

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: P231304

Luminaire Tested: **ARCH-M-AF48-120-D-U-T4W-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231304
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-AF48-120-D-U-T4W-7050
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 5000K, 785mA LIGHT ENGINES WITH 24 LEDS AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15207 lumens
Efficiency: N/A
Efficacy: 124.6 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): 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



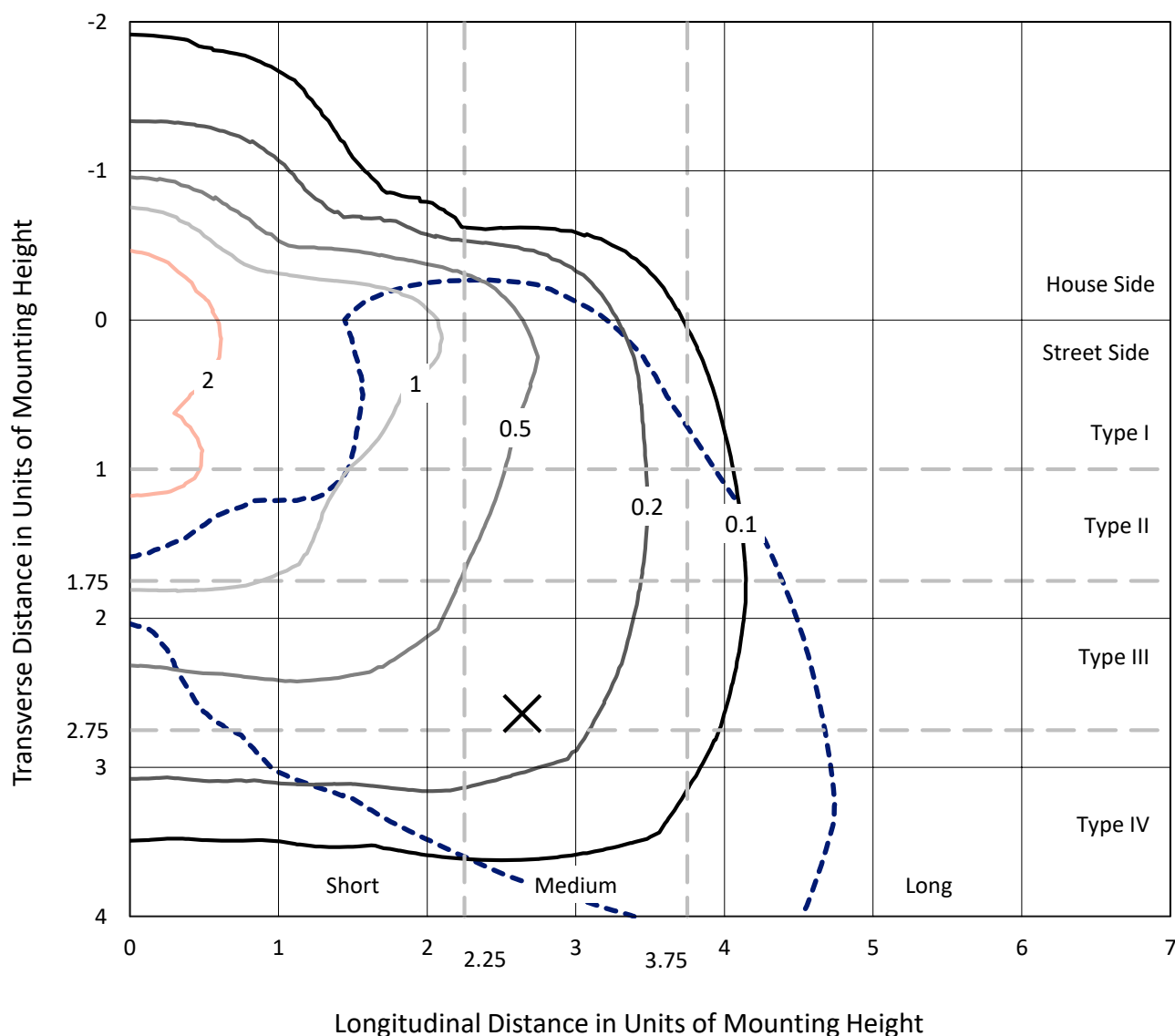
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

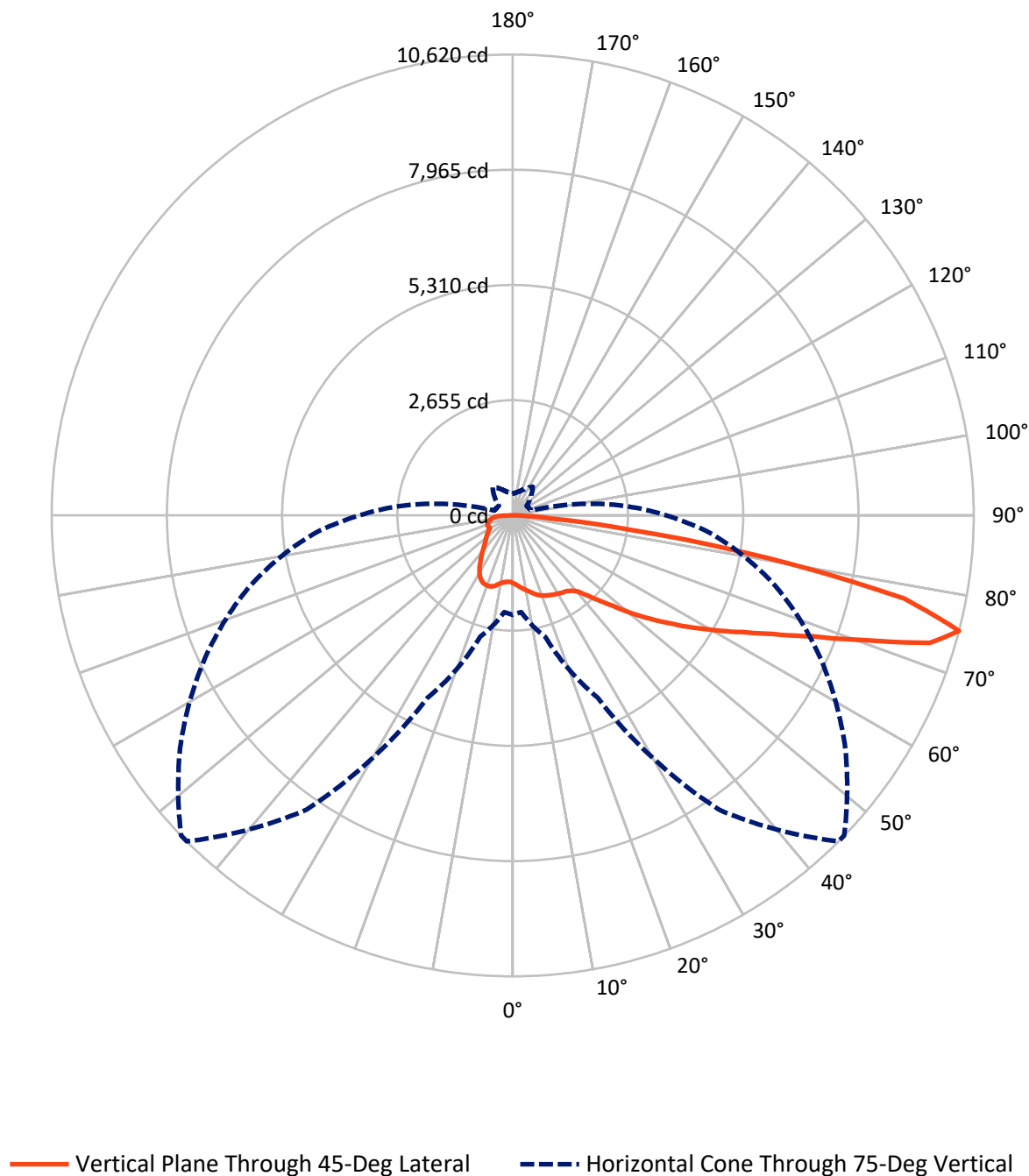


Based on 25 foot mounting height. Maximum calculated value = 2.9 fc
 Type IV - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



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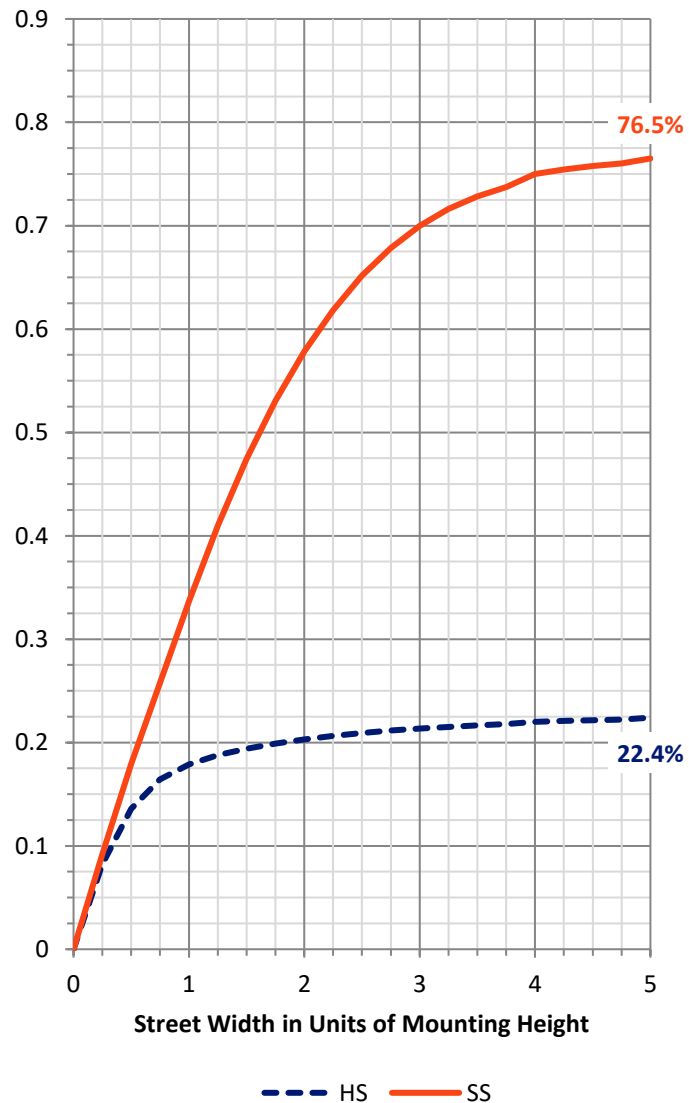
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3522.8	0.0	3522.8
	% Fixture	23.2	0.0	23.2
Street Side	Lumens	11684.2	0.0	11684.2
	% Fixture	76.8	0.0	76.8
Total	Lumens	15207.0	0.0	15207.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	154.5	1.0
10°-20°	500.6	3.3
20°-30°	859.1	5.6
30°-40°	1201.5	7.9
40°-50°	1762.5	11.6
50°-60°	2745.6	18.1
60°-70°	3950.7	26.0
