

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: P231171

Luminaire Tested: **ARCH-M-AF48-90-D-U-T3-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231171
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-AF48-90-D-U-T3-7050
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 5000K, 600mA LIGHT ENGINES WITH 24 LEDS AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12305 lumens
Efficiency: N/A
Efficacy: 133.8 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 - G2

Input Watts (W): 92
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

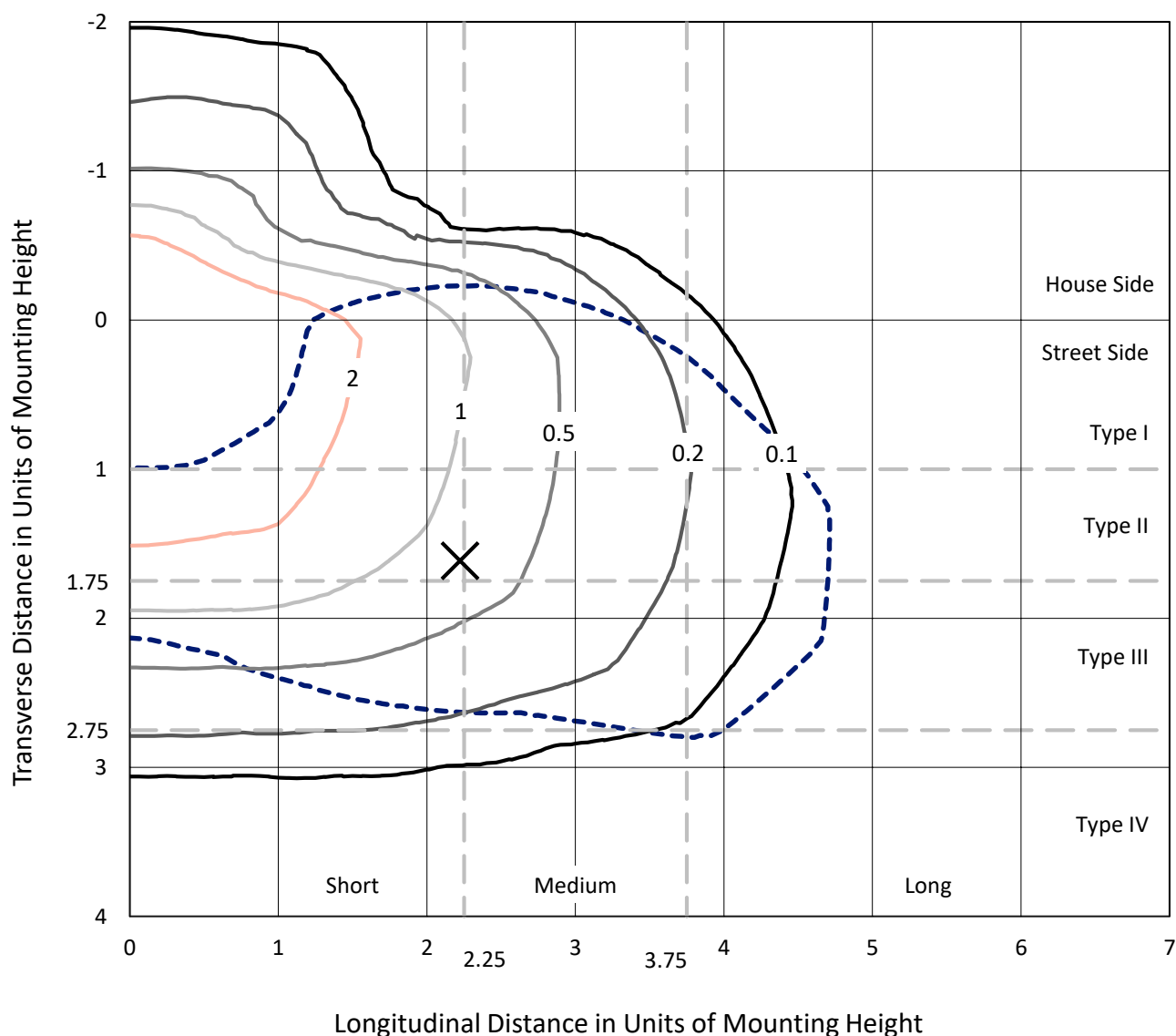


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 --- 1/2 Max cd

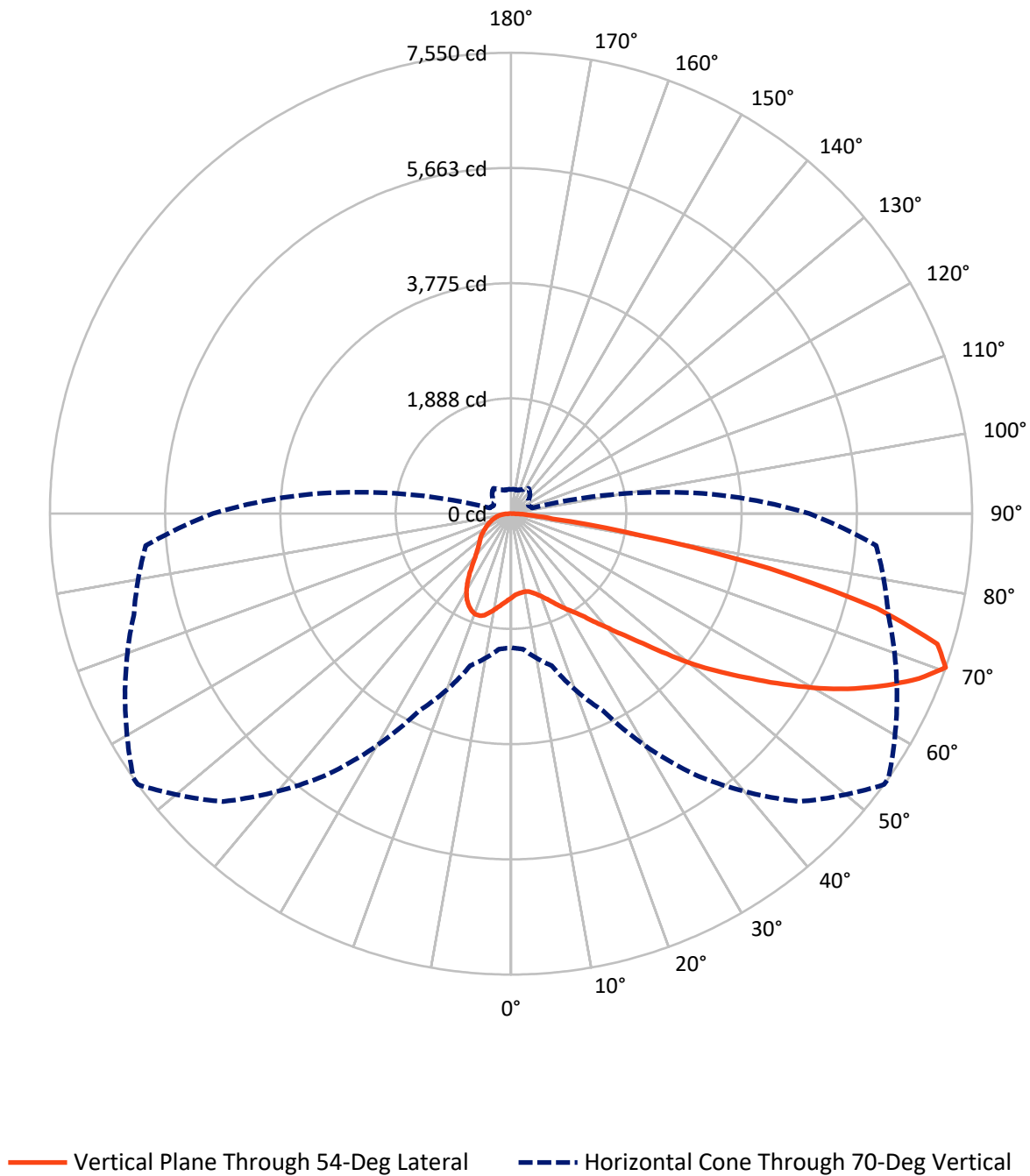


Based on 20 foot mounting height. Maximum calculated value = 4 fc
 Type III - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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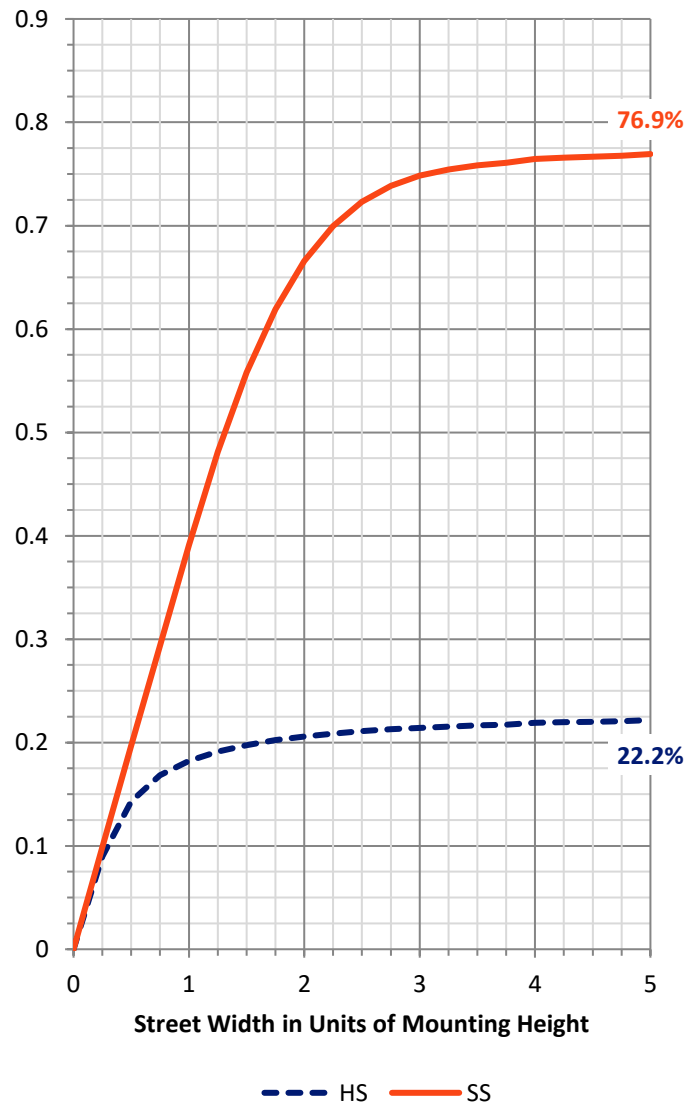
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2790.7	0.0	2790.7
	% Fixture	22.7	0.0	22.7
Street Side	Lumens	9514.3	0.0	9514.3
	% Fixture	77.3	0.0	77.3
Total	Lumens	12305.0	0.0	12305.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	135.1	1.1
10°-20°	431.7	3.5
20°-30°	750.0	6.1
30°-40°	1096.0	8.9
40°-50°	1720.2	14.0
