

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: P231311

Luminaire Tested: **ARCH-M-AF48-60-D-U-T4W-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231311
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-AF48-60-D-U-T4W-7050
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 5000K, 405mA LIGHT ENGINES WITH 24 LEDS AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8679 lumens
Efficiency: N/A
Efficacy: 137.8 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type IV - Medium - Non-Cutoff
BUG Rating: B2 - U0 - G3

Input Watts (W): 63
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



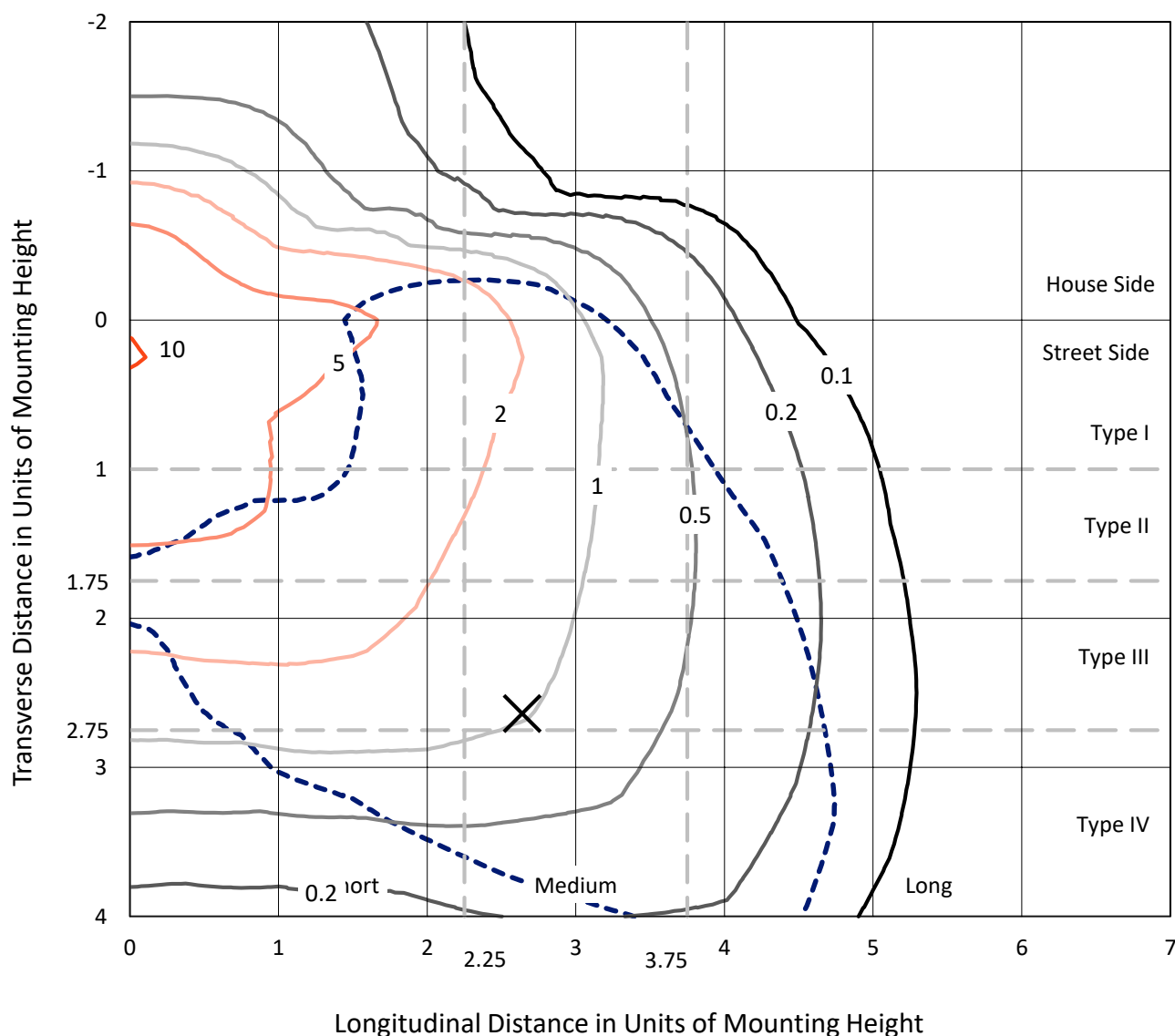
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

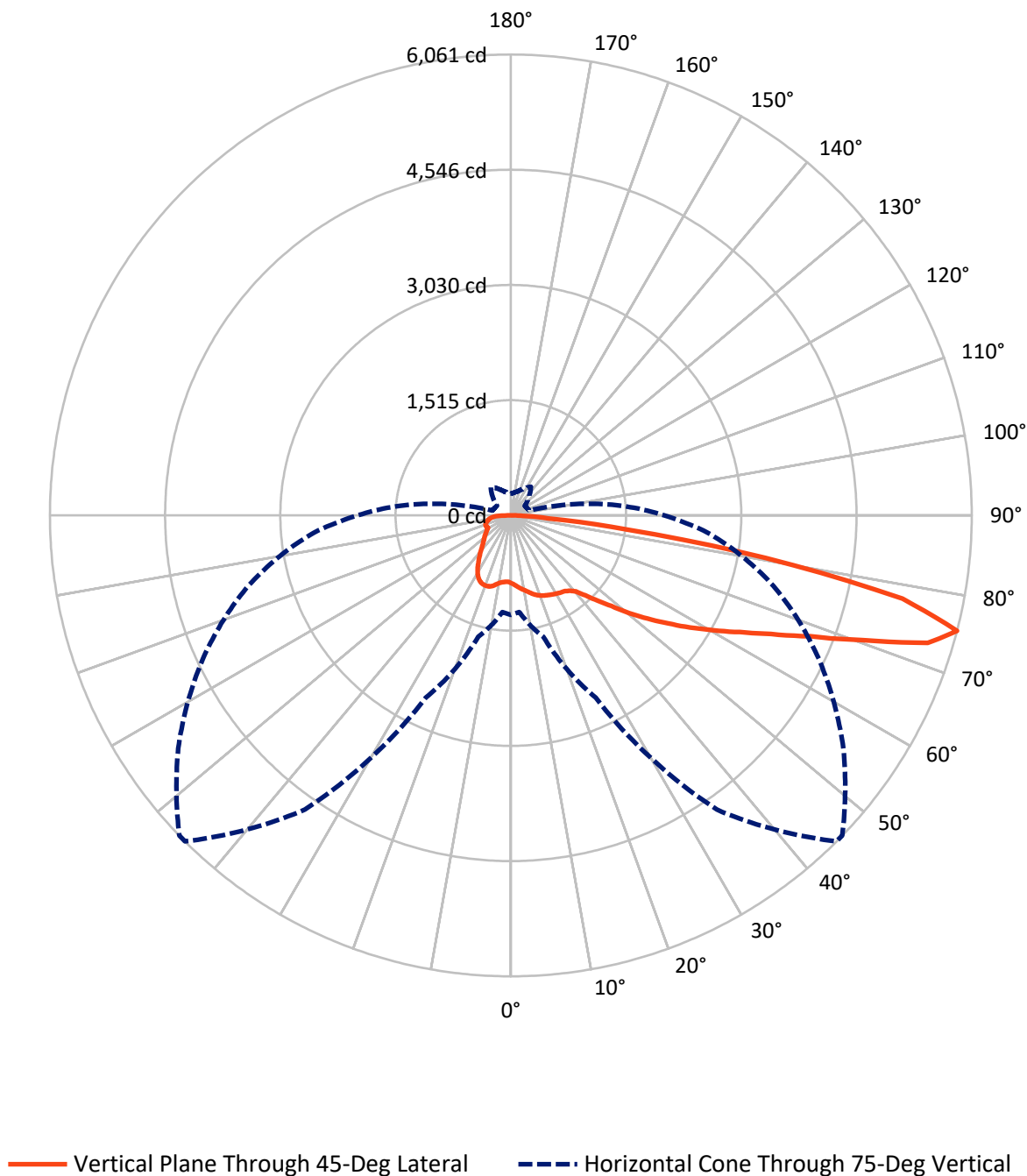


Based on 10 foot mounting height. Maximum calculated value = 10.4 fc
 Type IV - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



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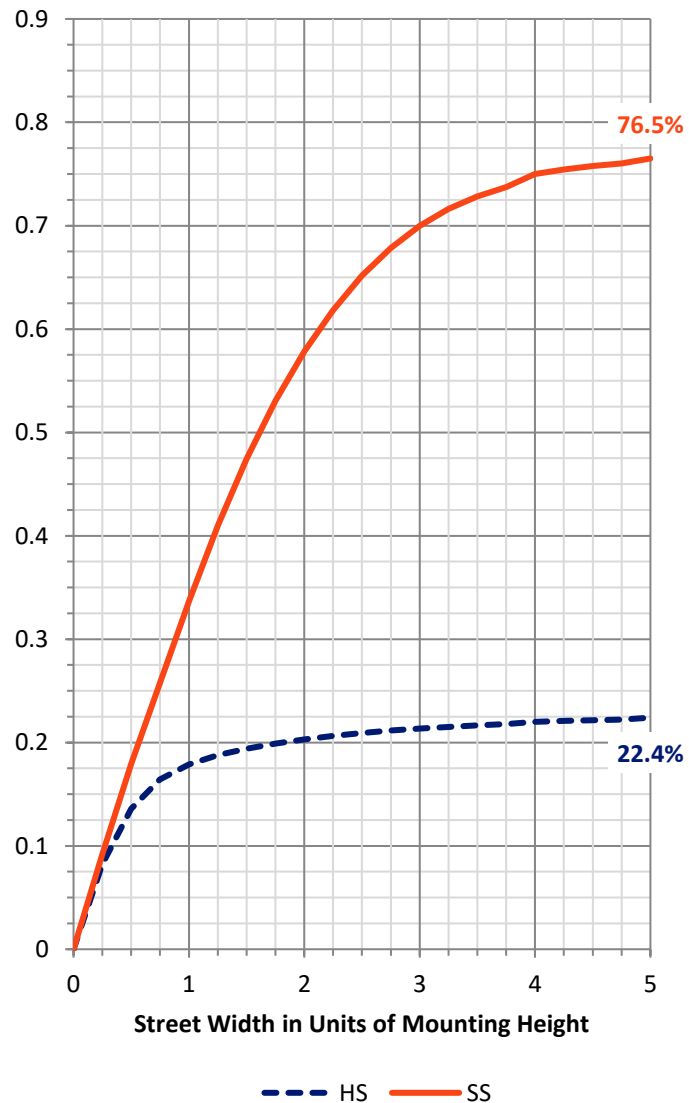
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2010.6	0.0	2010.6
	% Fixture	23.2	0.0	23.2
Street Side	Lumens	6668.4	0.0	6668.4
	% Fixture	76.8	0.0	76.8
Total	Lumens	8679.0	0.0	8679.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.2	1.0
10°-20°	285.7	3.3
