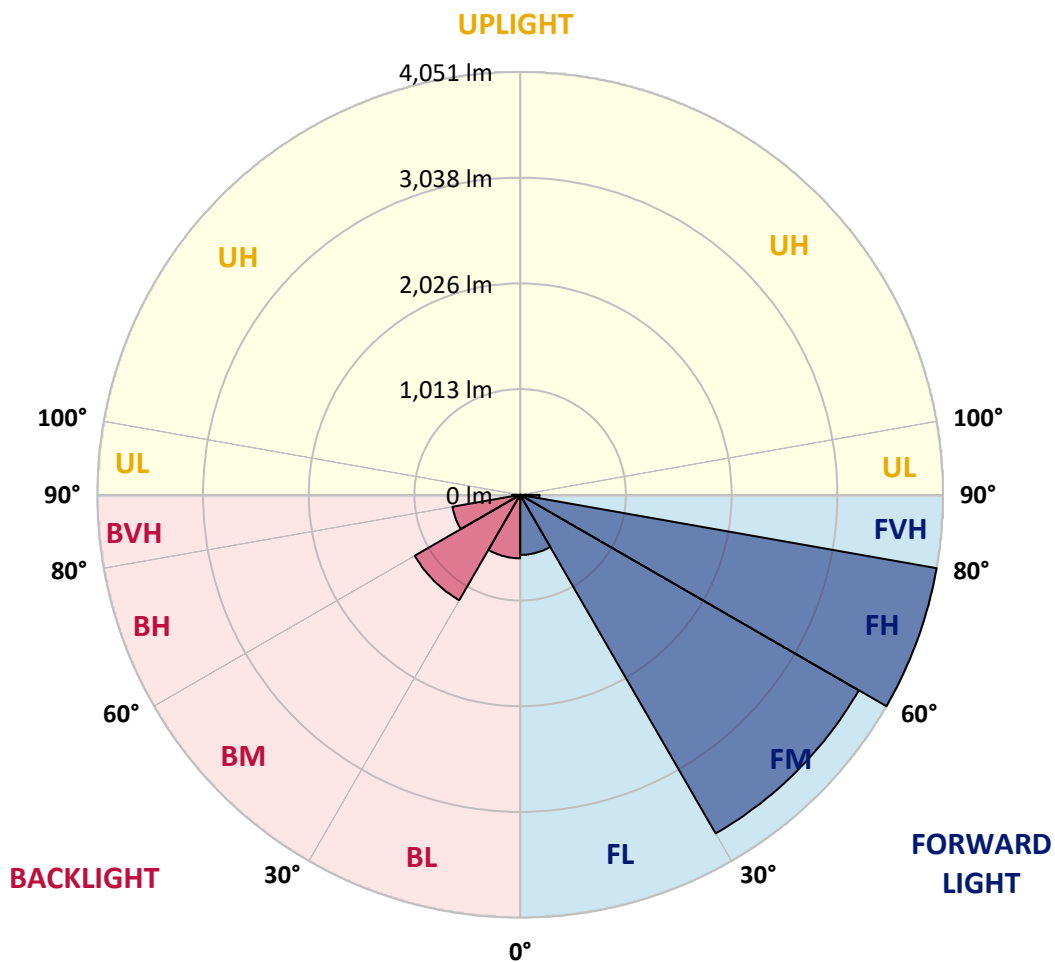
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	575.9	5.2			
FM	(30°-60°)	3746.0	33.8			
FH	(60°-80°)	4051.1	36.6			G2/5000
FVH	(80°-90°)	184.9	1.7			G2/225
BL	(0°-30°)	608.6	5.5	B2/1000		
BM	(30°-60°)	1166.4	10.5	B2/2500		
BH	(60°-80°)	658.2	5.9	B2/1000		G2/1000
BVH	(80°-90°)	76.9	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





REPORT NUMBER: P234812

CATALOG NUMBER: ARCH-M-AF48-110-D-U-T3-8027

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	54°	55°	65°	75°	85°
0°	1238.3	1238.3	1238.3	1238.3	1238.3	1238.3	1238.3	1238.3	1238.3	1238.3	1238.3
2.5°	1189.6	1185.6	1185.6	1191.7	1193.7	1199.8	1199.8	1201.8	1207.9	1218.0	1230.2
5°	1153.2	1151.1	1153.2	1161.3	1165.3	1177.5	1181.5	1183.6	1195.7	1211.9	1230.2
7.5°	1116.7	1114.7	1118.7	1130.9	1143.0	1161.3	1171.4	1173.4	1191.7	1214.0	1238.3
10°	1104.5	1102.5	1108.6	1118.7	1130.9	1151.1	1167.4	1169.4	1195.7	1222.1	1256.5
12.5°	1120.7	1118.7	1124.8	1134.9	1147.1	1161.3	1179.5	1181.5	1216.0	1250.4	1286.9
15°	1161.3	1161.3	1163.3	1169.4	1181.5	1193.7	1209.9	1211.9	1248.4	1289.0	1325.4
17.5°	1224.1	1220.0	1220.0	1218.0	1226.1	1232.2	1252.5	1254.5	1293.0	1329.5	1366.0
20°	1301.1	1299.1	1291.0	1280.8	1278.8	1282.9	1303.1	1305.2	1343.7	1374.1	1408.5
22.5°	1394.3	1396.4	1378.1	1355.8	1345.7	1351.8	1370.0	1372.0	1400.4	1426.8	1457.2
25°	1518.0	1511.9	1485.5	1453.1	1432.8	1432.8	1451.1	1451.1	1477.4	1493.6	1513.9
27.5°	1635.5	1623.3	1599.0	1552.4	1520.0	1526.1	1544.3	1544.3	1568.6	1574.7	1584.8
30°	1763.2	1751.0	1720.6	1661.9	1619.3	1615.2	1637.5	1635.5	1667.9	1665.9	1657.8
32.5°	1919.2	1913.2	1862.5	1787.5	1730.8	1716.6	1736.8	1738.9	1759.1	1753.1	1726.7
35°	2138.1	2136.1	2089.5	1957.7	1882.8	1856.4	1868.6	1868.6	1882.8	1866.5	1822.0
37.5°	2413.7	2417.8	2377.3	2182.7	2077.3	2032.7	2034.8	2032.7	2036.8	2018.5	1971.9
40°	2689.4	2699.5	2697.5	2462.4	2328.6	2251.6	2223.2	2219.2	2229.3	2221.2	2176.6
42.5°	3052.1	3076.5	3019.7	2806.9	2656.9	2527.2	2450.2	2440.1	2462.4	2472.5	2430.0
45°	3429.1	3421.0	3331.8	3177.8	3042.0	2875.8	2729.9	2713.7	2729.9	2760.3	2715.7
47.5°	3625.7	3619.6	3597.3	3520.3	3500.0	3309.5	3088.6	3074.4	3044.0	3086.6	3033.9