70°-80°	3441.5	22.6
80°-90°	591.0	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°	15207.0	100.0
0°-180°	15207.0	100.0

Coefficient of Utilization



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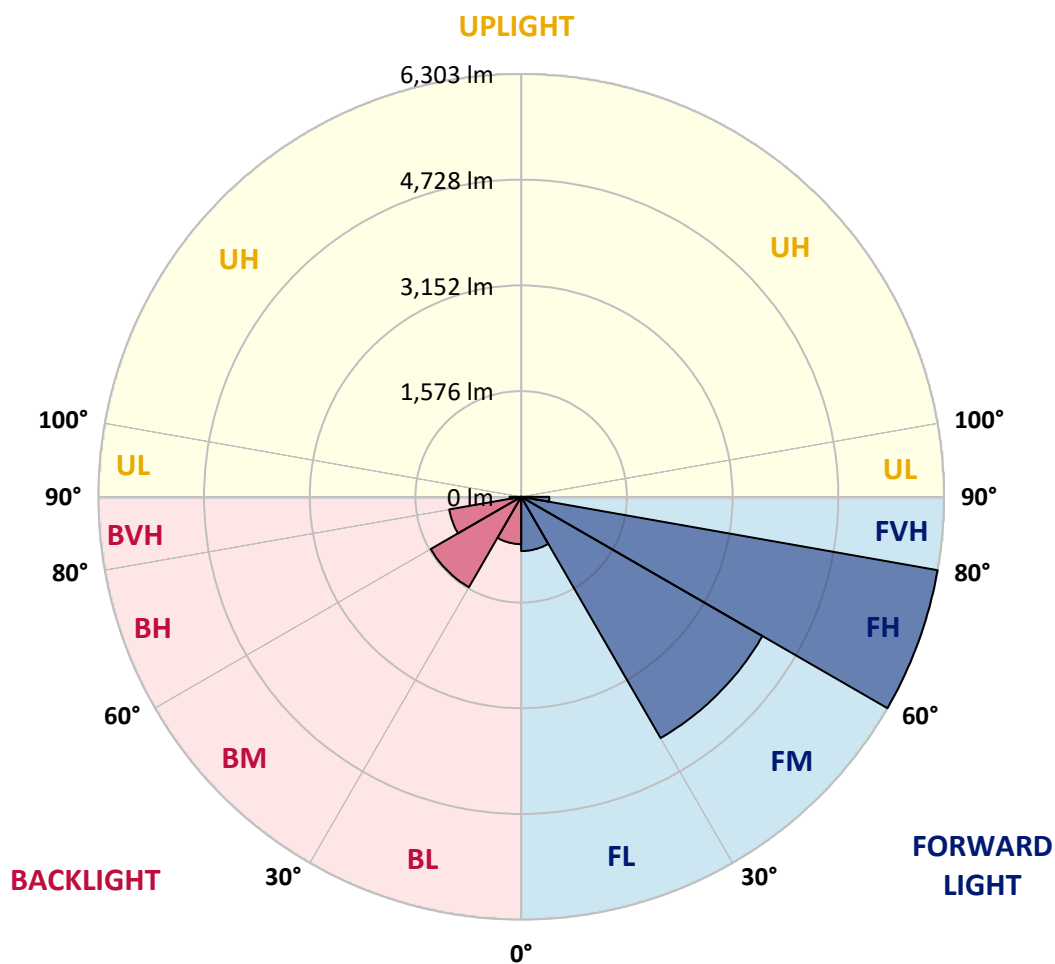
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	808.7	5.3			
FM	(30°-60°)	4152.7	27.3			
FH	(60°-80°)	6303.4	41.5			G3/7500
FVH	(80°-90°)	419.3	2.8			G3/500
BL	(0°-30°)	705.6	4.6	B2/1000		
BM	(30°-60°)	1556.9	10.2	B2/2500		
BH	(60°-80°)	1088.7	7.2	B3/2500		G3/2500
BVH	(80°-90°)	171.7	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°	1558.9	1558.9	1558.9	1558.9	1558.9	1558.9	1558.9	1558.9	1558.9	1558.9	1558.9
2.5°	1635.8	1624.0	1624.0	1615.1	1615.1	1600.3	1594.4	1591.5	1576.7	1567.8	1558.9
5°	1730.5	1715.7	1712.8	1692.0	1683.2	1650.6	1647.7	1627.0	1600.3	1573.7	1553.0
7.5°	1816.3	1807.4	1792.6	1771.9	1745.3	1703.9	1700.9	1668.4	1624.0	1588.5	1558.9
10°	1878.4	1872.5	1851.8	1825.2	1795.6	1754.2	1751.2	1715.7	1662.5	1621.1	1579.6
12.5°	1952.4	1943.5	1916.9	1881.4	1848.8	1810.4	1807.4	1777.8	1718.7	1665.4	1612.2
15°	2023.4	2011.5	1979.0	1943.5	1908.0	1875.5	1875.5	1842.9	1780.8	1718.7	1656.6
17.5°	2058.9	2052.9	2020.4	1981.9	1952.4	1928.7	1925.7	1896.2	1834.0	1769.0	1700.9
