

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: P157394

Luminaire Tested: **VST-F09-LED-E-U-5MQ-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P157394
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-7030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(9) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE MEDIUM
Light Source: (63) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21707.3 lumens
Efficiency: N/A
Efficacy: 92.5 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B4 - U0 - G2

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

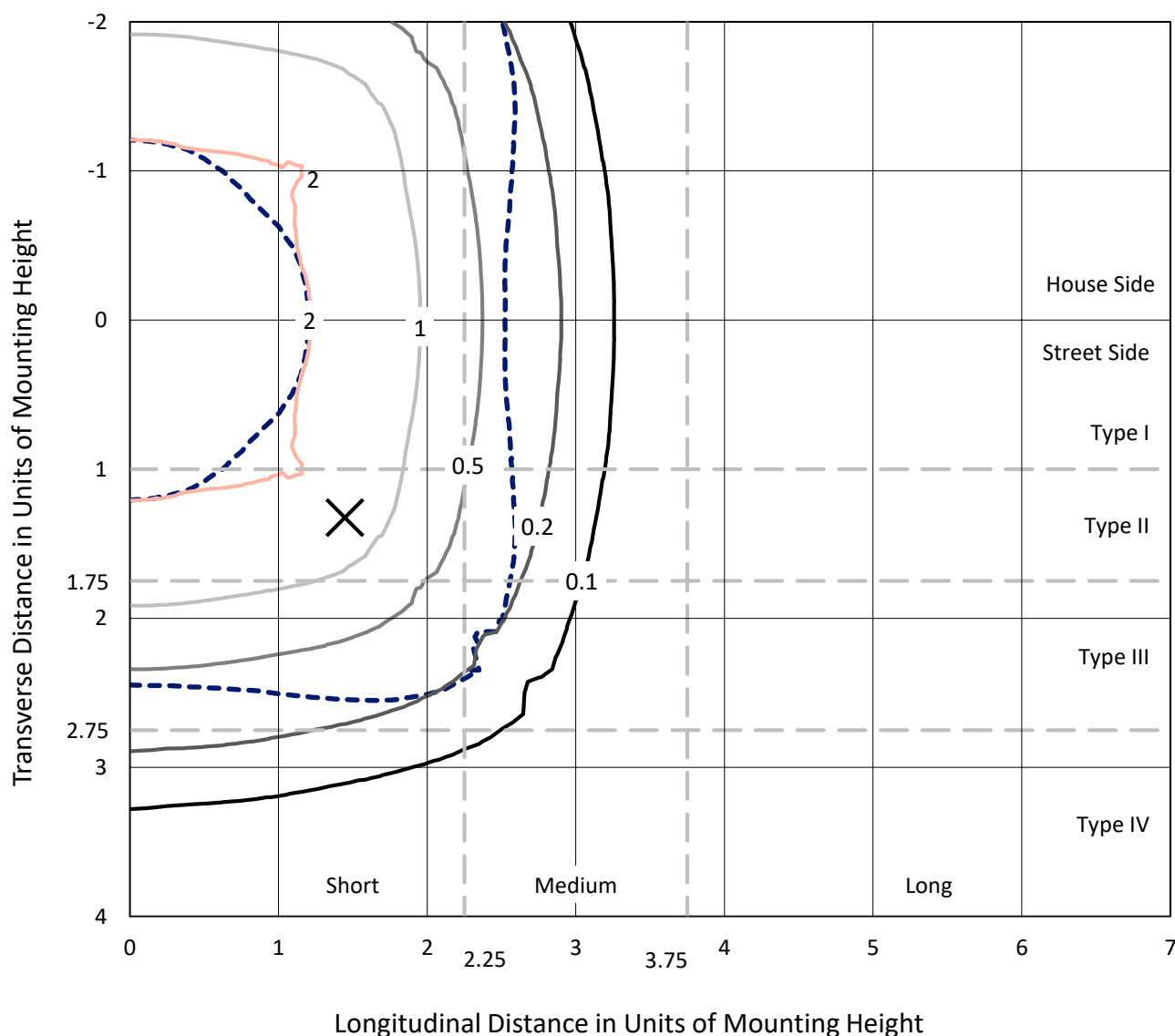


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 --- 1/2 Max cd

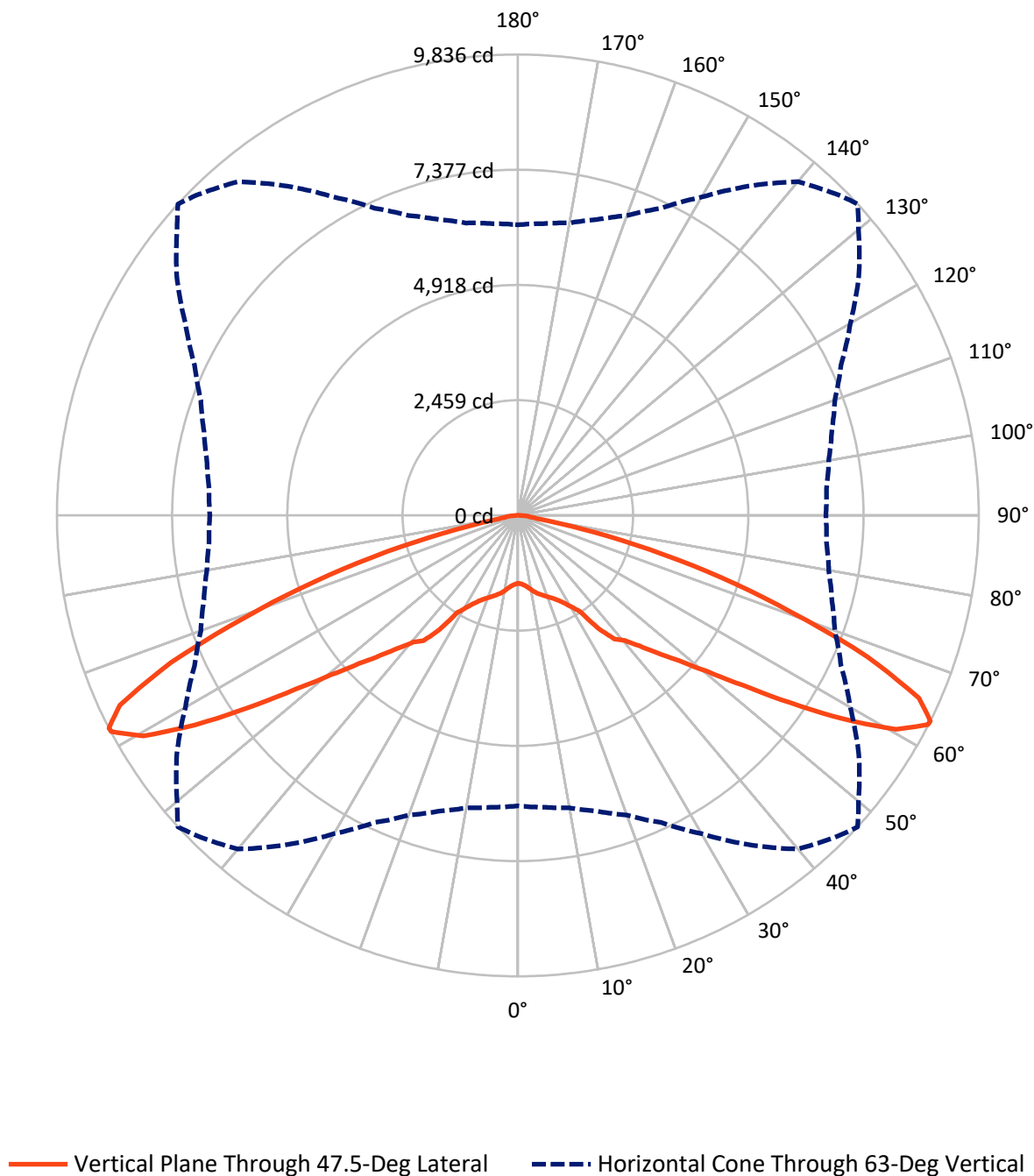


Based on 25 foot mounting height. Maximum calculated value = 2.5 fc
 Type V - Short - Full Cutoff

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Luminous Intensity Polar Plot