20°-30°	490.3	5.6
30°-40°	685.7	7.9
40°-50°	1005.9	11.6
50°-60°	1567.0	18.1
60°-70°	2254.7	26.0
70°-80°	1964.1	22.6
80°-90°	337.3	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°	8679.0	100.0
0°-180°	8679.0	100.0

Coefficient of Utilization



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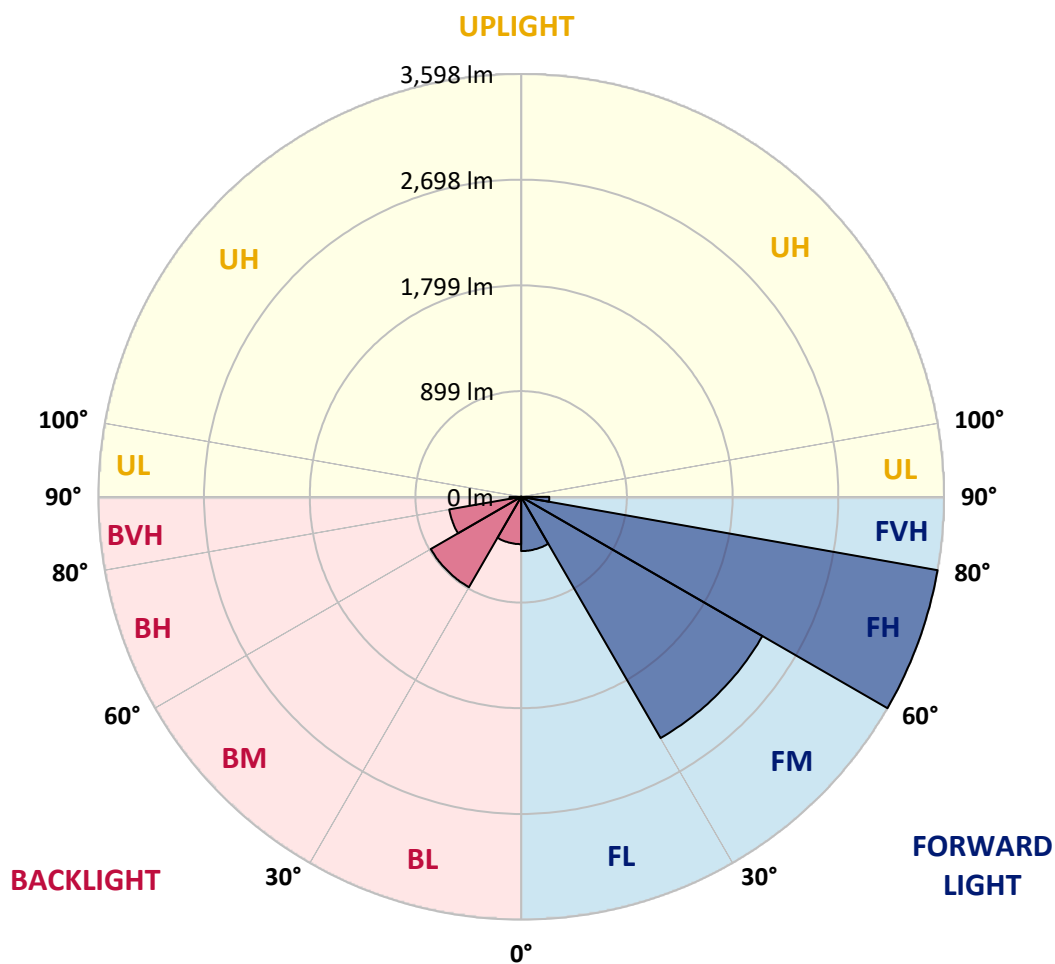
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	461.5	5.3			
FM	(30°-60°)	2370.1	27.3			
FH	(60°-80°)	3597.5	41.5			G2/5000
FVH	(80°-90°)	239.3	2.8			G3/500
BL	(0°-30°)	402.7	4.6	B1/500		
BM	(30°-60°)	888.6	10.2	B1/1000		
BH	(60°-80°)	621.3	7.2	B2/1000		G2/1000
BVH	(80°-90°)	98.0	1.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type IV Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	889.7	889.7	889.7	889.7	889.7	889.7	889.7	889.7	889.7	889.7	889.7
2.5°	933.6	926.9	926.9	921.8	921.8	913.4	910.0	908.3	899.9	894.8	889.7
5°	987.6	979.2	977.5	965.7	960.6	942.1	940.4	928.6	913.4	898.2	886.3
7.5°	1036.6	1031.5	1023.1	1011.3	996.1	972.4	970.8	952.2	926.9	906.6	889.7
10°	1072.1	1068.7	1056.9	1041.7	1024.8	1001.1	999.5	979.2	948.8	925.2	901.5
12.5°	1114.3	1109.2	1094.0	1073.7	1055.2	1033.2	1031.5	1014.7	980.9	950.5	920.1
15°	1154.8	1148.0	1129.5	1109.2	1088.9	1070.4	1070.4	1051.8	1016.3	980.9	945.4
