

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: P139454

Luminaire Tested: **ENT-F02-LED-E1-BL2-7030**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P139454  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33644)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: ENT-F02-LED-E1-BL2-7030  
Description: ENTRI LED LUMINAIRE  
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 2  
Light Source: (14) 3000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4129 lumens  
Efficiency: N/A  
Efficacy: 83.8 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 0.33' x H: 0')  
IES Classification: Type II - Short - Semi-Cutoff  
BUG Rating: B1 - U0 - G1

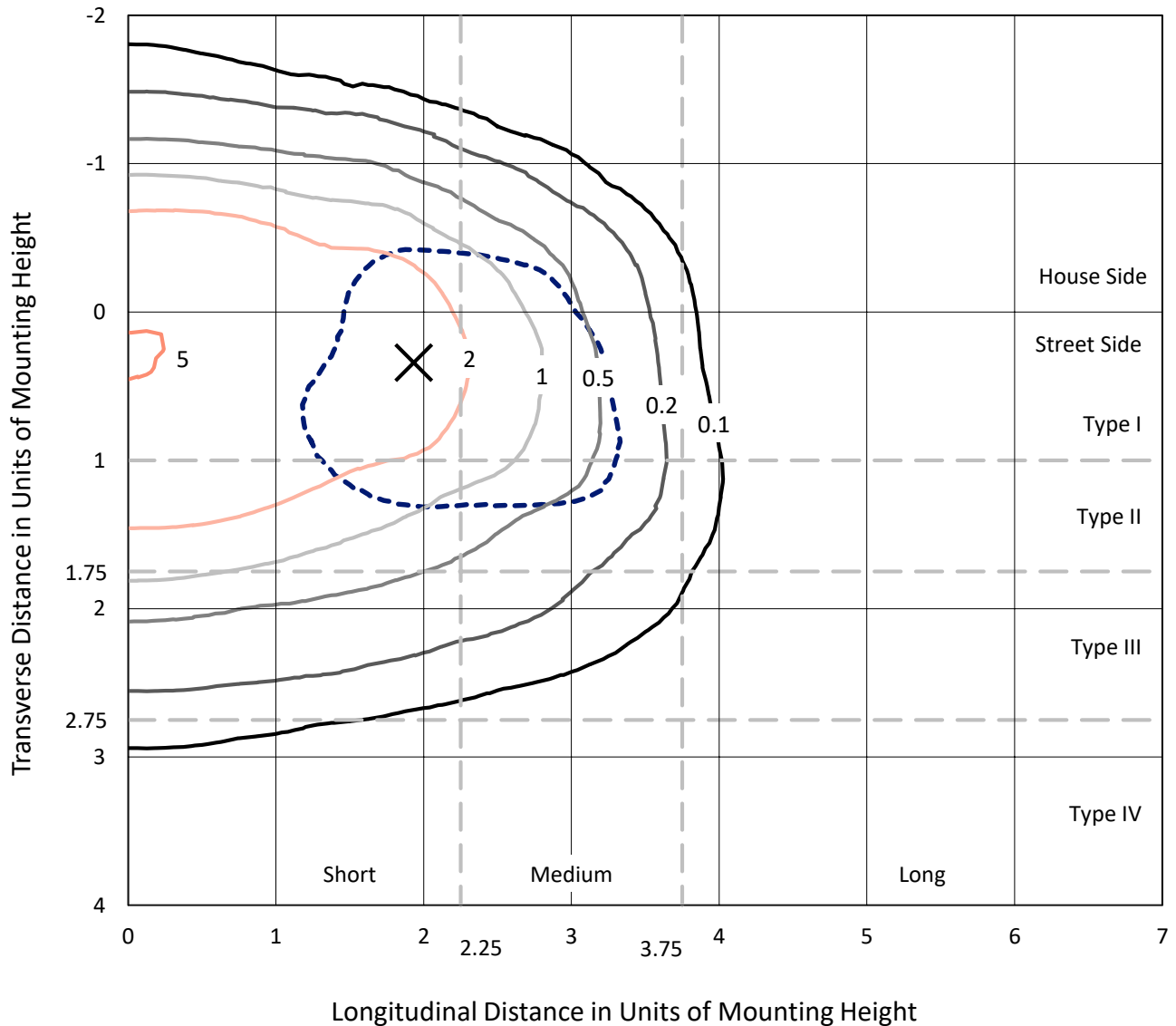
Input Watts (W): 49.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

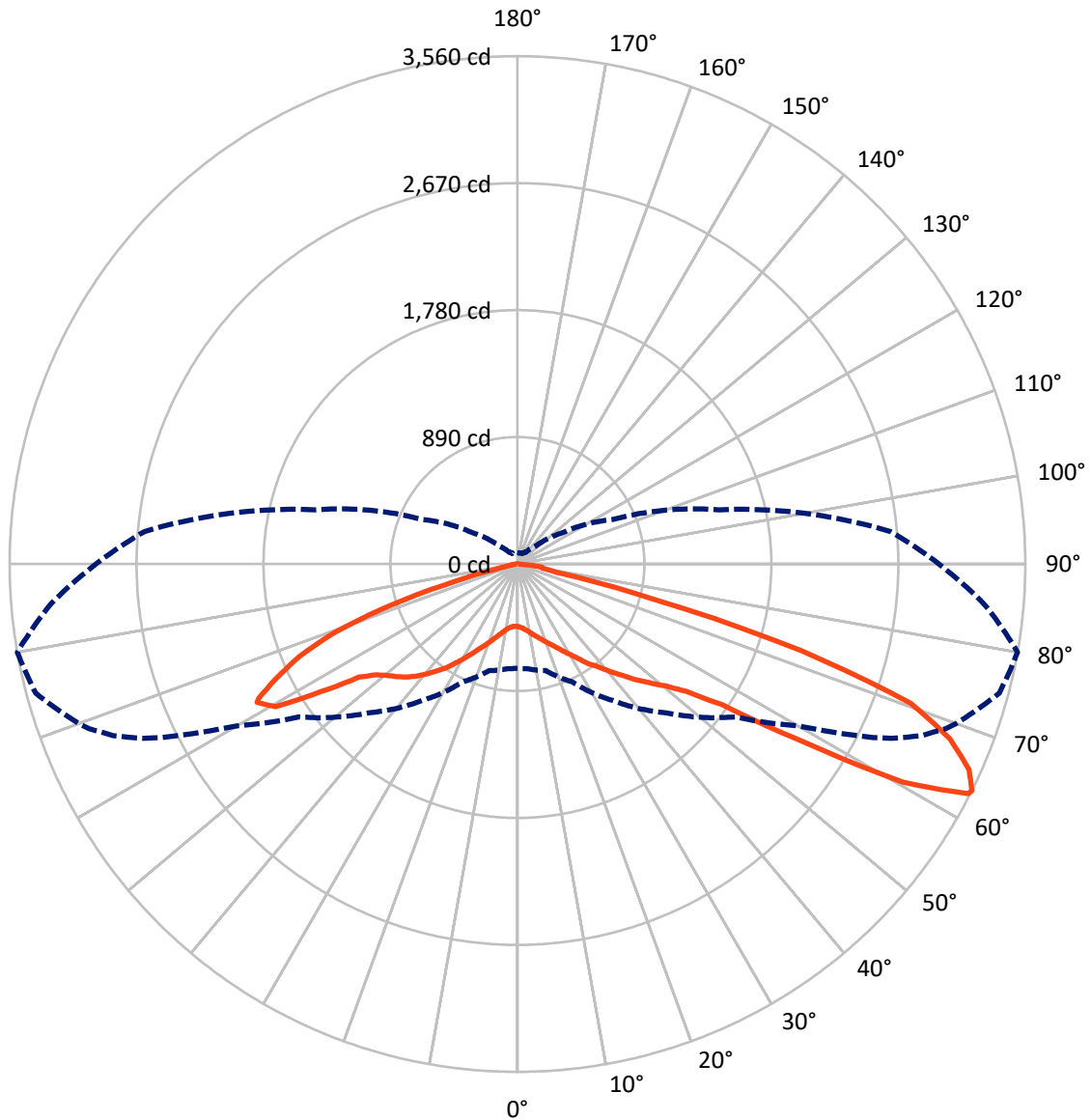


Based on 10 foot mounting height. Maximum calculated value = 5.4 fc  
 Type II - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 80-Deg Lateral    - - - Horizontal Cone Through 63-Deg Vertical

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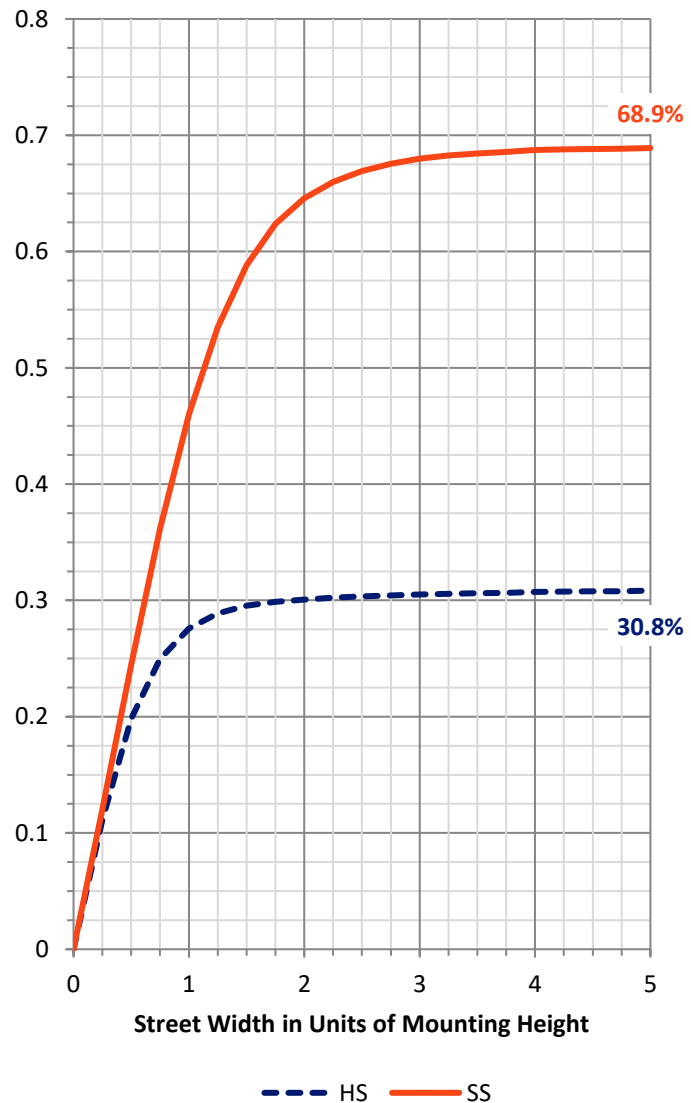
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1285.9	0.0	1285.9
	% Fixture	31.1	0.0	31.1
<b>Street Side</b>	Lumens	2843.1	0.0	2843.1
	% Fixture	68.9	0.0	68.9
<b>Total</b>	Lumens	4129.0	0.0	4129.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	43.8	1.1
10°-20°	150.3	3.6
20°-30°	282.5	6.8