50°-60°	2645.3	21.5
60°-70°	3231.9	26.3
70°-80°	2003.8	16.3
80°-90°	291.1	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°	12305.0	100.0
0°-180°	12305.0	100.0

Coefficient of Utilization



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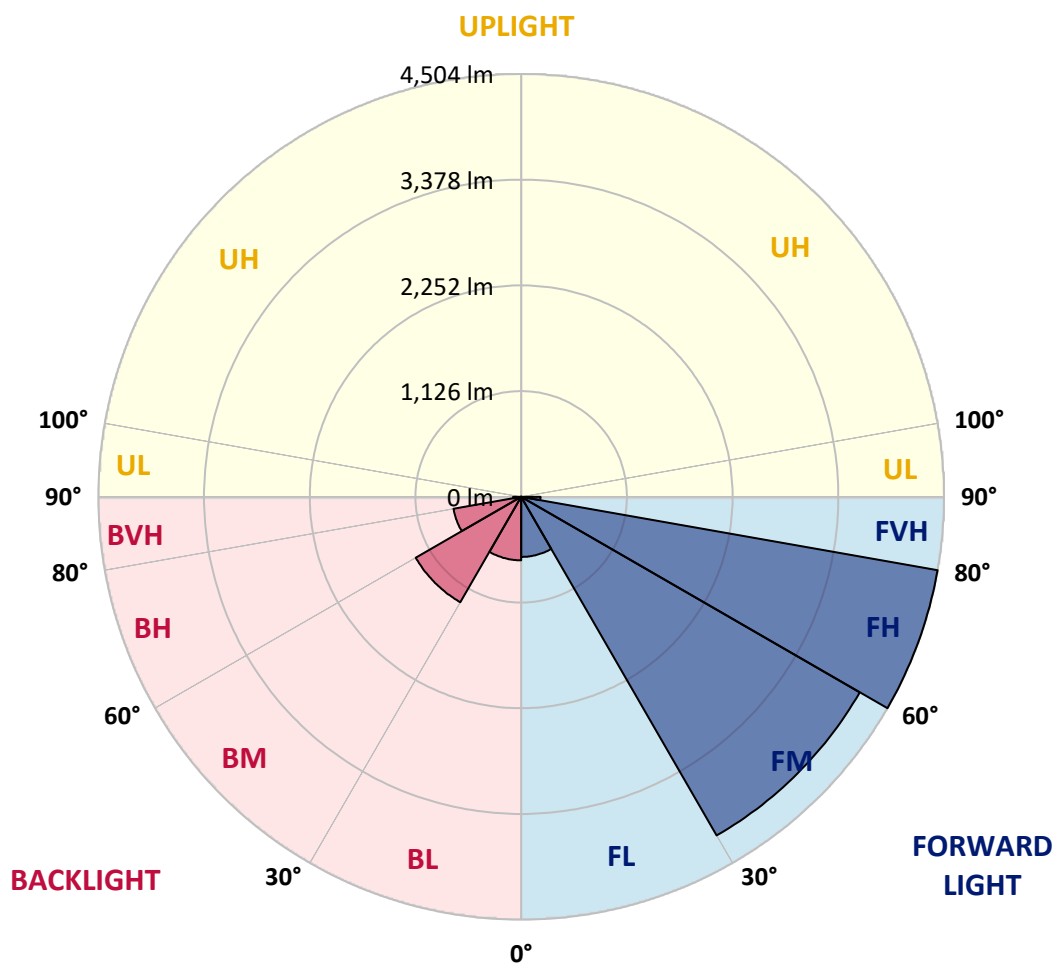
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	640.2	5.2			
FM	(30°-60°)	4164.7	33.8			
FH	(60°-80°)	4503.8	36.6			G2/5000
FVH	(80°-90°)	205.5	1.7			G2/225
BL	(0°-30°)	676.6	5.5	B2/1000		
BM	(30°-60°)	1296.8	10.5	B2/2500		
BH	(60°-80°)	731.8	5.9	B2/1000		G2/1000
BVH	(80°-90°)	85.5	0.7			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	54°	55°	65°	75°	85°
0°	1376.7	1376.7	1376.7	1376.7	1376.7	1376.7	1376.7	1376.7	1376.7	1376.7	1376.7
2.5°	1322.6	1318.1	1318.1	1324.9	1327.1	1333.9	1333.9	1336.1	1342.9	1354.1	1367.7
5°	1282.0	1279.8	1282.0	1291.1	1295.6	1309.1	1313.6	1315.8	1329.4	1347.4	1367.7
7.5°	1241.5	1239.2	1243.7	1257.3	1270.8	1291.1	1302.3	1304.6	1324.9	1349.6	1376.7
10°	1228.0	1225.7	1232.5	1243.7	1257.3	1279.8	1297.8	1300.1	1329.4	1358.7	1397.0
12.5°	1246.0	1243.7	1250.5	1261.8	1275.3	1291.1	1311.3	1313.6	1351.9	1390.2	1430.8
15°	1291.1	1291.1	1293.3	1300.1	1313.6	1327.1	1345.1	1347.4	1387.9	1433.0	1473.6
17.5°	1360.9	1356.4	1356.4	1354.1	1363.2	1369.9	1392.5	1394.7	1437.5	1478.1	1518.6