17.5°	1175.0	1171.7	1153.1	1131.1	1114.3	1100.8	1099.1	1082.2	1046.7	1009.6	970.8
20°	1181.8	1183.5	1166.6	1143.0	1131.1	1124.4	1122.7	1110.9	1072.1	1036.6	999.5
22.5°	1180.1	1185.2	1171.7	1146.3	1143.0	1143.0	1143.0	1129.5	1099.1	1063.6	1026.5
25°	1186.9	1193.6	1183.5	1153.1	1153.1	1159.8	1159.8	1153.1	1126.1	1095.7	1058.5
27.5°	1210.5	1215.6	1207.1	1164.9	1166.6	1176.7	1175.0	1176.7	1159.8	1131.1	1094.0
30°	1239.2	1245.9	1235.8	1183.5	1181.8	1191.9	1191.9	1200.4	1188.5	1158.2	1127.8
32.5°	1316.9	1315.2	1283.1	1203.7	1198.7	1208.8	1208.8	1217.2	1210.5	1186.9	1158.2
35°	1548.1	1522.8	1451.9	1269.6	1218.9	1224.0	1224.0	1239.2	1242.6	1224.0	1198.7
37.5°	1784.5	1776.1	1722.0	1445.2	1293.2	1256.1	1254.4	1276.3	1291.5	1276.3	1259.5
40°	2022.6	2015.8	2004.0	1679.8	1448.5	1313.5	1308.4	1327.0	1354.0	1343.9	1333.7
42.5°	2243.7	2240.3	2252.2	1911.1	1646.1	1436.7	1421.5	1399.6	1438.4	1435.0	1435.0
45°	2417.6	2426.1	2432.8	2127.2	1860.5	1595.4	1576.8	1502.6	1554.9	1568.4	1578.5
47.5°	2515.5	2522.3	2545.9	2338.3	2074.9	1779.4	1765.9	1644.4	1713.6	1754.1	1782.8
50°	2655.7	2637.1	2657.3	2544.2	2333.2	2019.2	1982.0	1835.2	1922.9	1993.9	2061.4
52.5°	2790.7	2760.3	2777.2	2782.3	2627.0	2253.8	2215.0	2059.7	2169.4	2280.9	2400.7
