

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: P367775

Luminaire Tested: **MSA-SA3A-830-U-SLL-HSS**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367775
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-25)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA3A-830-U-SLL-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS
EACH AND SPILL LIGHT ELIMINATOR LEFT OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6800 lumens
Efficiency: N/A
Efficacy: 70.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

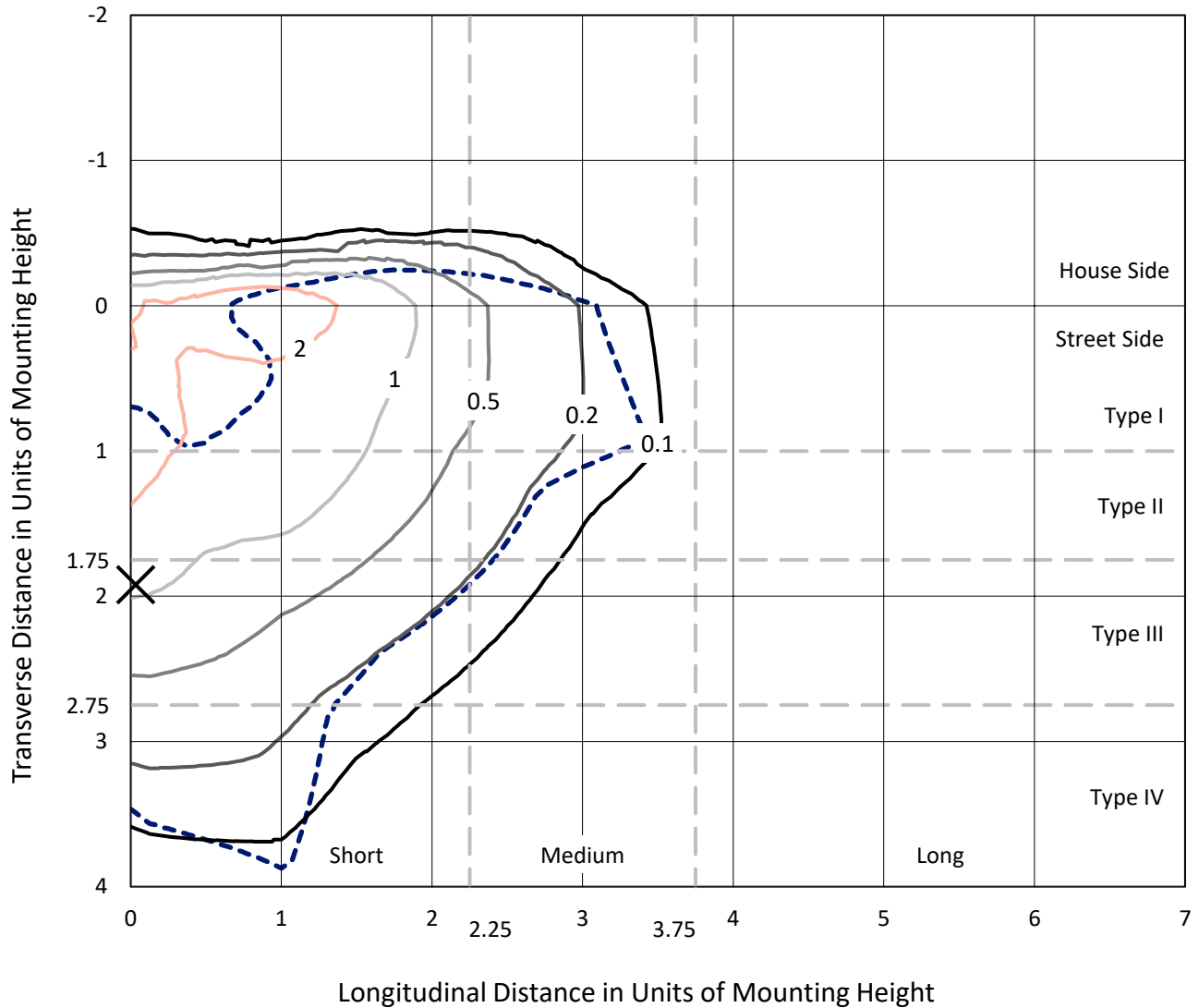
Input Watts (W): 96
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P367775
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Iso-Footcandle Lines of Horizontal Illumination

