

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: P231147

Luminaire Tested: **ARCH-M-AF48-110-D-U-T3-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231147
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-T3-7030
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 3000K, 720mA LIGHT ENGINES WITH 24 LEDS AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12609 lumens
Efficiency: N/A
Efficacy: 113.6 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

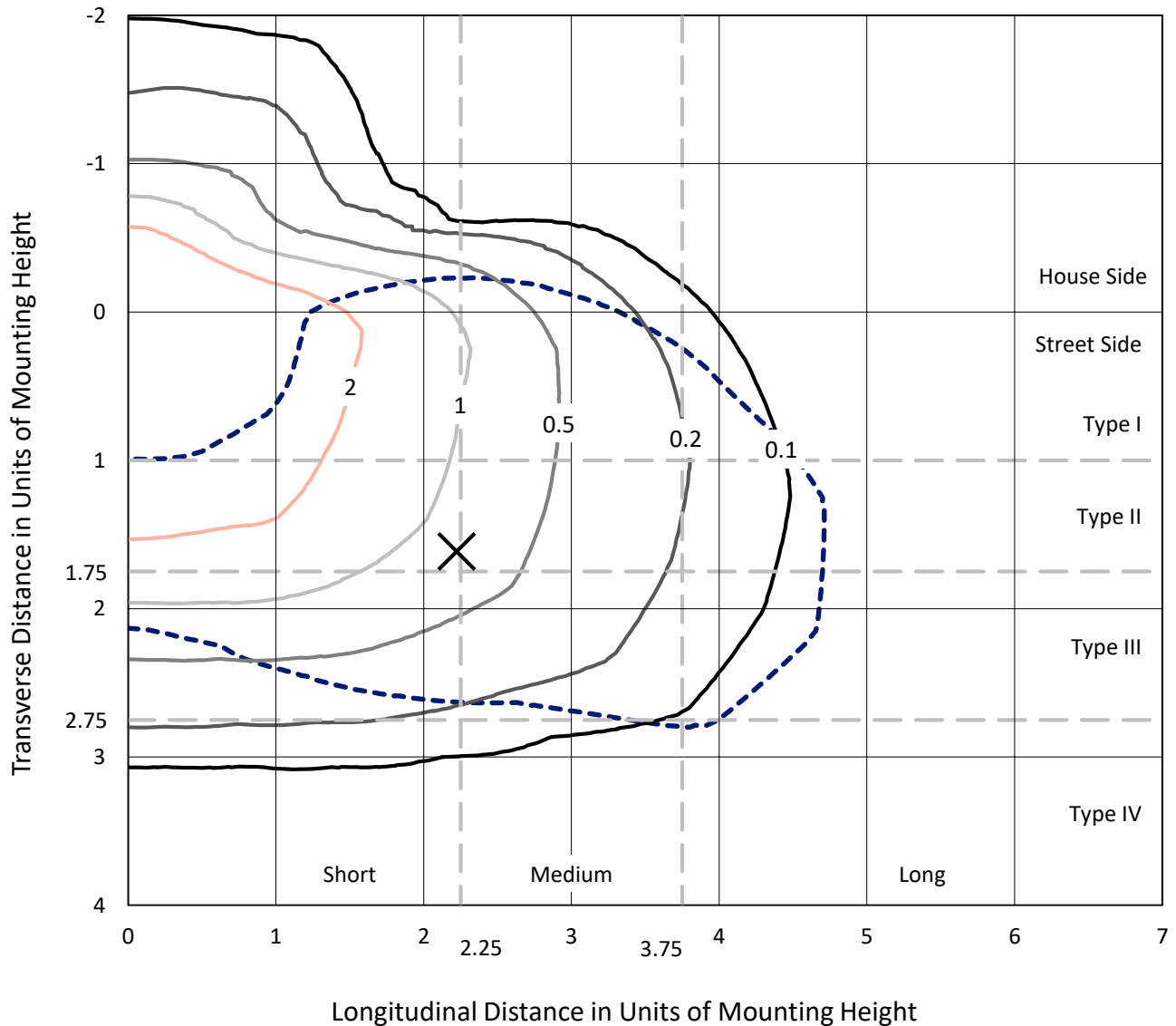
Input Watts (W): 111
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

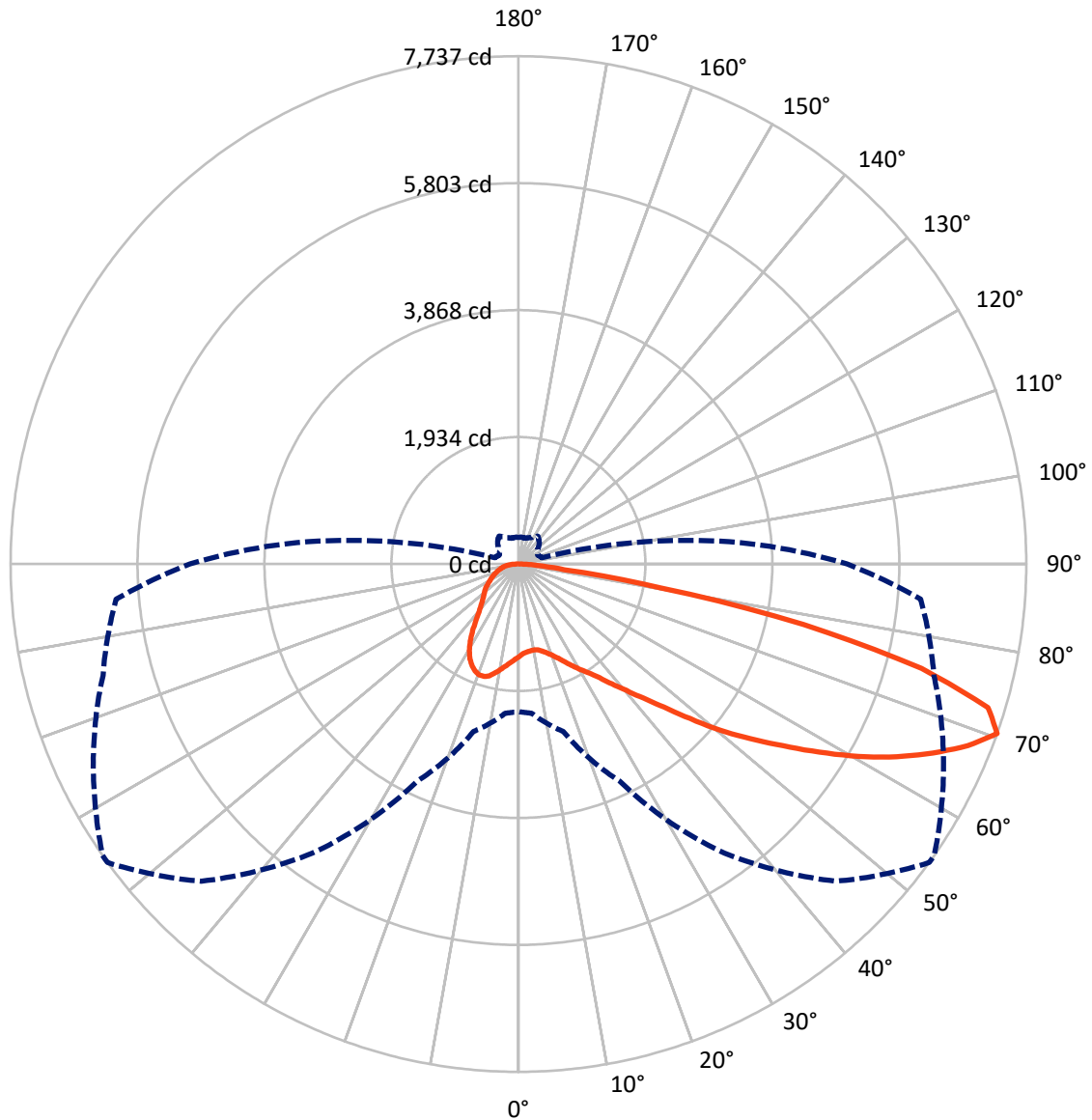
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 4.1 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	2859.7	0.0	2859.7
	% Fixture	22.7	0.0	22.7
Street Side	Lumens	9749.3	0.0	9749.3
	% Fixture	77.3	0.0	77.3
Total	Lumens	12609.0	0.0	12609.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	138.4	1.1
10°-20°	442.4	3.5
20°-30°	768.5	6.1
30°-40°	1123.1	8.9
40°-50°	1762.7	14.0
50°-60°	2710.6	21.5
60°-70°	3311.7	26.3
70°-80°	2053.3	16.3
80°-90°	298.3	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°	12609.0	100.0
0°-180°	12609.0	100.0



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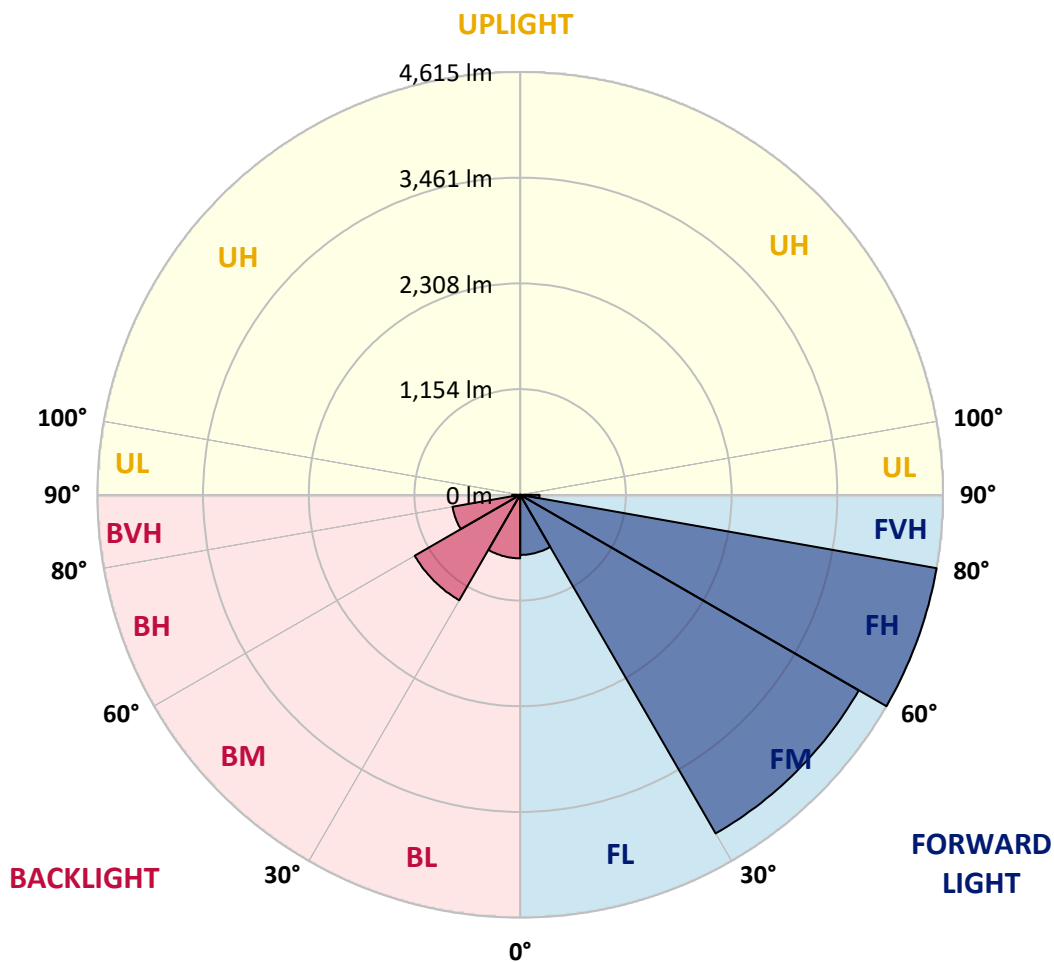
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	656.0	5.2			
FM	(30°-60°)	4267.6	33.8			
FH	(60°-80°)	4615.1	36.6			G2/5000
FVH	(80°-90°)	210.6	1.7			G2/225
BL	(0°-30°)	693.3	5.5	B2/1000		
