

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: P140768

Luminaire Tested: **ECM-E04-LED-E1-RW-8030**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P140768
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-E04-LED-E1-RW-8030
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE
(4) LIGHTBARS WITH AccuLED OPTICS - RECTANGULAR WIDE
Light Source: (84) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9983.8 lumens
Efficiency: N/A
Efficacy: 102.7 lumens/watt
Luminous Opening: Rectangular (W 0.67' x L: 1' x H: 0')
IES Classification: Type I - Short - Full Cutoff
BUG Rating: B3 - U0 - G3

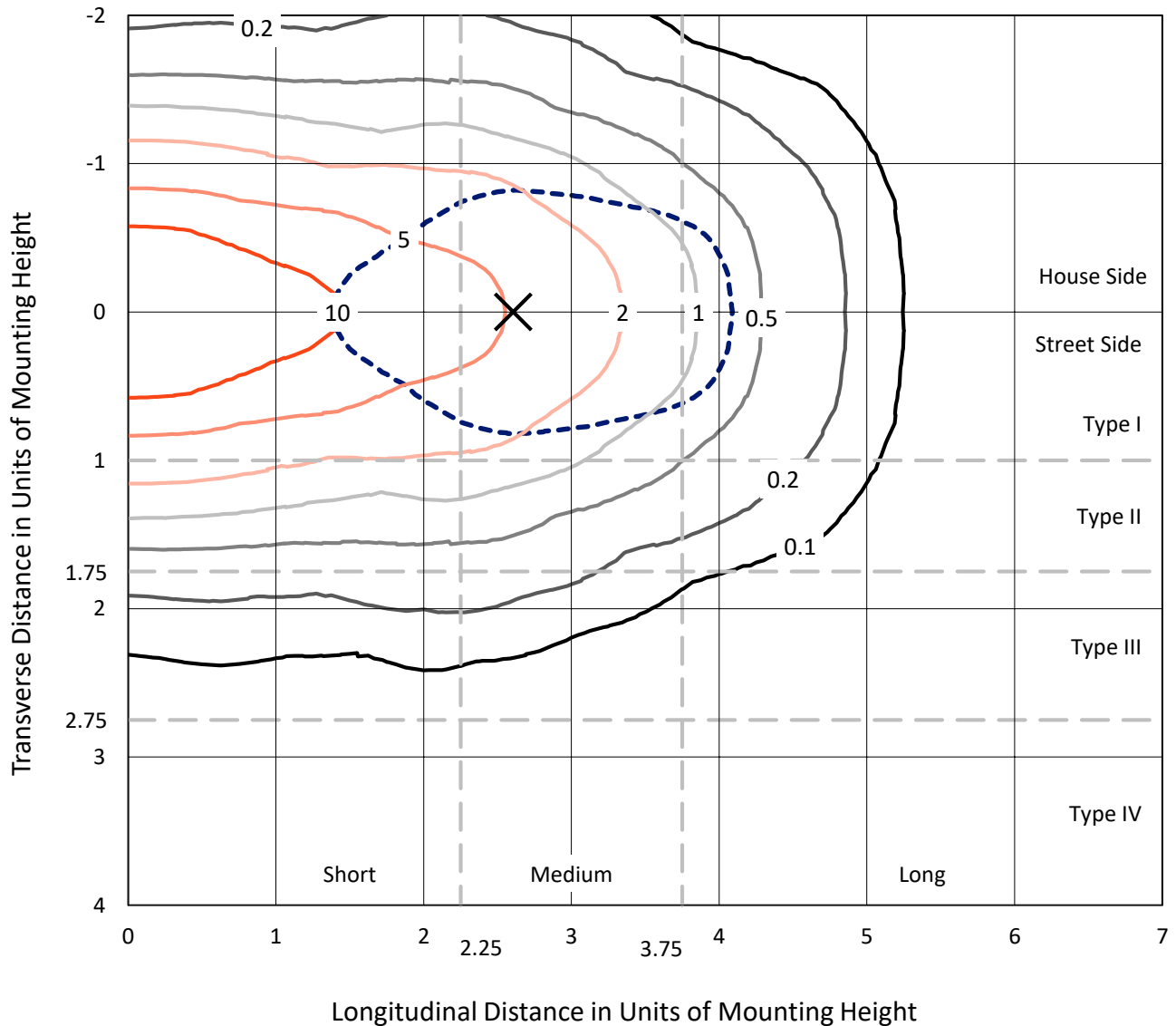
Input Watts (W): 97.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

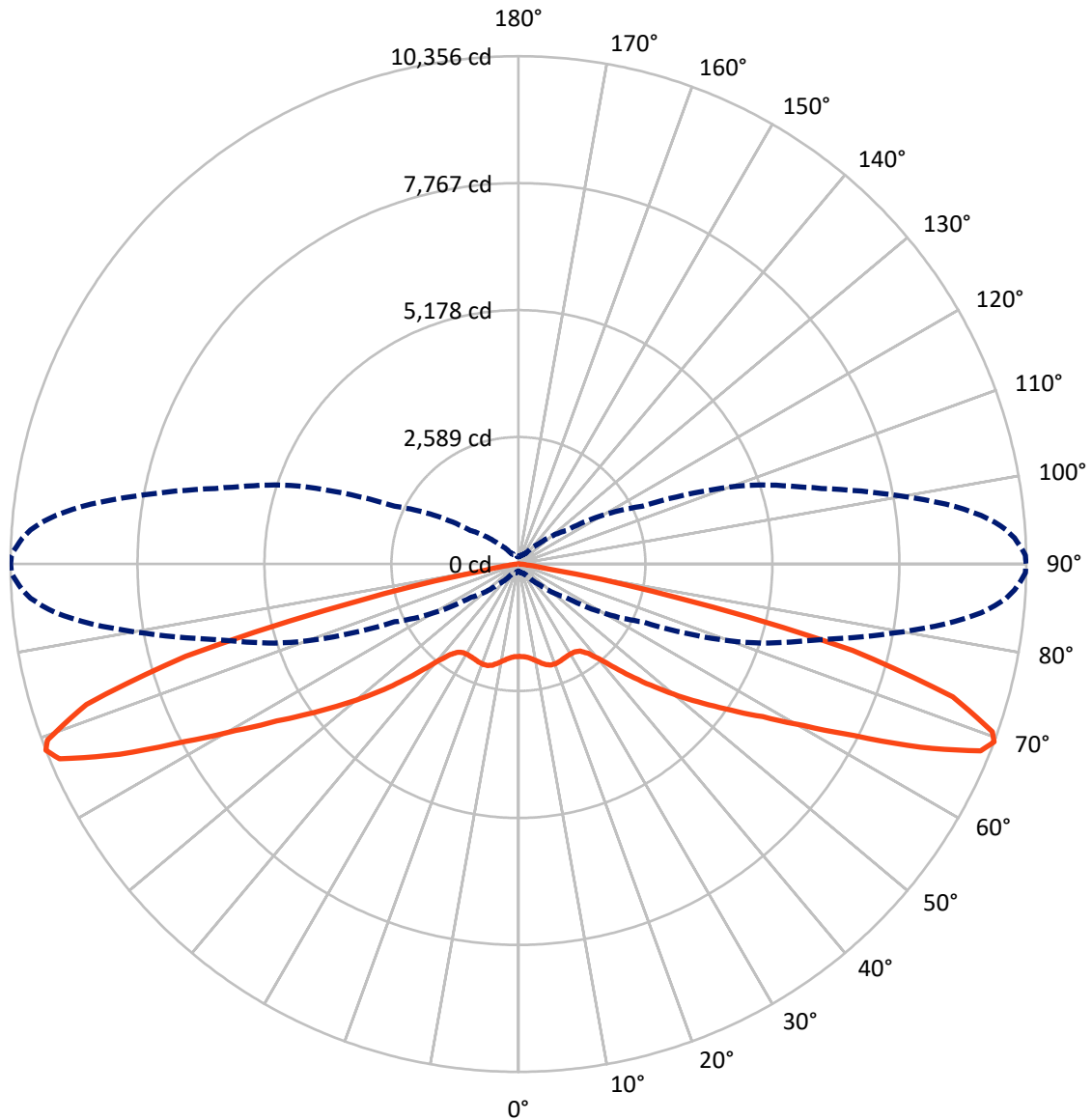
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 19.2 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	4991.9	0.0	4991.9
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	4991.9	0.0	4991.9
	% Fixture	50.0	0.0	50.0
Total	Lumens	9983.8	0.0	9983.8
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	184.6	1.8
10°-20°	580.2	5.8
20°-30°	938.3	9.4
30°-40°	1172.0	11.7
40°-50°	1465.9	14.7
50°-60°	1806.3	18.1
60°-70°	2236.2	22.4
70°-80°	1461.6	14.6
80°-90°	138.9	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°	9983.8	100.0
0°-180°	9983.8	100.0



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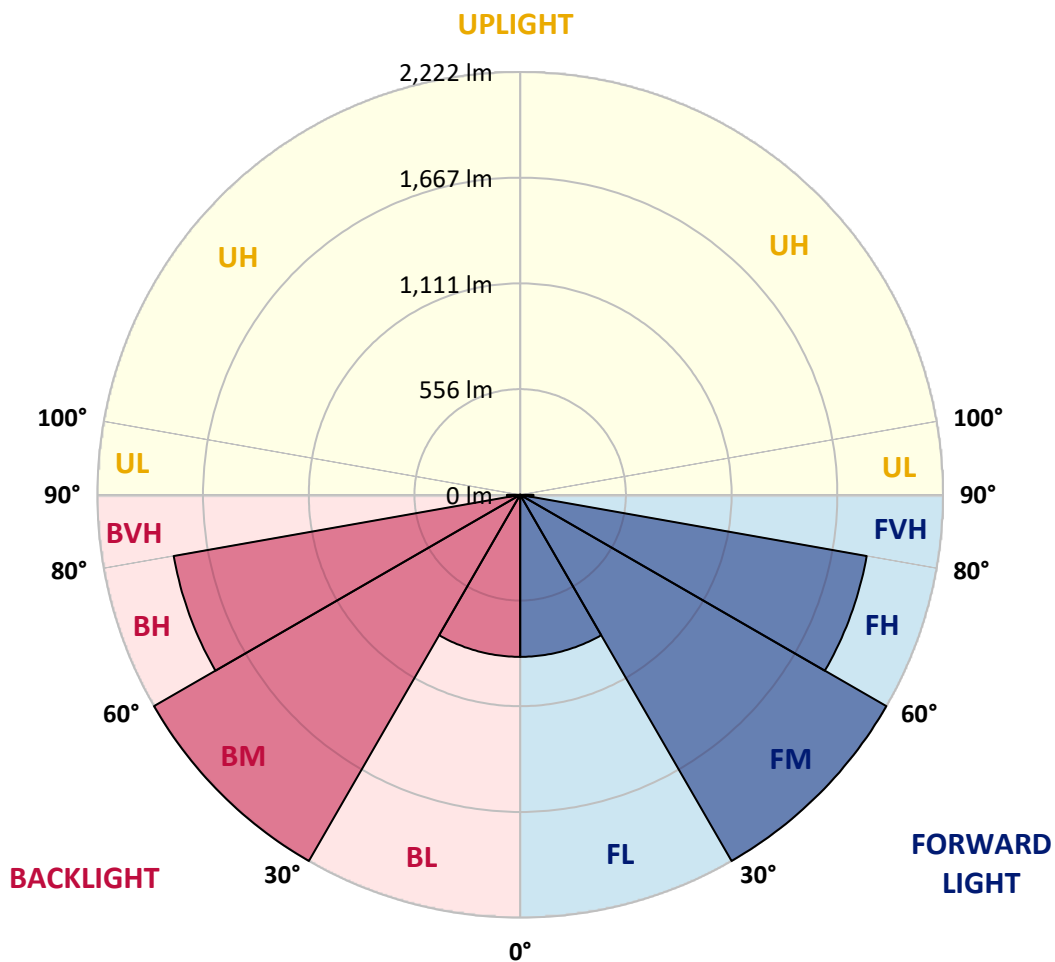
CATALOG NUMBER: ECM-E04-LED-E1-RW-8030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	851.5	8.5			
FM	(30°-60°)	2222.0	22.3			
FH	(60°-80°)	1848.9	18.5			G2/5000