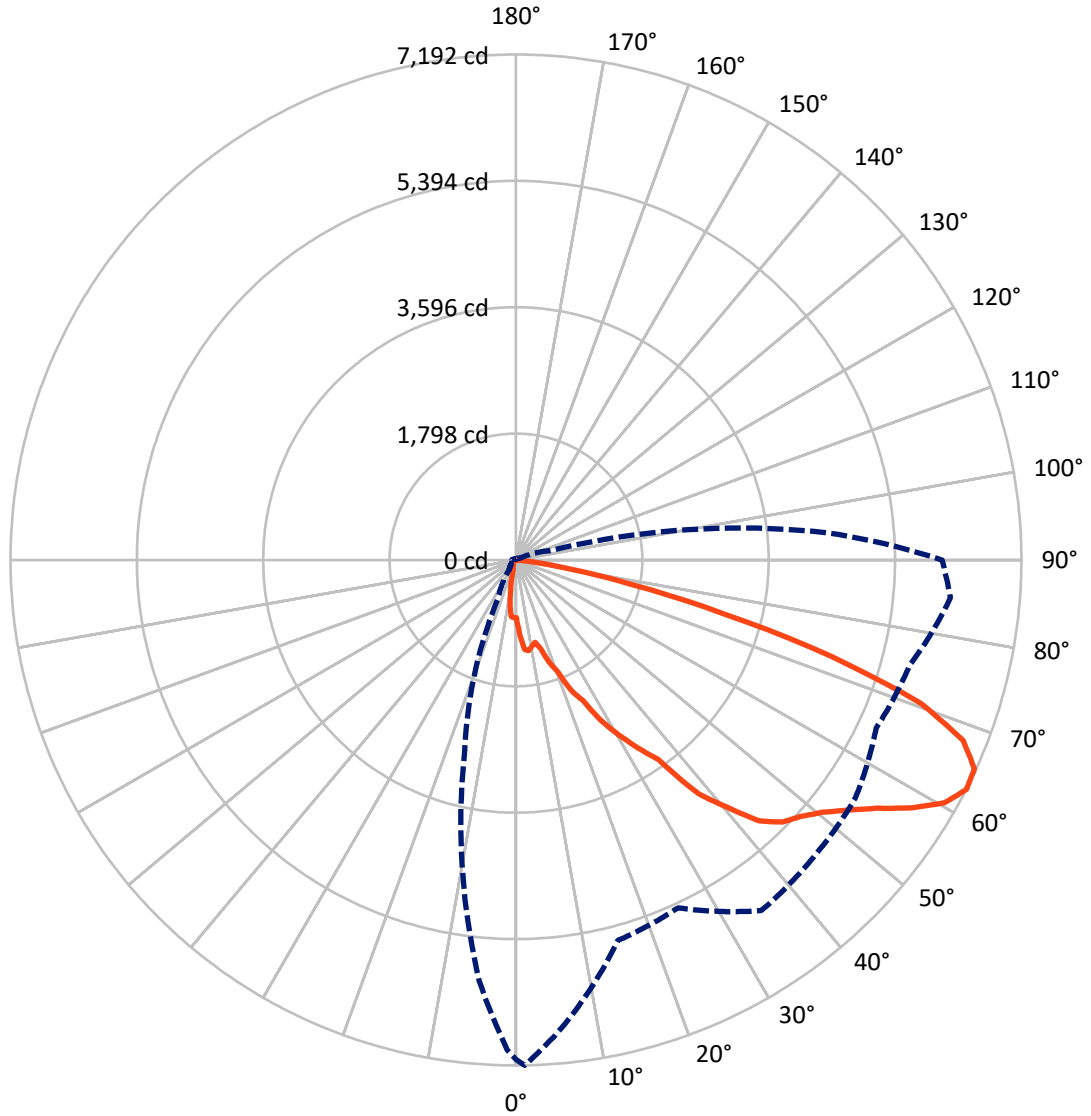
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.5 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 1-Deg Lateral - - - Horizontal Cone Through 62.5-Deg Vertical

