

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: P157760

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P157760
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
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE EXTRA WIDE
Light Source: (42) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6325.2 lumens
Efficiency: N/A
Efficacy: 121.4 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



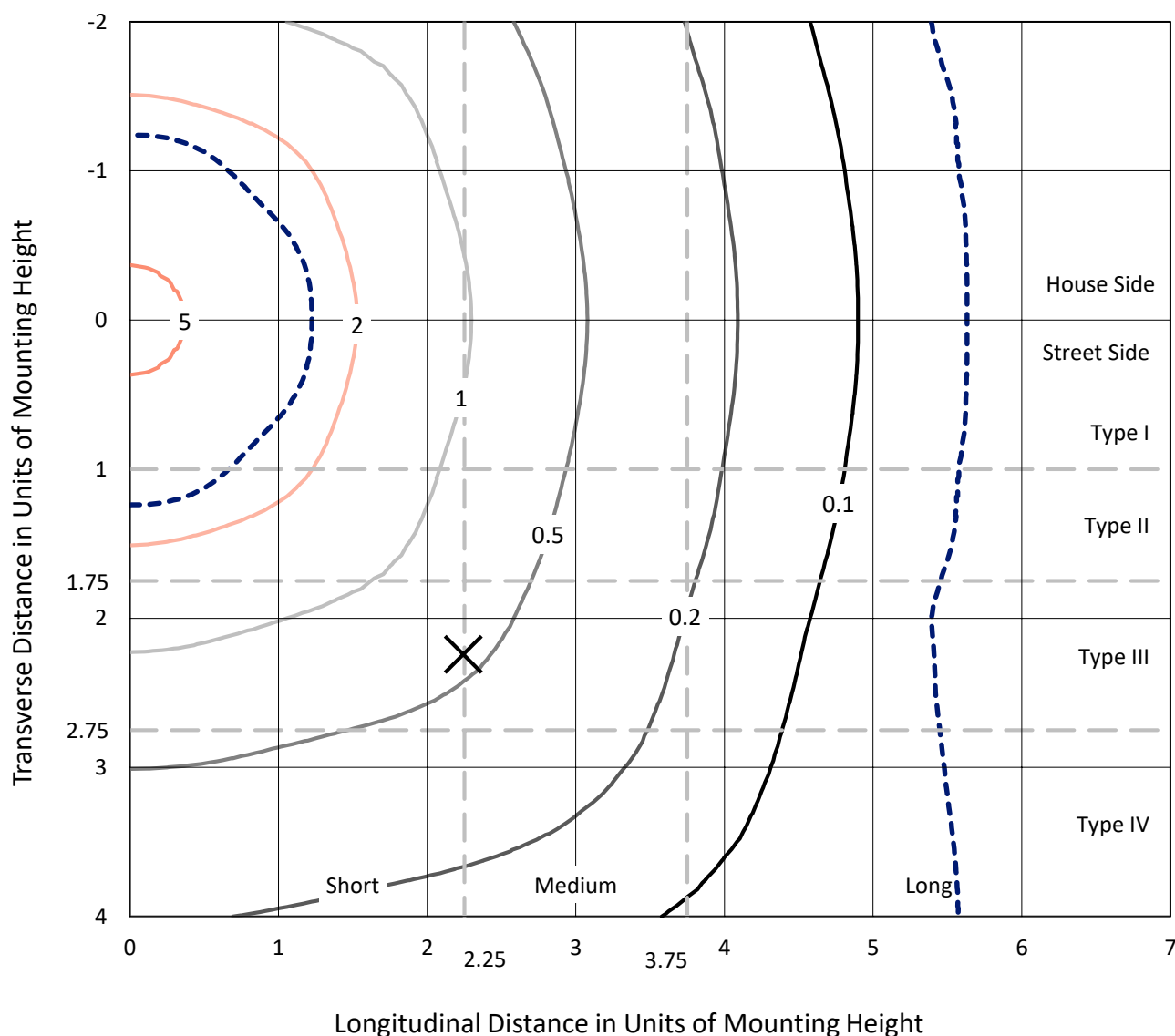
REPORT NUMBER: P157760

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

Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

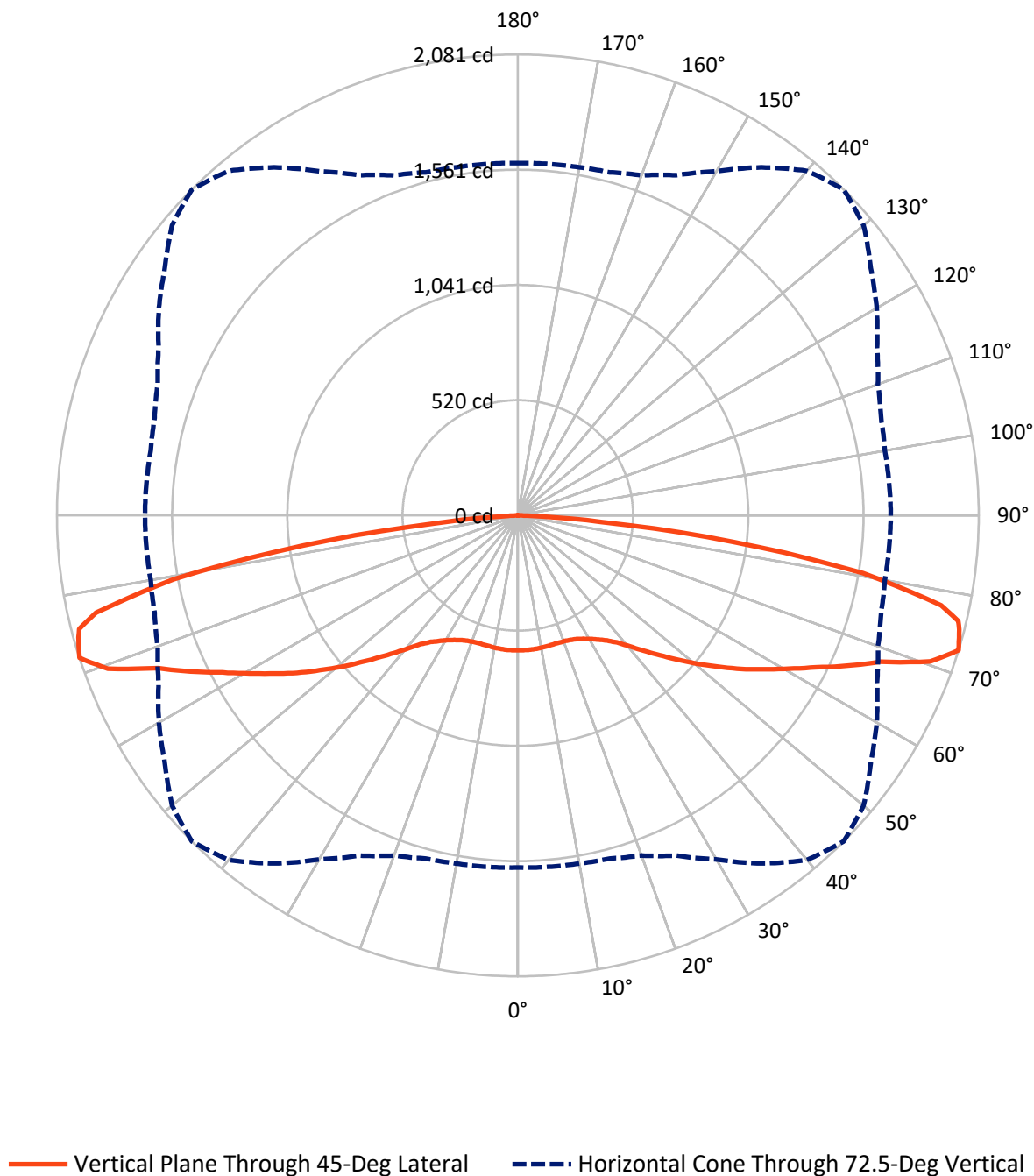


Based on 10 foot mounting height. Maximum calculated value = 6.1 fc
 Type V - Short - Non-Cutoff