FVH	(80°-90°)	69.4	0.7			G1/100
BL	(0°-30°)	851.5	8.5	B2/1000		
BM	(30°-60°)	2222.0	22.3	B2/2500		
BH	(60°-80°)	1848.9	18.5	B3/2500		G3/2500
BVH	(80°-90°)	69.4	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-E04-LED-E1-RW-8030

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	67°	68°
0°	1884.9	1884.9	1884.9	1884.9	1884.9	1884.9	1884.9	1884.9	1884.9	1884.9	1884.9
2.5°	1897.2	1898.4	1895.0	1896.2	1897.3	1896.2	1894.5	1894.4	1893.9	1893.4	1892.8
5°	1909.6	1910.2	1908.6	1911.4	1912.0	1913.6	1913.6	1914.2	1913.8	1913.5	1913.1
7.5°	1927.2	1929.4	1927.7	1931.6	1935.6	1941.2	1944.0	1950.8	1950.6	1950.5	1950.4
10°	1943.4	1945.7	1945.7	1954.6	1964.2	1975.0	1986.2	1996.9	1997.6	1998.2	1998.9
12.5°	1955.8	1957.5	1960.3	1976.6	1998.0	2016.0	2035.7	2052.6	2053.3	2054.0	2054.6
15°	1950.8	1954.6	1967.6	1993.5	2031.2	2061.0	2085.2	2105.4	2106.8	2108.2	2109.5
17.5°	1933.3	1939.4	1958.0	2002.0	2059.9	2107.7	2136.4	2142.0	2143.0	2143.9	2144.8
20°	1895.6	1904.6	1933.8	1996.4	2081.8	2146.6	2175.2	2165.2	2164.2	2163.3	2162.4
22.5°	1832.6	1844.4	1881.0	1969.8	2083.6	2174.6	2202.8	2174.6	2171.5	2168.4	2165.2
25°	1748.2	1757.8	1799.4	1904.6	2057.6	2179.8	2220.2	2180.9	2175.8	2170.8	2165.7
27.5°	1645.8	1653.7	1705.4	1817.4	1993.5	2153.8	2231.6	2191.6	2185.1	2178.5	2172.0
30°	1530.4	1537.2	1594.0	1713.3	1903.4	2097.0	2230.4	2215.8	2208.0	2200.2	2192.5
32.5°	1415.7	1418.4	1469.1	1600.2	1803.3	2013.2	2211.8	2252.8	2245.3	2237.8	2230.3
35°	1289.6	1298.6	1352.6	1495.6	1690.2	1921.0	2187.0	2304.6	2300.4	2296.1	2291.8
37.5°	1188.4	1191.2	1249.1	1397.6	1598.6	1837.0	2155.6	2371.0	2374.1	2377.1	2380.2
