

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: P231242

Luminaire Tested: **ARCH-M-AF48-150-D-U-T3-7050-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231242
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29624)
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-T3-7050-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 5000K, 970mA LIGHT ENGINES WITH 24 LEDS AND TYPE III OPTICS
WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13404 lumens
Efficiency: N/A
Efficacy: 88.8 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type III - Medium - Semi-Cutoff
BUG Rating: B1 - 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



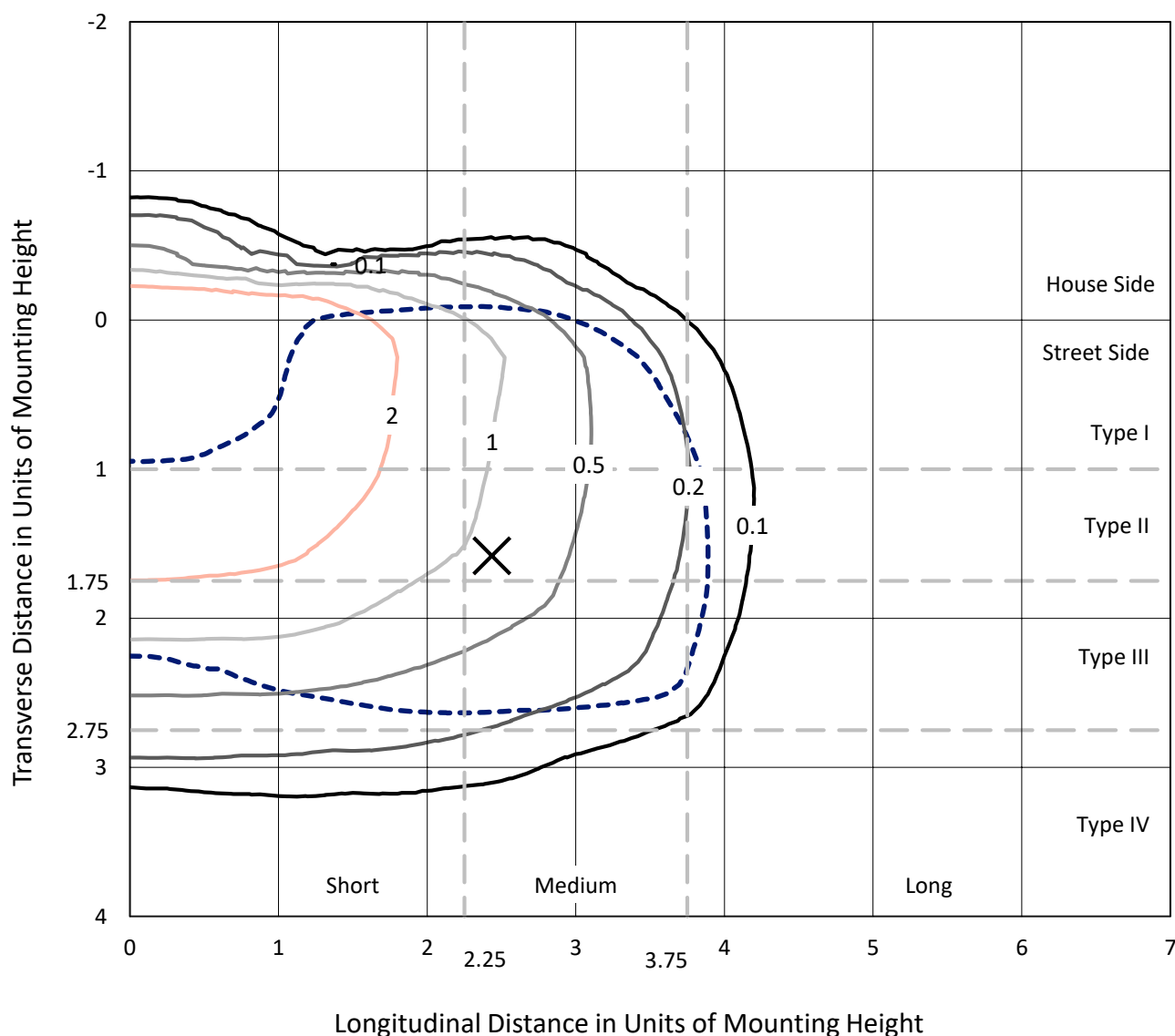
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

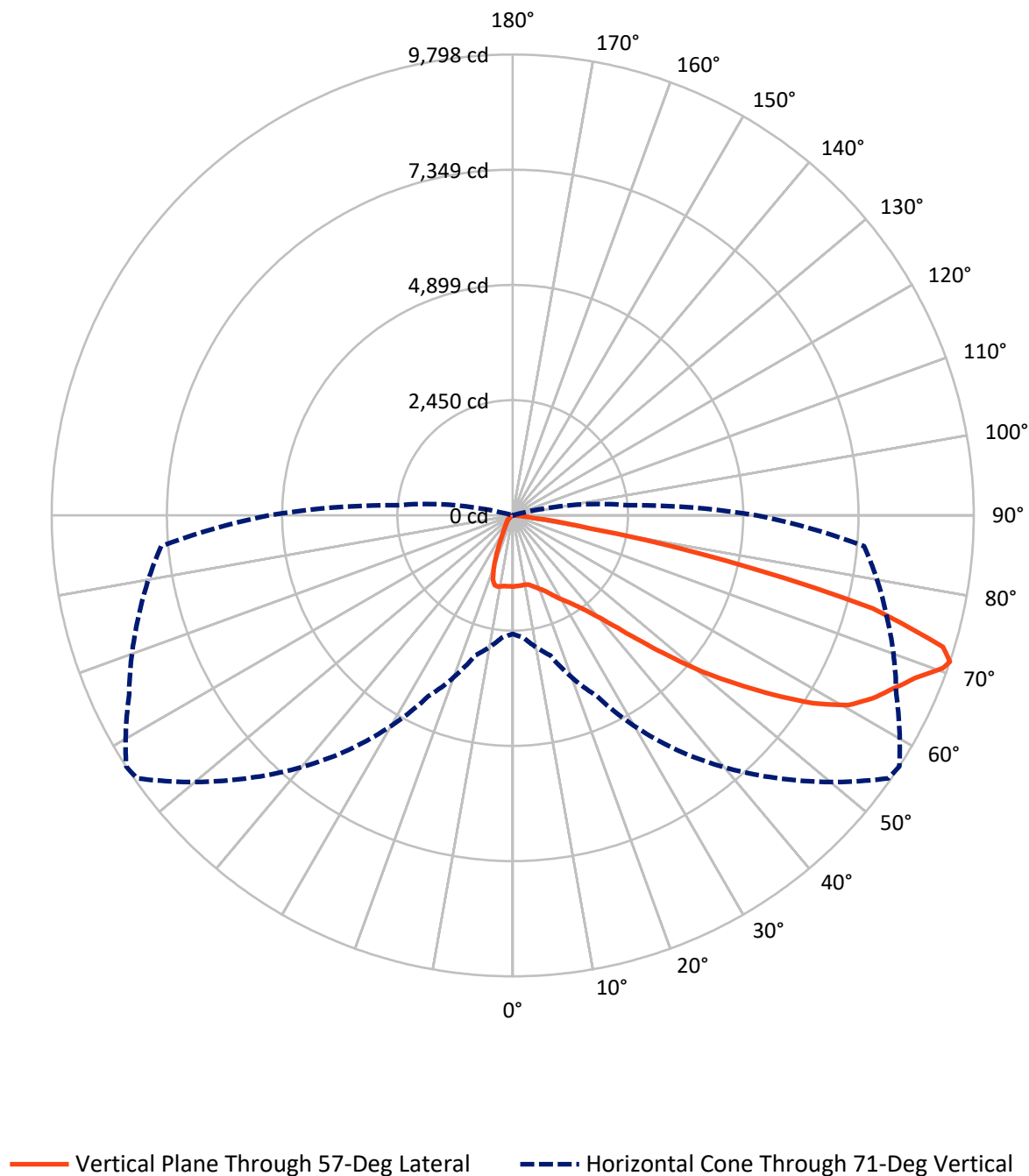


Based on 20 foot mounting height. Maximum calculated value = 4.7 fc
 Type III - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



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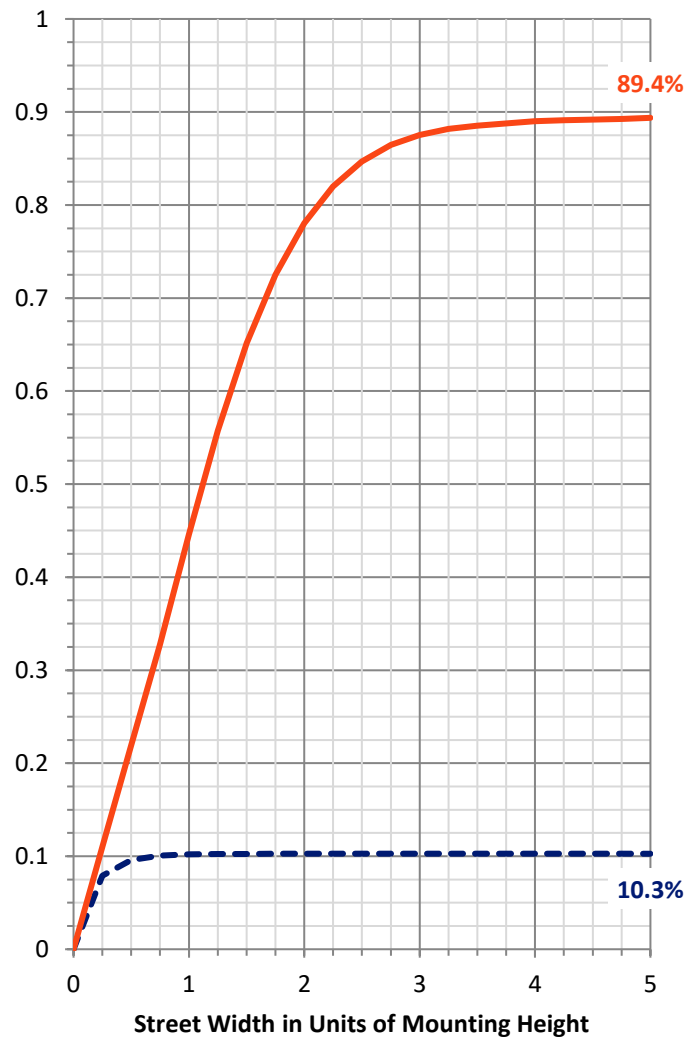
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1389.1	0.0	1389.1
	% Fixture	10.4	0.0	10.4
Street Side	Lumens	12014.9	0.0	12014.9
	% Fixture	89.6	0.0	89.6
Total	Lumens	13404.0	0.0	13404.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	142.3	1.1
