

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: P231281

Luminaire Tested: **ARCH-M-AF48-150-D-U-T4W-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231281
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-AF48-150-D-U-T4W-7030
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 3000K, 970mA LIGHT ENGINES WITH 24 LEDS AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15703 lumens
Efficiency: N/A
Efficacy: 104.0 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): 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



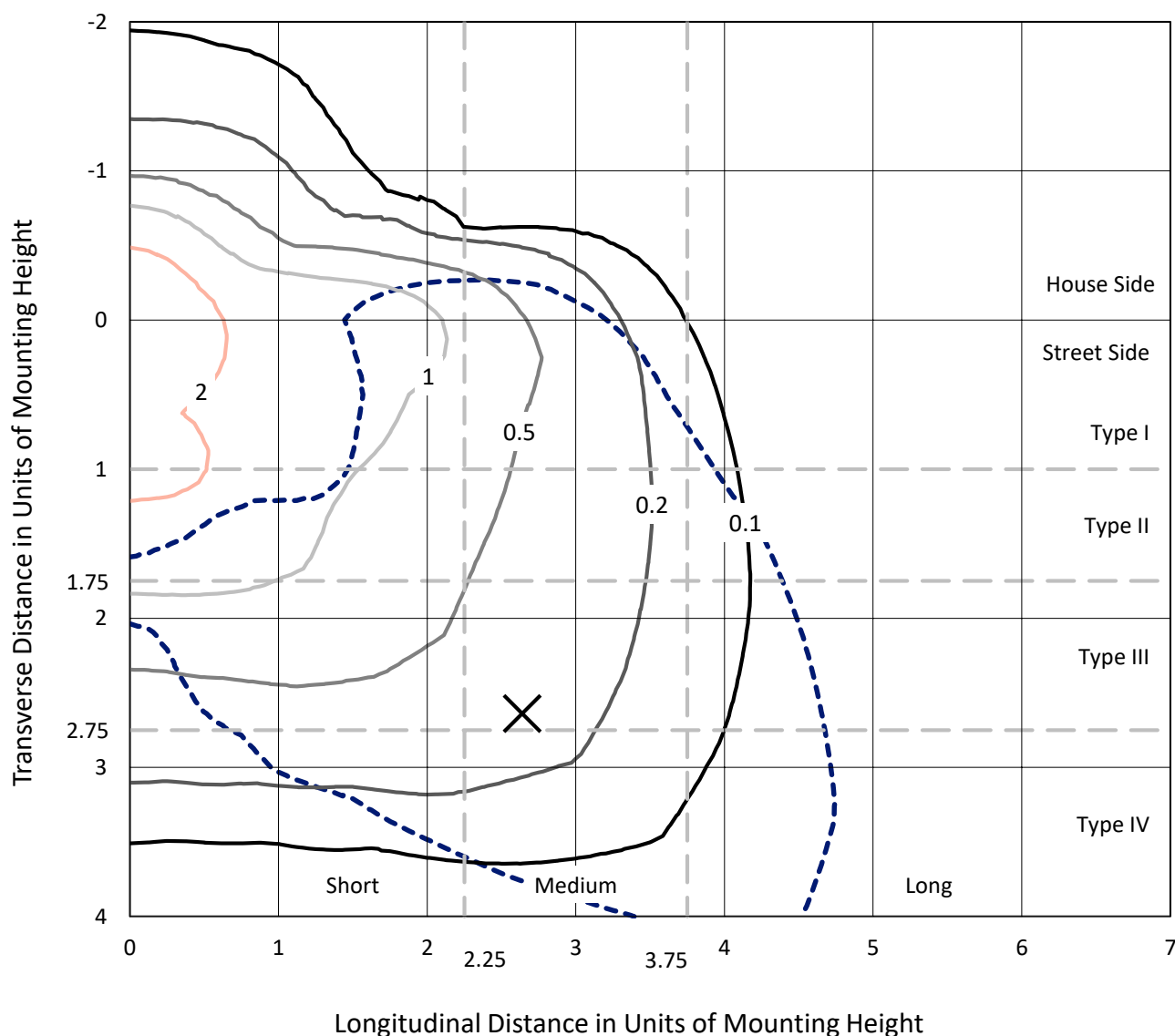
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

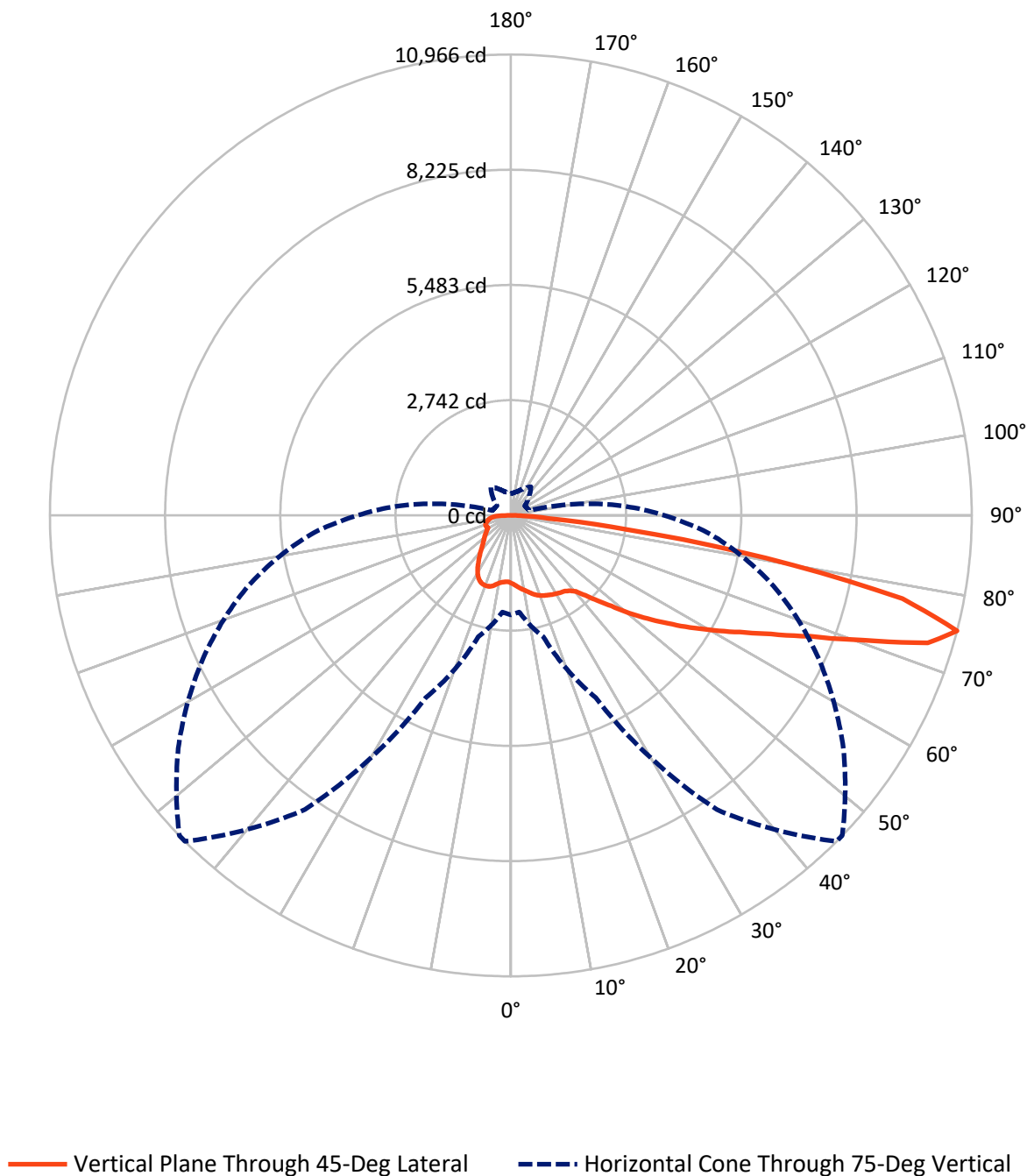


Based on 25 foot mounting height. Maximum calculated value = 3 fc
 Type IV - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



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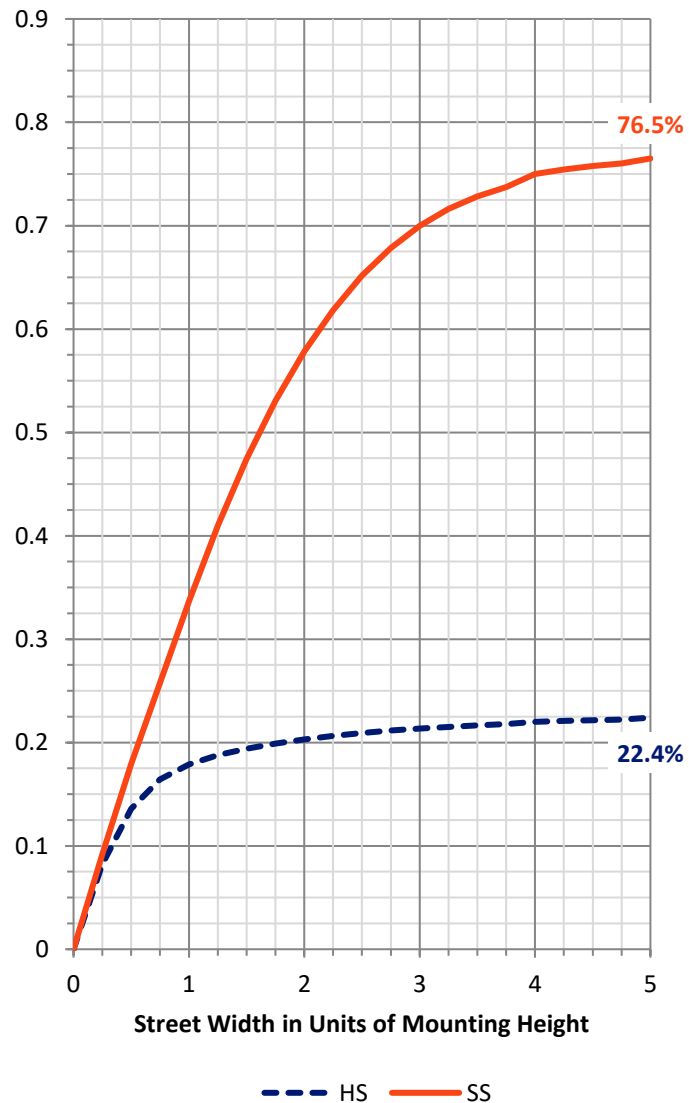
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3637.7	0.0	3637.7
	% Fixture	23.2	0.0	23.2
Street Side	Lumens	12065.3	0.0	12065.3
	% Fixture	76.8	0.0	76.8
Total	Lumens	15703.0	0.0	15703.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	159.5	1.0
10°-20°	517.0	3.3
20°-30°	887.1	5.6
30°-40°	1240.7	7.9
40°-50°	1820.0	11.6
50°-60°	2835.1	18.1
60°-70°	4079.5	26.0
