

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: P231150

Luminaire Tested: **ARCH-M-AF48-140-D-U-T3-7030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P231150  
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-AF48-140-D-U-T3-7030  
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 3000K, 905mA LIGHT ENGINES WITH 24 LEDS AND TYPE III OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 15041 lumens  
Efficiency: N/A  
Efficacy: 106.7 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 - G3

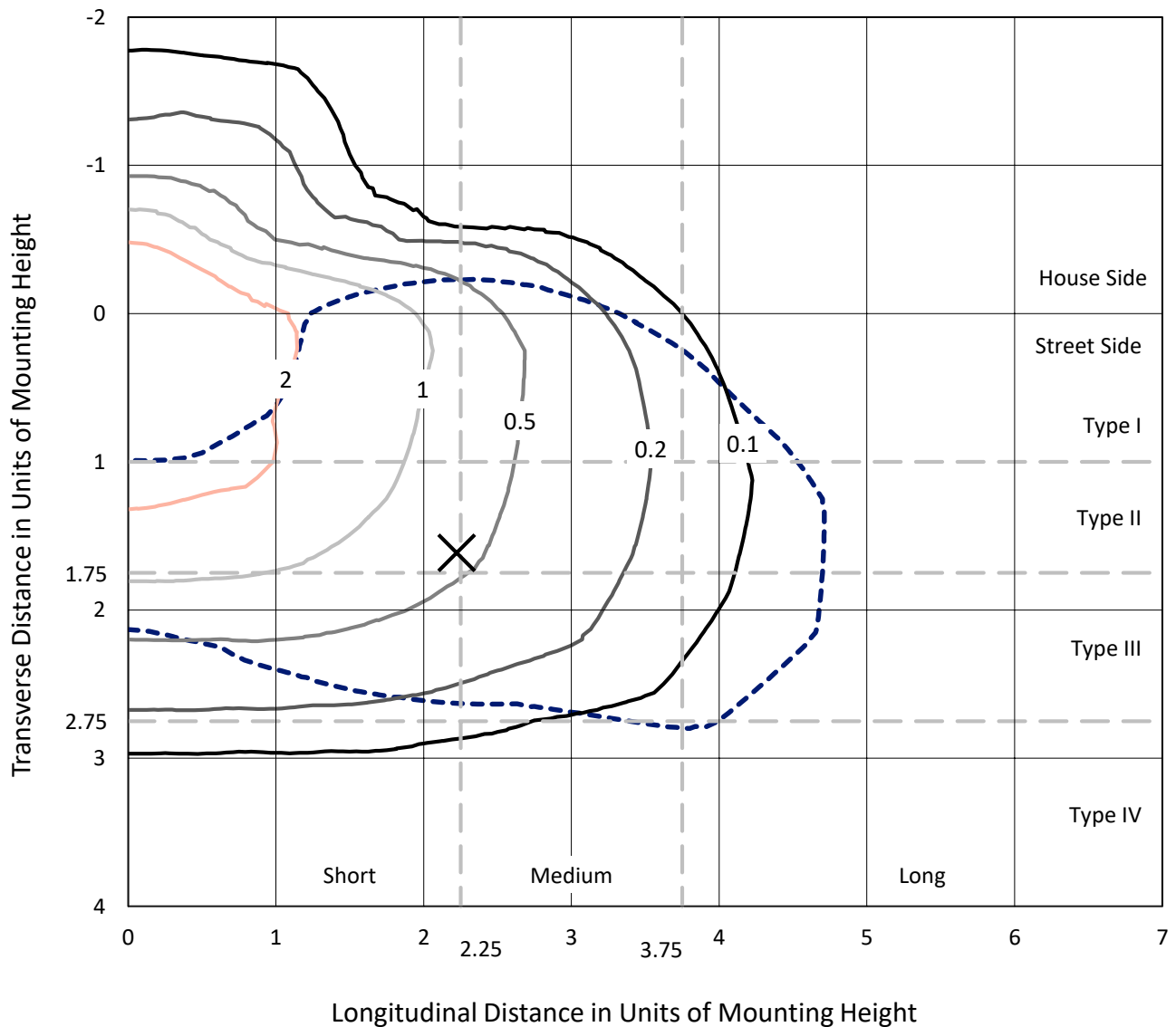
Input Watts (W): 141  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

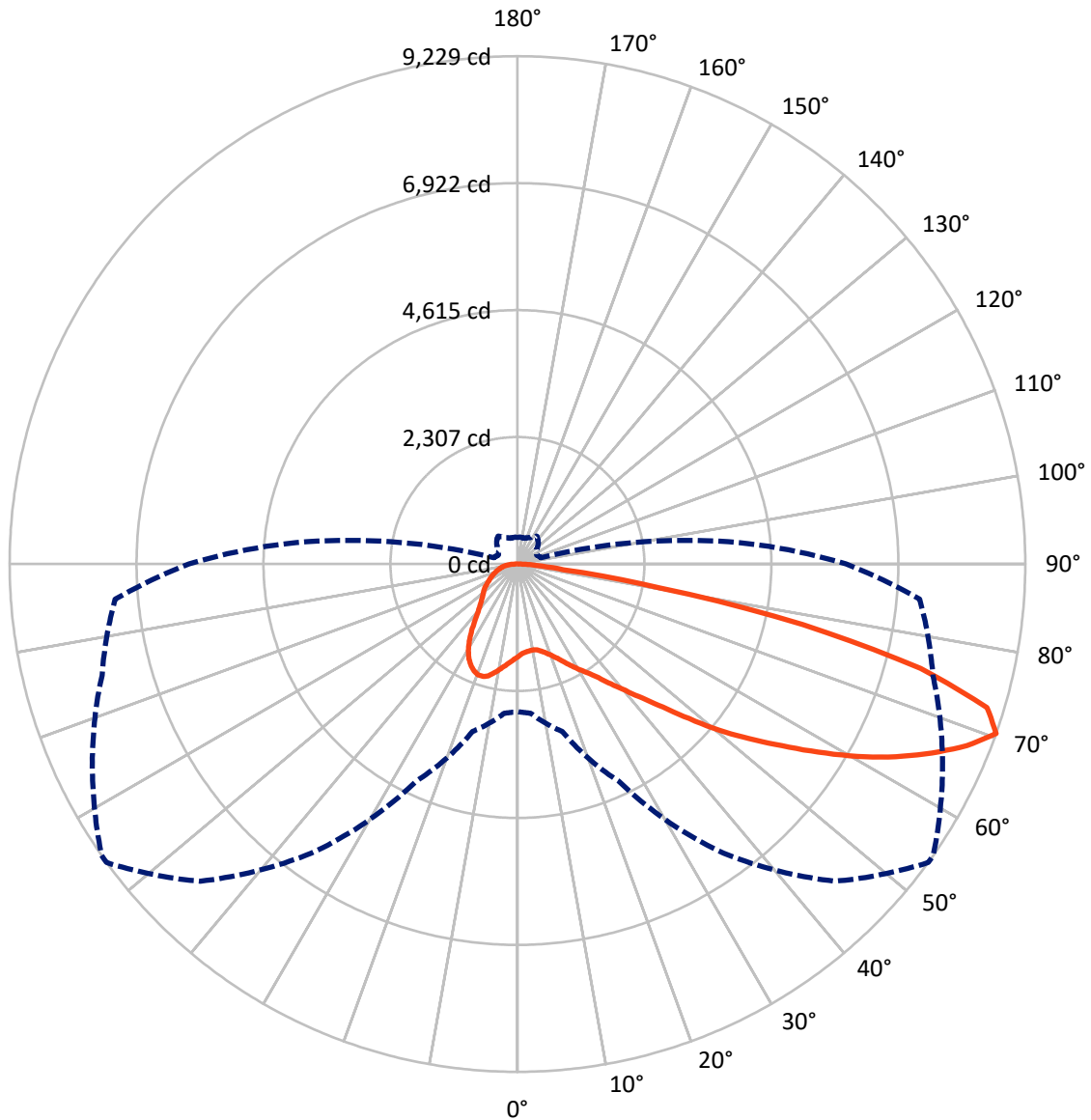
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.1 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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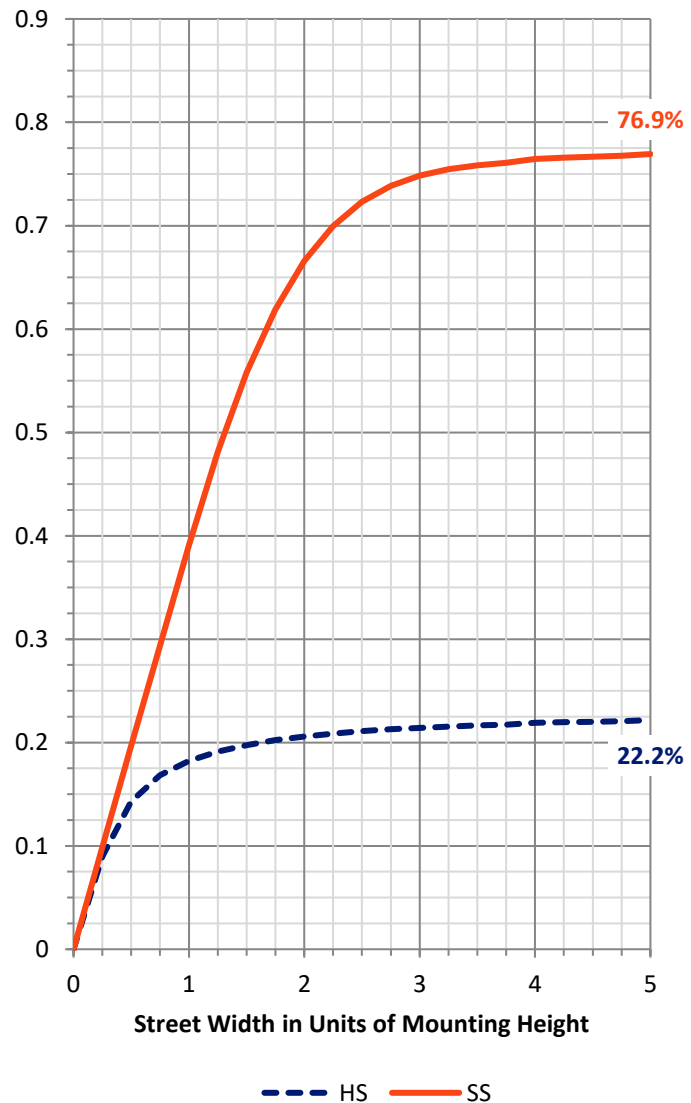
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	3411.2	0.0	3411.2
	% Fixture	22.7	0.0	22.7
<b>Street Side</b>	Lumens	11629.7	0.0	11629.7
	% Fixture	77.3	0.0	77.3
<b>Total</b>	Lumens	15041.0	0.0	15041.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	165.1	1.1
10°-20°	527.7	3.5
20°-30°	916.8	6.1
30°-40°	1339.7	8.9
40°-50°	2102.7	14.0
50°-60°	3233.4	21.5
60°-70°	3950.5	26.3