40°	1087.0	1087.1	1144.4	1298.6	1506.8	1761.7	2129.1	2452.6	2468.1	2483.5	2498.9
42.5°	976.2	984.1	1040.4	1194.0	1417.9	1697.6	2115.6	2550.6	2579.6	2608.6	2637.7
45°	872.7	877.8	935.2	1085.4	1307.0	1624.4	2111.6	2659.7	2703.8	2747.9	2792.0
47.5°	770.8	778.2	832.8	970.6	1186.1	1527.0	2106.6	2784.0	2840.4	2896.8	2953.2
50°	676.3	680.8	741.6	867.1	1066.8	1401.0	2073.4	2923.0	2991.9	3060.7	3129.6
52.5°	576.2	585.2	635.2	764.7	946.4	1265.4	1986.2	3074.4	3157.6	3240.9	3324.2
55°	471.5	469.2	529.4	651.0	841.2	1135.4	1825.3	3205.5	3306.0	3406.5	3507.0
57.5°	345.5	352.8	408.0	531.2	719.1	1026.3	1635.6	3273.6	3398.9	3524.3	3649.7
60°	247.6	257.7	305.5	402.8	597.6	919.4	1442.1	3226.3	3392.4	3558.5	3724.6
62.5°	193.6	198.0	239.2	302.2	465.9	807.4	1312.1	3103.6	3332.6	3561.6	3790.6
65°	168.8	173.8	210.4	243.1	353.9	701.0	1233.9	3005.8	3308.0	3610.2	3912.5
67.5°	153.6	159.8	191.4	213.8	290.4	610.5	1215.4	2925.8	3280.4	3635.0	3989.6
69°	146.2	152.5	181.8	202.5	269.5	581.8	1194.0	2791.4	3151.2	3511.1	3871.0
70°	142.9	148.0	176.1	195.8	262.8	564.9	1145.6	2637.8	2985.6	3333.4	3681.3
72.5°	131.6	134.5	160.4	179.5	248.7	472.6	907.6	1974.4	2265.0	2555.7	2846.4
75°	116.5	121.0	144.6	164.2	199.8	302.7	595.2	1193.4	1408.7	1624.0	1839.2
77.5°	100.2	104.1	124.4	157.0	153.6	183.4	342.1	666.8	783.1	899.5	1015.8
80°	86.6	90.6	109.2	145.8	125.0	135.6	230.6	435.0	479.2	523.4	567.6
82.5°	68.0	70.9	91.7	118.7	96.8	100.7	172.7	379.8	406.4	433.1	459.8
85°	43.3	45.0	66.9	81.0	67.5	59.6	108.6	278.5	299.5	320.6	341.6
87.5°	15.2	21.4	29.8	28.2	28.2	21.4	38.2	103.0	111.2	119.4	127.6
