

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: P140761

Luminaire Tested: **ECM-E03-LED-E1-RW-7050**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P140761
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-E03-LED-E1-RW-7050
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE
(3) LIGHTBARS WITH AccuLED OPTICS - RECTANGULAR WIDE
Light Source: (63) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9103.6 lumens
Efficiency: N/A
Efficacy: 121.1 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

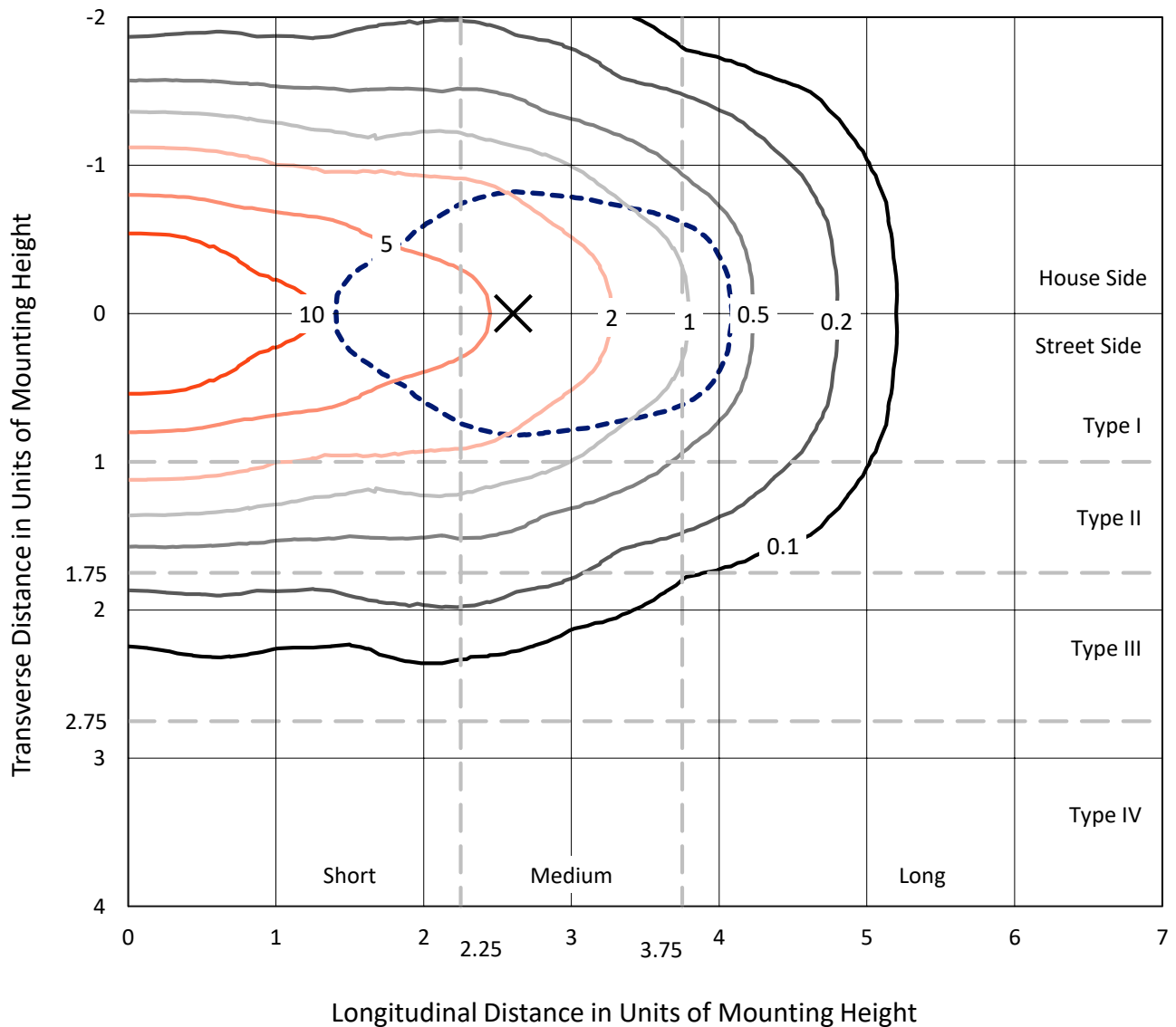
Input Watts (W): 75.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

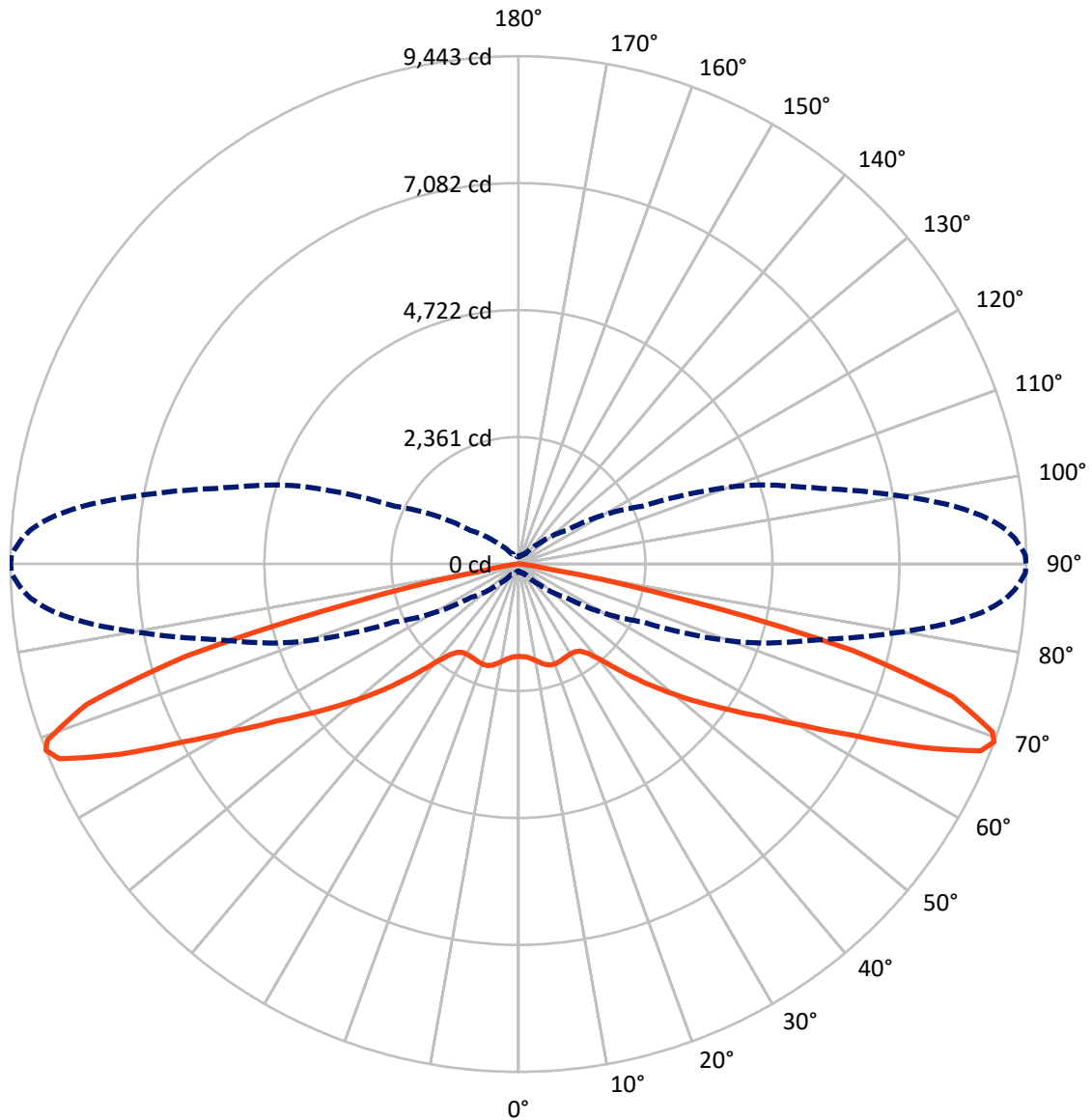
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 17.6 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

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4551.8	0.0	4551.8
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	4551.8	0.0	4551.8
	% Fixture	50.0	0.0	50.0
Total	Lumens	9103.6	0.0	9103.6
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	168.3	1.8
10°-20°	529.0	5.8
20°-30°	855.5	9.4
30°-40°	1068.6	11.7
40°-50°	1336.6	14.7
50°-60°	1647.0	18.1
60°-70°	2039.1	22.4
70°-80°	1332.7	14.6
80°-90°	126.6	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°	9103.6	100.0
0°-180°	9103.6	100.0



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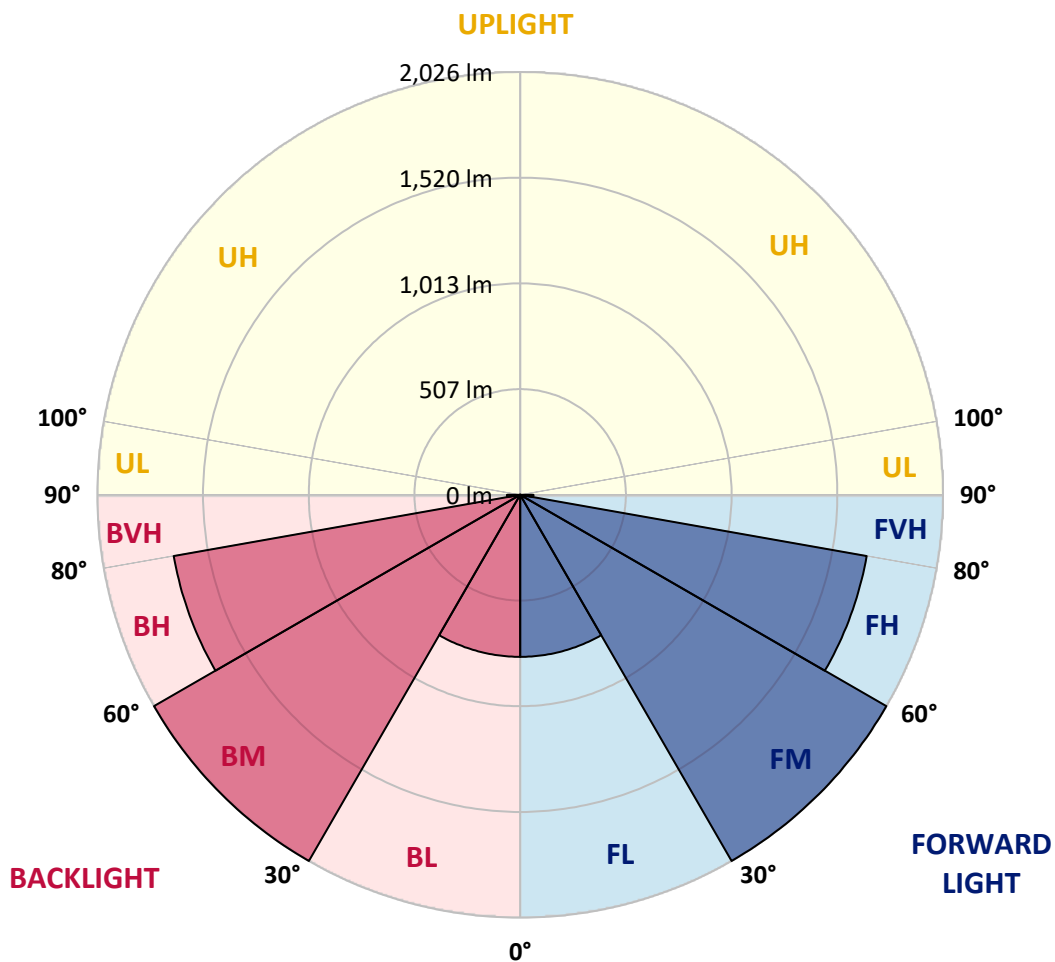
CATALOG NUMBER: ECM-E03-LED-E1-RW-7050

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	776.4	8.5			
FM	(30°-60°)	2026.1	22.3			
FH	(60°-80°)	1685.9	18.5			G1/1800
