

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: P367005

Luminaire Tested: **MSA-SA1D-727-U-SLL-HSS**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367005
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-SA1D-727-U-SLL-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (1) 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: 4183 lumens
Efficiency: N/A
Efficacy: 62.4 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G1

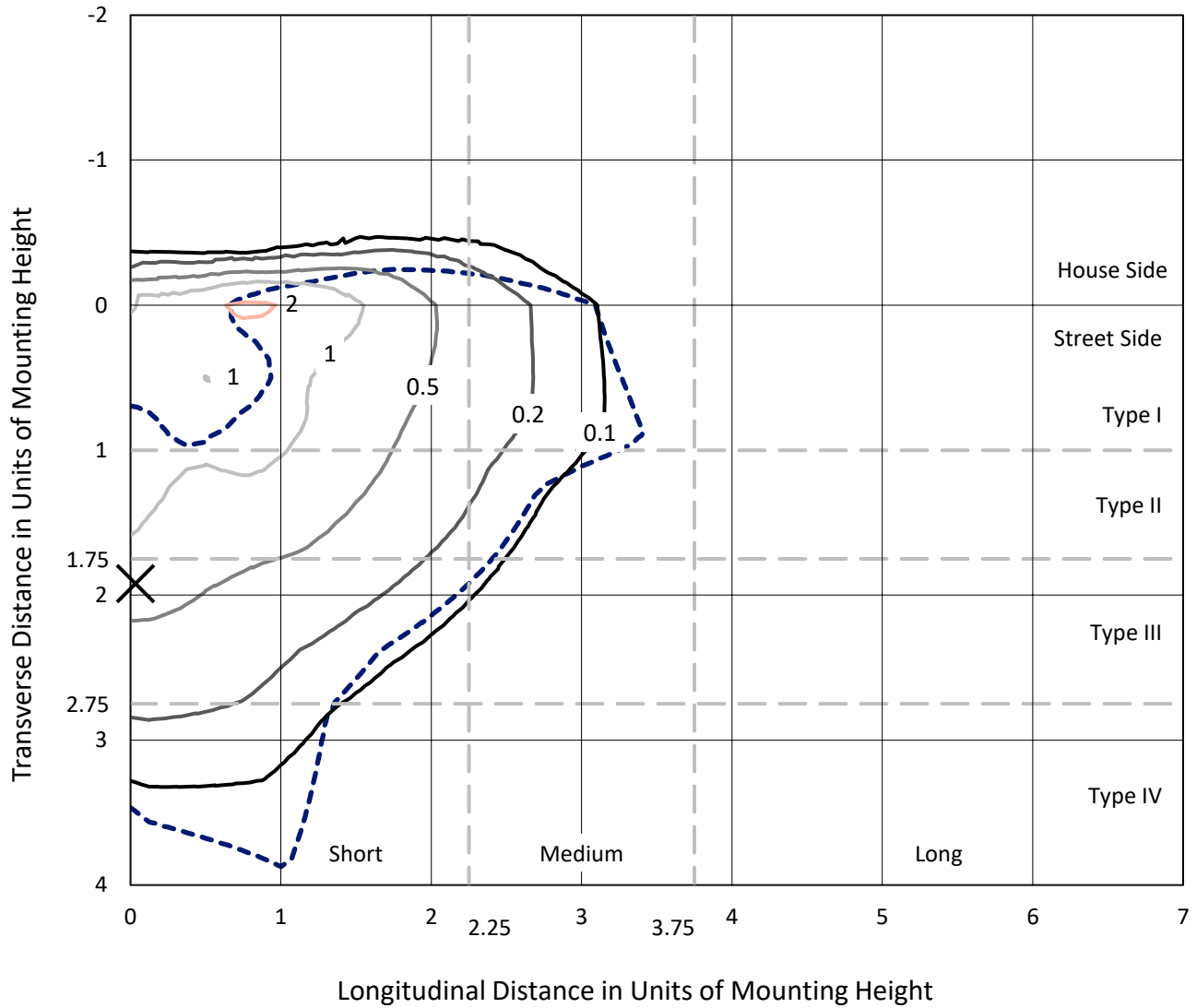
Input Watts (W): 67
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

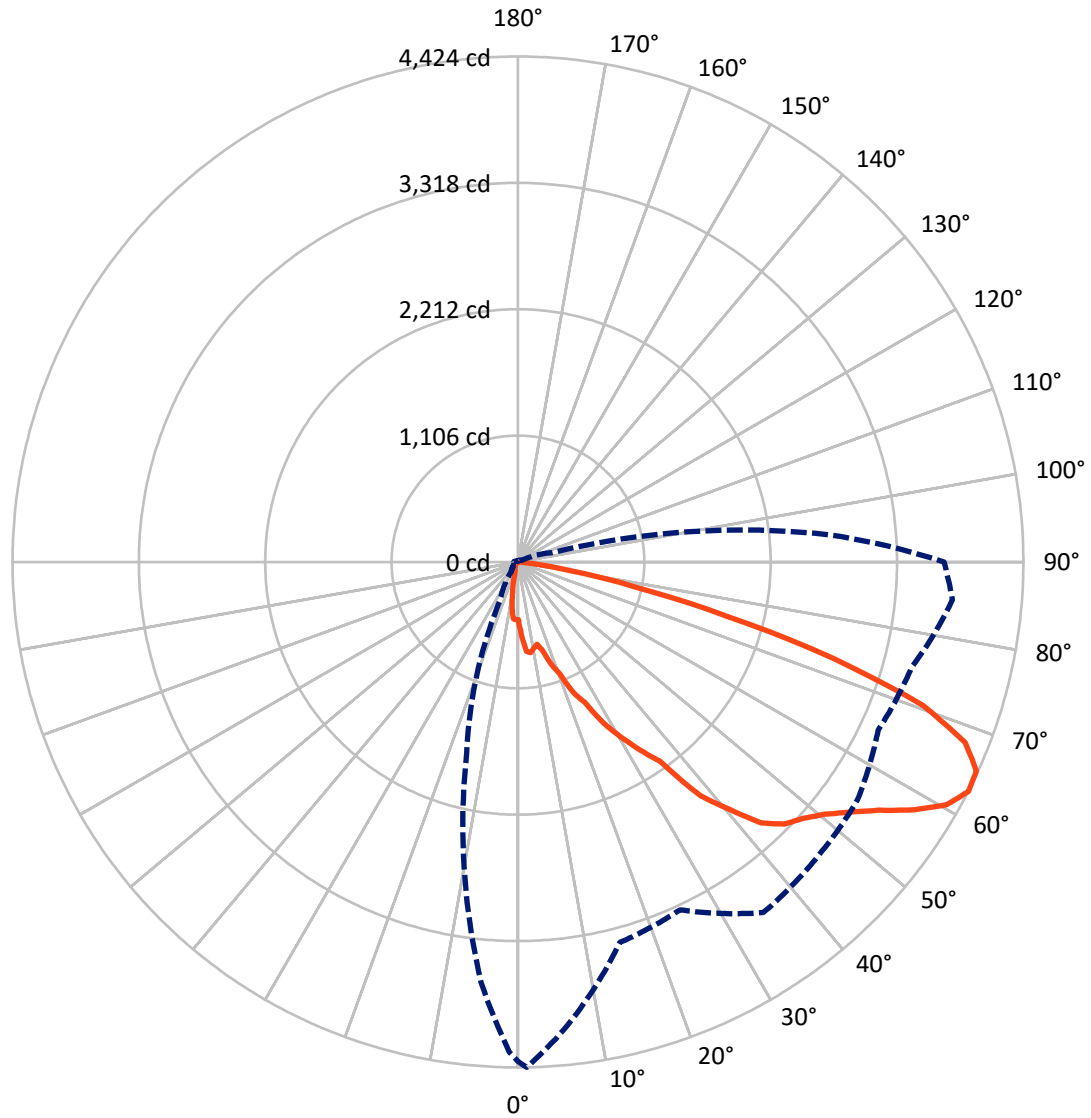
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.1 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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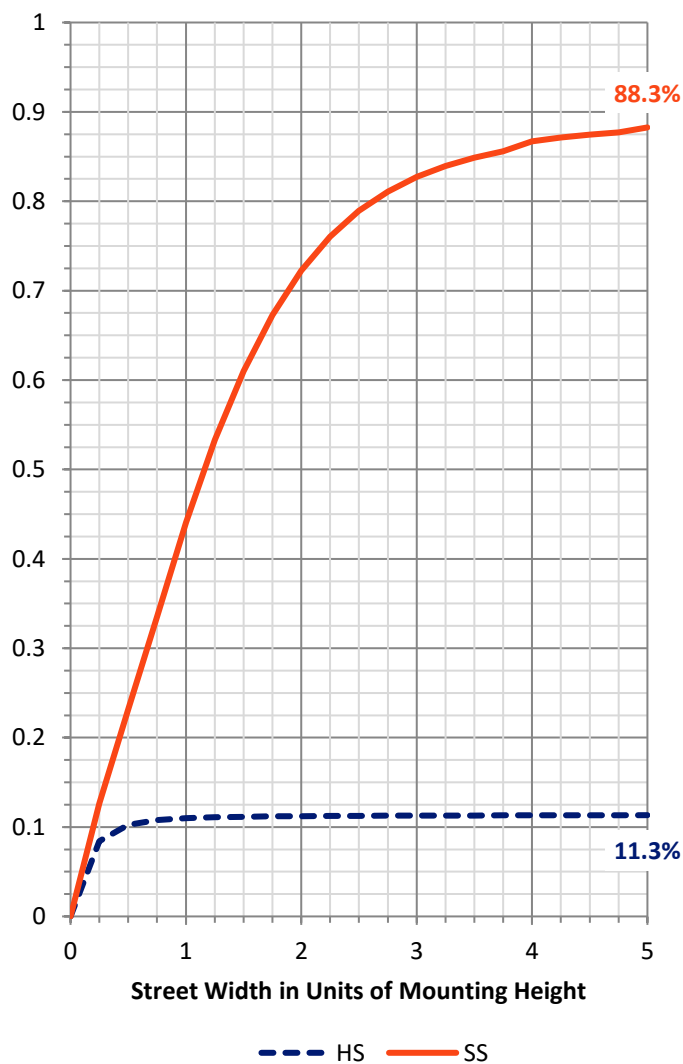
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 478.3 | 0.0 | 478.3 |
| | % Fixture | 11.4 | 0.0 | 11.4 |
| Street Side | Lumens | 3704.7 | 0.0 | 3704.7 |
