

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: P231302

Luminaire Tested: **ARCH-M-AF48-100-D-U-T4W-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231302
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-AF48-100-D-U-T4W-7050
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 5000K, 660mA LIGHT ENGINES WITH 24 LEDS AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13248 lumens
Efficiency: N/A
Efficacy: 131.2 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type IV - Medium - Non-Cutoff
BUG Rating: B2 - U0 - G3

Input Watts (W): 101
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

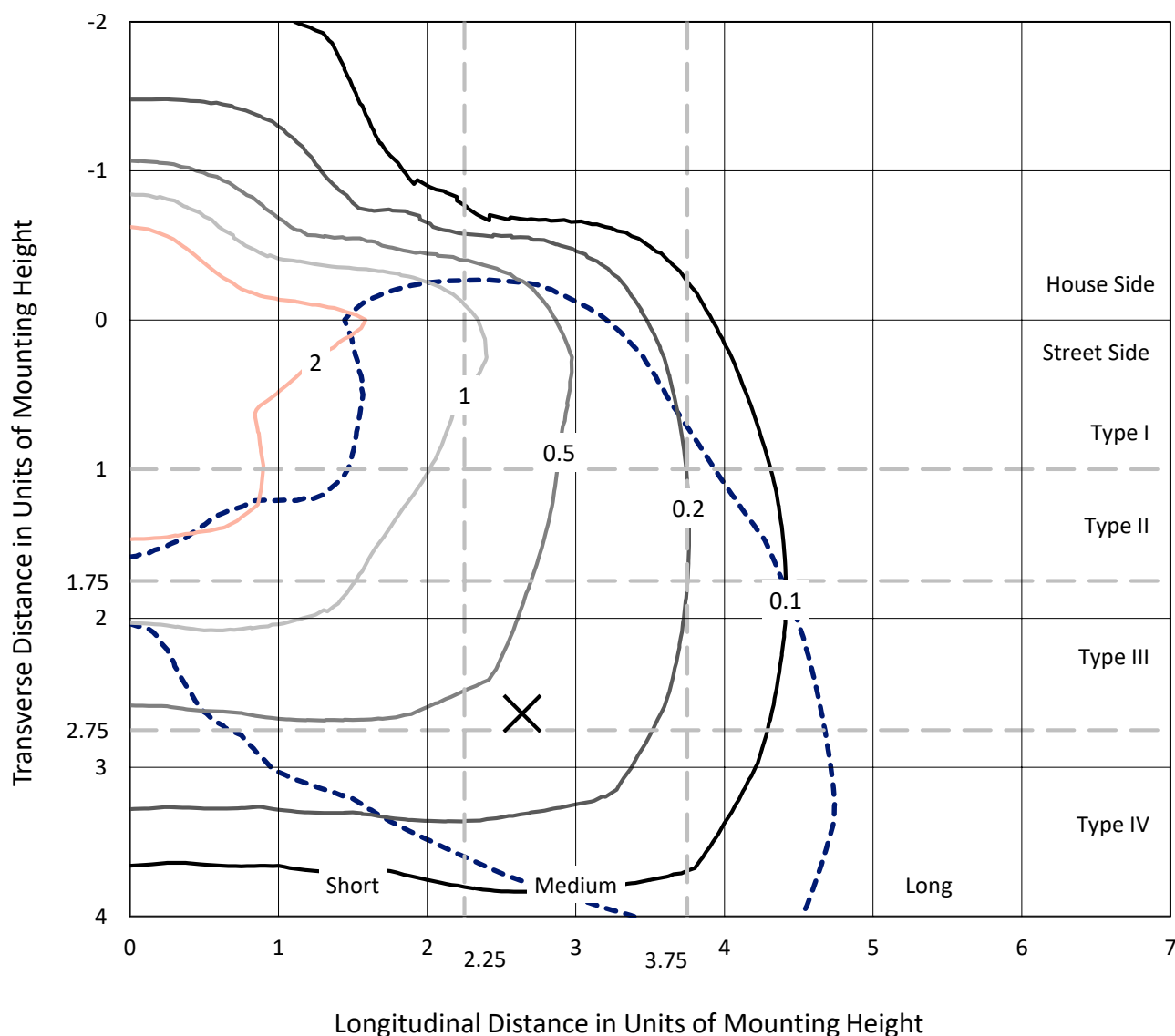


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 --- 1/2 Max cd

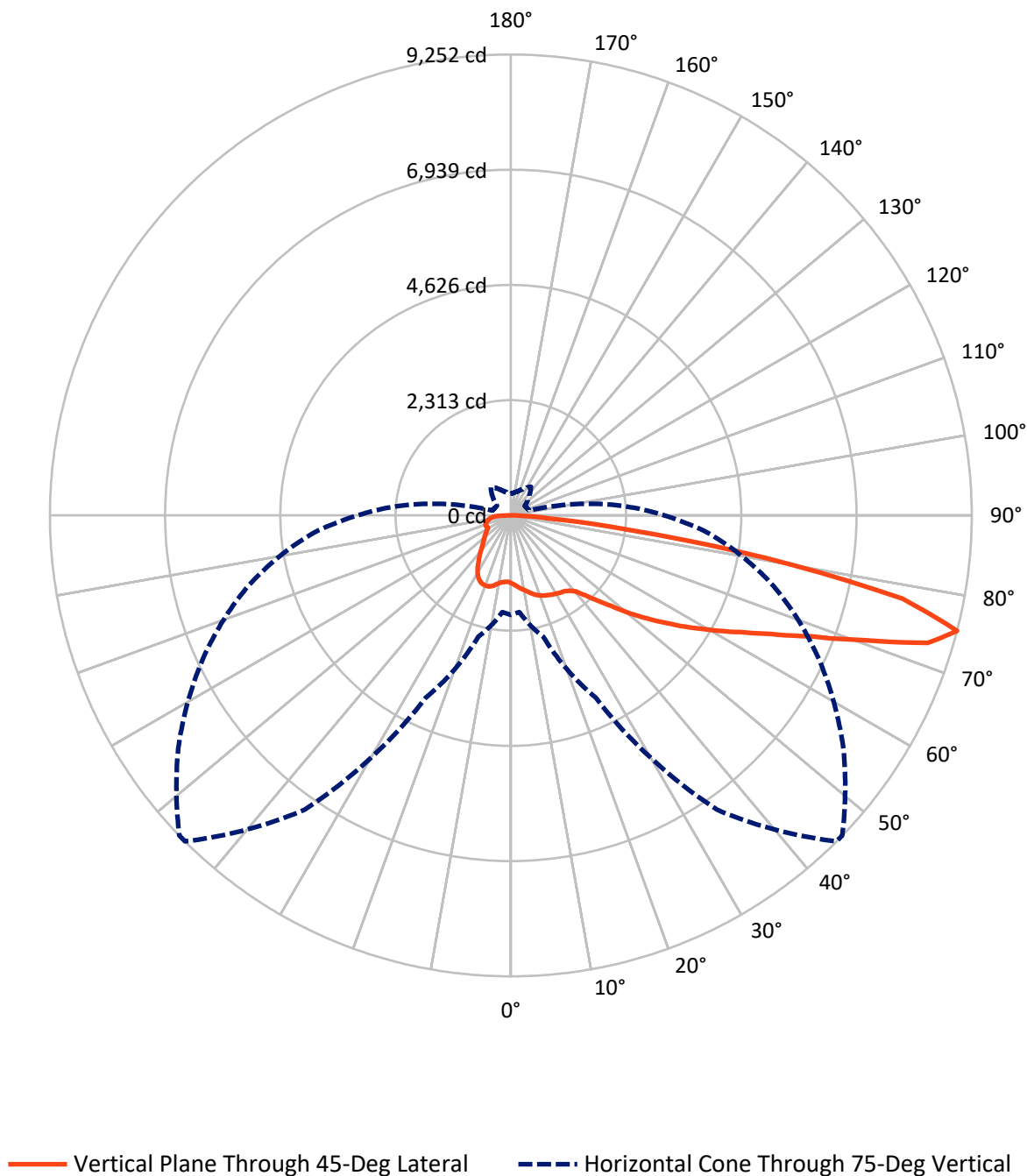


Based on 20 foot mounting height. Maximum calculated value = 4 fc
 Type IV - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



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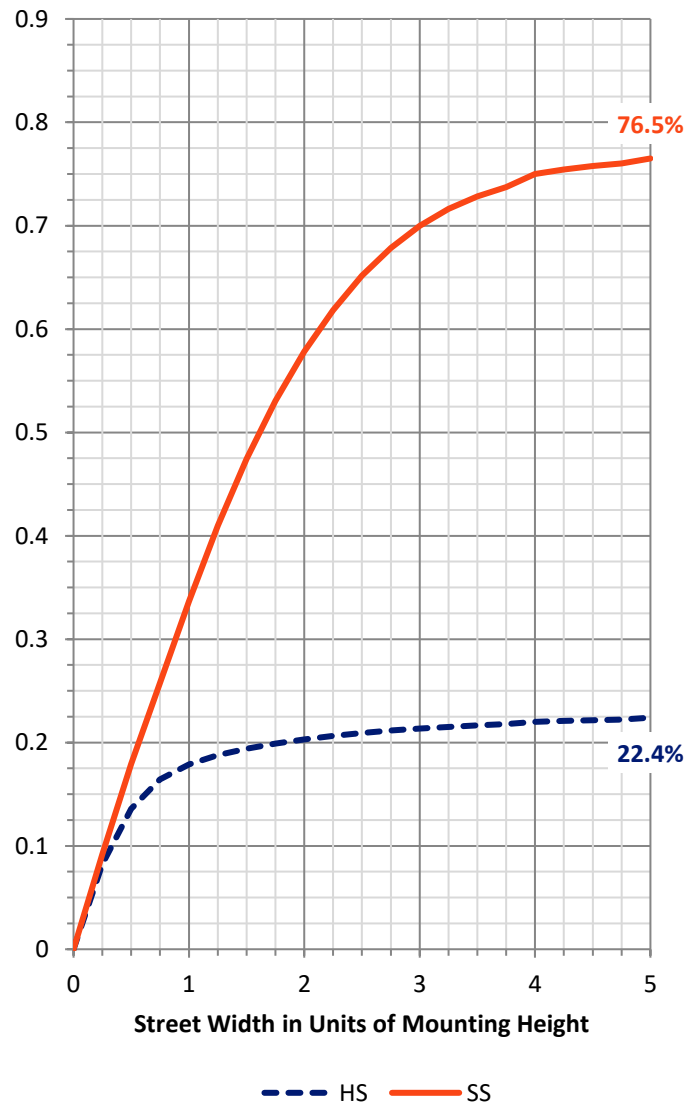
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3069.0	0.0	3069.0
	% Fixture	23.2	0.0	23.2
Street Side	Lumens	10179.0	0.0	10179.0
	% Fixture	76.8	0.0	76.8
Total	Lumens	13248.0	0.0	13248.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	134.6	1.0
10°-20°	436.1	3.3
20°-30°	748.4	5.6
