

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: P231369

Luminaire Tested: **ARCH-M-AF48-120-D-U-T4W-7050-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231369
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29625)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-M-AF48-120-D-U-T4W-7050-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 5000K, 785mA LIGHT ENGINES WITH 24 LEDS AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11352 lumens
Efficiency: N/A
Efficacy: 93.0 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type IV - Medium - Non-Cutoff
BUG Rating: B1 - U0 - G3

Input Watts (W): 122
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

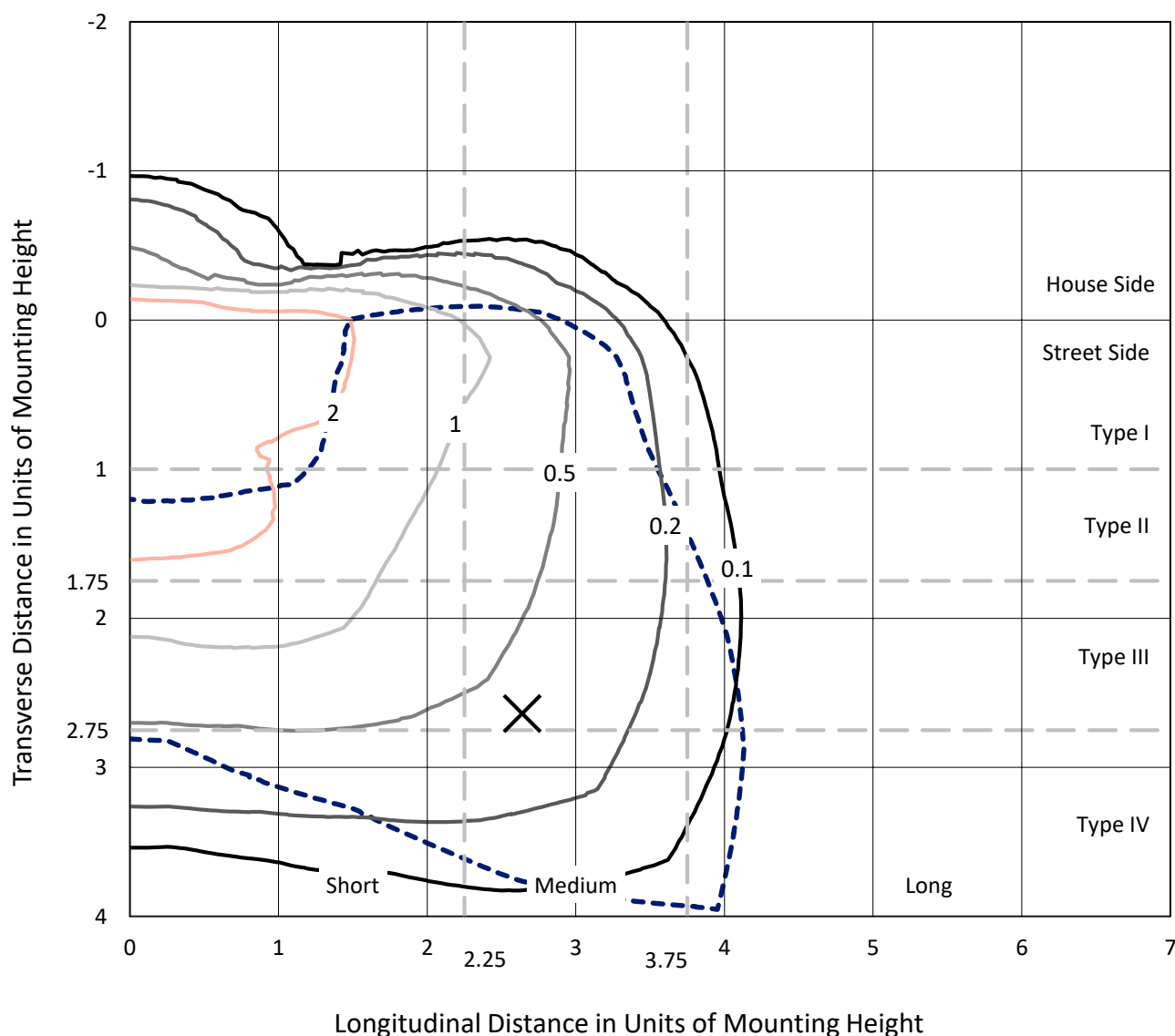


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
- - - 1/2 Max cd

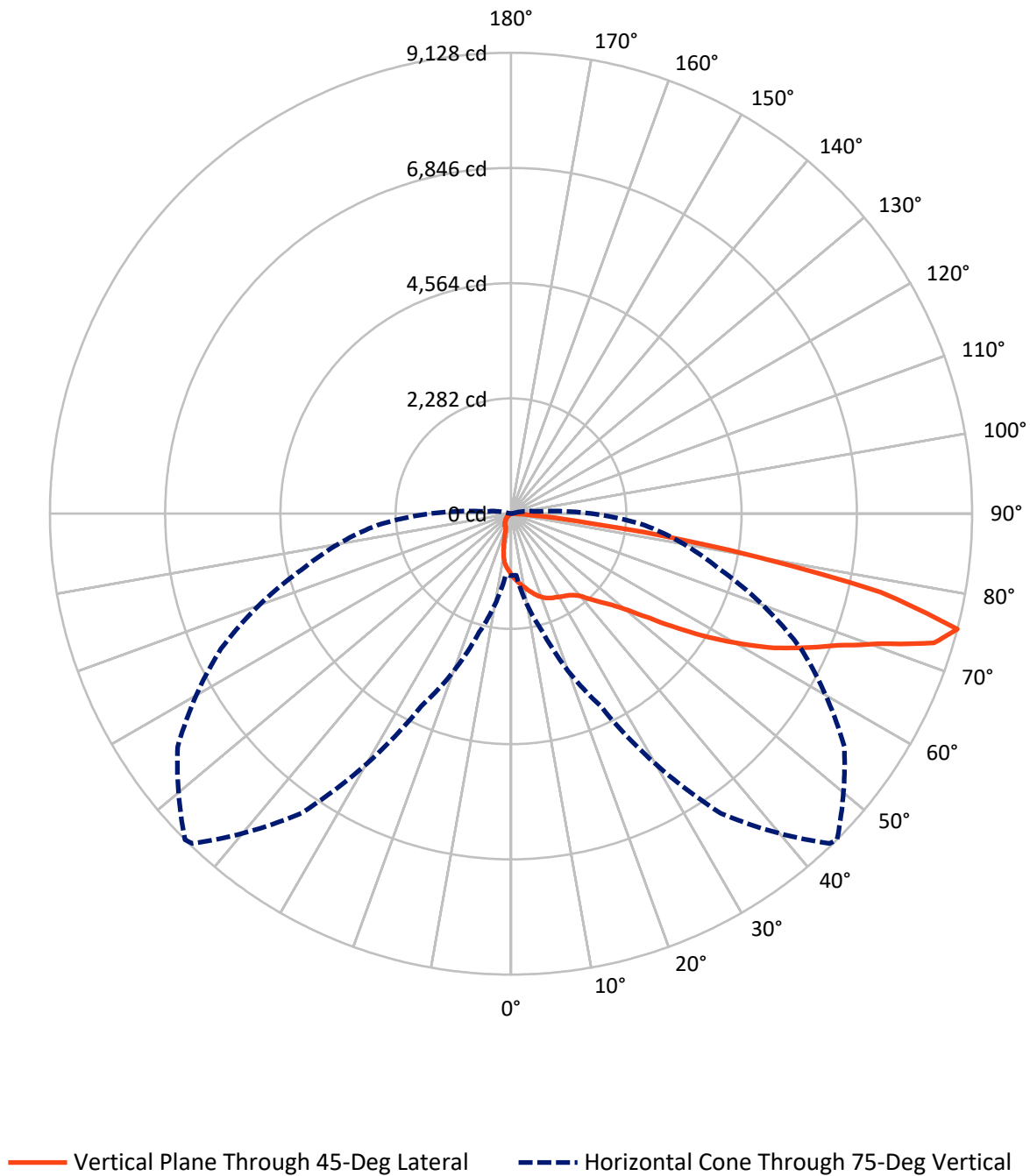


Based on 20 foot mounting height. Maximum calculated value = 4 fc
Type IV - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