10°-20°	380.4	2.8
20°-30°	593.4	4.4
30°-40°	1002.9	7.5
40°-50°	1948.0	14.5
50°-60°	3271.2	24.4
60°-70°	3903.9	29.1
70°-80°	2057.4	15.3
80°-90°	104.5	0.8
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°	13404.0	100.0
0°-180°	13404.0	100.0

Coefficient of Utilization



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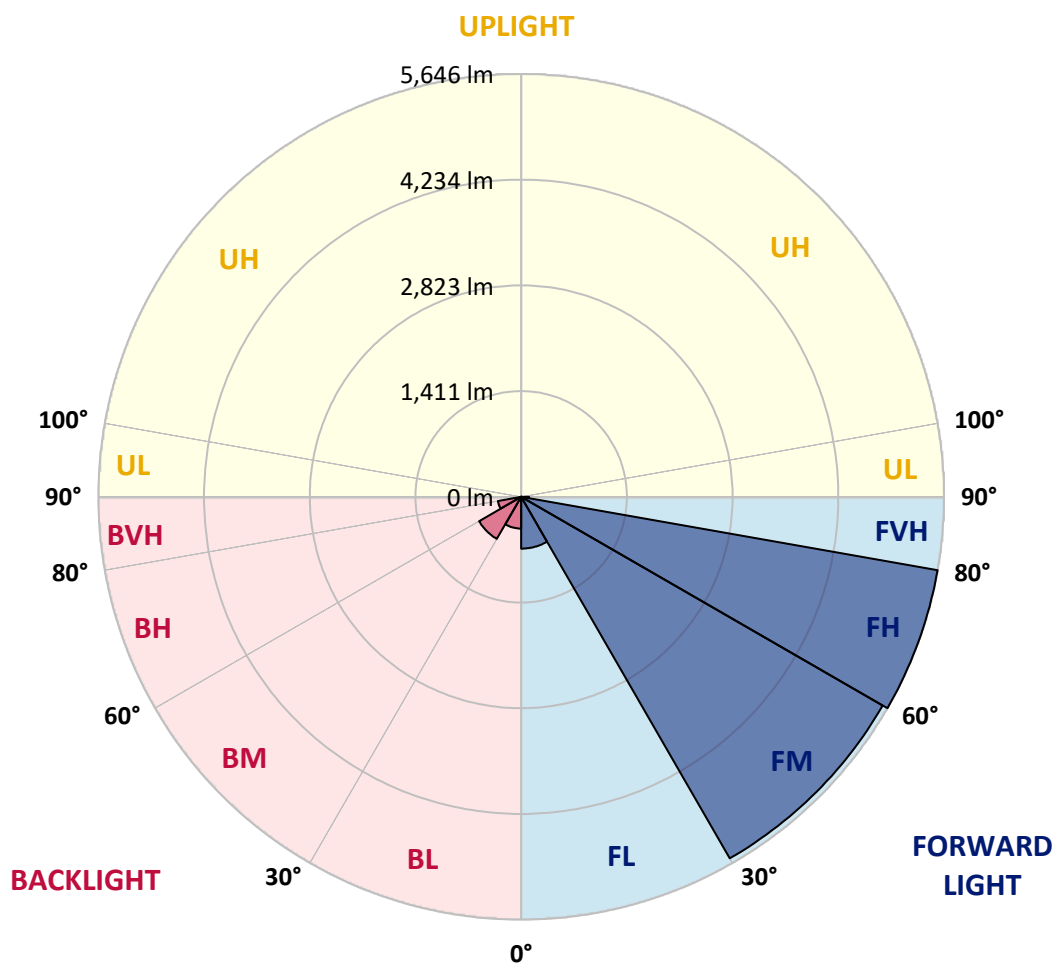
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	692.0	5.2			
FM	(30°-60°)	5573.5	41.6			
FH	(60°-80°)	5645.9	42.1			G3/7500
FVH	(80°-90°)	103.6	0.8			G2/225
BL	(0°-30°)	424.0	3.2	B1/500		
BM	(30°-60°)	648.6	4.8	B1/1000		
BH	(60°-80°)	315.4	2.4	B1/500		G1/500
BVH	(80°-90°)	1.0	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G3

Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	1514.9	1514.9	1514.9	1514.9	1514.9	1514.9	1514.9	1514.9	1514.9	1514.9	1514.9
2.5°	1493.0	1493.0	1493.0	1496.1	1499.2	1499.2	1505.5	1502.4	1502.4	1502.4	1508.6
5°	1452.4	1455.5	1458.6	1464.9	1477.4	1486.7	1502.4	1502.4	1505.5	1511.7	1514.9
7.5°	1396.2	1399.3	1408.7	1421.2	1446.1	1468.0	1493.0	1499.2	1508.6	1524.2	1530.5
10°	1361.8	1368.1	1380.5	1396.2	1424.3	1452.4	1483.6	1493.0	1521.1	1549.2	1564.8
12.5°	1352.4	1355.6	1368.1	1393.0	1427.4	1461.8	1502.4	1511.7	1552.3	1596.1	1621.1
