

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: INVUE

Report Number: P140765

Luminaire Tested: **ECM-F03-LED-E1-RW**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P140765
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33689)
Test Lab: INNOVATION CENTER-P3
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ECM-F03-LED-E1-RW
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE
(3) LIGHTBARS WITH AccuLED OPTICS - RECTANGULAR WIDE
Light Source: (21) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7324 lumens
Efficiency: N/A
Efficacy: 93.5 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type I - Short - Full Cutoff
BUG Rating: B3 - U0 - G3

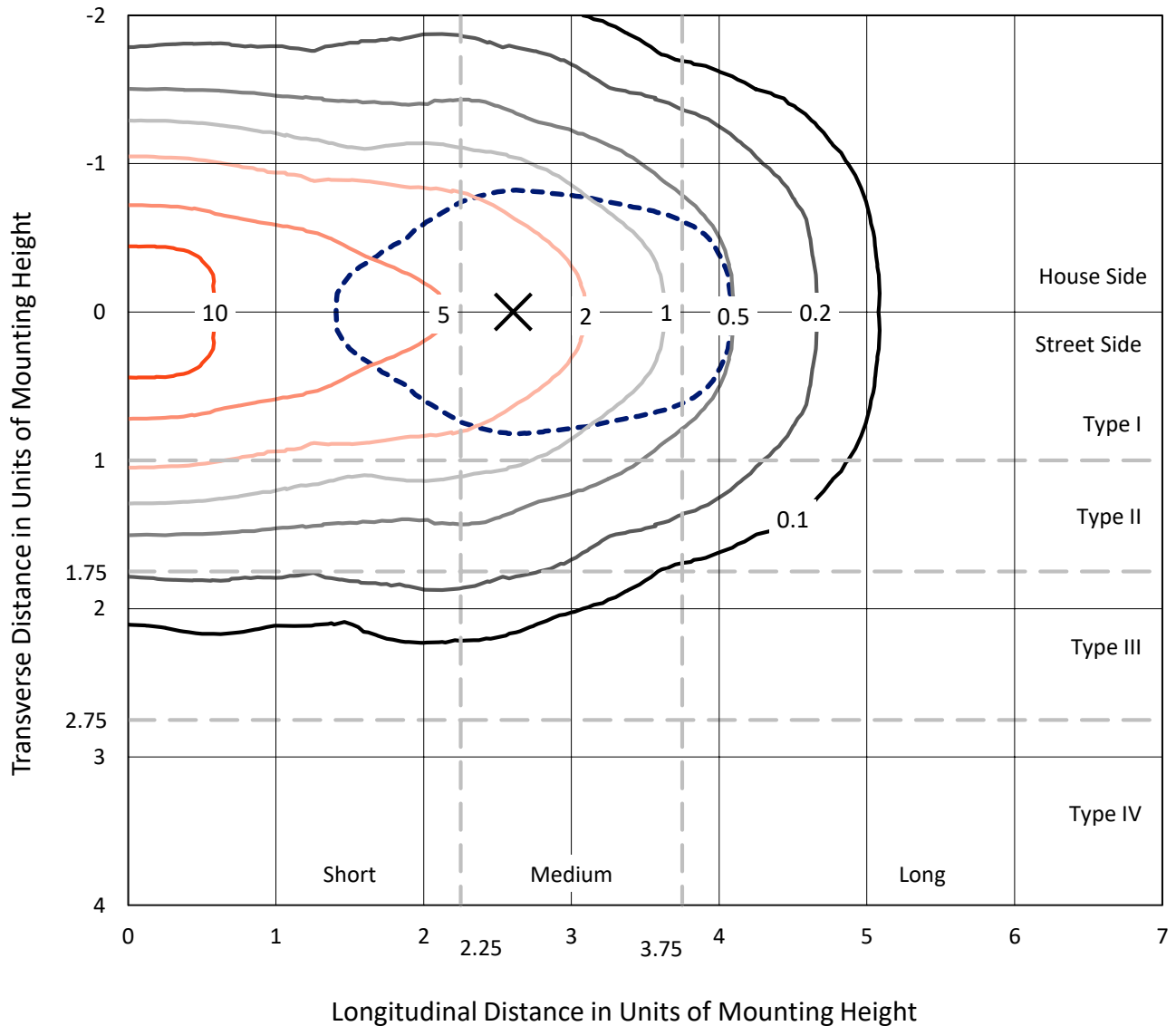
Input Watts (W): 78.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

