

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: P157758

Luminaire Tested: **VST-E02-LED-E-U-5XQ-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P157758
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-8030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE EXTRA WIDE
Light Source: (42) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5338.6 lumens
Efficiency: N/A
Efficacy: 102.5 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

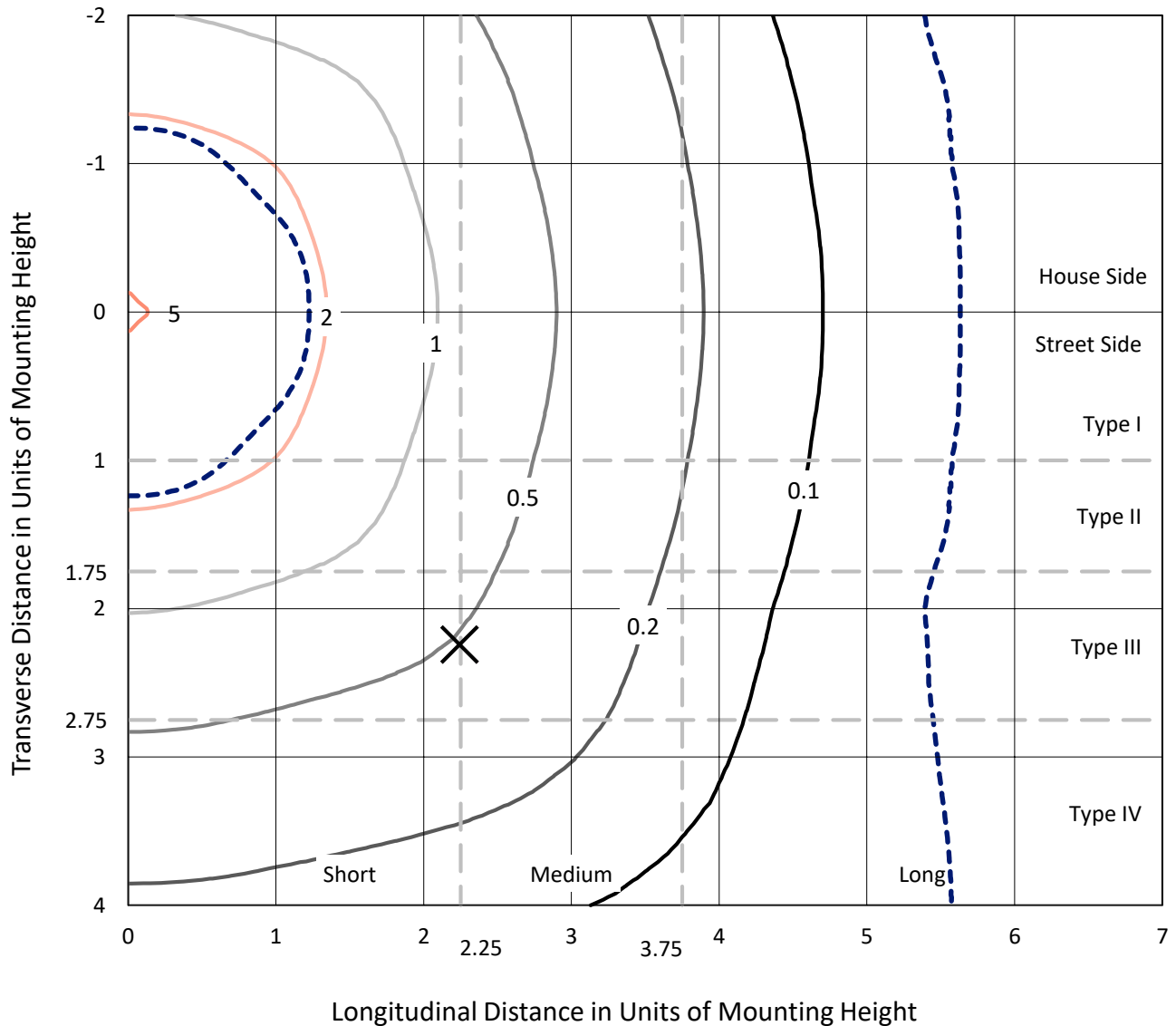


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

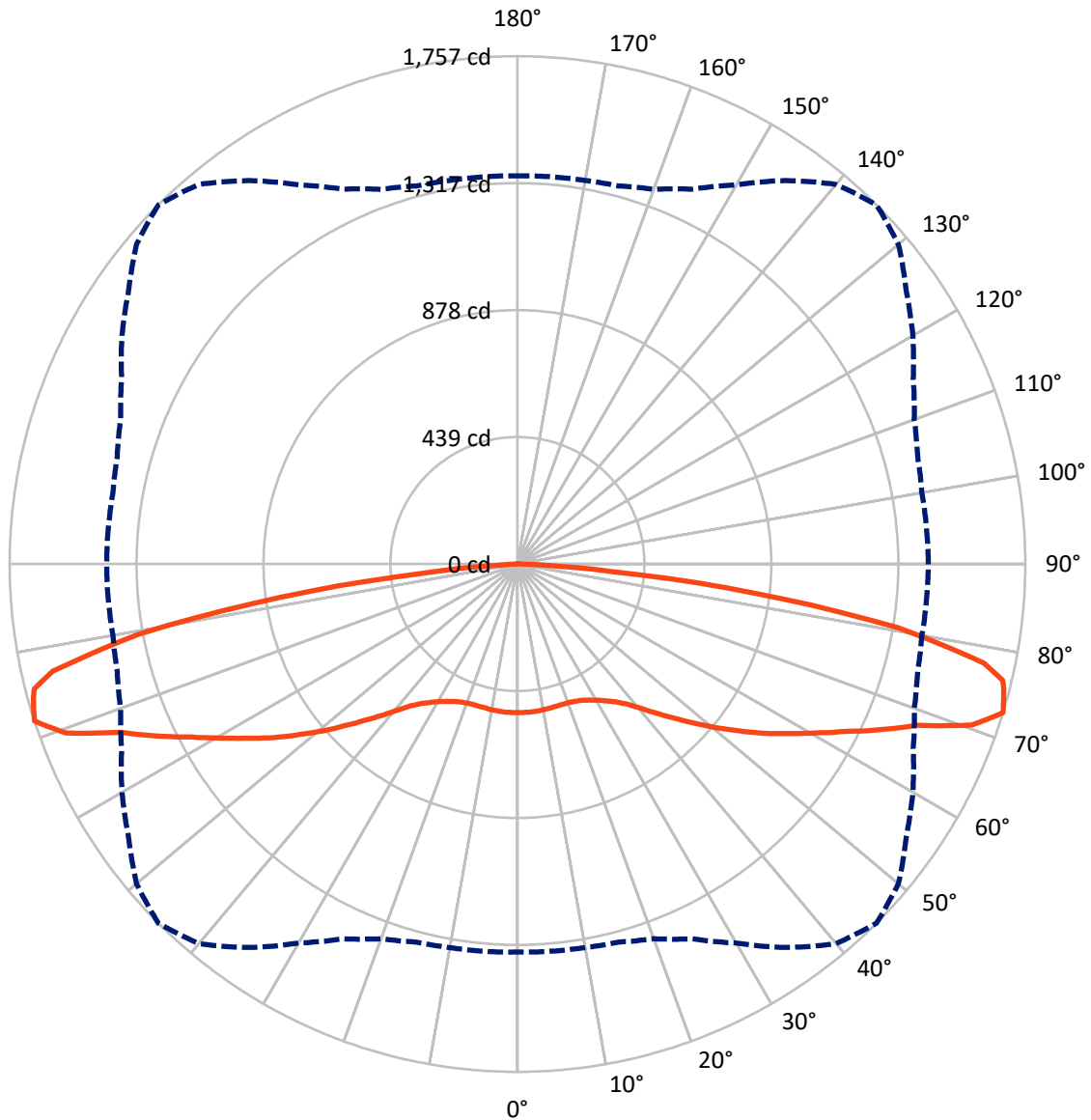


Based on 10 foot mounting height. Maximum calculated value = 5.1 fc
 Type V - Short - Non-Cutoff

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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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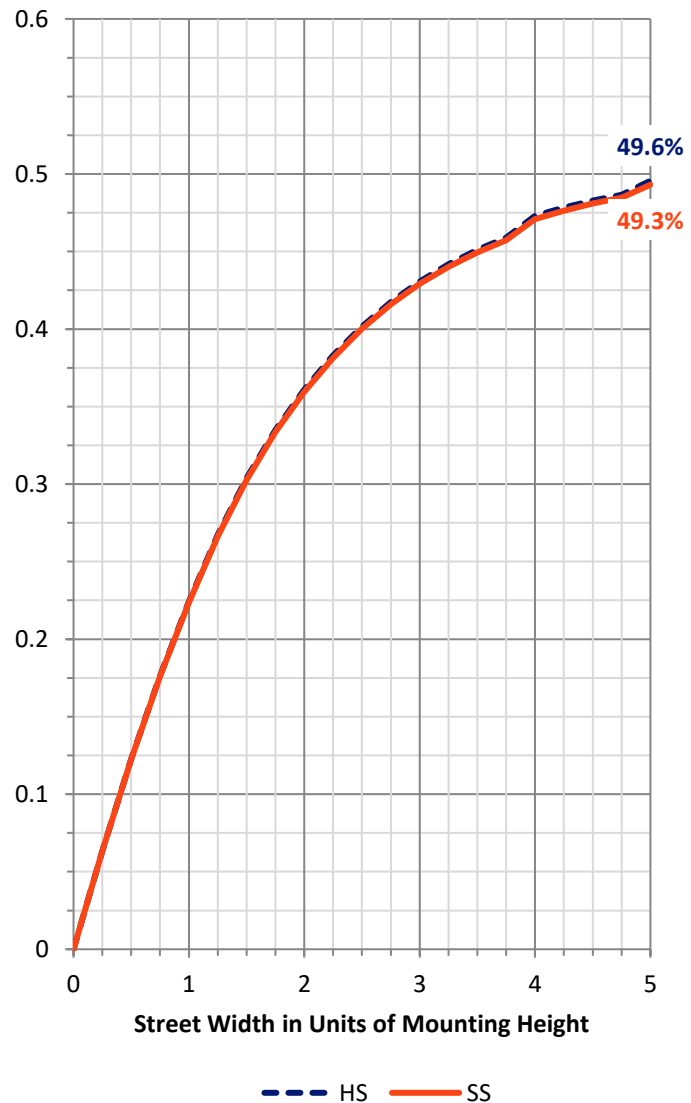
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2667.9	1.4	2669.3
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	2667.9	1.4	2669.3
	% Fixture	50.0	0.0	50.0
Total	Lumens	5335.8	2.9	5338.6
