

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: P231300

Luminaire Tested: **ARCH-M-AF48-80-D-U-T4W-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231300
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-AF48-80-D-U-T4W-7050
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 5000K, 535mA LIGHT ENGINES WITH 24 LEDS AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11064 lumens
Efficiency: N/A
Efficacy: 133.3 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): 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

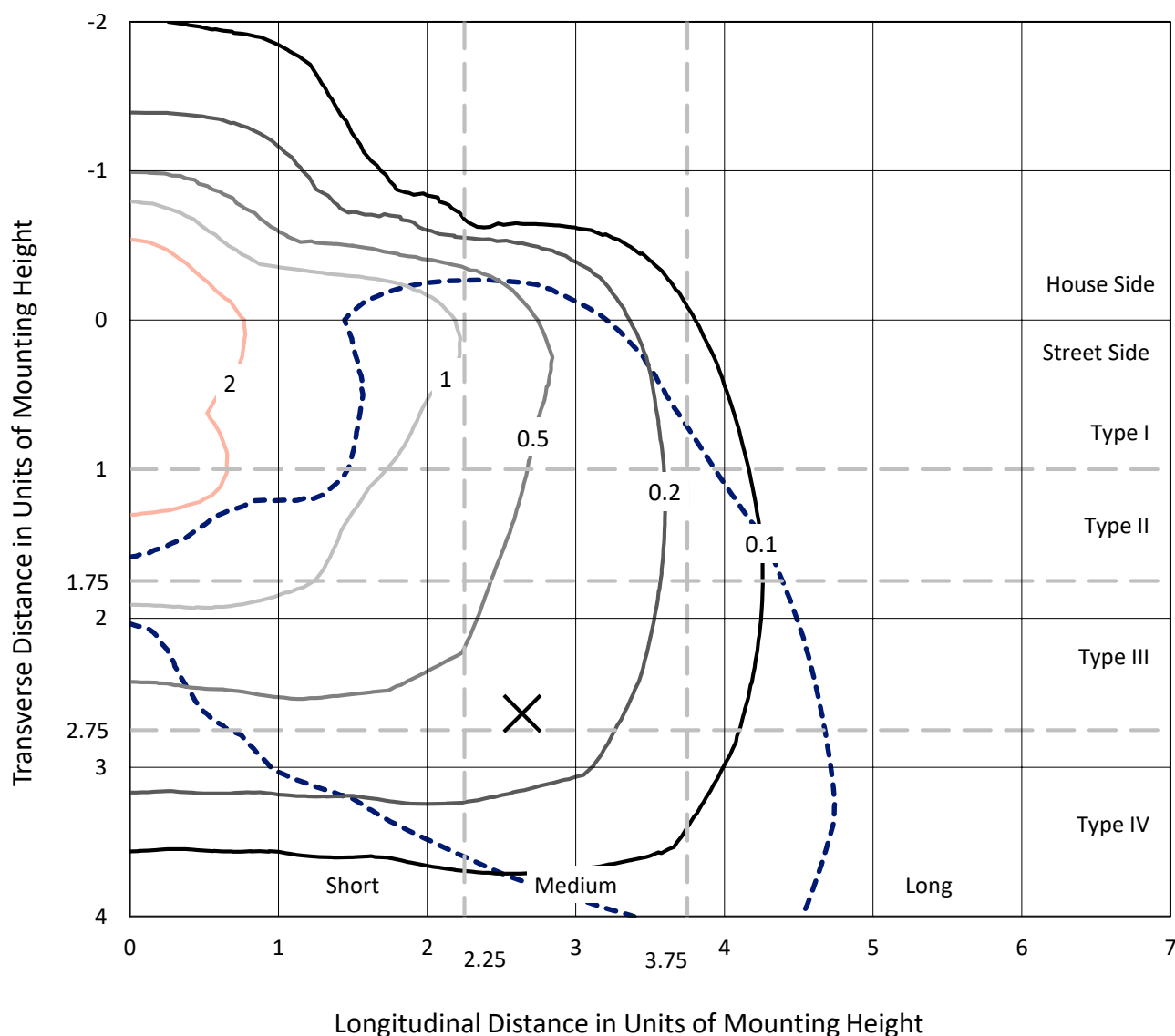


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

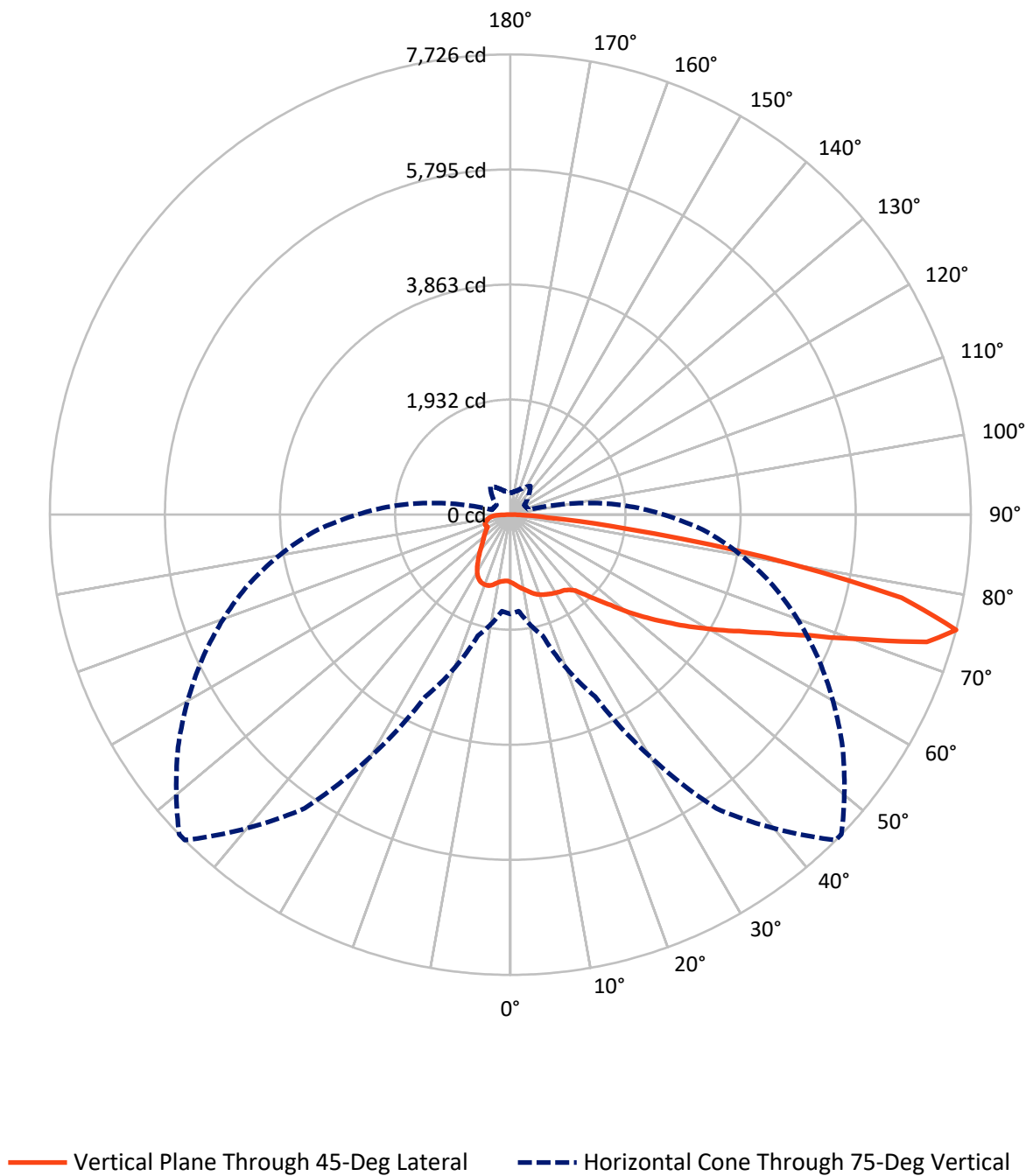


Based on 20 foot mounting height. Maximum calculated value = 3.3 fc
 Type IV - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



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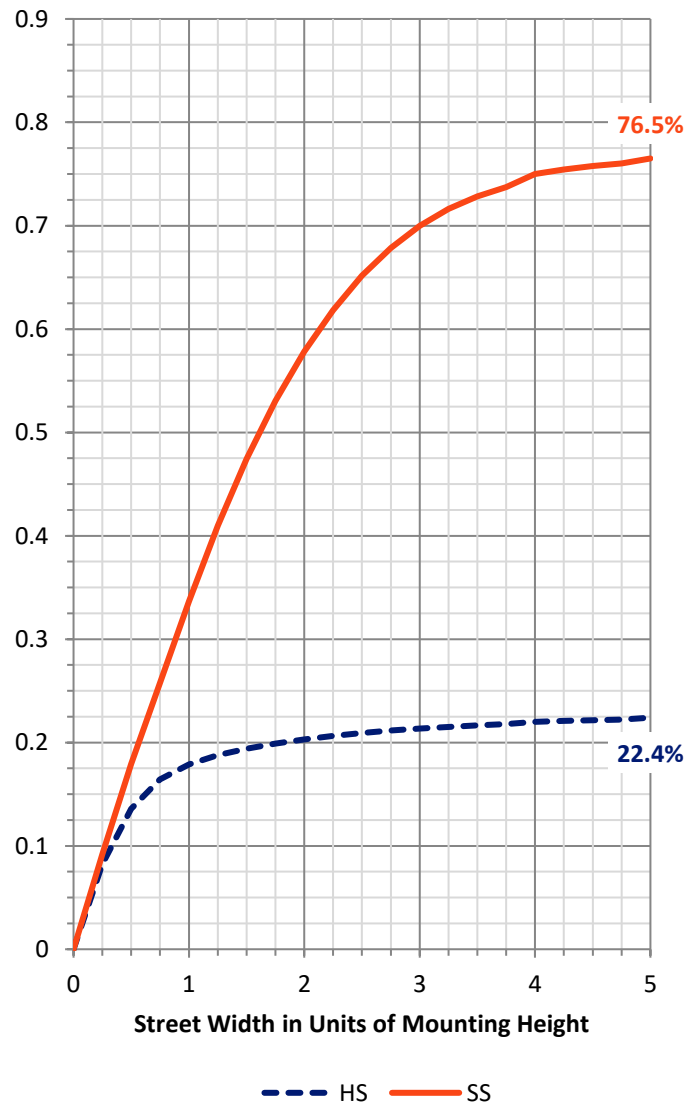
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2563.1	0.0	2563.1
	% Fixture	23.2	0.0	23.2
Street Side	Lumens	8500.9	0.0	8500.9
	% Fixture	76.8	0.0	76.8
Total	Lumens	11064.0	0.0	11064.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	112.4	1.0
10°-20°	364.2	3.3
20°-30°	625.0	5.6
30°-40°	874.2	7.9
40°-50°	1282.4	11.6
50°-60°	1997.6	18.1
60°-70°	2874.3	26.0