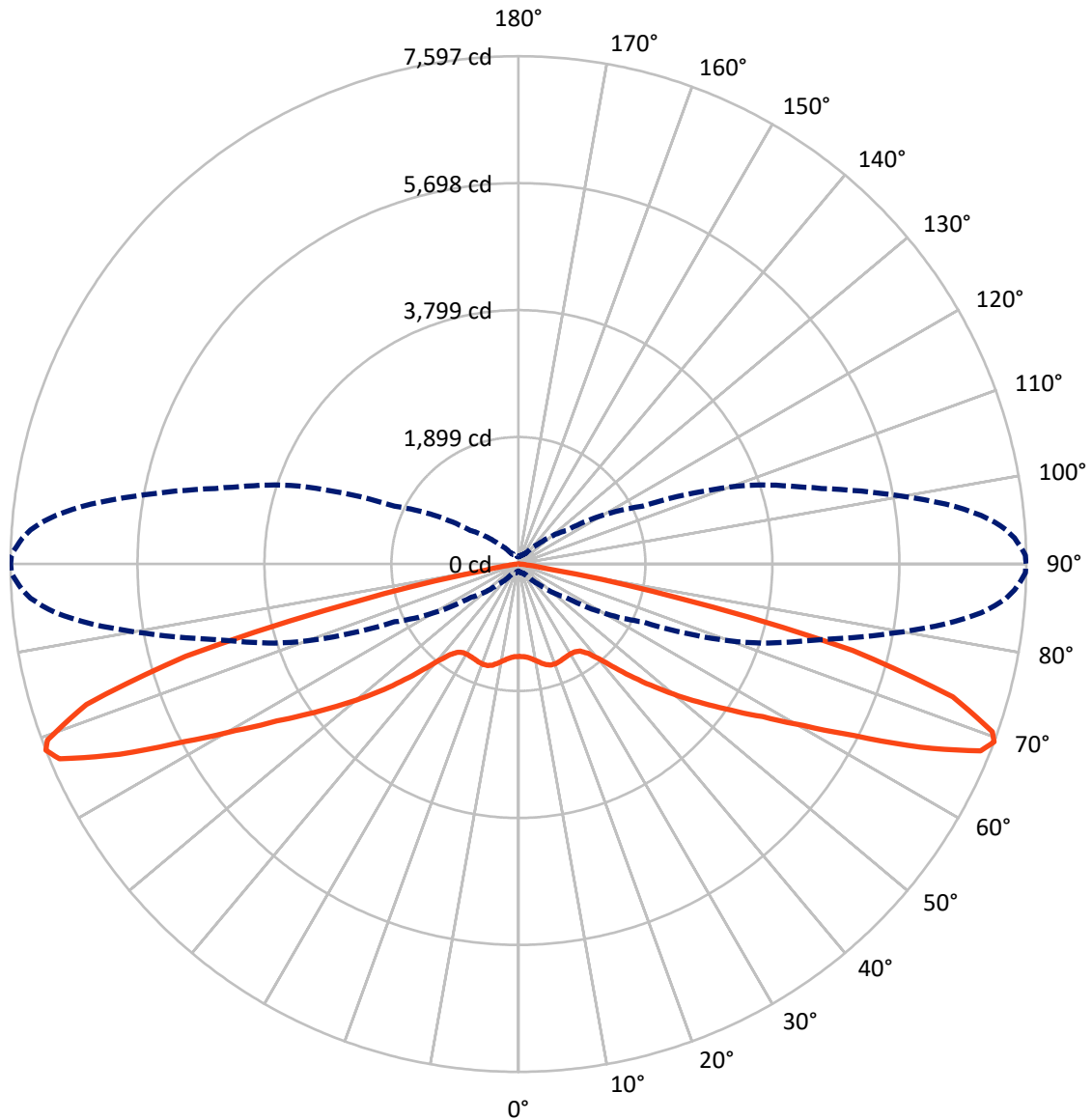
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 14.1 fc
 Type I - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 90-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

