

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: P140753

Luminaire Tested: **ECM-F02-LED-E1-RW-8030**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P140753
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-F02-LED-E1-RW-8030
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE
(2) LIGHTBARS WITH AccuLED OPTICS - RECTANGULAR WIDE
Light Source: (14) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4120.9 lumens
Efficiency: N/A
Efficacy: 74.9 lumens/watt
Luminous Opening: Rectangular (W 0.33' x L: 1' x H: 0')
IES Classification: Type I - Short - Full Cutoff
BUG Rating: B2 - U0 - G2

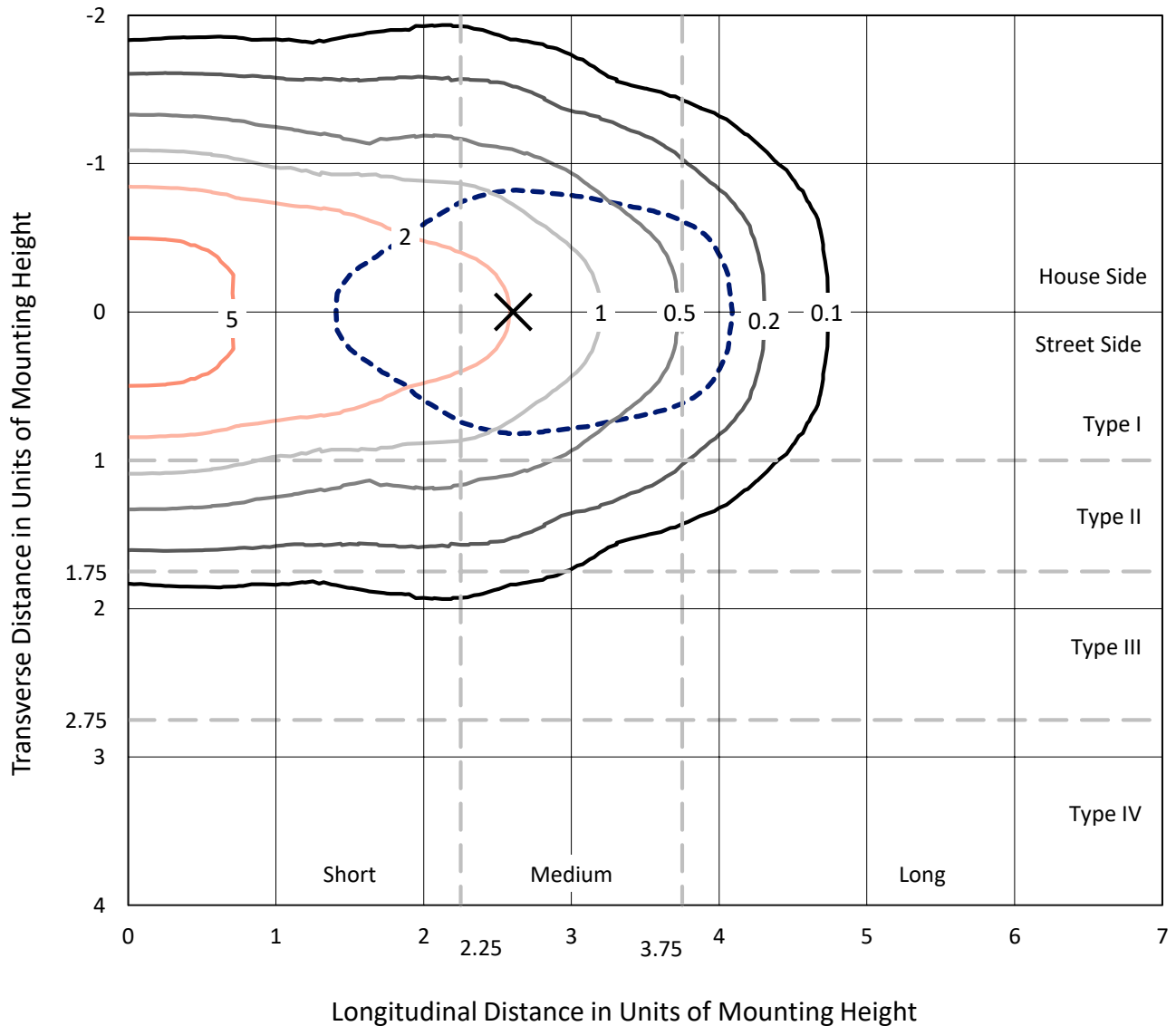
Input Watts (W): 55
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

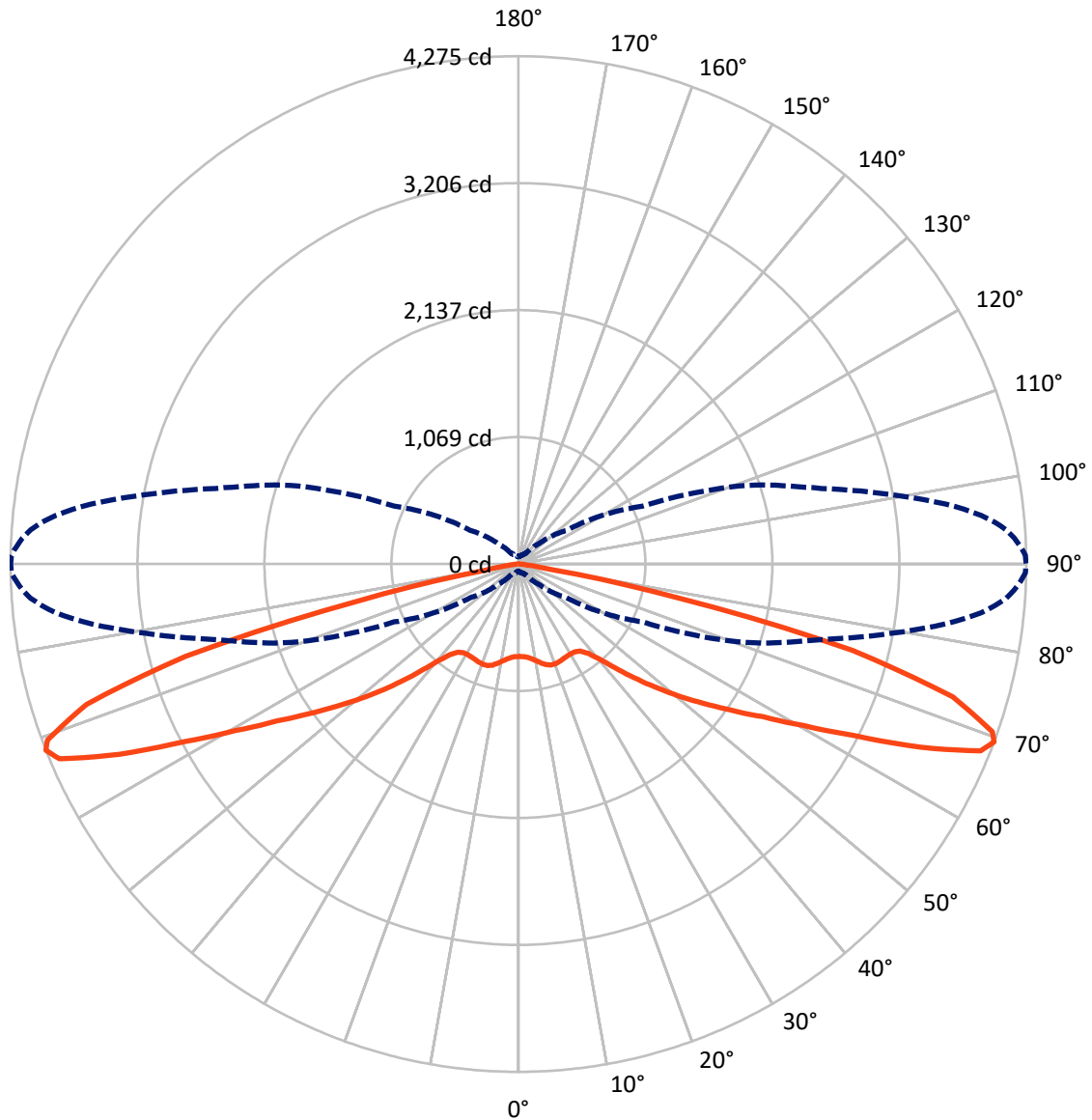
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 7.9 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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CATALOG NUMBER: ECM-F02-LED-E1-RW-8030

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2060.5	0.0	2060.5
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	2060.5	0.0	2060.5
	% Fixture	50.0	0.0	50.0
Total	Lumens	4120.9	0.0	4120.9
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	76.2	1.8
10°-20°	239.5	5.8
20°-30°	387.3	9.4
30°-40°	483.7	11.7
40°-50°	605.0	14.7
50°-60°	745.6	18.1
60°-70°	923.0	22.4
70°-80°	603.3	14.6
80°-90°	57.3	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°	4120.9	100.0
0°-180°	4120.9	100.0



