

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: P265828

Luminaire Tested: **ARCH-M-AF48-120-D-U-T3-7027**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P265828  
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-AF48-120-D-U-T3-7027  
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 2700K, 785mA LIGHT ENGINES WITH 24 LEDS AND TYPE III OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 13280.4 lumens  
Efficiency: N/A  
Efficacy: 108.9 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

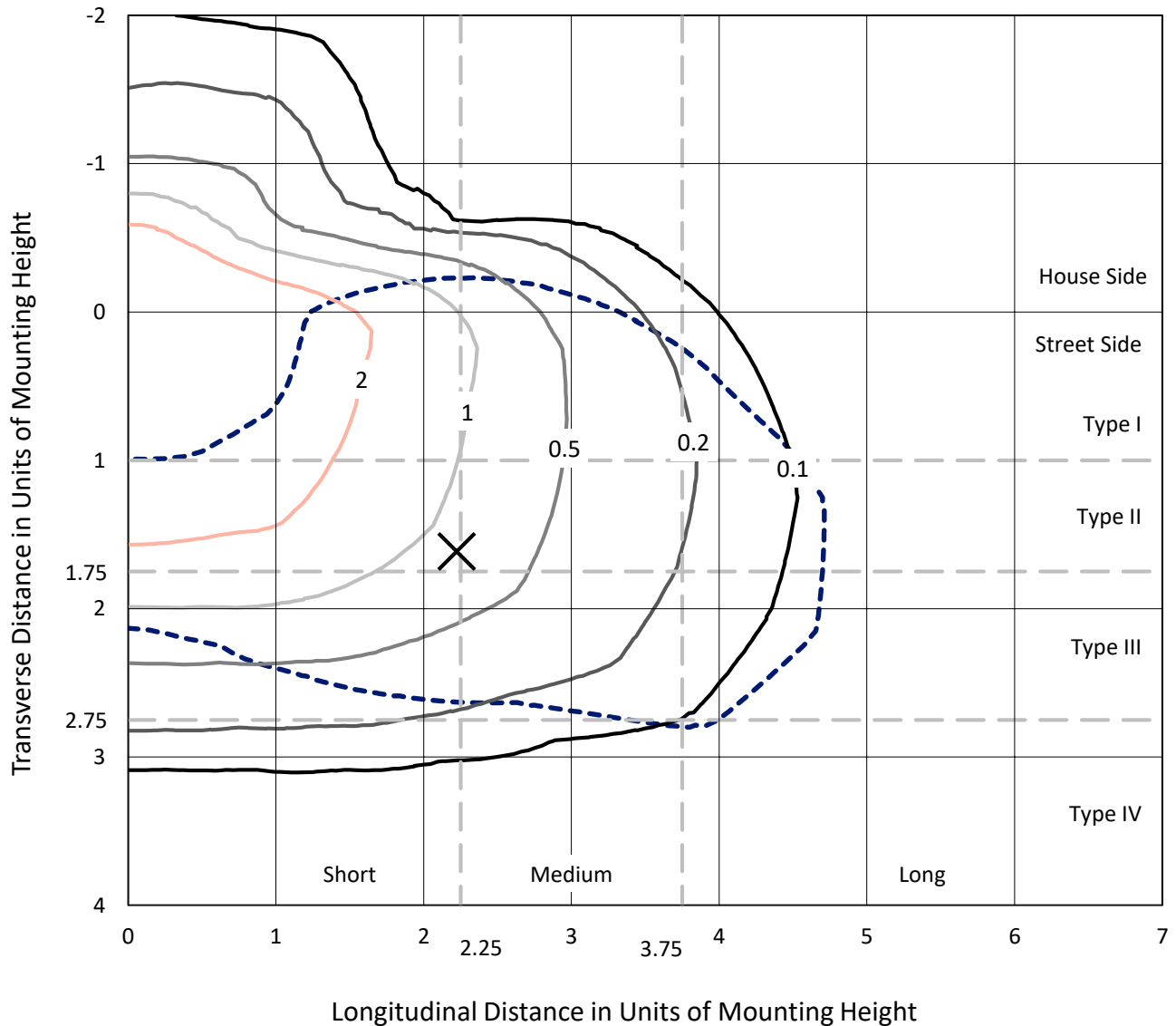
Input Watts (W): 122  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

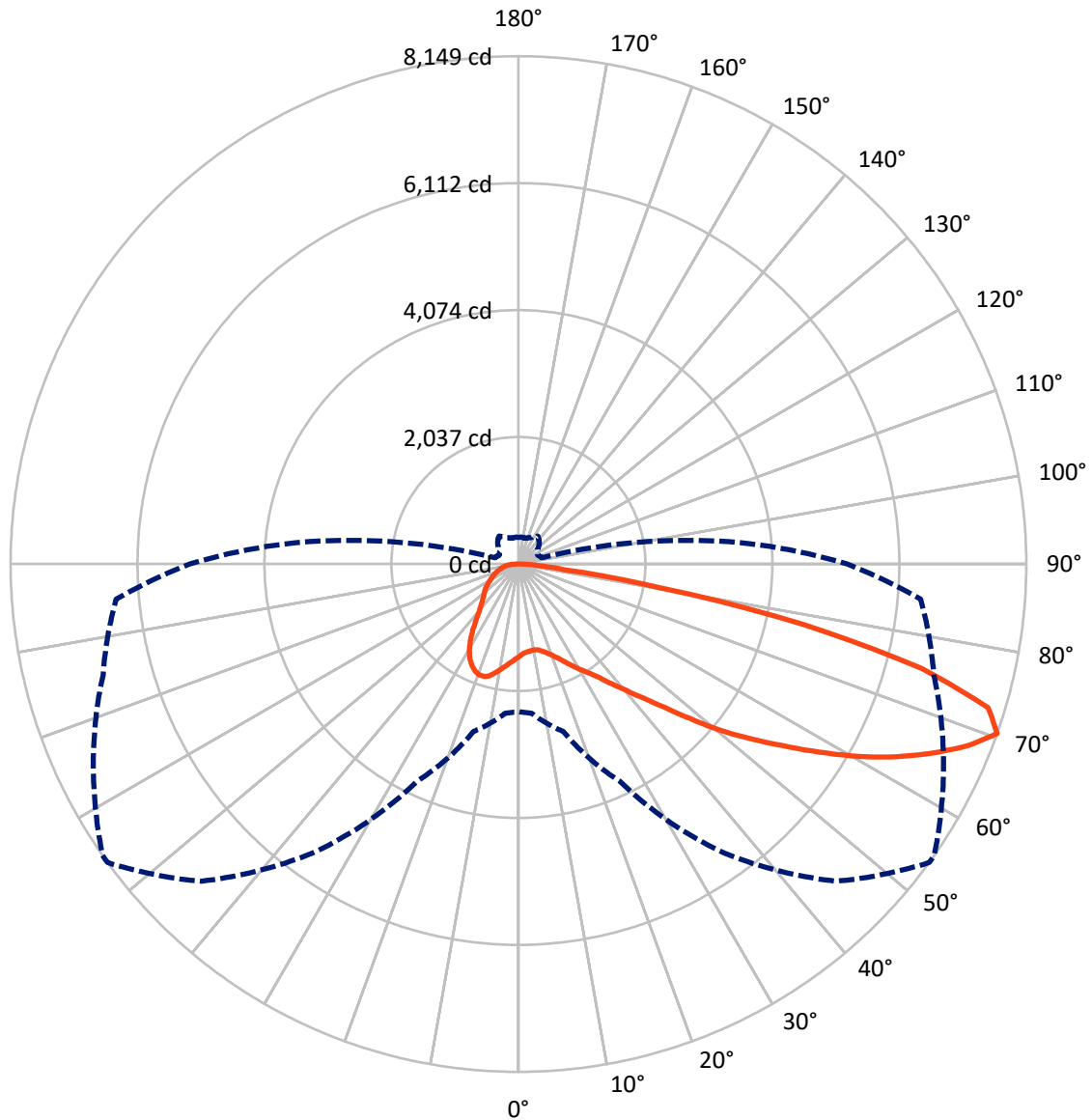


Based on 20 foot mounting height. Maximum calculated value = 4.3 fc  
 Type III - Short - Non-Cutoff

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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
<b>House Side</b>	Lumens	3012.0	0.0	3012.0
	% Fixture	22.7	0.0	22.7
<b>Street Side</b>	Lumens	10268.5	0.0	10268.5
	% Fixture	77.3	0.0	77.3
<b>Total</b>	Lumens	13280.4	0.0	13280.4
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	145.8	1.1
10°-20°	465.9	3.5
20°-30°	809.5	6.1
30°-40°	1182.9	8.9
40°-50°	1856.5	14.0
50°-60°	2854.9	21.5
60°-70°	3488.1	26.3
70°-80°	2162.6	16.3
80°-90°	314.2	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°	13280.4	100.0
0°-180°	13280.4	100.0



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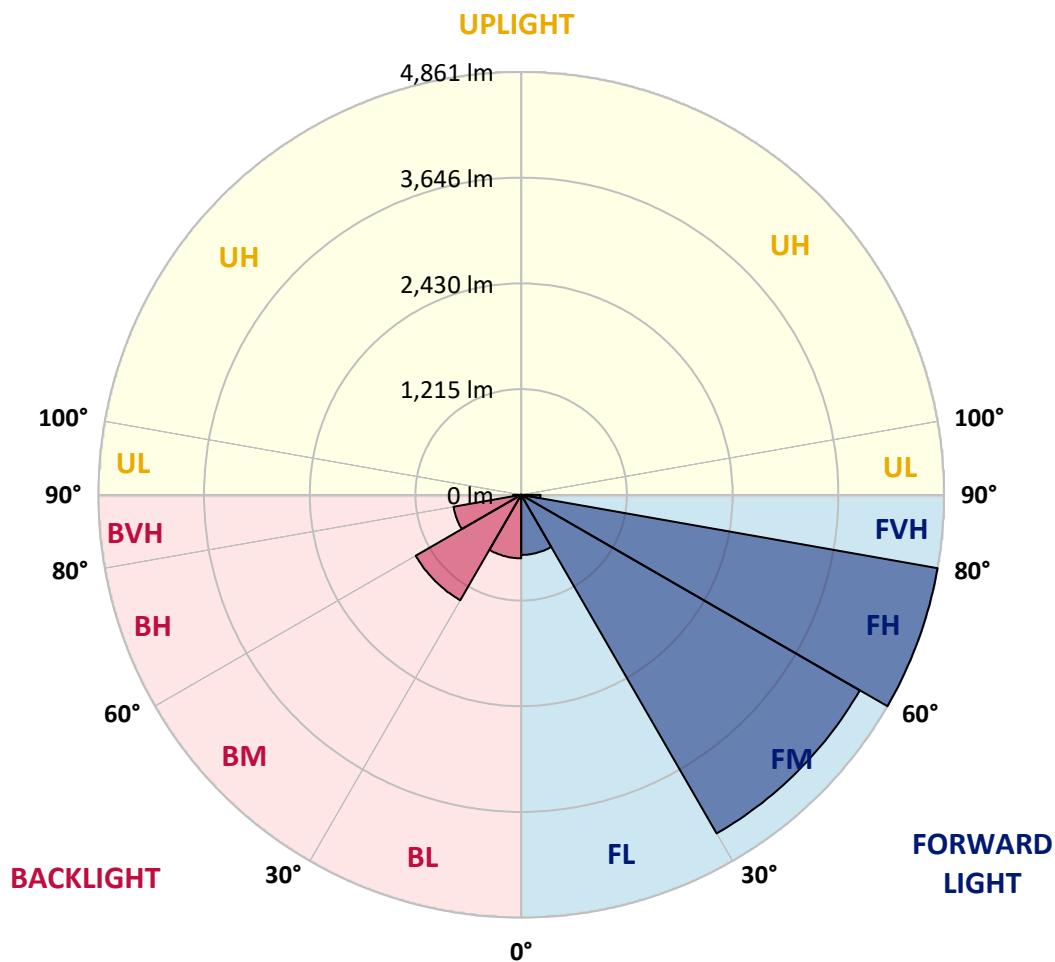
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	691.0	5.2			