20°	2070.7	2073.6	2044.1	2002.7	1981.9	1970.1	1967.2	1946.4	1878.4	1816.3	1751.2
22.5°	2067.7	2076.6	2052.9	2008.6	2002.7	2002.7	2002.7	1979.0	1925.7	1863.6	1798.5
25°	2079.6	2091.4	2073.6	2020.4	2020.4	2032.2	2032.2	2020.4	1973.1	1919.8	1854.7
27.5°	2121.0	2129.9	2115.1	2041.1	2044.1	2061.8	2058.9	2061.8	2032.2	1981.9	1916.9
30°	2171.3	2183.1	2165.3	2073.6	2070.7	2088.4	2088.4	2103.2	2082.5	2029.3	1976.0
32.5°	2307.3	2304.4	2248.2	2109.1	2100.3	2118.0	2118.0	2132.8	2121.0	2079.6	2029.3
35°	2712.6	2668.2	2544.0	2224.5	2135.8	2144.6	2144.6	2171.3	2177.2	2144.6	2100.3
37.5°	3126.7	3112.0	3017.3	2532.2	2265.9	2200.8	2197.9	2236.3	2263.0	2236.3	2206.8
40°	3543.8	3532.0	3511.3	2943.3	2538.1	2301.4	2292.5	2325.1	2372.4	2354.7	2336.9
42.5°	3931.4	3925.4	3946.1	3348.6	2884.2	2517.4	2490.7	2452.3	2520.3	2514.4	2514.4
45°	4236.0	4250.8	4262.7	3727.2	3259.9	2795.4	2762.9	2632.7	2724.4	2748.1	2765.8
47.5°	4407.6	4419.4	4460.9	4097.0	3635.5	3117.9	3094.2	2881.2	3002.5	3073.5	3123.8
50°	4653.1	4620.6	4656.1	4457.9	4088.1	3537.9	3472.8	3215.5	3369.3	3493.5	3611.9
52.5°	4889.8	4836.5	4866.1	4875.0	4602.8	3949.1	3881.1	3608.9	3801.2	3996.4	4206.5
55°	5102.8	5099.8	5129.4	5280.3	5099.8	4389.9	4313.0	4043.8	4321.8	4531.9	4886.8
57.5°	5274.3	5303.9	5434.1	5750.6	5673.7	4869.1	4783.3	4549.6	4878.0	5088.0	5676.6