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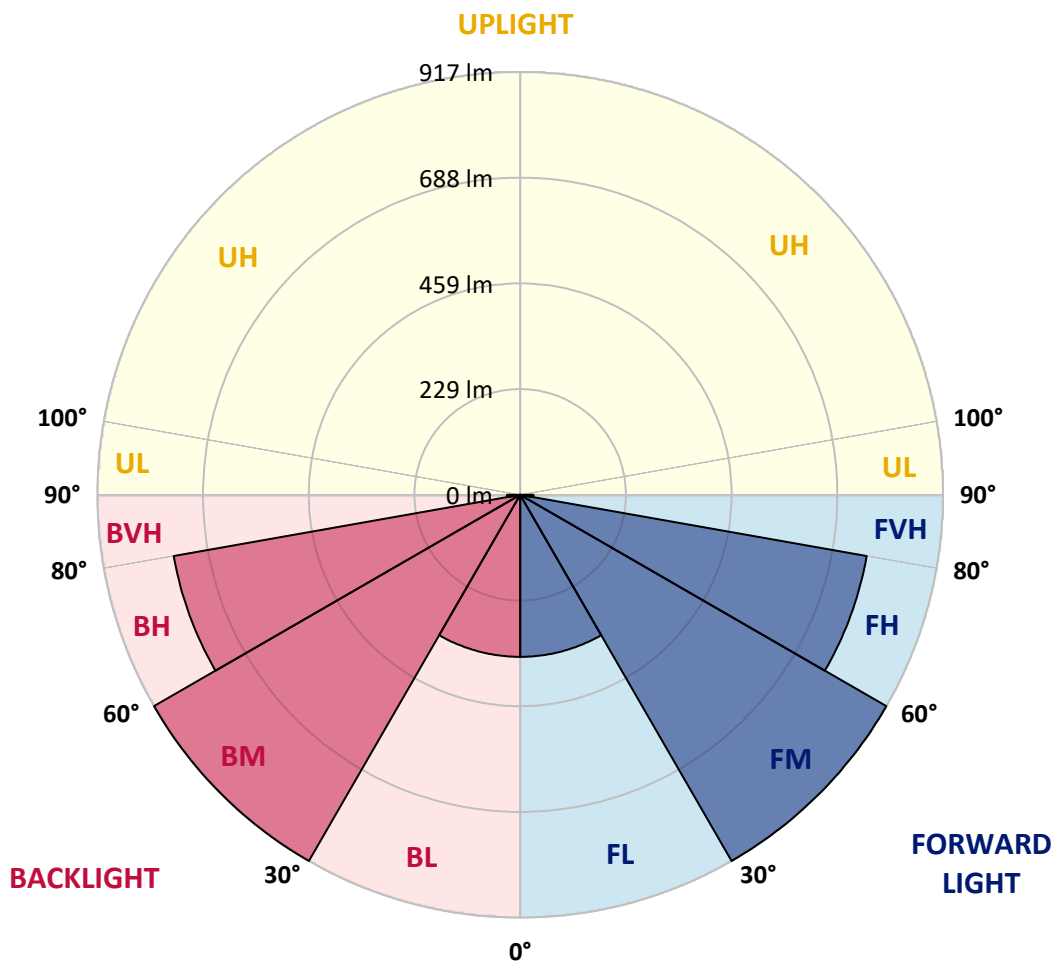
CATALOG NUMBER: ECM-F02-LED-E1-RW-8030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	351.5	8.5			
FM	(30°-60°)	917.2	22.3			
FH	(60°-80°)	763.2	18.5			G1/1800
FVH	(80°-90°)	28.7	0.7			G1/100
BL	(0°-30°)	351.5	8.5	B1/500		
BM	(30°-60°)	917.2	22.3	B1/1000		
BH	(60°-80°)	763.2	18.5	B2/1000		G2/1000
BVH	(80°-90°)	28.7	0.7			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type I Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	67°	68°
0°	778.0	778.0	778.0	778.0	778.0	778.0	778.0	778.0	778.0	778.0	778.0
2.5°	783.1	783.6	782.2	782.6	783.1	782.6	782.0	782.0	781.7	781.5	781.3
5°	788.2	788.5	787.8	789.0	789.2	789.8	789.8	790.1	790.0	789.8	789.7
7.5°	795.4	796.4	795.6	797.3	798.9	801.2	802.4	805.2	805.2	805.1	805.0
10°	802.2	803.1	803.1	806.8	810.8	815.2	819.8	824.2	824.5	824.8	825.1
12.5°	807.3	807.9	809.2	815.9	824.7	832.2	840.2	847.2	847.5	847.8	848.1
15°	805.2	806.8	812.2	822.8	838.4	850.7	860.7	869.0	869.6	870.2	870.7
17.5°	798.0	800.5	808.2	826.4	850.2	870.0	881.8	884.2	884.6	884.9	885.3
20°	782.4	786.2	798.2	824.0	859.3	886.0	897.8	893.6	893.3	892.9	892.6
22.5°	756.4	761.3	776.4	813.1	860.0	897.6	909.2	897.6	896.3	895.0	893.7
25°	721.6	725.6	742.8	786.2	849.4	899.7	916.4	900.2	898.1	896.0	893.9
27.5°	679.3	682.6	704.0	750.2	822.8	889.0	921.0	904.6	901.9	899.2	896.5
30°	631.8	634.5	658.0	707.2	785.6	865.6	920.6	914.6	911.4	908.2	905.0
32.5°	584.3	585.5	606.4	660.5	744.4	831.0	913.0	930.0	926.8	923.7	920.6
