

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: P231115

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231115
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29623)
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-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 5000K, 305mA LIGHT ENGINES WITH 24 LEDS AND TYPE II ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5498 lumens
Efficiency: N/A
Efficacy: 114.5 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type II - Medium - Full Cutoff
BUG Rating: B0 - U0 - G1

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



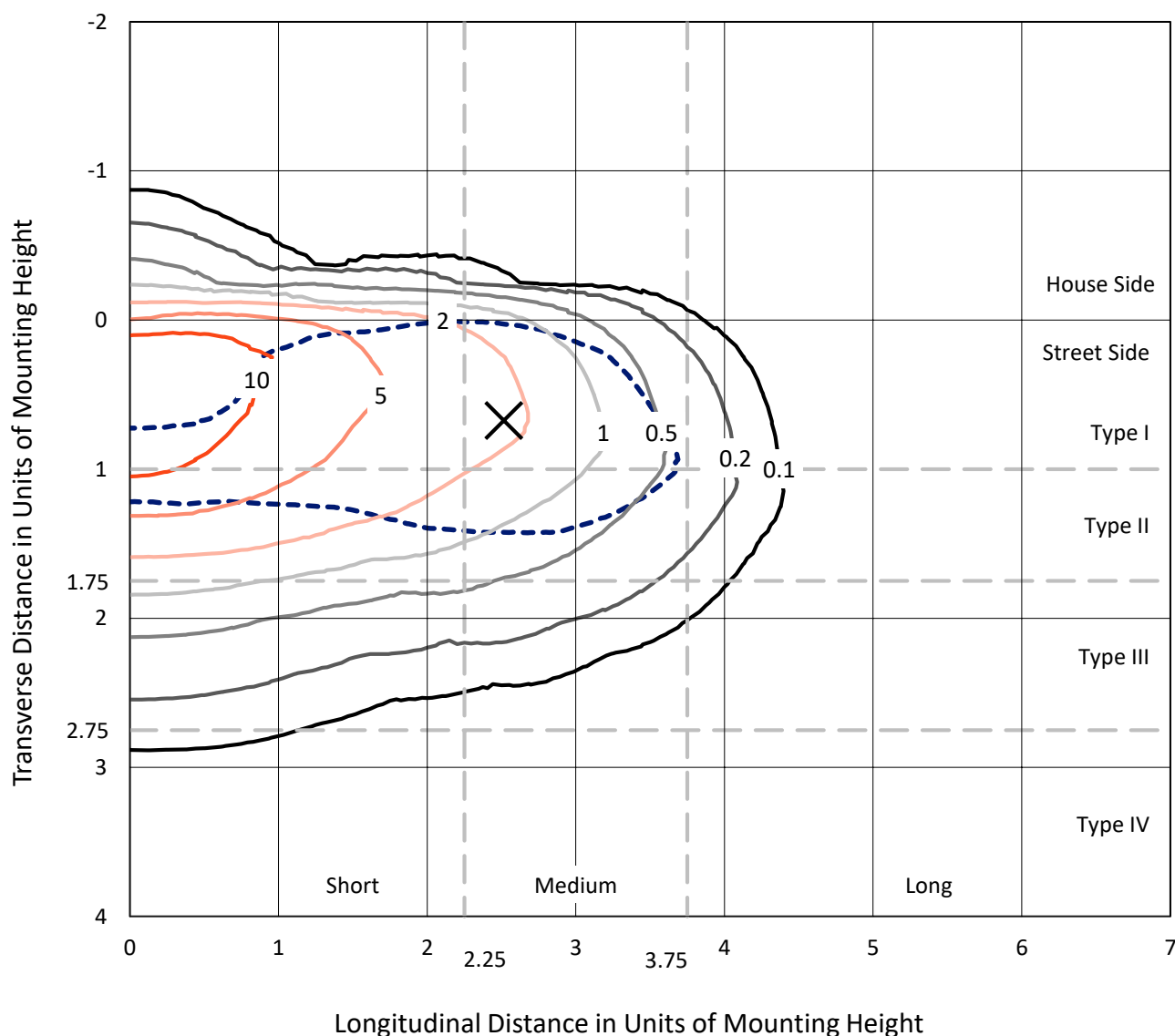
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