FM	(30°-60°)	4494.8	33.8			
FH	(60°-80°)	4860.8	36.6			G2/5000
FVH	(80°-90°)	221.8	1.7			G2/225
BL	(0°-30°)	730.2	5.5	B2/1000		
BM	(30°-60°)	1399.6	10.5	B2/2500		
BH	(60°-30°)	789.8	5.9	B2/1000		G2/1000
BVH	(80°-90°)	92.3	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°	1485.7	1485.7	1485.7	1485.7	1485.7	1485.7	1485.7	1485.7	1485.7	1485.7	1485.7
2.5°	1427.4	1422.6	1422.6	1429.9	1432.3	1439.7	1439.7	1442.0	1449.3	1461.5	1476.1
5°	1383.7	1381.2	1383.7	1393.5	1398.3	1412.9	1417.7	1420.1	1434.8	1454.1	1476.1
7.5°	1339.9	1337.4	1342.3	1356.9	1371.5	1393.5	1405.6	1408.1	1429.9	1456.6	1485.7
10°	1325.3	1322.8	1330.2	1342.3	1356.9	1381.2	1400.6	1403.2	1434.8	1466.4	1507.6
12.5°	1344.8	1342.3	1349.7	1361.8	1376.5	1393.5	1415.3	1417.7	1459.0	1500.3	1544.1
15°	1393.5	1393.5	1395.8	1403.2	1417.7	1432.3	1451.8	1454.1	1498.0	1546.6	1590.4
17.5°	1468.8	1463.9	1463.9	1461.5	1471.2	1478.5	1502.9	1505.3	1551.5	1595.2	1639.0
20°	1561.3	1558.7	1549.0	1536.9	1534.5	1539.3	1563.6	1566.0	1612.3	1648.7	1690.2
22.5°	1673.1	1675.5	1653.6	1626.8	1614.8	1622.0	1643.9	1646.4	1680.4	1712.0	1748.5
25°	1821.5	1814.0	1782.4	1743.6	1719.3	1719.3	1741.2	1741.2	1772.7	1792.2	1816.6
27.5°	1962.4	1947.9	1918.7	1862.7	1823.7	1831.1	1853.1	1853.1	1882.2	1889.4	1901.6
30°	2115.7	2101.0	2064.6	1994.1	1942.9	1938.2	1964.9	1962.4	2001.3	1998.9	1989.1
32.5°	2302.8	2295.6	2234.9	2144.9	2076.7	2059.8	2084.0	2086.5	2110.7	2103.6	2071.9
35°	2565.5	2563.0	2507.2	2349.1	2259.1	2227.4	2242.1	2242.1	2259.1	2239.7	2186.1