70°-80°	2449.3	16.3
80°-90°	355.8	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°	15041.0	100.0
0°-180°	15041.0	100.0

**Coefficient of Utilization**



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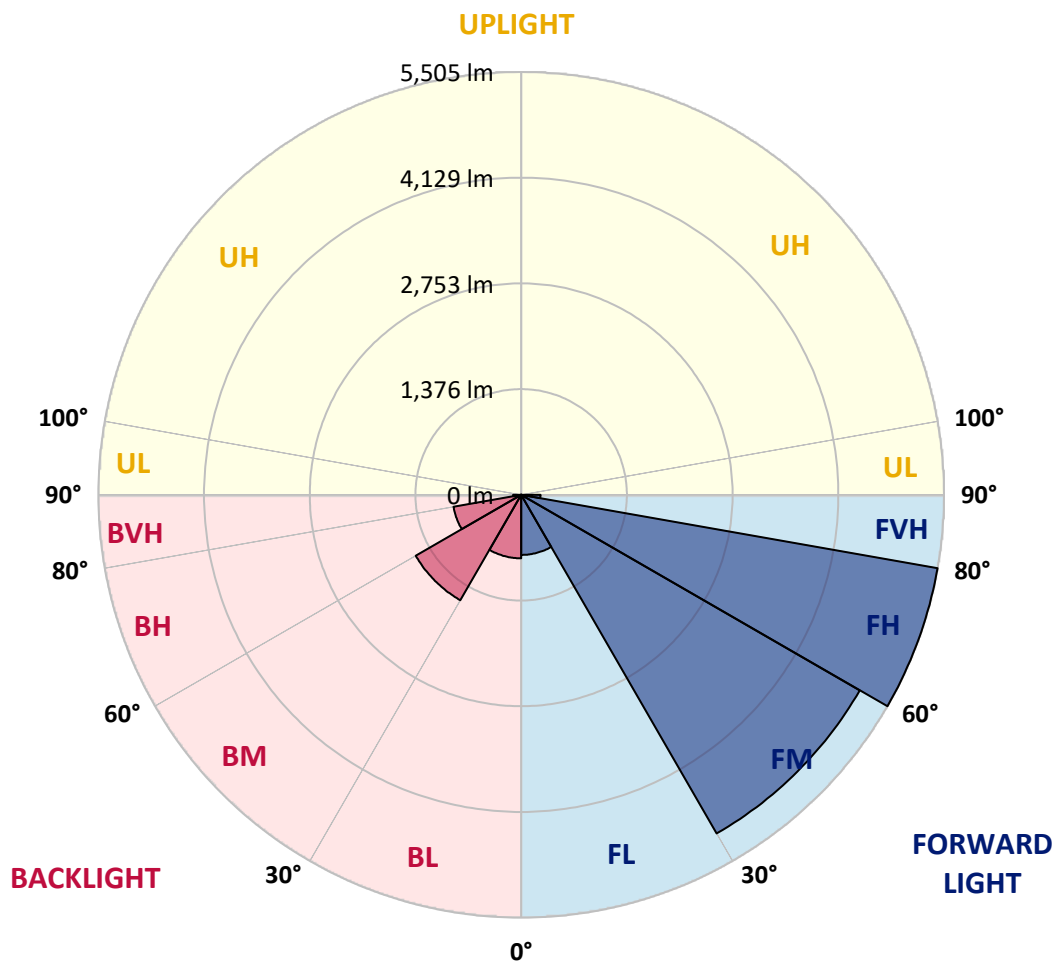
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	782.6	5.2			
FM	(30°-60°)	5090.7	33.8			
FH	(60°-80°)	5505.2	36.6			G3/7500
FVH	(80°-90°)	251.2	1.7			G3/500
BL	(0°-30°)	827.0	5.5	B2/1000		
BM	(30°-60°)	1585.2	10.5	B2/2500		
BH	(60°-80°)	894.5	5.9	B2/1000		G2/1000
BVH	(80°-90°)	104.6	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°	1682.8	1682.8	1682.8	1682.8	1682.8	1682.8	1682.8	1682.8	1682.8	1682.8	1682.8
2.5°	1616.7	1611.2	1611.2	1619.4	1622.2	1630.5	1630.5	1633.2	1641.5	1655.2	1671.8
5°	1567.1	1564.4	1567.1	1578.1	1583.6	1600.2	1605.7	1608.4	1624.9	1647.0	1671.8
7.5°	1517.5	1514.8	1520.3	1536.8	1553.3	1578.1	1591.9	1594.7	1619.4	1649.7	1682.8
10°	1501.0	1498.3	1506.5	1520.3	1536.8	1564.4	1586.4	1589.1	1624.9	1660.8	1707.6
12.5°	1523.0	1520.3	1528.6	1542.3	1558.8	1578.1	1602.9	1605.7	1652.5	1699.3	1748.9
15°	1578.1	1578.1	1580.9	1589.1	1605.7	1622.2	1644.2	1647.0	1696.6	1751.6	1801.2
17.5°	1663.5	1658.0	1658.0	1655.2	1666.3	1674.5	1702.1	1704.8	1757.1	1806.7	1856.3