| | % Fixture | 88.6 | 0.0 | 88.6 |
| Total | Lumens | 4183.0 | 0.0 | 4183.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 56.3 | 1.3 |
| 10°-20° | 147.1 | 3.5 |
| 20°-30° | 237.7 | 5.7 |
| 30°-40° | 398.2 | 9.5 |
| 40°-50° | 651.1 | 15.6 |
| 50°-60° | 963.8 | 23.0 |
| 60°-70° | 1106.5 | 26.5 |
| 70°-80° | 547.2 | 13.1 |
| 80°-90° | 75.1 | 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° | 4183.0 | 100.0 |
| 0°-180° | 4183.0 | 100.0 |

Coefficient of Utilization

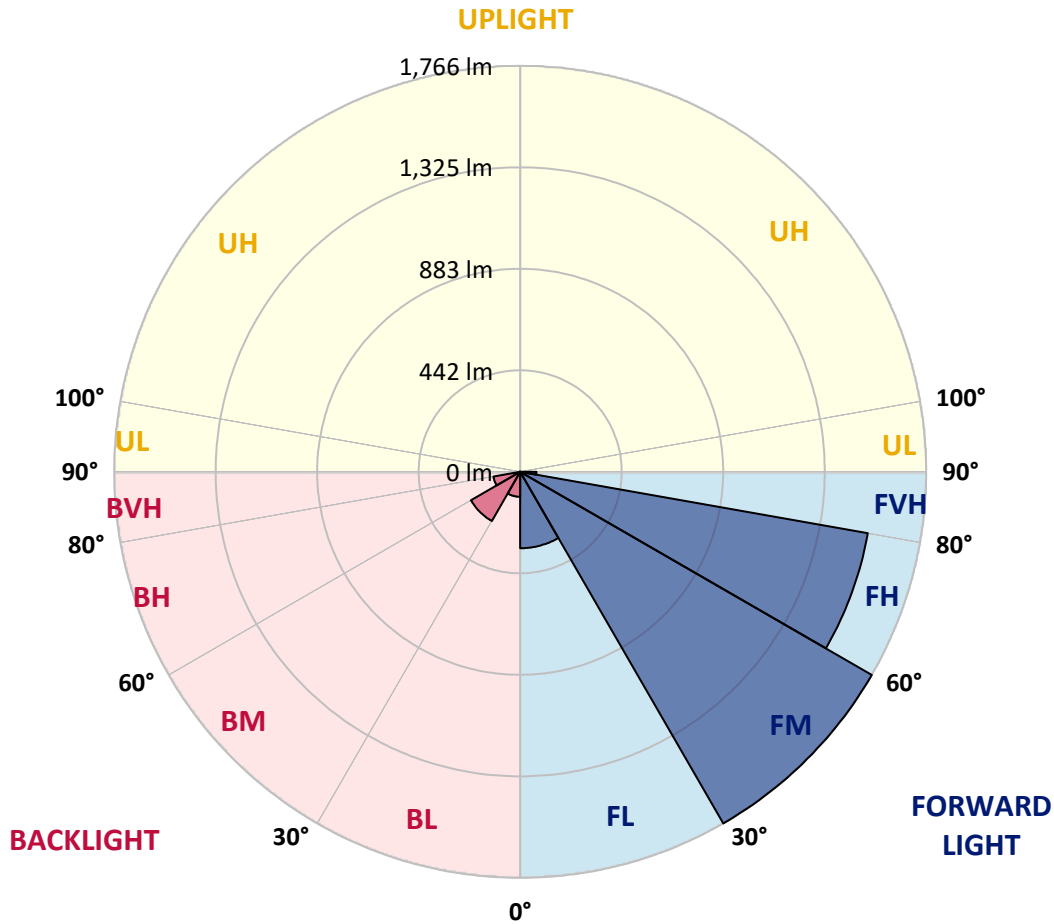


REPORT NUMBER: P367005
 CATALOG NUMBER: MSA-SA1D-727-U-SLL-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 332.3 | 7.9 | | | |
| FM (30°-60°) | 1766.0 | 42.2 | | | |
| FH (60°-80°) | 1535.4 | 36.7 | | | G1/1800 |
| FVH (80°-90°) | 71.0 | 1.7 | | | G1/100 |
| BL (0°-30°) | 108.8 | 2.6 | B0/110 | | |
| BM (30°-60°) | 247.1 | 5.9 | B1/1000 | | |
| BH (60°-80°) | 118.3 | 2.8 | B1/500 | | G1/500 |