30°-40°	448.3	10.9
40°-50°	676.7	16.4
50°-60°	951.2	23.0
60°-70°	1109.8	26.9
70°-80°	429.0	10.4
80°-90°	37.3	0.9
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°	4129.0	100.0
0°-180°	4129.0	100.0



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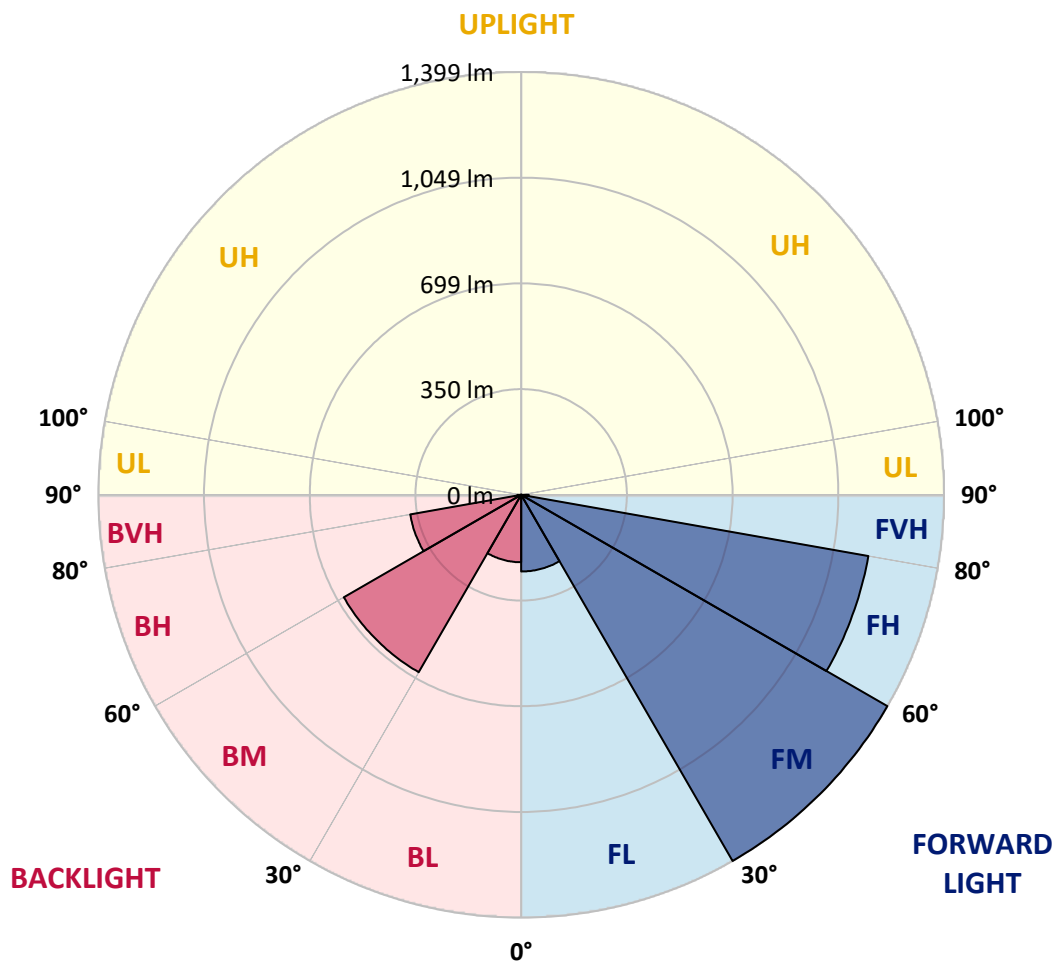
CATALOG NUMBER: ENT-F02-LED-E1-BL2-7030

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	253.6	6.1			
FM (30°-60°)	1398.6	33.9			
FH (60°-80°)	1166.0	28.2			G1/1800
FVH (80°-90°)	24.9	0.6			G1/100
BL (0°-30°)	223.0	5.4	B1/500		
BM (30°-60°)	677.6	16.4	B1/1000		
BH (60°-80°)	372.8	9.0	B1/500		G1/500
BVH (80°-90°)	12.5	0.3			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G1**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	60°	61°	62°	64°
0°	437.3	437.3	437.3	437.3	437.3	437.3	437.3	437.3	437.3	437.3	437.3
2.5°	459.2	457.7	458.4	457.7	457.7	456.2	451.6	451.6	450.9	451.6	450.1
5°	484.1	483.3	482.6	481.0	481.0	478.0	470.5	469.0	469.7	468.2	465.2
7.5°	512.0	511.2	509.7	506.7	505.2	500.7	490.1	488.6	487.8	486.3	484.1
10°	539.9	539.1	536.8	533.1	529.3	522.5	512.0	508.2	507.4	506.7	504.4
12.5°	568.5	566.2	567.0	560.2	554.2	545.9	533.8	530.1	529.3	528.5	527.8
15°	600.2	599.4	597.9	588.9	577.6	566.2	554.2	549.7	546.6	547.4	546.6
17.5°	630.3	629.6	624.3	611.5	596.4	583.6	568.5	565.5	565.5	564.7	564.7
20°	652.2	651.5	646.2	630.3	610.7	596.4	584.3	584.3	583.6	584.3	585.1