FVH	(80°-90°)	63.3	0.7			G1/100
BL	(0°-30°)	776.4	8.5	B2/1000		
BM	(30°-60°)	2026.1	22.3	B2/2500		
BH	(60°-80°)	1685.9	18.5	B3/2500		G3/2500
BVH	(80°-90°)	63.3	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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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	67°	68°
0°	1718.7	1718.7	1718.7	1718.7	1718.7	1718.7	1718.7	1718.7	1718.7	1718.7	1718.7
2.5°	1730.0	1731.0	1728.0	1729.0	1730.0	1729.0	1727.4	1727.4	1726.9	1726.4	1725.9
5°	1741.3	1741.8	1740.3	1742.8	1743.4	1744.8	1744.9	1745.4	1745.1	1744.8	1744.5
7.5°	1757.2	1759.2	1757.8	1761.3	1764.9	1770.0	1772.6	1778.8	1778.6	1778.6	1778.4
10°	1772.1	1774.2	1774.2	1782.4	1791.0	1800.8	1811.0	1820.8	1821.5	1822.1	1822.7
12.5°	1783.4	1784.9	1787.4	1802.4	1821.8	1838.2	1856.2	1871.6	1872.2	1872.8	1873.5
15°	1778.8	1782.4	1794.2	1817.8	1852.2	1879.3	1901.4	1919.8	1921.1	1922.3	1923.5
17.5°	1762.8	1768.5	1785.4	1825.4	1878.3	1921.9	1948.0	1953.2	1954.0	1954.8	1955.7
20°	1728.4	1736.7	1763.4	1820.4	1898.3	1957.2	1983.5	1974.2	1973.4	1972.6	1971.7
22.5°	1671.0	1681.8	1715.2	1796.2	1899.8	1983.0	2008.6	1983.0	1980.1	1977.2	1974.3
25°	1594.1	1602.8	1640.8	1736.7	1876.2	1987.6	2024.5	1988.6	1983.9	1979.3	1974.7
27.5°	1500.7	1507.9	1555.0	1657.2	1817.8	1964.0	2034.8	1998.3	1992.4	1986.4	1980.5
30°	1395.5	1401.6	1453.4	1562.2	1735.6	1912.2	2033.8	2020.4	2013.3	2006.2	1999.2
32.5°	1290.8	1293.4	1339.6	1459.2	1644.4	1835.7	2016.8	2054.3	2047.4	2040.5	2033.7
35°	1175.9	1184.2	1233.4	1363.7	1541.2	1751.6	1994.2	2101.5	2097.6	2093.7	2089.8
