

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: P237083

Luminaire Tested: **ARCH-L-AF72-100-D-U-T3**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P237083  
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-L-AF72-100-D-U-T3  
Description: ARCHEON-L ROADWAY AND AREA LUMINAIRE  
(3) 70 CRI, 4000K, 440mA LIGHT ENGINES WITH 24 LEDS AND TYPE III OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 14402.1 lumens  
Efficiency: N/A  
Efficacy: 141.2 lumens/watt  
Luminous Opening: Rectangular (W 0.75' x L: 1.5' x H: 0')  
IES Classification: Type III - Short - Non-Cutoff  
BUG Rating: B2 - U0 - G3

Input Watts (W): 102  
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

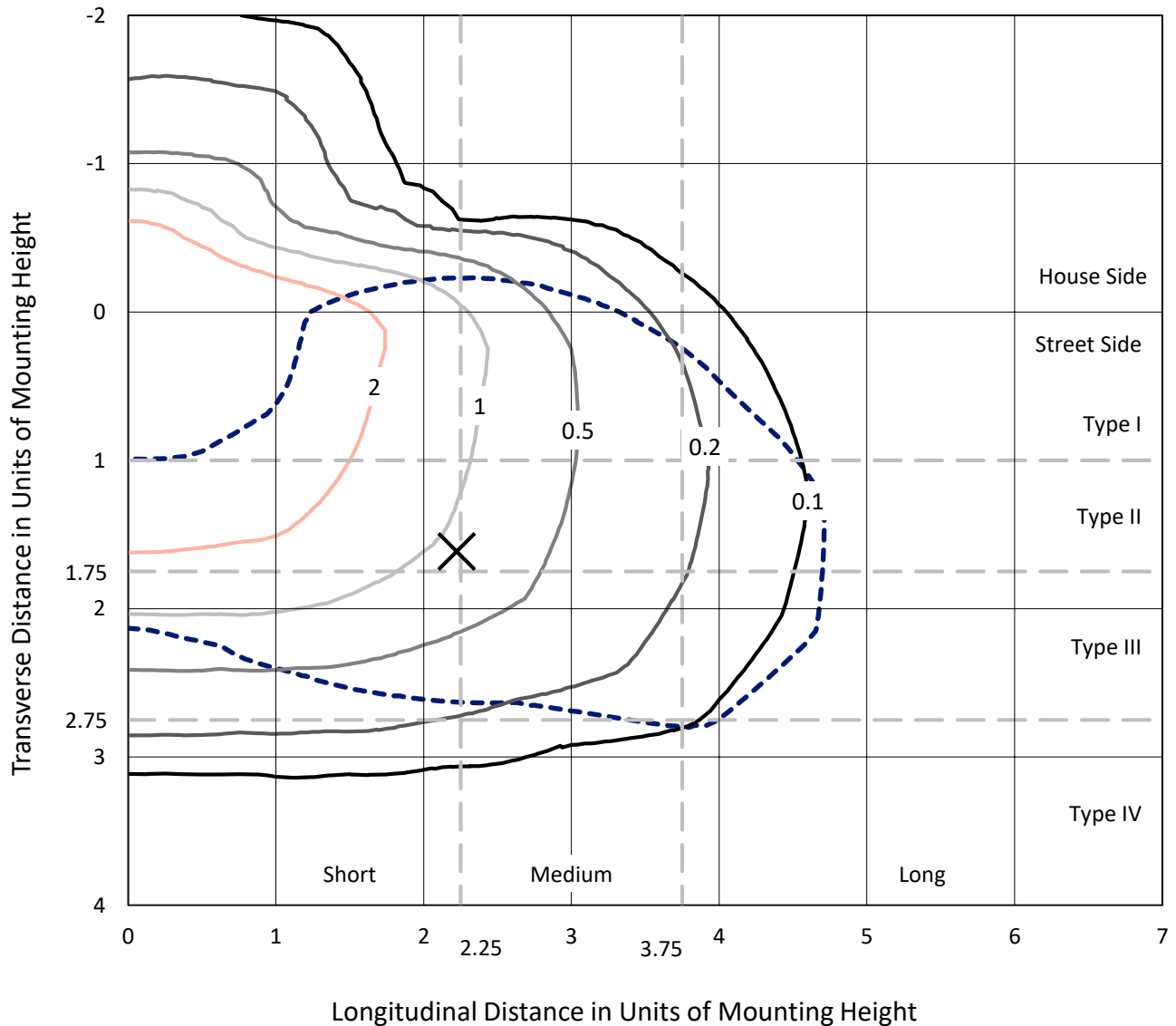


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

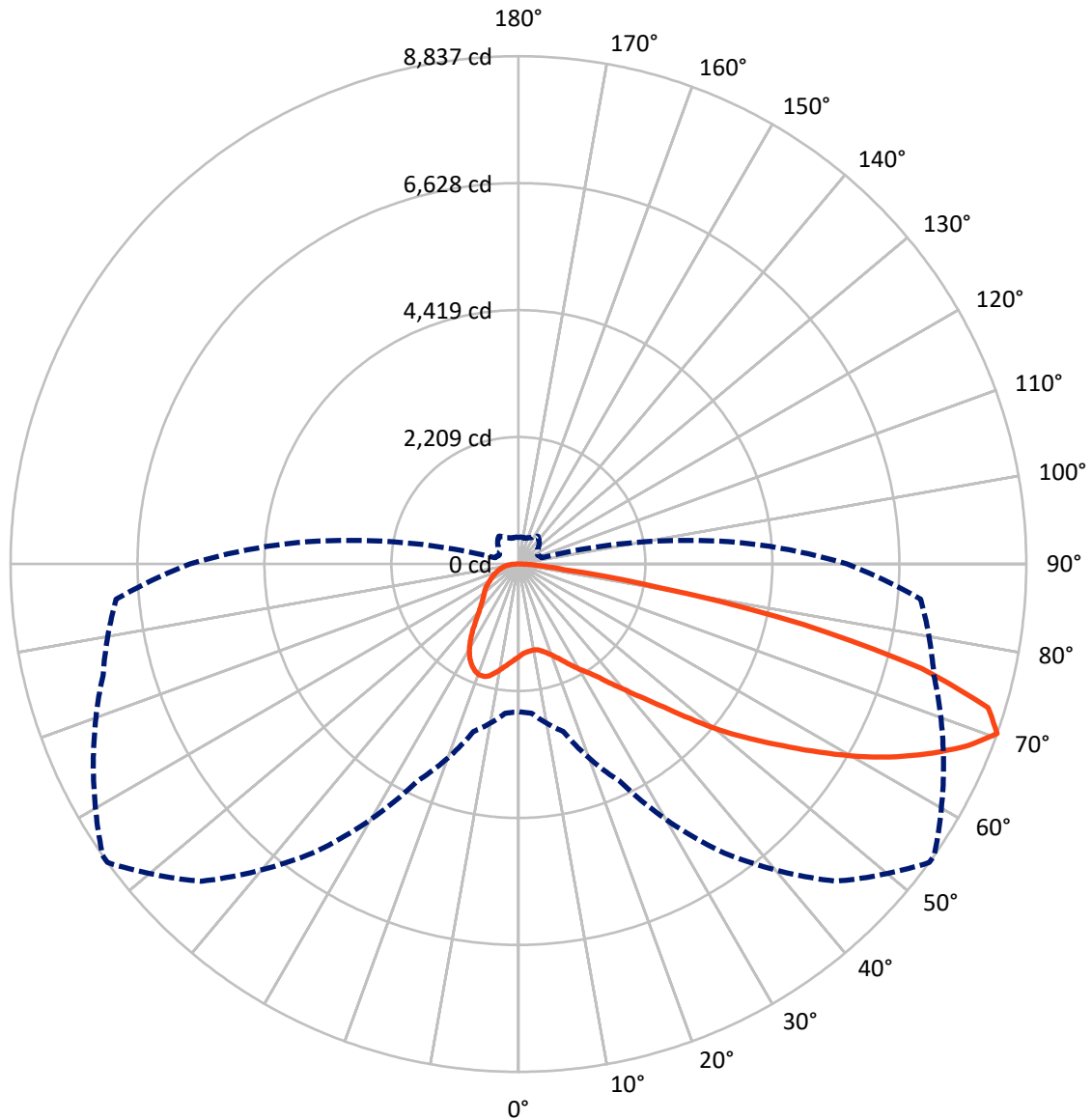


Based on 20 foot mounting height. Maximum calculated value = 4.7 fc  
 Type III - Short - Non-Cutoff

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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	3266.4	0.0	3266.4
	% Fixture	22.7	0.0	22.7
<b>Street Side</b>	Lumens	11135.8	0.0	11135.8
	% Fixture	77.3	0.0	77.3
<b>Total</b>	Lumens	14402.1	0.0	14402.1
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	158.1	1.1
10°-20°	505.3	3.5
20°-30°	877.8	6.1