70°-80°	2503.9	22.6
80°-90°	430.0	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°	11064.0	100.0
0°-180°	11064.0	100.0

Coefficient of Utilization



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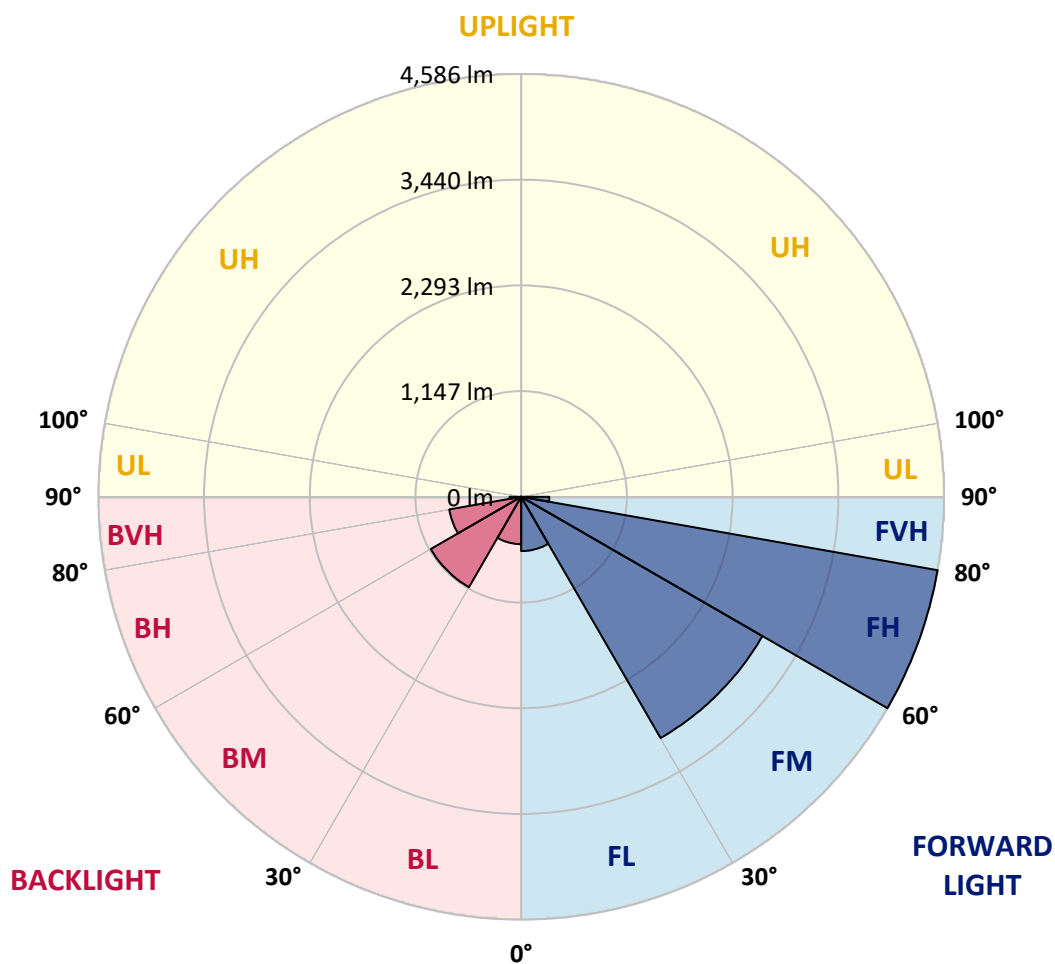
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	588.3	5.3			
FM	(30°-60°)	3021.4	27.3			
FH	(60°-80°)	4586.1	41.5			G2/5000
FVH	(80°-90°)	305.1	2.8			G3/500
BL	(0°-30°)	513.3	4.6	B2/1000		
BM	(30°-60°)	1132.7	10.2	B2/2500		
BH	(60°-80°)	792.1	7.2	B2/1000		G2/1000
BVH	(80°-90°)	124.9	1.1			G2/225
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°	1134.2	1134.2	1134.2	1134.2	1134.2	1134.2	1134.2	1134.2	1134.2	1134.2	1134.2
2.5°	1190.2	1181.6	1181.6	1175.1	1175.1	1164.3	1160.0	1157.9	1147.1	1140.7	1134.2
5°	1259.0	1248.3	1246.1	1231.1	1224.6	1200.9	1198.8	1183.7	1164.3	1145.0	1129.9
7.5°	1321.5	1315.0	1304.2	1289.2	1269.8	1239.7	1237.5	1213.8	1181.6	1155.7	1134.2
10°	1366.7	1362.4	1347.3	1327.9	1306.4	1276.3	1274.1	1248.3	1209.5	1179.4	1149.3
12.5°	1420.5	1414.0	1394.6	1368.8	1345.1	1317.2	1315.0	1293.5	1250.4	1211.7	1173.0
15°	1472.1	1463.5	1439.8	1414.0	1388.2	1364.5	1364.5	1340.8	1295.6	1250.4	1205.2
17.5°	1497.9	1493.6	1470.0	1442.0	1420.5	1403.2	1401.1	1379.6	1334.4	1287.0	1237.5
