

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: McGRAW-EDISON

Report Number: P197523

Luminaire Tested: **TT-C4-LED-E1-CQ-LWR-LW-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P197523
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P115438)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: TT-C4-LED-E1-CQ-LWR-LW-7050
Description: TOPTIER LED PARKING GARAGE LUMINAIRE
CONCENTRATED DISTRIBUTION WITH LumaWatt WIRELESS SENSOR
Light Source: (160) 5000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6825.9 lumens
Efficiency: N/A
Efficacy: 117.7 lumens/watt
Luminous Opening: Circular (Dia: 1.12' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B2 - U0 - G1

Input Watts (W): 58
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: 25 FT

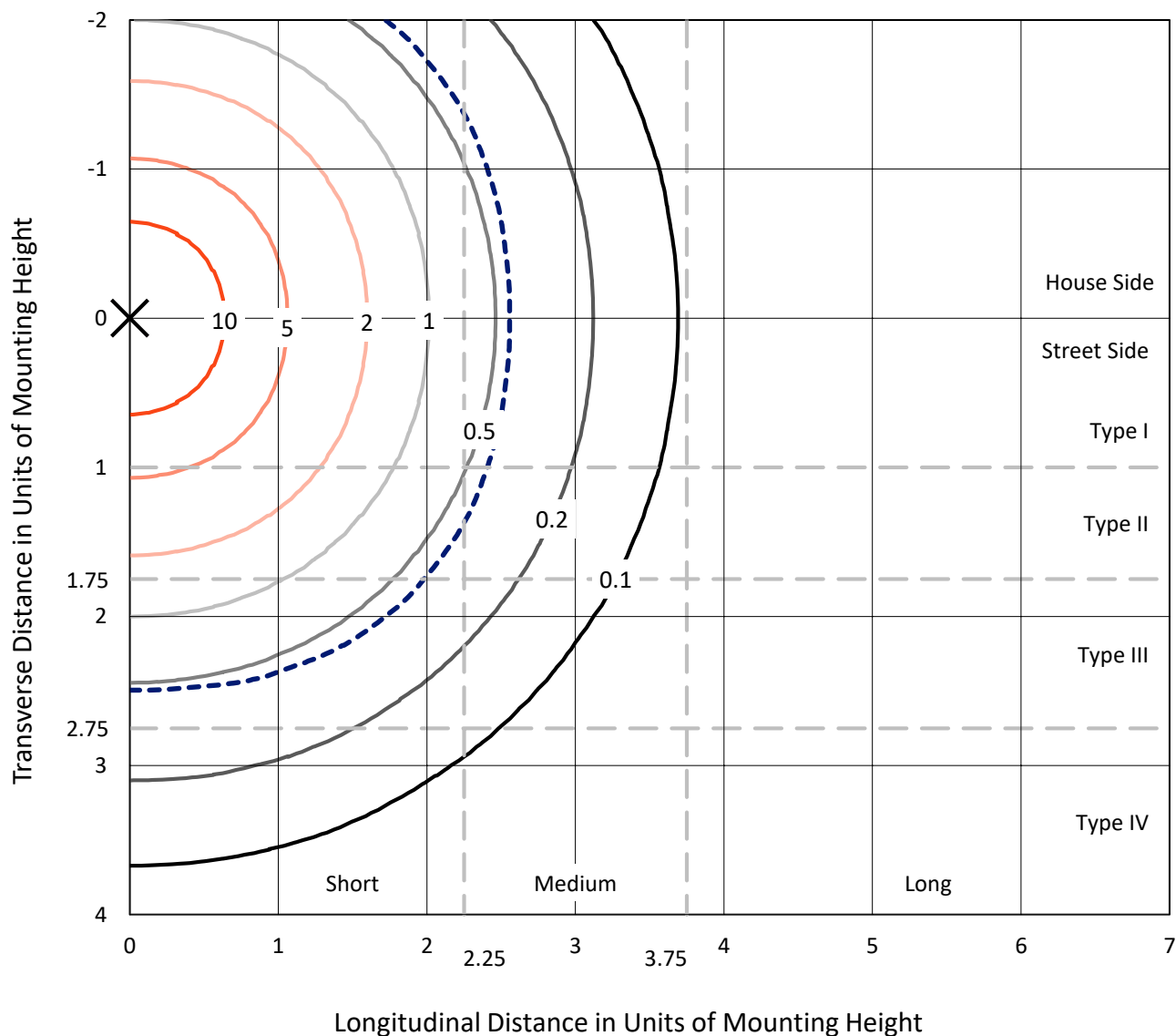


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 --- 1/2 Max cd

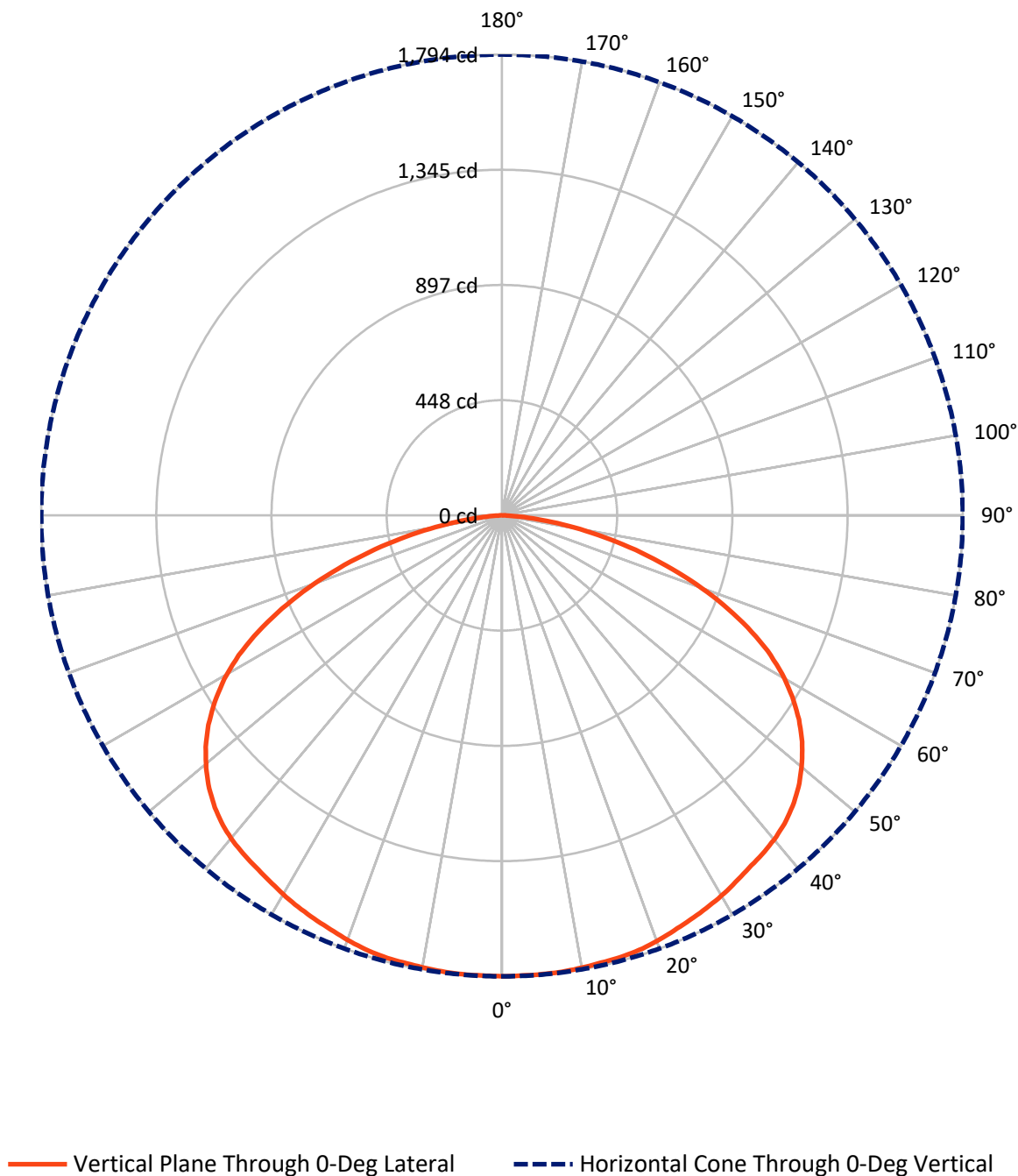


Based on 10 foot mounting height. Maximum calculated value = 17.9 fc
 Type V - Short - Full Cutoff

