

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: P265848

Luminaire Tested: **ARCH-M-AF48-140-D-U-T4W-7027**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P265848  
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-AF48-140-D-U-T4W-7027  
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 2700K, 905mA LIGHT ENGINES WITH 24 LEDS AND TYPE IV WIDE OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 14685.9 lumens  
Efficiency: N/A  
Efficacy: 104.2 lumens/watt  
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')  
IES Classification: Type IV - Medium - Non-Cutoff  
BUG Rating: B3 - U0 - G3

Input Watts (W): 141  
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

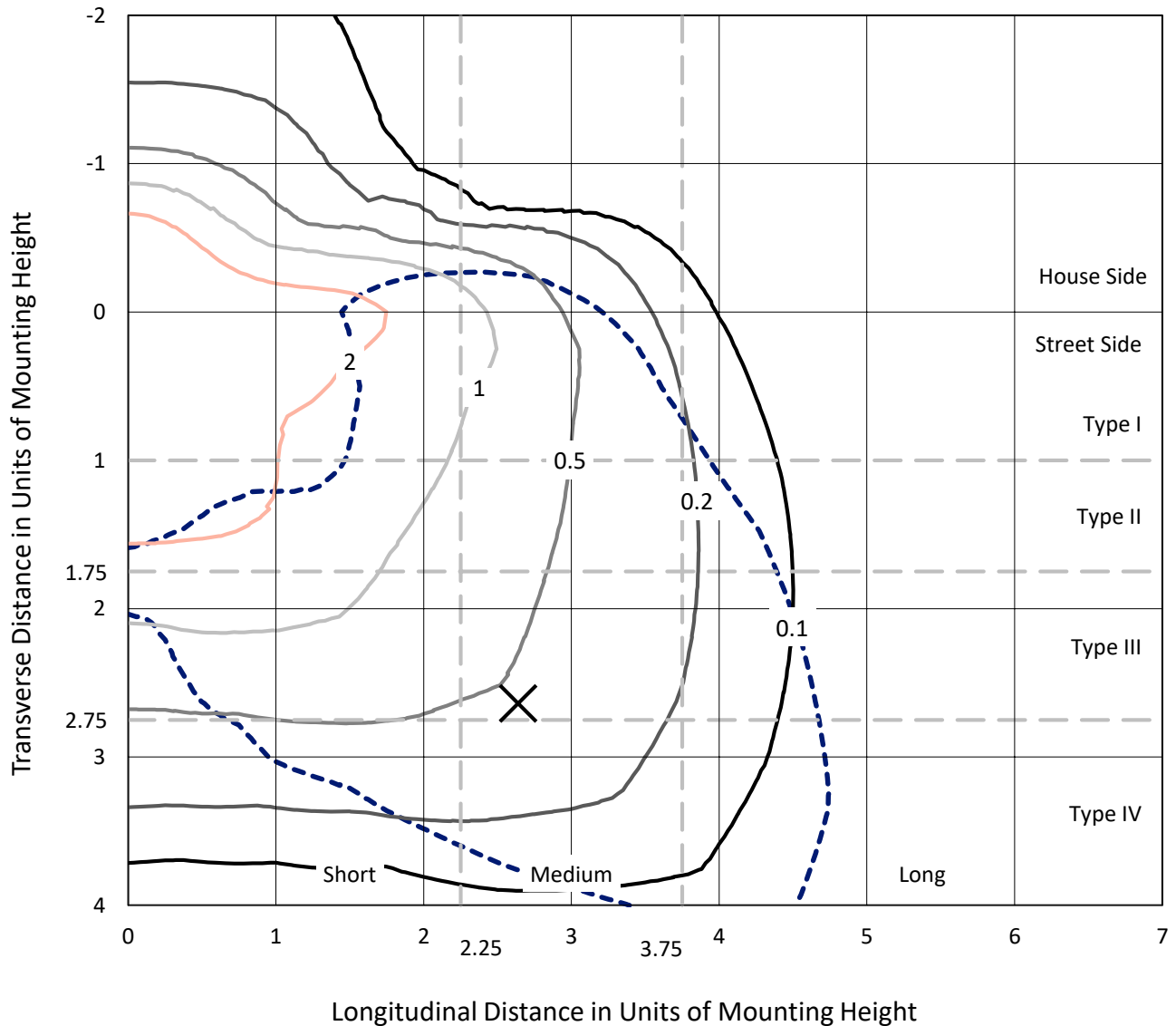


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

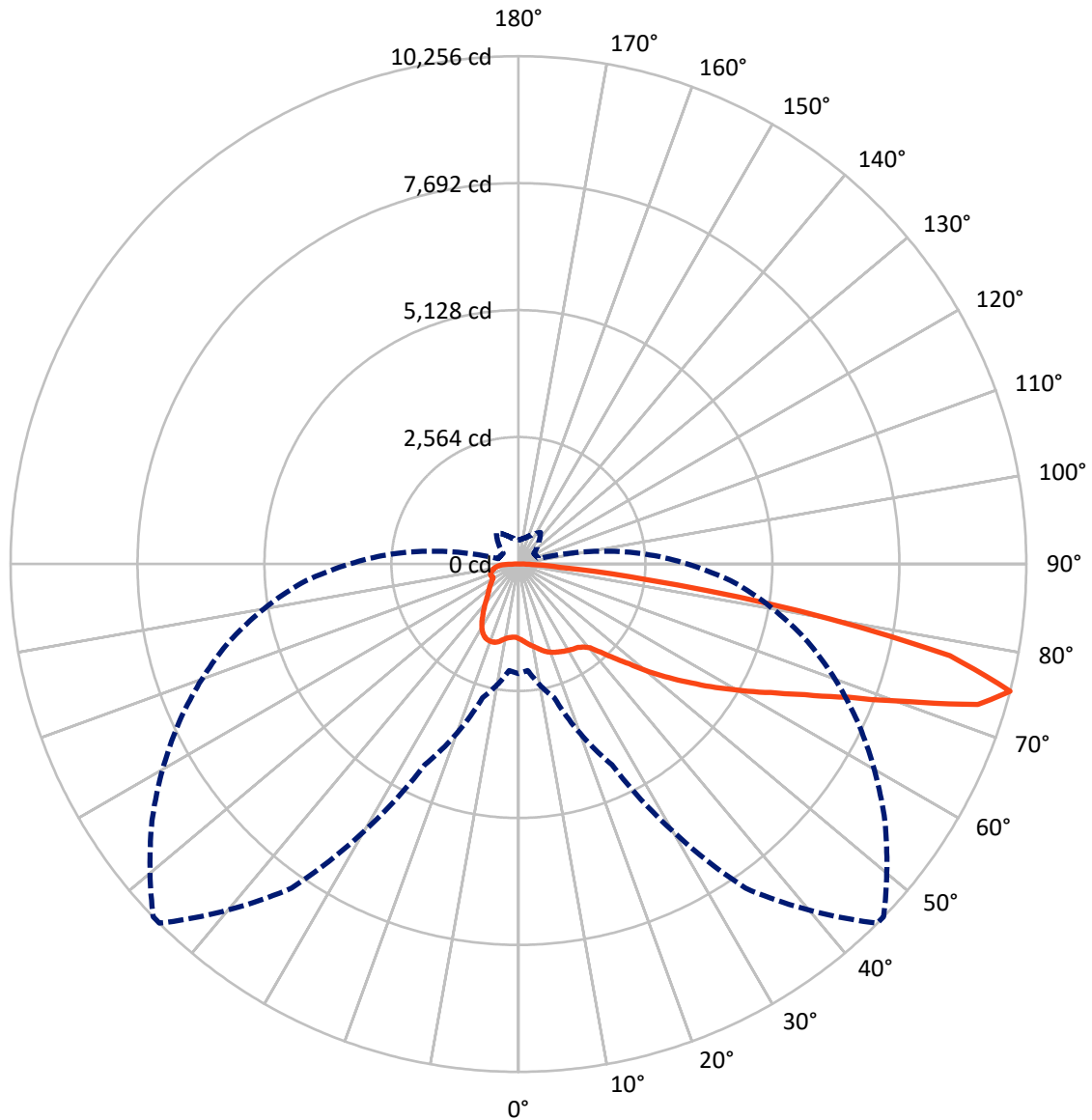


Based on 20 foot mounting height. Maximum calculated value = 4.4 fc  
 Type IV - Medium - Non-Cutoff

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### Luminous Intensity Polar Plot



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



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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	3402.1	0.0	3402.1
	% Fixture	23.2	0.0	23.2
<b>Street Side</b>	Lumens	11283.8	0.0	11283.8
	% Fixture	76.8	0.0	76.8
<b>Total</b>	Lumens	14685.9	0.0	14685.9
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	149.2	1.0
10°-20°	483.5	3.3