REPORT NUMBER: P140765

CATALOG NUMBER: ECM-F03-LED-E1-RW

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3662.0	0.0	3662.0
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	3662.0	0.0	3662.0
	% Fixture	50.0	0.0	50.0
Total	Lumens	7324.0	0.0	7324.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	135.4	1.8
10°-20°	425.6	5.8
20°-30°	688.3	9.4
30°-40°	859.7	11.7
40°-50°	1075.3	14.7
50°-60°	1325.1	18.1
60°-70°	1640.5	22.4
70°-80°	1072.2	14.6
80°-90°	101.9	1.4
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°	7324.0	100.0
0°-180°	7324.0	100.0



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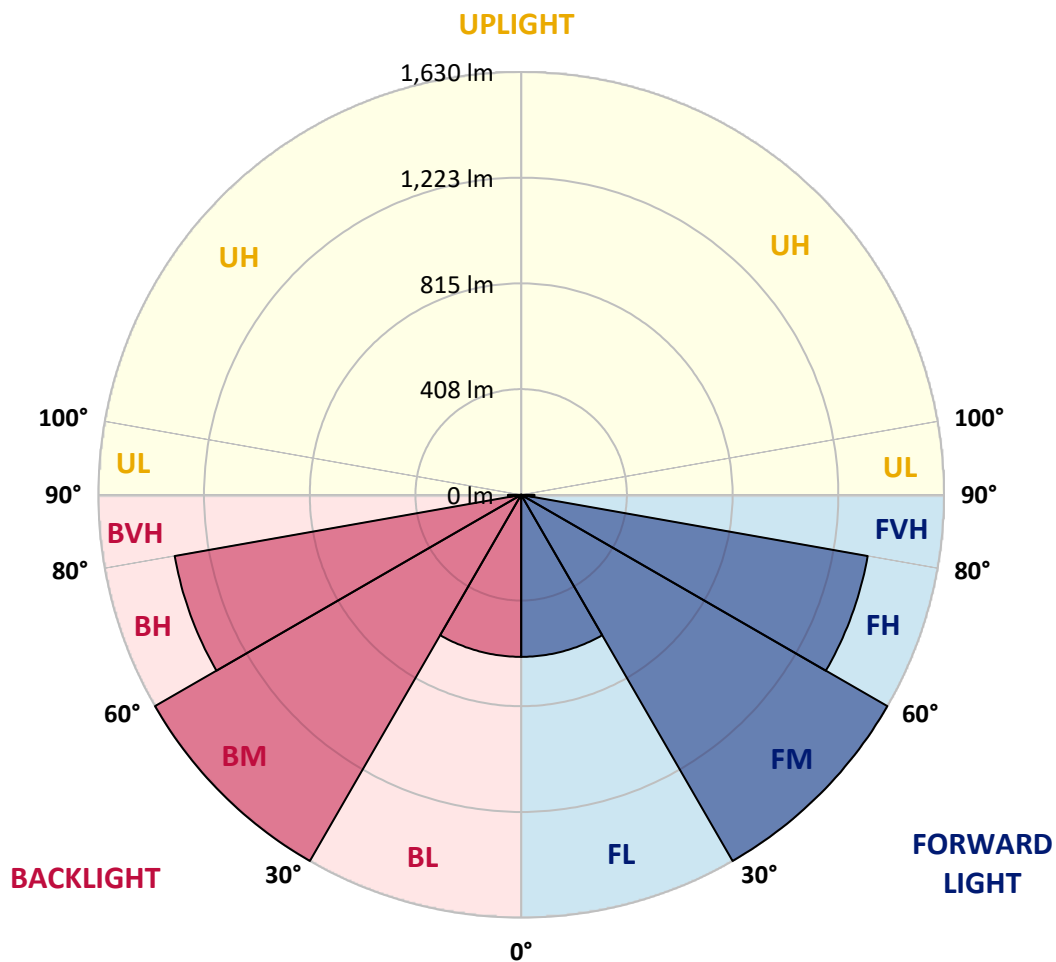
CATALOG NUMBER: ECM-F03-LED-E1-RW

