

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: P231243

Luminaire Tested: **ARCH-M-AF48-160-D-U-T3-7050-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231243
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-AF48-160-D-U-T3-7050-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 5000K, 1030mA 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: 13948 lumens
Efficiency: N/A
Efficacy: 86.6 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): 161
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



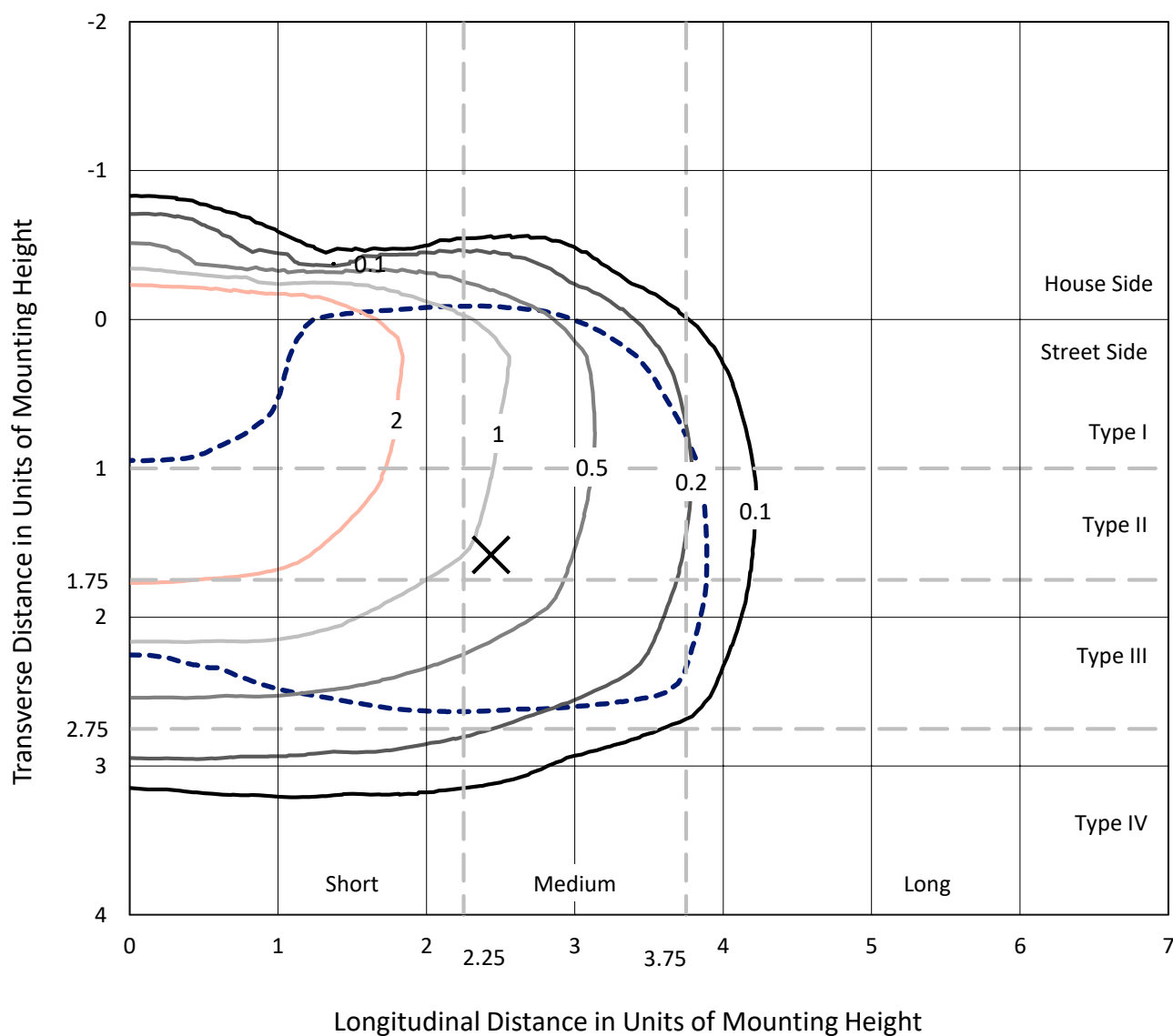
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

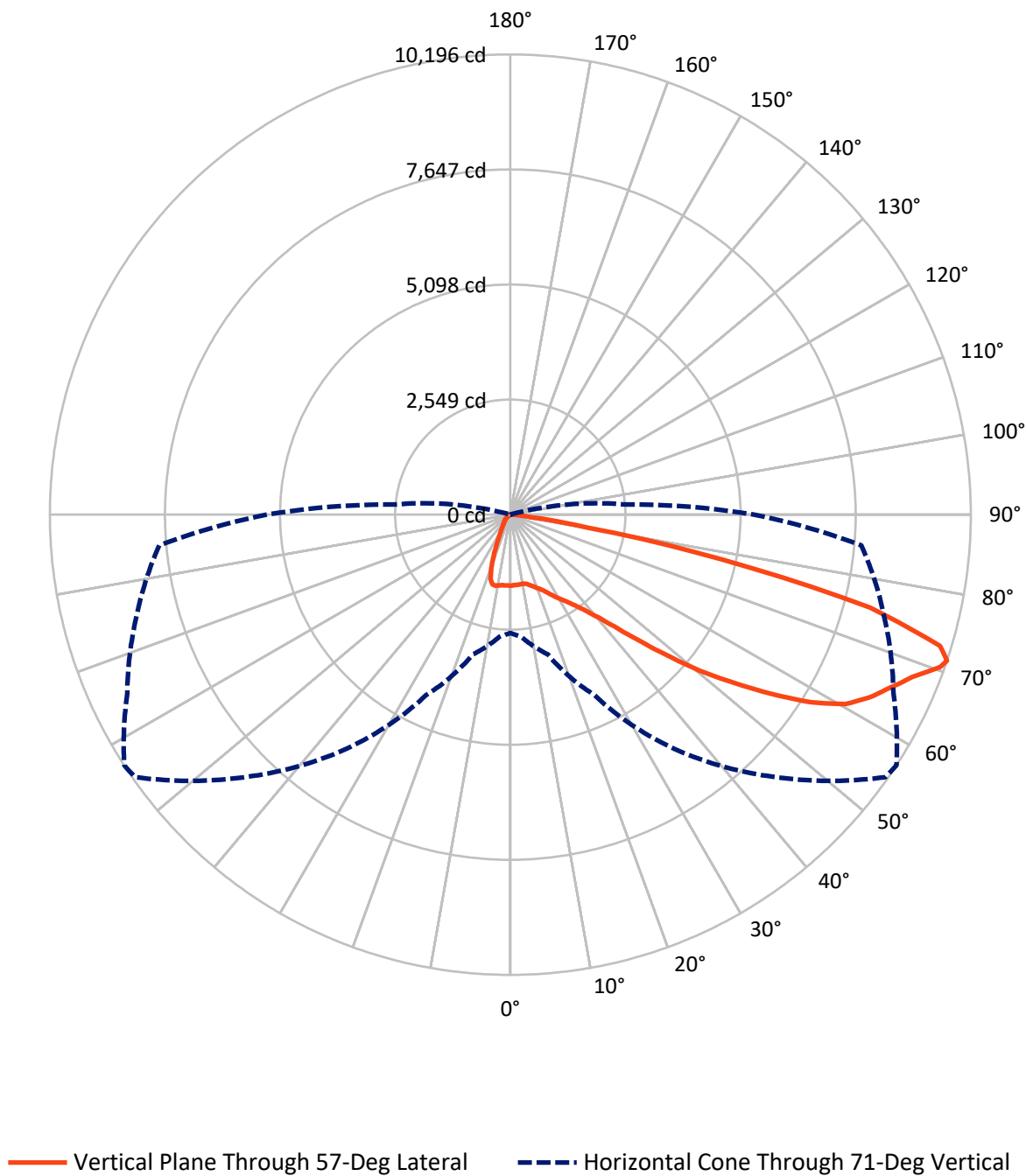


Based on 20 foot mounting height. Maximum calculated value = 4.9 fc
Type III - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



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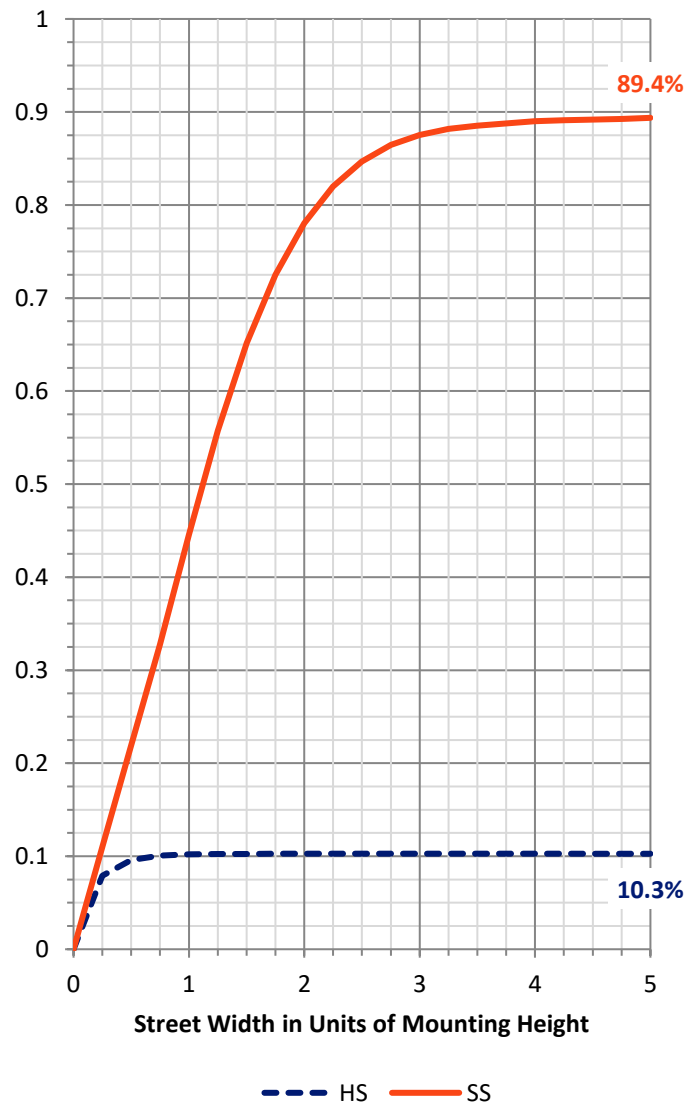
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1445.5	0.0	1445.5
	% Fixture	10.4	0.0	10.4
Street Side	Lumens	12502.6	0.0	12502.6
	% Fixture	89.6	0.0	89.6
Total	Lumens	13948.0	0.0	13948.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	148.0	1.1
10°-20°	395.8	2.8
20°-30°	617.5	4.4
30°-40°	1043.6	7.5
40°-50°	2027.0	14.5