70°-80°	3553.7	22.6
80°-90°	610.3	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°	15703.0	100.0
0°-180°	15703.0	100.0

Coefficient of Utilization



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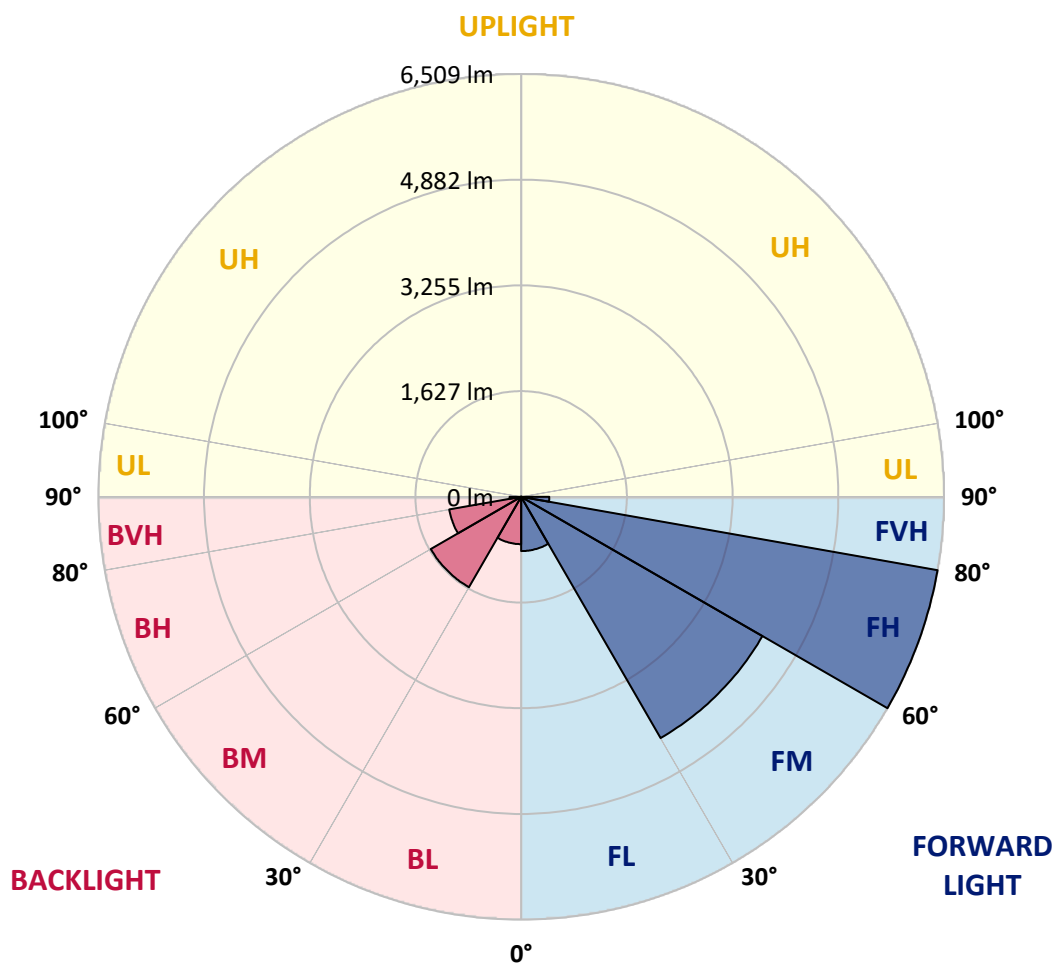
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	835.0	5.3			
FM	(30°-60°)	4288.2	27.3			
FH	(60°-80°)	6509.0	41.5			G3/7500
FVH	(80°-90°)	433.0	2.8			G3/500
BL	(0°-30°)	728.6	4.6	B2/1000		
BM	(30°-60°)	1607.7	10.2	B2/2500		
BH	(60°-80°)	1124.2	7.2	B3/2500		G3/2500
BVH	(80°-90°)	177.3	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°	1609.8	1609.8	1609.8	1609.8	1609.8	1609.8	1609.8	1609.8	1609.8	1609.8	1609.8
2.5°	1689.2	1677.0	1677.0	1667.8	1667.8	1652.5	1646.4	1643.4	1628.1	1618.9	1609.8
5°	1786.9	1771.7	1768.6	1747.2	1738.1	1704.5	1701.4	1680.0	1652.5	1625.1	1603.7
7.5°	1875.5	1866.4	1851.1	1829.7	1802.2	1759.5	1756.4	1722.8	1677.0	1640.3	1609.8
10°	1939.7	1933.6	1912.2	1884.7	1854.1	1811.4	1808.3	1771.7	1716.7	1673.9	1631.2
12.5°	2016.0	2006.9	1979.4	1942.7	1909.1	1869.4	1866.4	1835.8	1774.7	1719.7	1664.8
15°	2089.4	2077.1	2043.5	2006.9	1970.2	1936.6	1936.6	1903.0	1838.9	1774.7	1710.6
17.5°	2126.0	2119.9	2086.3	2046.6	2016.0	1991.6	1988.6	1958.0	1893.9	1826.7	1756.4