20°	1768.2	1765.4	1754.4	1740.6	1737.9	1743.4	1770.9	1773.7	1826.0	1867.3	1914.1
22.5°	1894.9	1897.6	1872.8	1842.5	1828.8	1837.0	1861.8	1864.6	1903.1	1938.9	1980.2
25°	2062.9	2054.6	2018.8	1974.7	1947.2	1947.2	1972.0	1972.0	2007.8	2029.8	2057.3
27.5°	2222.6	2206.1	2173.0	2109.7	2065.6	2073.9	2098.7	2098.7	2131.7	2140.0	2153.7
30°	2396.1	2379.6	2338.3	2258.4	2200.6	2195.1	2225.4	2222.6	2266.7	2263.9	2252.9
32.5°	2608.2	2599.9	2531.1	2429.2	2352.0	2332.8	2360.3	2363.1	2390.6	2382.3	2346.5
35°	2905.6	2902.9	2839.5	2660.5	2558.6	2522.8	2539.3	2539.3	2558.6	2536.6	2476.0
37.5°	3280.2	3285.7	3230.6	2966.2	2823.0	2762.4	2765.2	2762.4	2767.9	2743.1	2679.8
40°	3654.8	3668.5	3665.8	3346.3	3164.5	3059.9	3021.3	3015.8	3029.6	3018.5	2958.0
42.5°	4147.7	4180.8	4103.7	3814.5	3610.7	3434.4	3329.8	3316.0	3346.3	3360.1	3302.2
45°	4660.0	4649.0	4527.8	4318.5	4134.0	3908.1	3709.8	3687.8	3709.8	3751.1	3690.6
47.5°	4927.2	4918.9	4888.6	4784.0	4756.4	4497.5	4197.3	4178.0	4136.7	4194.6	4123.0
50°	5367.8	5376.1	5252.2	5241.1	5356.8	5213.6	4748.2	4704.1	4629.7	4676.5	4616.0
52.5°	5687.3	5651.5	5574.4	5670.8	6031.6	5954.5	5265.9	5246.7	5177.8	5166.8	5139.2
55°	5816.8	5816.8	5830.5	6053.6	6568.6	6466.7	5827.8	5847.1	5753.4	5676.3	5712.1
57.5°	5855.3	5871.8	5990.3	6359.3	7199.3	6866.1	6447.5	6475.0	6340.0	6185.8	6298.7