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Luminous Intensity Polar Plot



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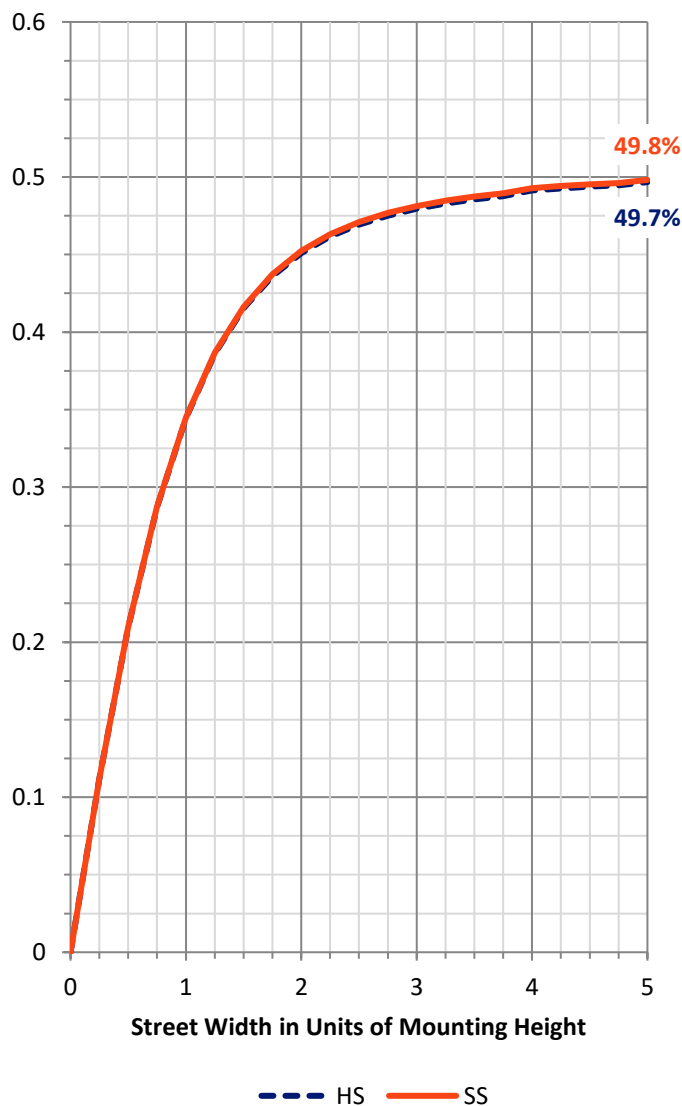
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3413.0	0.0	3413.0
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	3413.0	0.0	3413.0
	% Fixture	50.0	0.0	50.0
Total	Lumens	6825.9	0.0	6825.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	170.9	2.5
10°-20°	503.4	7.4
20°-30°	801.7	11.7
30°-40°	1051.1	15.4
40°-50°	1239.7	18.2
50°-60°	1283.9	18.8
60°-70°	1073.7	15.7
70°-80°	585.3	8.6
80°-90°	116.2	1.7
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°	6825.9	100.0
0°-180°	6825.9	100.0

