

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: P231050

Luminaire Tested: **ARCH-M-AF48-50-D-U-T2R-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231050
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29635)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-M-AF48-50-D-U-T2R-7050
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 5000K, 305mA LIGHT ENGINES WITH 24 LEDS AND TYPE II ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6785 lumens
Efficiency: N/A
Efficacy: 141.4 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type II - Medium - Semi-Cutoff
BUG Rating: B1 - U0 - G2

Input Watts (W): 48
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

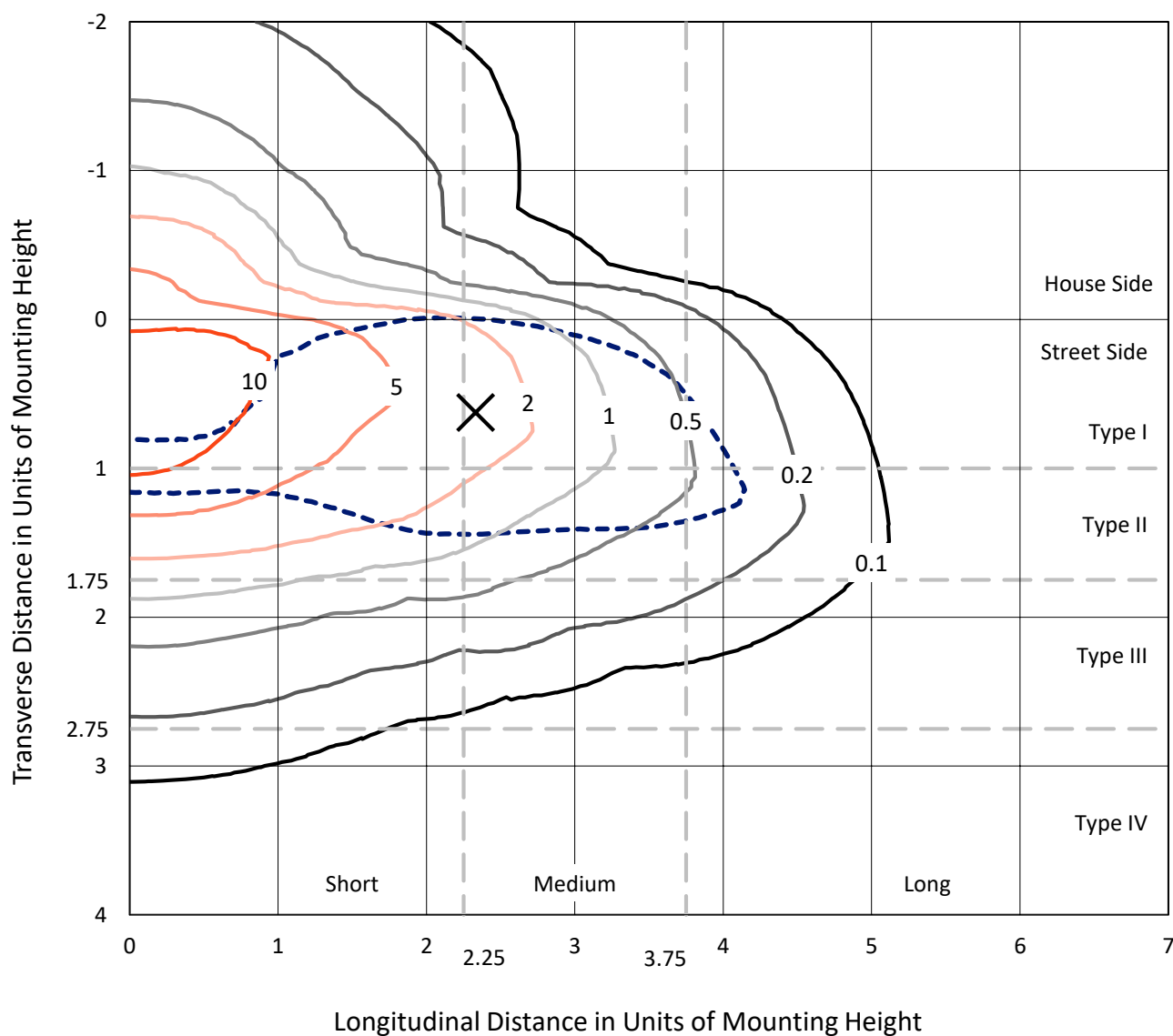


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
- - - 1/2 Max cd

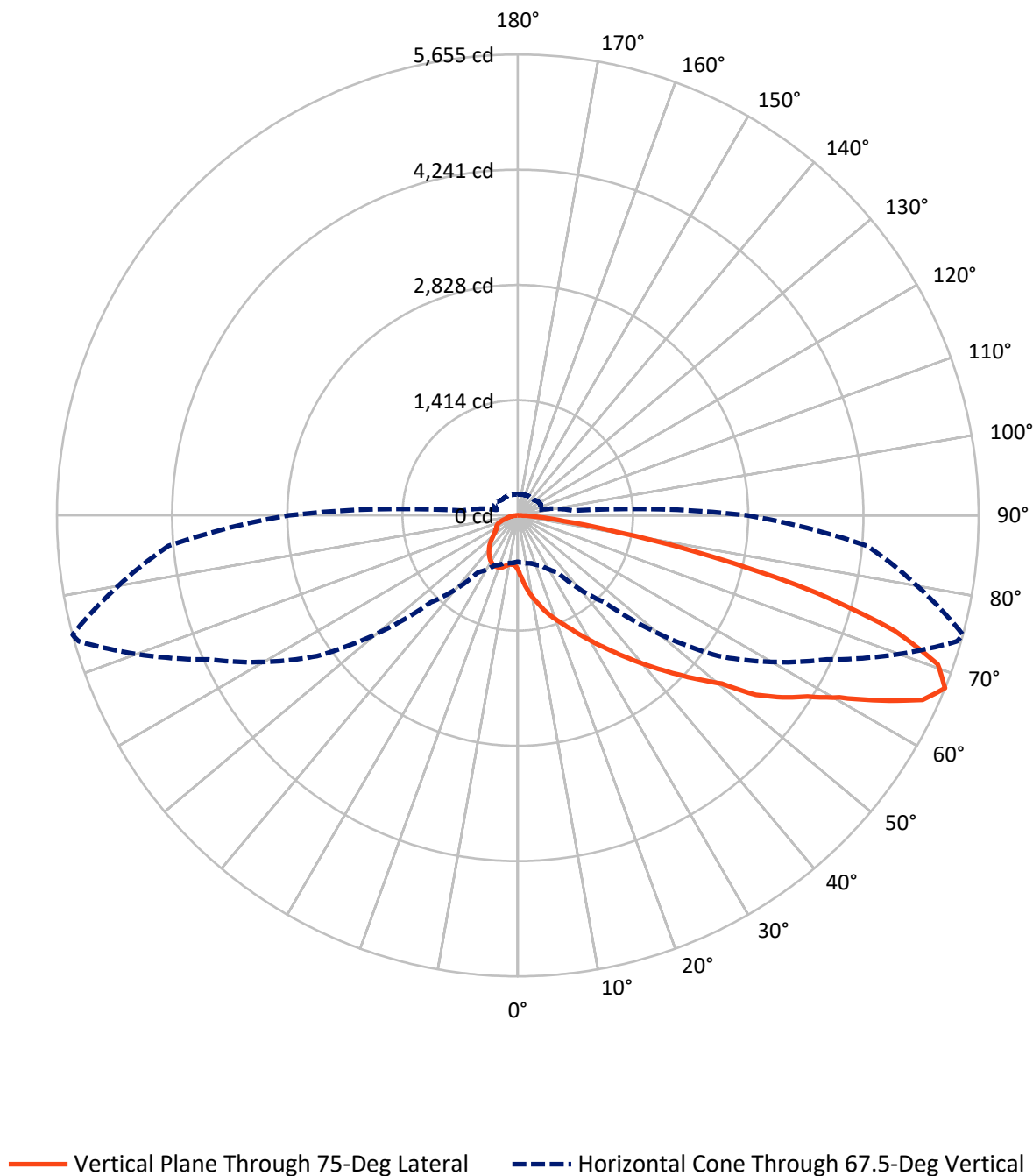


Based on 10 foot mounting height. Maximum calculated value = 14.1 fc
Type II - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



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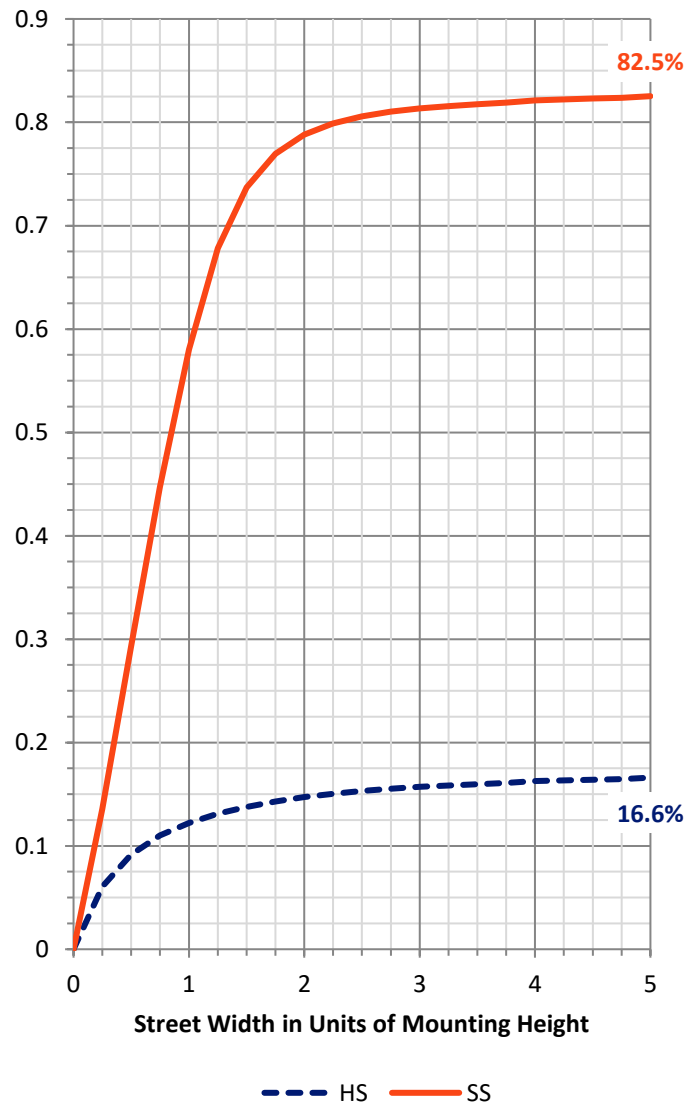
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1158.6	0.0	1158.6
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	5626.4	0.0	5626.4
	% Fixture	82.9	0.0	82.9
