

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: P565392

Luminaire Tested: **MSA-SA4A-760-U-T1**

Issue Date: 8/19/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P565392  
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-SA4A-760-U-T1  
Description: MESA POST TOP DECORATIVE LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE I OPTICS.  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 14017 lumens  
Efficiency: N/A  
Efficacy: 108.7 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type I - Medium  
BUG Rating: B4 - U0 - G4

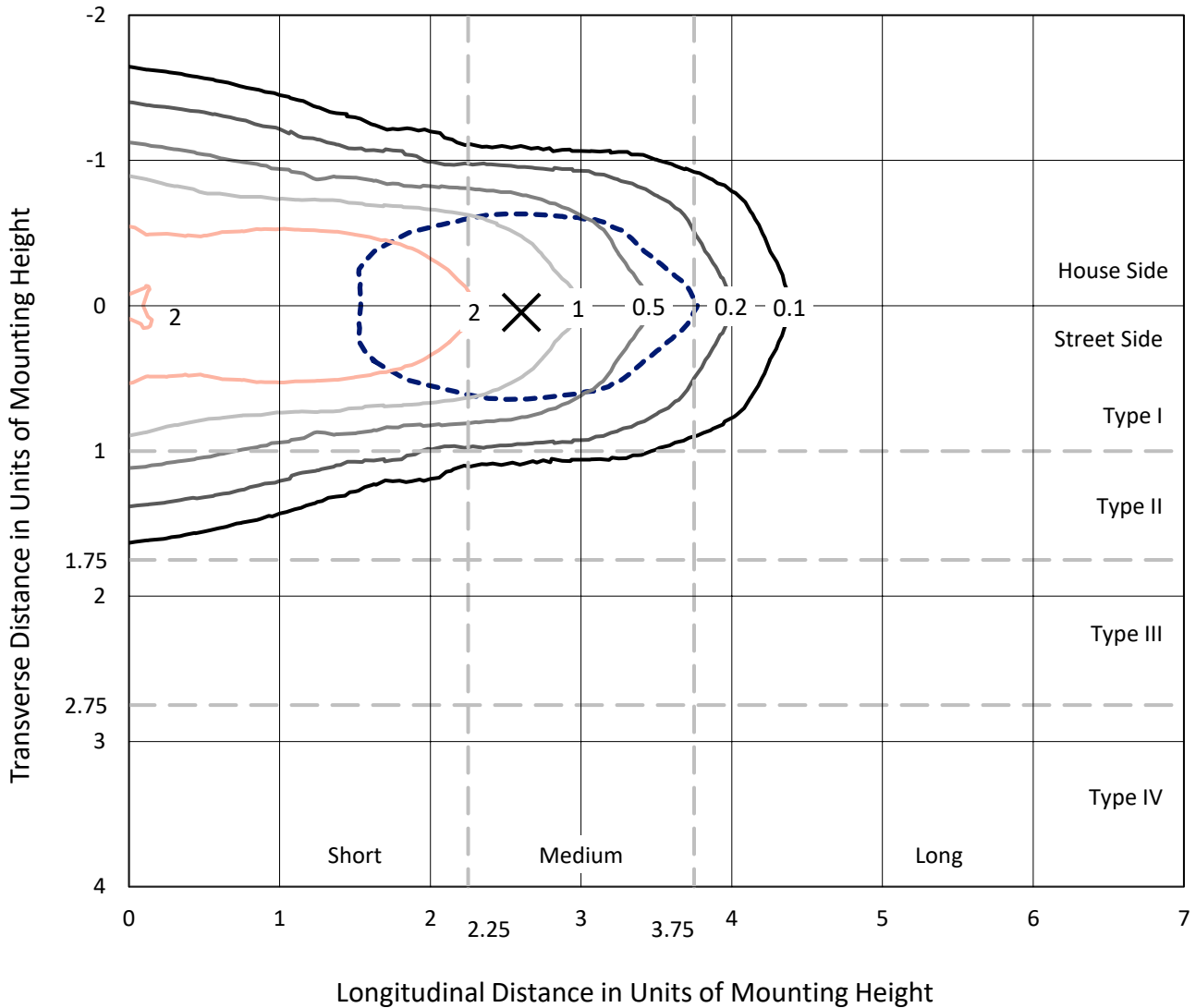
Input Watts (W): 129  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

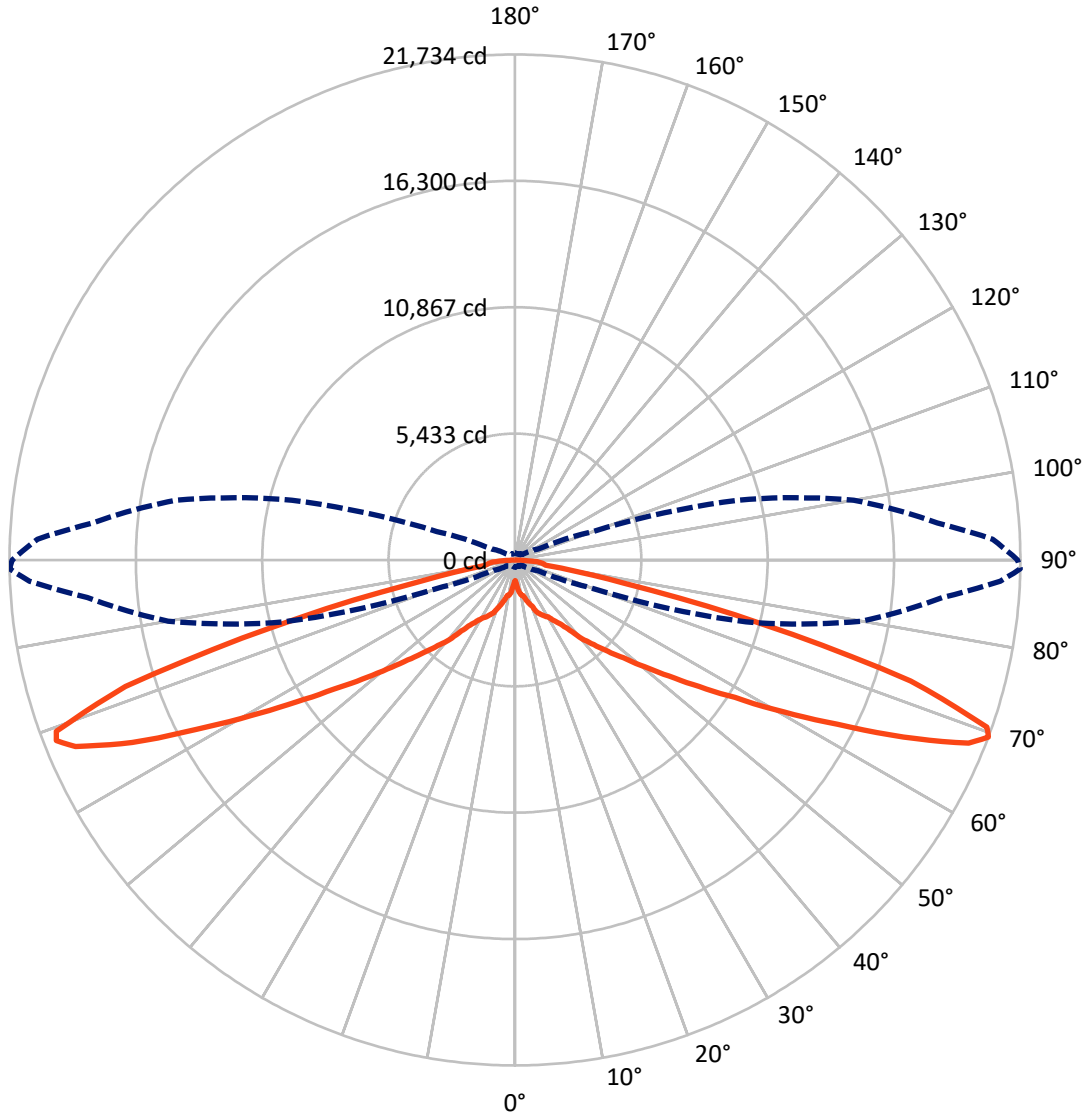
× Max cd  
 - - - 1/2 Max cd



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	7008.4	0.0	7008.4
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	7008.6	0.0	7008.6
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	14017.0	0.0	14017.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	111.6	0.8
10°-20°	514.0	3.7
20°-30°	1025.4	7.3
30°-40°	1550.9	11.1
40°-50°	2251.3	16.1
50°-60°	2957.8	21.1
60°-70°	3608.1	25.7
70°-80°	1824.1	13.0
80°-90°	173.9	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°	14017.0	100.0
0°-180°	14017.0	100.0

**Coefficient of Utilization**

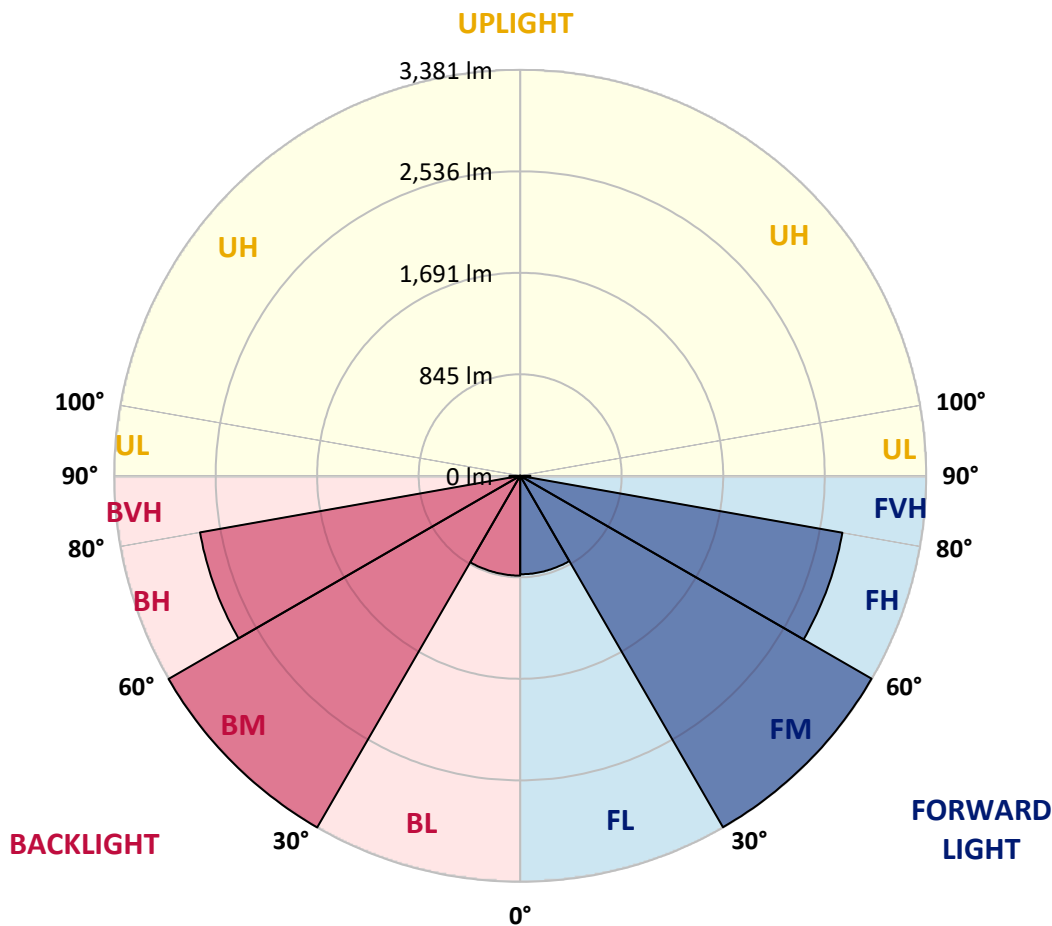


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	819.7	5.8			
FM (30°-60°)	3378.9	24.1			
FH (60°-80°)	2724.8	19.4			G2/5000
FVH (80°-90°)	85.3	0.6			G1/100
BL (0°-30°)	831.3	5.9	B2/1000		