60°	5475.5	5522.8	5738.8	6149.9	6197.3	5372.0	5283.2	5114.6	5448.9	5661.9	6590.7
62.5°	5543.5	5611.6	6055.3	6570.0	6744.5	5922.2	5842.3	5729.9	6049.4	6241.6	7501.8
65°	5090.9	5221.1	6229.8	6785.9	7333.2	6584.8	6516.8	6419.1	6646.9	6774.1	8120.1
67.5°	4966.7	5025.9	5889.6	7096.5	7886.4	7436.7	7368.7	7200.1	7206.0	7152.8	8321.2
70°	4792.2	4857.2	5540.6	7330.2	8679.1	8602.2	8519.4	8022.4	7717.8	7395.3	7924.8
72.5°	4082.2	4061.5	4774.4	6700.2	9060.7	10045.8	9948.2	8906.9	8096.4	7185.3	6688.3
75°	2292.5	2233.4	2896.0	4635.4	8273.9	10619.7	10616.7	9353.6	7830.2	6259.4	4552.6
77.5°	665.6	647.8	955.5	1943.5	5570.2	9226.4	9338.8	8436.6	6534.5	4496.4	2499.6
80°	313.6	319.5	411.2	641.9	2378.3	5954.7	6277.1	5555.4	3904.7	2073.6	1032.4
82.5°	198.2	201.2	281.0	414.1	1005.8	2703.7	2970.0	2499.6	1547.1	896.3	455.6
85°	124.2	124.2	186.4	272.1	600.5	863.8	937.7	851.9	662.6	488.1	248.5
87.5°	68.0	68.0	112.4	156.8	328.4	278.1	286.9	340.2	414.1	298.8	124.2
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°	1558.9	1558.9	1558.9	1558.9	1558.9	1558.9	1558.9	1558.9	1558.9	1558.9	1558.9
2.5°	1556.0	1550.1	1541.2	1538.2	1535.3	1532.3	1535.3	1541.2	1535.3	1535.3	1538.2
5°	1547.1	1541.2	1529.4	1529.4	1532.3	1535.3	1550.1	1558.9	1561.9	1561.9	1561.9