Coefficient of Utilization



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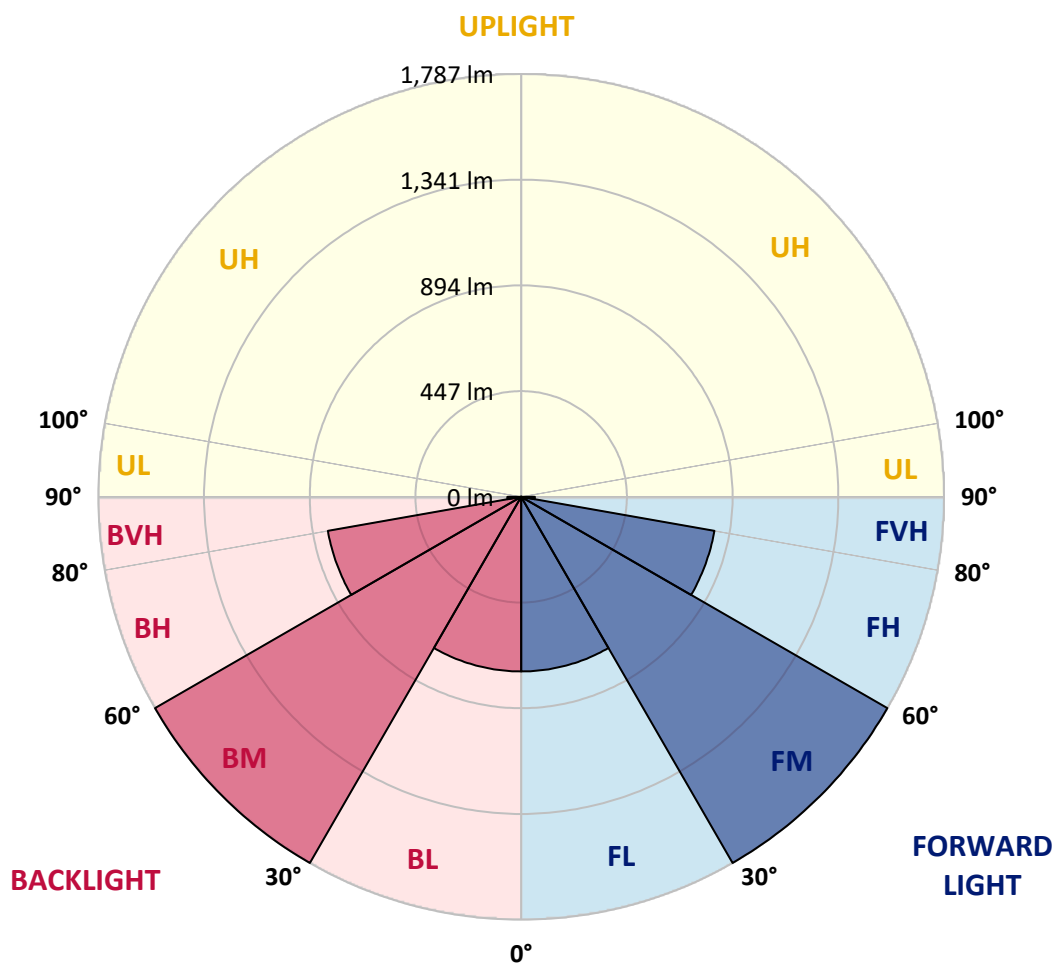
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	738.0	10.8			
FM	(30°-60°)	1787.4	26.2			
FH	(60°-80°)	829.5	12.2			G1/1800
FVH	(80°-90°)	58.1	0.9			G1/100
BL	(0°-30°)	738.0	10.8	B2/1000		
BM	(30°-60°)	1787.4	26.2	B2/2500		
BH	(60°-80°)	829.5	12.2	B2/1000		G1/1800
BVH	(80°-90°)	58.1	0.9			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G1

