

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: P565279

Luminaire Tested: **MSA-SA3C-727-U-T1**

Issue Date: 8/19/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P565279  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2108-334-1)  
Test Lab: INNOVATIONS CENTER  
Issue Date: 8/19/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: MSA-SA3C-727-U-T1  
Description: MESA POST TOP DECORATIVE LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE I OPTICS.  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 13766 lumens  
Efficiency: N/A  
Efficacy: 82.9 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type I - Medium  
BUG Rating: B4 - U0 - G4

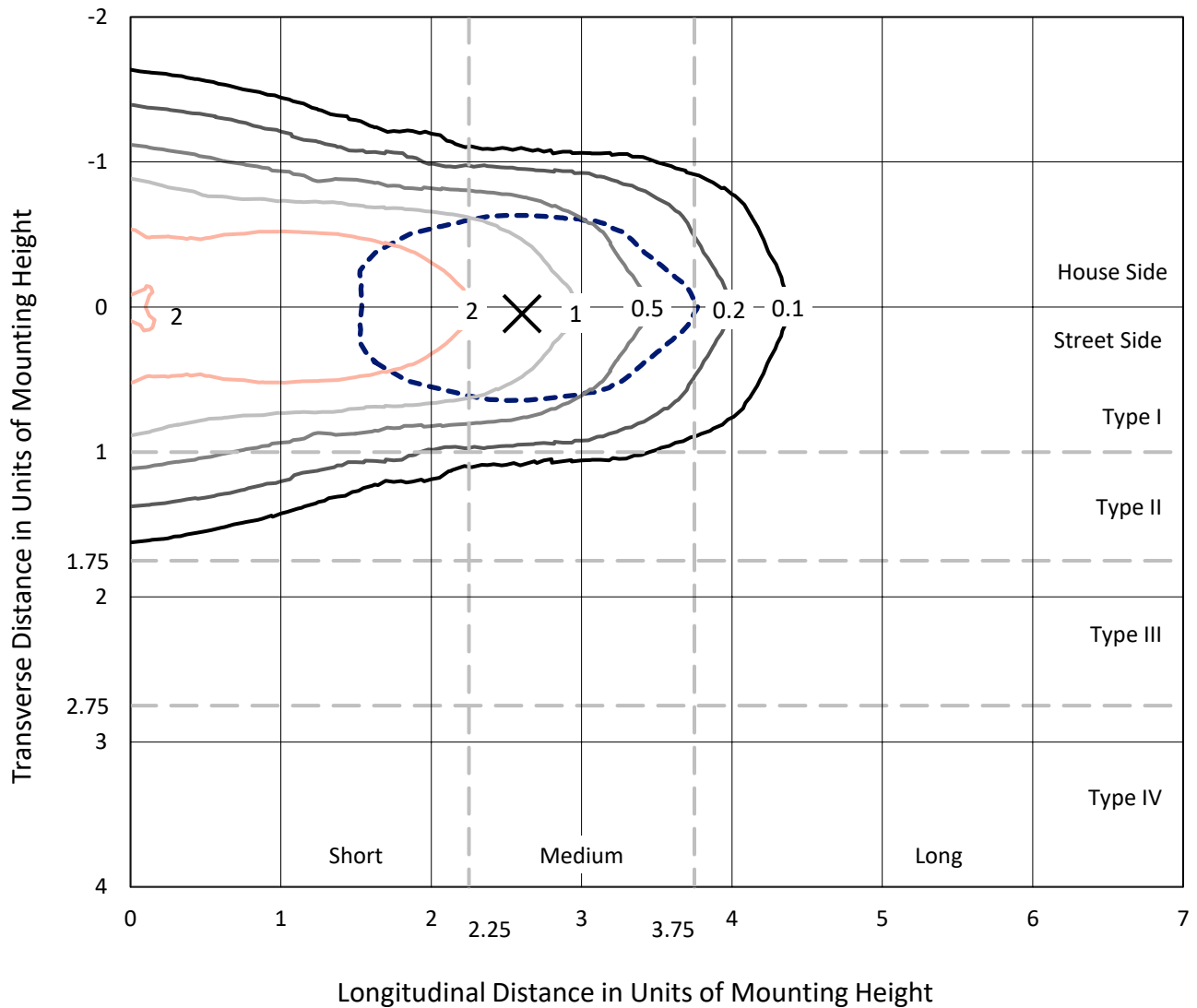
Input Watts (W): 166  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

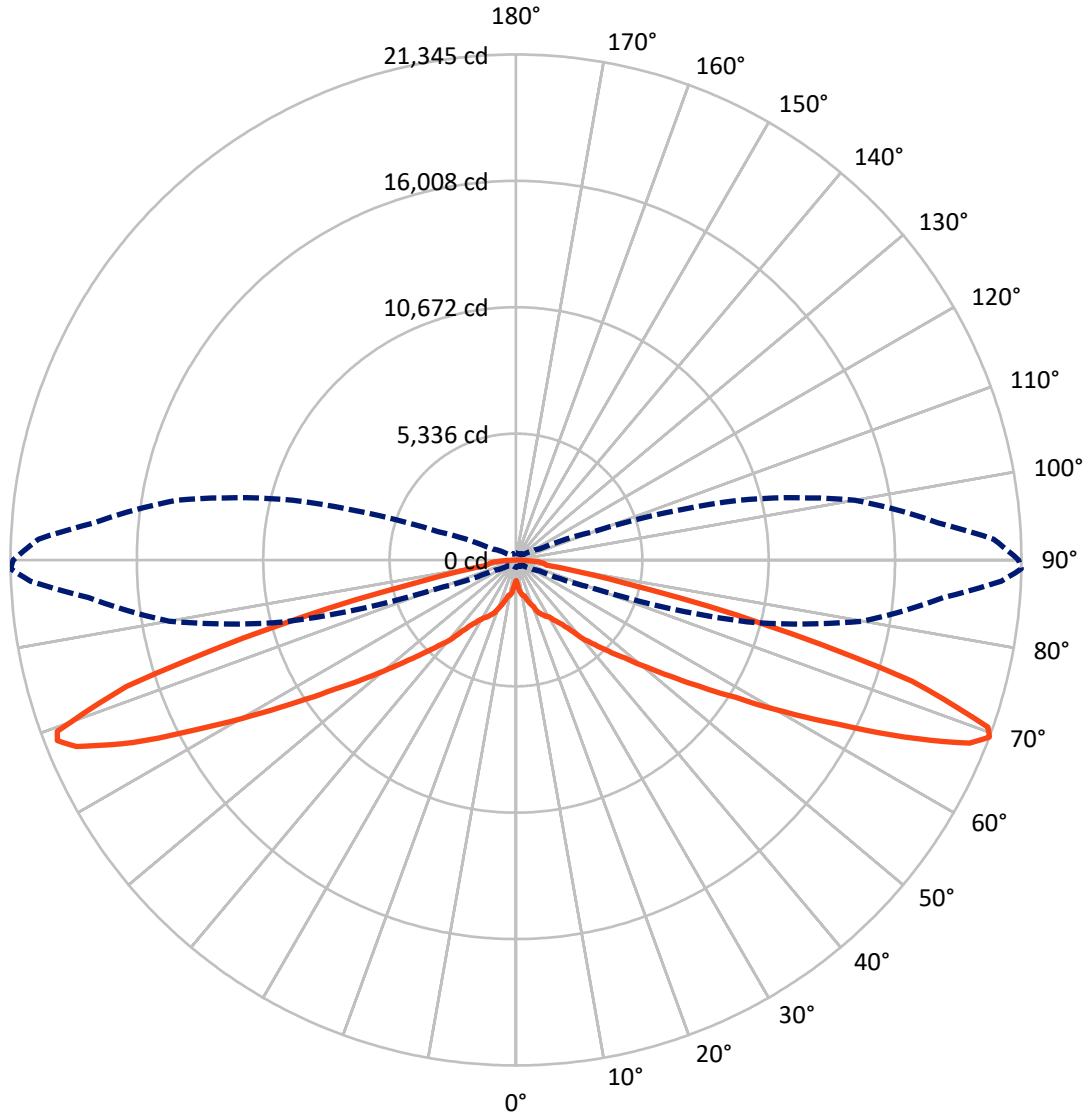
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.2 fc  
 Type I - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 89-Deg Lateral      - - - Horizontal Cone Through 69-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	6882.9	0.0	6882.9
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	6883.1	0.0	6883.1
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	13766.0	0.0	13766.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	109.6	0.8
10°-20°	504.8	3.7
20°-30°	1007.1	7.3
30°-40°	1523.1	11.1
40°-50°	2211.0	16.1
50°-60°	2904.8	21.1
60°-70°	3543.5	25.7
70°-80°	1791.5	13.0
80°-90°	170.8	1.2
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°	13766.0	100.0
0°-180°	13766.0	100.0

**Coefficient of Utilization**

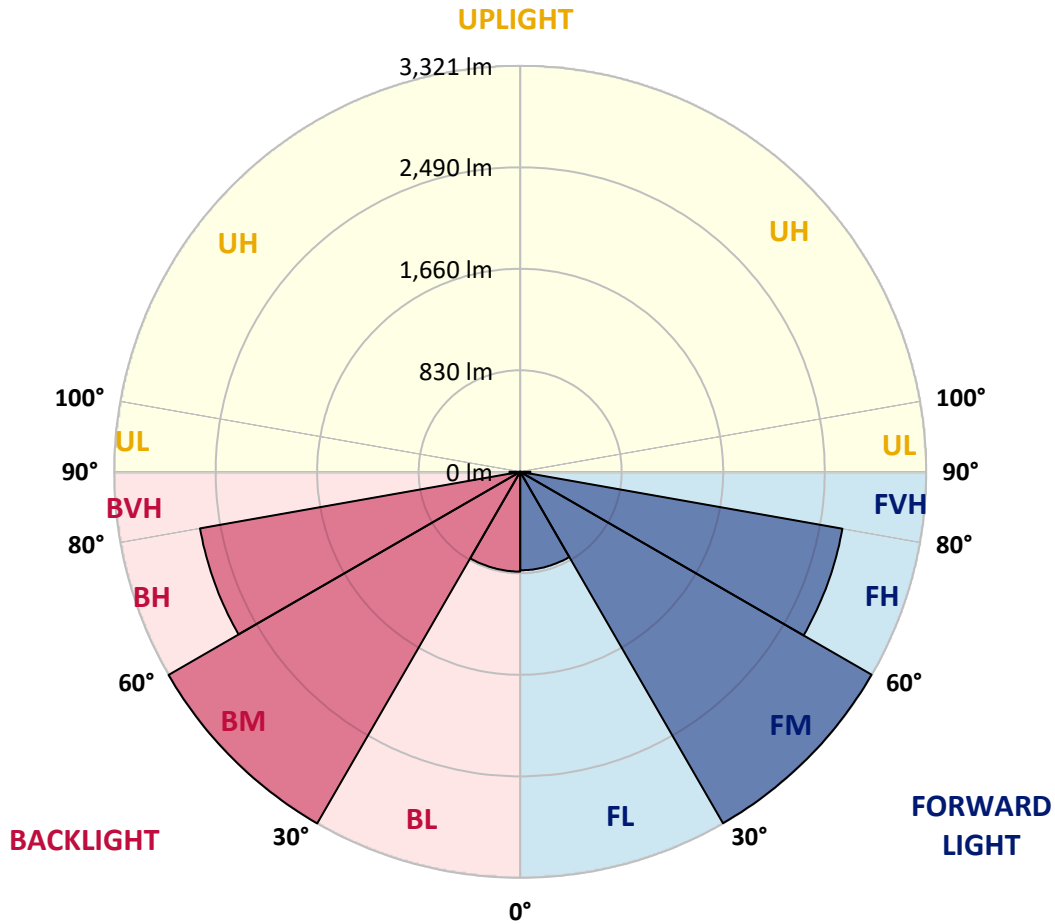


