

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: P157389

Luminaire Tested: **VST-E09-LED-E-U-5MQ-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P157389
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-E09-LED-E-U-5MQ-7030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(9) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE MEDIUM
Light Source: (189) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 26295.1 lumens
Efficiency: N/A
Efficacy: 116.5 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): 225.7
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

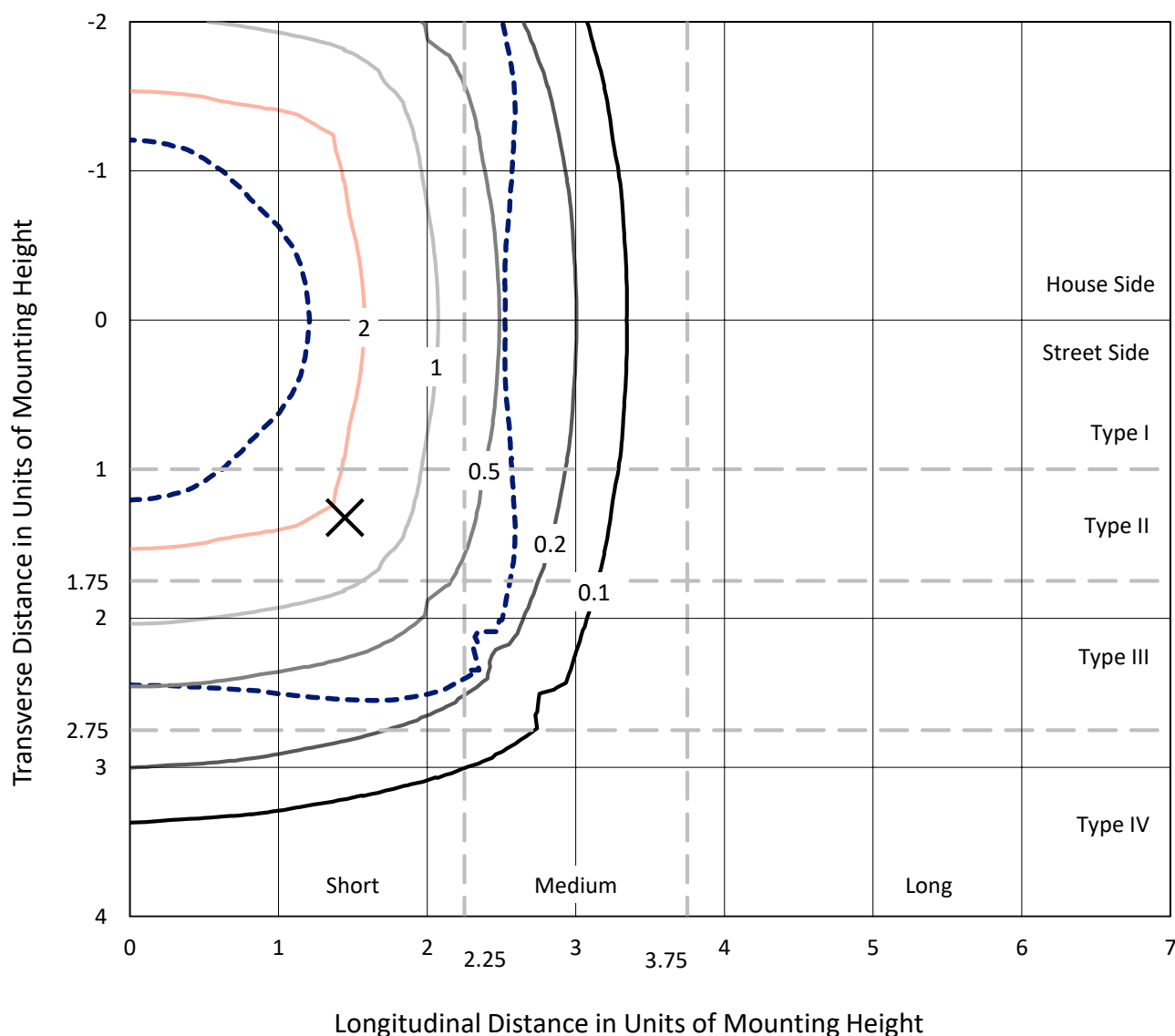


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 --- 1/2 Max cd

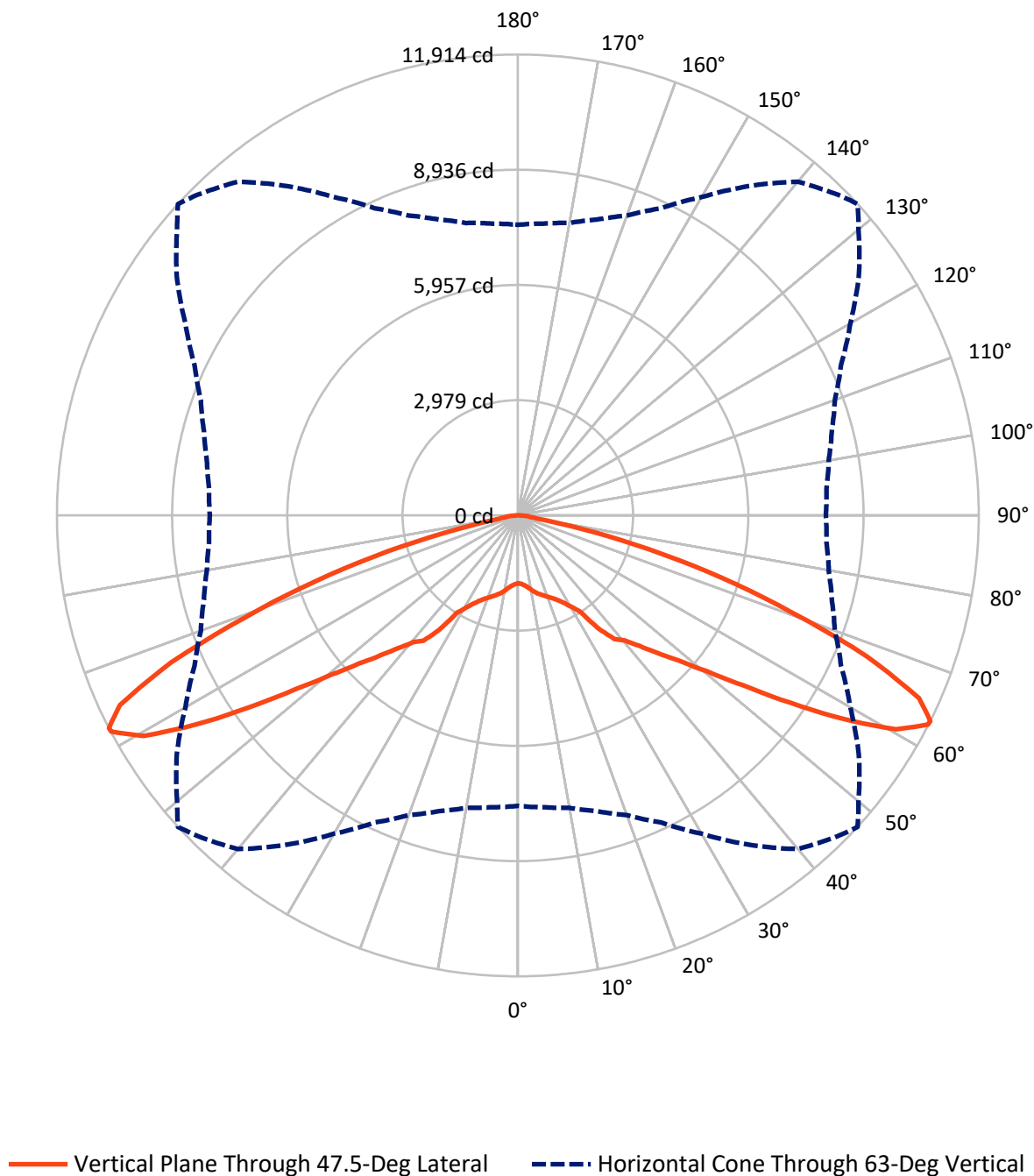


Based on 25 foot mounting height. Maximum calculated value = 3.1 fc
 Type V - Short - Full Cutoff

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Luminous Intensity Polar Plot



