

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: P565389

Luminaire Tested: **MSA-SA3B-760-U-T1**

Issue Date: 8/19/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P565389  
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-SA3B-760-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: 13291 lumens  
Efficiency: N/A  
Efficacy: 105.5 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type I - Medium  
BUG Rating: B4 - U0 - G4

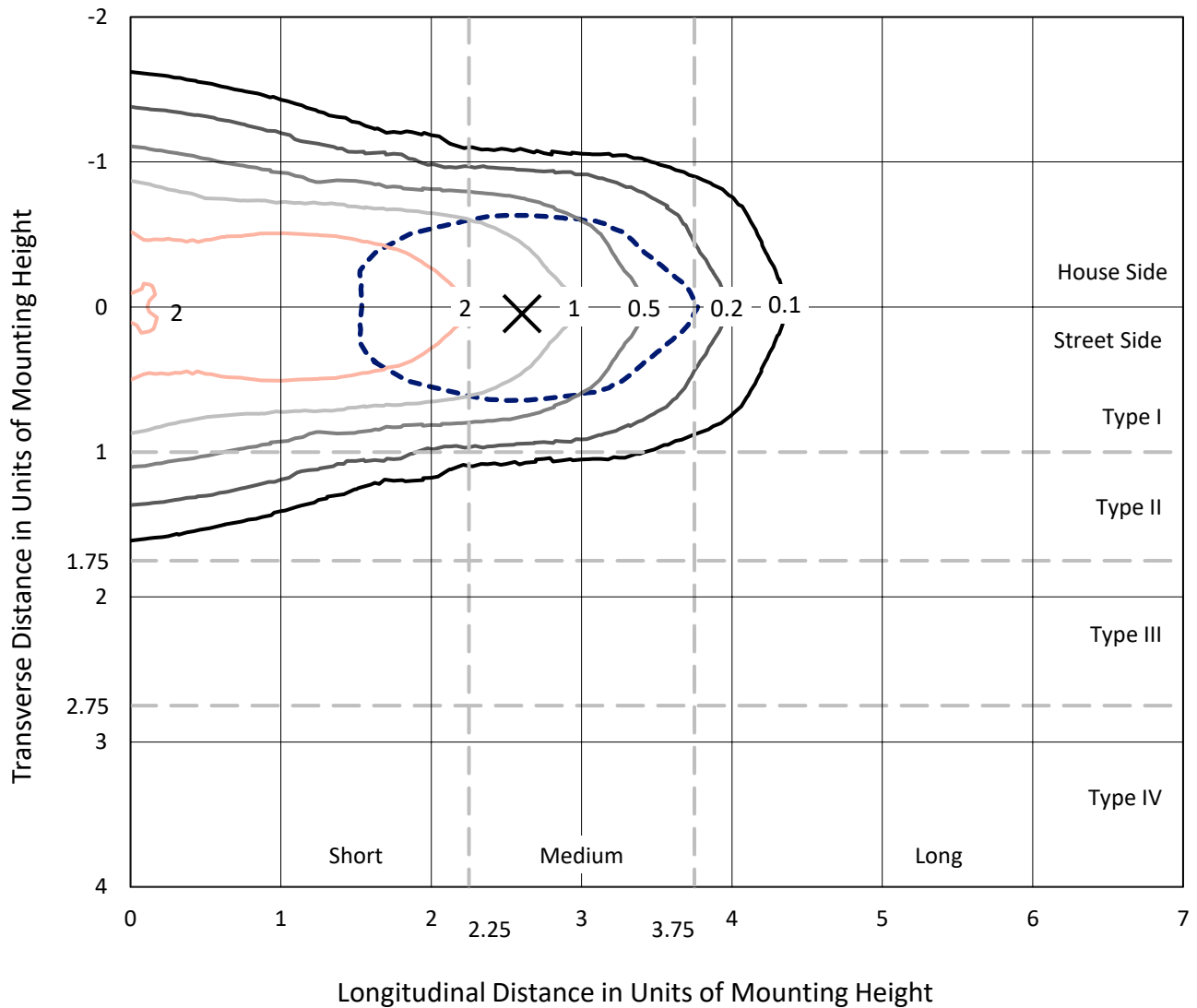
Input Watts (W): 126  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

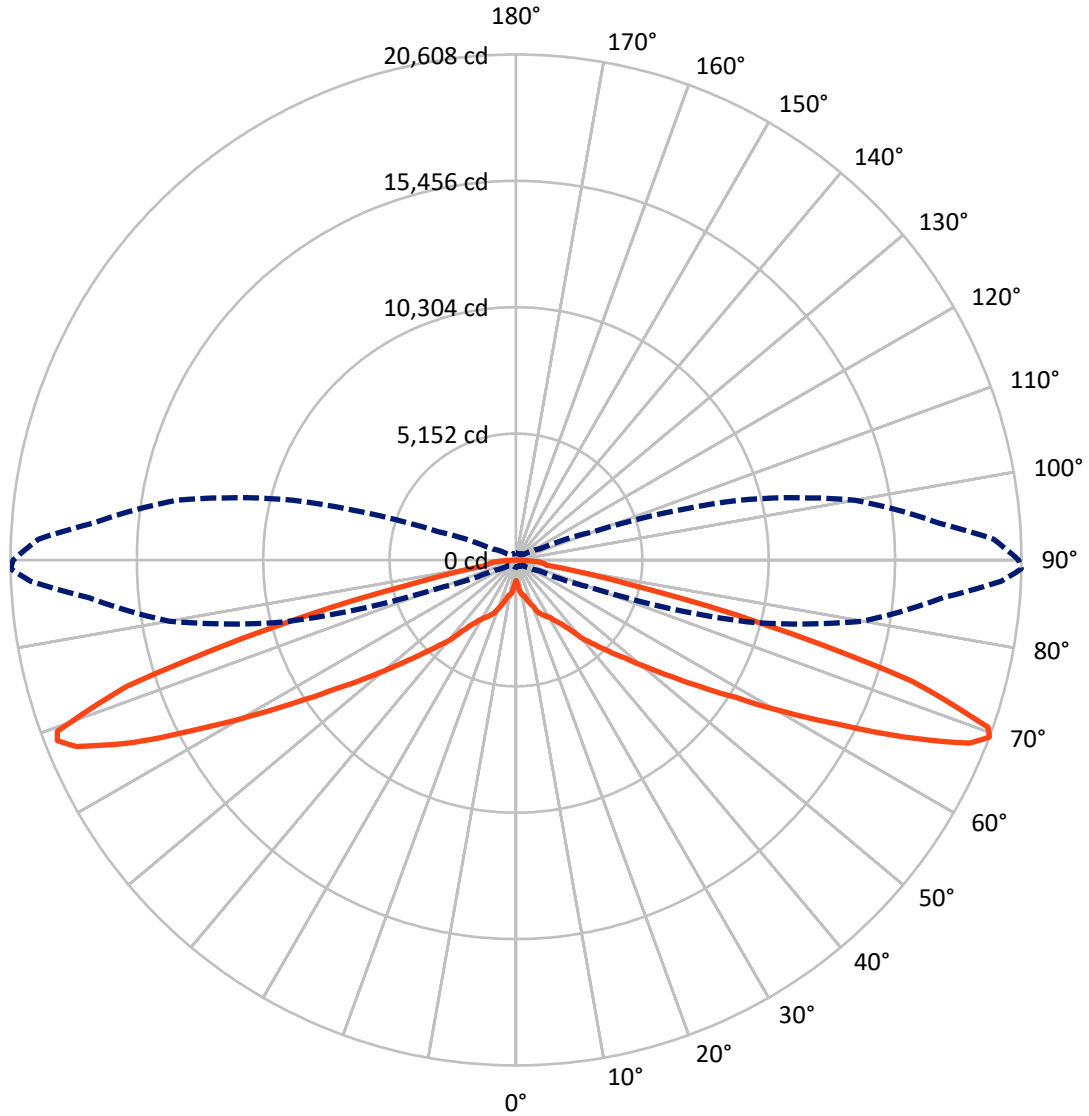
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3 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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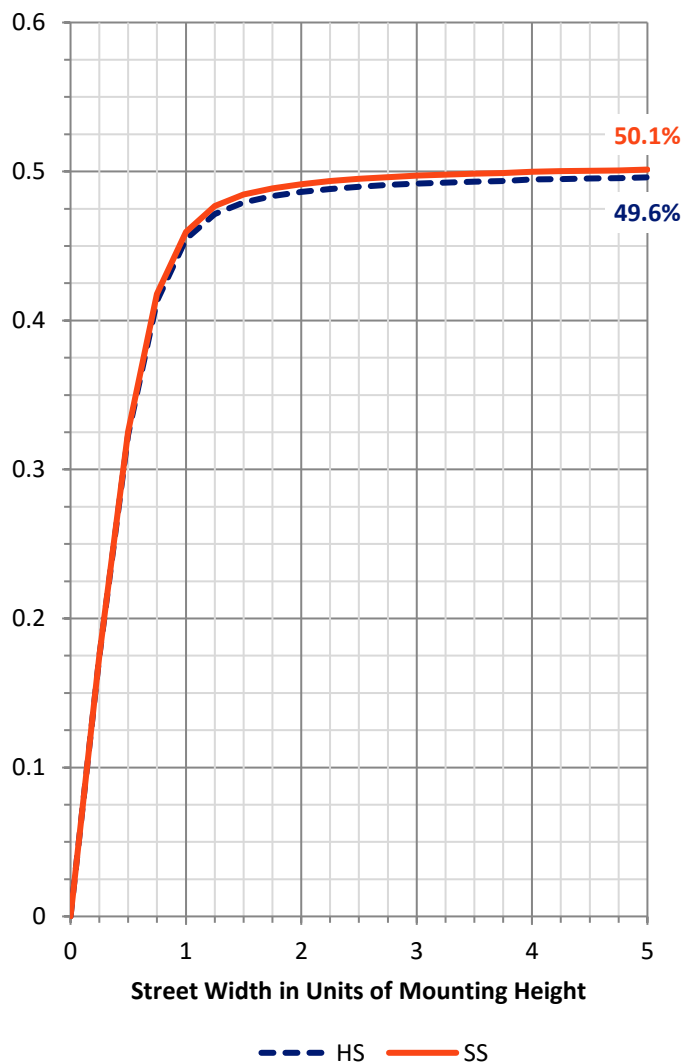
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	6645.4	0.0	6645.4
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	6645.6	0.0	6645.6
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	13291.0	0.0	13291.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	105.8	0.8
10°-20°	487.4	3.7
20°-30°	972.3	7.3
30°-40°	1470.6	11.1
40°-50°	2134.7	16.1
50°-60°	2804.6	21.1
60°-70°	3421.2	25.7
70°-80°	1729.6	13.0
80°-90°	164.9	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°	13291.0	100.0
0°-180°	13291.0	100.0