55°	2912.3	2910.6	2927.5	3013.6	2910.6	2505.4	2461.5	2307.9	2466.6	2586.4	2789.0
57.5°	3010.2	3027.1	3101.4	3282.0	3238.1	2778.9	2729.9	2596.6	2784.0	2903.8	3239.8
60°	3125.0	3152.0	3275.3	3509.9	3536.9	3065.9	3015.3	2919.0	3109.8	3231.4	3761.5
62.5°	3163.8	3202.7	3455.9	3749.7	3849.3	3379.9	3334.3	3270.2	3452.5	3562.3	4281.5
65°	2905.5	2979.8	3555.5	3872.9	4185.2	3758.1	3719.3	3663.6	3793.6	3866.1	4634.3
67.5°	2834.6	2868.4	3361.4	4050.2	4500.9	4244.3	4205.5	4109.3	4112.6	4082.2	4749.1
70°	2735.0	2772.1	3162.1	4183.5	4953.4	4909.5	4862.2	4578.6	4404.7	4220.7	4522.9
72.5°	2329.8	2318.0	2724.9	3823.9	5171.2	5733.4	5677.7	5083.4	4620.8	4100.8	3817.2
75°	1308.4	1274.6	1652.8	2645.5	4722.1	6060.9	6059.2	5338.3	4468.9	3572.4	2598.3
77.5°	379.9	369.7	545.3	1109.2	3179.0	5265.7	5329.9	4815.0	3729.4	2566.2	1426.6
80°	179.0	182.3	234.7	366.4	1357.4	3398.5	3582.5	3170.6	2228.5	1183.5	589.2
82.5°	113.1	114.8	160.4	236.4	574.0	1543.1	1695.0	1426.6	883.0	511.5	260.0
85°	70.9	70.9	106.4	155.3	342.7	493.0	535.2	486.2	378.2	278.6	141.8
87.5°	38.8	38.8	64.2	89.5	187.4	158.7	163.8	194.2	236.4	170.5	70.9
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°	889.7	889.7	889.7	889.7	889.7	889.7	889.7	889.7	889.7	889.7	889.7
2.5°	888.0	884.7	879.6	877.9	876.2	874.5	876.2	879.6	876.2	876.2	877.9