30°-40°	1282.8	8.9
40°-50°	2013.4	14.0
50°-60°	3096.1	21.5
60°-70°	3782.7	26.3
70°-80°	2345.3	16.3
80°-90°	340.7	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°	14402.1	100.0
0°-180°	14402.1	100.0

**Coefficient of Utilization**



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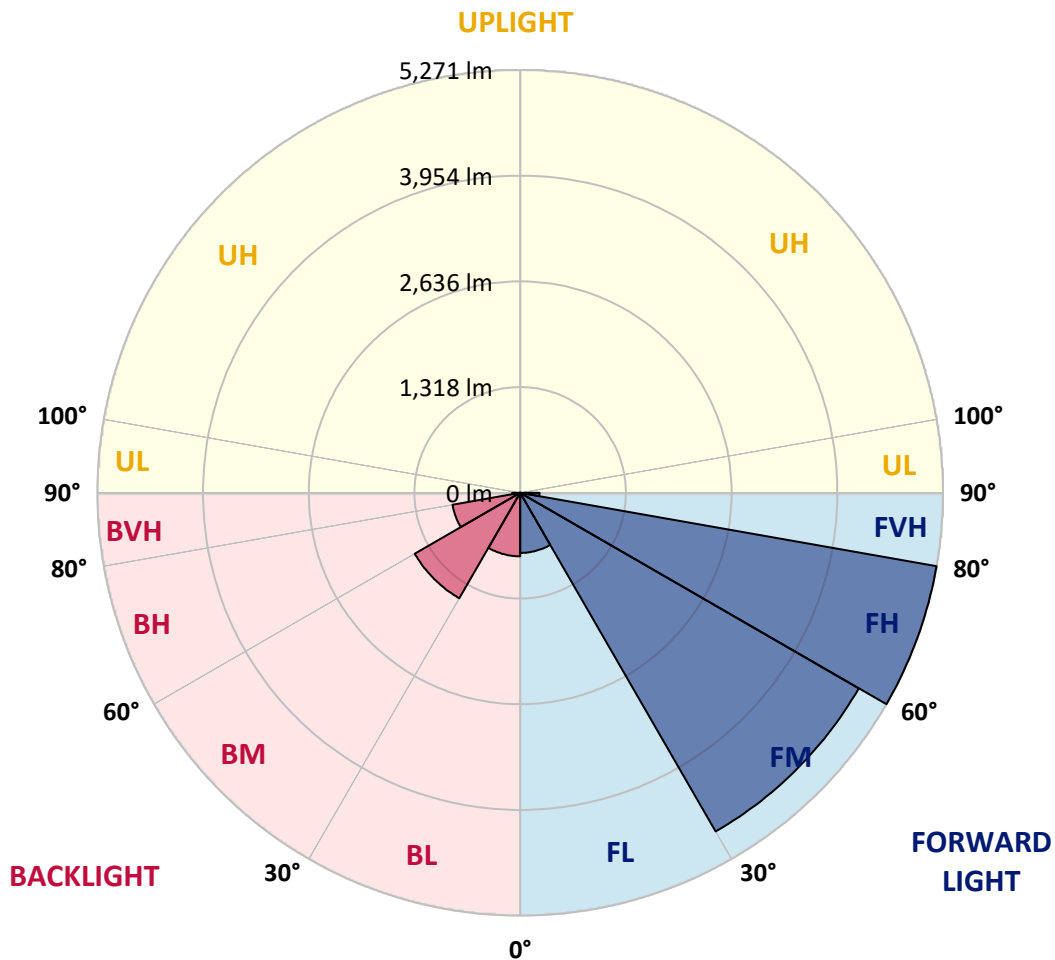
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	749.3	5.2			
FM	(30°-60°)	4874.5	33.8			
FH	(60°-80°)	5271.4	36.6			G3/7500
FVH	(80°-90°)	240.6	1.7			G3/500
BL	(0°-30°)	791.9	5.5	B2/1000		
BM	(30°-60°)	1517.8	10.5	B2/2500		
BH	(60°-80°)	856.5	5.9	B2/1000		G2/1000
BVH	(80°-90°)	100.1	0.7			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 III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	54°	55°	65°	75°	85°
0°	1611.4	1611.4	1611.4	1611.4	1611.4	1611.4	1611.4	1611.4	1611.4	1611.4	1611.4
2.5°	1548.0	1542.7	1542.7	1550.7	1553.2	1561.2	1561.2	1563.9	1571.8	1585.0	1600.7
5°	1500.6	1497.9	1500.6	1511.1	1516.3	1532.2	1537.5	1540.1	1555.9	1577.0	1600.7
7.5°	1453.1	1450.4	1455.8	1471.5	1487.4	1511.1	1524.3	1527.0	1550.7	1579.6	1611.4
10°	1437.2	1434.6	1442.6	1455.8	1471.5	1497.9	1519.0	1521.6	1555.9	1590.2	1635.1
12.5°	1458.3	1455.8	1463.6	1476.8	1492.6	1511.1	1534.8	1537.5	1582.3	1627.1	1674.6
15°	1511.1	1511.1	1513.8	1521.6	1537.5	1553.2	1574.4	1577.0	1624.4	1677.2	1724.7