20°	2138.2	2141.3	2110.7	2068.0	2046.6	2034.4	2031.3	2009.9	1939.7	1875.5	1808.3
22.5°	2135.2	2144.3	2119.9	2074.1	2068.0	2068.0	2068.0	2043.5	1988.6	1924.4	1857.2
25°	2147.4	2159.6	2141.3	2086.3	2086.3	2098.5	2098.5	2086.3	2037.4	1982.4	1915.2
27.5°	2190.2	2199.3	2184.0	2107.7	2110.7	2129.1	2126.0	2129.1	2098.5	2046.6	1979.4
30°	2242.1	2254.3	2236.0	2141.3	2138.2	2156.6	2156.6	2171.8	2150.4	2095.5	2040.5
32.5°	2382.6	2379.5	2321.5	2177.9	2168.8	2187.1	2187.1	2202.4	2190.2	2147.4	2095.5
35°	2801.1	2755.3	2627.0	2297.1	2205.4	2214.6	2214.6	2242.1	2248.2	2214.6	2168.8
37.5°	3228.7	3213.5	3115.7	2614.7	2339.8	2272.6	2269.6	2309.3	2336.8	2309.3	2278.7
40°	3659.4	3647.2	3625.8	3039.3	2620.9	2376.5	2367.3	2400.9	2449.8	2431.5	2413.1
42.5°	4059.6	4053.5	4074.9	3457.8	2978.2	2599.5	2572.0	2532.3	2602.5	2596.4	2596.4
45°	4374.2	4389.5	4401.7	3848.8	3366.2	2886.6	2853.0	2718.6	2813.3	2837.7	2856.1
47.5°	4551.4	4563.6	4606.4	4230.6	3754.1	3219.6	3195.1	2975.2	3100.4	3173.7	3225.7
50°	4804.9	4771.3	4808.0	4603.3	4221.5	3653.3	3586.1	3320.4	3479.2	3607.5	3729.7
52.5°	5049.3	4994.3	5024.8	5034.0	4753.0	4077.9	4007.7	3726.6	3925.2	4126.8	4343.7
55°	5269.2	5266.2	5296.7	5452.5	5266.2	4533.0	4453.6	4175.7	4462.8	4679.7	5046.2
57.5°	5446.4	5476.9	5611.3	5938.2	5858.7	5027.9	4939.3	4698.0	5037.1	5253.9	5861.8