15°	1368.1	1371.2	1377.4	1405.5	1446.1	1489.9	1543.0	1555.5	1605.4	1655.4	1686.6
17.5°	1396.2	1396.2	1402.4	1427.4	1471.1	1521.1	1589.8	1608.6	1664.8	1721.0	1755.4
20°	1414.9	1414.9	1424.3	1449.3	1499.2	1564.8	1646.0	1671.0	1733.5	1796.0	1827.2
22.5°	1433.6	1436.8	1446.1	1474.3	1530.5	1621.1	1714.8	1739.7	1811.6	1877.2	1908.4
25°	1486.7	1483.6	1486.7	1511.7	1577.3	1689.8	1808.5	1839.7	1914.7	1986.5	2002.1
27.5°	1633.5	1627.3	1586.7	1571.1	1621.1	1761.6	1927.1	1958.4	2045.8	2117.7	2117.7
30°	1970.9	1958.4	1858.4	1730.4	1689.8	1827.2	2039.6	2083.3	2195.8	2258.2	2239.5
32.5°	2398.8	2370.7	2242.6	2024.0	1861.6	1914.7	2158.3	2208.3	2351.9	2405.0	2364.4
35°	2867.3	2864.2	2704.9	2423.8	2192.6	2095.8	2311.3	2370.7	2551.8	2598.7	2533.1
37.5°	3363.9	3376.4	3270.2	2882.9	2611.2	2392.5	2514.3	2583.1	2804.8	2861.0	2798.6
40°	3916.8	3913.6	3873.0	3413.9	3114.0	2814.2	2807.9	2870.4	3139.0	3226.5	3139.0
42.5°	4616.4	4610.2	4463.4	4051.1	3723.1	3363.9	3235.9	3257.7	3557.6	3701.2	3573.2
45°	5328.5	5284.8	5116.2	4760.1	4469.6	4044.8	3801.2	3801.2	4057.3	4254.1	4054.2
47.5°	5725.2	5681.5	5612.8	5416.0	5328.5	4853.8	4494.6	4450.9	4650.8	4850.7	4569.6
50°	6246.8	6246.8	6075.0	6000.1	6150.0	5815.8	5259.8	5216.1	5312.9	5472.2	5103.7
52.5°	6659.1	6584.2	6462.3	6527.9	6955.8	6802.8	6025.1	5940.7	6015.7	6056.3	5569.0