20°-30°	829.7	5.6
30°-40°	1160.4	7.9
40°-50°	1702.1	11.6
50°-60°	2651.5	18.1
60°-70°	3815.3	26.0
70°-80°	3323.5	22.6
80°-90°	570.8	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°	14685.9	100.0
0°-180°	14685.9	100.0

**Coefficient of Utilization**



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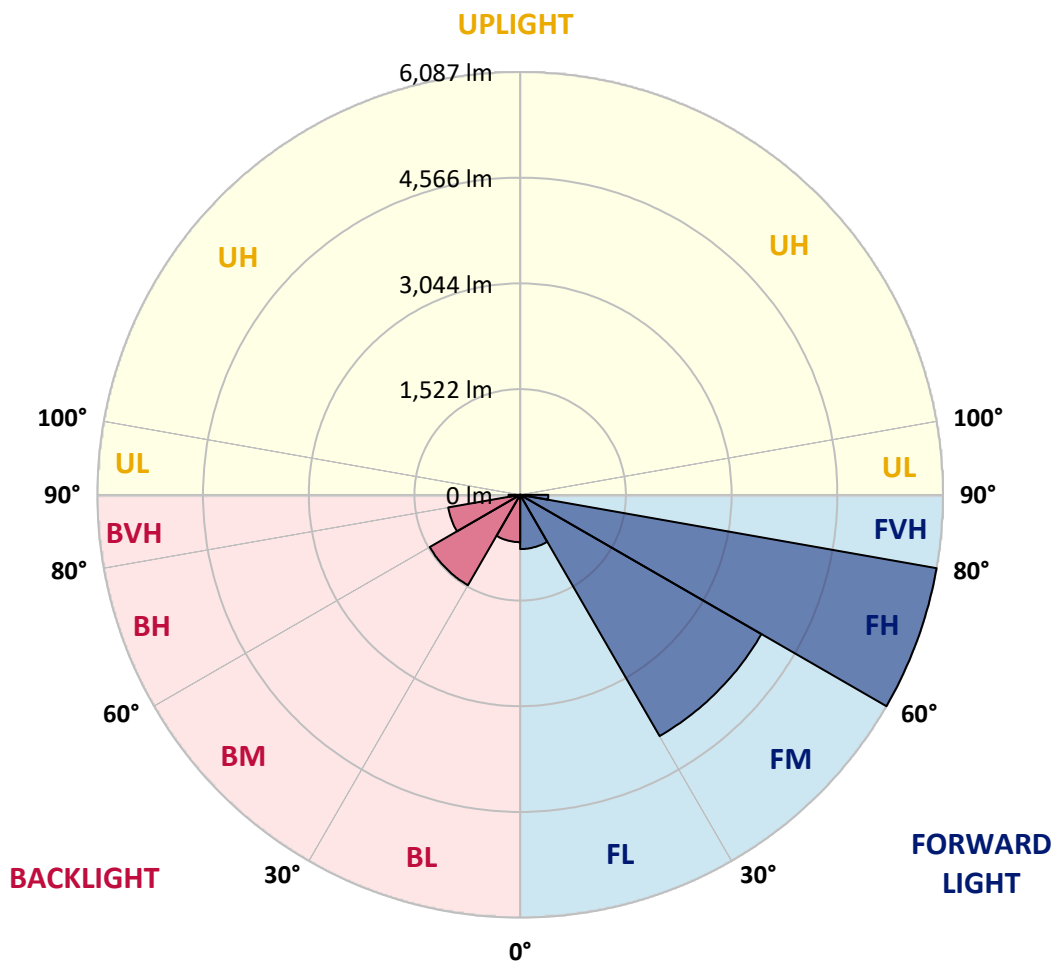
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	780.9	5.3			
FM	(30°-60°)	4010.4	27.3			
FH	(60°-80°)	6087.4	41.5			G3/7500
FVH	(80°-90°)	405.0	2.8			G3/500
BL	(0°-30°)	681.4	4.6	B2/1000		
BM	(30°-60°)	1503.5	10.2	B2/2500		
BH	(60°-80°)	1051.4	7.2	B3/2500		G3/2500
BVH	(80°-90°)	165.8	1.1			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G3**

