

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: P265853

Luminaire Tested: **ARCH-M-AF48-150-D-U-T2U-7027**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P265853  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1802-616-1)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-M-AF48-150-D-U-T2U-7027  
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 2700K, 970mA LIGHT ENGINES WITH 24 LEDS AND TYPE II U OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 15400.4 lumens  
Efficiency: N/A  
Efficacy: 102.0 lumens/watt  
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')  
IES Classification: Type II - Short - Semi-Cutoff  
BUG Rating: B3 - U0 - G3

Input Watts (W): 151  
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

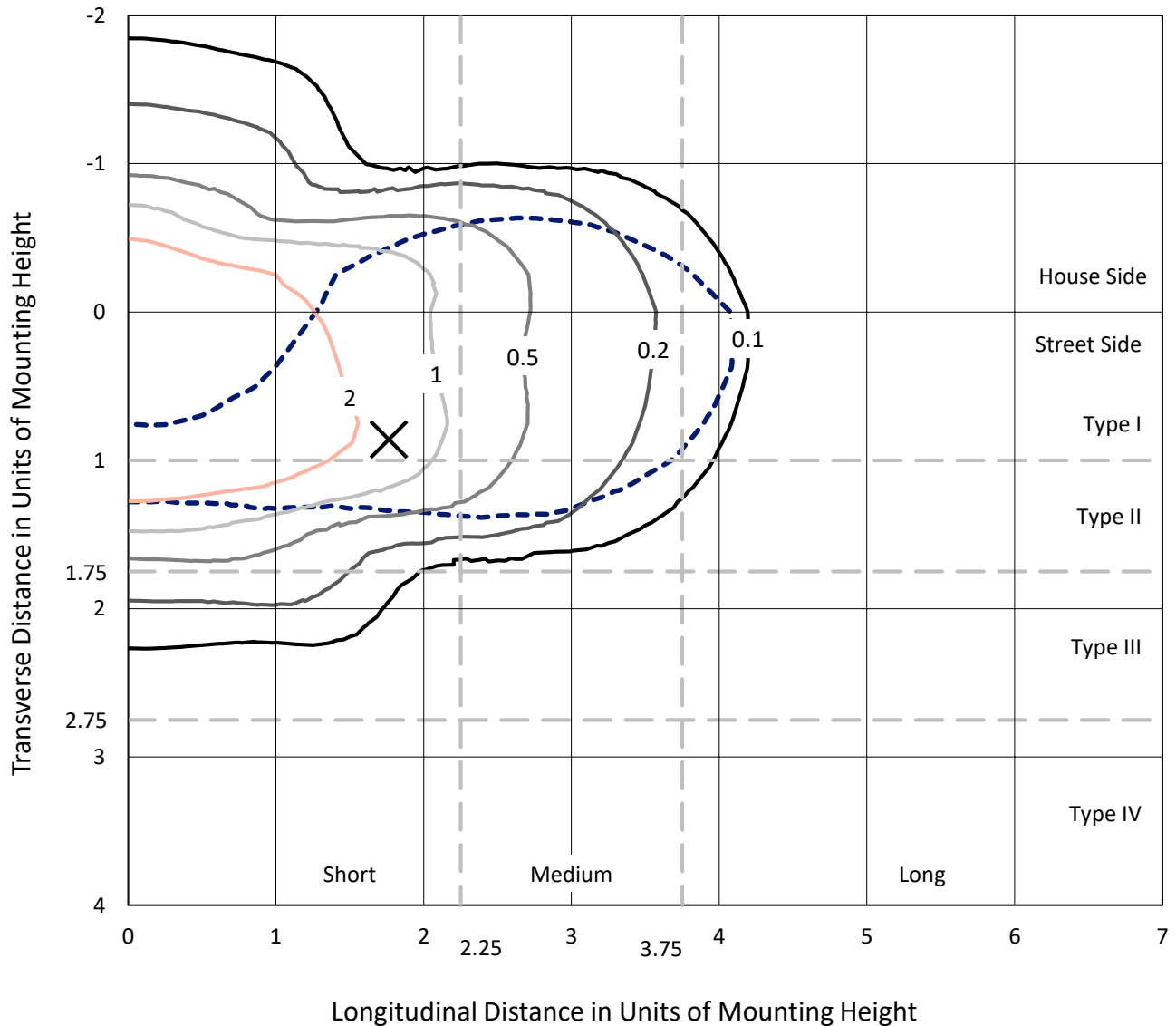


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

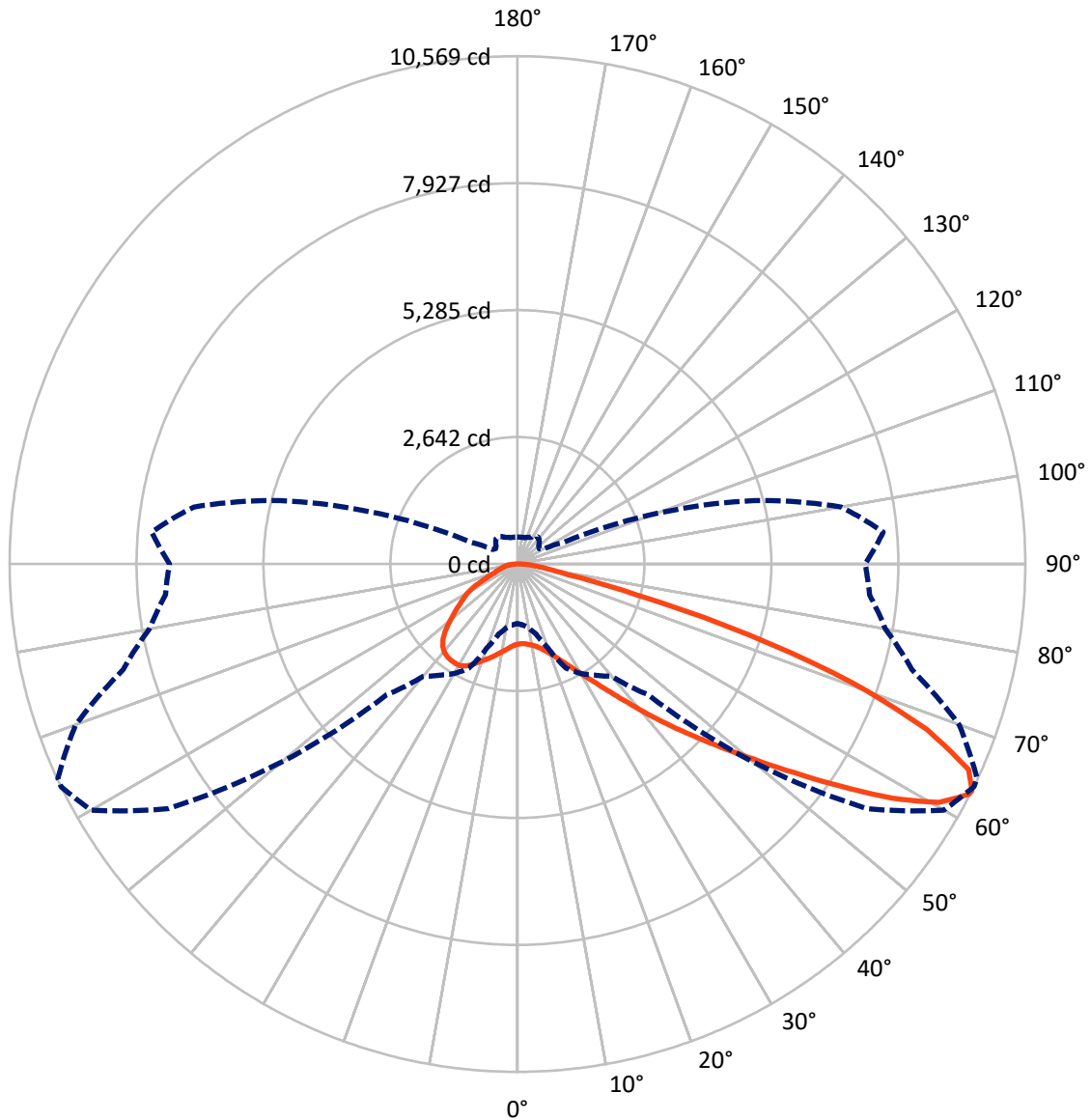


Based on 25 foot mounting height. Maximum calculated value = 4.3 fc  
 Type II - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 64-Deg Lateral    - - - Horizontal Cone Through 63-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	4527.2	0.0	4527.2
	% Fixture	29.4	0.0	29.4
<b>Street Side</b>	Lumens	10873.2	0.0	10873.2
	% Fixture	70.6	0.0	70.6
<b>Total</b>	Lumens	15400.4	0.0	15400.4
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	166.5	1.1
10°-20°	554.6	3.6
20°-30°	1041.1	6.8
30°-40°	1745.1	11.3
40°-50°	2927.8	19.0
50°-60°	3711.6	24.1
60°-70°	3274.2	21.3
70°-80°	1690.2	11.0
80°-90°	289.2	1.9
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°	15400.4	100.0
