

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: P157759

Luminaire Tested: **VST-E02-LED-E-U-5XQ-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P157759
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33710)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: VST-E02-LED-E-U-5XQ-7030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE EXTRA WIDE
Light Source: (42) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5777.1 lumens
Efficiency: N/A
Efficacy: 110.9 lumens/watt
Luminous Opening: Rectangular (W 0.33' x L: 1' x H: 0')
IES Classification: Type V - Short - Non-Cutoff
BUG Rating: B3 - U1 - G2

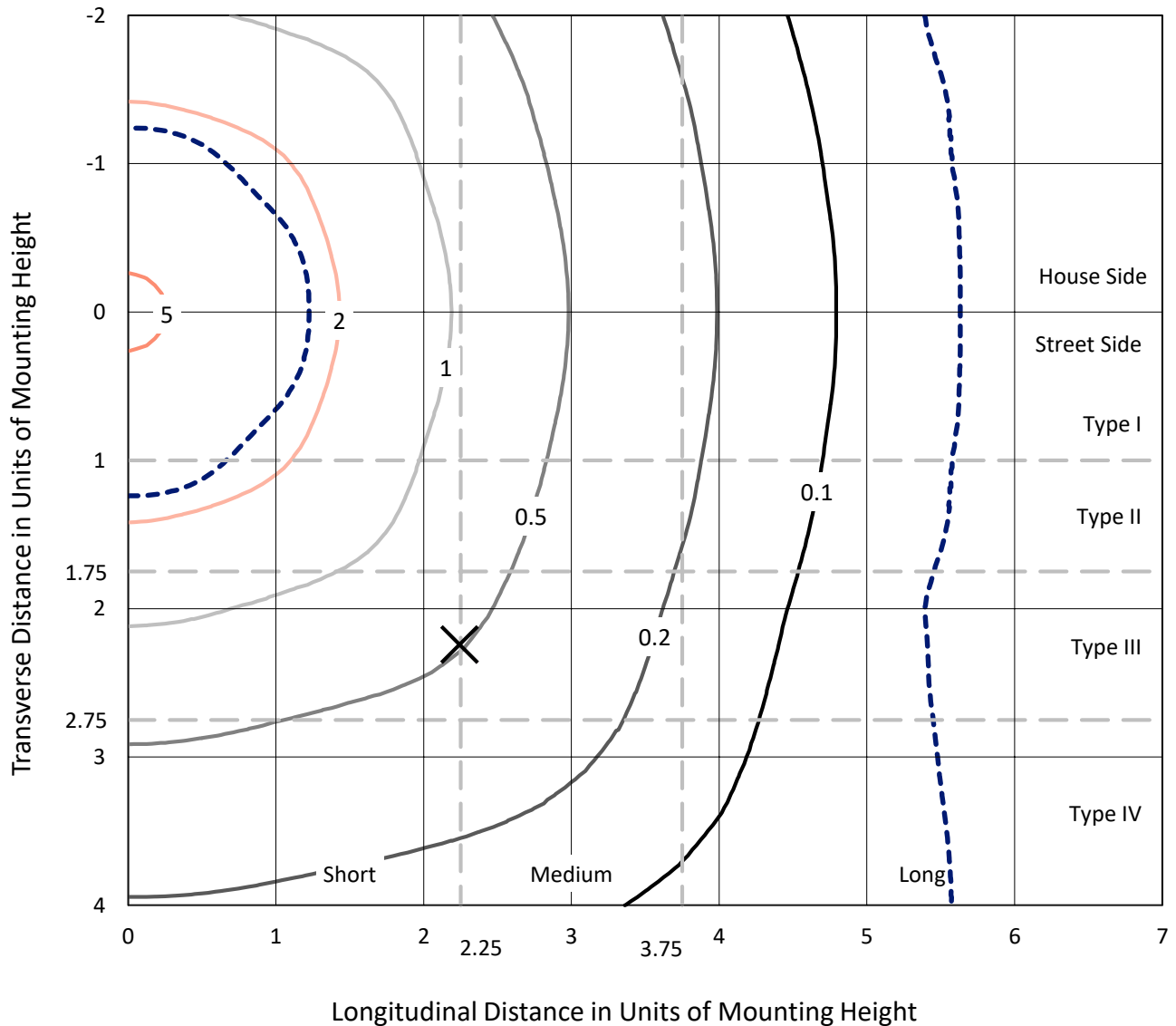
Input Watts (W): 52.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

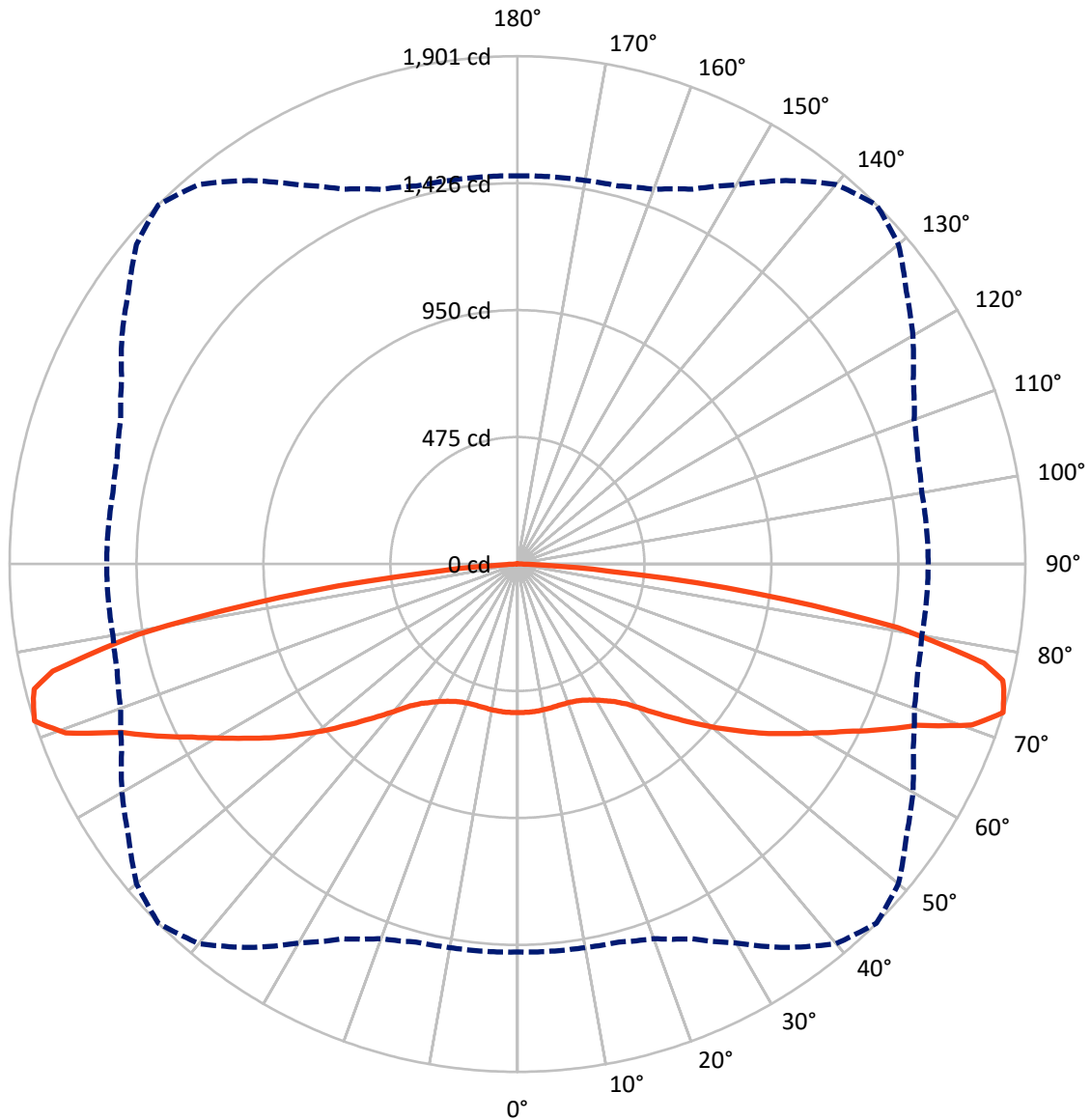


Based on 10 foot mounting height. Maximum calculated value = 5.6 fc
 Type V - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

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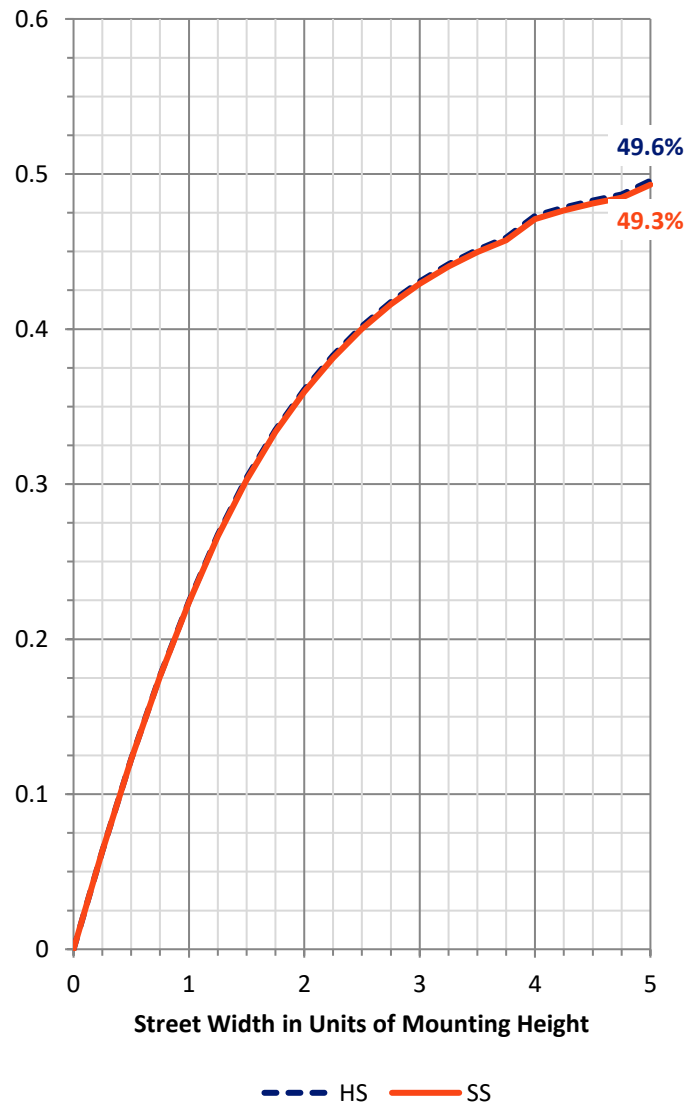
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2887.1	1.4	2888.6
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	2887.1	1.4	2888.6
	% Fixture	50.0	0.0	50.0
Total	Lumens	5774.3	2.9	5777.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	53.1	0.9
10°-20°	156.7	2.7
20°-30°	262.0	4.5
30°-40°	398.3	6.9
40°-50°	630.8	10.9
50°-60°	964.9	16.7
60°-70°	1380.9	23.9
70°-80°	1580.0	27.3
80°-90°	347.7	6.0
90°-100°	0.3	0.0
100°-110°	0.6	0.0