30°-40°	1046.8	7.9
40°-50°	1535.5	11.6
50°-60°	2391.9	18.1
60°-70°	3441.7	26.0
70°-80°	2998.1	22.6
80°-90°	514.9	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°	13248.0	100.0
0°-180°	13248.0	100.0

Coefficient of Utilization



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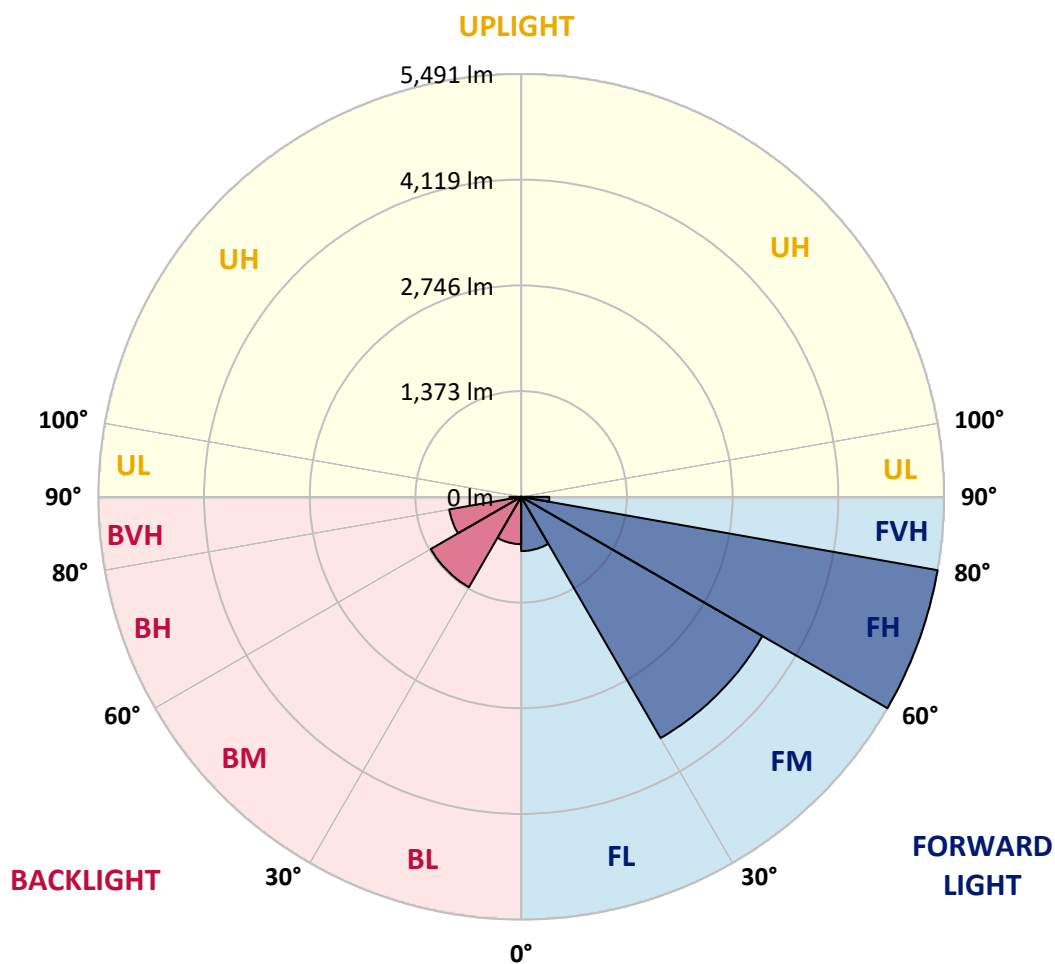
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	704.5	5.3			
FM	(30°-60°)	3617.8	27.3			
FH	(60°-80°)	5491.4	41.5			G3/7500
FVH	(80°-90°)	365.3	2.8			G3/500
BL	(0°-30°)	614.7	4.6	B2/1000		
BM	(30°-60°)	1356.3	10.2	B2/2500		
BH	(60°-80°)	948.4	7.2	B2/1000		G2/1000
BVH	(80°-90°)	149.6	1.1			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 IV Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	1358.1	1358.1	1358.1	1358.1	1358.1	1358.1	1358.1	1358.1	1358.1	1358.1	1358.1
2.5°	1425.1	1414.8	1414.8	1407.1	1407.1	1394.2	1389.0	1386.5	1373.6	1365.8	1358.1
5°	1507.6	1494.7	1492.1	1474.1	1466.3	1438.0	1435.4	1417.4	1394.2	1371.0	1353.0
7.5°	1582.3	1574.6	1561.7	1543.7	1520.5	1484.4	1481.8	1453.5	1414.8	1383.9	1358.1
10°	1636.4	1631.3	1613.2	1590.0	1564.3	1528.2	1525.6	1494.7	1448.3	1412.2	1376.1
12.5°	1700.9	1693.1	1669.9	1639.0	1610.7	1577.2	1574.6	1548.8	1497.3	1450.9	1404.5
15°	1762.7	1752.4	1724.0	1693.1	1662.2	1633.9	1633.9	1605.5	1551.4	1497.3	1443.2