20°	1506.6	1508.7	1487.2	1457.0	1442.0	1433.4	1431.2	1416.2	1366.7	1321.5	1274.1
22.5°	1504.4	1510.9	1493.6	1461.4	1457.0	1457.0	1457.0	1439.8	1401.1	1355.9	1308.5
25°	1513.0	1521.6	1508.7	1470.0	1470.0	1478.6	1478.6	1470.0	1435.5	1396.8	1349.4
27.5°	1543.1	1549.6	1538.8	1485.0	1487.2	1500.1	1497.9	1500.1	1478.6	1442.0	1394.6
30°	1579.7	1588.3	1575.4	1508.7	1506.6	1519.5	1519.5	1530.2	1515.2	1476.4	1437.7
32.5°	1678.7	1676.6	1635.7	1534.5	1528.1	1541.0	1541.0	1551.7	1543.1	1513.0	1476.4
35°	1973.6	1941.3	1850.9	1618.5	1553.9	1560.4	1560.4	1579.7	1584.0	1560.4	1528.1
37.5°	2274.9	2264.1	2195.3	1842.3	1648.6	1601.2	1599.1	1627.1	1646.4	1627.1	1605.6
40°	2578.4	2569.7	2554.7	2141.5	1846.6	1674.4	1668.0	1691.6	1726.1	1713.2	1700.2
42.5°	2860.3	2856.0	2871.1	2436.3	2098.4	1831.5	1812.2	1784.2	1833.7	1829.4	1829.4
45°	3082.0	3092.7	3101.3	2711.8	2371.7	2033.8	2010.2	1915.5	1982.2	1999.4	2012.3
47.5°	3206.8	3215.4	3245.5	2980.8	2645.1	2268.4	2251.2	2096.3	2184.5	2236.2	2272.7
50°	3385.4	3361.8	3387.6	3243.4	2974.4	2574.0	2526.7	2339.5	2451.4	2541.8	2627.9
52.5°	3557.6	3518.9	3540.4	3546.8	3348.8	2873.2	2823.7	2625.7	2765.6	2907.6	3060.4
55°	3712.6	3710.4	3731.9	3841.7	3710.4	3193.9	3137.9	2942.1	3144.4	3297.2	3555.5
57.5°	3837.4	3858.9	3953.6	4183.9	4127.9	3542.5	3480.1	3310.1	3549.0	3701.8	4130.1