	% Fixture	99.9	0.1	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	49.0	0.9
10°-20°	144.8	2.7
20°-30°	242.1	4.5
30°-40°	368.0	6.9
40°-50°	582.9	10.9
50°-60°	891.6	16.7
60°-70°	1276.0	23.9
70°-80°	1460.0	27.3
80°-90°	321.3	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°	5335.8	99.9
0°-180°	5338.6	100.0



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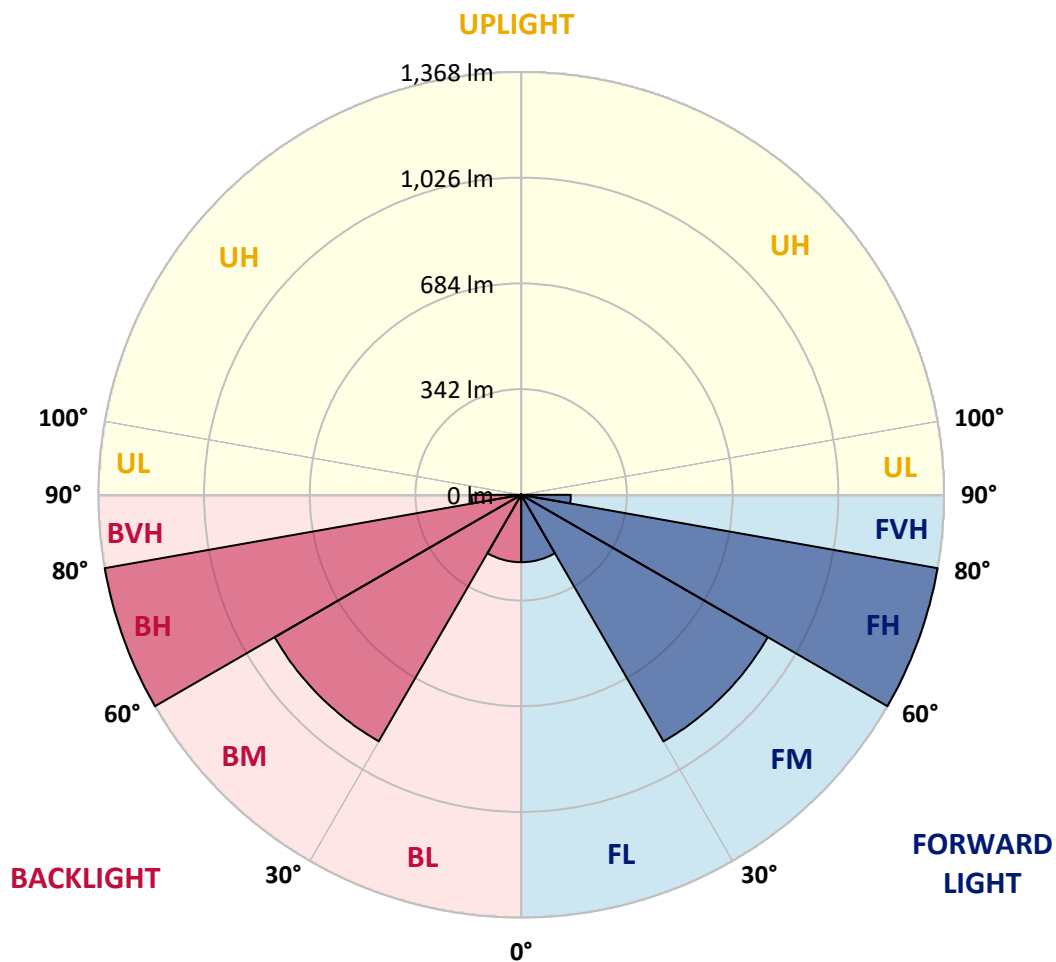
CATALOG NUMBER: VST-E02-LED-E-U-5XQ-8030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	218.0	4.1			
FM	(30°-60°)	921.2	17.3			
FH	(60°-80°)	1368.0	25.6			G1/1800
FVH	(80°-90°)	160.7	3.0			G2/225
BL	(0°-30°)	218.0	4.1	B1/500		
BM	(30°-60°)	921.2	17.3	B1/1000		
BH	(60°-80°)	1368.0	25.6	B3/2500		G1/1800
BVH	(80°-90°)	160.7	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°	513.8	513.8	513.8	513.8	513.8	513.8	513.8	513.8	513.8	513.8	513.8
2.5°	514.1	513.5	513.8	514.5	514.1	514.1	513.8	513.8	514.5	513.8	514.1
5°	514.5	513.8	514.1	514.5	514.1	514.5	514.1	514.1	514.1	513.8	514.5
7.5°	513.1	513.1	513.5	513.5	513.1	513.5	513.5	513.5	513.1	513.1	513.8
10°	512.5	512.2	512.2	512.5	512.2	512.2	512.5	512.5	511.8	511.8	512.5
