

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: P157396

Luminaire Tested: **VST-F09-LED-E-U-5MQ-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P157396
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33708)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: VST-F09-LED-E-U-5MQ-7050
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(9) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE MEDIUM
Light Source: (63) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24387.1 lumens
Efficiency: N/A
Efficacy: 103.9 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B5 - U0 - G3

Input Watts (W): 234.8
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

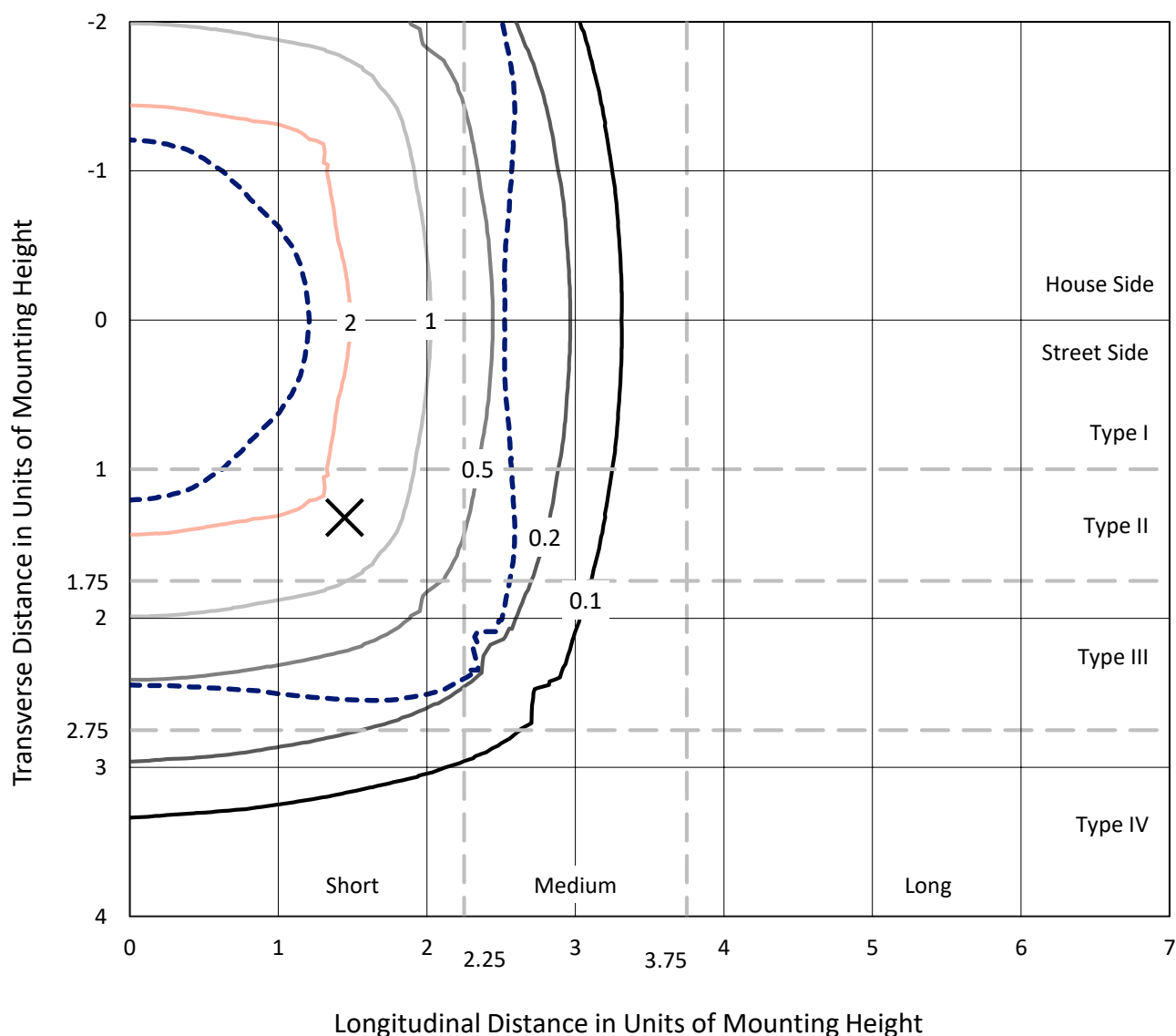


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 --- 1/2 Max cd

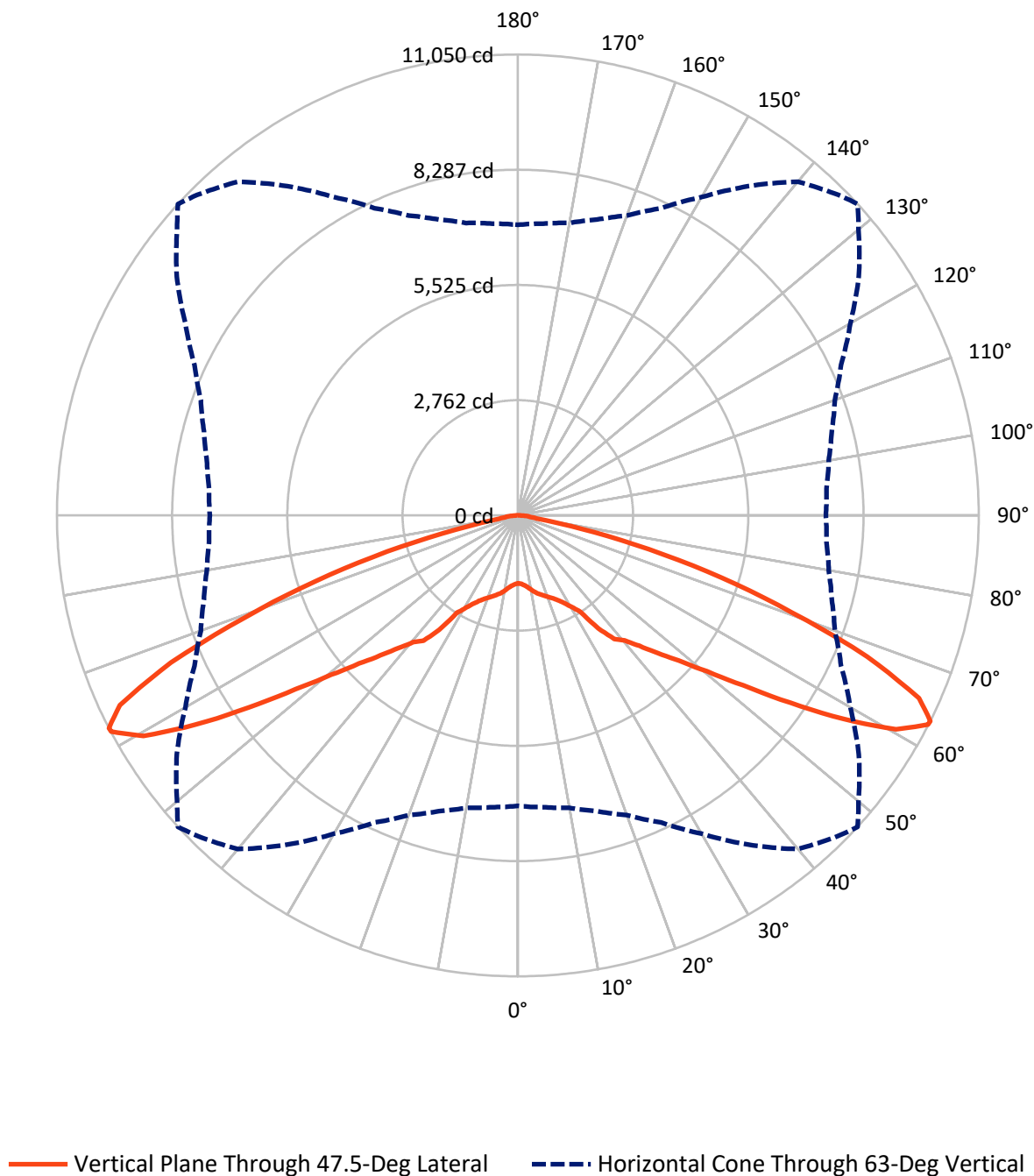


Based on 25 foot mounting height. Maximum calculated value = 2.9 fc
 Type V - Short - Full Cutoff

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Luminous Intensity Polar Plot