REPORT NUMBER: P157760

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

Luminous Intensity Polar Plot



REPORT NUMBER: P157760

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

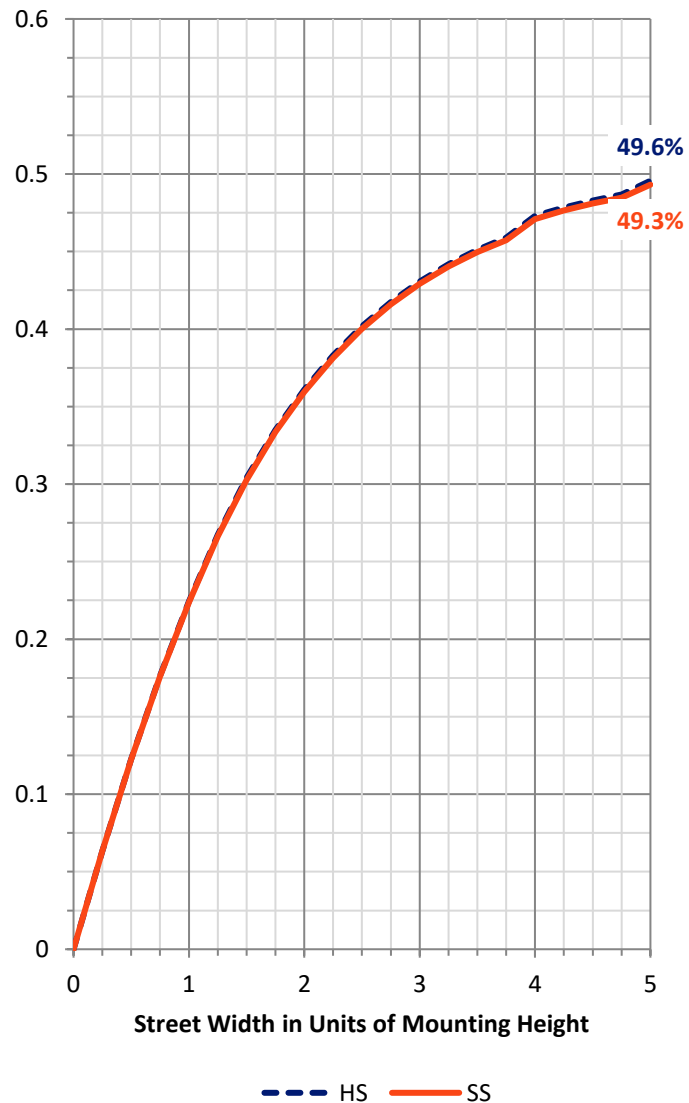
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3161.0	1.5	3162.6
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	3161.0	1.5	3162.6
	% Fixture	50.0	0.0	50.0
Total	Lumens	6322.1	3.1	6325.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	58.1	0.9
10°-20°	171.6	2.7
20°-30°	286.9	4.5
30°-40°	436.0	6.9
40°-50°	690.6	10.9
50°-60°	1056.4	16.7
60°-70°	1511.9	23.9
70°-80°	1729.9	27.3
80°-90°	380.7	6.0
90°-100°	0.3	0.0
100°-110°	0.7	0.0
110°-120°	0.5	0.0
120°-130°	0.5	0.0
130°-140°	0.5	0.0
140°-150°	0.4	0.0
150°-160°	0.2	0.0
160°-170°	0.1	0.0
170°-180°	0.0	0.0
0°-90°	6322.1	100.0
0°-180°	6325.2	100.0