60°	5654.1	5703.0	5925.9	6350.5	6399.4	5547.2	5455.5	5281.4	5626.6	5846.5	6805.7
62.5°	5724.3	5794.6	6252.8	6784.3	6964.5	6115.3	6032.9	5916.8	6246.7	6445.2	7746.5
65°	5257.0	5391.4	6433.0	7007.3	7572.4	6799.6	6729.3	6628.5	6863.7	6995.1	8384.9
67.5°	5128.7	5189.8	6081.7	7328.0	8143.6	7679.3	7609.0	7434.9	7441.0	7386.1	8592.6
70°	4948.5	5015.7	5721.3	7569.3	8962.2	8882.8	8797.3	8284.1	7969.5	7636.5	8183.3
72.5°	4215.4	4194.0	4930.1	6918.7	9356.3	10373.5	10272.7	9197.4	8360.5	7419.7	6906.5
75°	2367.3	2306.2	2990.5	4786.6	8543.7	10966.1	10963.0	9658.7	8085.6	6463.6	4701.0
77.5°	687.3	669.0	986.6	2006.9	5751.8	9527.3	9643.4	8711.8	6747.6	4643.0	2581.1
80°	323.8	329.9	424.6	662.9	2455.9	6148.9	6481.9	5736.6	4032.1	2141.3	1066.1
82.5°	204.7	207.7	290.2	427.6	1038.6	2791.9	3066.8	2581.1	1597.6	925.5	470.4
85°	128.3	128.3	192.4	281.0	620.1	891.9	968.3	879.7	684.2	504.0	256.6
87.5°	70.3	70.3	116.1	161.9	339.1	287.1	296.3	351.3	427.6	308.5	128.3
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°	1609.8	1609.8	1609.8	1609.8	1609.8	1609.8	1609.8	1609.8	1609.8	1609.8	1609.8
2.5°	1606.7	1600.6	1591.5	1588.4	1585.3	1582.3	1585.3	1591.5	1585.3	1585.3	1588.4
5°	1597.6	1591.5	1579.2	1579.2	1582.3	1585.3	1600.6	1609.8	1612.8	1612.8	1612.8
