

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: P231308

Luminaire Tested: **ARCH-M-AF48-160-D-U-T4W-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231308
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29615)
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-T4W-7050
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 5000K, 1030mA LIGHT ENGINES WITH 24 LEDS AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18460 lumens
Efficiency: N/A
Efficacy: 114.7 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type IV - Medium - Non-Cutoff
BUG Rating: B3 - U0 - G4

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



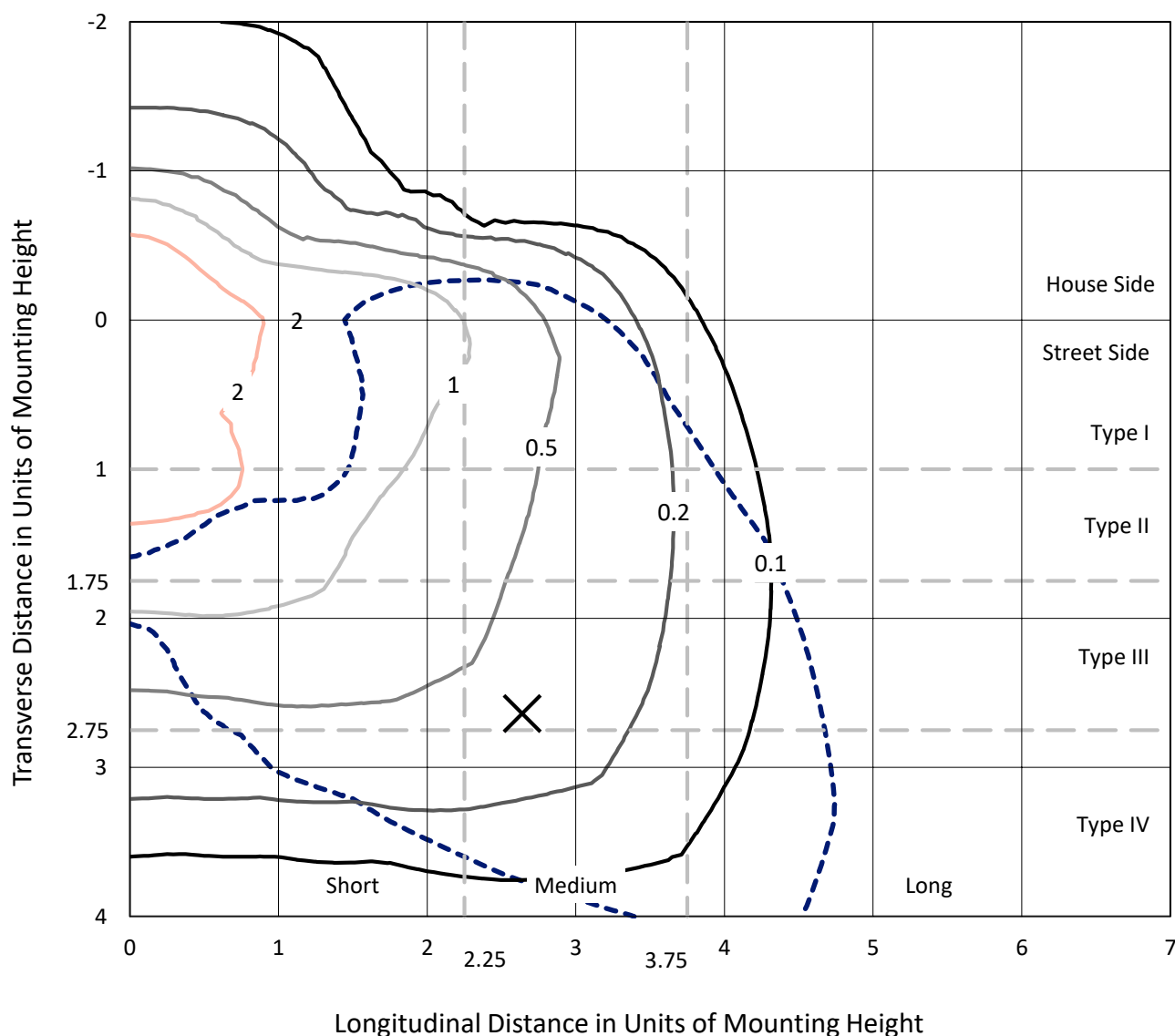
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

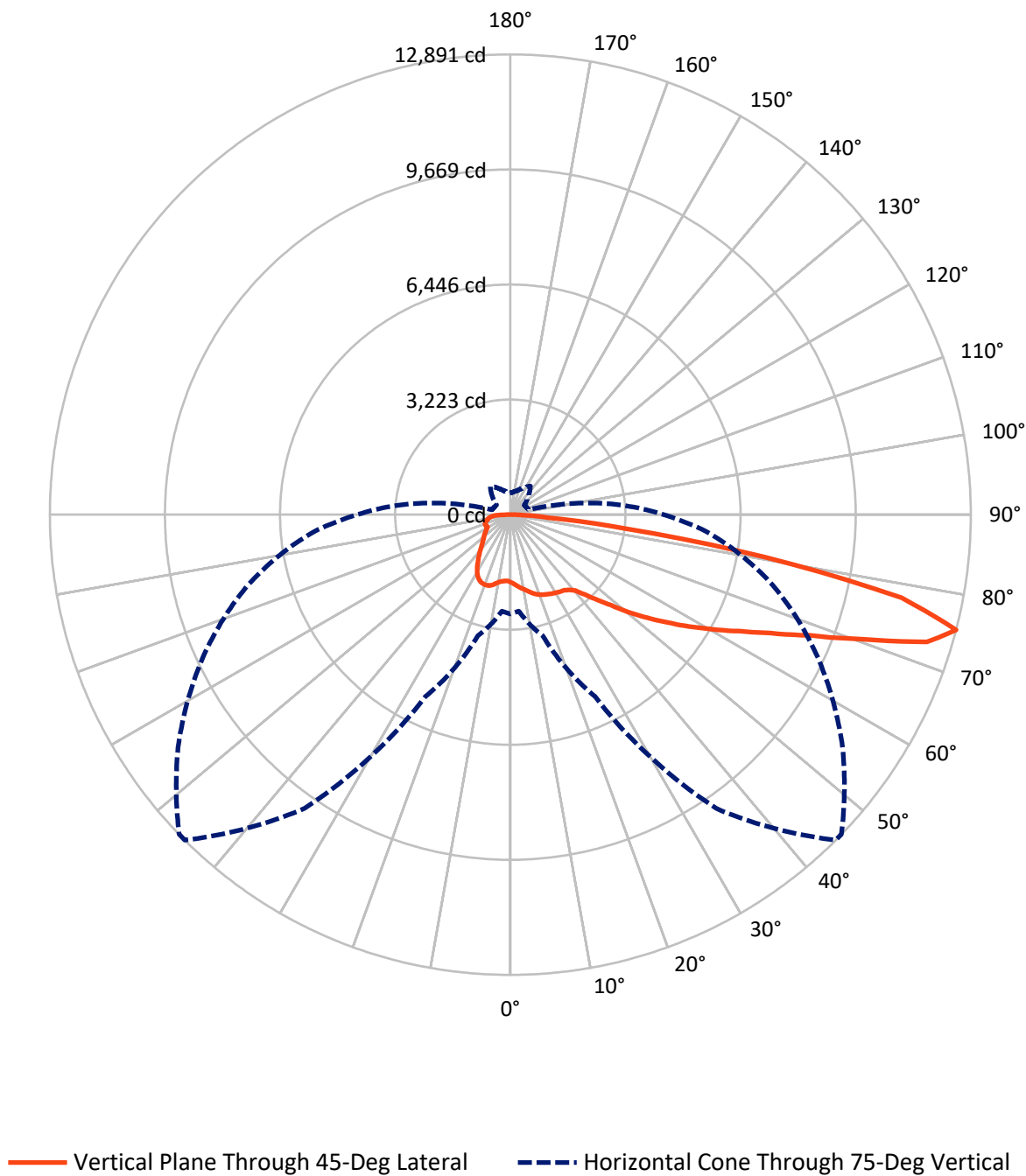


Based on 25 foot mounting height. Maximum calculated value = 3.5 fc
 Type IV - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



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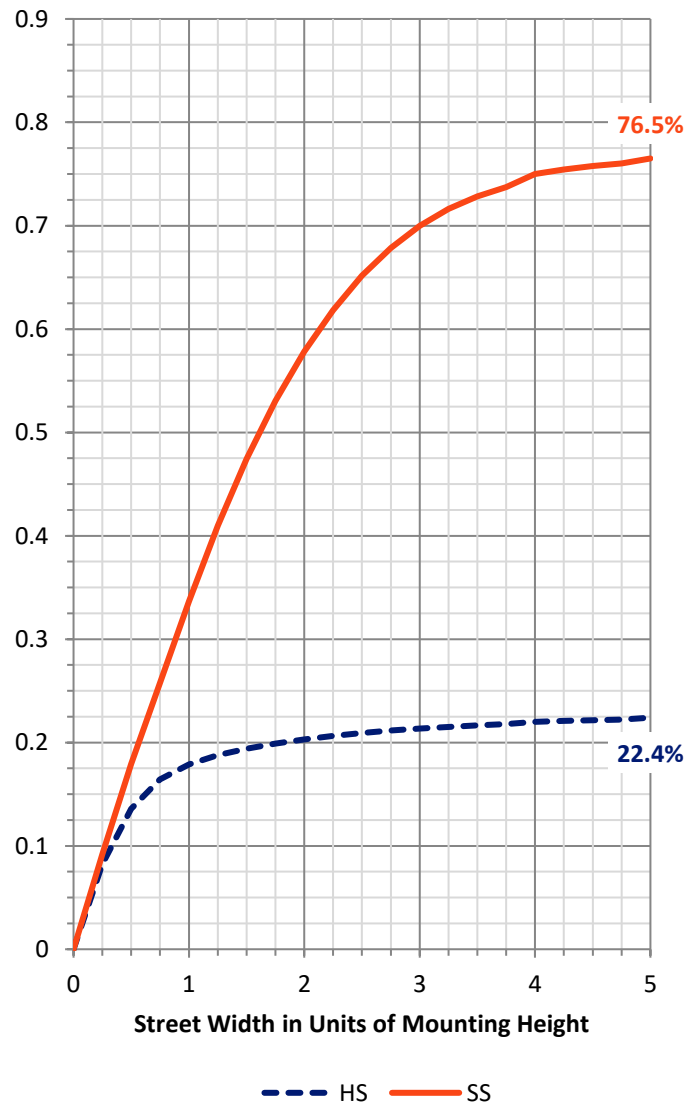
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4276.4	0.0	4276.4
	% Fixture	23.2	0.0	23.2
Street Side	Lumens	14183.6	0.0	14183.6
	% Fixture	76.8	0.0	76.8
Total	Lumens	18460.0	0.0	18460.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	187.5	1.0
10°-20°	607.7	3.3
20°-30°	1042.9	5.6