50°-60°	3404.0	24.4
60°-70°	4062.3	29.1
70°-80°	2140.9	15.3
80°-90°	108.8	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°	13948.0	100.0
0°-180°	13948.0	100.0

Coefficient of Utilization



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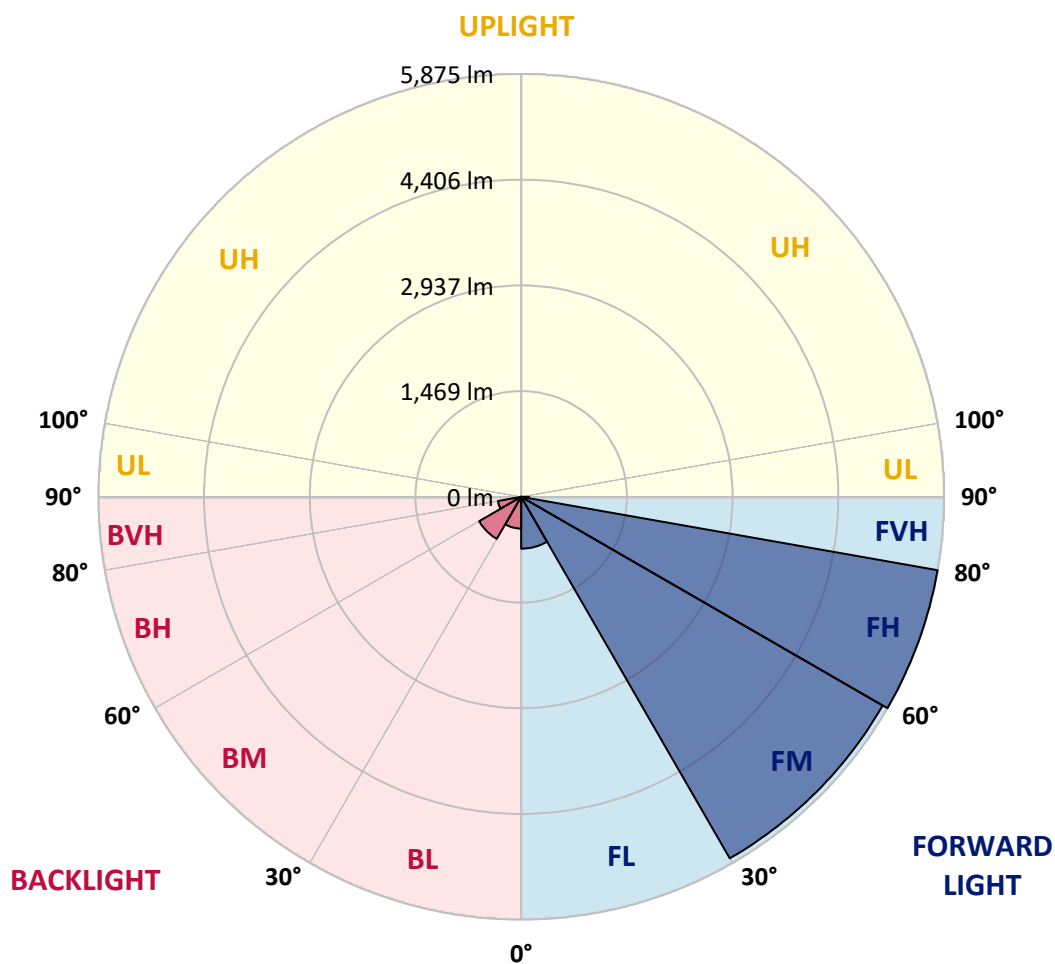
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	720.1	5.2			
FM	(30°-60°)	5799.7	41.6			
FH	(60°-80°)	5875.0	42.1			G3/7500
FVH	(80°-90°)	107.8	0.8			G2/225
BL	(0°-30°)	441.2	3.2	B1/500		
BM	(30°-60°)	675.0	4.8	B1/1000		
BH	(60°-80°)	328.3	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°	1576.3	1576.3	1576.3	1576.3	1576.3	1576.3	1576.3	1576.3	1576.3	1576.3	1576.3
2.5°	1553.6	1553.6	1553.6	1556.8	1560.1	1560.1	1566.6	1563.3	1563.3	1563.3	1569.8
5°	1511.3	1514.6	1517.8	1524.3	1537.3	1547.1	1563.3	1563.3	1566.6	1573.1	1576.3
7.5°	1452.8	1456.1	1465.8	1478.8	1504.8	1527.6	1553.6	1560.1	1569.8	1586.1	1592.6
10°	1417.1	1423.6	1436.6	1452.8	1482.1	1511.3	1543.8	1553.6	1582.8	1612.1	1628.3
12.5°	1407.3	1410.6	1423.6	1449.6	1485.3	1521.1	1563.3	1573.1	1615.3	1660.8	1686.8
15°	1423.6	1426.8	1433.3	1462.6	1504.8	1550.3	1605.6	1618.6	1670.6	1722.6	1755.1
17.5°	1452.8	1452.8	1459.3	1485.3	1530.8	1582.8	1654.3	1673.8	1732.3	1790.8	1826.6