37.5°	2896.2	2901.0	2852.5	2619.0	2492.5	2439.1	2441.6	2439.1	2443.8	2422.0	2366.1
40°	3226.9	3239.1	3236.8	2954.5	2794.1	2701.7	2667.6	2662.8	2675.0	2665.2	2611.7
42.5°	3662.2	3691.4	3623.4	3367.9	3188.1	3032.4	2940.1	2927.8	2954.5	2966.7	2915.7
45°	4114.5	4104.9	3997.8	3813.0	3650.2	3450.7	3275.6	3256.1	3275.6	3312.1	3258.6
47.5°	4350.4	4343.1	4316.4	4224.0	4199.7	3971.0	3706.0	3689.0	3652.5	3703.6	3640.3
50°	4739.5	4746.9	4637.4	4627.7	4729.8	4603.4	4192.4	4153.5	4087.7	4129.1	4075.6
52.5°	5021.6	4989.9	4922.0	5007.1	5325.6	5257.5	4649.5	4632.5	4571.7	4562.0	4537.7
55°	5135.9	5135.9	5148.0	5345.1	5799.7	5709.7	5145.6	5162.6	5079.9	5011.9	5043.5
57.5°	5169.9	5184.6	5289.1	5614.9	6356.6	6062.4	5692.7	5717.2	5598.0	5461.8	5561.4
60°	5002.1	5045.9	5296.3	5768.1	6670.4	6436.9	6269.1	6276.4	6103.8	5904.3	6079.4
62.5°	4571.7	4625.3	5072.6	5831.3	6619.3	6821.1	6813.9	6830.8	6594.9	6347.0	6565.8
65°	4044.0	4097.4	4574.2	5653.8	6580.4	7095.9	7312.4	7358.6	7054.6	6721.4	6869.8
67.5°	3268.4	3338.8	3791.1	5055.7	6390.7	7322.1	7779.2	7827.9	7409.6	6916.0	6843.0
70°	2368.6	2402.5	2782.0	3842.2	5617.5	7198.1	8148.9	8146.4	7526.3	6901.4	6478.2
72.5°	1140.5	1167.3	1495.6	2385.5	4017.3	6108.7	7881.4	7927.5	7365.8	6689.8	5644.1
75°	469.4	496.0	605.5	1006.7	2108.3	4036.8	6680.1	6789.5	6689.8	6004.0	4416.1
77.5°	291.8	301.6	355.0	520.4	963.1	1884.6	4676.2	4824.6	5301.3	4810.1	2915.7
80°	218.8	226.2	265.1	364.7	608.0	695.5	2322.4	2509.5	3212.3	2760.0	1320.5
82.5°	182.4	184.8	211.6	265.1	413.4	398.8	744.2	829.2	1498.0	1053.0	454.7