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	805.0	5.8			
FM (30°-60°)	3318.4	24.1			
FH (60°-80°)	2676.0	19.4			G2/5000
FVH (80°-90°)	83.7	0.6			G1/100
BL (0°-30°)	816.4	5.9	B2/1000		
BM (30°-60°)	3320.6	24.1	B3/5000		
BH (60°-80°)	2658.9	19.3	B4/5000		G4/5000
BVH (80°-90°)	87.0	0.6			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B4-U0-G4**  
 Type I Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	80°
0°	871.9	871.9	871.9	871.9	871.9	871.9	871.9	871.9	871.9	871.9	871.9
2.5°	1023.2	905.3	895.0	866.8	887.3	895.0	877.1	851.4	879.6	895.0	866.8
5°	1290.0	1115.6	1056.6	1007.9	910.4	869.4	910.4	1015.6	1028.4	1092.5	1074.5
7.5°	1420.7	1392.5	1318.2	1156.6	1000.2	913.0	1023.2	1174.6	1251.5	1313.0	1377.1
10°	1518.2	1502.8	1372.0	1256.6	1192.5	1197.6	1200.2	1248.9	1315.6	1418.2	1454.1
12.5°	1541.3	1536.1	1556.7	1531.0	1536.1	1564.4	1536.1	1523.3	1561.8	1595.1	1559.2
15°	1690.0	1687.5	1695.2	1700.3	1802.9	1846.5	1802.9	1764.4	1736.2	1708.0	1767.0
17.5°	1792.6	1779.8	1782.3	1831.1	1946.5	2067.0	2043.9	1992.6	1928.5	1967.0	2015.7
20°	1849.0	1825.9	1841.3	1861.8	2056.7	2190.1	2205.5	2136.2	2097.8	2146.5	2187.5
22.5°	1902.9	1867.0	1813.1	1833.6	2013.2	2205.5	2279.9	2261.9	2290.1	2305.5	2297.8
25°	1838.8	1861.8	1802.9	1861.8	2043.9	2220.9	2369.6	2474.8	2477.3	2469.6	2526.1
27.5°	1800.3	1782.3	1682.3	1833.6	1984.9	2095.2	2474.8	2651.7	2705.6	2541.4	2651.7
30°	1733.6	1761.8	1625.9	1751.6	1943.9	2128.6	2595.3	2849.2	2769.7	2749.2	2774.8
32.5°	1692.6	1674.6	1610.5	1679.8	1825.9	2228.6	2672.2	2964.6	3064.6	3015.9	3010.8
35°	1625.9	1638.7	1538.7	1613.1	1818.2	2143.9	2723.5	3254.4	3408.3	3369.8	3339.0