Total	Lumens	6785.0	0.0	6785.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	79.0	1.2
10°-20°	285.4	4.2
20°-30°	520.6	7.7
30°-40°	854.6	12.6
40°-50°	1235.8	18.2
50°-60°	1456.4	21.5
60°-70°	1415.3	20.9
70°-80°	786.7	11.6
80°-90°	151.3	2.2
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°	6785.0	100.0
0°-180°	6785.0	100.0

Coefficient of Utilization



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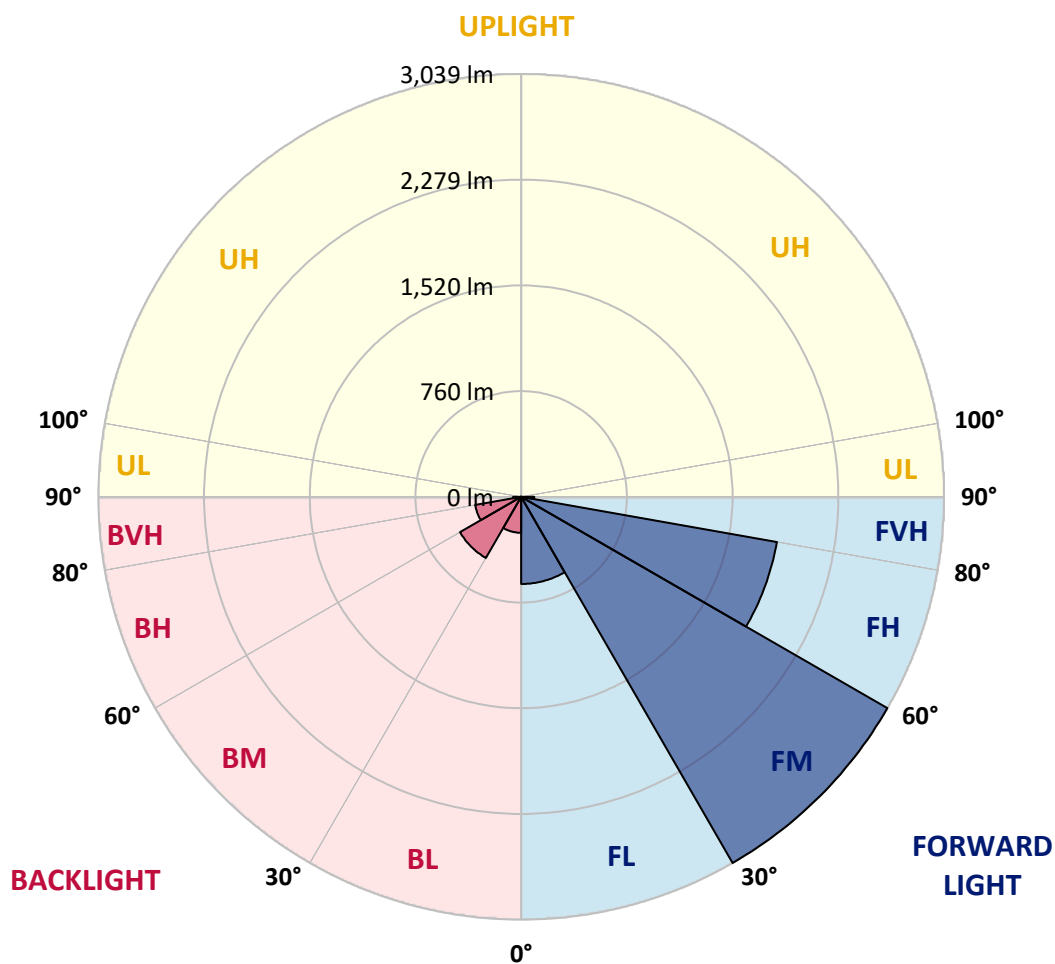
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	626.4	9.2			
FM	(30°-60°)	3039.3	44.8			
FH	(60°-80°)	1866.5	27.5			G2/5000
FVH	(80°-90°)	94.1	1.4			G1/100
BL	(0°-30°)	258.6	3.8	B1/500		
BM	(30°-60°)	507.4	7.5	B1/1000		
BH	(60°-80°)	335.5	4.9	B1/500		G1/500
BVH	(80°-90°)	57.1	0.8			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	74°	75°	85°
0°	672.3	672.3	672.3	672.3	672.3	672.3	672.3	672.3	672.3	672.3	672.3
2.5°	953.2	956.0	950.3	937.6	919.1	885.1	855.3	802.8	756.0	750.3	700.7
5°	1120.5	1123.4	1116.3	1100.7	1080.8	1044.0	1002.8	934.7	859.6	845.4	740.4
7.5°	1235.4	1236.9	1228.3	1212.7	1197.1	1160.3	1119.1	1042.5	950.3	939.0	791.5
10°	1333.3	1336.1	1324.8	1314.9	1297.8	1261.0	1218.4	1137.6	1042.5	1026.9	844.0
12.5°	1424.1	1426.9	1419.8	1411.3	1405.6	1371.6	1324.8	1228.3	1126.2	1109.2	906.4