| BVH (80°-90°) | 4.2 | 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-G1
 Type IV Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 1° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 503.9 | 503.9 | 503.9 | 503.9 | 503.9 | 503.9 | 503.9 | 503.9 | 503.9 | 503.9 | 503.9 |
| 2.5° | 649.8 | 652.9 | 638.3 | 636.4 | 602.6 | 644.8 | 646.0 | 651.0 | 620.0 | 559.9 | 643.8 |
| 5° | 777.6 | 786.1 | 774.9 | 824.8 | 839.1 | 869.8 | 813.3 | 863.8 | 842.4 | 848.4 | 860.5 |
| 7.5° | 792.8 | 801.6 | 825.2 | 908.7 | 985.7 | 966.3 | 960.1 | 979.2 | 977.5 | 933.4 | 955.4 |
| 10° | 761.1 | 768.5 | 807.8 | 959.7 | 993.3 | 1080.0 | 1101.3 | 1057.4 | 1039.5 | 943.0 | 900.8 |
| 12.5° | 726.5 | 738.9 | 789.0 | 971.1 | 1071.9 | 1159.7 | 1229.5 | 1167.0 | 1107.7 | 1005.0 | 966.3 |
| 15° | 792.8 | 799.7 | 878.4 | 994.9 | 1083.1 | 1143.7 | 1200.9 | 1180.2 | 1171.1 | 1097.2 | 966.3 |
| 17.5° | 922.7 | 938.9 | 995.9 | 1053.3 | 1123.0 | 1159.4 | 1145.8 | 1139.4 | 1116.3 | 1232.4 | 1097.0 |