17.5°	1793.6	1788.5	1760.1	1726.6	1700.9	1680.2	1677.7	1651.9	1597.8	1541.1	1481.8
20°	1803.9	1806.5	1780.7	1744.7	1726.6	1716.3	1713.7	1695.7	1636.4	1582.3	1525.6
22.5°	1801.4	1809.1	1788.5	1749.8	1744.7	1744.7	1744.7	1724.0	1677.7	1623.5	1566.8
25°	1811.7	1822.0	1806.5	1760.1	1760.1	1770.4	1770.4	1760.1	1718.9	1672.5	1615.8
27.5°	1847.7	1855.5	1842.6	1778.2	1780.7	1796.2	1793.6	1796.2	1770.4	1726.6	1669.9
30°	1891.6	1901.9	1886.4	1806.5	1803.9	1819.4	1819.4	1832.3	1814.2	1767.9	1721.5
32.5°	2010.1	2007.5	1958.6	1837.4	1829.7	1845.2	1845.2	1858.1	1847.7	1811.7	1767.9
35°	2363.2	2324.5	2216.3	1937.9	1860.6	1868.4	1868.4	1891.6	1896.7	1868.4	1829.7
37.5°	2723.9	2711.1	2628.6	2206.0	1974.0	1917.3	1914.8	1948.3	1971.4	1948.3	1922.5
40°	3087.3	3077.0	3059.0	2564.2	2211.1	2004.9	1997.2	2025.6	2066.8	2051.3	2035.9
42.5°	3424.9	3419.8	3437.8	2917.2	2512.6	2193.1	2169.9	2136.4	2195.7	2190.5	2190.5
45°	3690.3	3703.2	3713.5	3247.1	2839.9	2435.3	2407.0	2293.6	2373.5	2394.1	2409.5
47.5°	3839.8	3850.1	3886.2	3569.2	3167.2	2716.2	2695.6	2510.1	2615.7	2677.6	2721.4
50°	4053.7	4025.4	4056.3	3883.6	3561.5	3082.2	3025.5	2801.3	2935.3	3043.5	3146.6
52.5°	4259.9	4213.5	4239.3	4247.0	4009.9	3440.4	3381.1	3144.0	3311.5	3481.6	3664.6
55°	4445.4	4442.8	4468.6	4600.0	4442.8	3824.3	3757.3	3522.8	3765.1	3948.0	4257.3