110°-120°	0.4	0.0
120°-130°	0.5	0.0
130°-140°	0.4	0.0
140°-150°	0.3	0.0
150°-160°	0.2	0.0
160°-170°	0.1	0.0
170°-180°	0.0	0.0
0°-90°	5774.3	100.0
0°-180°	5777.1	100.0



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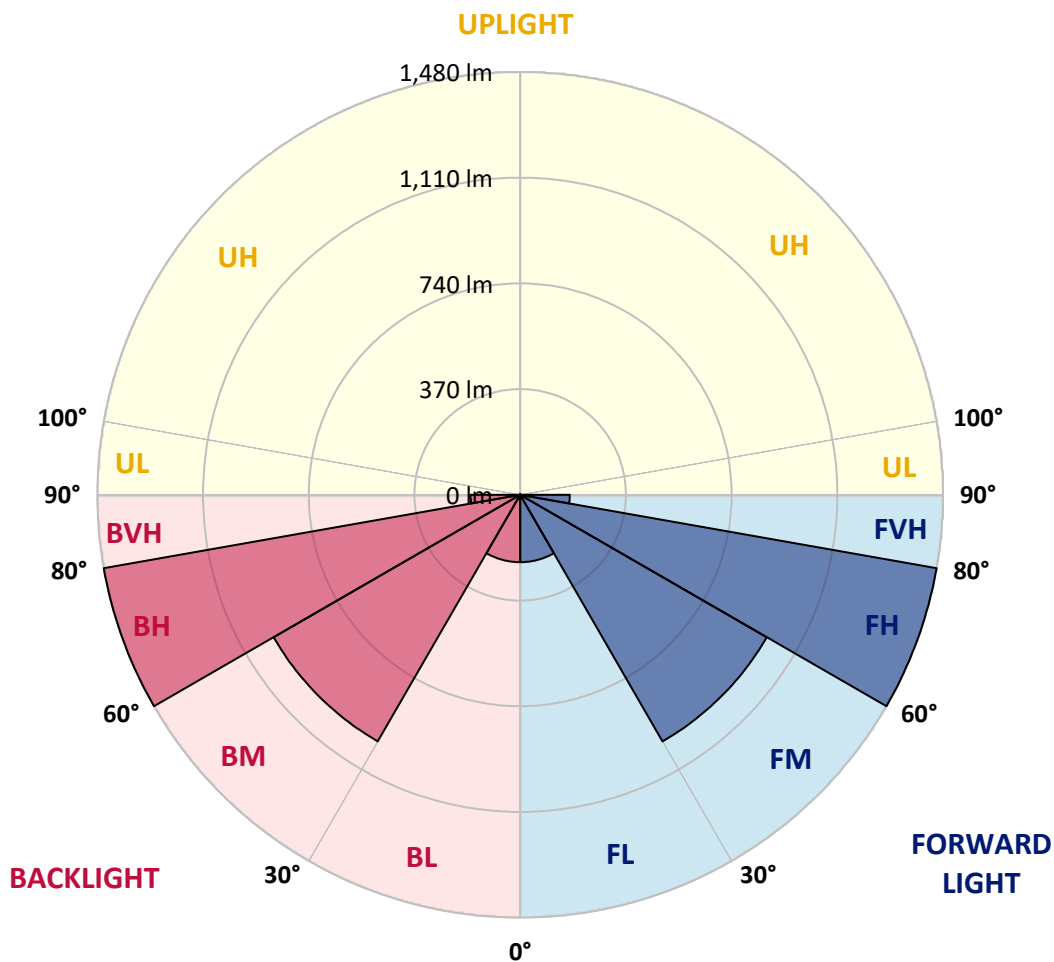
CATALOG NUMBER: VST-E02-LED-E-U-5XQ-7030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	235.9	4.1			
FM	(30°-60°)	996.9	17.3			
FH	(60°-80°)	1480.4	25.6			G1/1800
FVH	(80°-90°)	173.9	3.0			G2/225
BL	(0°-30°)	235.9	4.1	B1/500		
BM	(30°-60°)	996.9	17.3	B1/1000		
BH	(60°-80°)	1480.4	25.6	B3/2500		G1/1800
BVH	(80°-90°)	173.9	3.0			G2/225
UL	(90°-100°)	0.3	0.0		U1/10	
UH	(100°-180°)	1.4	0.0		U1/10	

BUG Rating: B3-U1-G2

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	556.0	556.0	556.0	556.0	556.0	556.0	556.0	556.0	556.0	556.0	556.0
2.5°	556.4	555.7	556.0	556.8	556.4	556.4	556.0	556.0	556.8	556.0	556.4
5°	556.8	556.0	556.4	556.8	556.4	556.8	556.4	556.4	556.4	556.0	556.8
7.5°	555.3	555.3	555.7	555.7	555.3	555.7	555.7	555.7	555.3	555.3	556.0
10°	554.6	554.2	554.2	554.6	554.2	554.2	554.6	554.6	553.9	553.9	554.6
12.5°	553.5	553.1	553.1	553.1	552.8	552.8	553.1	553.1	552.8	552.4	553.5
15°	552.8	552.4	552.4	552.4	551.6	552.0	552.0	552.0	551.6	551.3	552.4
17.5°	552.4	552.0	552.0	552.0	551.6	551.6	551.6	551.6	551.3	551.3	552.0
20°	553.1	553.1	553.1	553.1	552.8	552.8	552.8	553.1	553.1	553.1	553.9
22.5°	554.9	554.9	555.3	555.7	555.7	556.4	556.8	557.2	557.2	557.5	558.2