20°	1472.3	1472.3	1482.1	1508.1	1560.1	1628.3	1712.8	1738.8	1803.8	1868.9	1901.4
22.5°	1491.8	1495.1	1504.8	1534.1	1592.6	1686.8	1784.3	1810.3	1885.1	1953.4	1985.9
25°	1547.1	1543.8	1547.1	1573.1	1641.3	1758.3	1881.9	1914.4	1992.4	2067.1	2083.4
27.5°	1699.8	1693.3	1651.1	1634.8	1686.8	1833.1	2005.4	2037.9	2128.9	2203.6	2203.6
30°	2050.9	2037.9	1933.9	1800.6	1758.3	1901.4	2122.4	2167.9	2284.9	2349.9	2330.4
32.5°	2496.1	2466.9	2333.6	2106.1	1937.1	1992.4	2245.9	2297.9	2447.4	2502.6	2460.4
35°	2983.7	2980.4	2814.7	2522.1	2281.6	2180.9	2405.1	2466.9	2655.4	2704.1	2635.9
37.5°	3500.4	3513.4	3402.9	2999.9	2717.1	2489.6	2616.4	2687.9	2918.7	2977.2	2912.2
40°	4075.7	4072.5	4030.2	3552.4	3240.4	2928.4	2921.9	2986.9	3266.4	3357.4	3266.4
42.5°	4803.8	4797.3	4644.5	4215.5	3874.2	3500.4	3367.2	3389.9	3702.0	3851.5	3718.2
45°	5544.8	5499.3	5323.8	4953.3	4651.0	4209.0	3955.5	3955.5	4222.0	4426.7	4218.7
47.5°	5957.6	5912.1	5840.6	5635.8	5544.8	5050.8	4677.0	4631.5	4839.5	5047.5	4755.0
50°	6500.4	6500.4	6321.6	6243.6	6399.6	6051.8	5473.3	5427.8	5528.5	5694.3	5310.8
52.5°	6929.4	6851.4	6724.6	6792.9	7238.1	7078.9	6269.6	6181.8	6259.8	6302.1	5795.1
55°	7108.1	7033.4	7023.6	7273.9	7962.9	7741.9	7085.4	7007.4	7000.9	6792.9	6217.6