BM	(30°-60°)	1328.8	10.5	B2/2500		
BH	(60°-80°)	749.9	5.9	B2/1000		G2/1000
BVH	(80°-90°)	87.7	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°	1410.7	1410.7	1410.7	1410.7	1410.7	1410.7	1410.7	1410.7	1410.7	1410.7	1410.7
2.5°	1355.3	1350.7	1350.7	1357.6	1359.9	1366.8	1366.8	1369.1	1376.1	1387.6	1401.5
5°	1313.7	1311.4	1313.7	1323.0	1327.6	1341.4	1346.0	1348.4	1362.2	1380.7	1401.5
7.5°	1272.2	1269.9	1274.5	1288.3	1302.2	1323.0	1334.5	1336.8	1357.6	1383.0	1410.7
10°	1258.3	1256.0	1262.9	1274.5	1288.3	1311.4	1329.9	1332.2	1362.2	1392.2	1431.5
12.5°	1276.8	1274.5	1281.4	1292.9	1306.8	1323.0	1343.7	1346.0	1385.3	1424.5	1466.1
15°	1323.0	1323.0	1325.3	1332.2	1346.0	1359.9	1378.4	1380.7	1422.2	1468.4	1510.0
17.5°	1394.5	1389.9	1389.9	1387.6	1396.8	1403.8	1426.9	1429.2	1473.0	1514.6	1556.1
20°	1482.3	1480.0	1470.7	1459.2	1456.9	1461.5	1484.6	1486.9	1530.8	1565.4	1604.6
22.5°	1588.5	1590.8	1570.0	1544.6	1533.1	1540.0	1560.8	1563.1	1595.4	1625.4	1660.0
25°	1729.3	1722.4	1692.4	1655.4	1632.3	1632.3	1653.1	1653.1	1683.1	1701.6	1724.7
27.5°	1863.2	1849.4	1821.7	1768.6	1731.6	1738.5	1759.3	1759.3	1787.0	1794.0	1805.5
30°	2008.7	1994.8	1960.2	1893.2	1844.8	1840.1	1865.5	1863.2	1900.2	1897.9	1888.6
32.5°	2186.5	2179.5	2121.8	2036.4	1971.7	1955.6	1978.7	1981.0	2004.1	1997.1	1967.1
35°	2435.8	2433.5	2380.4	2230.3	2144.9	2114.9	2128.7	2128.7	2144.9	2126.4	2075.6
37.5°	2749.8	2754.4	2708.3	2486.6	2366.5	2315.8	2318.1	2315.8	2320.4	2299.6	2246.5