25°	559.7	559.7	560.0	560.5	561.5	562.3	563.7	564.5	564.8	564.8	565.2
27.5°	568.4	568.9	569.6	570.3	571.7	572.9	574.3	575.8	576.1	576.5	576.9
30°	579.4	579.8	581.3	582.0	583.8	586.0	587.8	589.3	590.4	591.1	590.8
32.5°	595.1	595.9	597.7	598.8	601.3	603.5	606.1	608.3	609.4	610.5	610.1
35°	617.0	618.9	620.7	621.8	624.4	626.2	629.5	631.7	633.8	633.1	633.5
37.5°	649.6	651.1	651.4	652.1	654.7	656.2	659.8	662.7	663.8	664.6	664.9
40°	693.4	693.4	695.2	693.8	697.1	697.4	701.8	705.8	706.9	709.9	707.6
42.5°	744.5	744.2	745.3	744.2	744.2	747.8	751.5	758.8	759.5	763.2	761.0
45°	800.1	800.1	799.0	799.4	800.1	804.1	808.5	816.5	820.2	822.4	820.9
47.5°	860.4	858.9	858.5	858.2	860.4	864.8	871.3	879.0	888.1	888.9	888.1
50°	921.4	921.0	918.5	920.6	922.1	924.3	936.7	947.0	956.5	962.3	960.5
52.5°	985.7	982.4	982.4	982.4	986.0	993.0	1004.0	1017.8	1030.6	1036.9	1035.7
55°	1050.7	1049.6	1046.3	1044.9	1049.6	1059.5	1075.2	1092.0	1108.8	1118.3	1114.7
57.5°	1110.2	1108.4	1108.8	1109.2	1114.7	1127.8	1146.1	1168.4	1186.6	1196.9	1194.3
60°	1157.0	1154.8	1158.8	1160.0	1169.8	1191.7	1220.9	1249.1	1273.2	1283.5	1279.4
62.5°	1210.0	1208.5	1211.1	1210.7	1221.4	1245.8	1284.9	1329.8	1366.4	1379.5	1373.7
65°	1295.5	1291.1	1290.0	1286.0	1292.9	1312.0	1351.0	1403.3	1461.7	1495.3	1487.3
67.5°	1397.8	1396.7	1393.0	1390.9	1393.4	1417.1	1454.8	1505.2	1564.7	1611.1	1621.4
70°	1465.4	1466.8	1470.5	1476.0	1497.2	1543.2	1611.9	1688.2	1770.1	1804.8	1798.6
72.5°	1452.6	1454.8	1457.7	1464.7	1492.4	1547.6	1638.2	1752.2	1854.8	1900.9	1861.4