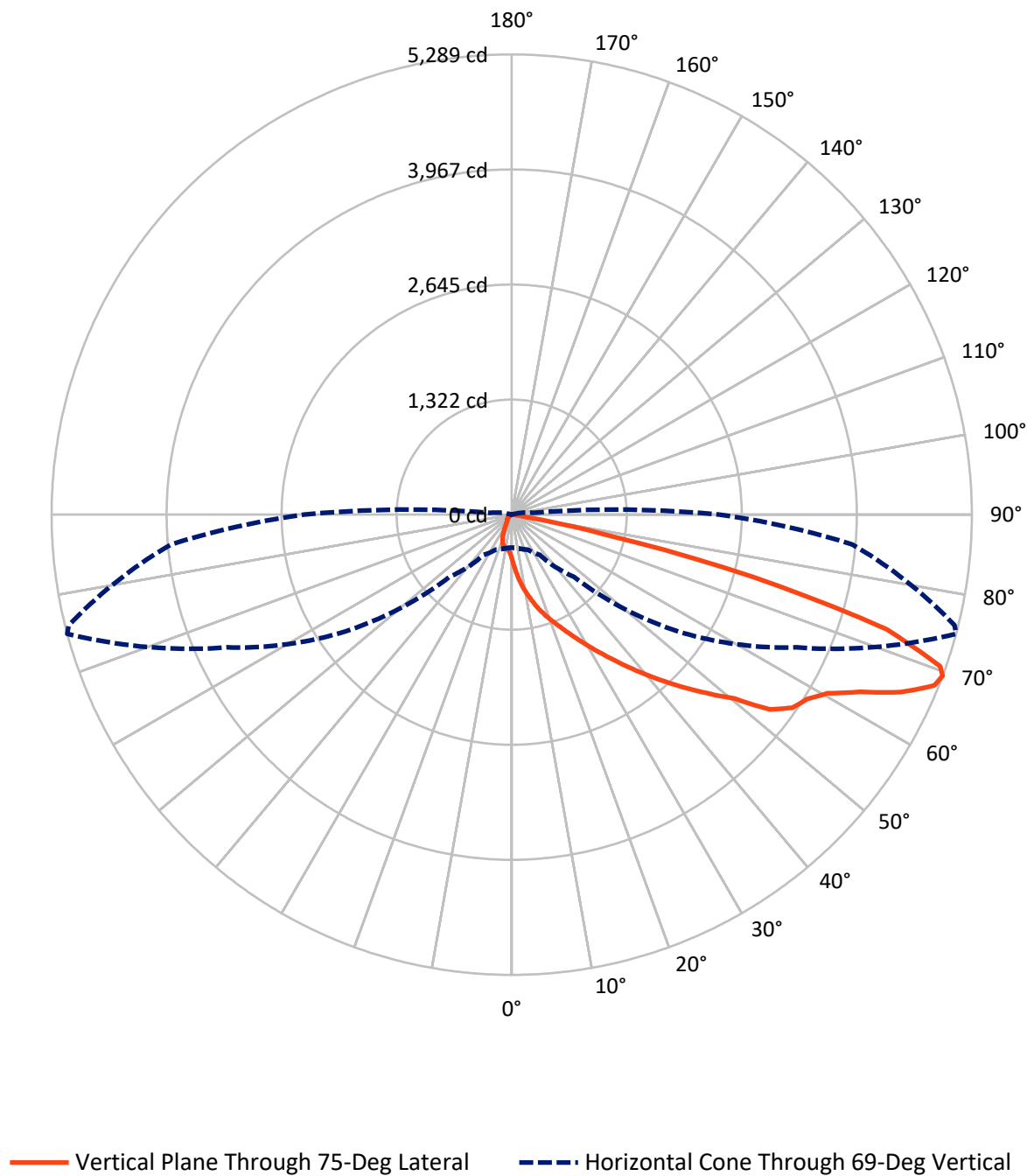


Based on 10 foot mounting height. Maximum calculated value = 14 fc
 Type II - Medium - Full Cutoff