30°-40°	1458.5	7.9
40°-50°	2139.6	11.6
50°-60°	3332.9	18.1
60°-70°	4795.8	26.0
70°-80°	4177.6	22.6
80°-90°	717.5	3.9
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°	18460.0	100.0
0°-180°	18460.0	100.0

Coefficient of Utilization



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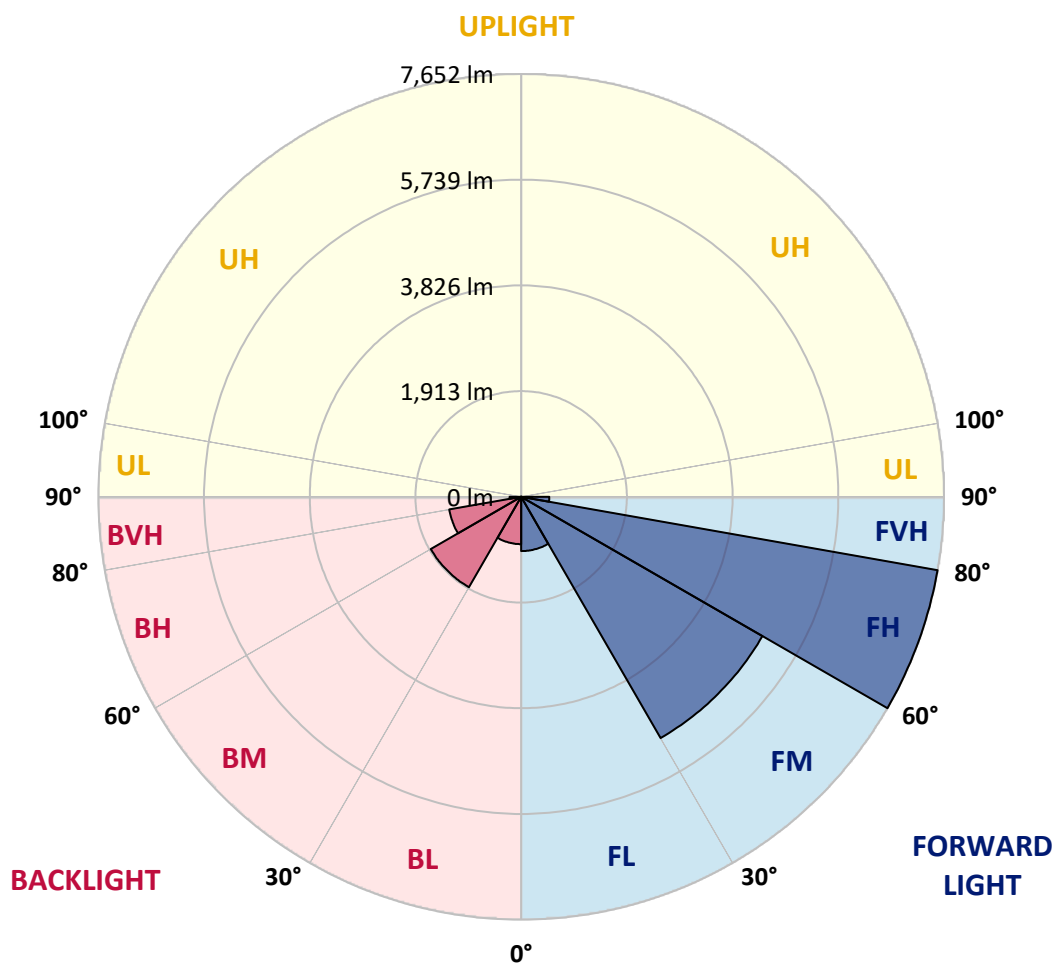
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	981.6	5.3			
FM	(30°-60°)	5041.1	27.3			
FH	(60°-80°)	7651.8	41.5			G4/12000
FVH	(80°-90°)	509.0	2.8			G4/750
BL	(0°-30°)	856.5	4.6	B2/1000		
BM	(30°-60°)	1889.9	10.2	B2/2500		
BH	(60°-80°)	1321.5	7.2	B3/2500		G3/2500
BVH	(80°-90°)	208.4	1.1			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type IV Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	1892.4	1892.4	1892.4	1892.4	1892.4	1892.4	1892.4	1892.4	1892.4	1892.4	1892.4
2.5°	1985.8	1971.4	1971.4	1960.6	1960.6	1942.7	1935.5	1931.9	1914.0	1903.2	1892.4
5°	2100.7	2082.7	2079.1	2054.0	2043.2	2003.7	2000.1	1975.0	1942.7	1910.4	1885.2
7.5°	2204.8	2194.0	2176.1	2151.0	2118.6	2068.4	2064.8	2025.3	1971.4	1928.3	1892.4
10°	2280.2	2273.0	2247.9	2215.6	2179.7	2129.4	2125.8	2082.7	2018.1	1967.8	1917.5
12.5°	2370.0	2359.2	2326.9	2283.8	2244.3	2197.6	2194.0	2158.1	2086.3	2021.7	1957.0
15°	2456.2	2441.8	2402.3	2359.2	2316.1	2276.6	2276.6	2237.1	2161.7	2086.3	2010.9