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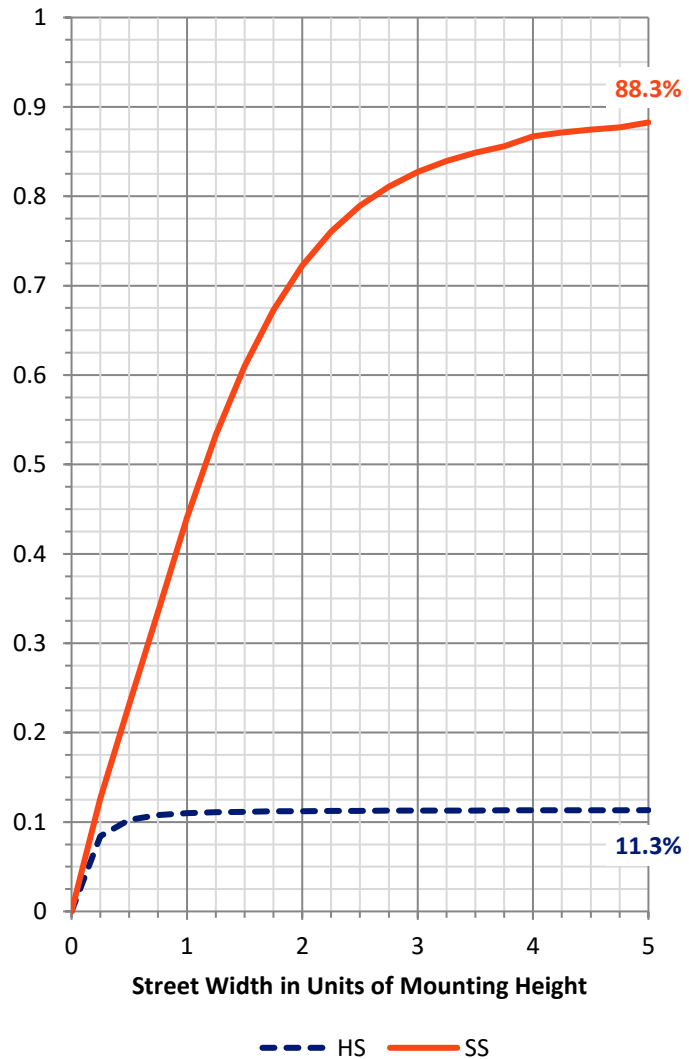
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 777.6 | 0.0 | 777.6 |
| | % Fixture | 11.4 | 0.0 | 11.4 |
| Street Side | Lumens | 6022.4 | 0.0 | 6022.4 |
| | % Fixture | 88.6 | 0.0 | 88.6 |
| Total | Lumens | 6800.0 | 0.0 | 6800.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 91.5 | 1.3 |
| 10°-20° | 239.1 | 3.5 |
| 20°-30° | 386.4 | 5.7 |
| 30°-40° | 647.3 | 9.5 |
| 40°-50° | 1058.4 | 15.6 |
| 50°-60° | 1566.8 | 23.0 |
| 60°-70° | 1798.8 | 26.5 |
| 70°-80° | 889.5 | 13.1 |
| 80°-90° | 122.1 | 1.8 |
| 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° | 6800.0 | 100.0 |
| 0°-180° | 6800.0 | 100.0 |