| 20° | 1015.2 | 1045.5 | 1120.1 | 1144.9 | 1089.6 | 1123.7 | 1115.3 | 1109.6 | 1091.5 | 1307.4 | 1247.1 |
| 22.5° | 1215.4 | 1243.3 | 1244.8 | 1253.6 | 1124.9 | 1070.5 | 1056.7 | 1058.4 | 1140.6 | 1329.9 | 1434.0 |
| 25° | 1351.8 | 1361.3 | 1436.6 | 1373.7 | 1221.2 | 1086.7 | 1034.0 | 1057.6 | 1176.1 | 1491.0 | 1609.7 |
| 27.5° | 1574.9 | 1597.5 | 1644.5 | 1431.4 | 1278.8 | 1076.5 | 992.6 | 1078.4 | 1269.5 | 1544.4 | 1804.9 |
| 30° | 1756.8 | 1778.5 | 1854.0 | 1510.3 | 1328.9 | 1127.2 | 1010.4 | 1120.1 | 1327.7 | 1654.3 | 1980.4 |
| 32.5° | 1904.3 | 1960.3 | 2046.1 | 1632.1 | 1327.0 | 1185.6 | 1101.7 | 1106.3 | 1399.2 | 1796.6 | 2153.9 |
| 35° | 2092.9 | 2145.1 | 2205.4 | 1716.0 | 1413.8 | 1204.5 | 1128.7 | 1242.1 | 1505.5 | 1945.3 | 2387.5 |
| 37.5° | 2517.9 | 2596.8 | 2477.6 | 1927.4 | 1514.8 | 1374.7 | 1235.0 | 1325.8 | 1616.8 | 2097.2 | 2708.6 |