17.5°	2499.3	2492.1	2452.6	2405.9	2370.0	2341.3	2337.7	2301.8	2226.4	2147.4	2064.8
20°	2513.6	2517.2	2481.3	2431.0	2405.9	2391.5	2388.0	2362.8	2280.2	2204.8	2125.8
22.5°	2510.0	2520.8	2492.1	2438.2	2431.0	2431.0	2431.0	2402.3	2337.7	2262.3	2183.3
25°	2524.4	2538.8	2517.2	2452.6	2452.6	2467.0	2467.0	2452.6	2395.1	2330.5	2251.5
27.5°	2574.7	2585.5	2567.5	2477.7	2481.3	2502.9	2499.3	2502.9	2467.0	2405.9	2326.9
30°	2635.7	2650.1	2628.5	2517.2	2513.6	2535.2	2535.2	2553.1	2528.0	2463.4	2398.7
32.5°	2800.9	2797.3	2729.1	2560.3	2549.5	2571.1	2571.1	2589.0	2574.7	2524.4	2463.4
35°	3292.9	3239.0	3088.2	2700.4	2592.6	2603.4	2603.4	2635.7	2642.9	2603.4	2549.5
37.5°	3795.6	3777.6	3662.7	3073.8	2750.6	2671.6	2668.0	2714.7	2747.0	2714.7	2678.8
40°	4301.9	4287.6	4262.4	3573.0	3081.0	2793.7	2783.0	2822.5	2879.9	2858.4	2836.8
42.5°	4772.3	4765.1	4790.3	4064.9	3501.1	3055.9	3023.5	2976.9	3059.5	3052.3	3052.3
45°	5142.2	5160.1	5174.5	4524.6	3957.2	3393.4	3353.9	3195.9	3307.2	3336.0	3357.5
47.5°	5350.5	5364.8	5415.1	4973.4	4413.2	3784.8	3756.1	3497.6	3644.8	3731.0	3792.0
50°	5648.5	5609.0	5652.1	5411.5	4962.6	4294.7	4215.7	3903.3	4090.1	4240.9	4384.5
52.5°	5935.8	5871.1	5907.1	5917.8	5587.5	4793.9	4711.3	4380.9	4614.3	4851.3	5106.3
55°	6194.3	6190.7	6226.6	6409.8	6190.7	5328.9	5235.6	4908.8	5246.3	5501.3	5932.2