Coefficient of Utilization

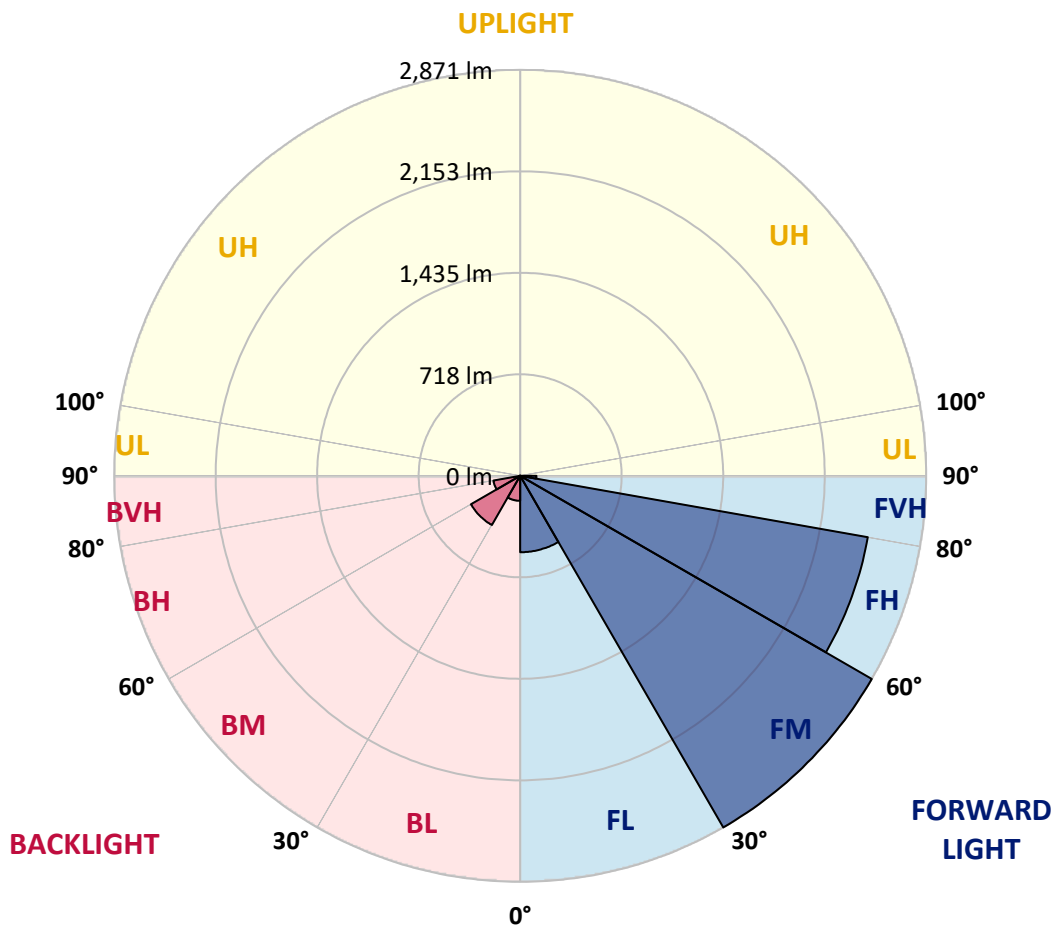


REPORT NUMBER: P367775
 CATALOG NUMBER: MSA-SA3A-830-U-SLL-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 540.1 | 7.9 | | | |
| FM (30°-60°) | 2870.9 | 42.2 | | | |
| FH (60°-80°) | 2496.0 | 36.7 | | | G2/5000 |
| FVH (80°-90°) | 115.3 | 1.7 | | | G2/225 |
| BL (0°-30°) | 176.9 | 2.6 | B1/500 | | |
| BM (30°-60°) | 401.6 | 5.9 | B1/1000 | | |
| BH (60°-80°) | 192.3 | 2.8 | B1/500 | | G1/500 |
| BVH (80°-90°) | 6.8 | 0.1 | | | G0/10 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B1-U0-G2
 Type IV Short





REPORT NUMBER: P367775

CATALOG NUMBER: MSA-SA3A-830-U-SLL-HSS

CANDELA DISTRIBUTION (FULL):