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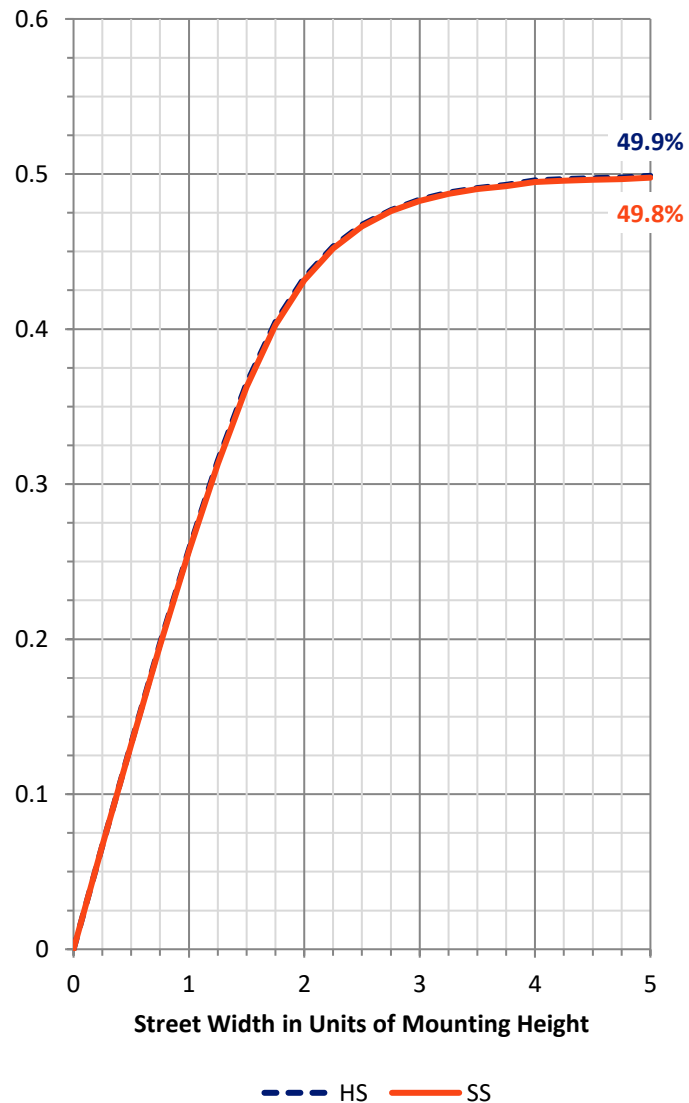
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	12193.5	0.0	12193.5
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	12193.5	0.0	12193.5
	% Fixture	50.0	0.0	50.0
Total	Lumens	24387.1	0.0	24387.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	163.5	0.7
10°-20°	555.7	2.3
20°-30°	1063.0	4.4
30°-40°	2033.4	8.3
40°-50°	3518.5	14.4
50°-60°	6319.0	25.9
60°-70°	7684.0	31.5
70°-80°	2775.1	11.4
80°-90°	274.8	1.1
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°	24387.1	100.0
0°-180°	24387.1	100.0