12.5°	511.4	511.1	511.1	511.1	510.8	510.8	511.1	511.1	510.8	510.4	511.4
15°	510.8	510.4	510.4	510.4	509.8	510.1	510.1	510.1	509.8	509.5	510.4
17.5°	510.4	510.1	510.1	510.1	509.8	509.8	509.8	509.8	509.5	509.5	510.1
20°	511.1	511.1	511.1	511.1	510.8	510.8	510.8	511.1	511.1	511.1	511.8
22.5°	512.8	512.8	513.1	513.5	513.5	514.1	514.5	514.9	514.9	515.2	515.8
25°	517.2	517.2	517.6	517.9	518.9	519.5	520.9	521.6	521.9	521.9	522.2
27.5°	525.3	525.7	526.3	527.0	528.4	529.4	530.7	532.1	532.4	532.7	533.0
30°	535.4	535.7	537.1	537.8	539.5	541.5	543.2	544.6	545.6	546.2	545.9
32.5°	550.0	550.6	552.3	553.3	555.7	557.7	560.1	562.1	563.1	564.1	563.8
35°	570.2	571.9	573.6	574.6	577.0	578.6	581.7	583.7	585.7	585.1	585.4
37.5°	600.2	601.6	601.9	602.6	605.0	606.3	609.7	612.4	613.4	614.1	614.4
40°	640.7	640.7	642.4	641.1	644.2	644.5	648.5	652.3	653.2	655.9	653.9
42.5°	688.0	687.7	688.7	687.7	687.7	691.1	694.4	701.2	701.9	705.2	703.2
45°	739.3	739.3	738.3	738.7	739.3	743.0	747.1	754.5	757.9	759.9	758.6
47.5°	795.1	793.7	793.4	793.0	795.1	799.1	805.1	812.3	820.7	821.4	820.7
50°	851.4	851.1	848.7	850.7	852.1	854.1	865.6	875.0	883.8	889.2	887.5