85°	170.1	175.1	189.7	189.7	262.7	250.4	308.8	323.4	435.3	360.0	158.0
87.5°	87.6	82.6	167.9	148.3	136.2	121.6	131.3	141.0	163.0	172.7	70.5
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°	1485.7	1485.7	1485.7	1485.7	1485.7	1485.7	1485.7	1485.7	1485.7	1485.7	1485.7
2.5°	1480.9	1488.2	1500.3	1512.6	1527.2	1544.1	1553.9	1566.0	1575.7	1571.0	1568.5
5°	1488.2	1500.3	1527.2	1551.5	1580.7	1614.8	1636.6	1660.8	1680.4	1685.2	1677.9
7.5°	1500.3	1522.3	1558.7	1602.5	1641.5	1685.2	1719.3	1753.3	1777.7	1782.4	1782.4
10°	1529.5	1553.9	1602.5	1660.8	1707.0	1753.3	1792.2	1819.0	1840.8	1850.6	1850.6
12.5°	1571.0	1600.2	1658.5	1729.0	1780.0	1823.7	1845.7	1857.9	1867.5	1877.3	1879.8
15°	1619.6	1651.2	1721.7	1797.1	1850.6	1872.4	1872.4	1870.0	1870.0	1874.9	1879.8
17.5°	1668.2	1702.3	1775.2	1855.4	1889.4	1877.3	1860.3	1853.1	1848.2	1845.7	1853.1
20°	1719.3	1753.3	1826.3	1901.6	1891.9	1840.8	1816.6	1799.6	1784.9	1777.7	1787.4
22.5°	1775.2	1806.9	1882.2	1933.2	1860.3	1782.4	1736.2	1709.6	1685.2	1670.6	1680.4
25°	1840.8	1872.4	1945.4	1942.9	1804.3	1694.9	1622.0	1578.2	1551.5	1536.9	1536.9
27.5°	1918.7	1945.4	2015.9	1918.7	1726.5	1578.2	1471.2	1429.9	1422.6	1410.3	1410.3
30°	1998.9	2020.7	2081.6	1862.7	1619.6	1425.0	1308.3	1288.9	1291.3	1279.0	1281.5
32.5°	2081.6	2103.6	2120.4	1780.0	1480.9	1252.3	1174.5	1159.9	1157.6	1147.9	1138.1
35°	2198.3	2230.0	2125.4	1668.2	1313.1	1108.9	1053.0	1038.4	1023.8	989.8	989.8
37.5°	2375.8	2410.0	2113.3	1529.5	1140.5	996.9	945.9	926.5	902.2	868.1	855.9