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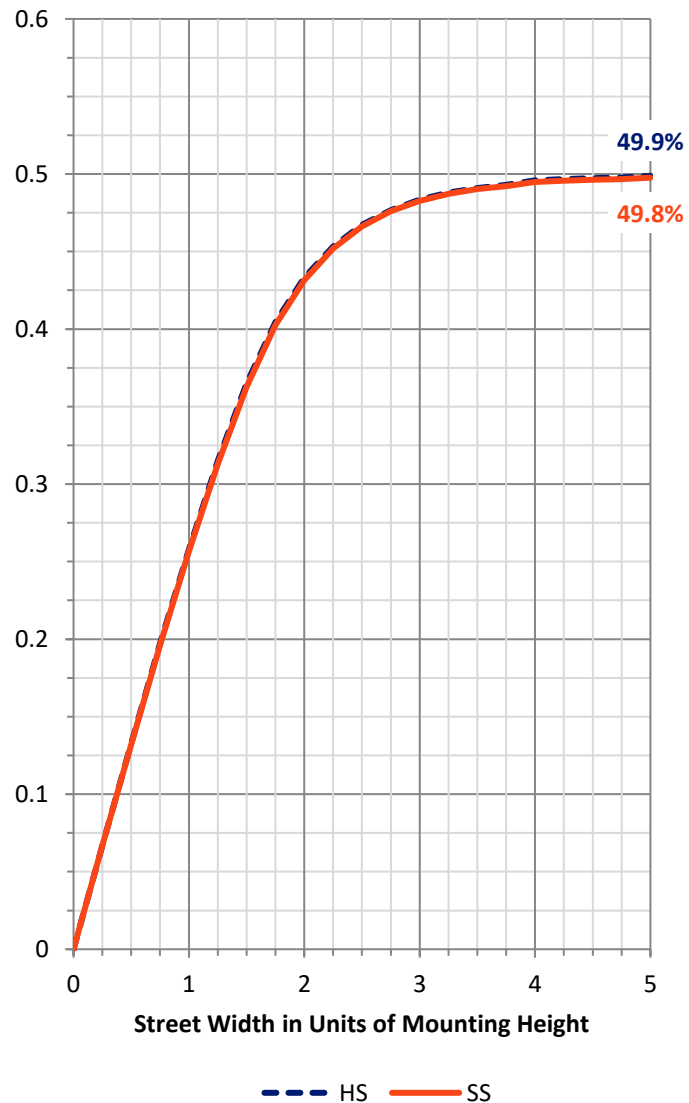
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	10853.6	0.0	10853.6
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	10853.6	0.0	10853.6
	% Fixture	50.0	0.0	50.0
Total	Lumens	21707.3	0.0	21707.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	145.5	0.7
10°-20°	494.7	2.3
20°-30°	946.2	4.4
30°-40°	1810.0	8.3
40°-50°	3131.9	14.4
50°-60°	5624.6	25.9
60°-70°	6839.6	31.5
70°-80°	2470.1	11.4
80°-90°	244.6	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°	21707.3	100.0
0°-180°	21707.3	100.0