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	624.7	8.5			
FM	(30°-60°)	1630.1	22.3			
FH	(60°-80°)	1356.3	18.5			G1/1800
FVH	(80°-90°)	50.9	0.7			G1/100
BL	(0°-30°)	624.7	8.5	B2/1000		
BM	(30°-60°)	1630.1	22.3	B2/2500		
BH	(60°-80°)	1356.3	18.5	B3/2500		G3/2500
BVH	(80°-90°)	50.9	0.7			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type I Short





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CATALOG NUMBER: ECM-F03-LED-E1-RW

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	67°	68°
0°	1382.8	1382.8	1382.8	1382.8	1382.8	1382.8	1382.8	1382.8	1382.8	1382.8	1382.8
2.5°	1391.8	1392.6	1390.2	1391.0	1391.8	1391.0	1389.8	1389.8	1389.4	1389.0	1388.5
5°	1400.9	1401.4	1400.1	1402.2	1402.6	1403.8	1403.8	1404.2	1404.0	1403.8	1403.5
7.5°	1413.7	1415.4	1414.1	1417.0	1419.9	1424.0	1426.1	1431.0	1430.9	1430.9	1430.8
10°	1425.7	1427.4	1427.3	1433.9	1440.9	1448.8	1457.0	1464.9	1465.4	1465.9	1466.4
12.5°	1434.8	1436.0	1438.1	1450.0	1465.7	1478.9	1493.4	1505.8	1506.2	1506.7	1507.2
15°	1431.0	1434.0	1443.4	1462.4	1490.1	1512.0	1529.7	1544.6	1545.5	1546.5	1547.5
17.5°	1418.2	1422.8	1436.4	1468.6	1511.1	1546.2	1567.2	1571.4	1572.0	1572.7	1573.4
20°	1390.6	1397.2	1418.7	1464.4	1527.2	1574.7	1595.8	1588.3	1587.6	1587.0	1586.3
22.5°	1344.4	1353.0	1379.9	1445.1	1528.4	1595.3	1616.0	1595.3	1593.0	1590.7	1588.4
25°	1282.4	1289.4	1320.1	1397.2	1509.5	1599.0	1628.8	1599.9	1596.2	1592.5	1588.7
27.5°	1207.4	1213.1	1251.1	1333.2	1462.4	1580.1	1637.1	1607.8	1602.9	1598.2	1593.4
30°	1122.8	1127.6	1169.4	1256.8	1396.4	1538.4	1636.2	1625.4	1619.8	1614.0	1608.4
32.5°	1038.5	1040.6	1077.7	1173.9	1322.9	1476.8	1622.6	1652.7	1647.2	1641.6	1636.1
35°	946.0	952.6	992.3	1097.2	1239.9	1409.2	1604.4	1690.7	1687.6	1684.4	1681.3