52.5°	910.9	907.8	907.8	907.8	911.2	917.6	927.7	940.6	952.4	958.1	957.1
55°	970.9	969.9	966.9	965.5	969.9	979.0	993.5	1009.1	1024.6	1033.4	1030.0
57.5°	1025.9	1024.3	1024.6	1024.9	1030.0	1042.1	1059.1	1079.6	1096.5	1106.0	1103.6
60°	1069.1	1067.2	1070.9	1071.8	1081.0	1101.2	1128.2	1154.2	1176.5	1186.0	1182.2
62.5°	1118.1	1116.8	1119.1	1118.8	1128.6	1151.2	1187.3	1228.9	1262.6	1274.8	1269.4
65°	1197.1	1193.0	1192.1	1188.4	1194.8	1212.3	1248.4	1296.7	1350.7	1381.8	1374.4
67.5°	1291.6	1290.7	1287.2	1285.2	1287.6	1309.6	1344.3	1390.9	1445.9	1488.8	1498.3
70°	1354.1	1355.5	1358.8	1363.9	1383.5	1426.0	1489.5	1560.1	1635.7	1667.7	1662.0
72.5°	1342.3	1344.3	1347.0	1353.4	1379.1	1430.0	1513.8	1619.1	1714.0	1756.5	1720.1
75°	1284.5	1286.2	1292.3	1302.1	1333.5	1395.3	1485.4	1597.1	1695.1	1737.6	1699.4
76°	1231.2	1236.6	1247.8	1259.2	1297.0	1364.2	1460.5	1579.6	1683.2	1726.4	1689.7
77.5°	1110.4	1115.1	1124.2	1144.1	1187.0	1273.1	1385.5	1502.6	1610.7	1649.5	1618.4
80°	835.6	839.6	848.0	872.0	909.1	962.5	1049.6	1164.1	1282.5	1333.5	1313.2
82.5°	352.8	357.5	391.0	425.7	466.6	524.3	581.0	682.3	769.4	827.5	796.4
85°	38.8	47.9	59.1	80.3	98.6	131.3	163.4	224.8	284.3	320.4	283.3