60°	5665.3	5714.9	5998.5	6532.8	7554.6	7290.2	7100.2	7108.5	6912.9	6687.1	6885.4
62.5°	5177.8	5238.4	5745.2	6604.4	7496.8	7725.4	7717.1	7736.4	7469.2	7188.3	7436.2
65°	4580.1	4640.7	5180.6	6403.4	7452.7	8036.6	8281.7	8334.1	7989.8	7612.5	7780.5
67.5°	3701.6	3781.4	4293.7	5725.9	7237.9	8292.7	8810.5	8865.6	8391.9	7832.8	7750.2
70°	2682.5	2721.1	3150.7	4351.6	6362.1	8152.3	9229.1	9226.4	8524.1	7816.3	7337.0
72.5°	1291.7	1322.0	1693.8	2701.8	4549.9	6918.4	8926.2	8978.5	8342.3	7576.7	6392.4
75°	531.6	561.8	685.8	1140.2	2387.8	4571.9	7565.6	7689.6	7576.7	6800.0	5001.5
77.5°	330.5	341.5	402.1	589.4	1090.6	2134.5	5296.2	5464.2	6004.0	5447.7	3302.2
80°	247.9	256.1	300.2	413.1	688.5	787.7	2630.2	2842.3	3638.2	3126.0	1495.5
82.5°	206.6	209.3	239.6	300.2	468.2	451.7	842.8	939.2	1696.6	1192.5	515.0
85°	192.8	198.3	214.8	214.8	297.4	283.7	349.8	366.3	493.0	407.6	179.0
87.5°	99.1	93.6	190.0	168.0	154.2	137.7	148.7	159.7	184.5	195.5	79.9
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°	1682.8	1682.8	1682.8	1682.8	1682.8	1682.8	1682.8	1682.8	1682.8	1682.8	1682.8
2.5°	1677.3	1685.5	1699.3	1713.1	1729.6	1748.9	1759.9	1773.7	1784.7	1779.2	1776.4
5°	1685.5	1699.3	1729.6	1757.1	1790.2	1828.8	1853.5	1881.1	1903.1	1908.6	1900.4