35°	532.3	536.0	558.3	617.3	697.6	792.9	902.8	951.3	949.5	947.8	946.0
37.5°	490.5	491.6	515.6	576.9	659.8	758.3	889.8	978.7	980.0	981.2	982.4
40°	448.7	448.7	472.4	536.0	622.0	727.2	878.8	1012.4	1018.7	1025.1	1031.4
42.5°	403.0	406.2	429.4	492.8	585.2	700.7	873.2	1052.8	1064.8	1076.8	1088.7
45°	360.2	362.3	386.0	448.0	539.5	670.5	871.6	1097.8	1116.0	1134.2	1152.4
47.5°	318.2	321.2	343.7	400.6	489.6	630.3	869.6	1149.2	1172.4	1195.7	1219.0
50°	279.2	281.0	306.1	357.9	440.4	578.2	855.8	1206.5	1234.9	1263.4	1291.8
52.5°	237.8	241.5	262.2	315.6	390.6	522.3	819.8	1269.0	1303.3	1337.7	1372.1
55°	194.6	193.7	218.6	268.7	347.2	468.6	753.4	1323.1	1364.6	1406.1	1447.5
57.5°	142.6	145.6	168.4	219.2	296.8	423.6	675.1	1351.2	1403.0	1454.7	1506.4
60°	102.2	106.4	126.1	166.2	246.6	379.5	595.2	1331.7	1400.3	1468.8	1537.4
62.5°	79.8	81.8	98.7	124.7	192.3	333.3	541.6	1281.0	1375.6	1470.1	1564.6
65°	69.7	71.8	86.9	100.3	146.1	289.4	509.3	1240.6	1365.4	1490.2	1614.9
67.5°	63.4	66.0	79.0	88.2	119.8	252.0	501.6	1207.6	1354.0	1500.4	1646.7
69°	60.4	63.0	75.1	83.6	111.2	240.2	492.8	1152.2	1300.7	1449.3	1597.8
70°	59.0	61.0	72.7	80.8	108.4	233.2	472.8	1088.8	1232.3	1375.9	1519.5
72.5°	54.4	55.5	66.2	74.1	102.6	195.1	374.6	814.9	934.9	1054.9	1174.9
75°	48.1	49.9	59.7	67.8	82.4	125.0	245.7	492.6	581.5	670.3	759.2
77.5°	41.3	43.0	51.3	64.8	63.4	75.7	141.2	275.2	323.3	371.3	419.3
80°	35.8	37.4	45.0	60.2	51.6	56.0	95.2	179.5	197.8	216.0	234.3
82.5°	28.1	29.3	37.8	49.0	40.0	41.6	71.3	156.8	167.8	178.8	189.8