0°-180°	15400.4	100.0



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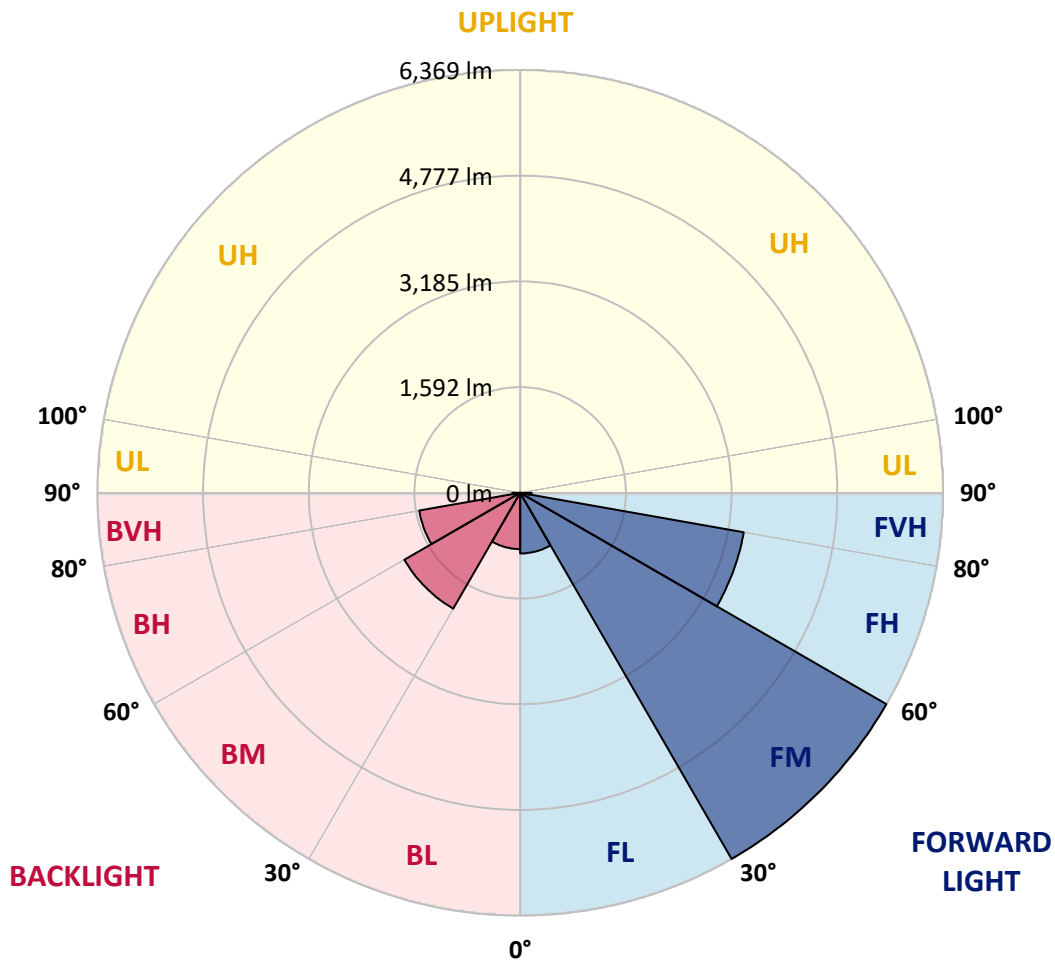
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	914.1	5.9			
FM	(30°-60°)	6369.2	41.4			
FH	(60°-80°)	3419.8	22.2			G2/5000
FVH	(80°-90°)	170.2	1.1			G2/225
BL	(0°-30°)	848.2	5.5	B2/1000		
BM	(30°-60°)	2015.3	13.1	B2/2500		
BH	(60°-80°)	1544.6	10.0	B3/2500		G3/2500
BVH	(80°-90°)	119.0	0.8			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 II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1667.9	1667.9	1667.9	1667.9	1667.9	1667.9	1667.9	1667.9	1667.9	1667.9	1667.9
2.5°	1657.6	1654.9	1654.9	1654.9	1654.9	1652.4	1654.9	1660.1	1657.6	1654.9	1660.1
5°	1662.8	1660.1	1660.1	1660.1	1662.8	1660.1	1662.8	1670.5	1665.3	1665.3	1670.5
7.5°	1675.6	1673.1	1675.6	1673.1	1673.1	1673.1	1675.6	1683.3	1680.8	1683.3	1691.1
10°	1691.1	1691.1	1691.1	1691.1	1691.1	1691.1	1696.2	1701.4	1703.9	1706.5	1716.8
12.5°	1737.4	1737.4	1737.4	1734.8	1734.8	1727.1	1737.4	1742.6	1747.7	1753.0	1760.7
15°	1835.3	1835.3	1832.8	1822.5	1822.5	1807.1	1809.6	1812.2	1812.2	1817.5	1822.5
17.5°	1964.4	1961.7	1956.6	1948.9	1938.5	1920.4	1915.4	1910.2	1902.4	1899.8	1899.8
20°	2144.8	2142.2	2131.9	2111.2	2098.4	2070.1	2049.4	2028.7	2021.0	2008.2	2005.6
22.5°	2402.5	2402.5	2381.9	2351.0	2340.7	2281.3	2222.0	2178.3	2162.8	2144.8	2144.8
25°	2714.5	2712.0	2683.5	2647.5	2603.6	2541.8	2469.6	2410.3	2371.6	2330.4	2314.9
27.5°	3088.3	3080.5	3041.8	2998.1	2915.4	2838.1	2753.1	2691.2	2624.3	2572.7	2526.3
30°	3526.4	3518.8	3451.6	3369.3	3284.2	3206.8	3083.2	3008.3	2902.7	2840.8	2789.1