55°	6830.9	6759.1	6749.7	6990.2	7652.4	7440.0	6809.0	6734.1	6727.8	6527.9	5975.1
57.5°	6865.3	6802.8	6921.5	7343.1	8330.1	7961.6	7589.9	7533.7	7358.8	6859.0	6390.5
60°	6574.8	6606.0	6893.4	7536.8	8729.9	8414.5	8248.9	8189.6	7786.7	7140.1	6852.8
62.5°	5978.2	6053.2	6590.4	7555.5	8583.1	8598.8	8614.4	8573.8	8117.7	7396.2	7318.2
65°	5272.3	5294.2	5940.7	7296.3	8327.0	8542.5	8883.0	8879.9	8370.7	7683.6	7842.9
67.5°	4344.7	4382.1	4941.2	6421.7	7814.8	8517.5	9235.9	9226.6	8658.1	8011.6	8155.2
70°	3232.7	3279.6	3732.5	4994.3	6671.6	8205.2	9698.2	9704.4	8961.1	8261.4	7939.7
71°	2520.6	2604.9	3079.7	4241.6	6087.5	7889.7	9741.9	9798.1	8995.4	8227.1	7496.2
72.5°	1236.9	1336.8	1933.4	2986.0	5010.0	7183.8	9454.6	9563.9	8779.9	7799.2	6409.2
75°	321.7	340.5	577.8	1221.3	2686.1	4760.1	7624.3	7902.2	7177.6	5937.6	3916.8
77.5°	203.0	209.3	271.7	474.8	1005.7	1808.5	4479.0	4616.4	4101.0	3007.8	1380.5
80°	143.7	146.8	171.8	306.1	587.2	527.9	1611.7	1671.0	1483.6	796.5	246.7
82.5°	87.5	87.5	124.9	196.8	362.3	287.4	424.8	452.9	399.8	221.8	81.2
85°	50.0	53.1	78.1	134.3	171.8	140.6	159.3	168.7	171.8	146.8	34.4
87.5°	40.6	43.7	68.7	112.4	93.7	68.7	68.7	71.8	75.0	87.5	15.6
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°	1514.9	1514.9	1514.9	1514.9	1514.9	1514.9	1514.9	1514.9	1514.9	1514.9	1514.9