85°	17.9	18.6	27.6	33.4	27.9	24.6	44.8	115.0	123.6	132.3	141.0
87.5°	6.2	8.8	12.3	11.6	11.6	8.8	15.8	42.5	45.9	49.3	52.7
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-F02-LED-E1-RW-8030

CANDELA DISTRIBUTION (continued):

	69°	70°	71°	72°	73°	74°	75°	76°	77°	78°	79°
0°	778.0	778.0	778.0	778.0	778.0	778.0	778.0	778.0	778.0	778.0	778.0
2.5°	781.0	780.8	781.0	781.0	780.8	780.6	780.6	780.4	779.9	779.9	779.7
5°	789.5	789.4	789.9	789.6	789.8	789.6	789.7	789.4	789.6	788.7	788.5
7.5°	805.0	805.0	805.0	805.7	805.2	805.0	805.4	805.4	805.4	805.0	805.0
10°	825.4	825.6	826.0	826.6	826.6	826.6	827.5	826.8	828.2	826.8	827.5
12.5°	848.4	848.6	849.8	850.2	850.7	850.7	850.7	852.1	853.0	852.8	853.0
15°	871.3	871.8	872.1	872.8	872.8	873.0	874.0	875.6	875.1	876.0	876.0
17.5°	885.6	886.0	885.8	885.8	886.2	887.0	887.8	888.8	888.6	889.2	889.7
20°	892.2	891.8	891.1	890.6	890.4	890.9	890.9	891.2	891.6	891.6	891.6
22.5°	892.4	891.1	889.5	888.6	887.4	886.7	887.2	886.7	886.7	886.7	886.2
25°	891.8	889.7	887.2	885.3	883.4	882.3	881.2	880.6	879.8	879.8	879.8
27.5°	893.8	891.1	888.6	885.1	882.6	881.2	879.5	877.9	877.0	876.0	876.0
30°	901.8	898.6	895.3	891.1	887.6	886.4	883.4	881.8	879.5	878.4	877.9
32.5°	917.5	914.4	909.9	905.2	902.5	899.0	896.5	893.0	890.4	888.8	886.7
35°	944.3	942.5	938.7	935.7	931.6	927.6	922.4	920.6	915.2	914.4	911.8
37.5°	983.7	985.0	984.2	982.0	979.2	975.7	973.6	969.6	967.6	965.4	963.2
40°	1037.8	1044.2	1046.3	1048.8	1049.6	1052.6	1049.0	1048.6	1045.8	1048.1	1046.7