**Coefficient of Utilization**

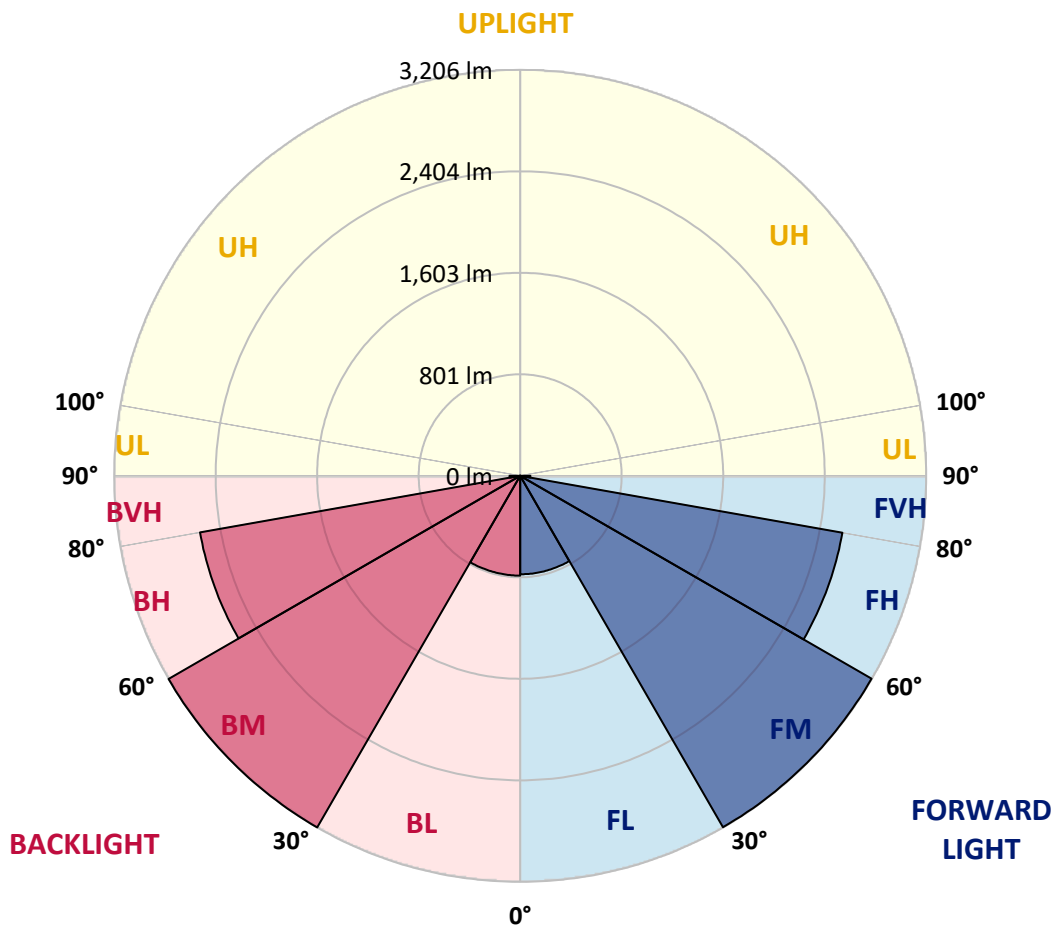


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	777.3	5.8			
FM (30°-60°)	3203.9	24.1			
FH (60°-80°)	2583.6	19.4			G2/5000
FVH (80°-90°)	80.9	0.6			G1/100
BL (0°-30°)	788.2	5.9	B2/1000		
BM (30°-60°)	3206.0	24.1	B3/5000		
BH (60°-80°)	2567.2	19.3	B4/5000		G4/5000
BVH (80°-90°)	84.0	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°	841.9	841.9	841.9	841.9	841.9	841.9	841.9	841.9	841.9	841.9	841.9
2.5°	987.9	874.0	864.1	836.9	856.7	864.1	846.8	822.0	849.3	864.1	836.9
5°	1245.4	1077.1	1020.1	973.1	879.0	839.4	879.0	980.5	992.9	1054.8	1037.5
7.5°	1371.7	1344.5	1272.7	1116.7	965.7	881.5	987.9	1134.0	1208.3	1267.7	1329.6
10°	1465.8	1451.0	1324.7	1213.3	1151.4	1156.3	1158.8	1205.8	1270.2	1369.2	1403.9
12.5°	1488.1	1483.1	1503.0	1478.2	1483.1	1510.4	1483.1	1470.8	1507.9	1540.1	1505.4
15°	1631.7	1629.2	1636.7	1641.6	1740.7	1782.7	1740.7	1703.5	1676.3	1649.0	1706.0
17.5°	1730.7	1718.4	1720.8	1767.9	1879.3	1995.7	1973.4	1923.9	1862.0	1899.1	1946.2
20°	1785.2	1762.9	1777.8	1797.6	1985.8	2114.5	2129.4	2062.5	2025.4	2072.4	2112.1
22.5°	1837.2	1802.6	1750.6	1770.4	1943.7	2129.4	2201.2	2183.9	2211.1	2226.0	2218.5
25°	1775.3	1797.6	1740.7	1797.6	1973.4	2144.2	2287.9	2389.4	2391.8	2384.4	2438.9
27.5°	1738.2	1720.8	1624.3	1770.4	1916.5	2022.9	2389.4	2560.2	2612.2	2453.7	2560.2