60°	3983.7	4018.2	4175.3	4474.5	4508.9	3908.4	3843.9	3721.2	3964.4	4119.3	4795.1
62.5°	4033.2	4082.8	4405.6	4780.1	4907.0	4308.7	4250.6	4168.8	4401.3	4541.2	5458.0
65°	3704.0	3798.7	4532.6	4937.2	5335.3	4790.8	4741.3	4670.3	4836.0	4928.6	5907.8
67.5°	3613.6	3656.6	4285.1	5163.2	5737.8	5410.7	5361.2	5238.5	5242.8	5204.1	6054.2
70°	3486.6	3533.9	4031.1	5333.2	6314.6	6258.6	6198.4	5836.8	5615.1	5380.5	5765.8
72.5°	2970.1	2955.0	3473.7	4874.8	6592.2	7308.9	7237.9	6480.3	5890.6	5227.7	4866.2
75°	1668.0	1624.9	2107.0	3372.5	6019.7	7726.4	7724.3	6805.3	5696.9	4554.1	3312.3
77.5°	484.2	471.3	695.2	1414.0	4052.6	6712.8	6794.5	6138.1	4754.2	3271.4	1818.6
80°	228.1	232.4	299.2	467.0	1730.4	4332.4	4567.0	4041.9	2840.9	1508.7	751.1
82.5°	144.2	146.4	204.5	301.3	731.8	1967.1	2160.8	1818.6	1125.6	652.1	331.4
85°	90.4	90.4	135.6	198.0	436.9	628.4	682.3	619.8	482.1	355.1	180.8
87.5°	49.5	49.5	81.8	114.1	238.9	202.3	208.8	247.5	301.3	217.4	90.4
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°	1134.2	1134.2	1134.2	1134.2	1134.2	1134.2	1134.2	1134.2	1134.2	1134.2	1134.2
2.5°	1132.1	1127.8	1121.3	1119.2	1117.0	1114.8	1117.0	1121.3	1117.0	1117.0	1119.2
5°	1125.6	1121.3	1112.7	1112.7	1114.8	1117.0	1127.8	1134.2	1136.4	1136.4	1136.4