5°	883.0	879.6	872.8	872.8	874.5	876.2	884.7	889.7	891.4	891.4	891.4
7.5°	883.0	877.9	872.8	874.5	877.9	884.7	898.2	906.6	913.4	915.0	915.0
10°	891.4	884.7	881.3	884.7	894.8	899.9	913.4	926.9	935.3	938.7	938.7
12.5°	906.6	899.9	899.9	906.6	920.1	926.9	938.7	948.8	958.9	964.0	964.0
15°	931.9	923.5	925.2	937.0	952.2	958.9	967.4	970.8	979.2	986.0	986.0
17.5°	955.6	947.1	950.5	964.0	974.1	977.5	982.6	980.9	984.3	989.3	991.0
20°	982.6	974.1	975.8	984.3	986.0	982.6	982.6	977.5	975.8	984.3	987.6
22.5°	1009.6	1001.1	999.5	994.4	986.0	977.5	972.4	967.4	964.0	972.4	975.8
25°	1041.7	1029.8	1021.4	999.5	977.5	962.3	955.6	952.2	950.5	958.9	962.3
27.5°	1077.1	1065.3	1040.0	992.7	957.3	931.9	926.9	926.9	930.2	935.3	938.7
30°	1110.9	1099.1	1053.5	977.5	921.8	884.7	879.6	884.7	893.1	898.2	903.2
32.5°	1144.7	1132.8	1061.9	953.9	869.5	822.2	818.8	827.3	840.8	844.1	847.5
35°	1190.2	1178.4	1072.1	920.1	803.6	753.0	749.6	754.7	766.5	771.5	776.6
37.5°	1254.4	1247.6	1087.2	883.0	742.8	687.1	677.0	673.6	680.4	678.7	685.4
40°	1338.8	1343.9	1114.3	834.0	683.8	626.3	604.4	594.3	587.5	574.0	580.8
42.5°	1462.0	1465.4	1144.7	778.3	633.1	568.9	540.2	521.7	508.2	486.2	489.6
45°	1642.7	1614.0	1180.1	719.2	587.5	523.4	489.6	467.7	449.1	430.5	432.2