20°	1446.5	1444.3	1435.3	1424.0	1421.7	1426.3	1448.8	1451.0	1493.8	1527.6	1565.9
22.5°	1550.2	1552.4	1532.1	1507.4	1496.1	1502.9	1523.1	1525.4	1556.9	1586.2	1620.0
25°	1687.6	1680.9	1651.6	1615.5	1593.0	1593.0	1613.3	1613.3	1642.6	1660.6	1683.1
27.5°	1818.3	1804.8	1777.7	1725.9	1689.9	1696.6	1716.9	1716.9	1743.9	1750.7	1762.0
30°	1960.2	1946.7	1912.9	1847.6	1800.3	1795.8	1820.6	1818.3	1854.4	1852.1	1843.1
32.5°	2133.7	2127.0	2070.7	1987.3	1924.2	1908.4	1931.0	1933.2	1955.7	1949.0	1919.7
35°	2377.1	2374.8	2323.0	2176.6	2093.2	2063.9	2077.4	2077.4	2093.2	2075.2	2025.6
37.5°	2683.5	2688.0	2643.0	2426.7	2309.5	2259.9	2262.2	2259.9	2264.4	2244.1	2192.3
40°	2989.9	3001.2	2999.0	2737.6	2588.9	2503.3	2471.7	2467.2	2478.5	2469.5	2419.9
42.5°	3393.3	3420.3	3357.2	3120.6	2953.9	2809.7	2724.1	2712.8	2737.6	2748.9	2701.5
45°	3812.3	3803.3	3704.2	3533.0	3382.0	3197.2	3035.0	3017.0	3035.0	3068.8	3019.2
47.5°	4030.9	4024.1	3999.4	3913.7	3891.2	3679.4	3433.8	3418.0	3384.2	3431.6	3373.0
50°	4391.4	4398.2	4296.8	4287.8	4382.4	4265.2	3884.4	3848.4	3787.6	3825.9	3776.3
52.5°	4652.8	4623.5	4560.4	4639.3	4934.4	4871.3	4308.0	4292.3	4235.9	4226.9	4204.4
55°	4758.7	4758.7	4769.9	4952.4	5373.8	5290.4	4767.7	4783.5	4706.9	4643.8	4673.1