75°	1390.1	1391.9	1398.5	1409.1	1443.1	1510.0	1607.5	1728.4	1834.4	1880.4	1839.1
76°	1332.4	1338.2	1350.3	1362.7	1403.6	1476.4	1580.5	1709.4	1821.6	1868.3	1828.5
77.5°	1201.6	1206.7	1216.6	1238.2	1284.5	1377.7	1499.3	1626.1	1743.1	1785.1	1751.5
80°	904.2	908.6	917.8	943.7	983.9	1041.6	1135.9	1259.7	1387.9	1443.1	1421.2
82.5°	381.8	386.9	423.1	460.7	504.9	567.4	628.7	738.4	832.6	895.4	861.8
85°	42.0	51.9	64.0	86.9	106.7	142.1	176.8	243.3	307.6	346.7	306.5
87.5°	7.3	8.4	12.1	15.4	17.2	19.7	23.8	33.2	45.3	39.1	39.8
90°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	0.7	0.7	0.7	0.7
92.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.4
95°	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.4	0.4	0.4	0.4
97.5°	0.0	0.0	0.0	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
100°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.7	0.7	0.7
102.5°	0.4	0.4	0.4	0.4	0.4	0.7	0.7	0.7	0.7	0.7	0.7
105°	0.4	0.4	0.4	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
107.5°	0.4	0.4	0.4	0.4	0.7	0.7	0.4	0.4	0.4	0.7	0.4



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
110°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
112.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
115°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
117.5°	0.7	0.7	0.7	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
120°	0.7	0.7	0.7	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
122.5°	0.7	0.7	0.7	0.7	0.4	0.4	0.4	0.4	0.4	0.4	0.4