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Luminous Intensity Polar Plot



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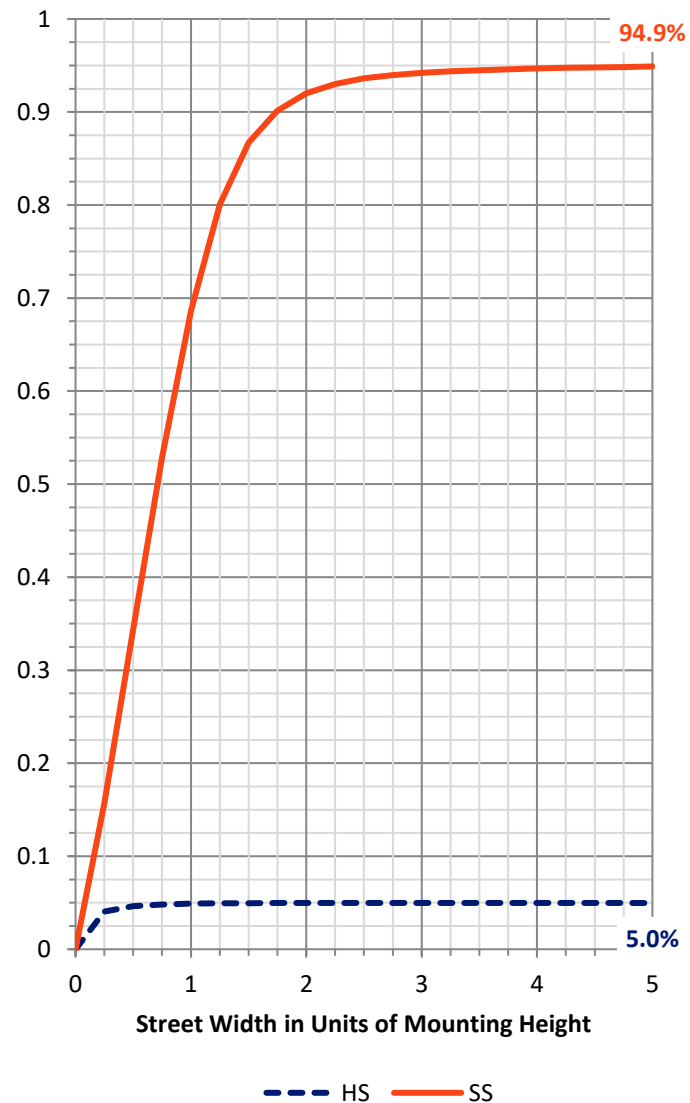
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	274.3	0.0	274.3
	% Fixture	5.0	0.0	5.0
Street Side	Lumens	5223.7	0.0	5223.7
	% Fixture	95.0	0.0	95.0
Total	Lumens	5498.0	0.0	5498.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	59.7	1.1
10°-20°	213.3	3.9
20°-30°	407.1	7.4
30°-40°	730.3	13.3
40°-50°	1118.9	20.4
50°-60°	1300.5	23.7
60°-70°	1151.6	20.9
70°-80°	496.7	9.0
80°-90°	19.9	0.4
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°	5498.0	100.0
0°-180°	5498.0	100.0

