

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: P231170

Luminaire Tested: **ARCH-M-AF48-80-D-U-T3-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231170
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29465)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-M-AF48-80-D-U-T3-7050
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 5000K, 535mA LIGHT ENGINES WITH 24 LEDS AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11122 lumens
Efficiency: N/A
Efficacy: 134.0 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type III - Short - Non-Cutoff
BUG Rating: B2 - U0 - G2

Input Watts (W): 83
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

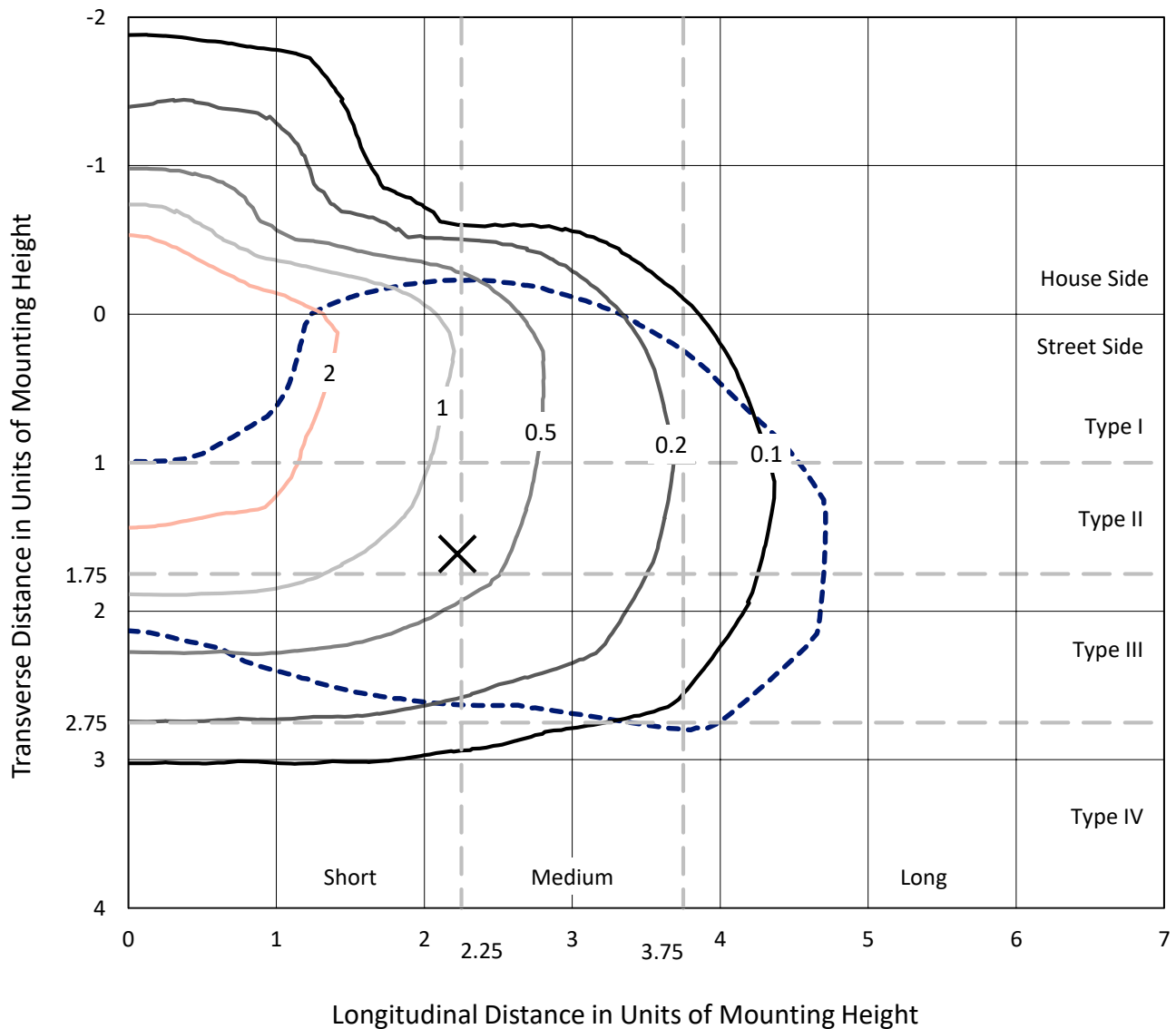


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
- - - 1/2 Max cd

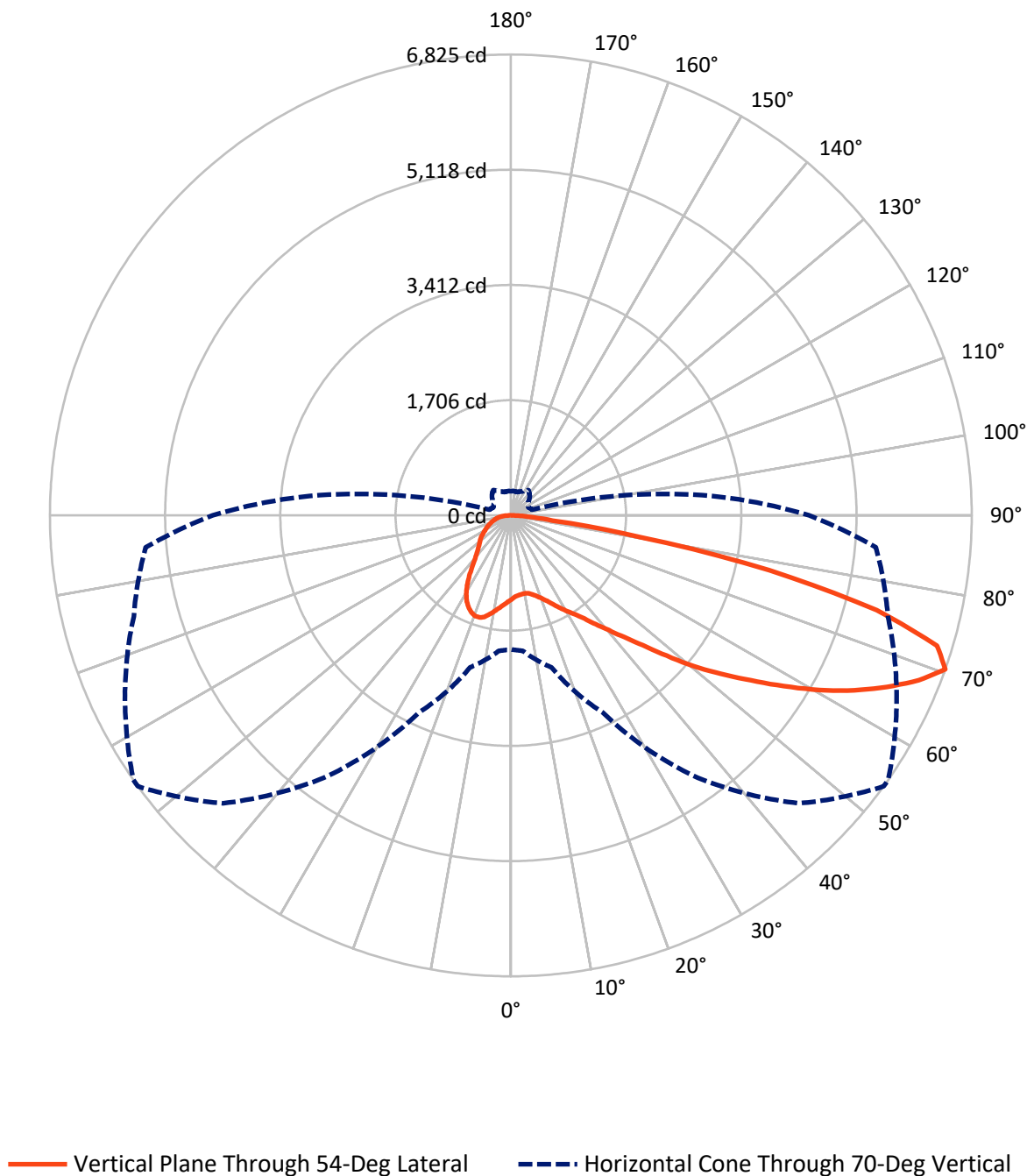


Based on 20 foot mounting height. Maximum calculated value = 3.6 fc
Type III - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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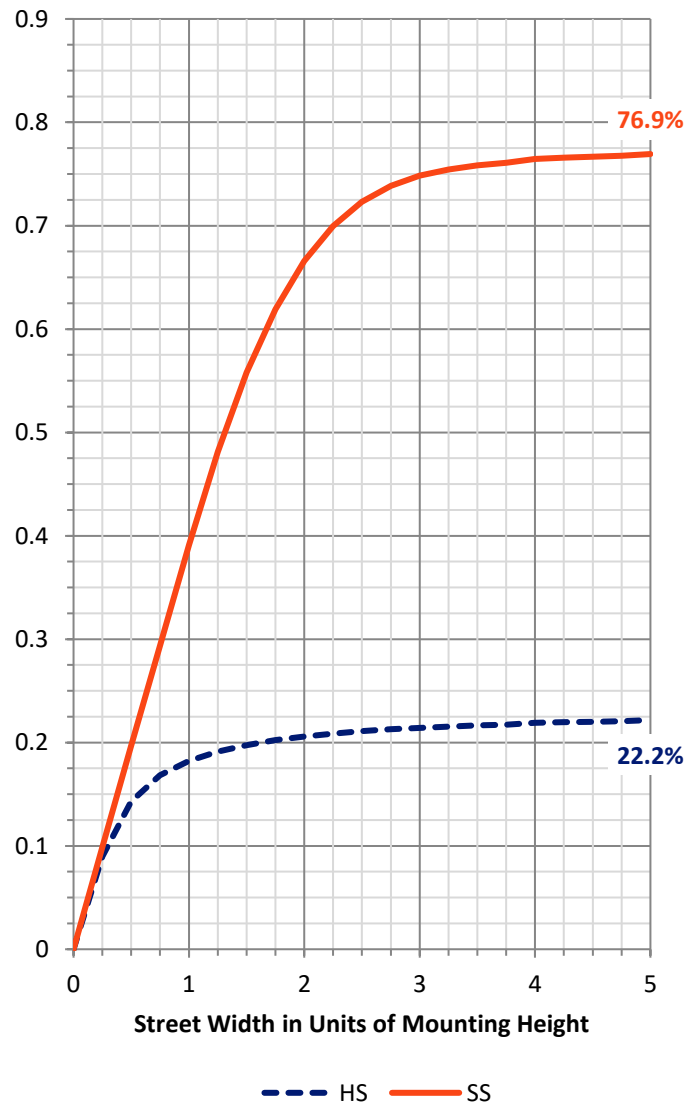
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2522.4	0.0	2522.4
	% Fixture	22.7	0.0	22.7
Street Side	Lumens	8599.6	0.0	8599.6
	% Fixture	77.3	0.0	77.3
Total	Lumens	11122.0	0.0	11122.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	122.1	1.1