30°	1673.8	1701.0	1569.8	1691.1	1876.8	2055.1	2505.7	2750.9	2674.1	2654.3	2679.1
32.5°	1634.2	1616.9	1554.9	1621.8	1762.9	2151.7	2580.0	2862.3	2958.9	2911.8	2906.9
35°	1569.8	1582.2	1485.6	1557.4	1755.5	2070.0	2629.5	3142.1	3290.6	3253.5	3223.8
37.5°	1579.7	1537.6	1468.3	1520.3	1708.5	2114.5	2753.3	3412.0	3647.2	3667.0	3530.8
40°	1505.4	1480.7	1376.7	1463.3	1619.3	2087.3	2783.1	3719.0	4117.6	4206.8	4011.2
42.5°	1399.0	1366.8	1307.3	1403.9	1567.3	1953.6	2825.2	4087.9	4595.5	4781.2	4602.9
45°	1245.4	1203.4	1173.6	1302.4	1453.4	1918.9	2780.6	4395.0	5053.6	5308.6	5303.7
47.5°	1059.7	1032.5	1017.7	1153.8	1359.3	1832.3	2689.0	4588.1	5373.0	6026.7	5927.6
50°	849.3	829.5	827.0	970.6	1200.9	1654.0	2585.0	4684.7	5858.3	6685.3	6772.0
52.5°	680.9	666.1	663.6	780.0	1005.3	1413.8	2367.1	4758.9	6321.3	7433.1	7878.7
55°	532.3	517.5	520.0	616.5	799.8	1156.3	2035.3	4674.8	6727.4	8198.1	9042.5
57.5°	435.8	420.9	423.4	477.9	611.6	883.9	1621.8	4491.5	6910.6	9144.0	10399.3
60°	383.8	368.9	361.5	386.3	470.4	666.1	1205.8	3778.4	6940.3	9928.9	11872.6
62.5°	356.5	341.7	334.3	341.7	388.7	510.1	869.1	2993.5	6769.5	10599.9	13222.0
65°	331.8	319.4	309.5	316.9	341.7	406.1	633.9	2050.2	5875.6	10906.9	14202.5
67.5°	304.6	294.6	284.7	294.6	312.0	341.7	492.7	1297.4	4404.9	10508.3	14611.1
69°	289.7	274.8	269.9	277.3	294.6	314.5	425.9	1035.0	3350.1	9750.6	14363.5