Type IV Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	1505.5	1505.5	1505.5	1505.5	1505.5	1505.5	1505.5	1505.5	1505.5	1505.5	1505.5
2.5°	1579.8	1568.4	1568.4	1559.7	1559.7	1545.5	1539.8	1536.9	1522.6	1514.2	1505.5
5°	1671.1	1657.0	1654.0	1634.0	1625.6	1594.1	1591.2	1571.2	1545.5	1519.8	1499.8
7.5°	1754.0	1745.4	1731.3	1711.2	1685.5	1645.4	1642.6	1611.2	1568.4	1534.0	1505.5
10°	1814.0	1808.4	1788.3	1762.7	1734.1	1694.1	1691.1	1657.0	1605.5	1565.4	1525.5
12.5°	1885.5	1876.9	1851.1	1816.9	1785.6	1748.3	1745.4	1716.9	1659.8	1608.3	1556.9
15°	1954.1	1942.7	1911.1	1876.9	1842.7	1811.3	1811.3	1779.7	1719.7	1659.8	1599.8
17.5°	1988.3	1982.6	1951.2	1914.0	1885.5	1862.6	1859.8	1831.1	1771.2	1708.3	1642.6
20°	1999.7	2002.6	1974.0	1934.1	1914.0	1902.6	1899.7	1879.8	1814.0	1754.0	1691.1
22.5°	1996.9	2005.5	1982.6	1939.7	1934.1	1934.1	1934.1	1911.1	1859.8	1799.8	1737.0
25°	2008.3	2019.7	2002.6	1951.2	1951.2	1962.5	1962.5	1951.2	1905.5	1854.0	1791.2
27.5°	2048.2	2056.8	2042.6	1971.2	1974.0	1991.2	1988.3	1991.2	1962.5	1914.0	1851.1
30°	2096.9	2108.3	2091.2	2002.6	1999.7	2016.9	2016.9	2031.2	2011.1	1959.7	1908.3
32.5°	2228.2	2225.5	2171.2	2036.8	2028.4	2045.4	2045.4	2059.8	2048.2	2008.3	1959.7
35°	2619.6	2576.8	2456.9	2148.2	2062.6	2071.1	2071.1	2096.9	2102.6	2071.1	2028.4
37.5°	3019.7	3005.3	2913.9	2445.4	2188.4	2125.4	2122.5	2159.7	2185.4	2159.7	2131.1
40°	3422.5	3411.0	3391.0	2842.4	2451.0	2222.5	2214.1	2245.5	2291.1	2274.0	2256.8
42.5°	3796.6	3790.9	3810.9	3233.9	2785.4	2431.2	2405.4	2368.2	2434.0	2428.3	2428.3
45°	4090.9	4105.2	4116.7	3599.5	3148.2	2699.6	2668.2	2542.6	2631.0	2654.0	2671.1
47.5°	4256.6	4267.9	4308.0	3956.7	3510.9	3010.9	2988.2	2782.5	2899.5	2968.2	3016.8
50°	4493.7	4462.3	4496.6	4305.1	3948.1	3416.8	3353.8	3105.4	3253.8	3373.9	3488.1
52.5°	4722.2	4670.7	4699.4	4707.9	4445.2	3813.8	3748.1	3485.2	3671.0	3859.5	4062.3
55°	4927.9	4925.0	4953.7	5099.3	4925.0	4239.5	4165.1	3905.2	4173.7	4376.5	4719.3