40°	2619.0	2619.0	2086.5	1374.0	1001.9	907.1	858.4	834.0	807.3	773.4	766.1
42.5°	2905.9	2837.8	2045.1	1215.9	899.7	846.3	802.5	775.7	744.2	705.2	700.4
45°	3241.5	3056.8	1986.7	1074.8	824.4	809.8	783.1	736.8	683.3	642.0	634.7
47.5°	3567.3	3253.8	1930.8	975.1	761.1	795.2	773.4	695.5	622.5	564.1	556.9
50°	3924.9	3428.8	1865.2	892.5	712.5	785.5	761.1	634.7	554.4	513.1	508.3
52.5°	4282.3	3606.3	1794.6	804.9	671.2	766.1	731.9	590.9	552.0	496.0	488.8
55°	4659.2	3813.0	1712.0	707.7	622.5	727.1	693.0	588.5	569.0	496.0	479.1
57.5°	5026.5	4041.7	1578.2	612.9	569.0	668.8	678.5	573.8	532.5	491.3	471.8
60°	5432.6	4284.7	1356.9	532.5	522.9	620.1	658.9	542.2	491.3	476.6	466.8
62.5°	5758.4	4503.7	1060.3	476.6	483.9	581.3	634.7	522.9	474.1	462.1	459.7
65°	5899.4	4508.6	761.1	428.0	445.0	544.7	610.4	505.8	459.7	454.7	452.2
67.5°	5751.0	4260.4	535.0	381.8	403.7	510.6	578.8	488.8	445.0	447.4	442.5
70°	5272.2	3737.7	391.5	338.0	364.7	474.1	544.7	466.8	428.0	432.9	425.5
72.5°	4411.2	2913.3	313.7	301.6	333.1	435.3	510.6	442.5	401.3	403.7	389.1
75°	3258.6	1930.8	262.7	269.9	296.7	398.8	466.8	411.0	372.1	362.3	352.7
77.5°	1938.2	992.2	216.4	235.9	265.1	355.0	418.3	372.1	340.5	323.4	316.2
80°	800.0	401.3	177.5	199.5	231.0	316.2	369.7	325.8	303.9	287.0	277.2
82.5°	318.5	197.0	141.0	163.0	194.6	274.8	323.4	287.0	265.1	253.0	226.2
85°	121.6	97.2	94.9	114.3	146.0	211.6	267.4	240.7	223.7	192.1	184.8
87.5°	48.7	43.7	43.7	56.0	82.6	133.8	192.1	167.9	175.1	138.6	141.0
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)