87.5°	6.8	7.7	11.2	14.2	15.8	18.2	22.0	30.7	41.9	36.1	36.8
90°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	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°	513.8	513.8	513.8	513.8	513.8	513.8	513.8	513.8
2.5°	513.8	513.8	514.5	514.1	514.1	514.5	515.2	514.9
5°	514.1	514.5	513.8	514.1	514.5	514.5	514.9	514.5
7.5°	513.5	513.5	513.5	513.8	514.1	513.8	514.1	514.1
10°	512.2	512.5	512.2	512.8	513.1	513.1	513.5	513.5
12.5°	511.1	511.1	511.1	511.8	512.2	512.2	512.5	512.2
15°	510.1	510.1	509.8	510.4	511.1	511.1	511.4	511.4
17.5°	509.8	509.8	509.5	510.1	510.8	510.8	511.1	511.1
20°	510.8	511.1	510.4	511.1	511.8	512.2	512.2	512.2
22.5°	514.9	514.5	513.5	513.8	514.1	514.1	514.1	514.1
25°	520.9	520.3	519.2	518.9	518.5	518.2	518.2	518.2
27.5°	531.4	530.3	528.7	528.4	528.0	527.3	527.3	527.3
30°	543.8	542.5	540.5	539.8	538.8	538.1	537.8	537.5
32.5°	561.8	559.1	556.7	555.0	554.0	552.0	551.6	551.0
35°	582.4	580.3	577.0	575.9	574.3	573.2	572.9	571.2
37.5°	610.7	608.3	605.3	604.6	604.3	603.3	603.3	602.9
40°	650.2	647.8	645.1	642.4	643.1	643.4	643.4	642.1
42.5°	698.5	694.8	689.4	691.1	690.1	688.7	691.4	689.7