7.5°	1125.6	1119.2	1112.7	1114.8	1119.2	1127.8	1145.0	1155.7	1164.3	1166.5	1166.5
10°	1136.4	1127.8	1123.5	1127.8	1140.7	1147.1	1164.3	1181.6	1192.3	1196.6	1196.6
12.5°	1155.7	1147.1	1147.1	1155.7	1173.0	1181.6	1196.6	1209.5	1222.5	1228.9	1228.9
15°	1188.0	1177.3	1179.4	1194.5	1213.8	1222.5	1233.2	1237.5	1248.3	1256.9	1256.9
17.5°	1218.2	1207.4	1211.7	1228.9	1241.8	1246.1	1252.6	1250.4	1254.7	1261.2	1263.3
20°	1252.6	1241.8	1244.0	1254.7	1256.9	1252.6	1252.6	1246.1	1244.0	1254.7	1259.0
22.5°	1287.0	1276.3	1274.1	1267.7	1256.9	1246.1	1239.7	1233.2	1228.9	1239.7	1244.0
25°	1327.9	1312.9	1302.1	1274.1	1246.1	1226.8	1218.2	1213.8	1211.7	1222.5	1226.8
27.5°	1373.1	1358.0	1325.8	1265.5	1220.3	1188.0	1181.6	1181.6	1185.9	1192.3	1196.6
30°	1416.2	1401.1	1343.0	1246.1	1175.1	1127.8	1121.3	1127.8	1138.5	1145.0	1151.4
32.5°	1459.2	1444.1	1353.7	1216.0	1108.4	1048.1	1043.8	1054.6	1071.8	1076.1	1080.4
35°	1517.3	1502.2	1366.7	1173.0	1024.5	959.9	955.6	962.0	977.1	983.6	990.0
37.5°	1599.1	1590.5	1386.0	1125.6	947.0	876.0	863.0	858.7	867.3	865.2	873.8
40°	1706.7	1713.2	1420.5	1063.2	871.6	798.5	770.5	757.6	749.0	731.8	740.4
42.5°	1863.8	1868.1	1459.2	992.2	807.1	725.3	688.7	665.0	647.8	619.8	624.1
45°	2094.1	2057.5	1504.4	916.8	749.0	667.2	624.1	596.2	572.5	548.8	551.0