37.5°	871.8	873.8	916.3	1025.3	1172.7	1347.7	1581.3	1739.4	1741.6	1743.9	1746.1
40°	797.4	797.4	839.6	952.6	1105.4	1292.4	1561.9	1799.2	1810.6	1821.8	1833.2
42.5°	716.1	722.0	763.2	875.9	1040.2	1245.3	1551.9	1871.0	1892.3	1913.6	1934.9
45°	640.2	644.0	686.0	796.2	958.8	1191.6	1549.1	1951.1	1983.5	2015.8	2048.2
47.5°	565.5	570.8	610.9	712.0	870.1	1120.2	1545.4	2042.4	2083.7	2125.1	2166.4
50°	496.1	499.4	544.0	636.0	782.6	1027.8	1521.1	2144.3	2194.8	2245.3	2295.9
52.5°	422.7	429.3	466.0	561.0	694.3	928.3	1457.1	2255.3	2316.4	2377.5	2438.6
55°	345.9	344.2	388.4	477.6	617.1	833.0	1339.1	2351.5	2425.2	2498.9	2572.7
57.5°	253.4	258.8	299.2	389.6	527.5	752.9	1199.9	2401.4	2493.4	2585.4	2677.3
60°	181.6	189.0	224.1	295.6	438.4	674.4	1057.9	2366.8	2488.6	2610.4	2732.3
62.5°	142.0	145.2	175.4	221.6	341.8	592.3	962.6	2276.8	2444.8	2612.8	2780.8
65°	123.8	127.6	154.4	178.3	259.6	514.3	905.2	2205.0	2426.7	2648.4	2870.2
67.5°	112.6	117.2	140.4	156.8	213.0	447.8	891.6	2146.4	2406.5	2666.6	2926.7
69°	107.4	111.8	133.4	148.6	197.7	426.8	875.8	2047.8	2311.8	2575.8	2839.8
70°	104.8	108.6	129.2	143.6	192.8	414.4	840.4	1935.0	2190.2	2445.4	2700.5
72.5°	96.6	98.6	117.6	131.7	182.4	346.8	665.8	1448.4	1661.6	1874.8	2088.0
75°	85.4	88.8	106.1	120.6	146.5	222.0	436.7	875.5	1033.4	1191.3	1349.3
77.5°	73.4	76.4	91.2	115.2	112.6	134.6	251.0	489.2	574.5	659.9	745.2
80°	63.6	66.4	80.1	106.9	91.6	99.5	169.2	319.1	351.5	384.0	416.4
82.5°	50.0	52.0	67.2	87.1	70.9	73.8	126.8	278.6	298.2	317.7	337.3
85°	31.8	33.0	49.2	59.4	49.5	43.8	79.6	204.3	219.8	235.2	250.6
87.5°	11.1	15.7	21.9	20.6	20.6	15.7	28.0	75.6	81.6	87.6	93.6
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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CATALOG NUMBER: ECM-F03-LED-E1-RW