57.5°	7143.9	7078.9	7202.4	7641.2	8668.2	8284.7	7897.9	7839.4	7657.4	7137.4	6649.9
60°	6841.6	6874.1	7173.1	7842.7	9084.2	8756.0	8583.7	8522.0	8102.7	7429.9	7130.9
62.5°	6220.8	6298.8	6857.9	7862.2	8931.5	8947.7	8964.0	8921.7	8447.2	7696.4	7615.2
65°	5486.3	5509.0	6181.8	7592.4	8665.0	8889.2	9243.5	9240.3	8710.5	7995.4	8161.2
67.5°	4521.0	4560.0	5141.8	6682.4	8131.9	8863.2	9610.8	9601.0	9009.5	8336.7	8486.2
70°	3363.9	3412.7	3884.0	5197.0	6942.4	8538.2	10091.8	10098.3	9324.8	8596.7	8261.9
71°	2622.9	2710.6	3204.7	4413.7	6334.6	8209.9	10137.3	10195.8	9360.5	8561.0	7800.4
72.5°	1287.1	1391.1	2011.9	3107.2	5213.3	7475.4	9838.3	9952.0	9136.2	8115.7	6669.4
75°	334.8	354.3	601.3	1270.8	2795.2	4953.3	7933.7	8222.9	7468.9	6178.6	4075.7
77.5°	211.3	217.8	282.8	494.0	1046.6	1881.9	4660.8	4803.8	4267.5	3129.9	1436.6
80°	149.5	152.8	178.8	318.5	611.0	549.3	1677.1	1738.8	1543.8	828.8	256.8
82.5°	91.0	91.0	130.0	204.8	377.0	299.0	442.0	471.3	416.0	230.8	84.5
85°	52.0	55.3	81.3	139.8	178.8	146.3	165.8	175.5	178.8	152.8	35.8
87.5°	42.3	45.5	71.5	117.0	97.5	71.5	71.5	74.8	78.0	91.0	16.3
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°	1576.3	1576.3	1576.3	1576.3	1576.3	1576.3	1576.3	1576.3	1576.3	1576.3	1576.3