70°	274.8	264.9	257.5	269.9	284.7	299.6	383.8	879.0	2627.1	8777.5	13749.4
72.5°	242.7	235.2	230.3	242.7	255.0	264.9	314.5	626.4	1522.8	5977.1	10904.5
75°	212.9	205.5	203.0	212.9	222.8	227.8	264.9	430.8	898.8	3127.2	6541.7
77.5°	178.3	168.4	170.8	183.2	190.7	193.1	222.8	309.5	529.9	1416.3	3030.7
80°	131.2	131.2	141.1	151.0	151.0	151.0	178.3	225.3	321.9	651.2	1257.8
82.5°	91.6	94.1	96.6	111.4	113.9	104.0	136.2	163.4	200.6	284.7	435.8
85°	52.0	54.5	56.9	66.9	69.3	61.9	89.1	104.0	116.4	141.1	227.8
87.5°	19.8	22.3	29.7	34.7	37.1	27.2	42.1	49.5	49.5	59.4	101.5
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°	841.9	841.9	841.9	841.9	841.9	841.9	841.9	841.9	841.9	841.9	841.9
2.5°	893.8	911.2	943.4	950.8	923.6	893.8	827.0	869.1	886.4	854.2	864.1
5°	1106.8	1143.9	1183.5	1136.5	1106.8	1087.0	1054.8	1057.3	1039.9	983.0	888.9
7.5°	1347.0	1304.9	1334.6	1366.8	1319.7	1322.2	1351.9	1290.0	1243.0	1146.4	970.6
10°	1458.4	1458.4	1465.8	1465.8	1446.0	1446.0	1443.5	1344.5	1287.5	1245.4	1195.9
12.5°	1465.8	1463.3	1493.0	1470.8	1475.7	1480.7	1493.0	1537.6	1522.8	1468.3	1512.9
15°	1671.3	1661.4	1671.3	1668.8	1676.3	1698.6	1688.7	1678.8	1681.2	1720.8	1787.7
17.5°	1864.5	1869.4	1859.5	1876.8	1876.8	1891.7	1926.4	1891.7	1862.0	1936.3	1988.3
20°	2087.3	2070.0	2030.3	2060.1	2067.5	2070.0	2126.9	2084.8	2042.7	2070.0	2131.9