Coefficient of Utilization



REPORT NUMBER: P157760

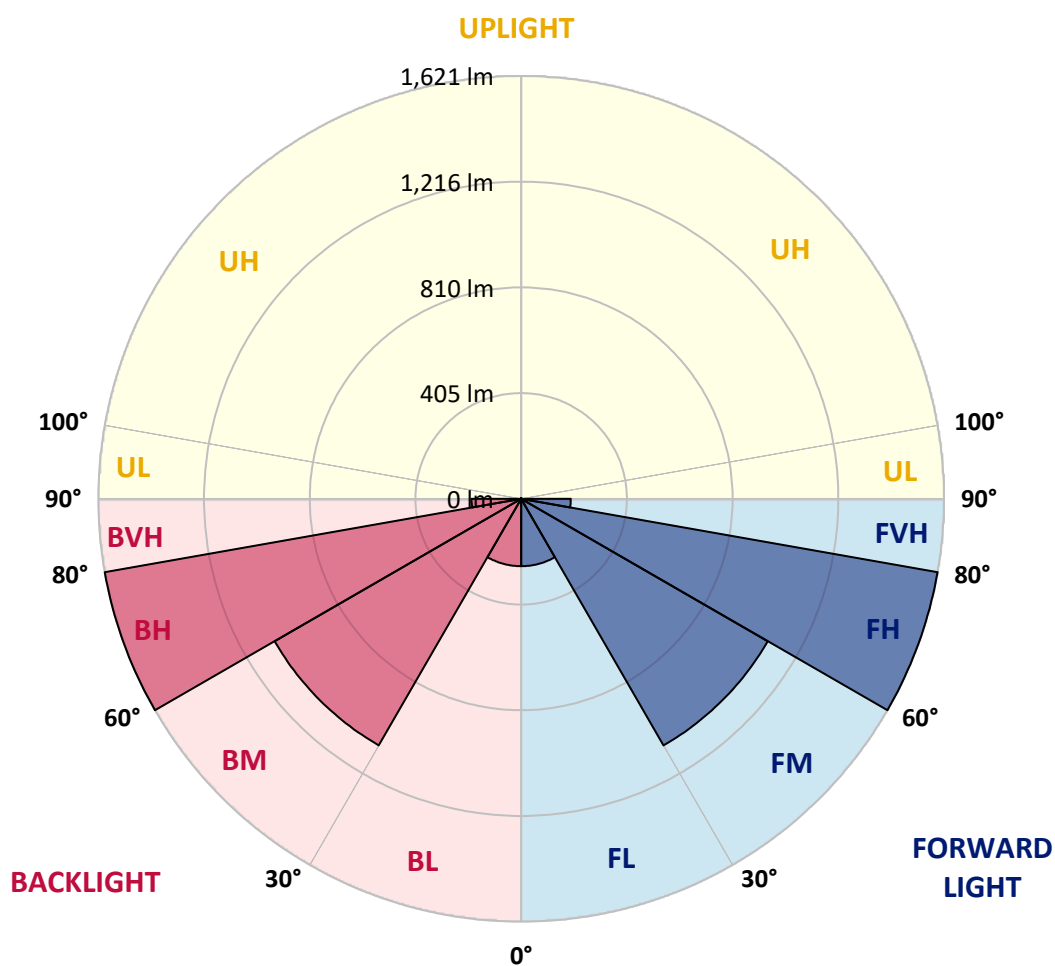
CATALOG NUMBER: VST-E02-LED-E-U-5XQ

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	258.3	4.1			
FM	(30°-60°)	1091.5	17.3			
FH	(60°-80°)	1620.9	25.6			G1/1800
FVH	(80°-90°)	190.4	3.0			G2/225
BL	(0°-30°)	258.3	4.1	B1/500		
BM	(30°-60°)	1091.5	17.3	B2/2500		
BH	(60°-80°)	1620.9	25.6	B3/2500		G1/1800
BVH	(80°-90°)	190.4	3.0			G2/225
UL	(90°-100°)	0.3	0.0		U1/10	
UH	(100°-180°)	1.5	0.0		U1/10	