Coefficient of Utilization



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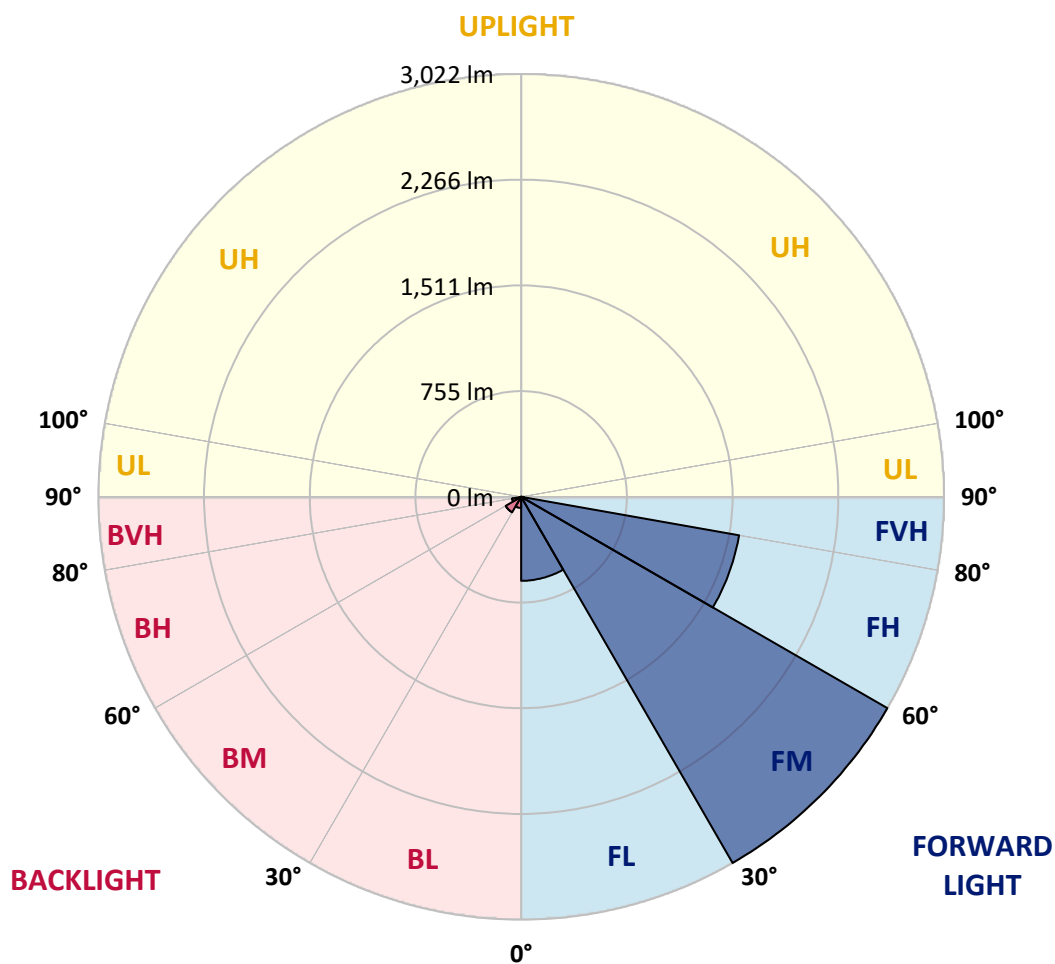
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	600.4	10.9			
FM	(30°-60°)	3021.8	55.0			
FH	(60°-80°)	1581.8	28.8			G1/1800
FVH	(80°-90°)	19.6	0.4			G1/100
BL	(0°-30°)	79.7	1.4	B0/110		
BM	(30°-60°)	127.9	2.3	B0/220		
BH	(60°-80°)	66.5	1.2	B0/110		G0/110
BVH	(80°-90°)	0.3	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G1