22.5°	2312.6	2310.1	2315.1	2317.6	2327.5	2290.3	2213.6	2201.2	2228.4	2191.3	2198.7
25°	2451.3	2453.7	2466.1	2468.6	2426.5	2466.1	2493.4	2411.7	2411.7	2404.2	2354.7
27.5°	2619.6	2582.5	2597.4	2617.2	2599.8	2609.7	2577.6	2458.7	2585.0	2602.3	2404.2
30°	2733.5	2716.2	2698.9	2718.7	2736.0	2780.6	2689.0	2676.6	2686.5	2778.1	2518.1
32.5°	2973.7	2998.5	2966.3	2934.1	2966.3	2956.4	2916.8	2899.4	3023.2	2901.9	2597.4
35°	3196.6	3206.5	3208.9	3204.0	3223.8	3189.1	3189.1	3253.5	3290.6	3159.4	2622.1
37.5°	3733.9	3699.2	3627.4	3592.7	3654.6	3706.6	3553.1	3629.9	3615.0	3392.2	2807.8
40°	4120.1	4199.4	4221.6	4211.7	4221.6	4073.1	4105.3	4162.2	4095.4	3726.4	2743.4
42.5°	4684.7	4734.2	4716.8	4694.6	4704.5	4677.2	4580.7	4791.1	4551.0	4100.3	2842.5
45°	5199.7	5311.1	5318.5	5241.8	5303.7	5207.1	5246.7	5321.0	5078.3	4380.1	2815.3
47.5°	5813.7	6044.0	5957.3	5957.3	6019.2	5811.3	5905.3	6004.4	5360.6	4568.3	2666.7
50°	6722.4	6846.2	6841.3	6819.0	6846.2	6734.8	6720.0	6707.6	5793.9	4746.6	2575.1
52.5°	7750.0	7918.4	7854.0	7878.7	7915.9	7705.4	7871.3	7418.2	6336.2	4813.4	2367.1
55°	9062.3	9178.7	9114.3	8988.0	9156.4	9022.7	9077.1	8193.2	6712.5	4622.8	2020.4
57.5°	10624.7	10684.1	10577.6	10565.2	10676.7	10533.0	10441.4	9064.8	6908.1	4479.1	1614.4
60°	12449.5	12635.2	12568.3	12461.9	12563.4	12437.1	11743.8	9805.1	6868.5	3808.1	1250.4