32.5°	4034.3	4026.7	3905.4	3825.5	3735.3	3639.9	3493.0	3374.5	3240.4	3152.7	3080.5
35°	4681.3	4650.4	4477.7	4366.8	4225.1	4129.7	3975.0	3815.2	3658.0	3534.2	3428.6
37.5°	5379.9	5343.8	5191.8	5026.7	4887.6	4771.5	4552.5	4351.4	4165.8	3995.7	3864.1
40°	6109.5	6014.2	5851.6	5730.6	5635.2	5524.2	5294.9	5083.5	4792.2	4601.5	4403.0
42.5°	6614.7	6522.0	6408.5	6328.6	6282.1	6197.0	6068.2	5885.2	5624.8	5629.9	5106.7
45°	6947.2	6810.6	6733.3	6738.5	6756.5	6756.5	6733.3	6704.9	6591.6	6668.8	6230.6
47.5°	6828.6	6738.5	6689.5	6792.7	6921.5	7050.3	7199.8	7362.2	7547.9	7767.0	7228.2
50°	6132.6	6166.1	6189.4	6408.5	6684.3	6978.3	7321.0	7764.4	8282.6	8383.2	8122.7
52.5°	5021.6	5093.7	5171.2	5506.3	5869.7	6377.5	6978.3	7710.3	8406.2	8816.1	8790.5
55°	3900.4	3990.5	4155.5	4405.5	4694.3	5173.7	5916.1	7045.2	8130.5	8782.6	9179.7
57.5°	2776.3	2907.9	3124.3	3472.4	3727.5	3998.3	4547.3	5800.1	6988.5	8202.7	9115.2
60°	1845.7	1907.6	2049.4	2482.5	2912.9	3196.4	3585.8	4039.5	5011.4	6684.3	8450.1
62.5°	1309.5	1350.8	1438.5	1634.3	2023.6	2536.6	2771.2	2979.9	3291.8	4299.8	6784.9
63°	1237.3	1273.4	1345.7	1510.6	1861.2	2392.2	2631.9	2822.7	3049.6	3846.2	6418.7
65°	1026.0	1041.5	1080.1	1160.0	1348.1	1789.1	2180.8	2296.8	2335.6	2472.1	4021.4
67.5°	866.1	876.4	889.3	912.6	987.2	1191.0	1626.7	1773.6	1729.7	1636.9	1987.5
70°	752.7	760.4	781.0	809.5	835.2	886.7	1118.7	1337.8	1288.9	1162.5	1216.8
72.5°	600.6	613.5	636.7	685.6	737.2	804.3	860.9	997.6	966.7	845.6	858.4
75°	474.3	482.1	502.7	538.8	587.8	665.0	776.0	822.3	737.2	623.9	623.9
77.5°	376.4	384.0	402.1	430.5	461.4	515.5	592.9	714.1	662.5	469.2	466.6