37.5°	1636.2	1592.6	1520.8	1574.6	1769.5	2190.1	2851.8	3533.9	3777.5	3798.1	3657.0
40°	1559.2	1533.6	1425.9	1515.6	1677.2	2161.9	2882.5	3851.9	4264.8	4357.1	4154.5
42.5°	1449.0	1415.6	1354.1	1454.1	1623.3	2023.4	2926.1	4234.0	4759.8	4952.1	4767.4
45°	1290.0	1246.4	1215.6	1348.9	1505.4	1987.5	2880.0	4552.0	5234.2	5498.3	5493.2
47.5°	1097.6	1069.4	1054.0	1195.1	1407.9	1897.7	2785.1	4752.1	5565.0	6242.1	6139.5
50°	879.6	859.1	856.6	1005.3	1243.8	1713.1	2677.4	4852.1	6067.7	6924.2	7014.0
52.5°	705.2	689.9	687.3	807.8	1041.2	1464.3	2451.7	4929.0	6547.2	7698.7	8160.3
55°	551.4	536.0	538.6	638.6	828.3	1197.6	2108.0	4841.8	6967.8	8491.1	9365.6
57.5°	451.4	436.0	438.5	495.0	633.4	915.5	1679.8	4652.0	7157.6	9470.8	10771.0
60°	397.5	382.1	374.4	400.1	487.3	689.9	1248.9	3913.5	7188.4	10283.7	12296.9
62.5°	369.3	353.9	346.2	353.9	402.6	528.3	900.1	3100.5	7011.4	10978.7	13694.6
65°	343.6	330.8	320.6	328.3	353.9	420.6	656.5	2123.4	6085.6	11296.7	14710.1
67.5°	315.4	305.2	294.9	305.2	323.1	353.9	510.3	1343.8	4562.3	10883.8	15133.3
69°	300.0	284.7	279.5	287.2	305.2	325.7	441.1	1072.0	3469.8	10099.1	14876.8
70°	284.7	274.4	266.7	279.5	294.9	310.3	397.5	910.4	2721.0	9091.2	14240.8
72.5°	251.3	243.6	238.5	251.3	264.1	274.4	325.7	648.8	1577.2	6190.8	11294.2
75°	220.5	212.9	210.3	220.5	230.8	235.9	274.4	446.2	930.9	3239.0	6775.5
77.5°	184.6	174.4	177.0	189.8	197.5	200.0	230.8	320.6	548.8	1466.9	3139.0
80°	135.9	135.9	146.2	156.4	156.4	156.4	184.6	233.4	333.4	674.5	1302.8
82.5°	94.9	97.5	100.0	115.4	118.0	107.7	141.0	169.3	207.7	294.9	451.4
85°	53.9	56.4	59.0	69.2	71.8	64.1	92.3	107.7	120.5	146.2	235.9
87.5°	20.5	23.1	30.8	35.9	38.5	28.2	43.6	51.3	51.3	61.5	105.1