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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CANDELA DISTRIBUTION (continued):

	69°	70°	71°	72°	73°	74°	75°	76°	77°	78°	79°
0°	1884.9	1884.9	1884.9	1884.9	1884.9	1884.9	1884.9	1884.9	1884.9	1884.9	1884.9
2.5°	1892.2	1891.7	1892.2	1892.2	1891.6	1891.1	1891.1	1890.6	1889.4	1889.4	1888.8
5°	1912.8	1912.4	1913.6	1913.0	1913.6	1913.0	1913.0	1912.5	1913.0	1910.8	1910.2
7.5°	1950.3	1950.2	1950.2	1951.9	1950.8	1950.2	1951.3	1951.3	1951.4	1950.2	1950.2
10°	1999.6	2000.2	2001.4	2002.5	2002.5	2002.5	2004.8	2003.0	2006.4	2003.0	2004.8
12.5°	2055.3	2056.0	2058.8	2059.9	2061.0	2061.0	2061.0	2064.4	2066.6	2066.1	2066.6
15°	2110.8	2112.2	2112.8	2114.4	2114.4	2115.0	2117.3	2121.2	2120.2	2122.4	2122.4
17.5°	2145.6	2146.6	2146.0	2146.0	2147.1	2148.8	2151.0	2153.3	2152.8	2154.4	2155.6
20°	2161.5	2160.6	2159.0	2157.8	2157.2	2158.4	2158.4	2158.9	2160.0	2160.0	2160.0
22.5°	2162.1	2159.0	2155.0	2152.8	2150.0	2148.2	2149.4	2148.2	2148.2	2148.2	2147.1
25°	2160.6	2155.6	2149.4	2144.9	2140.4	2137.6	2134.8	2133.6	2131.4	2131.4	2131.4
27.5°	2165.4	2158.9	2152.8	2144.3	2138.1	2134.8	2130.8	2126.8	2124.6	2122.4	2122.4
30°	2184.7	2177.0	2169.0	2158.9	2150.5	2147.6	2140.4	2136.4	2130.8	2128.0	2126.8
32.5°	2222.7	2215.2	2204.5	2193.2	2186.5	2178.1	2171.8	2163.4	2157.2	2153.3	2148.2
35°	2287.6	2283.3	2274.3	2267.0	2256.9	2247.2	2234.9	2230.4	2217.4	2215.2	2209.0
37.5°	2383.2	2386.2	2384.6	2379.0	2372.2	2363.8	2358.7	2349.1	2344.0	2339.0	2333.4
40°	2514.3	2529.7	2534.8	2541.0	2542.6	2550.0	2541.6	2540.4	2533.6	2539.3	2535.9