BM (30°-60°)	3381.1	24.1	B3/5000		
BH (60°-80°)	2707.4	19.3	B4/5000		G4/5000
BVH (80°-90°)	88.6	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°	887.8	887.8	887.8	887.8	887.8	887.8	887.8	887.8	887.8	887.8	887.8
2.5°	1041.9	921.8	911.3	882.6	903.5	911.3	893.1	866.9	895.7	911.3	882.6
5°	1313.5	1135.9	1075.8	1026.2	927.0	885.2	927.0	1034.1	1047.1	1112.4	1094.1
7.5°	1446.7	1417.9	1342.2	1177.7	1018.4	929.6	1041.9	1196.0	1274.3	1337.0	1402.3
10°	1545.9	1530.2	1397.0	1279.5	1214.2	1219.5	1222.1	1271.7	1339.6	1444.0	1480.6
12.5°	1569.4	1564.2	1585.0	1558.9	1564.2	1592.9	1564.2	1551.1	1590.3	1624.2	1587.7
15°	1720.8	1718.2	1726.1	1731.3	1835.7	1880.1	1835.7	1796.6	1767.8	1739.1	1799.2
17.5°	1825.3	1812.2	1814.8	1864.5	1982.0	2104.7	2081.2	2029.0	1963.7	2002.9	2052.5
20°	1882.7	1859.2	1874.9	1895.8	2094.2	2230.0	2245.7	2175.2	2136.0	2185.6	2227.4
22.5°	1937.6	1901.0	1846.2	1867.1	2049.9	2245.7	2321.4	2303.2	2331.9	2347.5	2339.7
25°	1872.3	1895.8	1835.7	1895.8	2081.2	2261.4	2412.8	2519.9	2522.5	2514.7	2572.1
27.5°	1833.1	1814.8	1713.0	1867.1	2021.1	2133.4	2519.9	2700.1	2754.9	2587.8	2700.1
30°	1765.2	1794.0	1655.6	1783.5	1979.4	2167.4	2642.6	2901.1	2820.2	2799.3	2825.4
32.5°	1723.4	1705.2	1639.9	1710.4	1859.2	2269.2	2721.0	3018.6	3120.5	3070.9	3065.6
35°	1655.6	1668.6	1566.8	1642.5	1851.4	2183.0	2773.2	3313.7	3470.4	3431.2	3399.9
37.5°	1666.0	1621.6	1548.5	1603.3	1801.8	2230.0	2903.7	3598.3	3846.4	3867.3	3723.7
40°	1587.7	1561.5	1451.9	1543.3	1707.8	2201.3	2935.1	3922.1	4342.6	4436.6	4230.3
42.5°	1475.4	1441.4	1378.8	1480.6	1652.9	2060.3	2979.5	4311.2	4846.5	5042.4	4854.4