22.5°	662.0	662.0	655.2	637.9	616.8	606.2	602.4	604.7	605.5	606.2	607.7
25°	665.8	665.8	659.0	638.6	619.0	620.5	625.1	628.8	630.3	630.3	635.6
27.5°	672.6	673.3	664.3	642.4	626.6	640.9	652.2	657.5	659.7	661.3	668.0
30°	692.9	692.2	684.6	661.3	649.2	669.5	689.9	695.2	700.5	700.5	708.0
32.5°	723.1	722.3	717.8	699.7	694.4	720.1	738.2	749.5	748.7	750.2	755.5
35°	763.0	763.8	766.8	762.3	766.8	792.4	812.8	817.3	818.1	818.8	819.6
37.5°	808.3	809.0	825.6	839.9	860.3	898.0	910.1	912.3	907.1	907.1	905.5
40°	842.2	846.0	882.9	920.6	963.6	1014.9	1033.0	1028.4	1024.7	1021.7	1012.6
42.5°	911.6	913.8	953.0	1007.3	1067.7	1138.5	1170.2	1155.1	1154.4	1140.8	1134.0
45°	980.9	987.0	1029.2	1090.3	1162.7	1260.7	1307.4	1294.6	1292.3	1286.3	1267.5
47.5°	1036.0	1044.3	1091.0	1163.4	1246.4	1359.5	1443.1	1452.2	1446.9	1440.1	1425.0
50°	1082.7	1089.5	1137.0	1216.2	1311.2	1434.8	1554.7	1587.2	1591.7	1588.7	1584.9
52.5°	1112.9	1119.7	1166.4	1250.9	1348.9	1490.6	1637.7	1701.8	1715.3	1714.6	1730.4
55°	1113.6	1121.2	1169.4	1262.2	1370.0	1529.1	1714.6	1815.6	1832.2	1852.6	1886.5
57.5°	1072.2	1079.7	1140.0	1247.1	1376.0	1559.3	1789.2	1967.2	2012.4	2052.4	2145.9
60°	956.8	959.8	1026.2	1169.4	1347.4	1552.5	1845.8	2097.6	2161.7	2248.4	2399.2
62.5°	779.6	785.7	826.4	965.9	1213.9	1492.9	1868.4	2243.1	2348.7	2475.4	2716.6
63°	730.6	735.9	773.6	911.6	1168.7	1474.1	1867.6	2266.5	2382.6	2513.1	2773.2
65°	564.0	565.5	593.4	697.4	959.1	1336.8	1826.9	2233.3	2380.4	2532.7	2805.6