15°	1485.1	1487.9	1489.3	1500.7	1507.8	1483.7	1436.9	1331.9	1217.0	1201.4	980.1
17.5°	1468.1	1475.1	1496.4	1537.6	1581.5	1582.9	1544.6	1434.0	1306.4	1289.3	1055.3
20°	1418.4	1424.1	1449.6	1512.0	1598.5	1648.2	1645.4	1537.6	1390.0	1371.6	1124.8
22.5°	1459.5	1466.6	1466.6	1504.9	1590.0	1682.2	1719.1	1639.7	1473.7	1456.7	1194.3
25°	1635.4	1639.7	1609.9	1594.3	1625.5	1710.6	1780.1	1750.3	1575.9	1556.0	1269.5
27.5°	1880.8	1873.7	1836.8	1774.4	1740.4	1763.1	1834.0	1855.3	1693.6	1669.5	1347.5
30°	2124.8	2120.5	2078.0	1994.3	1917.7	1869.5	1893.6	1948.9	1821.2	1792.9	1422.7
32.5°	2353.1	2346.1	2299.2	2201.4	2114.9	2025.5	1978.7	2034.0	1957.4	1924.8	1506.4
35°	2563.1	2544.6	2497.8	2395.7	2306.3	2221.2	2106.3	2114.9	2104.9	2070.9	1598.5
37.5°	2733.3	2719.1	2668.0	2573.0	2478.0	2397.1	2276.6	2207.0	2263.8	2231.2	1704.9
40°	2883.6	2868.0	2815.5	2720.5	2632.6	2556.0	2460.9	2319.1	2442.5	2405.6	1824.1
42.5°	2997.1	2985.8	2943.2	2849.6	2764.5	2695.0	2648.2	2460.9	2628.3	2592.9	1954.6
45°	3058.1	3046.7	3024.1	2948.9	2870.9	2817.0	2821.2	2629.7	2822.6	2792.9	2109.2
47.5°	2982.9	2991.4	3011.3	2997.1	2948.9	2923.3	2975.8	2804.2	3039.7	3011.3	2276.6
50°	2781.5	2790.0	2869.4	2967.3	2984.3	3015.5	3114.8	3005.6	3269.4	3246.7	2483.6