62.5°	14638.3	14826.5	14752.2	14680.4	14744.8	14415.5	12967.0	10389.4	6690.2	3018.3	913.7
65°	16445.8	17295.1	17406.5	17409.0	17097.0	16334.4	13942.5	10617.2	5749.4	2107.1	668.5
67.5°	17634.3	19399.7	19949.4	19751.3	19035.8	17295.1	14336.2	10171.5	4439.5	1332.1	500.2
69°	17498.1	19813.2	20608.0	20496.6	19491.3	17280.2	14029.2	9421.3	3392.2	1059.7	423.4
70°	16869.2	19474.0	20417.4	20466.9	19201.6	16616.7	13482.0	8559.7	2743.4	903.8	388.7
72.5°	13462.2	16047.2	16876.6	17201.0	15945.7	13306.2	11055.5	6039.0	1589.6	631.4	314.5
75°	8339.3	9730.8	10419.2	10607.3	9847.2	8287.3	6710.1	3360.0	968.1	445.7	264.9
77.5°	3738.8	4142.4	4538.6	4538.6	4241.4	3783.4	3075.2	1624.3	549.7	316.9	222.8
80°	1252.9	1299.9	1265.3	1277.6	1228.1	1181.1	1235.5	700.7	339.2	237.7	180.8
82.5°	851.8	1069.6	1136.5	1136.5	1067.2	841.9	475.4	321.9	208.0	170.8	138.7
85°	693.3	846.8	908.7	935.9	881.5	710.6	250.1	156.0	123.8	108.9	94.1
87.5°	232.7	217.9	205.5	200.6	210.5	220.4	123.8	66.9	56.9	52.0	49.5
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°	841.9	841.9	841.9	841.9	841.9	841.9
2.5°	881.5	851.8	864.1	876.5	965.7	1032.5
5°	876.5	918.6	1012.7	1131.5	1186.0	1319.7
7.5°	901.3	1054.8	1230.6	1354.4	1403.9	1446.0
10°	1205.8	1233.1	1292.5	1411.3	1510.4	1527.7
12.5°	1557.4	1550.0	1507.9	1562.4	1512.9	1547.5
15°	1832.3	1750.6	1693.6	1686.2	1668.8	1668.8