45°	1313.5	1269.1	1237.7	1373.5	1532.8	2023.7	2932.5	4635.0	5329.6	5598.6	5593.4
47.5°	1117.6	1088.9	1073.2	1216.9	1433.6	1932.3	2835.9	4838.7	5666.5	6355.9	6251.4
50°	895.7	874.8	872.2	1023.6	1266.5	1744.3	2726.2	4940.5	6178.3	7050.5	7141.9
52.5°	718.1	702.4	699.8	822.6	1060.2	1491.0	2496.4	5018.9	6666.6	7839.1	8309.1
55°	561.4	545.8	548.4	650.2	843.4	1219.5	2146.5	4930.1	7094.9	8646.0	9536.4
57.5°	459.6	443.9	446.5	504.0	645.0	932.2	1710.4	4736.9	7288.1	9643.5	10967.4
60°	404.7	389.1	381.2	407.4	496.1	702.4	1271.7	3984.8	7319.4	10471.2	12521.1
62.5°	376.0	360.4	352.5	360.4	410.0	537.9	916.6	3157.0	7139.2	11178.9	13944.3
65°	349.9	336.9	326.4	334.2	360.4	428.3	668.5	2162.1	6196.6	11502.7	14978.3
67.5°	321.2	310.7	300.3	310.7	329.0	360.4	519.6	1368.3	4645.5	11082.3	15409.2
69°	305.5	289.9	284.6	292.5	310.7	331.6	449.1	1091.5	3533.1	10283.2	15148.1
70°	289.9	279.4	271.6	284.6	300.3	316.0	404.7	927.0	2770.6	9257.0	14500.5
72.5°	255.9	248.1	242.8	255.9	269.0	279.4	331.6	660.7	1605.9	6303.6	11500.1
75°	224.6	216.7	214.1	224.6	235.0	240.2	279.4	454.4	947.9	3298.1	6899.0
77.5°	188.0	177.6	180.2	193.2	201.1	203.7	235.0	326.4	558.8	1493.7	3196.2
80°	138.4	138.4	148.8	159.3	159.3	159.3	188.0	237.6	339.5	686.8	1326.5
82.5°	96.6	99.2	101.8	117.5	120.1	109.7	143.6	172.3	211.5	300.3	459.6
85°	54.8	57.4	60.1	70.5	73.1	65.3	94.0	109.7	122.7	148.8	240.2
87.5°	20.9	23.5	31.3	36.6	39.2	28.7	44.4	52.2	52.2	62.7	107.1
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°	887.8	887.8	887.8	887.8	887.8	887.8	887.8	887.8	887.8	887.8	887.8