57.5°	5093.6	5122.1	5247.9	5553.5	5479.3	4702.3	4619.4	4393.7	4710.8	4913.5	5482.1
60°	5287.9	5333.5	5542.2	5939.2	5984.9	5187.9	5102.2	4939.3	5262.1	5467.9	6364.9
62.5°	5353.5	5419.3	5847.7	6344.9	6513.4	5719.1	5642.2	5533.6	5842.0	6027.7	7244.7
65°	4916.6	5042.1	6016.4	6553.5	7081.9	6359.1	6293.4	6199.2	6419.2	6541.9	7841.8
67.5°	4796.5	4853.6	5687.8	6853.3	7616.1	7181.9	7116.3	6953.4	6959.1	6907.6	8036.1
70°	4628.0	4690.8	5350.8	7079.1	8381.7	8307.4	8227.4	7747.5	7453.2	7142.0	7653.3
72.5°	3942.3	3922.3	4610.8	6470.6	8750.3	9701.5	9607.4	8601.7	7818.9	6939.0	6459.2
75°	2214.1	2156.9	2796.8	4476.6	7990.3	10255.8	10253.0	9033.0	7561.8	6045.0	4396.6
77.5°	642.7	625.6	922.6	1876.9	5379.3	8910.3	9018.9	8147.4	6310.7	4342.2	2413.9
80°	302.8	308.6	397.1	619.9	2296.8	5750.7	6062.0	5364.9	3770.9	2002.6	996.9
82.5°	191.3	194.3	271.4	399.9	971.2	2611.1	2868.2	2413.9	1494.2	865.5	439.9
85°	120.0	120.0	180.0	262.8	579.9	834.2	905.6	822.8	640.0	471.4	239.9
87.5°	65.7	65.7	108.5	151.5	317.1	268.6	277.0	328.5	399.9	288.5	120.0
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°	1505.5	1505.5	1505.5	1505.5	1505.5	1505.5	1505.5	1505.5	1505.5	1505.5	1505.5
2.5°	1502.7	1496.9	1488.4	1485.4	1482.7	1479.8	1482.7	1488.4	1482.7	1482.7	1485.4
5°	1494.2	1488.4	1477.0	1477.0	1479.8	1482.7	1496.9	1505.5	1508.3	1508.3	1508.3
7.5°	1494.2	1485.4	1477.0	1479.8	1485.4	1496.9	1519.8	1534.0	1545.5	1548.4	1548.4
10°	1508.3	1496.9	1491.2	1496.9	1514.2	1522.6	1545.5	1568.4	1582.6	1588.4	1588.4
12.5°	1534.0	1522.6	1522.6	1534.0	1556.9	1568.4	1588.4	1605.5	1622.7	1631.2	1631.2
15°	1577.0	1562.6	1565.4	1585.5	1611.2	1622.7	1636.9	1642.6	1657.0	1668.3	1668.3
17.5°	1616.9	1602.7	1608.3	1631.2	1648.4	1654.0	1662.7	1659.8	1665.5	1674.0	1677.0
20°	1662.7	1648.4	1651.3	1665.5	1668.3	1662.7	1662.7	1654.0	1651.3	1665.5	1671.1
22.5°	1708.3	1694.1	1691.1	1682.6	1668.3	1654.0	1645.4	1636.9	1631.2	1645.4	1651.3
25°	1762.7	1742.6	1728.3	1691.1	1654.0	1628.4	1616.9	1611.2	1608.3	1622.7	1628.4