40°	3063.8	3075.4	3073.0	2805.2	2652.8	2565.1	2532.8	2528.2	2539.7	2530.5	2479.7
42.5°	3477.1	3504.8	3440.2	3197.7	3026.9	2879.1	2791.4	2779.8	2805.2	2816.8	2768.3
45°	3906.5	3897.3	3795.7	3620.2	3465.5	3276.2	3110.0	3091.5	3110.0	3144.6	3093.8
47.5°	4130.5	4123.6	4098.2	4010.4	3987.3	3770.3	3518.7	3502.5	3467.9	3516.3	3456.3
50°	4499.9	4506.8	4402.9	4393.7	4490.7	4370.6	3980.4	3943.5	3881.1	3920.4	3869.6
52.5°	4767.7	4737.7	4673.1	4753.9	5056.3	4991.7	4414.5	4398.3	4340.6	4331.4	4308.3
55°	4876.2	4876.2	4887.8	5074.8	5506.5	5421.1	4885.5	4901.6	4823.1	4758.5	4788.5
57.5°	4908.6	4922.4	5021.7	5331.1	6035.3	5755.9	5405.0	5428.0	5314.9	5185.6	5280.3
60°	4749.3	4790.8	5028.6	5476.5	6333.1	6111.5	5952.2	5959.1	5795.2	5605.8	5772.1
62.5°	4340.6	4391.4	4816.2	5536.6	6284.6	6476.3	6469.3	6485.5	6261.5	6026.0	6233.8
65°	3839.6	3890.4	4342.9	5368.0	6247.7	6737.2	6942.6	6986.5	6697.9	6381.6	6522.4
67.5°	3103.1	3170.0	3599.5	4800.0	6067.6	6951.9	7385.9	7432.1	7035.0	6566.3	6497.0
70°	2248.8	2281.1	2641.3	3647.9	5333.4	6834.1	7736.9	7734.6	7145.8	6552.4	6150.7
72.5°	1082.8	1108.2	1419.9	2265.0	3814.2	5799.8	7482.9	7526.8	6993.4	6351.6	5358.8
75°	445.6	471.0	574.9	955.9	2001.8	3832.7	6342.3	6446.2	6351.6	5700.5	4192.8
77.5°	277.1	286.3	337.1	494.1	914.3	1789.3	4439.9	4580.7	5033.2	4566.9	2768.3
80°	207.8	214.7	251.7	346.3	577.2	660.3	2204.9	2382.7	3050.0	2620.5	1253.7
82.5°	173.2	175.5	200.9	251.7	392.5	378.6	706.5	787.3	1422.2	999.7	431.8
85°	161.6	166.2	180.1	180.1	249.4	237.8	293.2	307.1	413.3	341.7	150.1