BUG Rating: B3-U1-G2

Type V Short





REPORT NUMBER: P157760

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

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	608.8	608.8	608.8	608.8	608.8	608.8	608.8	608.8	608.8	608.8	608.8
2.5°	609.2	608.4	608.8	609.6	609.2	609.2	608.8	608.8	609.6	608.8	609.2
5°	609.6	608.8	609.2	609.6	609.2	609.6	609.2	609.2	609.2	608.8	609.6
7.5°	608.0	608.0	608.4	608.4	608.0	608.4	608.4	608.4	608.0	608.0	608.8
10°	607.2	606.8	606.8	607.2	606.8	606.8	607.2	607.2	606.4	606.4	607.2
12.5°	606.0	605.6	605.6	605.6	605.2	605.2	605.6	605.6	605.2	604.8	606.0
15°	605.2	604.8	604.8	604.8	604.0	604.4	604.4	604.4	604.0	603.6	604.8
17.5°	604.8	604.4	604.4	604.4	604.0	604.0	604.0	604.0	603.6	603.6	604.4
20°	605.6	605.6	605.6	605.6	605.2	605.2	605.2	605.6	605.6	605.6	606.4
22.5°	607.6	607.6	608.0	608.4	608.4	609.2	609.6	610.0	610.0	610.4	611.2
25°	612.8	612.8	613.2	613.6	614.8	615.6	617.2	618.0	618.4	618.4	618.8
27.5°	622.4	622.8	623.6	624.4	626.0	627.2	628.8	630.4	630.8	631.2	631.6
30°	634.4	634.8	636.4	637.2	639.2	641.6	643.6	645.2	646.4	647.2	646.8
32.5°	651.6	652.4	654.4	655.6	658.4	660.8	663.6	666.0	667.2	668.4	668.0
35°	675.6	677.6	679.6	680.8	683.6	685.6	689.2	691.6	694.0	693.2	693.6
37.5°	711.2	712.8	713.2	714.0	716.8	718.4	722.4	725.6	726.8	727.6	728.0
40°	759.2	759.2	761.2	759.6	763.2	763.6	768.4	772.8	774.0	777.2	774.8
42.5°	815.2	814.8	816.0	814.8	814.8	818.8	822.8	830.8	831.6	835.6	833.2
45°	876.0	876.0	874.8	875.2	876.0	880.4	885.2	894.0	898.0	900.4	898.8
47.5°	942.0	940.4	940.0	939.6	942.0	946.8	954.0	962.4	972.4	973.2	972.4
50°	1008.8	1008.4	1005.6	1008.0	1009.6	1012.0	1025.6	1036.8	1047.2	1053.6	1051.6
52.5°	1079.2	1075.6	1075.6	1075.6	1079.6	1087.2	1099.2	1114.4	1128.4	1135.2	1134.0
55°	1150.4	1149.2	1145.6	1144.0	1149.2	1160.0	1177.2	1195.6	1214.0	1224.4	1220.4
57.5°	1215.6	1213.6	1214.0	1214.4	1220.4	1234.8	1254.8	1279.2	1299.2	1310.4	1307.6
60°	1266.8	1264.4	1268.8	1270.0	1280.8	1304.8	1336.8	1367.6	1394.0	1405.2	1400.8
62.5°	1324.8	1323.2	1326.0	1325.6	1337.2	1364.0	1406.8	1456.0	1496.0	1510.4	1504.0
65°	1418.4	1413.6	1412.4	1408.0	1415.6	1436.4	1479.2	1536.4	1600.4	1637.2	1628.4
67.5°	1530.4	1529.2	1525.2	1522.8	1525.6	1551.6	1592.8	1648.0	1713.2	1764.0	1775.2
70°	1604.4	1606.0	1610.0	1616.0	1639.2	1689.6	1764.8	1848.4	1938.0	1976.0	1969.2
72.5°	1590.4	1592.8	1596.0	1603.6	1634.0	1694.4	1793.6	1918.4	2030.8	2081.2	2038.0
75°	1522.0	1524.0	1531.2	1542.8	1580.0	1653.2	1760.0	1892.4	2008.4	2058.8	2013.6
76°	1458.8	1465.2	1478.4	1492.0	1536.8	1616.4	1730.4	1871.6	1994.4	2045.6	2002.0
77.5°	1315.6	1321.2	1332.0	1355.6	1406.4	1508.4	1641.6	1780.4	1908.4	1954.4	1917.6
80°	990.0	994.8	1004.8	1033.2	1077.2	1140.4	1243.6	1379.2	1519.6	1580.0	1556.0
82.5°	418.0	423.6	463.2	504.4	552.8	621.2	688.4	808.4	911.6	980.4	943.6
85°	46.0	56.8	70.0	95.2	116.8	155.6	193.6	266.4	336.8	379.6	335.6
87.5°	8.0	9.2	13.2	16.8	18.8	21.6	26.0	36.4	49.6	42.8	43.6
90°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	0.8	0.8	0.8	0.8
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	0.8	0.8	0.8
102.5°	0.4	0.4	0.4	0.4	0.4	0.8	0.8	0.8	0.8	0.8	0.8
105°	0.4	0.4	0.4	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
107.5°	0.4	0.4	0.4	0.4	0.8	0.8	0.4	0.4	0.4	0.8	0.4