42.5°	1100.7	1112.7	1119.2	1126.8	1135.2	1142.8	1148.9	1159.1	1157.9	1165.8	1171.4
45°	1170.6	1188.8	1205.6	1218.4	1234.4	1252.1	1267.6	1282.0	1298.2	1307.6	1321.2
47.5°	1242.2	1265.5	1289.4	1313.1	1335.8	1358.6	1386.5	1411.8	1436.4	1453.1	1474.2
50°	1320.2	1348.6	1377.4	1406.4	1438.8	1474.6	1505.6	1538.6	1572.6	1606.9	1631.1
52.5°	1406.5	1440.8	1472.2	1502.8	1542.8	1580.6	1621.0	1662.4	1713.8	1751.1	1784.4
55°	1489.0	1530.5	1564.8	1601.6	1643.4	1685.4	1734.8	1786.6	1841.0	1894.9	1943.6
57.5°	1558.2	1609.9	1650.8	1687.2	1732.1	1780.6	1833.8	1898.0	1960.0	2026.8	2089.7
60°	1605.9	1674.5	1723.8	1767.6	1819.6	1873.6	1943.0	2018.7	2100.2	2183.3	2264.2
62.5°	1659.1	1753.6	1821.0	1883.8	1945.3	2005.2	2083.4	2177.6	2288.0	2388.6	2495.7
65°	1739.7	1864.4	1963.9	2043.8	2131.0	2218.4	2309.7	2419.5	2545.2	2692.0	2816.7
67.5°	1793.1	1939.4	2065.8	2180.3	2282.3	2388.4	2503.6	2635.0	2786.8	2936.5	3091.6
69°	1746.3	1894.8	2028.4	2154.6	2266.2	2380.5	2497.6	2630.0	2784.9	2950.4	3114.1
70°	1663.0	1806.6	1944.6	2077.4	2186.6	2306.0	2421.2	2547.2	2704.3	2869.8	3048.0
72.5°	1294.9	1414.8	1556.5	1684.7	1815.0	1923.9	2028.0	2154.6	2312.9	2470.6	2644.1
75°	848.0	936.9	1066.5	1171.9	1284.6	1386.8	1462.2	1587.8	1684.0	1832.4	1993.6
77.5°	467.3	515.4	582.7	668.6	717.2	774.8	850.2	896.0	964.3	1068.0	1116.4
80°	252.6	270.8	299.2	317.0	331.4	317.2	309.6	323.3	317.5	315.8	300.3
82.5°	200.8	211.8	226.4	236.9	230.2	199.8	167.4	144.0	128.9	108.5	92.9