Type V Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1793.9	1793.9	1793.9	1793.9	1793.9	1793.9	1793.9	1793.9	1793.9	1793.9	1793.9
2.5°	1792.4	1793.9	1793.9	1793.9	1793.9	1793.9	1793.9	1793.9	1792.4	1793.9	1793.9
5°	1792.4	1792.4	1792.4	1792.4	1793.9	1792.4	1792.4	1792.4	1792.4	1792.4	1792.4
7.5°	1791.0	1789.6	1789.6	1789.6	1789.6	1789.6	1791.0	1791.0	1791.0	1791.0	1791.0
10°	1786.7	1786.7	1786.7	1786.7	1786.7	1786.7	1786.7	1786.7	1786.7	1786.7	1786.7
12.5°	1782.4	1782.4	1782.4	1782.4	1783.8	1783.8	1783.8	1783.8	1783.8	1783.8	1782.4
15°	1779.5	1779.5	1779.5	1779.5	1779.5	1779.5	1779.5	1779.5	1779.5	1779.5	1779.5
17.5°	1772.3	1772.3	1772.3	1772.3	1773.8	1773.8	1773.8	1773.8	1773.8	1773.8	1773.8
20°	1760.8	1760.8	1760.8	1760.8	1760.8	1762.3	1763.7	1763.7	1763.7	1763.7	1763.7
22.5°	1746.5	1746.5	1747.9	1747.9	1749.4	1749.4	1750.8	1750.8	1750.8	1750.8	1750.8
25°	1733.6	1733.6	1733.6	1735.0	1735.0	1735.0	1736.4	1737.9	1737.9	1737.9	1736.4
27.5°	1720.6	1720.6	1720.6	1722.1	1722.1	1722.1	1723.5	1723.5	1724.9	1723.5	1723.5
30°	1706.3	1704.8	1704.8	1706.3	1707.7	1707.7	1709.1	1709.1	1709.1	1709.1	1707.7
32.5°	1689.0	1689.0	1690.5	1691.9	1691.9	1693.3	1694.8	1694.8	1694.8	1696.2	1693.3
35°	1673.2	1674.7	1674.7	1676.1	1679.0	1680.4	1681.8	1683.3	1683.3	1683.3	1680.4
37.5°	1660.3	1661.7	1663.2	1666.0	1668.9	1671.8	1674.7	1677.5	1676.1	1676.1	1671.8
40°	1644.5	1645.9	1648.8	1651.7	1657.4	1660.3	1664.6	1667.5	1668.9	1667.5	1663.2
42.5°	1623.0	1624.4	1627.3	1631.6	1638.8	1644.5	1648.8	1653.1	1654.6	1653.1	1648.8
45°	1594.2	1595.7	1598.5	1604.3	1612.9	1618.7	1625.8	1630.1	1633.0	1633.0	1628.7
47.5°	1558.3	1559.8	1564.1	1569.8	1578.4	1585.6	1594.2	1600.0	1602.9	1605.7	1601.4
50°	1513.8	1515.2	1521.0	1528.2	1535.4	1545.4	1555.5	1564.1	1568.4	1569.8	1568.4
52.5°	1463.5	1465.0	1470.7	1477.9	1488.0	1499.4	1510.9	1521.0	1526.7	1529.6	1526.7
55°	1403.2	1406.1	1410.4	1420.5	1431.9	1442.0	1456.4	1467.8	1475.0	1476.5	1475.0
57.5°	1332.8	1337.1	1341.5	1352.9	1364.4	1378.8	1390.3	1401.8	1410.4	1411.8	1411.8
60°	1253.8	1256.7	1261.0	1272.5	1285.4	1295.5	1311.3	1322.8	1330.0	1330.0	1331.4
62.5°	1160.5	1163.4	1170.5	1179.2	1193.5	1203.6	1216.5	1228.0	1235.2	1238.0	1236.6
65°	1051.3	1054.2	1058.5	1070.0	1081.5	1093.0	1105.9	1116.0	1123.1	1124.6	1123.1
67.5°	930.7	933.6	936.4	950.8	962.3	966.6	982.4	991.0	995.3	996.8	996.8
70°	802.9	804.3	808.6	815.8	828.7	833.0	843.1	850.3	853.1	858.9	854.6
72.5°	669.3	672.2	682.2	683.7	693.7	699.5	702.3	702.3	709.5	709.5	710.9
75°	537.2	538.6	542.9	544.3	551.5	551.5	550.1	553.0	558.7	558.7	560.1