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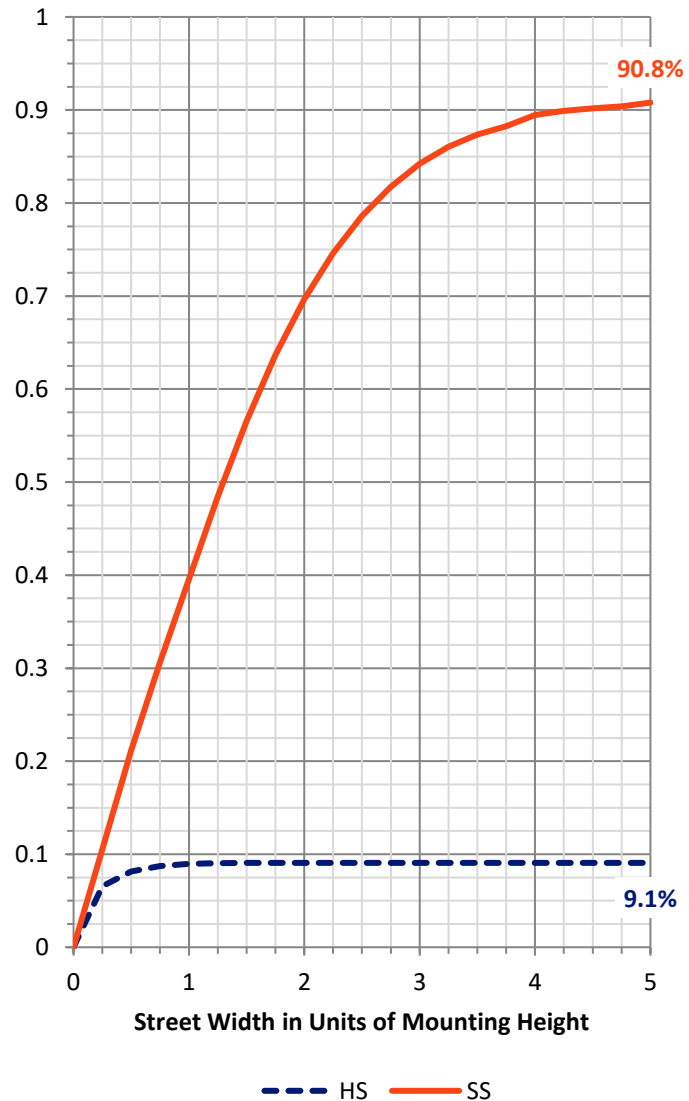
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1038.4	0.0	1038.4
	% Fixture	9.1	0.0	9.1
Street Side	Lumens	10313.6	0.0	10313.6
	% Fixture	90.9	0.0	90.9
Total	Lumens	11352.0	0.0	11352.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	114.6	1.0
10°-20°	324.6	2.9
20°-30°	537.6	4.7
30°-40°	778.1	6.9
40°-50°	1274.1	11.2
50°-60°	2270.2	20.0
60°-70°	3337.4	29.4
70°-80°	2517.8	22.2
80°-90°	197.5	1.7
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°	11352.0	100.0
0°-180°	11352.0	100.0