67.5°	454.7	459.9	487.8	561.0	757.8	1122.7	1644.5	1934.7	2035.0	2185.1	2510.0
70°	355.9	364.9	391.3	474.3	646.2	904.0	1383.6	1615.1	1676.9	1748.5	2024.5
72.5°	235.2	237.5	242.0	288.0	450.9	703.5	1151.3	1308.9	1333.1	1384.3	1519.3
75°	110.8	119.1	125.9	149.3	217.9	460.7	834.7	929.7	958.3	1011.9	1060.9
77.5°	48.3	47.5	50.5	68.6	114.6	205.1	519.5	686.9	696.7	684.6	663.5
80°	15.1	15.8	16.6	18.1	36.2	98.0	224.7	461.4	509.7	542.1	533.1
82.5°	1.5	0.8	2.3	4.5	7.5	14.3	84.4	216.4	272.2	334.0	413.2
85°	0.0	0.0	0.8	0.8	1.5	3.0	5.3	22.6	37.7	43.7	86.7
87.5°	0.0	0.0	0.8	0.8	1.5	2.3	2.3	3.0	3.0	3.0	3.0
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):**

	65°	66°	67°	68°	69°	70°	75°	80°	85°	90°	95°
0°	437.3	437.3	437.3	437.3	437.3	437.3	437.3	437.3	437.3	437.3	437.3
2.5°	449.4	449.4	447.9	448.6	447.9	447.9	446.4	444.9	444.1	440.3	438.1
5°	465.2	465.2	464.5	463.0	463.0	462.2	458.4	454.7	452.4	447.9	443.3
7.5°	483.3	482.6	481.0	479.5	479.5	478.8	473.5	469.7	465.2	458.4	453.2
10°	504.4	503.7	502.2	499.9	499.9	499.1	493.9	487.8	484.1	475.8	469.0
12.5°	527.0	524.8	524.0	522.5	521.0	521.0	516.5	510.5	507.4	498.4	491.6
15°	545.9	544.4	543.6	542.9	542.1	540.6	536.8	531.6	529.3	521.8	516.5
17.5°	564.0	564.0	564.7	563.2	562.5	561.0	558.7	557.2	554.9	548.2	545.1
20°	585.1	585.1	586.6	585.9	585.1	587.4	586.6	585.9	585.9	579.8	577.6
22.5°	610.0	609.2	611.5	610.7	611.5	613.8	616.8	615.3	618.3	614.5	613.0