CANDELA DISTRIBUTION (continued):

	69°	70°	71°	72°	73°	74°	75°	76°	77°	78°	79°
0°	1382.8	1382.8	1382.8	1382.8	1382.8	1382.8	1382.8	1382.8	1382.8	1382.8	1382.8
2.5°	1388.1	1387.7	1388.1	1388.1	1387.7	1387.3	1387.3	1386.9	1386.0	1386.0	1385.6
5°	1403.2	1403.0	1403.8	1403.4	1403.8	1403.4	1403.4	1402.9	1403.4	1401.8	1401.4
7.5°	1430.7	1430.6	1430.6	1431.8	1431.0	1430.6	1431.4	1431.4	1431.4	1430.6	1430.6
10°	1466.9	1467.4	1468.2	1469.0	1469.0	1469.0	1470.6	1469.4	1472.0	1469.4	1470.6
12.5°	1507.7	1508.2	1510.2	1511.2	1511.9	1512.0	1511.9	1514.4	1516.1	1515.6	1516.1
15°	1548.5	1549.5	1550.0	1551.1	1551.2	1551.6	1553.2	1556.1	1555.2	1557.0	1556.9
17.5°	1574.0	1574.7	1574.2	1574.3	1575.1	1576.4	1578.0	1579.6	1579.2	1580.4	1581.3
20°	1585.7	1585.0	1583.8	1582.9	1582.6	1583.4	1583.4	1583.8	1584.6	1584.6	1584.6
22.5°	1586.1	1583.8	1580.8	1579.2	1577.2	1576.0	1576.8	1575.9	1575.9	1576.0	1575.1
25°	1585.0	1581.3	1576.8	1573.4	1570.1	1568.1	1566.0	1565.2	1563.6	1563.5	1563.6
27.5°	1588.6	1583.8	1579.2	1573.1	1568.5	1566.0	1563.1	1560.2	1558.6	1557.0	1556.9
30°	1602.6	1596.9	1591.2	1583.8	1577.6	1575.5	1570.2	1567.2	1563.1	1561.0	1560.2
32.5°	1630.6	1625.1	1617.2	1609.0	1604.0	1597.8	1593.2	1587.1	1582.6	1579.6	1575.9
35°	1678.1	1675.0	1668.4	1663.0	1655.6	1648.6	1639.5	1636.2	1626.7	1625.0	1620.6
37.5°	1748.3	1750.6	1749.3	1745.2	1740.2	1734.0	1730.4	1723.2	1719.6	1715.8	1711.7
40°	1844.4	1855.8	1859.5	1864.0	1865.2	1870.6	1864.4	1863.6	1858.7	1862.8	1860.3
42.5°	1956.2	1977.5	1989.1	2002.8	2017.6	2031.2	2042.0	2060.1	2058.0	2072.0	2082.0
45°	2080.6	2113.0	2142.6	2165.4	2193.8	2225.2	2252.9	2278.4	2307.4	2323.9	2348.2
47.5°	2207.8	2249.1	2291.6	2333.8	2374.2	2414.6	2464.2	2509.2	2553.0	2582.6	2620.2
50°	2346.4	2396.9	2448.1	2499.7	2557.1	2620.6	2675.9	2734.6	2794.8	2855.9	2898.8
52.5°	2499.7	2560.8	2616.5	2671.0	2742.0	2809.2	2881.1	2954.6	3045.8	3112.2	3171.2
55°	2646.4	2720.1	2781.2	2846.4	2920.7	2995.4	3083.4	3175.4	3272.0	3367.8	3454.4
57.5°	2769.3	2861.2	2933.9	2998.8	3078.4	3164.6	3259.1	3373.1	3483.3	3602.2	3714.0
60°	2854.1	2976.0	3063.5	3141.6	3234.0	3329.8	3453.2	3587.7	3732.6	3880.4	4024.0
62.5°	2948.8	3116.8	3236.5	3348.0	3457.3	3563.8	3702.9	3870.1	4066.6	4245.3	4435.5
65°	3091.9	3313.6	3490.3	3632.3	3787.5	3942.7	4105.0	4300.2	4523.5	4784.4	5006.0
67.5°	3186.9	3447.0	3671.5	3875.0	4056.2	4244.8	4449.6	4683.2	4952.8	5219.0	5494.7
69°	3103.8	3367.8	3605.0	3829.2	4027.8	4230.8	4438.8	4674.1	4949.4	5243.7	5534.7
70°	2955.7	3210.8	3456.0	3692.2	3886.2	4098.4	4303.0	4527.2	4806.2	5100.5	5417.1
72.5°	2301.3	2514.5	2766.3	2994.2	3225.8	3419.3	3604.2	3829.2	4110.7	4391.0	4699.3
75°	1507.2	1665.1	1895.4	2082.8	2283.0	2464.6	2598.8	2822.0	2992.9	3256.7	3543.2
77.5°	830.6	916.0	1035.6	1188.4	1274.6	1377.0	1511.2	1592.4	1713.8	1898.3	1984.2
80°	448.9	481.3	531.6	563.4	589.0	563.8	550.2	574.6	564.2	561.4	533.7
82.5°	356.9	376.4	402.5	421.0	409.0	355.0	297.6	256.0	229.0	192.8	165.1
85°	266.1	281.6	291.4	303.8	301.8	272.8	218.4	168.8	132.5	105.6	92.1
87.5°	99.7	105.7	108.6	132.1	121.4	115.2	89.6	65.2	49.9	36.3	29.3
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):