Coefficient of Utilization



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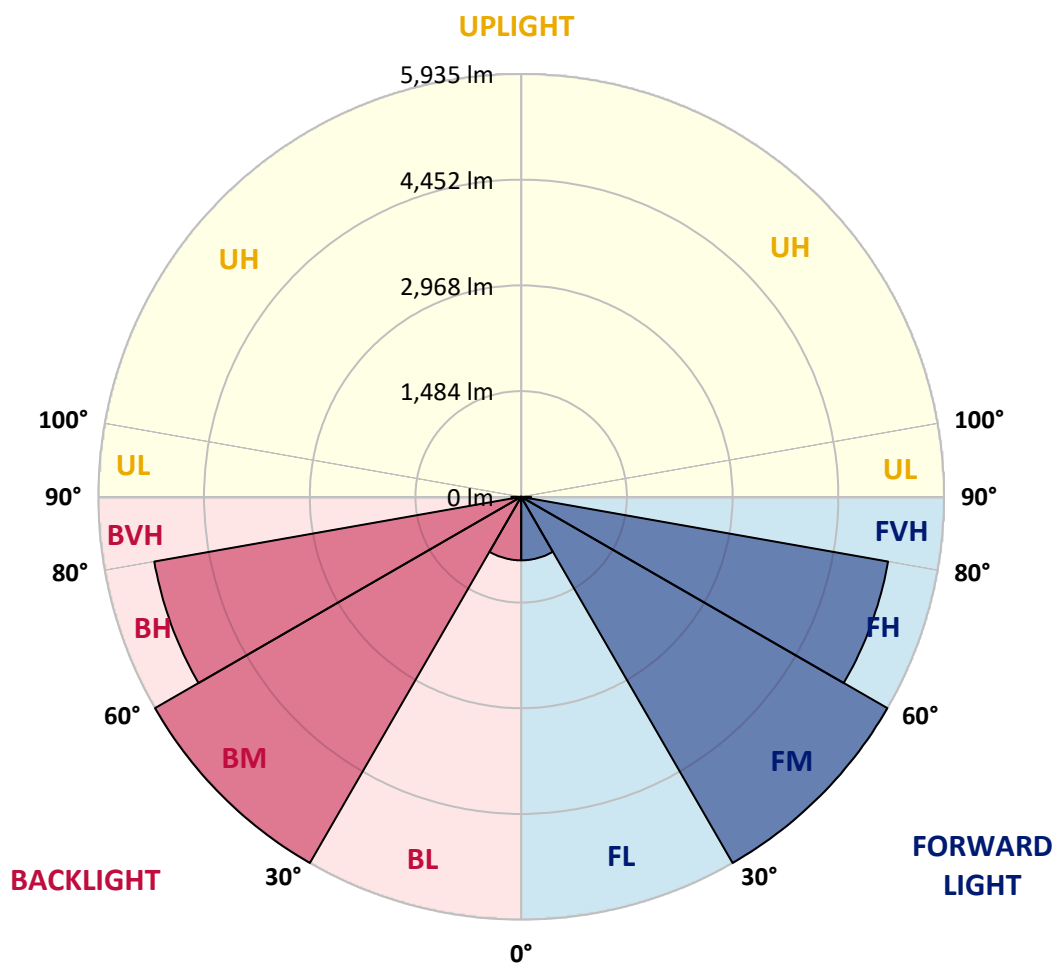
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	891.1	3.7			
FM	(30°-60°)	5935.5	24.3			
FH	(60°-80°)	5229.5	21.4			G3/7500
FVH	(80°-90°)	137.4	0.6			G2/225
BL	(0°-30°)	891.1	3.7	B2/1000		
BM	(30°-60°)	5935.5	24.3	B4/8500		
BH	(60°-80°)	5229.5	21.4	B5		G3/7500
BVH	(80°-90°)	137.4	0.6			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B5-U0-G3