25°	638.6	637.9	640.1	641.6	643.2	644.7	650.7	652.2	656.0	655.2	652.2
27.5°	671.1	671.8	672.6	676.3	678.6	680.1	688.4	692.9	700.5	697.4	700.5
30°	708.8	712.5	715.5	719.3	720.1	721.6	735.1	739.7	743.4	745.7	750.2
32.5°	760.8	763.0	763.8	768.3	769.8	772.1	786.4	792.4	797.7	798.5	806.8
35°	824.1	825.6	827.9	830.1	833.2	831.7	848.2	857.3	864.1	864.8	873.9
37.5°	907.8	902.5	904.8	901.8	897.3	897.3	902.5	911.6	919.1	925.1	934.2
40°	1008.1	1004.3	1003.6	996.8	989.2	982.5	979.4	984.7	990.7	996.0	1007.3
42.5°	1122.7	1118.9	1106.1	1101.6	1088.8	1081.2	1060.9	1063.1	1073.7	1076.7	1083.5
45°	1256.9	1243.3	1238.8	1210.9	1205.6	1195.1	1156.6	1153.6	1162.7	1163.4	1158.9
47.5°	1410.0	1400.2	1389.6	1370.0	1349.6	1332.3	1273.5	1242.6	1252.4	1251.6	1229.8
50°	1576.6	1575.1	1559.3	1546.4	1528.3	1503.5	1398.7	1342.1	1349.6	1342.9	1302.9
52.5°	1735.7	1731.2	1730.4	1720.6	1713.8	1705.5	1578.1	1480.8	1463.5	1449.2	1397.9
55°	1903.1	1914.4	1906.8	1922.7	1934.7	1933.2	1880.5	1738.0	1649.7	1638.4	1560.0
57.5°	2182.1	2209.2	2245.4	2246.9	2279.3	2326.1	2421.1	2318.5	2097.6	2053.9	1949.1
60°	2501.8	2571.9	2662.4	2706.8	2776.2	2848.6	3086.8	3102.7	2793.5	2624.7	2432.4
62.5°	2823.0	2914.9	3022.0	3091.4	3177.3	3233.9	3485.7	3546.0	3264.0	2952.6	2636.0
63°	2890.8	2985.1	3077.8	3145.7	3218.0	3270.1	3496.3	3559.6	3289.7	2953.4	2623.1
65°	2926.2	3014.5	3086.8	3147.2	3195.4	3230.9	3409.6	3478.2	3255.7	2844.1	2479.1
67.5°	2657.1	2798.8	2890.1	2963.2	3012.2	3061.2	3225.6	3268.6	3111.0	2631.4	2260.5