57.5°	4790.2	4803.7	4900.6	5202.5	5889.8	5617.1	5274.6	5297.2	5186.8	5060.6	5153.0
60°	4634.8	4675.3	4907.4	5344.5	6180.4	5964.1	5808.6	5815.4	5655.4	5470.7	5632.9
62.5°	4235.9	4285.5	4700.1	5403.1	6133.1	6320.1	6313.4	6329.1	6110.6	5880.7	6083.5
65°	3747.0	3796.6	4238.2	5238.6	6097.1	6574.7	6775.3	6818.1	6536.4	6227.7	6365.2
67.5°	3028.2	3093.6	3512.7	4684.3	5921.3	6784.3	7207.9	7252.9	6865.4	6408.0	6340.4
70°	2194.6	2226.1	2577.6	3560.0	5204.8	6669.4	7550.3	7548.1	6973.5	6394.5	6002.4
72.5°	1056.7	1081.5	1385.7	2210.4	3722.2	5659.9	7302.5	7345.3	6824.8	6198.4	5229.6
75°	434.9	459.6	561.0	932.8	1953.5	3740.2	6189.4	6290.8	6198.4	5563.1	4091.7
77.5°	270.4	279.4	329.0	482.2	892.3	1746.2	4332.8	4470.3	4911.9	4456.8	2701.5
80°	202.8	209.5	245.6	338.0	563.3	644.4	2151.8	2325.3	2976.4	2557.3	1223.5
82.5°	169.0	171.2	196.0	245.6	383.0	369.5	689.5	768.3	1387.9	975.6	421.3
85°	157.7	162.2	175.7	175.7	243.3	232.1	286.2	299.7	403.3	333.5	146.5
87.5°	81.1	76.6	155.5	137.4	126.2	112.7	121.7	130.7	151.0	160.0	65.3
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°	1376.7	1376.7	1376.7	1376.7	1376.7	1376.7	1376.7	1376.7	1376.7	1376.7	1376.7
2.5°	1372.2	1378.9	1390.2	1401.5	1415.0	1430.8	1439.8	1451.0	1460.0	1455.5	1453.3
5°	1378.9	1390.2	1415.0	1437.5	1464.6	1496.1	1516.4	1538.9	1556.9	1561.4	1554.7