47.5°	2399.7	2287.8	1553.9	854.4	690.9	619.8	581.1	548.8	520.8	501.5	503.6
50°	2776.4	2574.0	1603.4	796.3	632.8	583.3	548.8	514.4	486.4	467.0	464.9
52.5°	3273.5	2918.4	1635.7	731.8	574.6	551.0	520.8	488.6	454.1	430.4	428.3
55°	3790.0	3318.7	1663.7	654.3	518.7	514.4	499.3	462.7	421.8	391.7	387.4
57.5°	4358.2	3747.0	1685.2	578.9	475.6	484.2	479.9	436.9	391.7	363.7	361.6
60°	4874.8	4190.4	1616.3	512.2	436.9	454.1	458.4	421.8	398.2	404.6	406.8
62.5°	5395.6	4532.6	1353.7	462.7	411.1	434.7	471.3	469.2	458.4	469.2	471.3
65°	5582.8	4603.6	959.9	421.8	385.2	443.4	512.2	507.9	458.4	439.1	434.7
67.5°	5477.4	4392.7	645.7	389.6	365.9	454.1	555.3	507.9	441.2	415.4	406.8
70°	4975.9	3874.0	473.5	357.3	348.7	452.0	578.9	505.8	432.6	404.6	393.9
72.5°	3968.7	2989.4	380.9	327.1	322.8	441.2	591.9	501.5	424.0	393.9	380.9
75°	2569.7	1859.5	320.7	297.0	284.1	424.0	585.4	488.6	413.2	374.5	365.9
77.5°	1192.3	800.6	273.3	262.6	247.5	398.2	566.0	462.7	389.6	353.0	342.2
80°	555.3	378.8	230.3	228.1	221.7	376.6	540.2	432.6	361.6	331.4	314.2
82.5°	297.0	228.1	187.2	187.2	193.7	350.8	507.9	396.0	325.0	309.9	264.7
85°	157.1	131.3	135.6	146.4	165.7	309.9	464.9	357.3	284.1	236.7	230.3
87.5°	79.6	83.9	83.9	99.0	127.0	251.8	383.1	294.9	241.0	193.7	189.4
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)