37.5°	1083.6	1086.2	1138.9	1274.4	1457.6	1675.2	1965.5	2162.0	2164.8	2167.5	2170.3
40°	991.2	991.2	1043.6	1184.1	1373.9	1606.4	1941.4	2236.4	2250.5	2264.5	2278.6
42.5°	890.2	897.3	948.6	1088.7	1292.9	1547.8	1929.1	2325.7	2352.2	2378.6	2405.1
45°	795.8	800.4	852.7	989.7	1191.8	1481.2	1925.5	2425.2	2465.4	2505.6	2545.9
47.5°	702.9	709.6	759.4	885.0	1081.5	1392.4	1920.8	2538.6	2590.0	2641.4	2692.8
50°	616.7	620.8	676.2	790.6	972.8	1277.5	1890.6	2665.3	2728.1	2790.9	2853.7
52.5°	525.4	533.6	579.2	697.2	863.0	1153.8	1811.1	2803.4	2879.3	2955.2	3031.1
55°	430.0	427.9	482.8	593.6	767.0	1035.4	1664.4	2922.9	3014.5	3106.1	3197.8
57.5°	315.0	321.6	372.0	484.3	655.7	935.8	1491.4	2984.9	3099.2	3213.5	3327.9
60°	225.7	235.0	278.6	367.4	544.8	838.3	1315.0	2941.8	3093.3	3244.8	3396.2
62.5°	176.5	180.6	218.0	275.5	424.8	736.2	1196.4	2830.0	3038.8	3247.6	3456.4
65°	153.9	158.5	191.9	221.6	322.7	639.3	1125.1	2740.7	3016.3	3291.9	3567.6
67.5°	140.0	145.8	174.4	195.0	264.8	556.7	1108.2	2667.8	2991.2	3314.5	3637.8
69°	133.4	139.0	165.8	184.7	245.8	530.5	1088.7	2545.2	2873.4	3201.6	3529.7
70°	130.3	135.0	160.6	178.6	239.6	515.1	1044.6	2405.1	2722.3	3039.5	3356.7
72.5°	120.0	122.6	146.2	163.7	226.8	431.0	827.6	1800.3	2065.3	2330.4	2595.4
75°	106.2	110.3	131.9	149.9	182.2	276.0	542.8	1088.2	1284.5	1480.8	1677.1
77.5°	91.3	95.0	113.4	143.1	140.0	167.2	312.0	608.0	714.1	820.2	926.3
80°	79.0	82.6	99.6	132.9	113.8	123.6	210.4	396.6	436.9	477.2	517.6
82.5°	62.1	64.6	83.6	108.2	88.2	91.8	157.6	346.3	370.6	394.9	419.3
85°	39.5	41.0	61.0	73.8	61.6	54.4	99.0	254.0	273.2	292.4	311.5