80°	283.5	291.3	309.3	335.1	366.1	404.7	451.0	505.2	608.3	438.3	350.6
82.5°	208.8	211.5	242.4	260.4	270.7	301.7	340.3	371.2	417.6	404.7	311.9
85°	157.3	154.7	175.3	188.1	190.8	198.4	221.7	252.7	273.3	262.9	242.4
87.5°	87.7	77.3	90.2	103.1	103.1	105.7	110.9	128.8	147.0	141.8	128.8
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):**

	55°	60°	64°	65°	70°	75°	80°	85°	90°	95°	100°
0°	1667.9	1667.9	1667.9	1667.9	1667.9	1667.9	1667.9	1667.9	1667.9	1667.9	1667.9
2.5°	1660.1	1660.1	1657.6	1657.6	1660.1	1660.1	1657.6	1665.3	1670.5	1670.5	1673.1
5°	1667.9	1670.5	1667.9	1667.9	1670.5	1670.5	1673.1	1680.8	1688.5	1693.7	1701.4
7.5°	1691.1	1693.7	1691.1	1691.1	1693.7	1696.2	1701.4	1711.7	1716.8	1727.1	1740.0
10°	1716.8	1719.4	1716.8	1719.4	1722.1	1724.6	1732.3	1740.0	1747.7	1758.2	1778.7
12.5°	1763.3	1765.8	1760.7	1763.3	1771.0	1771.0	1776.0	1781.2	1794.2	1807.1	1827.7
15°	1827.7	1827.7	1822.5	1825.0	1832.8	1832.8	1835.3	1840.5	1856.1	1871.4	1892.1
17.5°	1902.4	1907.6	1905.0	1907.6	1912.8	1915.4	1915.4	1920.4	1930.7	1941.1	1961.7
20°	2003.0	2005.6	2000.3	2005.6	2010.6	2005.6	2000.3	1997.8	2003.0	2008.2	2031.3
22.5°	2139.7	2137.0	2124.1	2124.1	2124.1	2113.8	2101.0	2085.4	2085.4	2077.7	2095.7
25°	2301.9	2294.4	2276.2	2278.8	2260.8	2245.4	2222.0	2199.0	2178.3	2170.6	2173.1
27.5°	2492.7	2477.3	2459.3	2454.1	2436.1	2407.6	2369.0	2325.3	2291.7	2266.0	2260.8
30°	2732.6	2699.0	2668.1	2662.8	2634.5	2588.1	2526.3	2466.9	2410.3	2366.4	2351.0
32.5°	3016.1	2964.4	2915.4	2910.4	2863.9	2802.2	2727.3	2644.9	2562.3	2492.7	2459.3