87.5°	83.1	78.5	159.3	140.8	129.3	115.4	124.7	133.9	154.7	163.9	67.0
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°	1410.7	1410.7	1410.7	1410.7	1410.7	1410.7	1410.7	1410.7	1410.7	1410.7	1410.7
2.5°	1406.1	1413.0	1424.5	1436.1	1449.9	1466.1	1475.3	1486.9	1496.1	1491.5	1489.2
5°	1413.0	1424.5	1449.9	1473.0	1500.7	1533.1	1553.8	1576.9	1595.4	1600.0	1593.1
7.5°	1424.5	1445.3	1480.0	1521.5	1558.5	1600.0	1632.3	1664.7	1687.8	1692.4	1692.4
10°	1452.3	1475.3	1521.5	1576.9	1620.8	1664.7	1701.6	1727.0	1747.8	1757.0	1757.0
12.5°	1491.5	1519.2	1574.6	1641.6	1690.1	1731.6	1752.4	1763.9	1773.2	1782.4	1784.7
15°	1537.7	1567.7	1634.6	1706.2	1757.0	1777.8	1777.8	1775.5	1775.5	1780.1	1784.7
17.5°	1583.9	1616.2	1685.4	1761.6	1794.0	1782.4	1766.3	1759.3	1754.7	1752.4	1759.3
20°	1632.3	1664.7	1733.9	1805.5	1796.3	1747.8	1724.7	1708.5	1694.7	1687.8	1697.0
22.5°	1685.4	1715.5	1787.0	1835.5	1766.3	1692.4	1648.5	1623.1	1600.0	1586.2	1595.4
25°	1747.8	1777.8	1847.1	1844.8	1713.1	1609.3	1540.0	1498.4	1473.0	1459.2	1459.2
27.5°	1821.7	1847.1	1914.0	1821.7	1639.3	1498.4	1396.8	1357.6	1350.7	1339.1	1339.1
30°	1897.9	1918.6	1976.4	1768.6	1537.7	1353.0	1242.1	1223.7	1226.0	1214.4	1216.8
32.5°	1976.4	1997.1	2013.3	1690.1	1406.1	1189.0	1115.2	1101.3	1099.0	1089.8	1080.5
35°	2087.2	2117.2	2017.9	1583.9	1246.8	1052.8	999.7	985.9	972.0	939.7	939.7
37.5°	2255.7	2288.0	2006.4	1452.3	1082.8	946.6	898.1	879.7	856.6	824.3	812.7