17.5°	1592.8	1587.6	1587.6	1585.0	1595.5	1603.4	1629.8	1632.4	1682.5	1730.0	1777.5
20°	1693.1	1690.4	1679.9	1666.7	1664.0	1669.4	1695.7	1698.3	1748.4	1788.0	1832.8
22.5°	1814.4	1817.0	1793.2	1764.3	1751.1	1759.0	1782.7	1785.4	1822.3	1856.6	1896.1
25°	1975.2	1967.3	1933.1	1890.8	1864.4	1864.4	1888.2	1888.2	1922.5	1943.6	1970.0
27.5°	2128.1	2112.4	2080.7	2020.0	1977.9	1985.8	2009.5	2009.5	2041.2	2049.1	2062.3
30°	2294.4	2278.5	2238.9	2162.5	2107.1	2101.9	2130.8	2128.1	2170.4	2167.7	2157.2
32.5°	2497.4	2489.5	2423.6	2326.0	2252.1	2233.7	2260.0	2262.7	2289.1	2281.2	2246.9
35°	2782.2	2779.6	2718.9	2547.5	2450.0	2415.6	2431.5	2431.5	2450.0	2428.8	2370.8
37.5°	3140.9	3146.1	3093.4	2840.2	2703.0	2645.0	2647.7	2645.0	2650.4	2626.6	2566.0
40°	3499.5	3512.7	3510.1	3204.2	3030.1	2929.9	2893.0	2887.7	2900.9	2890.3	2832.3
42.5°	3971.6	4003.2	3929.4	3652.4	3457.4	3288.6	3188.3	3175.1	3204.2	3217.4	3161.9
45°	4462.1	4451.6	4335.5	4135.1	3958.4	3742.2	3552.3	3531.1	3552.3	3591.8	3533.8
47.5°	4717.8	4710.0	4680.9	4580.8	4554.4	4306.5	4019.1	4000.6	3961.1	4016.4	3947.9
50°	5139.8	5147.7	5029.0	5018.5	5129.3	4992.1	4546.5	4504.3	4433.1	4477.9	4419.9
52.5°	5445.8	5411.4	5337.7	5429.9	5775.4	5701.5	5042.2	5023.8	4957.8	4947.3	4920.9
55°	5569.7	5569.7	5582.9	5796.4	6289.6	6192.0	5580.2	5598.7	5509.0	5435.2	5469.5