7.5°	1699.3	1724.1	1765.4	1815.0	1859.0	1908.6	1947.2	1985.7	2013.3	2018.8	2018.8
10°	1732.4	1759.9	1815.0	1881.1	1933.4	1985.7	2029.8	2060.1	2084.9	2095.9	2095.9
12.5°	1779.2	1812.2	1878.3	1958.2	2016.0	2065.6	2090.4	2104.2	2115.2	2126.2	2129.0
15°	1834.3	1870.1	1949.9	2035.3	2095.9	2120.7	2120.7	2117.9	2117.9	2123.4	2129.0
17.5°	1889.3	1927.9	2010.5	2101.4	2140.0	2126.2	2106.9	2098.7	2093.2	2090.4	2098.7
20°	1947.2	1985.7	2068.4	2153.7	2142.7	2084.9	2057.3	2038.1	2021.5	2013.3	2024.3
22.5°	2010.5	2046.3	2131.7	2189.5	2106.9	2018.8	1966.5	1936.2	1908.6	1892.1	1903.1
25°	2084.9	2120.7	2203.3	2200.6	2043.6	1919.6	1837.0	1787.4	1757.1	1740.6	1740.6
27.5°	2173.0	2203.3	2283.2	2173.0	1955.4	1787.4	1666.3	1619.4	1611.2	1597.4	1597.4
30°	2263.9	2288.7	2357.6	2109.7	1834.3	1613.9	1481.7	1459.7	1462.5	1448.7	1451.4
32.5°	2357.6	2382.3	2401.6	2016.0	1677.3	1418.4	1330.3	1313.7	1311.0	1300.0	1288.9
35°	2489.7	2525.6	2407.1	1889.3	1487.2	1255.9	1192.5	1176.0	1159.5	1120.9	1120.9
37.5°	2690.8	2729.4	2393.4	1732.4	1291.7	1129.2	1071.4	1049.3	1021.8	983.2	969.5
40°	2966.2	2966.2	2363.1	1556.1	1134.7	1027.3	972.2	944.7	914.4	875.8	867.6
42.5°	3291.2	3214.1	2316.2	1377.1	1019.0	958.4	908.9	878.6	842.8	798.7	793.2
45°	3671.3	3462.0	2250.1	1217.3	933.7	917.1	886.8	834.5	773.9	727.1	718.8