85°	149.7	158.4	164.0	170.9	169.8	153.6	122.8	95.0	74.6	59.4	51.8
87.5°	56.1	59.4	61.0	74.3	68.2	64.8	50.4	36.6	28.1	20.4	16.4
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°	778.0	778.0	778.0	778.0	778.0	778.0	778.0	778.0	778.0	778.0	778.0
2.5°	780.1	779.9	779.9	779.9	780.1	779.7	779.2	779.6	779.4	779.4	779.4
5°	789.4	789.2	789.2	789.4	789.2	789.4	789.2	788.2	788.7	789.0	789.2
7.5°	805.4	805.2	805.2	806.4	806.1	805.9	805.7	806.2	805.4	805.4	805.9
10°	827.4	828.4	828.2	828.9	828.6	828.2	827.8	828.2	828.8	829.1	828.2
12.5°	854.4	854.7	854.2	855.4	854.6	856.2	854.4	855.4	856.3	854.9	855.6
15°	876.2	876.2	877.2	877.4	877.2	877.6	879.0	878.4	877.7	878.8	879.3
17.5°	889.5	890.2	890.4	890.6	891.2	891.6	891.8	891.6	891.8	892.3	893.2
20°	892.6	892.2	892.8	893.0	893.6	893.7	894.2	893.9	894.6	894.8	895.1
22.5°	887.2	887.4	887.6	888.3	888.1	888.6	888.8	889.5	889.2	889.8	890.0
25°	880.0	880.4	880.6	880.4	880.4	880.6	880.9	880.6	881.6	882.0	882.1
27.5°	875.4	875.3	876.0	875.8	875.3	875.8	875.6	875.6	875.6	875.8	876.5
30°	877.2	876.5	876.0	876.0	875.8	875.3	874.9	874.2	874.2	874.4	874.2
32.5°	887.2	885.8	885.1	884.4	884.0	882.8	881.4	880.9	879.8	879.8	879.3
35°	912.7	911.1	911.1	908.6	907.2	906.4	905.3	901.8	902.0	900.6	900.2
37.5°	963.6	960.8	959.6	962.0	957.6	959.4	955.4	953.8	954.8	952.2	953.6
40°	1049.0	1053.4	1051.6	1054.2	1055.4	1055.8	1055.8	1051.8	1055.8	1049.6	1051.6
42.5°	1172.4	1184.0	1188.2	1189.6	1196.8	1194.9	1192.8	1192.6	1192.4	1195.4	1193.7
45°	1327.5	1329.2	1348.8	1352.6	1356.6	1360.9	1359.8	1364.9	1368.6	1363.5	1364.2