87.5°	13.8	19.5	27.2	25.6	25.6	19.5	34.9	93.9	101.4	108.9	116.4
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):

	69°	70°	71°	72°	73°	74°	75°	76°	77°	78°	79°
0°	1718.7	1718.7	1718.7	1718.7	1718.7	1718.7	1718.7	1718.7	1718.7	1718.7	1718.7
2.5°	1725.4	1724.9	1725.4	1725.4	1724.9	1724.4	1724.4	1723.8	1722.8	1722.8	1722.3
5°	1744.2	1743.9	1744.9	1744.4	1744.8	1744.4	1744.4	1743.8	1744.4	1742.4	1741.8
7.5°	1778.4	1778.2	1778.2	1779.8	1778.8	1778.2	1779.2	1779.3	1779.2	1778.2	1778.2
10°	1823.3	1823.9	1824.9	1826.0	1826.0	1826.0	1828.0	1826.4	1829.6	1826.4	1828.0
12.5°	1874.1	1874.7	1877.2	1878.3	1879.4	1879.3	1879.4	1882.4	1884.4	1883.9	1884.4
15°	1924.8	1926.0	1926.5	1928.0	1928.0	1928.6	1930.6	1934.2	1933.2	1935.2	1935.2
17.5°	1956.5	1957.3	1956.8	1956.8	1957.8	1959.4	1961.4	1963.4	1963.0	1964.4	1965.5
20°	1970.9	1970.1	1968.6	1967.6	1967.0	1968.1	1968.0	1968.6	1969.6	1969.6	1969.6
22.5°	1971.5	1968.6	1965.0	1963.0	1960.4	1958.8	1959.8	1958.8	1958.8	1958.8	1957.8
25°	1970.1	1965.5	1959.8	1955.8	1951.6	1949.0	1946.6	1945.5	1943.4	1943.4	1943.4
27.5°	1974.5	1968.6	1963.0	1955.2	1949.6	1946.5	1943.0	1939.4	1937.2	1935.2	1935.2
30°	1992.1	1985.0	1977.8	1968.6	1960.9	1958.3	1951.6	1948.0	1943.0	1940.4	1939.4
32.5°	2026.8	2019.9	2010.2	1999.8	1993.7	1986.0	1980.4	1972.7	1967.0	1963.5	1958.8
35°	2085.9	2082.0	2073.8	2067.1	2057.9	2049.1	2037.8	2033.8	2021.9	2019.8	2014.2
37.5°	2173.1	2175.8	2174.3	2169.2	2163.0	2155.3	2150.8	2142.0	2137.4	2132.8	2127.6
40°	2292.6	2306.7	2311.3	2317.0	2318.5	2325.2	2317.4	2316.4	2310.3	2315.4	2312.4