| | 0° | 1° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 819.2 | 819.2 | 819.2 | 819.2 | 819.2 | 819.2 | 819.2 | 819.2 | 819.2 | 819.2 | 819.2 |
| 2.5° | 1056.3 | 1061.4 | 1037.7 | 1034.6 | 979.6 | 1048.2 | 1050.1 | 1058.3 | 1007.9 | 910.2 | 1046.6 |
| 5° | 1264.0 | 1278.0 | 1259.8 | 1340.7 | 1364.0 | 1414.0 | 1322.1 | 1404.3 | 1369.4 | 1379.1 | 1398.9 |
| 7.5° | 1288.8 | 1303.2 | 1341.5 | 1477.1 | 1602.3 | 1570.9 | 1560.8 | 1591.8 | 1589.1 | 1517.4 | 1553.1 |
| 10° | 1237.3 | 1249.3 | 1313.2 | 1560.1 | 1614.7 | 1755.7 | 1790.2 | 1718.9 | 1689.9 | 1532.9 | 1464.4 |
| 12.5° | 1181.1 | 1201.2 | 1282.6 | 1578.7 | 1742.6 | 1885.2 | 1998.7 | 1897.2 | 1800.7 | 1633.7 | 1570.9 |
| 15° | 1288.8 | 1300.1 | 1427.9 | 1617.4 | 1760.8 | 1859.2 | 1952.2 | 1918.5 | 1903.8 | 1783.6 | 1570.9 |
| 17.5° | 1500.0 | 1526.4 | 1619.0 | 1712.3 | 1825.5 | 1884.8 | 1862.7 | 1852.2 | 1814.6 | 2003.4 | 1783.3 |
| 20° | 1650.4 | 1699.6 | 1820.8 | 1861.1 | 1771.2 | 1826.7 | 1813.1 | 1803.8 | 1774.3 | 2125.4 | 2027.4 |
| 22.5° | 1975.8 | 2021.2 | 2023.5 | 2037.8 | 1828.6 | 1740.2 | 1717.8 | 1720.5 | 1854.2 | 2161.8 | 2331.2 |
| 25° | 2197.5 | 2213.0 | 2335.4 | 2233.1 | 1985.1 | 1766.6 | 1681.0 | 1719.3 | 1911.9 | 2423.8 | 2616.8 |
| 27.5° | 2560.2 | 2597.0 | 2673.3 | 2326.9 | 2078.9 | 1749.9 | 1613.5 | 1753.0 | 2063.8 | 2510.6 | 2934.1 |
| 30° | 2855.9 | 2891.1 | 3014.0 | 2455.2 | 2160.3 | 1832.5 | 1642.6 | 1820.8 | 2158.4 | 2689.2 | 3219.3 |
| 32.5° | 3095.7 | 3186.8 | 3326.3 | 2653.2 | 2157.2 | 1927.4 | 1791.0 | 1798.4 | 2274.6 | 2920.6 | 3501.4 |
| 35° | 3402.2 | 3487.1 | 3585.1 | 2789.6 | 2298.2 | 1958.0 | 1834.8 | 2019.2 | 2447.4 | 3162.4 | 3881.2 |
| 37.5° | 4093.1 | 4221.4 | 4027.6 | 3133.3 | 2462.5 | 2234.7 | 2007.6 | 2155.3 | 2628.4 | 3409.2 | 4403.1 |
| 40° | 4514.7 | 4622.8 | 4435.7 | 3308.8 | 2747.0 | 2374.2 | 2316.1 | 2391.6 | 2805.5 | 3536.7 | 4796.4 |
| 42.5° | 4930.1 | 5072.7 | 4760.0 | 3573.1 | 3017.1 | 2767.9 | 2609.0 | 2669.9 | 3061.6 | 3844.4 | 5239.0 |
| 45° | 5230.8 | 5319.2 | 4830.2 | 3711.4 | 3388.3 | 3216.6 | 3110.8 | 3020.2 | 3418.9 | 4042.0 | 5524.5 |
| 47.5° | 5381.9 | 5452.5 | 4968.5 | 3755.2 | 3609.1 | 3691.3 | 3923.0 | 3733.5 | 3735.1 | 4185.0 | 5678.4 |
| 50° | 5591.2 | 5640.4 | 5046.0 | 3807.5 | 3849.0 | 4431.0 | 4548.1 | 4144.7 | 4096.2 | 4328.3 | 5703.6 |
| 52.5° | 5885.3 | 5909.3 | 5196.3 | 3945.5 | 4208.2 | 5010.3 | 5052.6 | 4889.4 | 4457.8 | 4594.9 | 5759.4 |
| 55° | 6276.3 | 6234.1 | 5464.9 | 4235.3 | 4582.9 | 5434.6 | 5491.2 | 5349.0 | 4912.3 | 4861.2 | 5932.2 |