47.5°	4040.3	3685.0	2186.8	1104.4	862.0	900.6	875.8	787.7	705.1	639.0	630.7
50°	4445.2	3883.3	2112.4	1010.8	807.0	889.6	862.0	718.8	627.9	581.1	575.6
52.5°	4850.1	4084.4	2032.6	911.6	760.1	867.6	829.0	669.3	625.2	561.8	553.6
55°	5276.9	4318.5	1938.9	801.5	705.1	823.5	784.9	666.5	644.5	561.8	542.6
57.5°	5692.8	4577.4	1787.4	694.0	644.5	757.4	768.4	650.0	603.2	556.3	534.3
60°	6152.8	4852.8	1536.8	603.2	592.1	702.3	746.4	614.2	556.3	539.8	528.8
62.5°	6521.8	5100.7	1200.8	539.8	548.1	658.2	718.8	592.1	537.1	523.3	520.5
65°	6681.6	5106.2	862.0	484.7	504.0	616.9	691.3	572.9	520.5	515.0	512.3
67.5°	6513.6	4825.3	605.9	432.4	457.2	578.4	655.5	553.6	504.0	506.8	501.3
70°	5971.0	4233.1	443.4	382.8	413.1	537.1	616.9	528.8	484.7	490.2	482.0
72.5°	4996.0	3299.5	355.3	341.5	377.3	493.0	578.4	501.3	454.4	457.2	440.7
75°	3690.6	2186.8	297.4	305.7	336.0	451.7	528.8	465.5	421.4	410.4	399.4
77.5°	2195.1	1123.7	245.1	267.2	300.2	402.1	473.7	421.4	385.6	366.3	358.0
80°	906.1	454.4	201.1	225.8	261.6	358.0	418.6	369.1	344.3	325.0	314.0
82.5°	360.8	223.1	159.7	184.5	220.3	311.2	366.3	325.0	300.2	286.4	256.1
85°	137.7	110.2	107.4	129.4	165.2	239.6	303.0	272.7	253.4	217.6	209.3
87.5°	55.1	49.6	49.6	63.3	93.6	151.5	217.6	190.0	198.3	157.0	159.7
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)