REPORT NUMBER: P157760

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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°	0.8	0.8	0.8	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
120°	0.8	0.8	0.8	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
122.5°	0.8	0.8	0.8	0.8	0.4	0.4	0.4	0.4	0.4	0.4	0.4
125°	0.8	0.8	0.8	0.8	0.4	0.4	0.4	0.4	0.4	0.4	0.4
127.5°	0.8	0.8	0.8	0.8	0.4	0.4	0.4	0.4	0.4	0.4	0.4
130°	0.8	0.8	0.8	0.8	0.8	0.4	0.4	0.4	0.4	0.4	0.4
132.5°	0.8	0.8	0.8	0.8	0.4	0.4	0.4	0.4	0.4	0.4	0.4
135°	0.8	0.8	0.8	0.8	0.8	0.4	0.4	0.4	0.4	0.4	0.4
137.5°	0.8	0.8	0.8	0.8	0.8	0.4	0.4	0.4	0.4	0.4	0.4
140°	0.8	0.8	0.8	0.8	0.8	0.4	0.4	0.4	0.4	0.4	0.4
142.5°	0.8	0.8	0.8	0.8	0.4	0.4	0.4	0.4	0.4	0.4	0.4
145°	0.8	0.8	0.8	0.8	0.8	0.4	0.4	0.4	0.4	0.0	0.4
147.5°	0.8	0.8	0.8	0.8	0.8	0.4	0.4	0.4	0.4	0.4	0.4
150°	0.8	0.8	0.8	0.8	0.8	0.4	0.4	0.4	0.0	0.0	0.0
152.5°	0.8	0.8	0.8	0.8	0.8	0.4	0.4	0.4	0.4	0.0	0.0
155°	0.8	0.8	0.8	0.8	0.8	0.4	0.4	0.4	0.4	0.0	0.4
157.5°	0.8	0.8	0.8	0.8	0.4	0.4	0.4	0.4	0.0	0.0	0.0
160°	0.8	0.8	0.8	0.8	0.4	0.4	0.4	0.4	0.0	0.0	0.0
162.5°	0.8	0.8	0.8	0.8	0.4	0.4	0.4	0.4	0.0	0.0	0.0
165°	0.8	0.8	0.8	0.8	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°	608.8	608.8	608.8	608.8	608.8	608.8	608.8	608.8
2.5°	608.8	608.8	609.6	609.2	609.2	609.6	610.4	610.0
5°	609.2	609.6	608.8	609.2	609.6	609.6	610.0	609.6
7.5°	608.4	608.4	608.4	608.8	609.2	608.8	609.2	609.2
10°	606.8	607.2	606.8	607.6	608.0	608.0	608.4	608.4
12.5°	605.6	605.6	605.6	606.4	606.8	606.8	607.2	606.8
15°	604.4	604.4	604.0	604.8	605.6	605.6	606.0	606.0
17.5°	604.0	604.0	603.6	604.4	605.2	605.2	605.6	605.6
20°	605.2	605.6	604.8	605.6	606.4	606.8	606.8	606.8
22.5°	610.0	609.6	608.4	608.8	609.2	609.2	609.2	609.2
25°	617.2	616.4	615.2	614.8	614.4	614.0	614.0	614.0
27.5°	629.6	628.4	626.4	626.0	625.6	624.8	624.8	624.8
30°	644.4	642.8	640.4	639.6	638.4	637.6	637.2	636.8
32.5°	665.6	662.4	659.6	657.6	656.4	654.0	653.6	652.8
35°	690.0	687.6	683.6	682.4	680.4	679.2	678.8	676.8
37.5°	723.6	720.8	717.2	716.4	716.0	714.8	714.8	714.4
40°	770.4	767.6	764.4	761.2	762.0	762.4	762.4	760.8
42.5°	827.6	823.2	816.8	818.8	817.6	816.0	819.2	817.2
45°	892.8	886.8	882.0	880.0	880.0	878.0	881.2	881.2
47.5°	965.2	955.6	946.8	947.2	944.0	944.8	946.8	949.6
50°	1041.6	1028.8	1020.4	1016.4	1013.2	1014.4	1018.0	1018.8
52.5°	1120.8	1105.2	1094.0	1088.0	1084.0	1085.6	1088.4	1090.8
55°	1203.2	1186.0	1169.2	1162.8	1158.0	1161.2	1161.6	1164.8
57.5°	1289.2	1265.6	1246.0	1236.4	1231.6	1234.8	1237.2	1240.4
60°	1376.0	1348.8	1325.6	1314.4	1307.6	1312.0	1317.6	1319.2
62.5°	1476.8	1439.2	1413.2	1397.2	1394.0	1398.4	1400.0	1404.8
65°	1596.0	1550.8	1514.8	1495.2	1494.4	1496.8	1500.4	1501.6
67.5°	1732.0	1681.6	1633.2	1613.6	1606.0	1613.2	1616.8	1621.6
70°	1924.0	1854.8	1784.8	1741.2	1722.8	1717.2	1718.8	1724.0
72.5°	1945.6	1871.2	1789.6	1730.4	1698.0	1683.2	1682.8	1683.6
75°	1898.4	1779.6	1722.0	1654.0	1608.0	1584.0	1580.8	1580.4
76°	1874.8	1734.4	1651.2	1597.2	1542.0	1517.6	1514.0	1512.0
77.5°	1775.2	1624.4	1499.2	1466.4	1413.6	1382.8	1389.2	1384.0
80°	1423.2	1273.6	1155.6	1063.2	1066.0	1043.6	1034.4	1031.6
82.5°	838.8	716.0	585.6	509.2	436.4	417.2	359.2	346.0
85°	268.0	190.0	115.2	83.6	56.8	47.6	37.2	34.0
87.5°	35.6	28.0	22.8	22.0	20.0	17.2	11.2	8.0
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°	0.8	0.4	0.4	0.4	0.4	0.4	0.4	0.4
102.5°	0.8	0.8	0.8	0.8	0.4	0.4	0.4	0.4
105°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
107.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8