35°	3348.6	3271.3	3224.8	3212.0	3145.0	3067.6	2985.2	2879.4	2763.5	2665.5	2603.6
37.5°	3753.3	3673.3	3593.5	3596.1	3503.3	3413.1	3302.2	3173.4	3026.4	2889.8	2802.2
40°	4253.5	4140.0	4037.0	4013.6	3933.8	3807.5	3686.4	3536.7	3356.3	3175.9	3049.6
42.5°	4859.2	4673.6	4531.8	4511.2	4405.5	4250.9	4103.8	3905.4	3722.3	3503.3	3351.1
45°	5547.6	5251.0	5081.0	5050.0	4879.9	4722.6	4544.7	4333.3	4109.0	3861.6	3681.2
47.5°	6403.4	5980.6	5691.9	5640.3	5405.7	5199.5	5013.9	4779.3	4511.2	4235.4	4037.0
50°	7401.0	6777.2	6387.8	6308.0	5993.5	5751.2	5513.9	5220.1	4934.0	4645.2	4415.9
52.5°	8401.2	7731.0	7212.9	7114.8	6650.8	6326.0	6014.2	5720.1	5382.6	5096.4	4836.0
55°	9205.4	8759.6	8158.9	8022.3	7357.2	6916.3	6506.5	6171.4	5836.2	5609.3	5302.6
57.5°	9690.0	9666.9	9192.5	9004.4	8094.4	7442.2	6985.8	6604.3	6279.6	6184.2	5776.9
60°	9677.3	10277.9	10074.2	9932.4	8839.4	7981.0	7388.1	6975.6	6707.6	6815.8	6253.8
62.5°	9086.9	10303.6	10548.4	10509.8	9633.3	8414.1	7718.1	7292.7	7150.9	7473.1	6748.7
63°	8872.9	10244.4	10569.1	10553.6	9785.4	8496.6	7774.7	7354.6	7238.5	7640.8	6838.9
65°	7499.0	9726.2	10319.1	10388.7	10112.8	8780.2	7906.3	7511.7	7499.0	8014.5	7053.0
67.5°	4570.4	8218.1	9192.5	9326.7	9651.4	8870.4	7831.5	7457.6	7643.3	8068.7	6988.5
70°	1954.1	5423.7	7388.1	7604.6	8398.7	8421.8	7617.4	7235.9	7609.8	7645.8	6529.7
72.5°	1157.5	2557.3	5029.4	5501.1	6645.8	7246.3	7127.7	6849.2	7169.0	6715.3	5560.4
75°	819.8	1196.2	2554.6	3057.3	4627.2	5532.0	5988.3	6117.2	6104.3	5325.8	4173.5
77.5°	587.8	768.2	1077.5	1270.9	2582.9	3552.3	4109.0	4485.4	4364.2	3565.2	2572.7