57.5°	5606.6	5622.4	5735.8	6089.2	6893.6	6574.4	6173.6	6200.0	6070.7	5923.1	6031.2
60°	5424.6	5472.1	5743.8	6255.3	7233.7	6980.6	6798.6	6806.5	6619.3	6403.1	6592.9
62.5°	4957.8	5015.8	5501.1	6323.9	7178.4	7397.3	7389.3	7407.8	7152.0	6883.0	7120.4
65°	4385.6	4443.6	4960.5	6131.4	7136.2	7695.2	7929.9	7980.0	7650.4	7289.1	7449.9
67.5°	3544.3	3620.8	4111.3	5482.7	6930.5	7940.5	8436.3	8489.1	8035.5	7500.1	7421.0
70°	2568.6	2605.6	3016.9	4166.7	6091.9	7806.0	8837.2	8834.5	8162.0	7484.3	7025.4
72.5°	1236.8	1265.8	1621.9	2587.0	4356.5	6624.5	8547.1	8597.2	7988.0	7254.9	6120.8
75°	509.0	538.0	656.6	1091.8	2286.4	4377.7	7244.3	7363.0	7254.9	6511.2	4789.0
77.5°	316.5	327.0	385.0	564.4	1044.3	2043.8	5071.3	5232.1	5749.0	5216.3	3161.9
80°	237.3	245.3	287.4	395.6	659.3	754.2	2518.5	2721.6	3483.7	2993.2	1432.0
82.5°	197.7	200.4	229.4	287.4	448.4	432.5	807.0	899.3	1624.4	1141.9	493.2
85°	184.6	189.9	205.7	205.7	284.8	271.6	334.9	350.8	472.1	390.3	171.4
87.5°	94.9	89.7	182.0	160.9	147.7	131.9	142.4	152.9	176.7	187.2	76.5
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°	1611.4	1611.4	1611.4	1611.4	1611.4	1611.4	1611.4	1611.4	1611.4	1611.4	1611.4
2.5°	1606.0	1613.9	1627.1	1640.3	1656.2	1674.6	1685.1	1698.3	1708.8	1703.6	1701.0
5°	1613.9	1627.1	1656.2	1682.5	1714.2	1751.1	1774.8	1801.2	1822.3	1827.6	1819.6