125°	0.7	0.7	0.7	0.7	0.4	0.4	0.4	0.4	0.4	0.4	0.4
127.5°	0.7	0.7	0.7	0.7	0.4	0.4	0.4	0.4	0.4	0.4	0.4
130°	0.7	0.7	0.7	0.7	0.7	0.4	0.4	0.4	0.4	0.4	0.4
132.5°	0.7	0.7	0.7	0.7	0.4	0.4	0.4	0.4	0.4	0.4	0.4
135°	0.7	0.7	0.7	0.7	0.7	0.4	0.4	0.4	0.4	0.4	0.4
137.5°	0.7	0.7	0.7	0.7	0.7	0.4	0.4	0.4	0.4	0.4	0.4
140°	0.7	0.7	0.7	0.7	0.7	0.4	0.4	0.4	0.4	0.4	0.4
142.5°	0.7	0.7	0.7	0.7	0.4	0.4	0.4	0.4	0.4	0.4	0.4
145°	0.7	0.7	0.7	0.7	0.7	0.4	0.4	0.4	0.4	0.0	0.4
147.5°	0.7	0.7	0.7	0.7	0.7	0.4	0.4	0.4	0.4	0.4	0.4
150°	0.7	0.7	0.7	0.7	0.7	0.4	0.4	0.4	0.0	0.0	0.0
152.5°	0.7	0.7	0.7	0.7	0.7	0.4	0.4	0.4	0.4	0.0	0.0
155°	0.7	0.7	0.7	0.7	0.7	0.4	0.4	0.4	0.4	0.0	0.4
157.5°	0.7	0.7	0.7	0.7	0.4	0.4	0.4	0.4	0.0	0.0	0.0
160°	0.7	0.7	0.7	0.7	0.4	0.4	0.4	0.4	0.0	0.0	0.0
162.5°	0.7	0.7	0.7	0.7	0.4	0.4	0.4	0.4	0.0	0.0	0.0
165°	0.7	0.7	0.7	0.7	0.4	0.4	0.4	0.4	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	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):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	556.0	556.0	556.0	556.0	556.0	556.0	556.0	556.0
2.5°	556.0	556.0	556.8	556.4	556.4	556.8	557.5	557.2
5°	556.4	556.8	556.0	556.4	556.8	556.8	557.2	556.8
7.5°	555.7	555.7	555.7	556.0	556.4	556.0	556.4	556.4
10°	554.2	554.6	554.2	554.9	555.3	555.3	555.7	555.7
12.5°	553.1	553.1	553.1	553.9	554.2	554.2	554.6	554.2
15°	552.0	552.0	551.6	552.4	553.1	553.1	553.5	553.5
17.5°	551.6	551.6	551.3	552.0	552.8	552.8	553.1	553.1
20°	552.8	553.1	552.4	553.1	553.9	554.2	554.2	554.2