| 57.5° | 6697.9 | 6649.5 | 5862.8 | 4643.8 | 4989.4 | 5759.0 | 5792.7 | 5803.9 | 5214.2 | 5096.8 | 6225.9 |
| 60° | 7000.1 | 7009.0 | 6363.9 | 5112.2 | 5242.1 | 6069.4 | 6001.9 | 5899.6 | 5518.7 | 5442.0 | 6368.9 |
| 62.5° | 7105.9 | 7191.6 | 6754.1 | 5603.2 | 5459.8 | 6088.7 | 5984.1 | 5897.7 | 5655.1 | 5798.1 | 6205.0 |
| 65° | 7019.5 | 7169.1 | 6844.7 | 6034.5 | 5591.6 | 5845.8 | 5736.9 | 5681.5 | 5650.9 | 5943.4 | 5842.3 |
| 67.5° | 6676.2 | 6863.3 | 6585.1 | 6038.4 | 5112.6 | 4977.4 | 5106.1 | 5281.6 | 5180.1 | 5822.9 | 5334.3 |
| 70° | 5907.0 | 6112.0 | 5982.6 | 5684.2 | 4259.0 | 3916.0 | 4057.9 | 4323.3 | 4251.6 | 5178.9 | 4586.8 |
| 72.5° | 4431.8 | 4695.3 | 4720.9 | 4907.3 | 3380.9 | 2947.3 | 2967.8 | 2960.5 | 3084.1 | 4176.1 | 3579.3 |
| 75° | 2846.9 | 3051.9 | 3329.0 | 3959.8 | 2568.3 | 2151.8 | 1954.9 | 1906.9 | 2137.4 | 3263.1 | 2562.5 |
| 77.5° | 1652.7 | 1677.1 | 1805.0 | 2987.6 | 1839.4 | 1550.4 | 1416.3 | 1484.9 | 1565.5 | 2277.3 | 1698.4 |
| 80° | 790.5 | 802.9 | 855.6 | 1537.2 | 1278.0 | 1341.9 | 1238.4 | 1315.6 | 1074.9 | 1309.0 | 963.7 |
| 82.5° | 250.7 | 253.4 | 262.3 | 755.2 | 793.6 | 888.9 | 569.6 | 763.8 | 664.6 | 791.3 | 641.7 |
| 85° | 41.8 | 71.3 | 88.0 | 218.2 | 447.9 | 299.9 | 123.6 | 272.4 | 370.8 | 499.1 | 291.4 |
| 87.5° | 0.0 | 0.0 | 0.0 | 3.9 | 36.4 | 17.0 | 2.7 | 15.5 | 57.0 | 111.2 | 13.2 |
| 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):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|-------|-------|-------|-------|-------|-------|
| 0° | 819.2 | 819.2 | 819.2 | 819.2 | 819.2 | 819.2 | 819.2 | 819.2 | 819.2 | 819.2 | 819.2 |
| 2.5° | 1086.2 | 1112.9 | 1012.1 | 921.9 | 944.7 | 926.5 | 899.0 | 852.1 | 743.6 | 823.4 | 818.0 |
| 5° | 1397.7 | 1348.1 | 1211.7 | 1148.2 | 1070.7 | 952.5 | 938.1 | 847.5 | 807.5 | 814.1 | 808.3 |
| 7.5° | 1506.2 | 1417.5 | 1297.0 | 1105.5 | 923.8 | 753.3 | 701.0 | 641.7 | 629.7 | 655.3 | 671.9 |
| 10° | 1421.0 | 1326.8 | 1221.4 | 983.5 | 843.6 | 720.4 | 591.3 | 508.4 | 463.4 | 458.0 | 462.7 |
| 12.5° | 1460.1 | 1358.6 | 1141.6 | 959.4 | 813.4 | 701.8 | 557.6 | 432.4 | 334.8 | 342.2 | 322.8 |
| 15° | 1487.2 | 1370.6 | 1122.6 | 909.1 | 751.0 | 601.8 | 428.2 | 303.0 | 223.2 | 199.9 | 186.0 |
| 17.5° | 1646.5 | 1479.9 | 1098.6 | 850.9 | 663.8 | 468.5 | 268.9 | 175.5 | 149.6 | 141.4 | 134.8 |
| 20° | 1851.1 | 1614.3 | 1098.2 | 789.7 | 535.1 | 292.9 | 167.8 | 127.1 | 120.9 | 125.5 | 120.5 |
| 22.5° | 2089.0 | 1793.3 | 1156.7 | 713.4 | 384.0 | 184.8 | 130.6 | 112.8 | 106.6 | 110.4 | 110.8 |