7.5°	1627.1	1650.8	1690.4	1737.9	1780.0	1827.6	1864.4	1901.4	1927.8	1933.1	1933.1
10°	1658.8	1685.1	1737.9	1801.2	1851.3	1901.4	1943.6	1972.6	1996.3	2006.9	2006.9
12.5°	1703.6	1735.2	1798.6	1875.1	1930.4	1977.9	2001.6	2014.8	2025.3	2035.9	2038.5
15°	1756.3	1790.7	1867.1	1948.8	2006.9	2030.7	2030.7	2028.0	2028.0	2033.2	2038.5
17.5°	1809.1	1846.0	1925.1	2012.1	2049.1	2035.9	2017.5	2009.5	2004.3	2001.6	2009.5
20°	1864.4	1901.4	1980.5	2062.3	2051.7	1996.3	1970.0	1951.5	1935.6	1927.8	1938.3
22.5°	1925.1	1959.5	2041.2	2096.5	2017.5	1933.1	1882.9	1853.9	1827.6	1811.7	1822.3
25°	1996.3	2030.7	2109.7	2107.1	1956.8	1838.1	1759.0	1711.5	1682.5	1666.7	1666.7
27.5°	2080.7	2109.7	2186.3	2080.7	1872.4	1711.5	1595.5	1550.7	1542.7	1529.5	1529.5
30°	2167.7	2191.5	2257.4	2020.0	1756.3	1545.4	1418.8	1397.7	1400.3	1387.1	1389.8
32.5°	2257.4	2281.2	2299.6	1930.4	1606.0	1358.2	1273.8	1257.9	1255.3	1244.7	1234.2
35°	2384.0	2418.3	2304.9	1809.1	1424.0	1202.6	1141.9	1126.1	1110.2	1073.3	1073.3
37.5°	2576.5	2613.4	2291.7	1658.8	1236.8	1081.3	1025.8	1004.7	978.4	941.4	928.3
40°	2840.2	2840.2	2262.7	1490.0	1086.5	983.7	930.9	904.6	875.5	838.6	830.7
42.5°	3151.4	3077.5	2217.9	1318.6	975.8	917.7	870.2	841.3	807.0	764.8	759.5
45°	3515.4	3314.9	2154.5	1165.7	894.0	878.2	849.2	799.0	741.0	696.2	688.3