42.5°	2666.7	2695.8	2711.4	2730.0	2750.3	2768.9	2783.4	2808.2	2805.4	2824.6	2838.0
45°	2836.1	2880.2	2920.8	2951.8	2990.6	3033.3	3071.0	3105.8	3145.2	3167.8	3201.0
47.5°	3009.6	3066.0	3123.9	3181.2	3236.4	3291.6	3359.0	3420.4	3480.0	3520.6	3571.8
50°	3198.5	3267.4	3337.2	3407.4	3485.6	3572.4	3647.8	3727.6	3809.8	3893.0	3951.6
52.5°	3407.5	3490.8	3566.7	3641.0	3737.8	3829.5	3927.4	4027.5	4151.8	4242.4	4322.9
55°	3607.5	3708.0	3791.2	3880.1	3981.4	4083.2	4203.0	4328.6	4460.2	4590.8	4708.9
57.5°	3775.0	3900.4	3999.4	4087.7	4196.4	4314.0	4442.8	4598.1	4748.3	4910.4	5062.8
60°	3890.7	4056.8	4176.0	4282.4	4408.5	4539.0	4707.2	4890.6	5088.1	5289.6	5485.4
62.5°	4019.6	4248.6	4411.8	4563.8	4712.8	4858.0	5047.6	5275.5	5543.3	5787.0	6046.3
65°	4214.8	4517.0	4757.8	4951.5	5163.0	5374.5	5595.6	5861.8	6166.2	6521.8	6824.0
67.5°	4344.2	4698.8	5004.8	5282.2	5529.2	5786.4	6065.5	6384.0	6751.4	7114.2	7490.2
69°	4230.9	4590.8	4914.2	5219.8	5490.5	5767.2	6050.8	6371.6	6746.8	7148.0	7544.7
70°	4029.1	4377.0	4711.2	5033.0	5297.5	5586.6	5865.8	6171.2	6551.6	6952.8	7384.4
72.5°	3137.1	3427.8	3771.0	4081.6	4397.2	4661.1	4913.2	5219.8	5603.6	5985.5	6405.9
75°	2054.5	2269.8	2583.8	2839.2	3112.1	3359.6	3542.5	3846.9	4079.8	4439.4	4829.9
77.5°	1132.2	1248.6	1411.8	1619.9	1737.5	1877.0	2059.9	2170.8	2336.2	2587.6	2704.7
80°	611.9	656.1	724.7	768.0	803.0	768.6	750.0	783.2	769.2	765.2	727.6
82.5°	486.5	513.2	548.6	573.9	557.6	483.9	405.7	348.8	312.3	262.8	225.1
85°	362.7	383.8	397.2	414.1	411.3	371.9	297.6	230.2	180.6	144.0	125.5
87.5°	135.8	144.0	148.0	180.0	165.4	157.0	122.1	88.9	68.1	49.5	40.0