57.5°	4594.9	4620.7	4734.1	5009.8	4942.8	4241.8	4167.1	3963.5	4249.6	4432.5	4945.4
60°	4770.1	4811.4	4999.5	5357.7	5398.9	4679.9	4602.6	4455.7	4746.9	4932.5	5741.7
62.5°	4829.4	4888.7	5275.2	5723.6	5875.7	5159.3	5089.7	4991.8	5270.1	5437.6	6535.4
65°	4435.1	4548.5	5427.3	5911.8	6388.5	5736.5	5677.3	5592.2	5790.6	5901.5	7074.0
67.5°	4326.9	4378.4	5130.9	6182.4	6870.4	6478.7	6419.4	6272.6	6277.7	6231.3	7249.3
70°	4174.8	4231.5	4826.8	6385.9	7561.1	7494.1	7421.9	6989.0	6723.5	6442.6	6903.9
72.5°	3556.3	3538.3	4159.4	5837.0	7893.5	8751.7	8666.6	7759.5	7053.4	6259.7	5826.7
75°	1997.2	1945.7	2522.9	4038.2	7208.0	9251.6	9249.1	8148.6	6821.5	5453.0	3966.1
77.5°	579.8	564.4	832.4	1693.1	4852.6	8037.8	8135.8	7349.8	5692.7	3917.1	2177.6
80°	273.2	278.3	358.2	559.2	2072.0	5187.6	5468.5	4839.7	3401.7	1806.5	899.4
82.5°	172.7	175.2	244.8	360.8	876.2	2355.4	2587.4	2177.6	1347.8	780.8	396.9
85°	108.2	108.2	162.4	237.1	523.1	752.5	816.9	742.2	577.3	425.2	216.5
87.5°	59.3	59.3	97.9	136.6	286.1	242.2	250.0	296.4	360.8	260.3	108.2
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°	1358.1	1358.1	1358.1	1358.1	1358.1	1358.1	1358.1	1358.1	1358.1	1358.1	1358.1
2.5°	1355.5	1350.4	1342.6	1340.1	1337.5	1334.9	1337.5	1342.6	1337.5	1337.5	1340.1
5°	1347.8	1342.6	1332.3	1332.3	1334.9	1337.5	1350.4	1358.1	1360.7	1360.7	1360.7