47.5°	3868.7	3528.6	2093.9	1057.5	825.4	862.3	838.6	754.2	675.1	611.8	604.0
50°	4256.4	3718.4	2022.7	967.8	772.7	851.8	825.4	688.3	601.3	556.5	551.2
52.5°	4644.1	3910.9	1946.3	872.9	727.8	830.7	793.8	640.9	598.6	538.0	530.1
55°	5052.8	4135.1	1856.6	767.4	675.1	788.5	751.6	638.2	617.1	538.0	519.6
57.5°	5451.0	4382.9	1711.5	664.6	617.1	725.2	735.8	622.4	577.6	532.8	511.6
60°	5891.4	4646.7	1471.5	577.6	567.0	672.5	714.6	588.1	532.8	516.9	506.4
62.5°	6244.8	4884.0	1149.8	516.9	524.8	630.2	688.3	567.0	514.2	501.0	498.4
65°	6397.7	4889.3	825.4	464.1	482.6	590.8	662.0	548.5	498.4	493.2	490.5
67.5°	6236.9	4620.3	580.2	414.0	437.7	553.8	627.7	530.1	482.6	485.3	480.0
70°	5717.4	4053.3	424.6	366.5	395.6	514.2	590.8	506.4	464.1	469.4	461.5
72.5°	4783.8	3159.3	340.2	327.0	361.3	472.1	553.8	480.0	435.2	437.7	422.0
75°	3533.8	2093.9	284.8	292.8	321.7	432.5	506.4	445.7	403.5	392.9	382.4
77.5°	2101.9	1075.9	234.7	255.8	287.4	385.0	453.6	403.5	369.2	350.8	342.8
80°	867.7	435.2	192.5	216.3	250.5	342.8	400.9	353.4	329.6	311.2	300.6
82.5°	345.5	213.6	152.9	176.7	210.9	298.0	350.8	311.2	287.4	274.3	245.3
85°	131.9	105.5	102.8	124.0	158.3	229.4	290.1	261.1	242.6	208.4	200.4
87.5°	52.8	47.5	47.5	60.7	89.7	145.1	208.4	182.0	189.9	150.3	152.9
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)