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):**

	85°	87.5°	89°	90°	92.5°	95°	100°	105°	110°	115°	125°
0°	871.9	871.9	871.9	871.9	871.9	871.9	871.9	871.9	871.9	871.9	871.9
2.5°	925.8	943.7	977.1	984.8	956.6	925.8	856.6	900.1	918.1	884.8	895.0
5°	1146.3	1184.8	1225.8	1177.1	1146.3	1125.8	1092.5	1095.1	1077.1	1018.1	920.7
7.5°	1395.1	1351.5	1382.3	1415.6	1366.9	1369.5	1400.2	1336.1	1287.4	1187.4	1005.3
10°	1510.5	1510.5	1518.2	1518.2	1497.7	1497.7	1495.1	1392.5	1333.6	1290.0	1238.7
12.5°	1518.2	1515.6	1546.4	1523.3	1528.5	1533.6	1546.4	1592.6	1577.2	1520.8	1566.9
15°	1731.1	1720.8	1731.1	1728.5	1736.2	1759.3	1749.0	1738.7	1741.3	1782.3	1851.6
17.5°	1931.1	1936.2	1926.0	1943.9	1943.9	1959.3	1995.2	1959.3	1928.5	2005.5	2059.3
20°	2161.9	2143.9	2102.9	2133.7	2141.4	2143.9	2202.9	2159.3	2115.7	2143.9	2208.1
22.5°	2395.3	2392.7	2397.8	2400.4	2410.7	2372.2	2292.7	2279.9	2308.1	2269.6	2277.3
25°	2538.9	2541.4	2554.3	2556.8	2513.2	2554.3	2582.5	2497.8	2497.8	2490.2	2438.9
27.5°	2713.3	2674.8	2690.2	2710.7	2692.8	2703.0	2669.7	2546.6	2677.4	2695.3	2490.2
30°	2831.2	2813.3	2795.3	2815.8	2833.8	2880.0	2785.1	2772.3	2782.5	2877.4	2608.1
32.5°	3080.0	3105.6	3072.3	3039.0	3072.3	3062.0	3021.0	3003.1	3131.3	3005.6	2690.2
35°	3310.8	3321.1	3323.6	3318.5	3339.0	3303.1	3303.1	3369.8	3408.3	3272.3	2715.8
37.5°	3867.3	3831.4	3757.0	3721.1	3785.2	3839.1	3680.1	3759.6	3744.2	3513.4	2908.2
40°	4267.4	4349.4	4372.5	4362.3	4372.5	4218.6	4252.0	4311.0	4241.7	3859.6	2841.5
42.5°	4852.1	4903.4	4885.4	4862.3	4872.6	4844.4	4744.4	4962.4	4713.6	4246.9	2944.1
45°	5385.5	5500.9	5508.6	5429.1	5493.2	5393.2	5434.2	5511.2	5259.8	4536.6	2915.9