10°-20°	390.2	3.5
20°-30°	677.9	6.1
30°-40°	990.7	8.9
40°-50°	1554.8	14.0
50°-60°	2390.9	21.5
60°-70°	2921.1	26.3
70°-80°	1811.1	16.3
80°-90°	263.1	2.4
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°	11122.0	100.0
0°-180°	11122.0	100.0

Coefficient of Utilization



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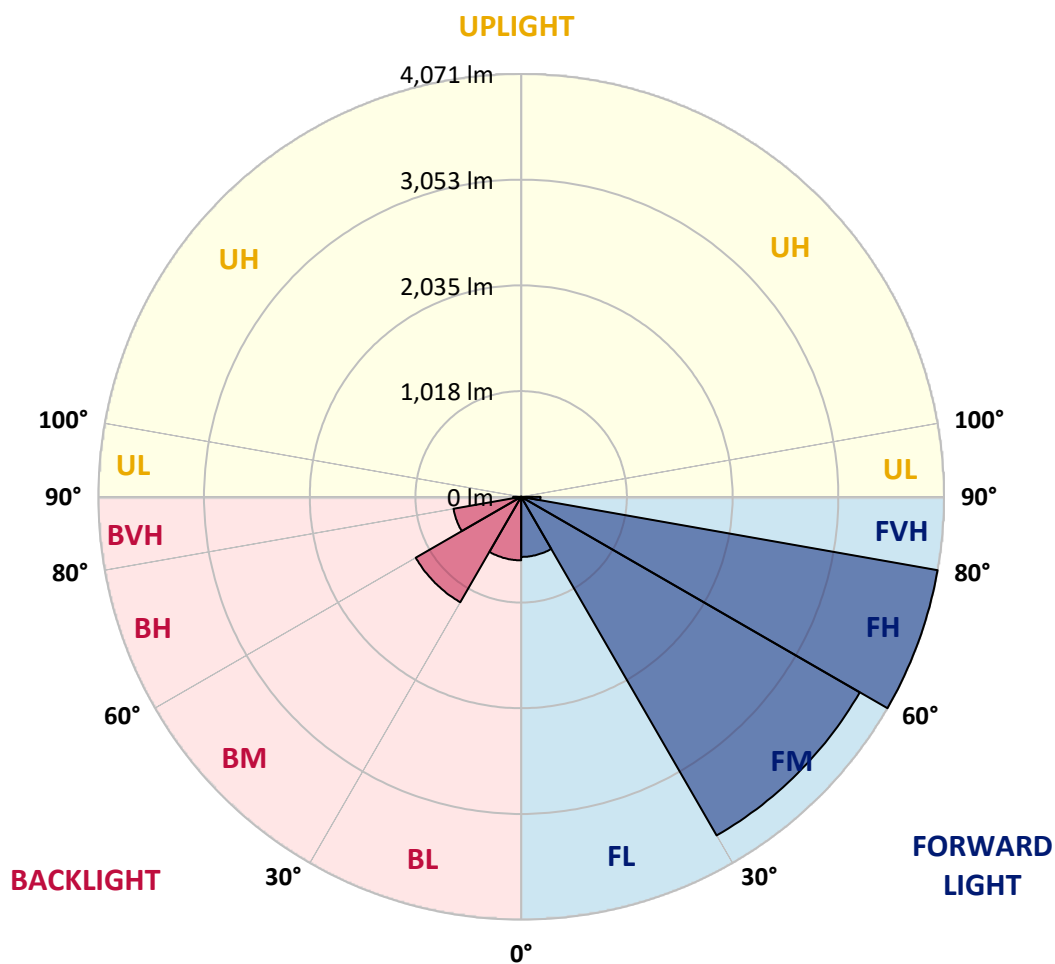
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	578.7	5.2			
FM	(30°-60°)	3764.3	33.8			
FH	(60°-80°)	4070.8	36.6			G2/5000
FVH	(80°-90°)	185.8	1.7			G2/225
BL	(0°-30°)	611.5	5.5	B2/1000		
BM	(30°-60°)	1172.1	10.5	B2/2500		
BH	(60°-80°)	661.4	5.9	B2/1000		G2/1000
BVH	(80°-90°)	77.3	0.7			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type III Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	54°	55°	65°	75°	85°
0°	1244.3	1244.3	1244.3	1244.3	1244.3	1244.3	1244.3	1244.3	1244.3	1244.3	1244.3
2.5°	1195.5	1191.4	1191.4	1197.5	1199.5	1205.6	1205.6	1207.7	1213.8	1224.0	1236.2
5°	1158.8	1156.8	1158.8	1166.9	1171.0	1183.2	1187.3	1189.3	1201.6	1217.9	1236.2
7.5°	1122.1	1120.1	1124.2	1136.4	1148.6	1166.9	1177.1	1179.2	1197.5	1219.9	1244.3
10°	1109.9	1107.9	1114.0	1124.2	1136.4	1156.8	1173.0	1175.1	1201.6	1228.0	1262.7
12.5°	1126.2	1124.2	1130.3	1140.5	1152.7	1166.9	1185.3	1187.3	1221.9	1256.5	1293.2