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):

	80°	81°	82°	83°	84°	85°	86°	87°	88°	89°	90°
0°	1884.9	1884.9	1884.9	1884.9	1884.9	1884.9	1884.9	1884.9	1884.9	1884.9	1884.9
2.5°	1890.0	1889.4	1889.4	1889.4	1890.0	1888.8	1887.7	1888.8	1888.3	1888.3	1888.3
5°	1912.4	1911.9	1912.0	1912.5	1912.0	1912.4	1911.9	1909.6	1910.8	1911.4	1911.9
7.5°	1951.3	1950.8	1950.8	1953.6	1953.0	1952.4	1951.8	1953.0	1951.3	1951.4	1952.4
10°	2004.8	2007.0	2006.4	2008.2	2007.6	2006.4	2005.3	2006.4	2008.1	2008.6	2006.4
12.5°	2070.0	2070.6	2069.5	2072.2	2070.6	2074.5	2070.0	2072.2	2074.5	2071.1	2072.8
15°	2123.0	2122.9	2125.1	2125.7	2125.1	2126.3	2129.6	2128.0	2126.3	2129.1	2130.2
17.5°	2155.0	2156.7	2157.2	2157.8	2159.0	2160.0	2160.6	2160.0	2160.6	2161.7	2164.0
20°	2162.3	2161.7	2162.8	2163.4	2165.1	2165.2	2166.2	2165.6	2167.4	2167.9	2168.5
22.5°	2149.4	2150.0	2150.5	2152.1	2151.6	2152.8	2153.3	2155.0	2154.4	2155.6	2156.1
25°	2132.0	2133.0	2133.6	2133.0	2133.0	2133.6	2134.1	2133.6	2135.8	2137.0	2137.0
27.5°	2120.6	2120.6	2122.4	2121.8	2120.7	2121.8	2121.2	2121.2	2121.2	2121.8	2123.5
30°	2125.1	2123.5	2122.4	2122.4	2121.8	2120.6	2119.6	2117.9	2117.9	2118.4	2117.9
32.5°	2149.4	2146.0	2144.3	2142.6	2141.4	2138.6	2135.3	2134.2	2131.4	2131.4	2130.2
35°	2211.2	2207.3	2207.4	2201.1	2197.8	2196.0	2193.2	2184.8	2185.4	2182.0	2180.9
37.5°	2334.4	2327.8	2324.9	2330.6	2319.9	2324.4	2314.8	2310.9	2313.1	2306.9	2310.3
40°	2541.6	2552.2	2547.7	2554.0	2556.8	2557.9	2557.9	2548.3	2557.8	2542.6	2547.7
42.5°	2840.3	2868.4	2878.6	2882.0	2899.4	2894.9	2889.8	2889.2	2888.7	2896.0	2892.1