| 25° | 2328.5 | 2061.9 | 1204.3 | 640.9 | 267.4 | 141.8 | 116.2 | 103.8 | 96.9 | 100.4 | 98.4 |
| 27.5° | 2760.9 | 2284.3 | 1193.5 | 548.3 | 196.8 | 124.8 | 108.1 | 97.3 | 86.8 | 92.2 | 91.8 |
| 30° | 3043.8 | 2676.8 | 1235.7 | 418.5 | 156.2 | 109.3 | 100.7 | 88.7 | 77.5 | 83.7 | 83.3 |
| 32.5° | 3382.1 | 2845.4 | 1281.5 | 321.2 | 129.8 | 103.5 | 90.7 | 79.0 | 72.5 | 76.3 | 75.6 |
| 35° | 3762.2 | 3178.6 | 1197.4 | 267.4 | 112.8 | 93.4 | 80.2 | 71.3 | 65.5 | 67.4 | 67.4 |
| 37.5° | 4433.7 | 3457.2 | 1147.0 | 217.8 | 105.0 | 84.5 | 75.2 | 64.3 | 60.8 | 60.8 | 62.8 |
| 40° | 4815.0 | 3882.7 | 996.6 | 172.4 | 107.3 | 77.9 | 70.1 | 58.9 | 54.2 | 53.9 | 55.8 |
| 42.5° | 5311.0 | 4128.0 | 902.5 | 139.5 | 97.3 | 75.9 | 64.3 | 53.5 | 48.0 | 47.7 | 49.6 |
| 45° | 5605.1 | 4265.2 | 770.0 | 109.7 | 87.2 | 88.3 | 59.7 | 49.2 | 41.1 | 39.5 | 43.0 |
| 47.5° | 5790.8 | 4446.9 | 694.8 | 87.2 | 75.9 | 88.0 | 58.1 | 42.6 | 34.5 | 32.5 | 35.6 |
| 50° | 5884.9 | 4536.8 | 680.1 | 74.8 | 65.9 | 78.7 | 66.6 | 35.6 | 29.4 | 26.7 | 29.4 |
| 52.5° | 5983.0 | 4682.9 | 685.5 | 69.0 | 58.1 | 63.2 | 63.2 | 30.6 | 26.0 | 22.9 | 24.8 |
| 55° | 6181.0 | 4898.7 | 673.5 | 65.5 | 53.5 | 48.0 | 40.7 | 27.1 | 23.6 | 20.1 | 22.1 |
| 57.5° | 6424.3 | 5053.7 | 673.5 | 62.4 | 49.6 | 41.1 | 32.5 | 25.2 | 21.7 | 17.4 | 19.0 |
| 60° | 6378.2 | 4890.6 | 640.1 | 59.3 | 46.5 | 38.4 | 29.4 | 23.2 | 20.1 | 15.9 | 17.0 |
| 62.5° | 6061.6 | 4446.9 | 518.5 | 54.6 | 43.8 | 36.4 | 26.7 | 22.1 | 19.0 | 13.9 | 15.1 |
| 65° | 5689.6 | 3975.7 | 360.4 | 49.6 | 40.7 | 32.9 | 24.0 | 20.9 | 17.4 | 12.4 | 13.2 |
| 67.5° | 5241.7 | 3414.2 | 199.9 | 44.6 | 37.6 | 28.7 | 22.1 | 20.5 | 16.7 | 11.2 | 12.0 |
| 70° | 4464.4 | 2577.6 | 107.3 | 40.7 | 35.3 | 26.3 | 20.9 | 20.5 | 16.7 | 10.8 | 11.2 |
| 72.5° | 3351.5 | 1623.2 | 62.8 | 37.2 | 32.2 | 24.4 | 19.8 | 20.9 | 16.3 | 10.5 | 10.5 |
| 75° | 2280.4 | 985.4 | 44.9 | 31.8 | 28.7 | 20.5 | 19.0 | 20.1 | 16.7 | 10.5 | 9.7 |
| 77.5° | 1550.4 | 692.5 | 36.8 | 28.7 | 26.0 | 18.2 | 19.4 | 20.1 | 16.7 | 8.5 | 6.6 |
| 80° | 968.0 | 357.3 | 27.9 | 22.9 | 22.5 | 15.9 | 19.4 | 17.4 | 10.8 | 1.9 | 0.0 |
| 82.5° | 677.0 | 132.9 | 16.3 | 17.4 | 17.4 | 11.2 | 15.1 | 12.4 | 6.2 | 0.0 | 0.0 |
| 85° | 284.0 | 22.9 | 8.9 | 12.4 | 10.8 | 6.6 | 12.0 | 9.3 | 3.9 | 0.0 | 0.0 |
| 87.5° | 5.0 | 0.0 | 3.5 | 7.4 | 7.7 | 3.9 | 6.2 | 3.9 | 0.0 | 0.0 | 0.0 |
| 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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 CATALOG NUMBER: MSA-SA3A-830-U-SLL-HSS