57.5°	6402.6	6438.5	6596.5	6980.7	6887.4	5910.6	5806.5	5522.8	5921.4	6176.4	6891.0
60°	6646.8	6704.2	6966.4	7465.5	7523.0	6521.1	6413.4	6208.7	6614.5	6873.0	8000.6
62.5°	6729.4	6812.0	7350.6	7975.4	8187.3	7189.0	7092.1	6955.6	7343.4	7576.8	9106.6
65°	6180.0	6338.0	7562.5	8237.6	8901.9	7993.4	7910.8	7792.3	8068.8	8223.2	9857.1
67.5°	6029.1	6101.0	7149.5	8614.6	9573.4	9027.6	8945.0	8740.3	8747.5	8682.8	10101.2
70°	5817.3	5896.3	6725.8	8898.3	10535.7	10442.4	10341.8	9738.6	9368.7	8977.3	9620.1
72.5°	4955.5	4930.3	5795.7	8133.4	10999.0	12194.7	12076.2	10812.2	9828.3	8722.3	8119.1
75°	2783.0	2711.1	3515.5	5627.0	10043.8	12891.4	12887.8	11354.5	9505.2	7598.4	5526.4
77.5°	808.0	786.4	1159.9	2359.2	6761.7	11200.1	11336.5	10241.3	7932.3	5458.2	3034.3
80°	380.6	387.8	499.1	779.2	2887.1	7228.5	7619.9	6743.7	4740.0	2517.2	1253.2
82.5°	240.6	244.2	341.1	502.7	1220.9	3282.1	3605.3	3034.3	1878.0	1088.0	553.0
85°	150.8	150.8	226.2	330.4	729.0	1048.5	1138.3	1034.2	804.4	592.5	301.6
87.5°	82.6	82.6	136.5	190.3	398.6	337.5	348.3	413.0	502.7	362.7	150.8
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1892.4	1892.4	1892.4	1892.4	1892.4	1892.4	1892.4	1892.4	1892.4	1892.4	1892.4
2.5°	1888.8	1881.6	1870.9	1867.3	1863.7	1860.1	1863.7	1870.9	1863.7	1863.7	1867.3
5°	1878.0	1870.9	1856.5	1856.5	1860.1	1863.7	1881.6	1892.4	1896.0	1896.0	1896.0