15°	1166.9	1166.9	1169.0	1175.1	1187.3	1199.5	1215.8	1217.9	1254.5	1295.2	1331.9
17.5°	1230.1	1226.0	1226.0	1224.0	1232.1	1238.2	1258.6	1260.6	1299.3	1336.0	1372.6
20°	1307.5	1305.4	1297.3	1287.1	1285.1	1289.1	1309.5	1311.5	1350.2	1380.8	1415.4
22.5°	1401.1	1403.2	1384.8	1362.4	1352.3	1358.4	1376.7	1378.7	1407.3	1433.7	1464.3
25°	1525.4	1519.3	1492.8	1460.2	1439.8	1439.8	1458.2	1458.2	1484.6	1500.9	1521.3
27.5°	1643.5	1631.3	1606.8	1560.0	1527.4	1533.5	1551.8	1551.8	1576.3	1582.4	1592.6
30°	1771.8	1759.6	1729.0	1670.0	1627.2	1623.1	1645.5	1643.5	1676.1	1674.0	1665.9
32.5°	1928.6	1922.5	1871.6	1796.2	1739.2	1725.0	1745.3	1747.4	1767.7	1761.6	1735.1
35°	2148.6	2146.5	2099.7	1967.3	1891.9	1865.5	1877.7	1877.7	1891.9	1875.7	1830.9
37.5°	2425.5	2429.6	2388.9	2193.4	2087.5	2042.7	2044.7	2042.7	2046.7	2028.4	1981.6
40°	2702.5	2712.7	2710.6	2474.4	2340.0	2262.6	2234.1	2230.0	2240.2	2232.1	2187.2
42.5°	3067.0	3091.5	3034.4	2820.6	2669.9	2539.6	2462.2	2452.0	2474.4	2484.6	2441.8
45°	3445.8	3437.7	3348.1	3193.3	3056.8	2889.9	2743.2	2726.9	2743.2	2773.8	2729.0
47.5°	3643.4	3637.3	3614.9	3537.5	3517.1	3325.7	3103.7	3089.4	3058.9	3101.7	3048.7
50°	3969.2	3975.3	3883.7	3875.5	3961.1	3855.2	3511.0	3478.4	3423.4	3458.0	3413.2
52.5°	4205.5	4179.0	4122.0	4193.2	4460.0	4403.0	3893.9	3879.6	3828.7	3820.6	3800.2