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	47.5°
0°	1628.4	1628.4	1628.4	1628.4	1628.4	1628.4	1628.4	1628.4	1628.4	1628.4	1628.4
2.5°	1639.1	1636.0	1637.6	1639.1	1637.6	1636.0	1636.0	1636.0	1639.1	1636.0	1643.7
5°	1671.1	1668.1	1669.6	1669.6	1669.6	1666.5	1666.5	1666.5	1665.0	1666.5	1683.3
7.5°	1732.1	1727.5	1726.0	1729.1	1726.0	1724.5	1723.0	1723.0	1719.9	1719.9	1741.2
10°	1805.3	1799.2	1802.2	1803.8	1799.2	1796.1	1796.1	1796.1	1791.6	1790.0	1817.5
12.5°	1886.1	1883.0	1883.0	1880.0	1878.5	1875.4	1873.9	1875.4	1869.3	1869.3	1896.8
15°	1963.9	1957.8	1959.3	1954.7	1951.7	1948.6	1947.1	1945.6	1942.5	1942.5	1959.3
17.5°	2035.5	2030.9	2029.4	2024.8	2020.3	2015.7	2012.7	2011.1	2006.6	2006.6	2021.8
20°	2110.2	2105.7	2102.6	2095.0	2087.4	2082.8	2076.7	2073.6	2067.5	2069.1	2085.8
22.5°	2195.6	2188.0	2181.9	2175.8	2162.1	2152.9	2145.3	2139.2	2136.2	2136.2	2159.0
25°	2310.0	2305.4	2296.3	2276.4	2259.7	2245.9	2233.7	2227.6	2221.5	2218.5	2253.6
27.5°	2450.3	2445.7	2433.5	2413.7	2390.8	2367.9	2354.2	2343.5	2335.9	2331.3	2381.6
30°	2636.3	2628.6	2618.0	2586.0	2566.1	2531.1	2515.8	2500.6	2483.8	2488.4	2547.8
32.5°	3000.7	2990.0	2956.5	2921.4	2860.4	2813.1	2764.3	2727.8	2692.7	2688.1	2752.1
35°	3331.5	3327.0	3320.9	3296.5	3273.6	3244.6	3221.8	3183.6	3151.6	3144.0	3323.9
37.5°	3509.9	3520.6	3511.5	3508.4	3508.4	3522.1	3564.8	3607.5	3638.0	3656.3	3756.9
40°	3782.9	3782.9	3772.2	3766.1	3753.9	3772.2	3790.5	3822.5	3836.2	3837.8	3939.9
42.5°	4092.4	4093.9	4083.2	4064.9	4058.8	4075.6	4100.0	4130.5	4148.8	4153.4	4272.3
45°	4437.0	4432.4	4423.3	4417.2	4421.7	4437.0	4466.0	4525.4	4552.9	4574.2	4703.8
47.5°	4810.5	4841.0	4815.1	4819.7	4819.7	4867.0	4932.5	4981.3	5025.5	5066.7	5203.9
50°	5300.0	5304.6	5309.1	5322.9	5332.0	5394.5	5476.9	5534.8	5598.8	5652.2	5876.3
52.5°	5954.1	5944.9	5967.8	5983.1	6034.9	6068.4	6205.7	6278.9	6367.3	6435.9	6763.7
55°	6736.3	6731.7	6765.3	6777.5	6846.1	6928.4	7080.9	7241.0	7391.9	7475.8	7924.1
57.5°	7297.4	7309.6	7367.5	7448.3	7582.5	7757.9	7985.0	8338.8	8625.4	8716.9	9210.9
60°	7420.9	7460.5	7547.4	7709.1	7939.3	8265.6	8712.3	9253.6	9778.1	9953.5	10417.0
62.5°	7074.8	7120.5	7248.6	7442.2	7742.6	8226.0	8870.9	9634.8	10413.9	10804.3	11037.6
63°	6965.0	7021.4	7117.5	7341.6	7646.6	8123.8	8809.9	9633.3	10441.4	10866.8	11049.8
65°	6449.6	6460.3	6603.6	6827.8	7170.8	7666.4	8358.6	9310.0	10206.6	10697.5	10571.0
67.5°	5550.0	5594.3	5714.7	5940.4	6274.3	6789.6	7541.3	8421.1	9209.4	9601.3	9035.6
70°	4484.2	4481.2	4630.6	4812.1	5106.3	5559.2	6217.9	7012.3	7637.4	7922.5	6975.7
72.5°	3203.5	3124.2	3234.0	3435.2	3676.1	4037.5	4559.0	5176.5	5736.1	5983.1	5100.2
75°	1459.2	1437.8	1535.4	1735.1	1979.1	2300.8	2729.3	3262.9	3799.6	4089.3	3249.2
77.5°	491.0	497.1	535.2	606.8	738.0	899.6	1166.4	1508.0	1942.5	2229.2	1524.7
80°	329.3	338.5	350.7	361.4	376.6	401.0	458.9	547.4	681.6	824.9	481.8
82.5°	269.9	280.6	308.0	320.2	329.3	337.0	341.5	347.6	347.6	350.7	304.9
85°	193.6	211.9	248.5	271.4	280.6	286.7	294.3	303.4	289.7	277.5	236.3
87.5°	67.1	91.5	134.2	147.9	158.6	160.1	170.8	189.1	179.9	146.4	71.7
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):