Coefficient of Utilization



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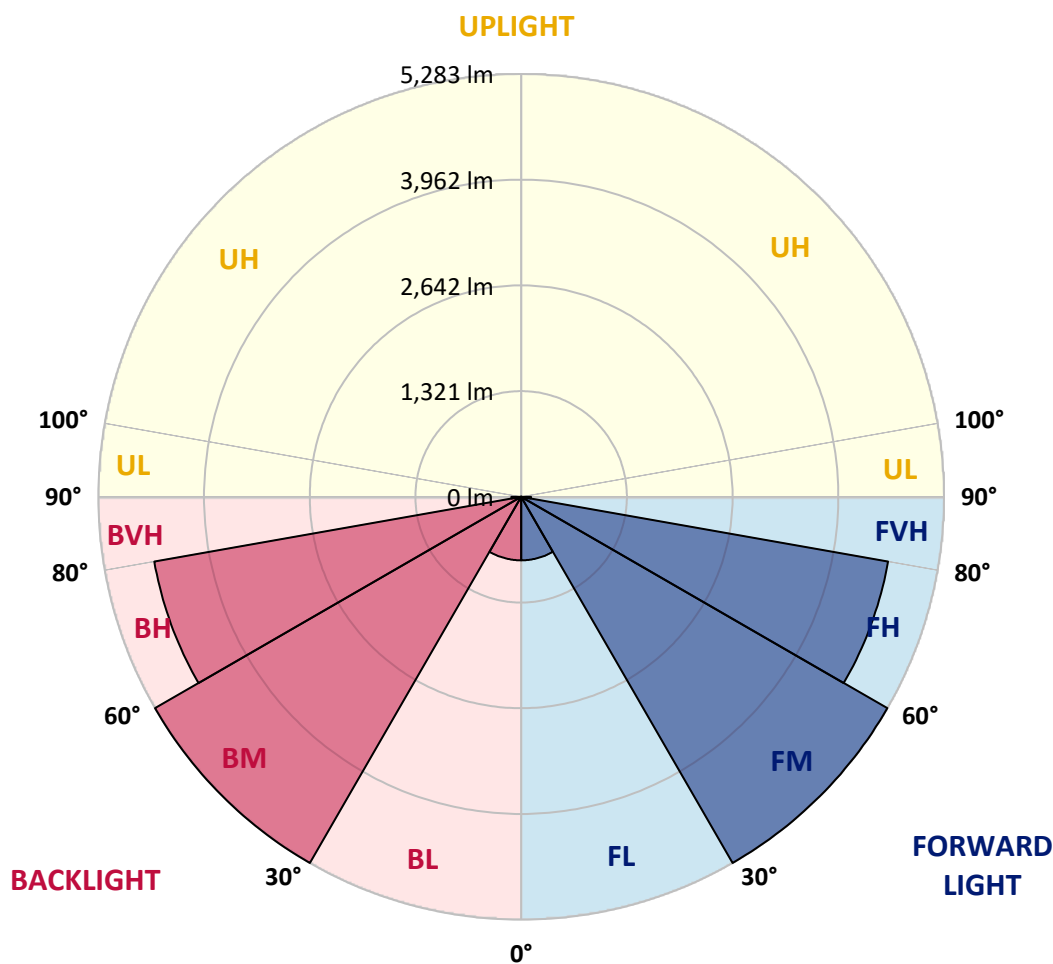
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	793.2	3.7			
FM	(30°-60°)	5283.2	24.3			
FH	(60°-80°)	4654.9	21.4			G2/5000
FVH	(80°-90°)	122.3	0.6			G2/225
BL	(0°-30°)	793.2	3.7	B2/1000		
BM	(30°-60°)	5283.2	24.3	B4/8500		
BH	(60°-80°)	4654.9	21.4	B4/5000		G2/5000
BVH	(80°-90°)	122.3	0.6			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G2