	80°	81°	82°	83°	84°	85°	86°	87°	88°	89°	90°
0°	1382.8	1382.8	1382.8	1382.8	1382.8	1382.8	1382.8	1382.8	1382.8	1382.8	1382.8
2.5°	1386.5	1386.0	1386.0	1386.0	1386.5	1385.6	1384.8	1385.6	1385.2	1385.2	1385.2
5°	1403.0	1402.6	1402.6	1403.0	1402.6	1403.0	1402.6	1400.9	1401.8	1402.2	1402.6
7.5°	1431.5	1431.1	1431.0	1433.1	1432.7	1432.3	1431.9	1432.7	1431.5	1431.4	1432.3
10°	1470.7	1472.4	1471.9	1473.2	1472.7	1471.9	1471.1	1471.9	1473.1	1473.6	1471.9
12.5°	1518.6	1519.0	1518.1	1520.2	1518.9	1521.8	1518.6	1520.2	1521.8	1519.4	1520.6
15°	1557.4	1557.4	1559.0	1559.4	1559.0	1559.8	1562.3	1561.1	1559.8	1561.9	1562.7
17.5°	1580.9	1582.1	1582.6	1582.9	1583.8	1584.6	1585.0	1584.6	1585.0	1585.8	1587.5
20°	1586.2	1585.8	1586.6	1587.0	1588.3	1588.4	1589.1	1588.7	1589.9	1590.4	1590.8
22.5°	1576.8	1577.2	1577.6	1578.8	1578.4	1579.2	1579.6	1580.9	1580.4	1581.3	1581.7
25°	1563.9	1564.8	1565.2	1564.8	1564.8	1565.2	1565.6	1565.2	1566.8	1567.7	1567.7
27.5°	1555.7	1555.7	1556.9	1556.6	1555.8	1556.6	1556.1	1556.1	1556.1	1556.6	1557.8
30°	1559.0	1557.8	1556.9	1557.0	1556.5	1555.7	1554.8	1553.6	1553.6	1554.0	1553.6
32.5°	1576.8	1574.2	1573.0	1571.8	1570.9	1568.9	1566.4	1565.6	1563.6	1563.6	1562.7
35°	1622.2	1619.2	1619.3	1614.7	1612.2	1611.0	1609.0	1602.8	1603.2	1600.7	1599.9
37.5°	1712.6	1707.6	1705.6	1709.7	1701.8	1705.2	1698.1	1695.2	1696.8	1692.3	1694.8
40°	1864.4	1872.3	1869.0	1873.5	1875.6	1876.4	1876.4	1869.4	1876.4	1865.3	1869.0
42.5°	2083.6	2104.2	2111.7	2114.2	2127.0	2123.6	2120.0	2119.5	2119.1	2124.5	2121.6
45°	2359.4	2362.2	2397.3	2403.9	2411.0	2418.8	2416.7	2425.8	2432.4	2423.4	2424.6
47.5°	2641.3	2670.6	2696.2	2710.2	2725.4	2717.6	2723.8	2727.6	2751.0	2748.6	2746.5
50°	2951.6	3000.8	3014.4	3029.6	3041.6	3065.5	3063.6	3078.0	3075.5	3094.9	3097.4
52.5°	3246.0	3300.0	3354.9	3378.8	3397.0	3424.6	3435.4	3451.1	3445.3	3443.7	3458.1
55°	3538.6	3629.0	3691.7	3753.2	3787.6	3824.2	3840.0	3862.2	3872.1	3876.7	3858.5
57.5°	3828.8	3937.3	4043.4	4119.4	4172.2	4227.5	4256.8	4281.2	4309.6	4319.2	4310.1
60°	4168.1	4327.0	4466.1	4567.6	4665.0	4725.3	4788.5	4834.7	4843.4	4882.6	4907.7
62.5°	4620.0	4813.6	4989.9	5137.6	5288.7	5401.4	5515.3	5560.7	5605.7	5636.2	5654.8
65°	5236.3	5491.4	5735.0	5945.0	6130.4	6317.7	6450.6	6520.4	6610.0	6627.7	6608.3
67.5°	5776.6	6077.5	6380.1	6647.6	6847.7	7042.2	7199.8	7315.4	7399.2	7440.4	7457.8
69°	5836.0	6141.9	6451.1	6717.7	6960.0	7154.0	7315.4	7430.2	7513.5	7584.9	7597.3
70°	5714.2	6057.7	6358.2	6627.3	6877.0	7074.8	7219.2	7350.5	7445.4	7500.3	7519.7
72.5°	5016.3	5325.0	5628.5	5938.4	6152.6	6390.0	6508.8	6614.1	6740.4	6812.2	6796.5
75°	3801.6	4068.6	4333.2	4565.2	4730.2	4817.8	4956.9	5058.8	5040.2	5161.2	5164.5
77.5°	2144.3	2179.0	2358.5	2334.6	2413.9	2415.9	2436.6	2472.4	2403.6	2545.1	2443.6
80°	520.0	513.0	550.2	506.4	502.8	499.0	486.6	511.0	514.3	489.1	493.7
82.5°	152.7	146.1	143.2	139.5	145.7	143.6	144.8	145.7	149.8	144.4	150.2
85°	83.8	78.8	78.4	76.4	76.0	71.4	70.9	71.0	68.1	69.0	68.5
87.5°	32.2	30.2	28.5	27.2	26.8	25.5	24.3	22.3	19.8	17.8	16.5
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)