	50°	55°	60°	65°	70°	75°	80°	85°	90°
0°	1628.4	1628.4	1628.4	1628.4	1628.4	1628.4	1628.4	1628.4	1628.4
2.5°	1636.0	1634.5	1636.0	1637.6	1637.6	1637.6	1639.1	1640.6	1640.6
5°	1666.5	1668.1	1666.5	1668.1	1668.1	1669.6	1669.6	1672.6	1672.6
7.5°	1718.4	1721.4	1719.9	1723.0	1723.0	1726.0	1724.5	1729.1	1729.1
10°	1788.5	1791.6	1794.6	1796.1	1794.6	1797.7	1800.7	1802.2	1800.7
12.5°	1867.8	1869.3	1867.8	1870.9	1870.9	1873.9	1873.9	1878.5	1878.5
15°	1941.0	1939.5	1937.9	1942.5	1945.6	1947.1	1950.1	1954.7	1950.1
17.5°	2006.6	2008.1	2005.0	2009.6	2015.7	2020.3	2023.3	2029.4	2027.9
20°	2072.1	2069.1	2072.1	2079.7	2085.8	2091.9	2098.0	2107.2	2105.7
22.5°	2136.2	2139.2	2146.8	2152.9	2163.6	2172.7	2180.4	2192.6	2197.1
25°	2226.1	2226.1	2238.3	2245.9	2261.2	2273.4	2290.2	2303.9	2311.5
27.5°	2340.5	2340.5	2354.2	2371.0	2393.8	2415.2	2433.5	2451.8	2448.7
30°	2496.0	2503.6	2515.8	2537.2	2567.7	2593.6	2618.0	2636.3	2637.8
32.5°	2700.3	2709.5	2746.0	2800.9	2865.0	2913.8	2950.4	2994.6	3000.7
35°	3163.8	3186.7	3234.0	3278.2	3304.1	3333.1	3351.4	3352.9	3355.9
37.5°	3651.7	3612.1	3575.5	3542.0	3526.7	3523.7	3523.7	3529.8	3532.8
40°	3830.1	3810.3	3793.5	3772.2	3778.3	3776.8	3787.4	3796.6	3802.7
42.5°	4135.1	4119.8	4104.6	4077.1	4092.4	4087.8	4103.1	4116.8	4124.4
45°	4560.5	4513.2	4479.7	4435.5	4450.7	4441.6	4441.6	4458.3	4461.4
47.5°	5030.1	4975.2	4906.6	4851.7	4833.4	4816.6	4831.9	4831.9	4815.1
50°	5592.7	5527.2	5446.4	5357.9	5327.4	5310.7	5316.8	5324.4	5277.1
52.5°	6356.6	6283.4	6169.1	6034.9	6005.9	5992.2	5989.2	5978.5	5966.3
55°	7391.9	7254.7	7114.4	6937.5	6884.2	6868.9	6870.5	6858.3	6887.2
57.5°	8613.2	8412.0	8088.7	7873.7	7745.7	7696.9	7652.7	7634.4	7635.9
60°	9822.4	9412.2	8928.9	8553.8	8285.4	8114.6	7980.5	7905.8	7884.4
62.5°	10601.5	9956.5	9230.8	8622.4	8181.7	7899.7	7687.7	7553.5	7510.9
63°	10662.5	9979.4	9203.3	8550.7	8087.2	7791.4	7568.8	7430.0	7384.3
65°	10529.8	9749.2	8845.0	8067.4	7559.6	7231.8	6990.9	6859.8	6824.7
67.5°	9499.1	8849.6	7928.6	7125.1	6612.8	6280.4	6004.4	5879.4	5839.7
70°	7727.4	7282.1	6527.4	5841.3	5364.0	5043.8	4764.8	4661.1	4659.6
72.5°	5728.4	5150.6	4700.8	4197.6	3781.3	3526.7	3284.3	3168.4	3110.5
75°	3789.0	3169.9	2666.8	2242.9	1828.2	1599.4	1326.5	1209.1	1140.5
77.5°	1909.0	1415.0	1013.9	702.9	545.9	448.3	410.2	390.3	388.8
80°	635.8	477.2	410.2	384.2	376.6	378.1	373.6	365.9	356.8
82.5°	352.2	370.5	373.6	362.9	362.9	356.8	350.7	321.7	306.5
85°	301.9	332.4	335.4	329.3	327.8	318.7	308.0	268.4	245.5
87.5°	189.1	218.0	213.5	190.6	210.4	196.7	186.0	120.5	88.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)