50°	3949.9	3956.0	3864.8	3856.7	3941.8	3836.5	3494.0	3461.5	3406.8	3441.3	3396.7
52.5°	4185.0	4158.7	4101.9	4172.9	4438.4	4381.6	3875.0	3860.8	3810.1	3802.0	3781.7
55°	4280.3	4280.3	4290.4	4454.6	4833.6	4758.6	4288.4	4302.6	4233.7	4176.9	4203.3
57.5°	4308.7	4320.8	4408.0	4679.5	5297.7	5052.4	4744.4	4764.7	4665.4	4551.9	4635.0
60°	4168.8	4205.3	4414.1	4807.2	5559.1	5364.6	5224.7	5230.8	5086.9	4920.7	5066.6
62.5°	3810.1	3854.7	4227.6	4859.9	5516.6	5684.8	5678.7	5692.9	5496.3	5289.6	5472.0
65°	3370.3	3414.9	3812.1	4712.0	5484.1	5913.8	6094.1	6132.7	5879.3	5601.7	5725.3
67.5°	2723.8	2782.6	3159.6	4213.4	5326.0	6102.3	6483.3	6523.8	6175.2	5763.8	5703.0
70°	1974.0	2002.3	2318.5	3202.1	4681.6	5998.9	6791.3	6789.3	6272.5	5751.6	5399.0
72.5°	950.5	972.8	1246.4	1988.1	3348.0	5091.0	6568.4	6606.9	6138.7	5575.3	4703.9
75°	391.1	413.4	504.6	839.0	1757.1	3364.2	5567.2	5658.4	5575.3	5003.8	3680.4
77.5°	243.2	251.3	295.9	433.7	802.6	1570.7	3897.3	4020.9	4418.1	4008.7	2430.0
80°	182.4	188.5	220.9	304.0	506.7	579.6	1935.5	2091.5	2677.2	2300.3	1100.5
82.5°	152.0	154.0	176.3	220.9	344.5	332.4	620.2	691.1	1248.4	877.5	379.0
85°	141.9	145.9	158.1	158.1	218.9	208.7	257.4	269.5	362.8	299.9	131.7
87.5°	73.0	68.9	139.8	123.6	113.5	101.3	109.4	117.5	135.8	143.9	58.8
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: P234812

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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1238.3	1238.3	1238.3	1238.3	1238.3	1238.3	1238.3	1238.3	1238.3	1238.3	1238.3
2.5°	1234.2	1240.3	1250.4	1260.6	1272.7	1286.9	1295.0	1305.2	1313.3	1309.2	1307.2
5°	1240.3	1250.4	1272.7	1293.0	1317.3	1345.7	1363.9	1384.2	1400.4	1404.5	1398.4
7.5°	1250.4	1268.7	1299.1	1335.6	1368.0	1404.5	1432.8	1461.2	1481.5	1485.5	1485.5
10°	1274.8	1295.0	1335.6	1384.2	1422.7	1461.2	1493.6	1515.9	1534.2	1542.3	1542.3
12.5°	1309.2	1333.5	1382.2	1441.0	1483.5	1520.0	1538.2	1548.4	1556.5	1564.6	1566.6
15°	1349.8	1376.1	1434.9	1497.7	1542.3	1560.5	1560.5	1558.5	1558.5	1562.6	1566.6
17.5°	1390.3	1418.7	1479.5	1546.3	1574.7	1564.6	1550.4	1544.3	1540.3	1538.2	1544.3