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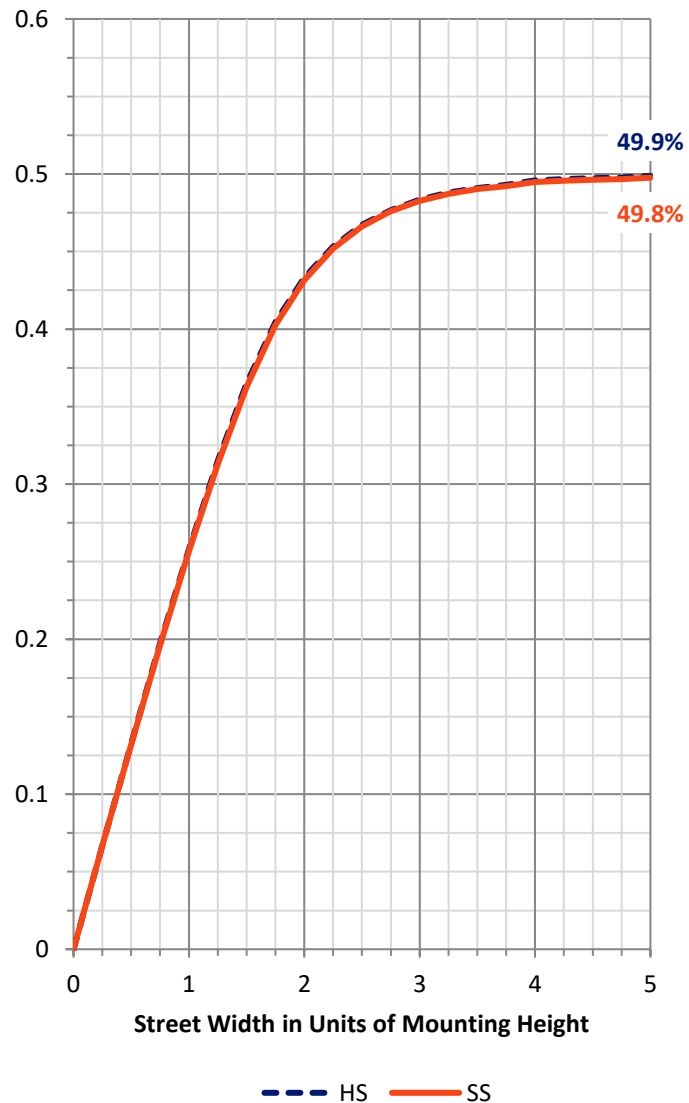
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	13147.6	0.0	13147.6
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	13147.6	0.0	13147.6
	% Fixture	50.0	0.0	50.0
Total	Lumens	26295.1	0.0	26295.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	176.3	0.7
10°-20°	599.2	2.3
20°-30°	1146.2	4.4
30°-40°	2192.5	8.3
40°-50°	3793.8	14.4
50°-60°	6813.4	25.9
60°-70°	8285.2	31.5
70°-80°	2992.2	11.4
80°-90°	296.4	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°	26295.1	100.0
0°-180°	26295.1	100.0