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	47.5°
0°	1449.5	1449.5	1449.5	1449.5	1449.5	1449.5	1449.5	1449.5	1449.5	1449.5	1449.5
2.5°	1459.0	1456.3	1457.6	1459.0	1457.6	1456.3	1456.3	1456.3	1459.0	1456.3	1463.0
5°	1487.5	1484.8	1486.1	1486.1	1486.1	1483.4	1483.4	1483.4	1482.0	1483.4	1498.3
7.5°	1541.8	1537.7	1536.3	1539.1	1536.3	1535.0	1533.6	1533.6	1530.9	1530.9	1549.9
10°	1606.9	1601.5	1604.2	1605.6	1601.5	1598.8	1598.8	1598.8	1594.7	1593.3	1617.8
12.5°	1678.8	1676.1	1676.1	1673.4	1672.1	1669.3	1668.0	1669.3	1663.9	1663.9	1688.3
15°	1748.1	1742.6	1744.0	1739.9	1737.2	1734.5	1733.1	1731.8	1729.1	1729.1	1744.0
17.5°	1811.8	1807.8	1806.4	1802.3	1798.3	1794.2	1791.5	1790.1	1786.1	1786.1	1799.6
20°	1878.3	1874.3	1871.6	1864.8	1858.0	1853.9	1848.5	1845.8	1840.3	1841.7	1856.6
22.5°	1954.4	1947.6	1942.1	1936.7	1924.5	1916.3	1909.6	1904.1	1901.4	1901.4	1921.8
25°	2056.1	2052.1	2043.9	2026.3	2011.4	1999.1	1988.3	1982.9	1977.4	1974.7	2005.9
27.5°	2181.0	2176.9	2166.1	2148.4	2128.1	2107.7	2095.5	2086.0	2079.2	2075.1	2119.9
30°	2346.6	2339.8	2330.3	2301.8	2284.1	2252.9	2239.4	2225.8	2210.9	2214.9	2267.9
32.5°	2670.9	2661.4	2631.6	2600.4	2546.1	2504.0	2460.6	2428.0	2396.8	2392.7	2449.7
35°	2965.5	2961.4	2956.0	2934.2	2913.9	2888.1	2867.7	2833.8	2805.3	2798.5	2958.7
37.5°	3124.2	3133.7	3125.6	3122.9	3122.9	3135.1	3173.1	3211.1	3238.3	3254.5	3344.1
40°	3367.2	3367.2	3357.7	3352.3	3341.4	3357.7	3374.0	3402.5	3414.7	3416.0	3507.0
42.5°	3642.7	3644.1	3634.6	3618.3	3612.8	3627.8	3649.5	3676.6	3692.9	3697.0	3802.8
45°	3949.4	3945.3	3937.2	3931.8	3935.8	3949.4	3975.2	4028.1	4052.6	4071.6	4186.9
47.5°	4281.9	4309.1	4286.0	4290.1	4290.1	4332.1	4390.5	4433.9	4473.3	4509.9	4632.1
50°	4717.6	4721.7	4725.7	4737.9	4746.1	4801.7	4875.0	4926.6	4983.6	5031.1	5230.6
52.5°	5299.8	5291.7	5312.0	5325.6	5371.8	5401.6	5523.8	5588.9	5667.6	5728.7	6020.5
55°	5996.1	5992.0	6021.8	6032.7	6093.8	6167.1	6302.8	6445.3	6579.6	6654.3	7053.3
57.5°	6495.5	6506.4	6557.9	6629.9	6749.3	6905.4	7107.6	7422.5	7677.6	7759.0	8198.8
60°	6605.4	6640.7	6718.1	6861.9	7066.9	7357.3	7755.0	8236.8	8703.6	8859.7	9272.3
62.5°	6297.4	6338.1	6452.1	6624.4	6891.8	7322.0	7896.1	8576.1	9269.6	9617.0	9824.7
63°	6199.6	6249.9	6335.4	6534.9	6806.3	7231.1	7841.8	8574.7	9294.0	9672.7	9835.5
65°	5740.9	5750.4	5878.0	6077.5	6382.9	6823.9	7440.1	8287.0	9085.0	9522.0	9409.4
67.5°	4940.2	4979.5	5086.7	5287.6	5584.8	6043.6	6712.7	7495.8	8197.4	8546.2	8042.7
70°	3991.5	3988.8	4121.8	4283.3	4545.2	4948.3	5534.6	6241.7	6798.2	7052.0	6209.1
72.5°	2851.5	2780.9	2878.6	3057.7	3272.2	3593.8	4058.0	4607.7	5105.7	5325.6	4539.8
75°	1298.8	1279.8	1366.7	1544.5	1761.6	2048.0	2429.4	2904.4	3382.1	3640.0	2892.2
77.5°	437.0	442.4	476.4	540.2	656.9	800.7	1038.2	1342.3	1729.1	1984.2	1357.2
80°	293.2	301.3	312.2	321.7	335.2	356.9	408.5	487.2	606.7	734.2	428.9