7.5°	1597.6	1588.4	1579.2	1582.3	1588.4	1600.6	1625.1	1640.3	1652.5	1655.6	1655.6
10°	1612.8	1600.6	1594.5	1600.6	1618.9	1628.1	1652.5	1677.0	1692.3	1698.4	1698.4
12.5°	1640.3	1628.1	1628.1	1640.3	1664.8	1677.0	1698.4	1716.7	1735.0	1744.2	1744.2
15°	1686.1	1670.9	1673.9	1695.3	1722.8	1735.0	1750.3	1756.4	1771.7	1783.9	1783.9
17.5°	1728.9	1713.6	1719.7	1744.2	1762.5	1768.6	1777.8	1774.7	1780.8	1790.0	1793.1
20°	1777.8	1762.5	1765.6	1780.8	1783.9	1777.8	1777.8	1768.6	1765.6	1780.8	1786.9
22.5°	1826.7	1811.4	1808.3	1799.2	1783.9	1768.6	1759.5	1750.3	1744.2	1759.5	1765.6
25°	1884.7	1863.3	1848.0	1808.3	1768.6	1741.1	1728.9	1722.8	1719.7	1735.0	1741.1
27.5°	1948.8	1927.5	1881.6	1796.1	1732.0	1686.1	1677.0	1677.0	1683.1	1692.3	1698.4
30°	2009.9	1988.6	1906.1	1768.6	1667.8	1600.6	1591.5	1600.6	1615.9	1625.1	1634.2
32.5°	2071.0	2049.6	1921.4	1725.9	1573.1	1487.6	1481.5	1496.8	1521.2	1527.3	1533.4
35°	2153.5	2132.1	1939.7	1664.8	1454.0	1362.4	1356.2	1365.4	1386.8	1396.0	1405.1
37.5°	2269.6	2257.4	1967.2	1597.6	1344.0	1243.2	1224.9	1218.8	1231.0	1228.0	1240.2
40°	2422.3	2431.5	2016.0	1509.0	1237.1	1133.3	1093.6	1075.2	1063.0	1038.6	1050.8
42.5°	2645.3	2651.4	2071.0	1408.2	1145.5	1029.4	977.5	943.9	919.4	879.7	885.8
45°	2972.1	2920.2	2135.2	1301.3	1063.0	946.9	885.8	846.1	812.5	778.9	782.0