42.5°	2431.6	2458.0	2472.4	2489.3	2507.8	2524.8	2538.0	2560.6	2558.1	2575.6	2587.8
45°	2586.1	2626.3	2663.2	2691.4	2726.9	2765.9	2800.2	2832.0	2868.0	2888.5	2918.8
47.5°	2744.2	2795.6	2848.5	2900.8	2951.1	3001.4	3062.9	3118.8	3173.2	3210.1	3256.8
50°	2916.5	2979.3	3043.0	3107.0	3178.4	3257.4	3326.2	3399.0	3473.9	3549.8	3603.2
52.5°	3107.1	3183.0	3252.2	3320.0	3408.2	3491.8	3581.1	3672.4	3785.8	3868.4	3941.8
55°	3289.4	3381.0	3457.0	3538.0	3630.4	3723.2	3832.5	3946.9	4067.0	4186.0	4293.8
57.5°	3442.2	3556.5	3646.8	3727.4	3826.4	3933.6	4051.0	4192.6	4329.6	4477.4	4616.4
60°	3547.7	3699.2	3807.9	3904.8	4019.8	4138.8	4292.2	4459.5	4639.5	4823.2	5001.8
62.5°	3665.2	3874.0	4022.8	4161.4	4297.3	4429.7	4602.6	4810.4	5054.6	5276.8	5513.2
65°	3843.2	4118.8	4338.4	4514.8	4707.8	4900.7	5102.3	5345.0	5622.6	5946.8	6222.3
67.5°	3961.2	4284.5	4563.6	4816.5	5041.8	5276.2	5530.7	5821.1	6156.2	6487.0	6829.8
69°	3857.8	4186.0	4481.0	4759.5	5006.4	5258.8	5517.4	5809.8	6152.0	6517.8	6879.6
70°	3673.9	3991.0	4295.8	4589.2	4830.4	5094.1	5348.5	5627.2	5974.0	6339.8	6733.3
72.5°	2860.5	3125.5	3438.5	3721.6	4009.5	4250.2	4480.0	4759.6	5109.5	5457.8	5841.1
75°	1873.4	2069.6	2356.0	2588.8	2837.7	3063.4	3230.2	3507.8	3720.2	4048.0	4404.0
77.5°	1032.4	1138.4	1287.2	1477.1	1584.4	1711.5	1878.3	1979.4	2130.2	2359.6	2466.2
80°	557.9	598.2	660.8	700.3	732.2	700.8	683.9	714.2	701.4	697.8	663.3
82.5°	443.6	467.9	500.2	523.3	508.4	441.2	370.0	318.1	284.8	239.6	205.2
85°	330.7	349.9	362.2	377.6	375.0	339.1	271.4	209.8	164.7	131.4	114.5