52.5°	2286.5	2333.3	2553.1	2787.2	2947.5	3076.5	3269.4	3304.9	3656.7	3656.7	2849.6
55°	1727.6	1768.8	2019.8	2428.3	2804.2	3082.2	3382.9	3507.7	3936.1	3941.8	3041.1
57.5°	1400.0	1425.5	1548.9	1967.3	2503.5	3011.3	3517.7	3682.2	4168.7	4194.2	3287.9
60°	1136.1	1150.3	1231.2	1522.0	2087.9	2819.8	3614.1	3931.8	4500.6	4536.1	3602.8
62.5°	913.5	927.6	981.5	1156.0	1638.3	2460.9	3597.1	4191.4	4943.2	5001.3	4015.5
65°	729.1	744.7	780.1	887.9	1214.2	2015.6	3422.6	4324.7	5401.3	5458.0	4289.3
67.5°	568.8	583.0	607.1	678.0	855.3	1507.8	3009.9	4184.3	5607.0	5655.2	4303.5
70°	429.8	436.9	456.7	502.1	611.3	1001.4	2356.0	3713.4	5422.6	5466.6	4019.8
72.5°	333.3	331.9	343.3	366.0	426.9	689.3	1561.7	3019.8	4794.2	4839.6	3429.7
75°	272.3	270.9	278.0	285.1	309.2	462.4	922.0	2273.7	3869.4	3782.9	2573.0
77.5°	229.8	228.4	235.5	236.9	246.8	319.1	524.8	1496.4	2581.5	2432.6	1449.6
80°	194.3	192.9	201.4	204.3	211.3	234.0	302.1	809.9	1296.4	1228.3	692.2
82.5°	146.1	151.8	167.4	174.5	183.0	173.0	187.2	357.4	601.4	574.5	300.7
85°	70.9	83.7	126.2	140.4	150.4	109.2	127.7	168.8	270.9	258.2	122.0
87.5°	24.1	21.3	75.2	89.4	97.9	49.6	70.9	93.6	112.1	102.1	38.3
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	672.3	672.3	672.3	672.3	672.3	672.3	672.3	672.3	672.3	672.3	672.3