47.5°	1486.1	1502.6	1517.0	1524.9	1533.6	1529.1	1532.6	1534.7	1547.9	1546.6	1545.4
50°	1660.8	1688.4	1696.1	1704.6	1711.4	1724.9	1723.7	1731.8	1730.4	1741.4	1742.8
52.5°	1826.4	1856.8	1887.7	1901.2	1911.4	1927.0	1933.0	1941.8	1938.6	1937.6	1945.8
55°	1991.0	2041.9	2077.2	2111.8	2131.1	2151.8	2160.6	2173.1	2178.7	2181.2	2171.0
57.5°	2154.3	2215.4	2275.0	2317.8	2347.6	2378.6	2395.1	2408.8	2424.8	2430.2	2425.1
60°	2345.2	2434.6	2512.9	2570.0	2624.8	2658.7	2694.3	2720.3	2725.2	2747.2	2761.4
62.5°	2599.6	2708.4	2807.6	2890.8	2975.8	3039.2	3103.2	3128.8	3154.1	3171.3	3181.8
65°	2946.2	3089.8	3226.8	3345.0	3449.3	3554.8	3629.5	3668.8	3719.2	3729.2	3718.2
67.5°	3250.3	3419.6	3589.8	3740.3	3853.0	3962.4	4051.0	4116.0	4163.2	4186.5	4196.2
69°	3283.7	3455.8	3629.8	3779.8	3916.2	4025.2	4116.0	4180.6	4227.5	4267.8	4274.7
70°	3215.2	3408.4	3577.6	3729.0	3869.4	3980.7	4062.0	4135.8	4189.2	4220.2	4231.0
72.5°	2822.5	2996.2	3166.9	3341.3	3461.8	3595.4	3662.2	3721.5	3792.6	3833.0	3824.1
75°	2139.0	2289.2	2438.1	2568.6	2661.5	2710.8	2789.0	2846.4	2836.0	2904.0	2905.9
77.5°	1206.5	1226.0	1327.1	1313.6	1358.2	1359.3	1371.0	1391.2	1352.4	1432.0	1374.9
80°	292.6	288.7	309.6	285.0	282.8	280.8	273.8	287.6	289.4	275.2	277.8
82.5°	86.0	82.2	80.6	78.5	82.0	80.8	81.5	82.0	84.3	81.3	84.5
85°	47.2	44.4	44.2	43.0	42.8	40.2	40.0	40.0	38.4	38.8	38.6
87.5°	18.1	17.0	16.0	15.4	15.1	14.4	13.7	12.5	11.1	10.0	9.3
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)