47.5°	6021.5	6260.0	6170.2	6170.2	6234.4	6018.9	6116.4	6219.0	5552.2	4731.5	2762.0
50°	6962.7	7090.9	7085.8	7062.7	7090.9	6975.5	6960.1	6947.3	6001.0	4916.2	2667.1
52.5°	8027.0	8201.3	8134.7	8160.3	8198.8	7980.8	8152.6	7683.3	6562.6	4985.4	2451.7
55°	9386.2	9506.7	9440.0	9309.2	9483.6	9345.1	9401.5	8486.0	6952.4	4788.0	2092.7
57.5°	11004.4	11065.9	10955.6	10942.8	11058.2	10909.5	10814.6	9388.7	7155.0	4639.2	1672.1
60°	12894.4	13086.8	13017.5	12907.2	13012.4	12881.6	12163.5	10155.5	7114.0	3944.2	1295.1
62.5°	15161.5	15356.4	15279.4	15205.1	15271.7	14930.7	13430.4	10760.7	6929.3	3126.2	946.3
65°	17033.6	17913.2	18028.6	18031.2	17708.0	16918.2	14440.8	10996.7	5954.8	2182.4	692.4
67.5°	18264.5	20093.0	20662.4	20457.2	19716.1	17913.2	14848.6	10535.1	4598.2	1379.7	518.0
69°	18123.5	20521.3	21344.5	21229.1	20187.9	17897.8	14530.6	9758.0	3513.4	1097.6	438.5
70°	17472.1	20170.0	21147.1	21198.4	19887.9	17210.5	13963.8	8865.6	2841.5	936.1	402.6
72.5°	13943.3	16620.7	17479.8	17815.7	16515.5	13781.8	11450.6	6254.9	1646.4	654.0	325.7
75°	8637.3	10078.6	10791.5	10986.4	10199.1	8583.5	6949.9	3480.1	1002.7	461.6	274.4
77.5°	3872.4	4290.4	4700.8	4700.8	4393.0	3918.6	3185.1	1682.3	569.3	328.3	230.8
80°	1297.6	1346.4	1310.5	1323.3	1272.0	1223.3	1279.7	725.8	351.3	246.2	187.2
82.5°	882.2	1107.9	1177.1	1177.1	1105.3	871.9	492.4	333.4	215.4	177.0	143.6
85°	718.1	877.1	941.2	969.4	913.0	736.0	259.0	161.6	128.2	112.8	97.5
87.5°	241.1	225.7	212.9	207.7	218.0	228.2	128.2	69.2	59.0	53.9	51.3
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):**

	135°	145°	155°	165°	175°	180°
0°	871.9	871.9	871.9	871.9	871.9	871.9