7.5°	1347.8	1340.1	1332.3	1334.9	1340.1	1350.4	1371.0	1383.9	1394.2	1396.8	1396.8
10°	1360.7	1350.4	1345.2	1350.4	1365.8	1373.6	1394.2	1414.8	1427.7	1432.8	1432.8
12.5°	1383.9	1373.6	1373.6	1383.9	1404.5	1414.8	1432.8	1448.3	1463.8	1471.5	1471.5
15°	1422.5	1409.6	1412.2	1430.3	1453.5	1463.8	1476.7	1481.8	1494.7	1505.0	1505.0
17.5°	1458.6	1445.7	1450.9	1471.5	1487.0	1492.1	1499.8	1497.3	1502.4	1510.2	1512.7
20°	1499.8	1487.0	1489.5	1502.4	1505.0	1499.8	1499.8	1492.1	1489.5	1502.4	1507.6
22.5°	1541.1	1528.2	1525.6	1517.9	1505.0	1492.1	1484.4	1476.7	1471.5	1484.4	1489.5
25°	1590.0	1572.0	1559.1	1525.6	1492.1	1468.9	1458.6	1453.5	1450.9	1463.8	1468.9
27.5°	1644.2	1626.1	1587.5	1515.3	1461.2	1422.5	1414.8	1414.8	1420.0	1427.7	1432.8
30°	1695.7	1677.7	1608.1	1492.1	1407.1	1350.4	1342.6	1350.4	1363.3	1371.0	1378.7
32.5°	1747.2	1729.2	1621.0	1456.0	1327.2	1255.0	1249.9	1262.8	1283.4	1288.5	1293.7
35°	1816.8	1798.8	1636.4	1404.5	1226.7	1149.4	1144.2	1151.9	1170.0	1177.7	1185.4
37.5°	1914.8	1904.4	1659.6	1347.8	1133.9	1048.9	1033.4	1028.2	1038.6	1036.0	1046.3
40°	2043.6	2051.3	1700.9	1273.1	1043.7	956.1	922.6	907.1	896.8	876.2	886.5
42.5°	2231.7	2236.9	1747.2	1188.0	966.4	868.5	824.7	796.3	775.7	742.2	747.3
45°	2507.5	2463.7	1801.4	1097.8	896.8	798.9	747.3	713.8	685.5	657.1	659.7