27.5°	1822.7	1802.5	1759.8	1679.8	1619.7	1577.0	1568.4	1568.4	1574.1	1582.6	1588.4
30°	1879.8	1859.8	1782.6	1654.0	1559.7	1496.9	1488.4	1496.9	1511.2	1519.8	1528.3
32.5°	1936.8	1917.0	1796.9	1614.1	1471.2	1391.2	1385.5	1399.7	1422.6	1428.3	1434.1
35°	2014.0	1994.0	1814.0	1556.9	1359.9	1274.2	1268.3	1277.0	1297.0	1305.5	1314.1
37.5°	2122.5	2111.1	1839.8	1494.2	1257.0	1162.6	1145.6	1139.9	1151.3	1148.5	1159.8
40°	2265.4	2274.0	1885.5	1411.2	1156.9	1059.9	1022.7	1005.7	994.2	971.2	982.7
42.5°	2473.9	2479.7	1936.8	1316.9	1071.3	962.8	914.1	882.8	859.9	822.8	828.4
45°	2779.6	2731.0	1996.9	1216.9	994.2	885.5	828.4	791.3	759.8	728.4	731.3
47.5°	3185.3	3036.7	2062.6	1134.1	917.0	822.8	771.4	728.4	691.3	665.6	668.5
50°	3685.2	3416.8	2128.3	1056.9	839.8	774.2	728.4	682.7	645.6	619.9	617.0
52.5°	4345.1	3873.9	2171.2	971.2	762.8	731.3	691.3	648.4	602.9	571.3	568.4
55°	5030.8	4405.1	2208.3	868.4	688.6	682.7	662.8	614.3	560.0	519.8	514.2
57.5°	5784.9	4973.6	2236.8	768.5	631.4	642.7	637.1	579.9	519.8	482.7	480.0
60°	6470.6	5562.1	2145.4	679.8	579.9	602.9	608.5	560.0	528.6	537.0	539.9
62.5°	7161.8	6016.4	1796.9	614.3	545.6	577.2	625.6	622.7	608.5	622.7	625.6
65°	7410.5	6110.6	1274.2	560.0	511.3	588.5	679.8	674.2	608.5	582.8	577.2
67.5°	7270.4	5830.7	857.1	517.1	485.7	602.9	737.1	674.2	585.6	551.4	539.9
70°	6604.9	5142.2	628.5	474.2	462.7	599.9	768.5	671.4	574.1	537.0	522.9
72.5°	5267.9	3968.1	505.7	434.2	428.5	585.6	785.6	665.6	562.8	522.9	505.7
75°	3411.0	2468.3	425.6	394.3	377.1	562.8	777.0	648.4	548.4	497.1	485.7
77.5°	1582.6	1062.8	362.8	348.5	328.5	528.6	751.3	614.3	517.1	468.5	454.3
80°	737.1	502.8	305.7	302.8	294.3	499.9	717.0	574.1	480.0	439.9	417.2
82.5°	394.3	302.8	248.6	248.6	257.2	465.6	674.2	525.7	431.4	411.3	351.3
85°	208.5	174.4	180.0	194.3	219.9	411.3	617.0	474.2	377.1	314.2	305.7
87.5°	105.7	111.4	111.4	131.4	168.5	334.2	508.5	391.4	319.9	257.2	251.3
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)