2.5°	679.4	658.1	626.9	602.8	587.2	574.5	568.8	567.4	564.5	563.1	563.1
5°	693.6	655.3	607.1	581.5	574.5	568.8	571.6	573.0	573.0	573.0	573.0
7.5°	714.9	661.0	602.8	585.8	584.4	584.4	592.9	597.2	600.0	600.0	600.0
10°	743.2	670.9	609.9	595.7	600.0	602.8	612.8	618.4	621.3	622.7	624.1
12.5°	781.5	692.2	624.1	612.8	618.4	619.8	626.9	629.8	632.6	634.0	634.0
15°	832.6	723.4	646.8	632.6	634.0	632.6	632.6	629.8	628.4	628.4	631.2
17.5°	885.1	753.2	666.7	646.8	641.1	629.8	621.3	614.2	609.9	607.1	608.5
20°	937.6	780.1	678.0	649.6	634.0	615.6	600.0	590.1	584.4	578.7	581.5
22.5°	990.1	805.7	682.3	641.1	618.4	591.5	574.5	558.9	546.1	537.6	539.0
25°	1048.2	834.0	682.3	631.2	597.2	568.8	547.5	522.0	503.5	496.4	499.3
27.5°	1106.4	858.1	675.2	612.8	573.0	544.7	513.5	483.7	472.3	468.1	469.5
30°	1164.5	876.6	659.6	590.1	547.5	516.3	475.2	455.3	441.1	429.8	431.2
32.5°	1222.7	889.3	638.3	561.7	520.6	480.8	446.8	424.1	398.6	384.4	385.8
35°	1289.3	899.3	612.8	533.3	490.8	449.6	424.1	387.2	360.3	348.9	346.1
37.5°	1358.8	906.4	585.8	502.1	461.0	426.9	401.4	356.0	330.5	314.9	313.5
40°	1434.0	909.2	553.2	469.5	432.6	412.8	371.6	337.6	293.6	283.7	283.7
42.5°	1523.4	907.8	520.6	436.9	401.4	380.1	350.3	334.7	296.4	286.5	280.8
45°	1625.5	907.8	485.1	398.6	370.2	339.0	326.2	316.3	290.8	295.0	297.9