80°	409.8	531.1	660.0	701.1	1198.7	1825.0	2165.4	2330.4	2258.2	1781.2	1152.3
82.5°	296.4	348.1	425.3	451.0	603.2	843.0	1002.8	884.2	848.1	657.4	497.5
85°	229.4	224.2	265.4	275.8	353.2	440.8	451.0	350.6	306.9	273.3	278.5
87.5°	162.5	139.1	141.8	147.0	183.1	234.5	229.4	144.4	123.7	131.5	149.5
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):**

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	1667.9	1667.9	1667.9	1667.9	1667.9	1667.9	1667.9	1667.9	1667.9	1667.9	1667.9
2.5°	1678.2	1680.8	1685.8	1688.5	1693.7	1693.7	1698.8	1701.4	1706.5	1711.7	1714.2
5°	1709.1	1716.8	1727.1	1732.3	1742.6	1750.3	1760.7	1765.8	1776.0	1783.9	1794.2
7.5°	1755.5	1768.5	1781.2	1796.8	1812.2	1825.0	1835.3	1848.4	1866.4	1879.3	1887.0
10°	1799.3	1817.5	1840.5	1858.7	1881.8	1899.8	1915.4	1938.5	1959.2	1977.2	1987.5
12.5°	1856.1	1879.3	1902.4	1930.7	1961.7	1985.0	2008.2	2039.1	2067.4	2088.0	2098.4
15°	1923.0	1951.4	1977.2	2010.6	2046.8	2077.7	2111.2	2144.8	2165.4	2165.4	2160.2
17.5°	1992.7	2015.8	2046.8	2085.4	2134.5	2173.1	2191.1	2196.4	2188.6	2170.6	2157.6
20°	2062.2	2082.9	2116.3	2162.8	2214.3	2222.0	2204.0	2180.8	2157.6	2126.6	2106.0
22.5°	2119.0	2147.4	2199.0	2252.9	2255.6	2211.7	2162.8	2124.1	2088.0	2052.0	2013.3
25°	2186.0	2224.7	2294.4	2314.9	2247.9	2165.4	2095.7	2039.1	1979.8	1920.4	1876.6
27.5°	2268.5	2325.3	2394.8	2335.6	2204.0	2088.0	1992.7	1907.6	1830.2	1747.7	1698.8
30°	2356.2	2443.7	2459.3	2304.6	2129.3	1979.8	1850.9	1722.1	1624.0	1549.2	1520.9
32.5°	2461.8	2575.3	2482.5	2250.4	2028.7	1832.8	1660.1	1505.5	1422.9	1376.6	1363.6
35°	2621.7	2714.5	2495.3	2193.8	1912.8	1657.6	1441.1	1317.3	1265.7	1234.8	1219.3