Coefficient of Utilization



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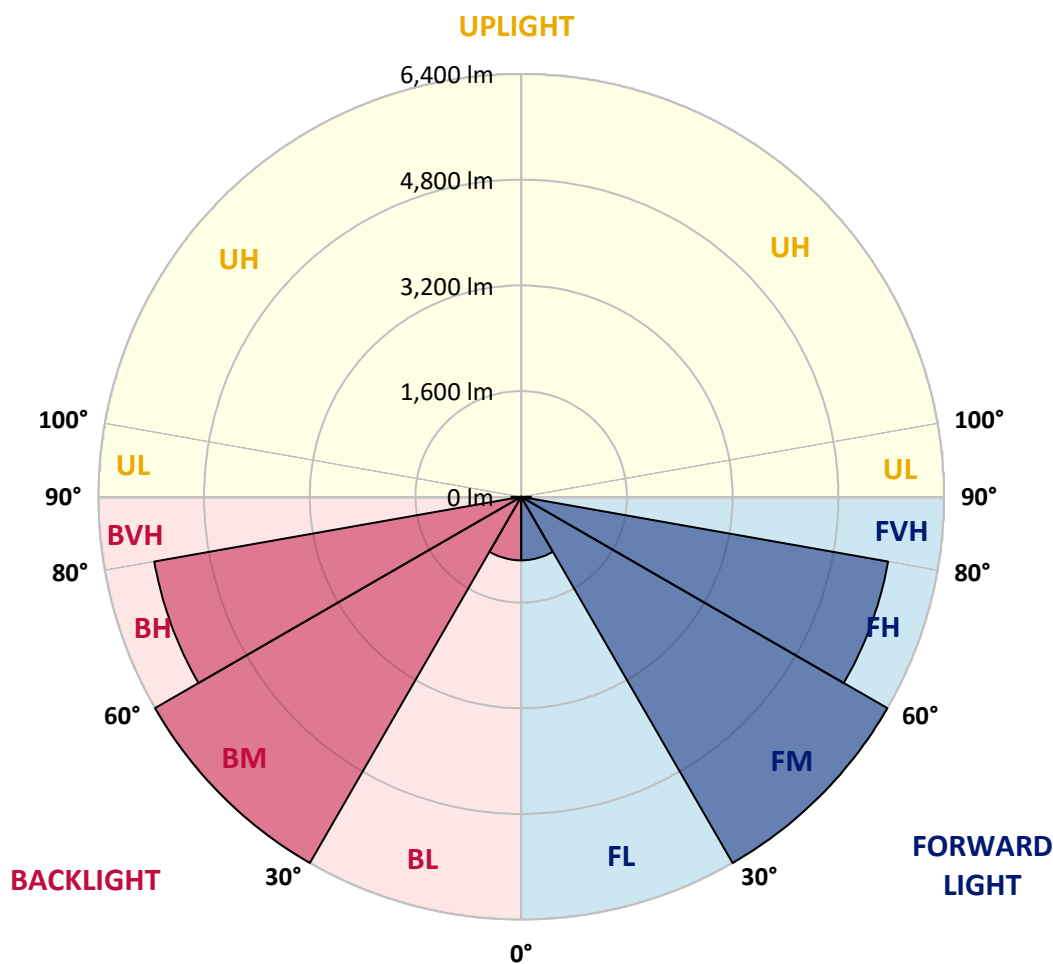
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	960.8	3.7			
FM	(30°-60°)	6399.9	24.3			
FH	(60°-80°)	5638.7	21.4			G3/7500
FVH	(80°-90°)	148.2	0.6			G2/225
BL	(0°-30°)	960.8	3.7	B2/1000		
BM	(30°-60°)	6399.9	24.3	B4/8500		
BH	(60°-80°)	5638.7	21.4	B5		G3/7500
BVH	(80°-90°)	148.2	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°	1755.8	1755.8	1755.8	1755.8	1755.8	1755.8	1755.8	1755.8	1755.8	1755.8	1755.8
2.5°	1767.3	1764.0	1765.7	1767.3	1765.7	1764.0	1764.0	1764.0	1767.3	1764.0	1772.3
5°	1801.9	1798.6	1800.2	1800.2	1800.2	1796.9	1796.9	1796.9	1795.3	1796.9	1815.0
7.5°	1867.6	1862.7	1861.0	1864.3	1861.0	1859.4	1857.8	1857.8	1854.5	1854.5	1877.5
10°	1946.5	1940.0	1943.2	1944.9	1940.0	1936.7	1936.7	1936.7	1931.7	1930.1	1959.7
12.5°	2033.7	2030.4	2030.4	2027.1	2025.4	2022.2	2020.5	2022.2	2015.6	2015.6	2045.2
15°	2117.5	2110.9	2112.6	2107.6	2104.4	2101.1	2099.4	2097.8	2094.5	2094.5	2112.6
17.5°	2194.8	2189.8	2188.2	2183.3	2178.3	2173.4	2170.1	2168.5	2163.5	2163.5	2180.0
20°	2275.3	2270.4	2267.1	2258.9	2250.7	2245.7	2239.2	2235.9	2229.3	2230.9	2249.0
22.5°	2367.4	2359.2	2352.6	2346.0	2331.2	2321.4	2313.2	2306.6	2303.3	2303.3	2327.9
25°	2490.7	2485.8	2475.9	2454.5	2436.5	2421.7	2408.5	2401.9	2395.4	2392.1	2429.9
27.5°	2642.0	2637.0	2623.9	2602.5	2577.8	2553.2	2538.4	2526.9	2518.7	2513.7	2568.0
30°	2842.5	2834.3	2822.8	2788.3	2766.9	2729.1	2712.7	2696.2	2678.1	2683.1	2747.2
32.5°	3235.5	3223.9	3187.8	3150.0	3084.2	3033.2	2980.6	2941.2	2903.4	2898.4	2967.5
35°	3592.2	3587.3	3580.7	3554.4	3529.7	3498.5	3473.8	3432.7	3398.2	3390.0	3584.0
37.5°	3784.6	3796.1	3786.2	3782.9	3782.9	3797.7	3843.7	3889.8	3922.7	3942.4	4050.9