47.5°	1882.4	1794.6	1218.9	670.2	541.9	486.2	455.8	430.5	408.6	393.4	395.1
50°	2177.9	2019.2	1257.8	624.7	496.4	457.5	430.5	403.5	381.6	366.4	364.7
52.5°	2567.9	2289.3	1283.1	574.0	450.8	432.2	408.6	383.2	356.2	337.7	336.0
55°	2973.1	2603.3	1305.0	513.2	406.9	403.5	391.7	363.0	330.9	307.3	303.9
57.5°	3418.8	2939.3	1321.9	454.1	373.1	379.9	376.5	342.7	307.3	285.3	283.6
60°	3823.9	3287.1	1267.9	401.8	342.7	356.2	359.6	330.9	312.3	317.4	319.1
62.5°	4232.5	3555.5	1061.9	363.0	322.5	341.0	369.7	368.0	359.6	368.0	369.7
65°	4379.4	3611.2	753.0	330.9	302.2	347.8	401.8	398.4	359.6	344.4	341.0
67.5°	4296.7	3445.8	506.5	305.6	287.0	356.2	435.6	398.4	346.1	325.8	319.1
70°	3903.3	3038.9	371.4	280.3	273.5	354.5	454.1	396.7	339.3	317.4	309.0
72.5°	3113.2	2345.0	298.8	256.6	253.2	346.1	464.3	393.4	332.6	309.0	298.8
75°	2015.8	1458.7	251.6	233.0	222.9	332.6	459.2	383.2	324.1	293.8	287.0
77.5°	935.3	628.0	214.4	206.0	194.2	312.3	444.0	363.0	305.6	276.9	268.4
80°	435.6	297.1	180.6	179.0	173.9	295.4	423.8	339.3	283.6	260.0	246.5
82.5°	233.0	179.0	146.9	146.9	151.9	275.2	398.4	310.6	254.9	243.1	207.7
85°	123.2	103.0	106.4	114.8	130.0	243.1	364.7	280.3	222.9	185.7	180.6
87.5°	62.5	65.8	65.8	77.7	99.6	197.5	300.5	231.3	189.1	151.9	148.6
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)