37.5°	2851.1	2848.5	2492.7	2124.1	1778.7	1466.8	1265.7	1178.0	1136.8	1111.1	1082.6
40°	3119.2	2951.7	2477.3	2023.6	1598.3	1283.8	1144.6	1062.1	1023.3	992.4	958.9
42.5°	3384.8	3021.2	2433.5	1874.0	1374.0	1152.3	1056.9	982.1	941.0	907.4	860.9
45°	3614.2	3049.6	2348.3	1667.9	1172.8	1049.2	1000.3	935.8	886.7	835.2	799.1
47.5°	3794.6	3044.4	2211.7	1425.5	1038.9	976.9	953.8	910.0	850.7	786.2	739.8
50°	3946.7	3005.8	2026.1	1211.5	948.6	912.6	904.9	891.9	796.5	742.4	714.1
52.5°	4085.9	2949.0	1827.7	1067.2	871.3	840.4	855.8	843.0	776.0	729.6	701.1
55°	4276.7	2910.4	1631.9	956.3	781.0	773.4	786.2	804.3	763.0	719.3	688.3
57.5°	4500.9	2931.0	1482.3	832.6	695.9	701.1	745.1	770.7	750.2	703.7	672.8
60°	4758.7	2992.9	1350.8	714.1	626.4	639.4	703.7	739.8	737.2	683.2	647.0
62.5°	5047.3	3057.3	1141.9	623.9	567.1	587.8	654.8	701.1	708.9	662.5	618.8
63°	5104.1	3062.5	1087.8	605.7	556.8	580.0	641.8	690.8	701.1	657.4	613.5
65°	5243.2	3016.1	876.4	556.8	515.5	541.4	603.2	647.0	667.7	629.1	592.9
67.5°	5127.3	2637.2	660.0	497.5	482.1	500.0	554.3	595.4	613.5	595.4	559.4
70°	4689.2	1917.9	515.5	443.5	446.0	458.9	500.0	538.8	559.4	554.3	520.7
72.5°	3776.6	1087.8	430.5	397.1	404.7	420.1	448.6	484.6	502.7	500.0	476.9
75°	2487.5	556.8	363.5	355.8	360.8	373.8	394.4	422.7	443.5	440.8	430.5
77.5°	1232.3	386.7	311.9	314.4	317.1	327.4	342.9	368.7	381.5	384.0	381.5
80°	507.8	301.7	268.1	270.7	273.3	281.0	291.3	314.4	322.2	327.4	329.9
82.5°	304.2	229.4	213.9	219.1	221.7	229.4	237.2	257.8	265.4	273.3	273.3
85°	201.1	159.8	154.7	159.8	165.0	170.0	172.7	185.6	198.4	208.8	213.9