7.5°	1878.0	1867.3	1856.5	1860.1	1867.3	1881.6	1910.4	1928.3	1942.7	1946.3	1946.3
10°	1896.0	1881.6	1874.5	1881.6	1903.2	1914.0	1942.7	1971.4	1989.4	1996.5	1996.5
12.5°	1928.3	1914.0	1914.0	1928.3	1957.0	1971.4	1996.5	2018.1	2039.6	2050.4	2050.4
15°	1982.2	1964.2	1967.8	1993.0	2025.3	2039.6	2057.6	2064.8	2082.7	2097.1	2097.1
17.5°	2032.5	2014.5	2021.7	2050.4	2072.0	2079.1	2089.9	2086.3	2093.5	2104.3	2107.9
20°	2089.9	2072.0	2075.5	2093.5	2097.1	2089.9	2089.9	2079.1	2075.5	2093.5	2100.7
22.5°	2147.4	2129.4	2125.8	2115.0	2097.1	2079.1	2068.4	2057.6	2050.4	2068.4	2075.5
25°	2215.6	2190.5	2172.5	2125.8	2079.1	2046.8	2032.5	2025.3	2021.7	2039.6	2046.8
27.5°	2291.0	2265.9	2212.0	2111.5	2036.0	1982.2	1971.4	1971.4	1978.6	1989.4	1996.5
30°	2362.8	2337.7	2240.7	2079.1	1960.6	1881.6	1870.9	1881.6	1899.6	1910.4	1921.1
32.5°	2434.6	2409.5	2258.7	2028.9	1849.3	1748.8	1741.6	1759.5	1788.3	1795.5	1802.6
35°	2531.6	2506.5	2280.2	1957.0	1709.3	1601.5	1594.4	1605.1	1630.3	1641.0	1651.8
37.5°	2668.0	2653.7	2312.5	1878.0	1580.0	1461.5	1440.0	1432.8	1447.1	1443.5	1457.9
40°	2847.6	2858.4	2370.0	1773.9	1454.3	1332.2	1285.5	1264.0	1249.6	1220.9	1235.3
42.5°	3109.7	3116.9	2434.6	1655.4	1346.6	1210.1	1149.1	1109.6	1080.9	1034.2	1041.4
45°	3494.0	3432.9	2510.0	1529.7	1249.6	1113.2	1041.4	994.7	955.2	915.7	919.3