47.5°	1741.8	904.9	442.5	367.4	344.7	317.7	310.6	289.4	279.4	282.3	285.1
50°	1902.1	909.2	404.2	341.8	326.2	303.5	295.0	283.7	279.4	280.8	279.4
52.5°	2124.8	895.0	367.4	326.2	312.1	282.3	282.3	280.8	282.3	280.8	280.8
55°	2246.8	863.8	340.4	317.7	302.1	272.3	278.0	280.8	283.7	282.3	282.3
57.5°	2419.8	842.5	319.1	312.1	296.4	269.5	275.2	280.8	282.3	280.8	280.8
60°	2624.1	828.4	305.0	313.5	292.2	269.5	276.6	280.8	279.4	278.0	278.0
62.5°	2860.9	822.7	295.0	317.7	287.9	270.9	276.6	280.8	275.2	273.8	273.8
65°	2950.3	771.6	282.3	320.6	290.8	270.9	275.2	276.6	269.5	268.1	266.7
67.5°	2812.7	683.7	263.8	314.9	299.3	270.9	270.9	269.5	261.0	259.6	256.7
70°	2504.9	567.4	235.5	296.4	305.0	272.3	265.2	258.2	249.6	249.6	244.0
72.5°	2051.0	446.8	198.6	263.8	300.7	276.6	253.9	244.0	234.0	234.0	228.4
75°	1478.0	333.3	158.9	219.9	282.3	275.2	239.7	226.9	215.6	214.2	207.1
77.5°	842.5	234.0	129.1	171.6	251.1	268.1	226.9	207.1	194.3	190.1	185.8
80°	432.6	157.4	105.0	134.7	208.5	248.2	217.0	184.4	170.2	163.1	156.0
82.5°	205.7	105.0	80.8	99.3	157.4	217.0	204.3	158.9	143.3	134.7	126.2
85°	92.2	62.4	53.9	63.8	112.1	168.8	180.1	130.5	112.1	140.4	103.5
87.5°	29.8	28.4	28.4	29.8	53.9	73.8	131.9	96.5	89.4	73.8	62.4
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)