77.5°	406.5	406.5	413.6	407.9	410.8	405.0	407.9	405.0	409.3	407.9	409.3
80°	284.4	284.4	288.7	282.9	284.4	278.6	280.1	278.6	278.6	280.1	280.1
82.5°	175.2	176.7	179.5	175.2	175.2	170.9	172.3	173.8	173.8	172.3	170.9
85°	86.2	86.2	89.0	87.6	86.2	83.3	84.7	86.2	86.2	84.7	84.7
87.5°	23.0	23.0	24.4	24.4	23.0	21.5	23.0	24.4	24.4	24.4	23.0
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):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1793.9	1793.9	1793.9	1793.9	1793.9	1793.9	1793.9	1793.9
2.5°	1792.4	1792.4	1793.9	1792.4	1793.9	1792.4	1793.9	1793.9
5°	1792.4	1792.4	1792.4	1792.4	1792.4	1792.4	1792.4	1792.4
7.5°	1789.6	1791.0	1789.6	1789.6	1789.6	1791.0	1789.6	1791.0
10°	1786.7	1786.7	1786.7	1786.7	1786.7	1786.7	1786.7	1786.7
12.5°	1782.4	1782.4	1782.4	1782.4	1782.4	1782.4	1782.4	1780.9
15°	1779.5	1778.1	1778.1	1778.1	1776.6	1776.6	1776.6	1776.6
17.5°	1773.8	1772.3	1770.9	1770.9	1770.9	1770.9	1769.5	1769.5
20°	1763.7	1762.3	1760.8	1760.8	1759.4	1759.4	1758.0	1758.0
22.5°	1749.4	1749.4	1747.9	1746.5	1746.5	1745.0	1745.0	1743.6
25°	1736.4	1735.0	1733.6	1732.1	1730.7	1730.7	1729.2	1727.8
27.5°	1722.1	1719.2	1717.8	1716.3	1714.9	1713.4	1712.0	1710.6
30°	1706.3	1703.4	1700.5	1699.1	1696.2	1693.3	1691.9	1690.5
32.5°	1690.5	1687.6	1683.3	1679.0	1676.1	1673.2	1670.4	1668.9
35°	1677.5	1671.8	1667.5	1661.7	1657.4	1653.1	1651.7	1650.3
37.5°	1667.5	1661.7	1654.6	1648.8	1644.5	1638.8	1635.9	1633.0
40°	1657.4	1650.3	1641.6	1634.5	1628.7	1621.5	1618.7	1615.8
42.5°	1643.1	1634.5	1625.8	1617.2	1608.6	1601.4	1597.1	1594.2
45°	1623.0	1614.3	1604.3	1592.8	1584.2	1575.6	1571.3	1568.4
47.5°	1595.7	1587.1	1575.6	1565.5	1555.5	1546.8	1541.1	1538.2
50°	1562.6	1554.0	1542.5	1531.0	1521.0	1510.9	1506.6	1502.3
52.5°	1521.0	1513.8	1500.9	1492.3	1480.8	1470.7	1466.4	1463.5
55°	1469.3	1462.1	1449.2	1440.6	1429.1	1420.5	1414.7	1410.4
57.5°	1406.1	1400.3	1386.0	1377.4	1365.9	1357.3	1352.9	1350.1
60°	1328.5	1322.8	1308.4	1299.8	1289.8	1279.7	1276.8	1274.0
62.5°	1232.3	1229.4	1217.9	1207.9	1197.8	1187.8	1184.9	1183.5
65°	1120.3	1117.4	1107.3	1098.7	1090.1	1081.5	1078.6	1075.8
67.5°	992.4	991.0	982.4	975.2	969.5	960.9	959.4	956.5
70°	856.0	853.1	846.0	840.2	835.9	828.7	827.3	824.4
72.5°	713.8	712.4	708.1	700.9	700.9	690.8	689.4	688.0
75°	557.3	564.4	558.7	555.8	555.8	550.1	550.1	548.6
77.5°	407.9	415.1	419.4	413.6	419.4	413.6	413.6	412.2
80°	278.6	284.4	288.7	284.4	291.6	287.2	287.2	293.0
82.5°	169.5	175.2	178.1	176.7	181.0	179.5	178.1	182.4
85°	83.3	86.2	87.6	87.6	89.0	86.2	89.0	90.5
87.5°	21.5	23.0	24.4	23.0	24.4	24.4	24.4	25.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)