87.5°	123.9	131.4	135.0	164.2	150.8	143.2	111.4	81.1	62.0	45.2	36.4
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°	1718.7	1718.7	1718.7	1718.7	1718.7	1718.7	1718.7	1718.7	1718.7	1718.7	1718.7
2.5°	1723.4	1722.8	1722.8	1722.8	1723.4	1722.4	1721.3	1722.3	1721.8	1721.8	1721.8
5°	1743.8	1743.4	1743.4	1743.8	1743.4	1743.8	1743.4	1741.3	1742.4	1742.8	1743.4
7.5°	1779.3	1778.8	1778.8	1781.3	1780.8	1780.3	1779.8	1780.8	1779.3	1779.2	1780.3
10°	1828.0	1830.0	1829.6	1831.1	1830.6	1829.6	1828.5	1829.6	1831.1	1831.6	1829.5
12.5°	1887.5	1888.0	1887.0	1889.6	1888.0	1891.6	1887.5	1889.6	1891.6	1888.6	1890.1
15°	1935.8	1935.8	1937.8	1938.3	1937.8	1938.8	1941.9	1940.4	1938.8	1941.4	1942.4
17.5°	1965.0	1966.6	1967.0	1967.6	1968.6	1969.6	1970.1	1969.6	1970.1	1971.1	1973.2
20°	1971.6	1971.2	1972.2	1972.7	1974.2	1974.2	1975.2	1974.7	1976.3	1976.8	1977.3
22.5°	1959.9	1960.4	1960.8	1962.4	1961.9	1963.0	1963.4	1965.0	1964.4	1965.5	1966.0
25°	1944.0	1945.0	1945.5	1945.0	1945.0	1945.5	1946.0	1945.5	1947.6	1948.6	1948.6
27.5°	1933.7	1933.7	1935.2	1934.7	1933.7	1934.8	1934.2	1934.2	1934.2	1934.8	1936.3
30°	1937.8	1936.3	1935.2	1935.2	1934.7	1933.7	1932.7	1931.1	1931.1	1931.6	1931.1
32.5°	1959.8	1956.8	1955.2	1953.7	1952.6	1950.1	1947.0	1946.0	1943.4	1943.4	1942.4
35°	2016.3	2012.7	2012.7	2007.0	2004.0	2002.4	1999.9	1992.2	1992.7	1989.6	1988.6
37.5°	2128.6	2122.5	2119.9	2125.0	2115.4	2119.4	2110.7	2107.1	2109.2	2103.5	2106.6
40°	2317.4	2327.2	2323.1	2328.8	2331.4	2332.4	2332.4	2323.6	2332.4	2318.5	2323.1
42.5°	2589.9	2615.6	2624.8	2627.9	2643.8	2639.7	2635.0	2634.6	2634.0	2640.6	2637.1