7.5°	1390.2	1410.5	1444.3	1484.8	1520.9	1561.4	1593.0	1624.5	1647.1	1651.6	1651.6
10°	1417.2	1439.8	1484.8	1538.9	1581.7	1624.5	1660.6	1685.4	1705.6	1714.7	1714.7
12.5°	1455.5	1482.6	1536.7	1602.0	1649.3	1689.9	1710.1	1721.4	1730.4	1739.4	1741.7
15°	1500.6	1529.9	1595.2	1665.1	1714.7	1734.9	1734.9	1732.7	1732.7	1737.2	1741.7
17.5°	1545.7	1577.2	1644.8	1719.2	1750.7	1739.4	1723.7	1716.9	1712.4	1710.1	1716.9
20°	1593.0	1624.5	1692.1	1762.0	1753.0	1705.6	1683.1	1667.3	1653.8	1647.1	1656.1
22.5°	1644.8	1674.1	1743.9	1791.3	1723.7	1651.6	1608.8	1584.0	1561.4	1547.9	1556.9
25°	1705.6	1734.9	1802.5	1800.3	1671.8	1570.5	1502.9	1462.3	1437.5	1424.0	1424.0
27.5°	1777.7	1802.5	1867.9	1777.7	1599.7	1462.3	1363.2	1324.9	1318.1	1306.8	1306.8
30°	1852.1	1872.4	1928.7	1725.9	1500.6	1320.4	1212.2	1194.2	1196.4	1185.2	1187.4
32.5°	1928.7	1949.0	1964.8	1649.3	1372.2	1160.4	1088.3	1074.8	1072.5	1063.5	1054.5
35°	2036.9	2066.1	1969.3	1545.7	1216.7	1027.4	975.6	962.1	948.6	917.0	917.0
37.5°	2201.3	2232.9	1958.0	1417.2	1056.7	923.8	876.5	858.5	835.9	804.4	793.1
40°	2426.7	2426.7	1933.2	1273.0	928.3	840.4	795.4	772.8	748.0	716.5	709.7
42.5°	2692.5	2629.4	1894.9	1126.6	833.7	784.1	743.5	718.8	689.5	653.4	648.9
45°	3003.5	2832.2	1840.8	995.9	763.8	750.3	725.5	682.7	633.1	594.8	588.1