17.5°	1983.3	1911.5	1832.3	1812.5	1760.5	1802.6
20°	2161.6	2037.8	1839.7	1819.9	1802.6	1762.9
22.5°	2126.9	2003.1	1797.6	1772.8	1864.5	1859.5
25°	2169.0	2003.1	1807.5	1780.3	1822.4	1822.4
27.5°	2065.0	1928.8	1787.7	1624.3	1753.0	1782.7
30°	2037.8	1884.3	1720.8	1574.8	1706.0	1678.8
32.5°	2181.4	1772.8	1611.9	1567.3	1663.9	1644.1
35°	2070.0	1753.0	1584.7	1503.0	1616.9	1597.0
37.5°	2117.0	1728.3	1537.6	1468.3	1559.9	1589.6
40°	2107.1	1611.9	1483.1	1394.0	1485.6	1500.5
42.5°	1941.2	1522.8	1391.5	1302.4	1349.4	1399.0
45°	1891.7	1468.3	1302.4	1178.6	1181.1	1238.0
47.5°	1800.1	1344.5	1139.0	1025.1	1025.1	1072.1
50°	1646.6	1178.6	953.3	849.3	846.8	883.9
52.5°	1418.8	1017.7	804.7	690.8	683.4	720.5
55°	1161.3	819.6	633.9	559.6	544.7	559.6
57.5°	903.8	638.8	500.2	440.7	438.3	450.6
60°	700.7	500.2	398.6	364.0	368.9	388.7
62.5°	529.9	398.6	339.2	326.8	334.3	354.1
65°	420.9	344.2	309.5	302.1	309.5	329.3
67.5°	341.7	312.0	287.2	277.3	282.3	302.1
69°	314.5	294.6	274.8	262.5	267.4	282.3
70°	299.6	284.7	264.9	252.6	257.5	272.4
72.5°	262.5	255.0	240.2	227.8	230.3	242.7
75°	230.3	225.3	215.4	200.6	200.6	215.4
77.5°	193.1	195.6	185.7	170.8	168.4	175.8
80°	153.5	158.5	153.5	138.7	133.7	133.7
82.5°	111.4	121.3	116.4	101.5	99.0	99.0
85°	69.3	76.8	74.3	64.4	64.4	56.9
87.5°	32.2	42.1	39.6	34.7	32.2	22.3
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)