45°	3216.1	3220.1	3268.0	3277.0	3286.5	3297.2	3294.4	3306.8	3315.8	3303.4	3305.1
47.5°	3600.4	3640.4	3675.3	3694.4	3715.2	3704.6	3713.0	3718.0	3750.2	3746.8	3743.9
50°	4023.6	4090.5	4109.1	4130.0	4146.2	4178.8	4176.0	4195.8	4192.4	4218.8	4222.2
52.5°	4424.8	4498.4	4573.3	4606.0	4630.7	4668.4	4683.0	4704.4	4696.5	4694.2	4714.0
55°	4823.7	4946.9	5032.4	5116.2	5163.0	5213.0	5234.4	5264.8	5278.3	5284.5	5259.8
57.5°	5219.2	5367.2	5511.8	5615.4	5687.4	5762.8	5802.8	5835.9	5874.7	5887.7	5875.3
60°	5681.8	5898.3	6088.0	6226.4	6359.2	6441.4	6527.4	6590.4	6602.2	6655.7	6690.0
62.5°	6297.8	6561.8	6802.0	7003.4	7209.4	7363.0	7518.2	7580.2	7641.5	7683.1	7708.5
65°	7137.9	7485.6	7817.6	8104.0	8356.7	8612.1	8793.2	8888.3	9010.4	9034.6	9008.2
67.5°	7874.4	8284.6	8697.0	9061.6	9334.5	9599.6	9814.4	9972.0	10086.2	10142.5	10166.2
69°	7955.4	8372.4	8793.8	9157.3	9487.6	9752.0	9972.0	10128.4	10242.1	10339.4	10356.3
70°	7789.4	8257.6	8667.2	9034.0	9374.5	9644.0	9841.0	10019.8	10149.2	10224.1	10250.6
72.5°	6838.0	7258.9	7672.4	8095.0	8387.0	8710.6	8872.6	9016.0	9188.2	9286.2	9264.8
75°	5182.1	5546.2	5906.8	6223.0	6448.1	6567.4	6757.0	6896.0	6870.6	7035.5	7040.0
77.5°	2923.0	2970.3	3215.0	3182.4	3290.4	3293.2	3321.4	3370.4	3276.4	3469.4	3331.0
80°	709.0	699.4	750.0	690.4	685.3	680.2	663.4	696.6	701.1	666.8	672.9
82.5°	208.2	199.2	195.2	190.2	198.6	195.8	197.5	198.6	204.2	197.0	204.8
85°	114.2	107.4	106.9	104.1	103.6	97.4	96.8	96.8	92.8	94.0	93.4
87.5°	43.9	41.1	38.8	37.2	36.6	34.8	33.2	30.4	27.0	24.2	22.5
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)