22.5°	557.2	556.8	555.7	556.0	556.4	556.4	556.4	556.4
25°	563.7	563.0	561.9	561.5	561.2	560.8	560.8	560.8
27.5°	575.0	574.0	572.1	571.7	571.4	570.7	570.7	570.7
30°	588.5	587.1	584.9	584.2	583.1	582.4	582.0	581.6
32.5°	607.9	605.0	602.5	600.6	599.5	597.4	596.9	596.2
35°	630.2	628.0	624.4	623.3	621.4	620.3	620.0	618.2
37.5°	660.9	658.3	655.1	654.3	653.9	652.9	652.9	652.5
40°	703.6	701.1	698.2	695.2	696.0	696.4	696.4	694.9
42.5°	755.9	751.9	746.0	747.8	746.8	745.3	748.2	746.4
45°	815.5	809.9	805.6	803.8	803.8	801.9	804.8	804.8
47.5°	881.6	872.8	864.8	865.1	862.2	862.9	864.8	867.3
50°	951.4	939.7	932.0	928.3	925.4	926.5	929.8	930.5
52.5°	1023.7	1009.4	999.2	993.7	990.1	991.6	994.1	996.3
55°	1099.0	1083.2	1067.9	1062.1	1057.7	1060.6	1060.9	1063.9
57.5°	1177.5	1156.0	1138.0	1129.3	1124.9	1127.8	1130.0	1132.9
60°	1256.8	1231.9	1210.7	1200.5	1194.3	1198.3	1203.4	1204.9
62.5°	1348.9	1314.5	1290.7	1276.1	1273.2	1277.2	1278.7	1283.1
65°	1457.7	1416.4	1383.5	1365.7	1364.9	1367.1	1370.4	1371.5
67.5°	1581.9	1535.9	1491.7	1473.8	1466.8	1473.4	1476.7	1481.1
70°	1757.3	1694.1	1630.1	1590.3	1573.5	1568.4	1569.8	1574.6
72.5°	1777.0	1709.0	1634.5	1580.5	1550.9	1537.4	1537.0	1537.7
75°	1733.9	1625.4	1572.8	1510.7	1468.7	1446.7	1443.8	1443.5
76°	1712.3	1584.1	1508.1	1458.8	1408.4	1386.1	1382.8	1381.0
77.5°	1621.4	1483.6	1369.3	1339.3	1291.1	1263.0	1268.8	1264.1
80°	1299.9	1163.2	1055.5	971.1	973.6	953.2	944.8	942.2
82.5°	766.1	653.9	534.8	465.1	398.6	381.1	328.1	316.0