2.5°	913.0	882.2	895.0	907.8	1000.2	1069.4
5°	907.8	951.4	1048.9	1172.0	1228.4	1366.9
7.5°	933.5	1092.5	1274.6	1402.8	1454.1	1497.7
10°	1248.9	1277.1	1338.7	1461.8	1564.4	1582.3
12.5°	1613.1	1605.4	1561.8	1618.2	1566.9	1602.8
15°	1897.7	1813.1	1754.1	1746.4	1728.5	1728.5
17.5°	2054.2	1979.8	1897.7	1877.2	1823.4	1867.0
20°	2238.8	2110.6	1905.4	1884.9	1867.0	1825.9
22.5°	2202.9	2074.7	1861.8	1836.2	1931.1	1926.0
25°	2246.5	2074.7	1872.1	1843.9	1887.5	1887.5
27.5°	2138.8	1997.8	1851.6	1682.3	1815.7	1846.5
30°	2110.6	1951.6	1782.3	1631.0	1767.0	1738.7
32.5°	2259.3	1836.2	1669.5	1623.3	1723.4	1702.8
35°	2143.9	1815.7	1641.3	1556.7	1674.6	1654.1
37.5°	2192.7	1790.0	1592.6	1520.8	1615.7	1646.4
40°	2182.4	1669.5	1536.1	1443.8	1538.7	1554.1
42.5°	2010.6	1577.2	1441.3	1348.9	1397.7	1449.0
45°	1959.3	1520.8	1348.9	1220.7	1223.3	1282.3
47.5°	1864.4	1392.5	1179.7	1061.7	1061.7	1110.4
50°	1705.4	1220.7	987.3	879.6	877.1	915.5
52.5°	1469.5	1054.0	833.5	715.5	707.8	746.3
55°	1202.8	848.9	656.5	579.6	564.2	579.6
57.5°	936.1	661.6	518.0	456.5	453.9	466.7
60°	725.8	518.0	412.9	377.0	382.1	402.6
62.5°	548.8	412.9	351.3	338.5	346.2	366.7
65°	436.0	356.5	320.6	312.9	320.6	341.1
67.5°	353.9	323.1	297.5	287.2	292.4	312.9
69°	325.7	305.2	284.7	271.8	277.0	292.4
70°	310.3	294.9	274.4	261.6	266.7	282.1
72.5°	271.8	264.1	248.8	235.9	238.5	251.3
75°	238.5	233.4	223.1	207.7	207.7	223.1
77.5°	200.0	202.6	192.3	177.0	174.4	182.1
80°	159.0	164.1	159.0	143.6	138.5	138.5
82.5°	115.4	125.7	120.5	105.1	102.6	102.6
85°	71.8	79.5	76.9	66.7	66.7	59.0
87.5°	33.3	43.6	41.0	35.9	33.3	23.1
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)