87.5°	108.2	95.4	92.9	95.4	95.4	100.5	105.7	118.5	134.0	144.4	149.5
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):**

	160°	165°	170°	175°	180°
0°	1667.9	1667.9	1667.9	1667.9	1667.9
2.5°	1709.1	1711.7	1709.1	1711.7	1714.2
5°	1794.2	1799.3	1796.8	1796.8	1807.1
7.5°	1892.1	1902.4	1902.4	1907.6	1912.8
10°	1997.8	2008.2	2015.8	2015.8	2023.6
12.5°	2103.6	2108.7	2116.3	2116.3	2116.3
15°	2157.6	2155.0	2152.5	2150.0	2150.0
17.5°	2150.0	2139.7	2134.5	2129.3	2131.9
20°	2093.2	2075.2	2070.1	2062.2	2067.4
22.5°	1995.2	1969.4	1959.2	1946.3	1951.4
25°	1848.4	1817.5	1812.2	1796.8	1804.4
27.5°	1678.2	1662.8	1660.1	1657.6	1670.5
30°	1518.3	1523.4	1526.1	1531.3	1544.1
32.5°	1371.4	1381.8	1384.3	1386.9	1404.9
35°	1227.1	1214.1	1227.1	1221.9	1237.3
37.5°	1069.8	1059.6	1049.2	1036.3	1046.5
40°	938.3	920.4	889.3	874.0	876.4
42.5°	835.2	812.0	786.2	770.7	770.7
45°	768.2	739.8	716.7	706.3	706.3
47.5°	716.7	703.7	690.8	683.2	683.2
50°	695.9	680.6	672.8	667.7	667.7
52.5°	680.6	665.0	657.4	652.2	647.0
55°	667.7	644.4	636.7	634.2	634.2
57.5°	649.7	629.1	618.8	616.1	616.1
60°	621.3	605.7	595.4	592.9	592.9
62.5°	592.9	577.4	567.1	567.1	567.1
63°	587.8	569.7	562.0	562.0	562.0
65°	564.6	546.4	538.8	538.8	536.2
67.5°	533.7	515.5	510.3	510.3	505.2
70°	497.5	482.1	476.9	479.4	469.2
72.5°	461.4	446.0	438.3	438.3	428.0
75°	420.1	404.7	394.4	391.8	381.5
77.5°	373.8	360.8	350.6	340.3	335.1
80°	324.7	314.4	301.7	293.8	286.1
82.5°	273.3	262.9	255.2	265.4	226.8
85°	213.9	203.6	193.3	208.8	162.5
87.5°	157.3	152.2	141.8	123.7	108.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)