20°	1432.8	1461.2	1522.0	1584.8	1576.7	1534.2	1513.9	1499.7	1487.6	1481.5	1489.6
22.5°	1479.5	1505.8	1568.6	1611.2	1550.4	1485.5	1447.0	1424.7	1404.5	1392.3	1400.4
25°	1534.2	1560.5	1621.3	1619.3	1503.8	1412.6	1351.8	1315.3	1293.0	1280.8	1280.8
27.5°	1599.0	1621.3	1680.1	1599.0	1438.9	1315.3	1226.1	1191.7	1185.6	1175.5	1175.5
30°	1665.9	1684.1	1734.8	1552.4	1349.8	1187.6	1090.3	1074.1	1076.2	1066.0	1068.0
32.5°	1734.8	1753.1	1767.2	1483.5	1234.2	1043.7	978.9	966.7	964.7	956.6	948.5
35°	1832.1	1858.4	1771.3	1390.3	1094.4	924.2	877.5	865.4	853.2	824.8	824.8
37.5°	1980.0	2008.4	1761.2	1274.8	950.5	830.9	788.4	772.2	751.9	723.5	713.4
40°	2182.7	2182.7	1738.9	1145.1	835.0	755.9	715.4	695.1	672.8	644.5	638.4
42.5°	2421.9	2365.1	1704.4	1013.3	749.9	705.3	668.8	646.5	620.2	587.7	583.7
45°	2701.5	2547.5	1655.8	895.8	687.0	674.9	652.6	614.1	569.5	535.0	529.0
47.5°	2973.1	2711.7	1609.2	812.7	634.3	662.7	644.5	579.6	518.8	470.2	464.1
50°	3271.0	2857.6	1554.4	743.8	593.8	654.6	634.3	529.0	462.1	427.6	423.6
52.5°	3568.9	3005.5	1495.7	670.8	559.4	638.4	610.0	492.5	460.1	413.4	407.4
55°	3883.1	3177.8	1426.8	589.8	518.8	606.0	577.6	490.5	474.2	413.4	399.3
57.5°	4189.1	3368.3	1315.3	510.7	474.2	557.3	565.4	478.3	443.8	409.4	393.2
60°	4527.5	3571.0	1130.9	443.8	435.7	516.8	549.2	451.9	409.4	397.2	389.1
62.5°	4799.1	3753.4	883.6	397.2	403.3	484.4	529.0	435.7	395.2	385.1	383.0
65°	4916.7	3757.4	634.3	356.7	370.9	454.0	508.7	421.5	383.0	379.0	377.0
67.5°	4793.0	3550.7	445.9	318.2	336.4	425.6	482.3	407.4	370.9	372.9	368.9
70°	4393.8	3115.0	326.3	281.7	304.0	395.2	454.0	389.1	356.7	360.7	354.7
72.5°	3676.4	2427.9	261.4	251.3	277.7	362.8	425.6	368.9	334.4	336.4	324.3
75°	2715.7	1609.2	218.9	225.0	247.3	332.4	389.1	342.5	310.1	302.0	293.9
77.5°	1615.2	826.9	180.4	196.6	220.9	295.9	348.6	310.1	283.7	269.5	263.5
80°	666.8	334.4	147.9	166.2	192.5	263.5	308.1	271.6	253.3	239.1	231.0
82.5°	265.5	164.2	117.5	135.8	162.1	229.0	269.5	239.1	220.9	210.8	188.5
85°	101.3	81.1	79.0	95.3	121.6	176.3	222.9	200.6	186.5	160.1	154.0
87.5°	40.5	36.5	36.5	46.6	68.9	111.5	160.1	139.8	145.9	115.5	117.5
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)