7.5°	1547.1	1538.2	1529.4	1532.3	1538.2	1550.1	1573.7	1588.5	1600.3	1603.3	1603.3
10°	1561.9	1550.1	1544.1	1550.1	1567.8	1576.7	1600.3	1624.0	1638.8	1644.7	1644.7
12.5°	1588.5	1576.7	1576.7	1588.5	1612.2	1624.0	1644.7	1662.5	1680.2	1689.1	1689.1
15°	1632.9	1618.1	1621.1	1641.8	1668.4	1680.2	1695.0	1700.9	1715.7	1727.5	1727.5
17.5°	1674.3	1659.5	1665.4	1689.1	1706.8	1712.8	1721.6	1718.7	1724.6	1733.5	1736.4
20°	1721.6	1706.8	1709.8	1724.6	1727.5	1721.6	1721.6	1712.8	1709.8	1724.6	1730.5
22.5°	1769.0	1754.2	1751.2	1742.3	1727.5	1712.8	1703.9	1695.0	1689.1	1703.9	1709.8
25°	1825.2	1804.5	1789.7	1751.2	1712.8	1686.1	1674.3	1668.4	1665.4	1680.2	1686.1
27.5°	1887.3	1866.6	1822.2	1739.4	1677.3	1632.9	1624.0	1624.0	1629.9	1638.8	1644.7
30°	1946.4	1925.7	1845.9	1712.8	1615.1	1550.1	1541.2	1550.1	1564.8	1573.7	1582.6
32.5°	2005.6	1984.9	1860.7	1671.3	1523.4	1440.6	1434.7	1449.5	1473.1	1479.1	1485.0
35°	2085.5	2064.8	1878.4	1612.2	1408.1	1319.3	1313.4	1322.3	1343.0	1351.9	1360.7
37.5°	2197.9	2186.1	1905.0	1547.1	1301.6	1204.0	1186.2	1180.3	1192.1	1189.2	1201.0
40°	2345.8	2354.7	1952.4	1461.3	1198.0	1097.5	1059.0	1041.3	1029.4	1005.8	1017.6
42.5°	2561.7	2567.7	2005.6	1363.7	1109.3	996.9	946.6	914.1	890.4	851.9	857.9
45°	2878.3	2828.0	2067.7	1260.2	1029.4	917.0	857.9	819.4	786.9	754.3	757.3