85°	244.8	173.5	105.2	76.4	51.9	43.5	34.0	31.1
87.5°	32.5	25.6	20.8	20.1	18.2	15.7	10.2	7.3
90°	0.4	0.4	0.4	0.0	0.0	0.0	0.0	0.0
92.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	0.4	0.4	0.4	0.4	0.0	0.0	0.0	0.0
97.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
100°	0.7	0.4	0.4	0.4	0.4	0.4	0.4	0.4
102.5°	0.7	0.7	0.7	0.7	0.4	0.4	0.4	0.4
105°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
107.5°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
110°	0.4	0.4	0.4	0.4	0.4	0.7	0.7	0.7
112.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.7
115°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.7
117.5°	0.4	0.4	0.4	0.4	0.4	0.7	0.7	0.7
120°	0.4	0.4	0.4	0.4	0.4	0.7	0.7	0.7
122.5°	0.4	0.4	0.4	0.4	0.7	0.7	0.7	0.7
125°	0.4	0.4	0.4	0.4	0.7	0.7	0.7	0.7
127.5°	0.4	0.4	0.4	0.4	0.7	0.7	0.7	0.7
130°	0.4	0.4	0.4	0.7	0.7	0.7	0.7	0.7
132.5°	0.4	0.4	0.4	0.7	0.7	0.7	0.7	0.7
135°	0.4	0.4	0.4	0.7	0.7	0.7	0.7	0.7
137.5°	0.4	0.4	0.4	0.7	0.7	0.7	0.7	0.7
140°	0.4	0.4	0.4	0.7	0.7	0.7	0.7	0.7
142.5°	0.4	0.4	0.4	0.7	0.7	0.7	0.7	0.7
145°	0.4	0.4	0.4	0.4	0.7	0.7	0.7	0.7
147.5°	0.4	0.4	0.4	0.7	0.7	0.7	0.7	0.7
150°	0.4	0.4	0.4	0.4	0.7	0.7	0.7	0.7
152.5°	0.4	0.4	0.4	0.4	0.7	0.7	0.7	0.7
155°	0.4	0.4	0.4	0.7	0.7	0.7	0.7	0.7
157.5°	0.4	0.4	0.4	0.4	0.7	0.7	0.7	0.7
160°	0.4	0.4	0.4	0.4	0.7	0.7	0.7	0.7
162.5°	0.4	0.4	0.4	0.7	0.7	0.7	0.7	0.7
165°	0.4	0.4	0.4	0.7	0.7	0.7	0.7	0.7
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)