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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	0.8	0.8	0.8
112.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.8
115°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.8
117.5°	0.4	0.4	0.4	0.4	0.4	0.8	0.8	0.8
120°	0.4	0.4	0.4	0.4	0.4	0.8	0.8	0.8
122.5°	0.4	0.4	0.4	0.4	0.8	0.8	0.8	0.8
125°	0.4	0.4	0.4	0.4	0.8	0.8	0.8	0.8
127.5°	0.4	0.4	0.4	0.4	0.8	0.8	0.8	0.8
130°	0.4	0.4	0.4	0.8	0.8	0.8	0.8	0.8
132.5°	0.4	0.4	0.4	0.8	0.8	0.8	0.8	0.8
135°	0.4	0.4	0.4	0.8	0.8	0.8	0.8	0.8
137.5°	0.4	0.4	0.4	0.8	0.8	0.8	0.8	0.8
140°	0.4	0.4	0.4	0.8	0.8	0.8	0.8	0.8
142.5°	0.4	0.4	0.4	0.8	0.8	0.8	0.8	0.8
145°	0.4	0.4	0.4	0.4	0.8	0.8	0.8	0.8
147.5°	0.4	0.4	0.4	0.8	0.8	0.8	0.8	0.8
150°	0.4	0.4	0.4	0.4	0.8	0.8	0.8	0.8
152.5°	0.4	0.4	0.4	0.4	0.8	0.8	0.8	0.8
155°	0.4	0.4	0.4	0.8	0.8	0.8	0.8	0.8
157.5°	0.4	0.4	0.4	0.4	0.8	0.8	0.8	0.8
160°	0.4	0.4	0.4	0.4	0.8	0.8	0.8	0.8
162.5°	0.4	0.4	0.4	0.8	0.8	0.8	0.8	0.8
165°	0.4	0.4	0.4	0.8	0.8	0.8	0.8	0.8
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)