CANDELA DISTRIBUTION (continued):

| | 185° | 195° | 205° | 215° | 225° | 235° | 245° | 255° | 265° | 270° | 275° |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0° | 819.2 | 819.2 | 819.2 | 819.2 | 819.2 | 819.2 | 819.2 | 819.2 | 819.2 | 819.2 | 819.2 |
| 2.5° | 843.6 | 806.8 | 729.3 | 766.5 | 762.6 | 779.6 | 781.2 | 741.7 | 826.9 | 879.6 | 887.4 |
| 5° | 809.1 | 784.3 | 780.0 | 758.7 | 753.3 | 784.7 | 767.6 | 766.5 | 807.5 | 867.6 | 868.0 |
| 7.5° | 672.3 | 653.3 | 662.2 | 637.4 | 573.5 | 577.4 | 583.2 | 607.6 | 642.9 | 682.4 | 696.7 |
| 10° | 461.5 | 510.7 | 474.7 | 471.6 | 465.0 | 444.5 | 428.2 | 441.0 | 486.7 | 523.1 | 536.7 |
| 12.5° | 329.4 | 337.1 | 359.2 | 351.1 | 362.3 | 344.9 | 338.3 | 378.2 | 422.8 | 460.0 | 486.7 |
| 15° | 192.6 | 205.8 | 218.9 | 246.8 | 258.1 | 254.6 | 274.7 | 308.1 | 344.1 | 361.1 | 394.1 |
| 17.5° | 135.6 | 136.8 | 139.5 | 169.7 | 189.5 | 197.2 | 209.2 | 234.4 | 249.2 | 256.9 | 270.5 |
| 20° | 118.6 | 115.1 | 110.4 | 127.5 | 146.1 | 155.8 | 152.3 | 172.0 | 184.1 | 191.8 | 201.5 |
| 22.5° | 107.3 | 101.5 | 98.8 | 104.6 | 119.0 | 127.5 | 129.0 | 140.7 | 158.9 | 164.3 | 167.4 |
| 25° | 96.9 | 93.0 | 91.1 | 94.2 | 101.9 | 110.0 | 111.6 | 126.7 | 143.0 | 145.3 | 151.5 |
| 27.5° | 89.9 | 82.5 | 83.3 | 85.6 | 89.1 | 99.2 | 102.3 | 110.8 | 134.5 | 137.2 | 139.1 |
| 30° | 82.5 | 74.8 | 77.1 | 79.4 | 77.9 | 90.3 | 94.9 | 104.6 | 127.5 | 131.7 | 134.1 |
| 32.5° | 75.2 | 69.4 | 69.0 | 71.3 | 74.0 | 80.6 | 90.7 | 101.9 | 122.8 | 128.6 | 134.5 |
| 35° | 67.0 | 62.4 | 63.2 | 63.5 | 67.0 | 75.6 | 82.9 | 88.7 | 103.1 | 106.2 | 108.1 |
| 37.5° | 61.2 | 57.3 | 56.6 | 60.4 | 63.9 | 70.5 | 73.2 | 75.9 | 94.9 | 101.9 | 102.3 |
| 40° | 54.2 | 51.9 | 51.9 | 54.6 | 62.4 | 61.6 | 65.1 | 73.6 | 91.8 | 99.2 | 100.0 |
| 42.5° | 49.2 | 46.1 | 46.9 | 49.6 | 55.0 | 51.1 | 58.1 | 70.5 | 90.7 | 98.0 | 97.6 |
| 45° | 41.5 | 40.7 | 42.2 | 44.6 | 46.9 | 43.4 | 54.2 | 67.4 | 86.8 | 96.5 | 93.8 |
| 47.5° | 34.5 | 34.5 | 36.4 | 38.7 | 37.6 | 38.7 | 49.2 | 63.2 | 84.5 | 93.4 | 91.4 |
| 50° | 28.3 | 28.7 | 30.6 | 34.5 | 31.0 | 34.1 | 44.2 | 58.9 | 80.6 | 90.3 | 88.7 |
| 52.5° | 24.0 | 24.4 | 25.6 | 28.3 | 26.7 | 31.0 | 40.7 | 54.6 | 76.7 | 84.9 | 84.1 |
| 55° | 20.9 | 21.7 | 21.7 | 23.2 | 24.0 | 29.1 | 36.8 | 50.4 | 70.9 | 79.8 | 78.3 |
| 57.5° | 18.6 | 19.4 | 19.0 | 20.1 | 20.9 | 25.6 | 32.9 | 45.7 | 65.1 | 72.5 | 70.1 |
| 60° | 16.7 | 17.4 | 17.0 | 18.6 | 18.2 | 22.1 | 28.7 | 40.7 | 58.9 | 64.7 | 62.8 |
| 62.5° | 14.7 | 15.5 | 15.5 | 16.3 | 16.7 | 18.6 | 24.8 | 36.0 | 52.7 | 57.3 | 55.8 |
| 65° | 13.2 | 13.9 | 14.3 | 13.9 | 14.7 | 15.9 | 20.9 | 32.5 | 45.7 | 50.4 | 48.0 |
| 67.5° | 12.0 | 12.8 | 13.6 | 12.0 | 12.8 | 13.2 | 17.8 | 29.1 | 40.3 | 44.2 | 42.2 |
| 70° | 11.6 | 12.0 | 12.0 | 10.5 | 10.1 | 10.5 | 15.5 | 24.8 | 35.3 | 39.1 | 36.4 |
| 72.5° | 10.8 | 11.2 | 10.8 | 8.5 | 7.4 | 8.1 | 13.2 | 20.9 | 29.8 | 32.9 | 30.6 |
| 75° | 10.1 | 10.5 | 10.1 | 7.0 | 4.6 | 5.8 | 10.8 | 18.2 | 25.6 | 27.1 | 26.0 |
| 77.5° | 8.5 | 9.3 | 9.3 | 5.0 | 1.5 | 3.5 | 8.1 | 14.7 | 21.3 | 21.3 | 21.7 |
| 80° | 0.8 | 2.3 | 3.9 | 2.7 | 0.0 | 0.4 | 2.7 | 7.7 | 13.6 | 13.2 | 14.3 |
| 82.5° | 0.0 | 0.0 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.6 | 3.5 | 3.9 |
| 85° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 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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| 32.5° | 136.4 | 142.2 | 151.9 | 182.5 | 318.5 | 666.9 | 1531.8 | 2786.1 | 2992.3 | 3095.7 |
| 35° | 108.1 | 118.6 | 135.6 | 167.4 | 303.4 | 664.6 | 1612.8 | 3000.0 | 3338.3 | 3402.2 |
| 37.5° | 105.8 | 115.5 | 137.6 | 163.1 | 321.6 | 682.4 | 1732.9 | 3438.3 | 3962.2 | 4093.1 |
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| 42.5° | 101.5 | 117.4 | 135.6 | 169.3 | 311.5 | 709.5 | 1925.5 | 4138.9 | 4825.1 | 4930.1 |
| 45° | 100.7 | 119.7 | 136.8 | 179.0 | 309.2 | 741.3 | 1991.0 | 4309.0 | 5110.3 | 5230.8 |
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| 70° | 43.8 | 52.3 | 55.0 | 68.6 | 189.5 | 445.6 | 1749.9 | 4251.2 | 5714.8 | 5907.0 |
| 72.5° | 36.4 | 48.4 | 49.2 | 60.1 | 182.5 | 409.6 | 1247.0 | 3051.9 | 4339.6 | 4431.8 |
| 75° | 31.4 | 40.3 | 44.6 | 50.4 | 153.4 | 305.7 | 687.0 | 1889.0 | 2743.9 | 2846.9 |
| 77.5° | 28.3 | 30.6 | 33.7 | 34.9 | 65.1 | 159.3 | 236.4 | 1164.8 | 1536.4 | 1652.7 |
| 80° | 21.7 | 24.0 | 23.2 | 24.0 | 35.6 | 55.0 | 89.9 | 546.0 | 725.8 | 790.5 |
| 82.5° | 7.0 | 11.6 | 12.8 | 10.8 | 23.2 | 27.1 | 26.0 | 188.7 | 236.0 | 250.7 |
| 85° | 1.5 | 4.3 | 1.9 | 0.0 | 7.7 | 13.9 | 1.9 | 28.7 | 56.6 | 41.8 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

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