2.5°	942.7	961.0	994.9	1002.7	974.0	942.7	872.2	916.6	934.8	900.9	911.3
5°	1167.2	1206.4	1248.2	1198.6	1167.2	1146.4	1112.4	1115.0	1096.7	1036.7	937.5
7.5°	1420.5	1376.1	1407.5	1441.4	1391.8	1394.4	1425.8	1360.5	1310.9	1209.0	1023.6
10°	1538.0	1538.0	1545.9	1545.9	1525.0	1525.0	1522.4	1417.9	1357.9	1313.5	1261.2
12.5°	1545.9	1543.3	1574.6	1551.1	1556.3	1561.5	1574.6	1621.6	1605.9	1548.5	1595.5
15°	1762.6	1752.2	1762.6	1760.0	1767.8	1791.3	1780.9	1770.5	1773.1	1814.8	1885.3
17.5°	1966.3	1971.5	1961.1	1979.4	1979.4	1995.0	2031.6	1995.0	1963.7	2042.0	2096.9
20°	2201.3	2183.0	2141.3	2172.6	2180.4	2183.0	2243.1	2198.7	2154.3	2183.0	2248.3
22.5°	2438.9	2436.3	2441.6	2444.2	2454.6	2415.4	2334.5	2321.4	2350.2	2311.0	2318.8
25°	2585.2	2587.8	2600.8	2603.4	2559.1	2600.8	2629.6	2543.4	2543.4	2535.6	2483.3
27.5°	2762.7	2723.6	2739.2	2760.1	2741.8	2752.3	2718.3	2593.0	2726.2	2744.5	2535.6
30°	2882.9	2864.6	2846.3	2867.2	2885.5	2932.5	2835.9	2822.8	2833.2	2929.9	2655.7
32.5°	3136.2	3162.3	3128.3	3094.4	3128.3	3117.9	3076.1	3057.8	3188.4	3060.4	2739.2
35°	3371.2	3381.6	3384.2	3379.0	3399.9	3363.3	3363.3	3431.2	3470.4	3332.0	2765.3
37.5°	3937.8	3901.3	3825.5	3789.0	3854.3	3909.1	3747.2	3828.1	3812.5	3577.5	2961.2
40°	4345.2	4428.7	4452.2	4441.8	4452.2	4295.6	4329.5	4389.6	4319.1	3930.0	2893.3
42.5°	4940.5	4992.8	4974.5	4951.0	4961.4	4932.7	4830.9	5052.8	4799.5	4324.3	2997.8
45°	5483.7	5601.2	5609.0	5528.1	5593.4	5491.5	5533.3	5611.6	5355.7	4619.4	2969.0
47.5°	6131.3	6374.1	6282.7	6282.7	6348.0	6128.7	6227.9	6332.4	5653.4	4817.8	2812.4