47.5°	3305.4	3014.7	1789.0	903.5	705.2	736.8	716.5	644.4	576.8	522.7	516.0
50°	3636.6	3177.0	1728.2	826.9	660.2	727.8	705.2	588.1	513.7	475.4	470.9
52.5°	3967.8	3341.4	1662.8	745.8	621.9	709.7	678.2	547.5	511.5	459.6	452.9
55°	4317.1	3533.0	1586.2	655.7	576.8	673.7	642.2	545.3	527.2	459.6	443.9
57.5°	4657.3	3744.8	1462.3	567.8	527.2	619.6	628.6	531.7	493.4	455.1	437.1
60°	5033.6	3970.1	1257.3	493.4	484.4	574.6	610.6	502.5	455.1	441.6	432.6
62.5°	5335.5	4172.9	982.4	441.6	448.4	538.5	588.1	484.4	439.4	428.1	425.8
65°	5466.2	4177.4	705.2	396.6	412.3	504.7	565.5	468.7	425.8	421.3	419.1
67.5°	5328.7	3947.5	495.7	353.7	374.0	473.2	536.3	452.9	412.3	414.6	410.1
70°	4884.9	3463.1	362.8	313.2	338.0	439.4	504.7	432.6	396.6	401.1	394.3
72.5°	4087.2	2699.3	290.7	279.4	308.7	403.3	473.2	410.1	371.8	374.0	360.5
75°	3019.2	1789.0	243.3	250.1	274.9	369.5	432.6	380.8	344.7	335.7	326.7
77.5°	1795.8	919.3	200.5	218.6	245.6	329.0	387.5	344.7	315.4	299.7	292.9
80°	741.3	371.8	164.5	184.8	214.1	292.9	342.5	301.9	281.6	265.9	256.9
82.5°	295.2	182.5	130.7	151.0	180.3	254.6	299.7	265.9	245.6	234.3	209.5
85°	112.7	90.1	87.9	105.9	135.2	196.0	247.8	223.1	207.3	178.0	171.2
87.5°	45.1	40.6	40.6	51.8	76.6	123.9	178.0	155.5	162.2	128.4	130.7
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)