Coefficient of Utilization



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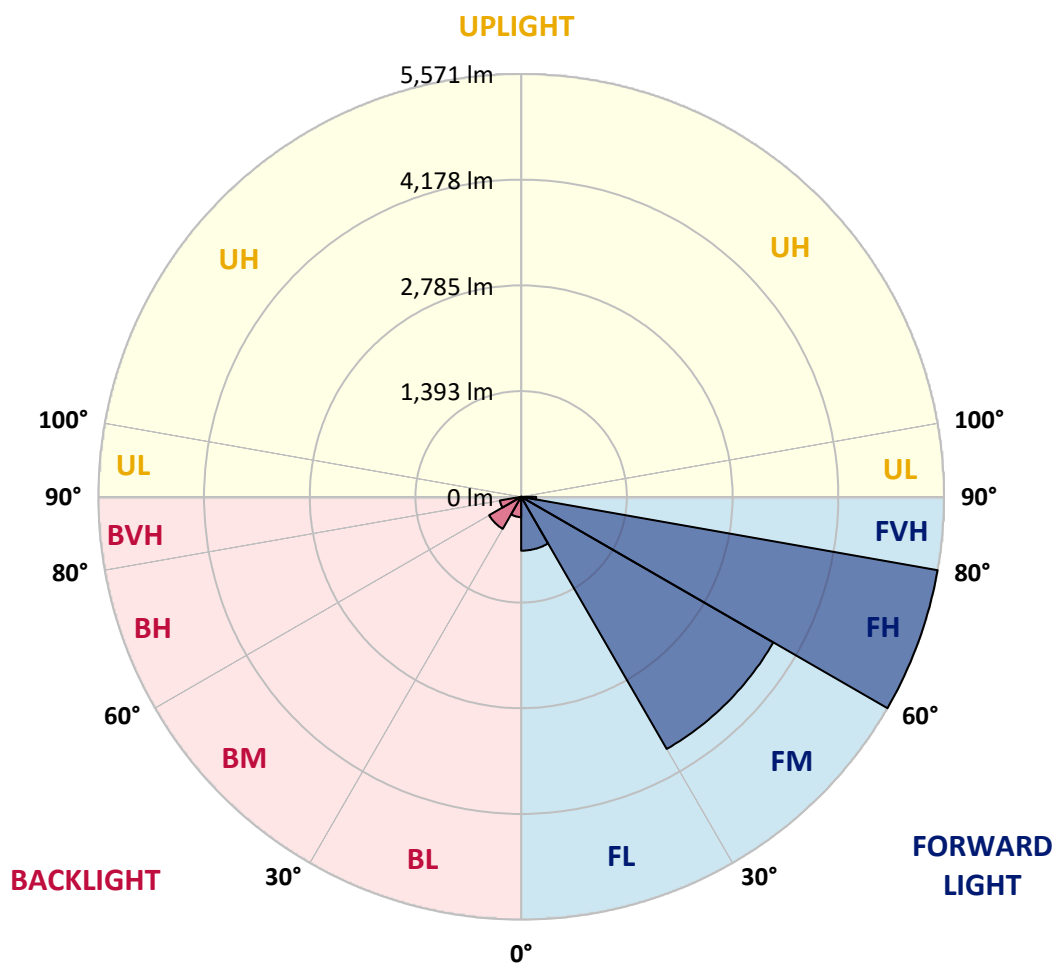
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	710.0	6.3			
FM	(30°-60°)	3835.8	33.8			
FH	(60°-80°)	5570.8	49.1			G3/7500
FVH	(80°-90°)	197.0	1.7			G2/225
BL	(0°-30°)	266.8	2.4	B1/500		
BM	(30°-60°)	486.6	4.3	B1/1000		
BH	(60°-80°)	284.4	2.5	B1/500		G1/500
BVH	(80°-90°)	0.6	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G3