50°	7089.6	7220.2	7215.0	7191.5	7220.2	7102.7	7087.0	7074.0	6110.4	5005.8	2715.7
52.5°	8173.3	8350.9	8283.0	8309.1	8348.3	8126.3	8301.3	7823.4	6682.3	5076.3	2496.4
55°	9557.3	9680.0	9612.1	9479.0	9656.5	9515.5	9573.0	8640.7	7079.2	4875.3	2130.8
57.5°	11205.0	11267.7	11155.4	11142.3	11259.9	11108.4	11011.8	9559.9	7285.5	4723.8	1702.6
60°	13129.5	13325.4	13254.9	13142.6	13249.7	13116.5	12385.3	10340.7	7243.7	4016.2	1318.7
62.5°	15437.9	15636.4	15558.0	15482.3	15550.2	15202.9	13675.3	10956.9	7055.7	3183.2	963.6
65°	17344.1	18239.8	18357.3	18359.9	18030.9	17226.6	14704.1	11197.2	6063.4	2222.2	705.0
67.5°	18597.6	20459.4	21039.1	20830.2	20075.5	18239.8	15119.3	10727.2	4682.0	1404.9	527.5
69°	18453.9	20895.5	21733.7	21616.2	20556.0	18224.1	14795.5	9935.9	3577.5	1117.6	446.5
70°	17790.7	20537.7	21532.6	21584.9	20250.5	17524.3	14218.4	9027.2	2893.3	953.1	410.0
72.5°	14197.5	16923.7	17798.5	18140.6	16816.7	14033.0	11659.4	6368.9	1676.4	665.9	331.6
75°	8794.8	10262.3	10988.3	11186.7	10385.1	8740.0	7076.6	3543.5	1021.0	470.0	279.4
77.5°	3943.0	4368.7	4786.5	4786.5	4473.1	3990.0	3243.2	1713.0	579.7	334.2	235.0
80°	1321.3	1370.9	1334.4	1347.4	1295.2	1245.6	1303.0	739.0	357.7	250.7	190.6
82.5°	898.3	1128.1	1198.6	1198.6	1125.5	887.8	501.4	339.5	219.3	180.2	146.2
85°	731.2	893.1	958.3	987.1	929.6	749.4	263.7	164.5	130.6	114.9	99.2
87.5°	245.5	229.8	216.7	211.5	222.0	232.4	130.6	70.5	60.1	54.8	52.2
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°	887.8	887.8	887.8	887.8	887.8	887.8
2.5°	929.6	898.3	911.3	924.4	1018.4	1088.9
5°	924.4	968.8	1068.0	1193.4	1250.8	1391.8