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	511.6	511.6	511.6	511.6	511.6	511.6	511.6	511.6	511.6	511.6	511.6
2.5°	842.8	834.4	826.1	816.6	795.3	758.5	712.2	662.3	600.6	589.9	540.1
5°	1023.2	1019.6	1011.3	998.2	974.5	934.2	881.9	808.3	705.1	687.3	581.6
7.5°	1150.2	1147.8	1140.7	1125.3	1103.9	1063.5	1008.9	929.4	809.5	789.3	633.8
10°	1264.1	1262.9	1257.0	1242.8	1221.4	1177.5	1119.3	1036.2	909.2	886.7	694.4
12.5°	1367.4	1368.6	1366.2	1359.1	1343.7	1302.1	1235.6	1145.4	1005.4	980.4	766.8
15°	1427.9	1431.5	1441.0	1455.2	1460.0	1426.7	1357.9	1258.2	1103.9	1082.5	849.9
17.5°	1407.8	1411.3	1441.0	1489.7	1535.9	1540.7	1479.0	1365.0	1201.2	1179.9	931.8
20°	1359.1	1363.8	1394.7	1461.2	1551.4	1614.3	1589.4	1481.3	1293.8	1267.7	1010.1
22.5°	1413.7	1413.7	1423.2	1463.5	1545.4	1644.0	1677.2	1597.7	1388.8	1356.7	1088.5
25°	1601.2	1597.7	1577.5	1560.9	1587.0	1674.8	1743.7	1716.4	1500.3	1463.5	1171.5
27.5°	1838.6	1855.2	1817.3	1756.7	1697.4	1735.4	1803.0	1833.9	1623.8	1585.8	1257.0
30°	2104.5	2111.6	2066.5	1985.8	1881.4	1844.6	1873.0	1934.8	1757.9	1716.4	1346.0
32.5°	2344.3	2338.3	2300.4	2216.1	2086.7	2007.2	1963.3	2015.5	1903.9	1856.4	1437.4
35°	2556.7	2561.5	2515.2	2417.9	2290.9	2206.6	2102.1	2106.9	2067.7	2013.1	1543.1
37.5°	2747.9	2739.5	2695.6	2598.3	2483.2	2391.8	2281.4	2201.8	2246.9	2190.0	1661.8
40°	2903.3	2895.0	2848.7	2753.8	2645.8	2571.0	2484.3	2328.8	2435.7	2370.4	1788.8
42.5°	3026.8	3017.3	2978.1	2886.7	2782.3	2715.8	2674.3	2485.5	2637.5	2572.2	1931.2
45°	3087.3	3079.0	3055.3	2986.4	2895.0	2836.9	2857.1	2665.9	2853.5	2798.9	2087.9
47.5°	3016.1	3012.5	3039.8	3028.0	2975.7	2944.9	3014.9	2863.0	3080.2	3026.8	2268.3
50°	2800.1	2806.0	2885.5	2984.1	3009.0	3045.8	3144.3	3070.7	3323.5	3266.6	2476.0
52.5°	2267.1	2307.5	2547.3	2784.6	2968.6	3107.5	3296.2	3367.5	3720.0	3664.2	2800.1
55°	1692.6	1709.2	1970.4	2376.3	2806.0	3102.8	3409.0	3541.9	3915.8	3858.9	2885.5
57.5°	1342.5	1348.4	1477.8	1892.0	2471.3	2995.9	3468.3	3604.8	4001.3	3953.8	3012.5
60°	1054.0	1061.2	1154.9	1439.8	2000.1	2707.5	3382.9	3659.4	4168.7	4130.7	3234.5
62.5°	820.2	827.3	884.3	1051.7	1500.3	2263.6	3210.8	3747.3	4486.8	4469.0	3597.7
65°	635.0	637.4	676.6	754.9	1060.0	1782.8	3000.7	3829.2	4916.5	4901.0	3892.1
67.5°	468.9	472.4	499.7	548.4	715.7	1280.7	2656.5	3766.3	5240.5	5195.4	3998.9
69°	378.6	382.2	405.9	445.1	565.0	1008.9	2341.9	3610.8	5289.2	5246.4	3931.3
70°	324.0	326.4	350.2	383.4	481.9	857.0	2092.6	3476.7	5225.1	5183.5	3777.0
72.5°	207.7	219.6	243.3	264.7	319.3	567.4	1412.5	2883.2	4508.1	4436.9	2957.9
75°	115.1	118.7	161.4	187.5	212.5	369.1	785.8	1798.3	2867.7	2817.9	1582.2