2.5°	1569.8	1569.8	1573.1	1569.8	1569.8	1569.8	1573.1	1573.1	1573.1	1579.6	1582.8
5°	1576.3	1576.3	1576.3	1573.1	1569.8	1569.8	1576.3	1579.6	1579.6	1589.3	1589.3
7.5°	1592.6	1592.6	1586.1	1579.6	1573.1	1563.3	1566.6	1569.8	1566.6	1569.8	1569.8
10°	1628.3	1628.3	1618.6	1605.6	1586.1	1556.8	1517.8	1469.1	1423.6	1407.3	1400.8
12.5°	1686.8	1683.6	1664.1	1641.3	1599.1	1498.3	1352.1	1179.8	1036.8	997.8	984.8
15°	1751.8	1745.3	1722.6	1683.6	1569.8	1303.3	997.8	776.8	640.3	607.8	601.3
17.5°	1820.1	1810.3	1777.8	1699.8	1436.6	968.6	643.5	487.5	412.8	406.3	409.5
20°	1891.6	1878.6	1833.1	1667.3	1160.3	646.8	416.0	377.0	370.5	370.5	373.8
22.5°	1972.9	1956.6	1894.9	1550.3	845.0	429.0	357.5	354.3	351.0	347.8	347.8
25°	2067.1	2047.6	1953.4	1339.1	581.8	351.0	341.3	331.5	325.0	318.5	315.3
27.5°	2180.9	2154.9	1998.9	1079.1	399.8	328.3	321.8	305.5	292.5	279.5	279.5
30°	2294.6	2262.1	1985.9	812.5	325.0	305.5	292.5	273.0	253.5	240.5	237.3
32.5°	2414.9	2382.4	1901.4	546.0	295.8	279.5	263.3	234.0	211.3	195.0	191.8
35°	2593.6	2567.6	1735.6	360.8	266.5	247.0	224.3	195.0	165.8	149.5	146.3
37.5°	2860.2	2827.7	1530.8	276.3	234.0	204.8	185.3	152.8	123.5	107.3	104.0
40°	3217.7	3120.2	1287.1	243.8	204.8	169.0	143.0	110.5	87.8	78.0	78.0
42.5°	3633.7	3402.9	1023.8	221.0	182.0	139.8	104.0	74.8	61.8	58.5	58.5