70°	2199.4	2363.0	2507.0	2620.9	2705.3	2780.0	2952.6	2923.2	2787.5	2286.9	1917.4
72.5°	1618.1	1760.6	1900.8	2029.8	2139.8	2234.8	2348.7	2082.5	1875.9	1520.8	1327.0
75°	1088.0	1118.9	1183.0	1247.1	1287.1	1314.2	1244.1	991.5	805.3	722.3	631.8
77.5°	642.4	621.3	623.6	607.7	597.2	594.9	499.1	277.5	146.3	149.3	156.8
80°	512.7	489.3	464.5	436.6	418.5	398.9	325.0	177.9	63.3	51.3	53.5
82.5°	414.7	408.7	395.1	366.4	337.8	303.9	232.2	171.2	36.2	28.7	30.9
85°	80.7	90.5	81.4	89.0	66.4	62.6	36.9	40.0	14.3	12.8	15.8
87.5°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	6.0
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):**

	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	437.3	437.3	437.3	437.3	437.3	437.3	437.3	437.3	437.3
2.5°	434.3	431.3	429.0	426.0	424.5	422.2	421.5	419.2	420.0
5°	435.8	430.5	426.0	421.5	418.5	417.0	415.5	413.9	413.9
7.5°	443.3	436.6	431.3	426.0	423.7	420.7	420.0	417.7	417.7
10°	459.2	451.6	444.9	438.8	435.8	432.0	430.5	428.3	428.3
12.5°	482.6	475.8	468.2	459.2	453.2	448.6	444.9	443.3	443.3
15°	508.9	503.7	497.6	485.6	475.8	467.5	459.9	456.9	456.2
17.5°	540.6	536.1	530.1	516.5	500.7	483.3	470.5	464.5	463.7
20°	579.1	574.5	565.5	546.6	521.8	494.6	474.3	465.2	464.5
22.5°	618.3	618.3	603.2	572.3	535.3	499.1	472.0	459.9	457.7
25°	661.3	663.5	640.9	592.6	542.9	496.9	462.2	447.1	444.1
27.5°	713.3	711.0	673.3	608.5	543.6	487.8	446.4	428.3	425.3