7.5°	950.5	1112.4	1297.8	1428.4	1480.6	1525.0
10°	1271.7	1300.4	1363.1	1488.4	1592.9	1611.2
12.5°	1642.5	1634.7	1590.3	1647.7	1595.5	1632.1
15°	1932.3	1846.2	1786.1	1778.3	1760.0	1760.0
17.5°	2091.6	2015.9	1932.3	1911.5	1856.6	1901.0
20°	2279.7	2149.1	1940.2	1919.3	1901.0	1859.2
22.5°	2243.1	2112.5	1895.8	1869.7	1966.3	1961.1
25°	2287.5	2112.5	1906.2	1877.5	1921.9	1921.9
27.5°	2177.8	2034.2	1885.3	1713.0	1848.8	1880.1
30°	2149.1	1987.2	1814.8	1660.8	1799.2	1770.5
32.5°	2300.5	1869.7	1699.9	1652.9	1754.8	1733.9
35°	2183.0	1848.8	1671.2	1585.0	1705.2	1684.3
37.5°	2232.6	1822.7	1621.6	1548.5	1645.1	1676.4
40°	2222.2	1699.9	1564.2	1470.2	1566.8	1582.4
42.5°	2047.2	1605.9	1467.5	1373.5	1423.1	1475.4
45°	1995.0	1548.5	1373.5	1243.0	1245.6	1305.6
47.5°	1898.4	1417.9	1201.2	1081.1	1081.1	1130.7
50°	1736.5	1243.0	1005.3	895.7	893.1	932.2
52.5°	1496.3	1073.2	848.7	728.5	720.7	759.9
55°	1224.7	864.3	668.5	590.2	574.5	590.2
57.5°	953.1	673.7	527.5	464.8	462.2	475.3
60°	739.0	527.5	420.4	383.9	389.1	410.0
62.5°	558.8	420.4	357.7	344.7	352.5	373.4
65°	443.9	363.0	326.4	318.6	326.4	347.3
67.5°	360.4	329.0	302.9	292.5	297.7	318.6
69°	331.6	310.7	289.9	276.8	282.0	297.7
70°	316.0	300.3	279.4	266.4	271.6	287.2
72.5°	276.8	269.0	253.3	240.2	242.8	255.9
75°	242.8	237.6	227.2	211.5	211.5	227.2
77.5°	203.7	206.3	195.8	180.2	177.6	185.4
80°	161.9	167.1	161.9	146.2	141.0	141.0
82.5°	117.5	128.0	122.7	107.1	104.5	104.5
85°	73.1	80.9	78.3	67.9	67.9	60.1
87.5°	33.9	44.4	41.8	36.6	33.9	23.5
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)