40°	4078.8	4078.8	4067.3	4060.8	4047.6	4067.3	4087.1	4121.6	4136.4	4138.0	4248.2
42.5°	4412.6	4414.2	4402.7	4383.0	4376.4	4394.5	4420.8	4453.7	4473.4	4478.3	4606.6
45°	4784.1	4779.2	4769.3	4762.8	4767.7	4784.1	4815.4	4879.5	4909.1	4932.1	5071.8
47.5°	5186.9	5219.8	5191.8	5196.8	5196.8	5247.7	5318.4	5371.0	5418.7	5463.1	5611.1
50°	5714.7	5719.6	5724.5	5739.3	5749.2	5816.6	5905.4	5967.8	6036.9	6094.4	6336.1
52.5°	6419.9	6410.1	6434.7	6451.2	6507.1	6543.2	6691.2	6770.1	6865.5	6939.5	7292.9
55°	7263.3	7258.4	7294.6	7307.7	7381.7	7470.5	7634.9	7807.5	7970.3	8060.7	8544.0
57.5°	7868.3	7881.5	7944.0	8031.1	8175.8	8364.8	8609.8	8991.2	9300.3	9398.9	9931.6
60°	8001.5	8044.2	8138.0	8312.2	8560.5	8912.3	9394.0	9977.6	10543.2	10732.2	11232.0
62.5°	7628.3	7677.6	7815.7	8024.5	8348.4	8869.5	9565.0	10388.6	11228.7	11649.6	11901.1
63°	7509.9	7570.8	7674.3	7916.0	8244.8	8759.4	9499.2	10387.0	11258.3	11717.0	11914.3
65°	6954.2	6965.8	7120.3	7362.0	7731.9	8266.2	9012.6	10038.5	11005.1	11534.5	11398.1
67.5°	5984.3	6031.9	6161.8	6405.1	6765.2	7320.9	8131.4	9080.0	9929.9	10352.5	9742.5
70°	4835.1	4831.8	4992.9	5188.6	5505.9	5994.1	6704.4	7560.9	8234.9	8542.4	7521.4
72.5°	3454.1	3368.6	3487.0	3704.0	3963.8	4353.4	4915.7	5581.5	6184.8	6451.2	5499.3
75°	1573.3	1550.3	1655.5	1870.9	2134.0	2480.8	2942.8	3518.2	4096.9	4409.3	3503.4
77.5°	529.4	536.0	577.1	654.3	795.7	970.0	1257.7	1625.9	2094.5	2403.6	1644.0
80°	355.1	365.0	378.1	389.6	406.1	432.4	494.9	590.2	734.9	889.4	519.5
82.5°	291.0	302.5	332.1	345.2	355.1	363.3	368.3	374.8	374.8	378.1	328.8
85°	208.8	228.5	268.0	292.6	302.5	309.1	317.3	327.2	312.4	299.2	254.8
87.5°	72.3	98.6	144.7	159.5	171.0	172.6	184.1	203.9	194.0	157.8	77.3
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):