30°	770.6	755.5	699.7	617.5	538.4	471.2	425.3	404.9	402.6
32.5°	827.9	795.5	719.3	619.0	523.3	447.1	397.4	376.2	373.2
35°	889.0	830.9	731.4	610.7	498.4	414.7	362.7	342.3	339.3
37.5°	940.2	858.0	735.1	588.9	460.7	377.0	331.0	309.9	304.6
40°	987.0	877.6	728.4	553.4	418.5	340.1	297.8	279.7	278.2
42.5°	1030.0	886.7	704.2	507.4	376.2	308.4	269.9	252.6	251.1
45°	1063.1	880.7	663.5	456.9	341.6	281.2	245.0	229.2	226.2
47.5°	1084.2	858.8	607.7	414.7	312.9	253.3	217.9	201.3	198.3
50°	1100.8	826.4	551.2	382.3	285.0	224.7	190.0	174.9	172.7
52.5°	1122.7	784.9	502.2	352.9	252.6	192.3	161.4	147.0	144.8
55°	1171.0	749.5	467.5	320.4	217.9	158.3	132.7	123.7	120.6
57.5°	1334.6	761.5	445.6	281.2	177.9	127.4	110.1	104.8	104.1
60°	1506.5	812.8	435.1	236.0	138.0	103.3	93.5	92.0	91.2
62.5°	1497.4	766.8	391.3	185.5	106.3	85.2	80.7	81.4	81.4
63°	1467.3	738.9	377.0	174.2	101.0	82.9	78.4	78.4	78.4
65°	1284.8	626.6	306.1	131.9	84.4	73.9	70.1	70.9	71.6
67.5°	1060.9	452.4	201.3	92.0	76.2	67.1	62.6	61.1	61.1
70°	811.3	304.6	119.1	79.9	75.4	62.6	55.0	53.5	53.5
72.5°	532.3	186.2	80.7	79.9	74.6	59.6	51.3	48.3	48.3
75°	244.3	92.0	67.1	76.9	70.9	55.0	45.2	41.5	40.7
77.5°	95.0	58.1	60.3	64.8	55.0	45.2	40.7	37.7	36.9
80°	55.0	46.7	52.8	46.7	40.0	34.7	34.7	32.4	31.7
82.5°	40.0	40.0	40.7	33.9	30.2	28.7	28.7	26.4	25.6
85°	28.7	29.4	33.9	27.1	23.4	20.4	18.8	18.8	18.1
87.5°	14.3	23.4	18.8	11.3	10.6	9.8	9.8	9.8	9.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)