45°	753.5	748.4	744.4	742.7	742.7	741.0	743.7	743.7
47.5°	814.6	806.5	799.1	799.4	796.7	797.4	799.1	801.5
50°	879.1	868.3	861.2	857.8	855.1	856.1	859.2	859.9
52.5°	946.0	932.8	923.3	918.2	914.9	916.3	918.6	920.6
55°	1015.5	1001.0	986.8	981.4	977.3	980.0	980.4	983.1
57.5°	1088.1	1068.2	1051.6	1043.5	1039.4	1042.1	1044.2	1046.9
60°	1161.4	1138.4	1118.8	1109.3	1103.6	1107.3	1112.0	1113.4
62.5°	1246.4	1214.7	1192.7	1179.2	1176.5	1180.3	1181.6	1185.7
65°	1347.0	1308.8	1278.5	1261.9	1261.3	1263.3	1266.3	1267.3
67.5°	1461.8	1419.2	1378.4	1361.9	1355.5	1361.5	1364.6	1368.6
70°	1623.8	1565.5	1506.4	1469.6	1454.0	1449.3	1450.7	1455.1
72.5°	1642.1	1579.3	1510.4	1460.5	1433.1	1420.6	1420.3	1420.9
75°	1602.2	1502.0	1453.4	1396.0	1357.1	1336.9	1334.2	1333.9
76°	1582.3	1463.8	1393.6	1348.0	1301.5	1280.8	1277.8	1276.1
77.5°	1498.3	1371.0	1265.3	1237.6	1193.0	1167.1	1172.5	1168.1
80°	1201.1	1074.9	975.3	897.4	899.7	880.8	873.0	870.7
82.5°	707.9	604.3	494.2	429.8	368.3	352.1	303.2	292.0
85°	226.2	160.4	97.2	70.6	47.9	40.2	31.4	28.7
87.5°	30.1	23.6	19.3	18.5	16.9	14.5	9.5	6.8
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)