Type IV Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	1214.2	1214.2	1214.2	1214.2	1214.2	1214.2	1214.2	1214.2	1214.2	1214.2	1214.2
2.5°	1318.9	1318.9	1316.2	1313.5	1300.1	1286.7	1284.0	1275.9	1251.8	1235.6	1219.5
5°	1429.1	1431.7	1426.4	1412.9	1383.4	1353.8	1351.2	1329.7	1284.0	1251.8	1216.8
7.5°	1533.8	1539.2	1525.8	1501.6	1466.7	1423.7	1421.0	1380.7	1321.6	1275.9	1224.9
10°	1622.5	1622.5	1603.7	1574.1	1536.5	1490.8	1485.5	1439.8	1372.6	1316.2	1249.1
12.5°	1719.2	1716.5	1689.6	1649.3	1606.3	1563.4	1560.7	1504.3	1439.8	1367.3	1284.0
15°	1807.8	1802.4	1767.5	1729.9	1684.2	1638.6	1635.9	1579.5	1512.3	1426.4	1335.0
17.5°	1856.2	1853.5	1821.2	1783.6	1746.0	1711.1	1708.4	1649.3	1576.8	1488.1	1386.1
20°	1864.2	1866.9	1840.0	1807.8	1786.3	1767.5	1767.5	1713.8	1635.9	1541.9	1439.8
22.5°	1866.9	1875.0	1856.2	1813.2	1807.8	1810.5	1815.9	1772.9	1692.3	1603.7	1496.2
25°	1885.7	1896.5	1883.0	1832.0	1826.6	1845.4	1850.8	1832.0	1759.5	1670.8	1560.7
27.5°	1923.3	1934.1	1923.3	1858.8	1850.8	1869.6	1875.0	1885.7	1832.0	1735.3	1627.8
30°	1998.5	2001.2	1977.0	1896.5	1880.3	1904.5	1912.6	1942.1	1899.1	1797.1	1692.3
32.5°	2130.1	2103.3	2030.8	1923.3	1909.9	1936.7	1944.8	1977.0	1960.9	1856.2	1759.5
35°	2398.8	2259.1	2092.5	1960.9	1947.5	1974.3	1985.1	2030.8	2038.8	1939.4	1842.7
37.5°	2396.1	2269.8	2237.6	2033.4	2014.6	2033.4	2046.9	2103.3	2135.5	2049.6	1963.6
40°	2565.3	2511.6	2511.6	2170.4	2108.7	2135.5	2149.0	2205.4	2261.8	2194.6	2106.0
42.5°	3097.2	3062.3	3024.7	2433.7	2240.3	2315.5	2323.6	2358.5	2425.6	2404.1	2299.4
45°	3690.8	3658.6	3513.5	2879.6	2465.9	2479.4	2498.2	2554.6	2651.3	2691.6	2568.0
47.5°	4155.5	4123.3	3999.7	3416.8	2817.8	2699.6	2699.6	2809.8	2960.2	3062.3	2944.1
50°	4528.9	4491.3	4416.1	3989.0	3395.3	3016.6	3000.5	3129.4	3352.4	3510.9	3430.3
52.5°	4891.6	4781.4	4735.8	4580.0	4048.1	3475.9	3433.0	3524.3	3833.2	4029.3	3962.1
55°	5133.3	5117.2	5068.8	5122.6	4733.1	4034.7	3997.1	4015.9	4402.7	4534.3	4451.0
57.5°	5358.9	5356.3	5463.7	5713.5	5479.8	4674.0	4614.9	4585.3	4953.3	4921.1	4993.6
60°	5638.3	5590.0	5839.8	6197.0	6164.8	5297.2	5230.0	5170.9	5375.1	5283.7	5643.7
62.5°	5651.7	5638.3	6146.0	6659.1	6844.4	5931.1	5853.2	5641.0	5743.1	5638.3	6264.2
65°	5138.7	5205.8	6274.9	6903.5	7413.9	6487.1	6393.1	6062.7	6070.8	6000.9	6994.8
67.5°	5023.2	5058.1	5920.4	7166.8	7824.9	7048.6	6959.9	6548.9	6452.2	6457.6	7427.3
70°	4735.8	4789.5	5479.8	7148.0	8149.9	7798.0	7709.4	7263.5	7029.8	6769.2	7094.2
72.5°	3618.3	3709.6	4617.6	6266.9	8061.3	8778.5	8754.3	8168.7	7260.8	6215.8	5367.0
75°	1224.9	1222.2	2425.6	4209.3	7242.0	9079.3	9127.7	8055.9	6334.0	4287.2	2664.7
77.5°	263.2	265.9	499.6	1705.7	4811.0	7290.3	7475.7	6076.2	4085.7	1909.9	609.8
80°	128.9	131.6	206.8	451.3	1923.3	4088.4	4378.5	3124.0	1509.6	381.4	102.1