55°	4301.2	4301.2	4311.4	4476.3	4857.2	4781.8	4309.3	4323.6	4254.3	4197.3	4223.8
57.5°	4329.7	4341.9	4429.5	4702.4	5323.5	5077.1	4767.5	4787.9	4688.1	4574.1	4657.6
60°	4189.2	4225.8	4435.6	4830.7	5586.2	5390.7	5250.2	5256.3	5111.7	4944.7	5091.4
62.5°	3828.7	3873.5	4248.2	4883.6	5543.5	5712.5	5706.4	5720.6	5523.1	5315.4	5498.7
65°	3386.8	3431.6	3830.7	4735.0	5510.9	5942.6	6123.9	6162.6	5908.0	5629.0	5753.2
67.5°	2737.1	2796.2	3175.0	4234.0	5352.0	6132.0	6514.9	6555.6	6205.3	5791.9	5730.8
70°	1983.6	2012.1	2329.8	3217.7	4704.4	6028.2	6824.5	6822.4	6303.1	5779.7	5425.3
72.5°	955.1	977.5	1252.5	1997.8	3364.4	5115.8	6600.4	6639.1	6168.7	5602.5	4726.8
75°	393.1	415.5	507.1	843.1	1765.7	3380.7	5594.4	5686.0	5602.5	5028.2	3698.4
77.5°	244.4	252.5	297.3	435.8	806.5	1578.3	3916.3	4040.5	4439.7	4028.3	2441.8
80°	183.3	189.4	222.0	305.5	509.1	582.5	1944.9	2101.7	2690.3	2311.5	1105.8
82.5°	152.7	154.8	177.2	222.0	346.2	334.0	623.2	694.5	1254.5	881.8	380.8
85°	142.6	146.6	158.9	158.9	219.9	209.8	258.6	270.9	364.5	301.4	132.4
87.5°	73.3	69.2	140.5	124.2	114.0	101.8	110.0	118.1	136.4	144.6	59.1
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°	1244.3	1244.3	1244.3	1244.3	1244.3	1244.3	1244.3	1244.3	1244.3	1244.3	1244.3
2.5°	1240.3	1246.4	1256.5	1266.7	1278.9	1293.2	1301.4	1311.5	1319.7	1315.6	1313.6