82.5°	240.2	249.7	274.2	285.0	293.2	299.9	304.0	309.4	309.4	312.2	271.4
85°	172.4	188.6	221.2	241.6	249.7	255.2	261.9	270.1	257.9	247.0	210.4
87.5°	59.7	81.4	119.4	131.6	141.1	142.5	152.0	168.3	160.1	130.3	63.8
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°	1449.5	1449.5	1449.5	1449.5	1449.5	1449.5	1449.5	1449.5	1449.5
2.5°	1456.3	1454.9	1456.3	1457.6	1457.6	1457.6	1459.0	1460.3	1460.3
5°	1483.4	1484.8	1483.4	1484.8	1484.8	1486.1	1486.1	1488.8	1488.8
7.5°	1529.6	1532.3	1530.9	1533.6	1533.6	1536.3	1535.0	1539.1	1539.1
10°	1592.0	1594.7	1597.4	1598.8	1597.4	1600.1	1602.8	1604.2	1602.8
12.5°	1662.6	1663.9	1662.6	1665.3	1665.3	1668.0	1668.0	1672.1	1672.1
15°	1727.7	1726.3	1725.0	1729.1	1731.8	1733.1	1735.8	1739.9	1735.8
17.5°	1786.1	1787.4	1784.7	1788.8	1794.2	1798.3	1801.0	1806.4	1805.1
20°	1844.4	1841.7	1844.4	1851.2	1856.6	1862.1	1867.5	1875.6	1874.3
22.5°	1901.4	1904.1	1910.9	1916.3	1925.9	1934.0	1940.8	1951.6	1955.7
25°	1981.5	1981.5	1992.4	1999.1	2012.7	2023.6	2038.5	2050.7	2057.5
27.5°	2083.3	2083.3	2095.5	2110.4	2130.8	2149.8	2166.1	2182.4	2179.6
30°	2221.7	2228.5	2239.4	2258.4	2285.5	2308.6	2330.3	2346.6	2347.9
32.5°	2403.6	2411.7	2444.3	2493.2	2550.2	2593.6	2626.2	2665.5	2670.9
35°	2816.2	2836.5	2878.6	2918.0	2941.0	2966.8	2983.1	2984.5	2987.2
37.5°	3250.5	3215.2	3182.6	3152.7	3139.2	3136.5	3136.5	3141.9	3144.6
40°	3409.3	3391.6	3376.7	3357.7	3363.1	3361.8	3371.3	3379.4	3384.8
42.5°	3680.7	3667.1	3653.6	3629.1	3642.7	3638.6	3652.2	3664.4	3671.2
45°	4059.4	4017.3	3987.4	3948.1	3961.6	3953.5	3953.5	3968.4	3971.1
47.5°	4477.4	4428.5	4367.4	4318.6	4302.3	4287.4	4300.9	4300.9	4286.0
50°	4978.2	4919.8	4847.9	4769.2	4742.0	4727.1	4732.5	4739.3	4697.2
52.5°	5658.1	5593.0	5491.2	5371.8	5346.0	5333.7	5331.0	5321.5	5310.7
55°	6579.6	6457.5	6332.6	6175.2	6127.7	6114.1	6115.5	6104.6	6130.4
57.5°	7666.8	7487.6	7199.9	7008.5	6894.5	6851.1	6811.7	6795.4	6796.8
60°	8743.0	8377.9	7947.7	7613.8	7375.0	7223.0	7103.5	7037.0	7018.0
62.5°	9436.5	8862.4	8216.4	7674.9	7282.7	7031.6	6842.9	6723.5	6685.5
63°	9490.8	8882.8	8192.0	7611.1	7198.5	6935.2	6737.1	6613.6	6572.9
65°	9372.7	8677.9	7873.0	7180.9	6728.9	6437.1	6222.7	6106.0	6074.8
67.5°	8455.3	7877.1	7057.4	6342.1	5886.1	5590.3	5344.6	5233.3	5198.0
70°	6878.2	6481.9	5810.1	5199.4	4774.6	4489.6	4241.2	4148.9	4147.6
72.5°	5099.0	4584.6	4184.2	3736.3	3365.8	3139.2	2923.4	2820.2	2768.7
75°	3372.6	2821.6	2373.7	1996.4	1627.3	1423.7	1180.8	1076.3	1015.2
77.5°	1699.2	1259.5	902.5	625.7	485.9	399.0	365.1	347.4	346.1
80°	565.9	424.8	365.1	342.0	335.2	336.6	332.5	325.7	317.6
82.5°	313.5	329.8	332.5	323.0	323.0	317.6	312.2	286.4	272.8
85°	268.7	295.9	298.6	293.2	291.8	283.7	274.2	238.9	218.5
87.5°	168.3	194.1	190.0	169.6	187.3	175.1	165.6	107.2	78.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)