45°	4075.7	3666.2	760.5	204.8	159.3	110.5	74.8	52.0	45.5	42.3	42.3
47.5°	4530.7	3880.7	529.8	185.3	133.3	84.5	52.0	39.0	32.5	29.3	29.3
50°	4956.5	4020.5	373.8	165.8	113.8	61.8	39.0	29.3	22.8	22.8	22.8
52.5°	5252.3	4007.5	269.8	143.0	87.8	42.3	26.0	19.5	19.5	19.5	19.5
55°	5512.3	3958.7	211.3	123.5	68.3	29.3	19.5	16.3	16.3	13.0	13.0
57.5°	5733.3	3880.7	178.8	100.8	48.8	22.8	13.0	13.0	9.8	9.8	9.8
60°	5921.8	3783.2	149.5	84.5	32.5	16.3	9.8	6.5	6.5	3.3	6.5
62.5°	6178.6	3721.5	130.0	65.0	22.8	9.8	6.5	3.3	3.3	0.0	0.0
65°	6367.1	3604.4	110.5	45.5	13.0	6.5	3.3	3.3	0.0	0.0	0.0
67.5°	6373.6	3393.2	81.3	26.0	9.8	6.5	3.3	0.0	0.0	0.0	0.0
70°	5860.1	2892.7	52.0	13.0	6.5	3.3	3.3	0.0	0.0	0.0	0.0
71°	5388.8	2561.1	42.3	9.8	6.5	3.3	0.0	0.0	0.0	0.0	0.0
72.5°	4439.7	1881.9	32.5	9.8	3.3	3.3	0.0	0.0	0.0	0.0	0.0
75°	2447.4	682.5	16.3	6.5	3.3	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	783.3	208.0	9.8	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	133.3	32.5	6.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	45.5	13.0	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	13.0	6.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	6.5	3.3	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)