	50°	55°	60°	65°	70°	75°	80°	85°	90°
0°	1755.8	1755.8	1755.8	1755.8	1755.8	1755.8	1755.8	1755.8	1755.8
2.5°	1764.0	1762.4	1764.0	1765.7	1765.7	1765.7	1767.3	1769.0	1769.0
5°	1796.9	1798.6	1796.9	1798.6	1798.6	1800.2	1800.2	1803.5	1803.5
7.5°	1852.8	1856.1	1854.5	1857.8	1857.8	1861.0	1859.4	1864.3	1864.3
10°	1928.4	1931.7	1935.0	1936.7	1935.0	1938.3	1941.6	1943.2	1941.6
12.5°	2013.9	2015.6	2013.9	2017.2	2017.2	2020.5	2020.5	2025.4	2025.4
15°	2092.9	2091.2	2089.6	2094.5	2097.8	2099.4	2102.7	2107.6	2102.7
17.5°	2163.5	2165.2	2161.9	2166.8	2173.4	2178.3	2181.6	2188.2	2186.6
20°	2234.2	2230.9	2234.2	2242.5	2249.0	2255.6	2262.2	2272.1	2270.4
22.5°	2303.3	2306.6	2314.8	2321.4	2332.9	2342.7	2351.0	2364.1	2369.0
25°	2400.3	2400.3	2413.4	2421.7	2438.1	2451.2	2469.3	2484.1	2492.4
27.5°	2523.6	2523.6	2538.4	2556.5	2581.1	2604.1	2623.9	2643.6	2640.3
30°	2691.3	2699.5	2712.7	2735.7	2768.5	2796.5	2822.8	2842.5	2844.2
32.5°	2911.6	2921.4	2960.9	3020.1	3089.1	3141.7	3181.2	3228.9	3235.5
35°	3411.4	3436.0	3487.0	3534.7	3562.6	3593.9	3613.6	3615.2	3618.5
37.5°	3937.5	3894.7	3855.3	3819.1	3802.6	3799.4	3799.4	3805.9	3809.2
40°	4129.8	4108.4	4090.3	4067.3	4073.9	4072.3	4083.8	4093.6	4100.2
42.5°	4458.6	4442.2	4425.7	4396.1	4412.6	4407.6	4424.1	4438.9	4447.1
45°	4917.3	4866.3	4830.2	4782.5	4798.9	4789.1	4789.1	4807.1	4810.4
47.5°	5423.7	5364.5	5290.5	5231.3	5211.6	5193.5	5209.9	5209.9	5191.8
50°	6030.3	5959.6	5872.5	5777.1	5744.2	5726.2	5732.7	5741.0	5690.0
52.5°	6854.0	6775.1	6651.7	6507.1	6475.8	6461.0	6457.8	6446.2	6433.1
55°	7970.3	7822.3	7671.0	7480.3	7422.8	7406.4	7408.0	7394.8	7426.1
57.5°	9287.1	9070.1	8721.6	8489.8	8351.7	8299.1	8251.4	8231.7	8233.3
60°	10590.8	10148.6	9627.4	9223.0	8933.7	8749.5	8604.9	8524.3	8501.3
62.5°	11430.9	10735.5	9953.0	9297.0	8821.9	8517.7	8289.2	8144.5	8098.5
63°	11496.7	10760.2	9923.4	9219.7	8719.9	8401.0	8161.0	8011.4	7962.0
65°	11353.7	10511.9	9537.0	8698.6	8151.1	7797.6	7537.9	7396.5	7358.7
67.5°	10242.3	9542.0	8549.0	7682.6	7130.2	6771.8	6474.2	6339.4	6296.6
70°	8331.9	7851.9	7038.1	6298.3	5783.7	5438.5	5137.6	5025.8	5024.2
72.5°	6176.6	5553.5	5068.5	4526.0	4077.2	3802.6	3541.2	3416.3	3353.8
75°	4085.4	3417.9	2875.4	2418.4	1971.2	1724.6	1430.3	1303.7	1229.7
77.5°	2058.3	1525.7	1093.3	757.9	588.6	483.3	442.2	420.9	419.2
80°	685.6	514.6	442.2	414.3	406.1	407.7	402.8	394.6	384.7
82.5°	379.8	399.5	402.8	391.3	391.3	384.7	378.1	346.9	330.5
85°	325.5	358.4	361.7	355.1	353.5	343.6	332.1	289.3	264.7
87.5°	203.9	235.1	230.2	205.5	226.9	212.1	200.6	129.9	95.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)