47.5°	3298.3	3144.5	2135.8	1174.4	949.6	851.9	798.7	754.3	715.9	689.2	692.2
50°	3816.0	3537.9	2203.8	1094.5	869.7	801.7	754.3	707.0	668.5	641.9	639.0
52.5°	4499.3	4011.2	2248.2	1005.8	789.8	757.3	715.9	671.5	624.2	591.6	588.7
55°	5209.3	4561.4	2286.6	899.3	712.9	707.0	686.3	636.0	579.8	538.4	532.5
57.5°	5990.2	5150.1	2316.2	795.7	653.7	665.6	659.7	600.5	538.4	499.9	497.0
60°	6700.2	5759.5	2221.6	704.0	600.5	624.2	630.1	579.8	547.3	556.1	559.1
62.5°	7416.0	6229.8	1860.7	636.0	565.0	597.5	647.8	644.9	630.1	644.9	647.8
65°	7673.4	6327.4	1319.3	579.8	529.5	609.4	704.0	698.1	630.1	603.5	597.5
67.5°	7528.4	6037.5	887.4	535.4	502.9	624.2	763.2	698.1	606.4	570.9	559.1
70°	6839.2	5324.6	650.8	491.0	479.2	621.2	795.7	695.2	594.6	556.1	541.3
72.5°	5454.8	4108.8	523.6	449.6	443.7	606.4	813.5	689.2	582.8	541.3	523.6
75°	3532.0	2555.8	440.8	408.2	390.5	582.8	804.6	671.5	568.0	514.7	502.9
77.5°	1638.8	1100.4	375.7	360.9	340.2	547.3	778.0	636.0	535.4	485.1	470.3
80°	763.2	520.6	316.5	313.6	304.7	517.7	742.5	594.6	497.0	455.6	431.9
82.5°	408.2	313.6	257.4	257.4	266.2	482.2	698.1	544.3	446.7	426.0	363.8
85°	215.9	180.4	186.4	201.2	227.8	426.0	639.0	491.0	390.5	325.4	316.5
87.5°	109.5	115.4	115.4	136.1	174.5	346.1	526.5	405.3	331.3	266.2	260.3
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)