5°	1246.4	1256.5	1278.9	1299.3	1323.8	1352.3	1370.6	1391.0	1407.3	1411.3	1405.2
7.5°	1256.5	1274.9	1305.4	1342.1	1374.7	1411.3	1439.8	1468.3	1488.7	1492.8	1492.8
10°	1281.0	1301.4	1342.1	1391.0	1429.7	1468.3	1500.9	1523.3	1541.7	1549.8	1549.8
12.5°	1315.6	1340.0	1388.9	1448.0	1490.7	1527.4	1545.7	1555.9	1564.1	1572.2	1574.2
15°	1356.3	1382.8	1441.9	1505.0	1549.8	1568.1	1568.1	1566.1	1566.1	1570.2	1574.2
17.5°	1397.1	1425.6	1486.7	1553.9	1582.4	1572.2	1558.0	1551.8	1547.8	1545.7	1551.8
20°	1439.8	1468.3	1529.4	1592.6	1584.4	1541.7	1521.3	1507.0	1494.8	1488.7	1496.9
22.5°	1486.7	1513.2	1576.3	1619.1	1558.0	1492.8	1454.1	1431.7	1411.3	1399.1	1407.3
25°	1541.7	1568.1	1629.2	1627.2	1511.1	1419.5	1358.4	1321.7	1299.3	1287.1	1287.1
27.5°	1606.8	1629.2	1688.3	1606.8	1445.9	1321.7	1232.1	1197.5	1191.4	1181.2	1181.2
30°	1674.0	1692.4	1743.3	1560.0	1356.3	1193.4	1095.7	1079.4	1081.4	1071.2	1073.3
32.5°	1743.3	1761.6	1775.9	1490.7	1240.3	1048.8	983.6	971.4	969.4	961.2	953.1
35°	1841.0	1867.5	1779.9	1397.1	1099.7	928.7	881.8	869.6	857.4	828.9	828.9
37.5°	1989.7	2018.2	1769.8	1281.0	955.1	835.0	792.2	775.9	755.6	727.0	716.9
40°	2193.4	2193.4	1747.4	1150.6	839.1	759.6	718.9	698.5	676.1	647.6	641.5
42.5°	2433.7	2376.6	1712.7	1018.3	753.5	708.7	672.1	649.7	623.2	590.6	586.5
45°	2714.7	2559.9	1663.9	900.2	690.4	678.2	655.8	617.1	572.3	537.6	531.5