82.5°	64.5	67.2	107.4	239.1	711.8	1453.2	1552.6	1149.7	432.5	214.9	51.0
85°	24.2	24.2	53.7	142.4	325.0	341.1	419.0	333.1	260.6	174.6	13.4
87.5°	5.4	5.4	29.5	69.8	145.1	107.4	107.4	102.1	158.5	118.2	5.4
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°	1214.2	1214.2	1214.2	1214.2	1214.2	1214.2	1214.2	1214.2	1214.2	1214.2	1214.2
2.5°	1211.5	1200.7	1181.9	1163.1	1149.7	1133.6	1125.5	1117.5	1114.8	1112.1	1117.5
5°	1198.0	1181.9	1147.0	1117.5	1090.6	1069.1	1053.0	1036.9	1028.8	1023.4	1026.1
7.5°	1198.0	1173.9	1122.8	1077.2	1034.2	988.5	942.9	907.9	881.1	865.0	867.6
10°	1211.5	1179.2	1112.1	1050.3	969.7	873.0	773.6	698.4	647.4	617.8	617.8
12.5°	1241.0	1198.0	1114.8	1018.1	881.1	711.8	561.4	470.1	432.5	411.0	413.7
15°	1281.3	1230.3	1128.2	975.1	757.5	529.2	392.2	333.1	333.1	338.5	341.1
17.5°	1327.0	1270.6	1138.9	910.6	599.0	378.8	308.9	303.5	311.6	325.0	325.0
20°	1372.6	1310.9	1144.3	808.5	448.6	300.9	292.8	292.8	298.2	311.6	314.3
22.5°	1429.1	1361.9	1138.9	682.3	335.8	284.7	282.0	282.0	282.0	298.2	298.2
25°	1488.1	1421.0	1117.5	548.0	284.7	274.0	271.3	268.6	268.6	282.0	284.7
27.5°	1555.3	1482.8	1066.4	419.0	268.6	263.2	260.6	255.2	255.2	265.9	265.9
30°	1622.5	1552.6	988.5	317.0	255.2	252.5	247.1	241.8	236.4	247.1	247.1
32.5°	1695.0	1625.1	886.4	252.5	236.4	236.4	233.7	225.6	220.3	225.6	228.3
35°	1791.7	1708.4	770.9	220.3	212.2	212.2	212.2	209.5	198.8	204.2	204.2
37.5°	1920.6	1823.9	636.6	204.2	193.4	188.0	188.0	188.0	180.0	182.7	182.7
40°	2084.5	1958.2	507.7	190.7	180.0	166.5	161.2	163.9	158.5	158.5	155.8
42.5°	2307.4	2103.3	381.4	180.0	169.2	150.4	139.7	137.0	131.6	128.9	128.9
45°	2627.1	2280.6	274.0	169.2	161.2	131.6	120.9	112.8	99.4	91.3	91.3
47.5°	3040.8	2482.0	204.2	158.5	153.1	115.5	102.1	86.0	67.2	61.8	61.8
50°	3545.8	2707.7	171.9	142.4	139.7	102.1	80.6	56.4	37.6	32.2	34.9
52.5°	4037.3	2919.9	153.1	126.3	123.6	88.6	59.1	29.5	16.1	16.1	16.1
55°	4451.0	3070.3	139.7	112.8	107.4	69.8	32.2	13.4	8.1	8.1	8.1
57.5°	4824.4	3156.3	126.3	99.4	86.0	48.4	13.4	5.4	5.4	2.7	2.7
60°	5165.5	3207.3	110.1	86.0	67.2	26.9	5.4	2.7	2.7	0.0	0.0
62.5°	5501.3	3244.9	94.0	69.8	51.0	10.7	2.7	2.7	0.0	0.0	0.0
65°	5756.5	3231.5	75.2	56.4	32.2	5.4	2.7	0.0	0.0	0.0	0.0
67.5°	5748.4	3048.8	56.4	43.0	16.1	2.7	0.0	0.0	0.0	0.0	0.0
70°	5141.4	2568.0	37.6	26.9	5.4	2.7	0.0	0.0	0.0	0.0	0.0
72.5°	3647.8	1646.6	24.2	16.1	2.7	0.0	0.0	0.0	0.0	0.0	0.0
75°	1606.3	499.6	13.4	8.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	314.3	115.5	8.1	5.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	75.2	13.4	2.7	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	32.2	5.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	8.1	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	5.4	2.7	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)