77.5°	95.0	97.3	113.9	142.4	142.4	206.5	296.7	708.6	1090.8	984.0	428.5
80°	66.5	68.8	86.6	93.8	102.1	116.3	96.1	155.5	168.6	149.6	64.1
82.5°	46.3	48.7	59.3	77.2	81.9	54.6	35.6	46.3	48.7	48.7	24.9
85°	8.3	11.9	43.9	64.1	48.7	16.6	20.2	16.6	15.4	16.6	5.9
87.5°	0.0	0.0	27.3	30.9	26.1	7.1	8.3	5.9	3.6	4.7	2.4
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°	511.6	511.6	511.6	511.6	511.6	511.6	511.6	511.6	511.6	511.6	511.6
2.5°	515.1	490.2	447.5	416.6	390.5	370.3	362.0	349.0	339.5	344.2	338.3
5°	529.4	485.5	416.6	372.7	341.8	315.7	294.4	277.8	264.7	262.3	259.9
7.5°	551.9	489.0	398.8	344.2	297.9	257.6	224.3	199.4	180.4	180.4	173.3
10°	582.8	498.5	388.1	315.7	246.9	192.3	159.1	135.3	125.8	124.6	122.3
12.5°	625.5	516.3	379.8	278.9	192.3	140.1	119.9	111.6	108.0	106.8	105.6
15°	683.7	542.4	370.3	233.8	146.0	115.1	106.8	99.7	96.1	95.0	93.8
17.5°	739.5	566.2	350.2	187.5	118.7	104.5	95.0	89.0	84.3	83.1	83.1
20°	791.7	586.4	315.7	146.0	106.8	93.8	84.3	77.2	72.4	71.2	71.2
22.5°	846.3	603.0	273.0	118.7	97.3	83.1	73.6	66.5	61.7	60.5	59.3
25°	904.5	614.9	224.3	105.6	87.8	73.6	62.9	57.0	53.4	52.2	51.0
27.5°	967.4	619.6	178.0	96.1	77.2	64.1	54.6	48.7	46.3	45.1	45.1
30°	1024.4	614.9	137.7	85.5	67.7	55.8	47.5	42.7	40.4	39.2	39.2
32.5°	1083.7	603.0	110.4	76.0	59.3	47.5	40.4	36.8	35.6	34.4	34.4
35°	1146.6	587.6	95.0	67.7	51.0	41.5	35.6	33.2	32.0	30.9	30.9
37.5°	1220.2	568.6	86.6	60.5	45.1	36.8	30.9	29.7	28.5	28.5	28.5
40°	1303.3	544.8	80.7	54.6	40.4	32.0	27.3	26.1	24.9	24.9	24.9
42.5°	1391.1	517.5	74.8	48.7	35.6	27.3	23.7	23.7	22.6	22.6	21.4
45°	1489.7	490.2	68.8	42.7	30.9	23.7	20.2	19.0	19.0	17.8	17.8
47.5°	1606.0	465.3	62.9	38.0	27.3	20.2	17.8	16.6	15.4	14.2	14.2
50°	1769.8	462.9	55.8	33.2	24.9	16.6	14.2	13.1	11.9	10.7	10.7
52.5°	1932.4	441.6	47.5	27.3	20.2	14.2	10.7	9.5	8.3	8.3	7.1
55°	1969.2	405.9	41.5	23.7	15.4	10.7	8.3	5.9	5.9	4.7	4.7
57.5°	2049.9	389.3	35.6	19.0	11.9	8.3	4.7	3.6	3.6	3.6	3.6
60°	2209.0	384.6	30.9	16.6	8.3	5.9	3.6	2.4	2.4	1.2	1.2
62.5°	2428.6	379.8	26.1	14.2	5.9	3.6	2.4	1.2	0.0	0.0	0.0
65°	2549.6	347.8	21.4	10.7	4.7	3.6	1.2	0.0	0.0	0.0	0.0
67.5°	2517.6	287.2	19.0	7.1	3.6	2.4	1.2	0.0	0.0	0.0	0.0
69°	2383.4	242.1	15.4	5.9	3.6	2.4	1.2	0.0	0.0	0.0	0.0
70°	2222.0	208.9	14.2	4.7	2.4	1.2	1.2	0.0	0.0	0.0	0.0
72.5°	1577.5	109.2	9.5	3.6	2.4	1.2	0.0	0.0	0.0	0.0	0.0
75°	737.1	48.7	5.9	2.4	1.2	1.2	0.0	0.0	0.0	0.0	0.0
77.5°	162.6	22.6	3.6	2.4	1.2	0.0	0.0	0.0	0.0	0.0	0.0
80°	30.9	8.3	2.4	1.2	1.2	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	10.7	3.6	1.2	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	3.6	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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)