2.5°	1508.6	1508.6	1511.7	1508.6	1508.6	1508.6	1511.7	1511.7	1511.7	1518.0	1521.1
5°	1514.9	1514.9	1514.9	1511.7	1508.6	1508.6	1514.9	1518.0	1518.0	1527.3	1527.3
7.5°	1530.5	1530.5	1524.2	1518.0	1511.7	1502.4	1505.5	1508.6	1505.5	1508.6	1508.6
10°	1564.8	1564.8	1555.5	1543.0	1524.2	1496.1	1458.6	1411.8	1368.1	1352.4	1346.2
12.5°	1621.1	1617.9	1599.2	1577.3	1536.7	1439.9	1299.3	1133.8	996.4	958.9	946.4
15°	1683.5	1677.3	1655.4	1617.9	1508.6	1252.5	958.9	746.5	615.3	584.1	577.8
17.5°	1749.1	1739.7	1708.5	1633.5	1380.5	930.8	618.4	468.5	396.7	390.4	393.6
20°	1817.8	1805.3	1761.6	1602.3	1115.1	621.6	399.8	362.3	356.1	356.1	359.2
22.5°	1895.9	1880.3	1820.9	1489.9	812.1	412.3	343.6	340.5	337.3	334.2	334.2
25°	1986.5	1967.8	1877.2	1286.8	559.1	337.3	328.0	318.6	312.3	306.1	303.0
27.5°	2095.8	2070.8	1920.9	1037.0	384.2	315.5	309.2	293.6	281.1	268.6	268.6
30°	2205.1	2173.9	1908.4	780.9	312.3	293.6	281.1	262.4	243.6	231.1	228.0
32.5°	2320.7	2289.5	1827.2	524.7	284.2	268.6	253.0	224.9	203.0	187.4	184.3
35°	2492.5	2467.5	1667.9	346.7	256.1	237.4	215.5	187.4	159.3	143.7	140.6
37.5°	2748.6	2717.4	1471.1	265.5	224.9	196.8	178.0	146.8	118.7	103.1	99.9
40°	3092.2	2998.5	1236.9	234.3	196.8	162.4	137.4	106.2	84.3	75.0	75.0
42.5°	3492.0	3270.2	983.9	212.4	174.9	134.3	99.9	71.8	59.3	56.2	56.2