47.5°	4003.9	3817.1	2592.6	1425.6	1152.7	1034.2	969.5	915.7	869.0	836.7	840.3
50°	4632.3	4294.7	2675.2	1328.6	1055.7	973.1	915.7	858.2	811.5	779.2	775.6
52.5°	5461.8	4869.3	2729.1	1220.9	958.8	919.3	869.0	815.1	757.7	718.2	714.6
55°	6323.6	5537.2	2775.8	1091.6	865.4	858.2	833.1	772.0	703.8	653.5	646.4
57.5°	7271.6	6251.8	2811.7	966.0	793.6	808.0	800.8	729.0	653.5	606.9	603.3
60°	8133.4	6991.5	2696.8	854.6	729.0	757.7	764.9	703.8	664.3	675.1	678.7
62.5°	9002.4	7562.5	2258.7	772.0	685.9	725.4	786.4	782.8	764.9	782.8	786.4
65°	9314.8	7681.0	1601.5	703.8	642.8	739.7	854.6	847.5	764.9	732.5	725.4
67.5°	9138.9	7329.1	1077.3	650.0	610.5	757.7	926.5	847.5	736.1	693.0	678.7
70°	8302.2	6463.6	790.0	596.1	581.7	754.1	966.0	843.9	721.8	675.1	657.1
72.5°	6621.6	4987.8	635.6	545.8	538.6	736.1	987.5	836.7	707.4	657.1	635.6
75°	4287.6	3102.6	535.0	495.5	474.0	707.4	976.7	815.1	689.5	624.8	610.5
77.5°	1989.4	1335.8	456.0	438.1	413.0	664.3	944.4	772.0	650.0	588.9	571.0
80°	926.5	632.0	384.2	380.6	369.9	628.4	901.3	721.8	603.3	553.0	524.3
82.5°	495.5	380.6	312.4	312.4	323.2	585.3	847.5	660.7	542.2	517.1	441.7
85°	262.1	219.0	226.2	244.2	276.5	517.1	775.6	596.1	474.0	395.0	384.2
87.5°	132.9	140.0	140.0	165.2	211.9	420.1	639.2	492.0	402.2	323.2	316.0
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)