47.5°	2873.4	2739.4	1860.6	1023.1	827.2	742.2	695.8	657.1	623.6	600.5	603.0
50°	3324.4	3082.2	1919.9	953.5	757.7	698.4	657.1	615.9	582.4	559.2	556.6
52.5°	3919.7	3494.5	1958.6	876.2	688.1	659.7	623.6	585.0	543.8	515.4	512.8
55°	4538.2	3973.8	1992.1	783.4	621.1	615.9	597.9	554.1	505.1	469.0	463.9
57.5°	5218.5	4486.7	2017.8	693.2	569.5	579.8	574.7	523.1	469.0	435.5	432.9
60°	5837.0	5017.5	1935.4	613.3	523.1	543.8	548.9	505.1	476.8	484.5	487.1
62.5°	6460.7	5427.3	1621.0	554.1	492.2	520.6	564.4	561.8	548.9	561.8	564.4
65°	6684.9	5512.3	1149.4	505.1	461.3	530.9	613.3	608.2	548.9	525.7	520.6
67.5°	6558.6	5259.8	773.1	466.4	438.1	543.8	664.9	608.2	528.3	497.4	487.1
70°	5958.2	4638.7	567.0	427.8	417.5	541.2	693.2	605.6	518.0	484.5	471.6
72.5°	4752.1	3579.5	456.1	391.7	386.6	528.3	708.7	600.5	507.7	471.6	456.1
75°	3077.0	2226.6	384.0	355.6	340.2	507.7	701.0	585.0	494.8	448.4	438.1
77.5°	1427.7	958.7	327.3	314.4	296.4	476.8	677.8	554.1	466.4	422.6	409.8
80°	664.9	453.6	275.7	273.2	265.4	451.0	646.8	518.0	432.9	396.9	376.3
82.5°	355.6	273.2	224.2	224.2	231.9	420.1	608.2	474.2	389.1	371.1	317.0
85°	188.1	157.2	162.4	175.2	198.4	371.1	556.6	427.8	340.2	283.5	275.7
87.5°	95.4	100.5	100.5	118.5	152.0	301.5	458.7	353.1	288.6	231.9	226.8
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)