45°	3916.8	3523.2	730.9	196.8	153.0	106.2	71.8	50.0	43.7	40.6	40.6
47.5°	4354.0	3729.4	509.1	178.0	128.1	81.2	50.0	37.5	31.2	28.1	28.1
50°	4763.2	3863.7	359.2	159.3	109.3	59.3	37.5	28.1	21.9	21.9	21.9
52.5°	5047.4	3851.2	259.2	137.4	84.3	40.6	25.0	18.7	18.7	18.7	18.7
55°	5297.3	3804.3	203.0	118.7	65.6	28.1	18.7	15.6	15.6	12.5	12.5
57.5°	5509.7	3729.4	171.8	96.8	46.9	21.9	12.5	12.5	9.4	9.4	9.4
60°	5690.9	3635.7	143.7	81.2	31.2	15.6	9.4	6.2	6.2	3.1	6.2
62.5°	5937.6	3576.3	124.9	62.5	21.9	9.4	6.2	3.1	3.1	0.0	0.0
65°	6118.8	3463.9	106.2	43.7	12.5	6.2	3.1	3.1	0.0	0.0	0.0
67.5°	6125.0	3260.8	78.1	25.0	9.4	6.2	3.1	0.0	0.0	0.0	0.0
70°	5631.5	2779.8	50.0	12.5	6.2	3.1	3.1	0.0	0.0	0.0	0.0
71°	5178.6	2461.2	40.6	9.4	6.2	3.1	0.0	0.0	0.0	0.0	0.0
72.5°	4266.6	1808.5	31.2	9.4	3.1	3.1	0.0	0.0	0.0	0.0	0.0
75°	2351.9	655.9	15.6	6.2	3.1	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	752.7	199.9	9.4	3.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	128.1	31.2	6.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	43.7	12.5	3.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	12.5	6.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	6.2	3.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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)