45°	2932.6	2936.2	2979.8	2988.0	2996.8	3006.5	3003.9	3015.2	3023.4	3012.2	3013.7
47.5°	3283.0	3319.4	3351.2	3368.7	3387.7	3378.0	3385.6	3390.2	3419.5	3416.4	3413.9
50°	3668.8	3729.9	3746.8	3765.8	3780.7	3810.4	3807.8	3825.8	3822.8	3846.8	3849.9
52.5°	4034.7	4101.8	4170.1	4199.8	4222.4	4256.8	4270.2	4289.6	4282.4	4280.4	4298.4
55°	4398.4	4510.8	4588.8	4665.2	4707.8	4753.4	4773.0	4800.6	4813.0	4818.6	4796.0
57.5°	4759.0	4894.0	5025.8	5120.3	5186.0	5254.7	5291.1	5321.4	5356.8	5368.6	5357.3
60°	5180.8	5378.4	5551.2	5677.4	5798.5	5873.4	5951.9	6009.4	6020.2	6068.9	6100.2
62.5°	5742.6	5983.2	6202.3	6386.0	6573.7	6713.8	6855.4	6911.8	6967.8	7005.7	7028.8
65°	6508.6	6825.6	7128.4	7389.5	7619.9	7852.8	8018.0	8104.7	8216.0	8238.0	8214.0
67.5°	7180.2	7554.2	7930.2	8262.7	8511.6	8753.2	8949.2	9092.8	9197.0	9248.3	9269.8
69°	7254.0	7634.2	8018.5	8350.0	8651.0	8892.2	9092.8	9235.4	9339.1	9427.9	9443.2
70°	7102.7	7529.6	7903.0	8237.6	8548.0	8793.7	8973.2	9136.4	9254.4	9322.7	9346.8
72.5°	6235.1	6618.9	6996.0	7381.3	7647.6	7942.6	8090.4	8221.2	8378.2	8467.4	8447.9
75°	4725.2	5057.2	5386.0	5674.4	5879.6	5988.4	6161.2	6288.0	6264.9	6415.2	6419.3
77.5°	2665.3	2708.4	2931.6	2901.8	3000.3	3002.9	3028.5	3073.2	2987.5	3163.5	3037.3
80°	646.4	637.8	683.9	629.6	624.9	620.2	604.9	635.2	639.3	608.0	613.6
82.5°	189.9	181.6	178.0	173.4	181.2	178.6	180.0	181.2	186.2	179.6	186.8
85°	104.1	98.0	97.5	95.0	94.4	88.8	88.2	88.2	84.6	85.6	85.2
87.5°	40.0	37.4	35.4	33.8	33.4	31.8	30.3	27.7	24.6	22.0	20.5
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)