47.5°	2987.6	2724.9	1617.0	816.7	637.4	665.9	647.6	582.5	521.4	472.5	466.4
50°	3287.0	2871.5	1562.0	747.4	596.7	657.8	637.4	531.5	464.3	429.7	425.6
52.5°	3586.4	3020.2	1503.0	674.1	562.1	641.5	613.0	494.9	462.3	415.5	409.3
55°	3902.0	3193.3	1433.7	592.6	521.4	608.9	580.4	492.8	476.6	415.5	401.2
57.5°	4209.5	3384.7	1321.7	513.2	476.6	560.0	568.2	480.6	446.0	411.4	395.1
60°	4549.6	3588.4	1136.4	446.0	437.9	519.3	551.9	454.1	411.4	399.2	391.0
62.5°	4822.5	3771.7	887.9	399.2	405.3	486.7	531.5	437.9	397.1	386.9	384.9
65°	4940.7	3775.7	637.4	358.4	372.7	456.2	511.2	423.6	384.9	380.8	378.8
67.5°	4816.4	3568.0	448.0	319.7	338.1	427.7	484.7	409.3	372.7	374.7	370.7
70°	4415.2	3130.2	327.9	283.1	305.5	397.1	456.2	391.0	358.4	362.5	356.4
72.5°	3694.3	2439.8	262.7	252.5	279.0	364.5	427.7	370.7	336.0	338.1	325.8
75°	2729.0	1617.0	219.9	226.1	248.5	334.0	391.0	344.2	311.6	303.4	295.3
77.5°	1623.1	830.9	181.3	197.5	222.0	297.3	350.3	311.6	285.1	270.9	264.8
80°	670.0	336.0	148.7	167.0	193.5	264.8	309.6	272.9	254.6	240.3	232.2
82.5°	266.8	165.0	118.1	136.4	162.9	230.1	270.9	240.3	222.0	211.8	189.4
85°	101.8	81.5	79.4	95.7	122.2	177.2	224.0	201.6	187.4	160.9	154.8
87.5°	40.7	36.7	36.7	46.8	69.2	112.0	160.9	140.5	146.6	116.1	118.1
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)