47.5°	3405.9	3247.1	2205.4	1212.7	980.5	879.7	824.7	778.9	739.2	711.7	714.8
50°	3940.4	3653.3	2275.7	1130.2	898.1	827.8	778.9	730.1	690.3	662.9	659.8
52.5°	4646.1	4142.1	2321.5	1038.6	815.6	782.0	739.2	693.4	644.5	610.9	607.9
55°	5379.2	4710.2	2361.2	928.6	736.2	730.1	708.7	656.7	598.7	555.9	549.8
57.5°	6185.6	5318.1	2391.8	821.7	675.1	687.3	681.2	620.1	555.9	516.2	513.2
60°	6918.7	5947.3	2294.0	727.0	620.1	644.5	650.6	598.7	565.1	574.3	577.3
62.5°	7657.9	6433.0	1921.4	656.7	583.4	617.0	669.0	665.9	650.6	665.9	669.0
65°	7923.7	6533.8	1362.4	598.7	546.8	629.2	727.0	720.9	650.6	623.1	617.0
67.5°	7774.0	6234.5	916.4	552.9	519.3	644.5	788.1	720.9	626.2	589.5	577.3
70°	7062.3	5498.3	672.0	507.1	494.8	641.5	821.7	717.8	614.0	574.3	559.0
72.5°	5632.7	4242.9	540.7	464.3	458.2	626.2	840.0	711.7	601.8	559.0	540.7
75°	3647.2	2639.2	455.1	421.5	403.2	601.8	830.9	693.4	586.5	531.5	519.3
77.5°	1692.3	1136.3	387.9	372.7	351.3	565.1	803.4	656.7	552.9	501.0	485.7
80°	788.1	537.6	326.8	323.8	314.6	534.6	766.7	614.0	513.2	470.4	446.0
82.5°	421.5	323.8	265.8	265.8	274.9	497.9	720.9	562.0	461.2	439.9	375.7
85°	223.0	186.3	192.4	207.7	235.2	439.9	659.8	507.1	403.2	336.0	326.8
87.5°	113.0	119.1	119.1	140.5	180.2	357.4	543.7	418.5	342.1	274.9	268.8
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)