40°	2486.6	2486.6	1981.0	1304.5	951.2	861.2	815.0	791.9	766.5	734.2	727.3
42.5°	2759.0	2694.4	1941.7	1154.4	854.3	803.5	761.9	736.5	706.5	669.6	664.9
45°	3077.7	2902.2	1886.3	1020.5	782.7	768.8	743.4	699.6	648.8	609.5	602.6
47.5°	3387.0	3089.2	1833.2	925.8	722.7	755.0	734.2	660.3	591.1	535.6	528.7
50°	3726.4	3255.4	1770.9	847.3	676.5	745.8	722.7	602.6	526.4	487.2	482.5
52.5°	4065.8	3424.0	1703.9	764.2	637.2	727.3	695.0	561.0	524.1	471.0	464.1
55°	4423.7	3620.2	1625.4	671.9	591.1	690.3	658.0	558.7	540.3	471.0	454.8
57.5°	4772.3	3837.3	1498.4	581.8	540.3	634.9	644.2	544.9	505.6	466.4	447.9
60°	5157.9	4068.2	1288.3	505.6	496.4	588.8	625.7	514.9	466.4	452.5	443.3
62.5°	5467.3	4275.9	1006.6	452.5	459.5	551.8	602.6	496.4	450.2	438.7	436.4
65°	5601.2	4280.6	722.7	406.4	422.5	517.2	579.5	480.2	436.4	431.8	429.4
67.5°	5460.4	4045.1	507.9	362.5	383.3	484.9	549.5	464.1	422.5	424.8	420.2
70°	5005.5	3548.7	371.7	320.9	346.3	450.2	517.2	443.3	406.4	411.0	404.0
72.5°	4188.2	2766.0	297.8	286.3	316.3	413.3	484.9	420.2	381.0	383.3	369.4
75°	3093.8	1833.2	249.4	256.3	281.7	378.6	443.3	390.2	353.3	344.0	334.8
77.5°	1840.1	942.0	205.5	224.0	251.7	337.1	397.1	353.3	323.2	307.1	300.1
80°	759.6	381.0	168.5	189.3	219.3	300.1	350.9	309.4	288.6	272.4	263.2
82.5°	302.5	187.0	133.9	154.7	184.7	260.9	307.1	272.4	251.7	240.1	214.7
85°	115.4	92.4	90.0	108.5	138.5	200.9	254.0	228.6	212.4	182.4	175.5
87.5°	46.2	41.6	41.6	53.1	78.5	127.0	182.4	159.3	166.2	131.6	133.9
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)