| 40° | 2777.2 | 2843.7 | 2728.6 | 2035.4 | 1689.8 | 1460.5 | 1424.7 | 1471.2 | 1725.8 | 2175.6 | 2950.5 |
| 42.5° | 3032.8 | 3120.5 | 2928.1 | 2198.0 | 1855.9 | 1702.7 | 1604.9 | 1642.4 | 1883.3 | 2364.8 | 3222.7 |
| 45° | 3217.7 | 3272.1 | 2971.3 | 2283.1 | 2084.3 | 1978.7 | 1913.6 | 1857.8 | 2103.1 | 2486.4 | 3398.4 |
| 47.5° | 3310.7 | 3354.1 | 3056.4 | 2310.0 | 2220.2 | 2270.7 | 2413.2 | 2296.7 | 2297.6 | 2574.4 | 3493.0 |
| 50° | 3439.4 | 3469.7 | 3104.0 | 2342.2 | 2367.7 | 2725.7 | 2797.7 | 2549.6 | 2519.8 | 2662.6 | 3508.5 |
| 52.5° | 3620.3 | 3635.1 | 3196.5 | 2427.1 | 2588.7 | 3082.1 | 3108.1 | 3007.7 | 2742.2 | 2826.6 | 3542.9 |
| 55° | 3860.8 | 3834.9 | 3361.7 | 2605.4 | 2819.2 | 3343.1 | 3377.9 | 3290.4 | 3021.8 | 2990.3 | 3649.2 |
| 57.5° | 4120.2 | 4090.4 | 3606.5 | 2856.6 | 3069.2 | 3542.6 | 3563.4 | 3570.3 | 3207.5 | 3135.3 | 3829.9 |
| 60° | 4306.1 | 4311.6 | 3914.7 | 3144.8 | 3224.6 | 3733.6 | 3692.1 | 3629.1 | 3394.8 | 3347.6 | 3917.8 |
| 62.5° | 4371.2 | 4423.9 | 4154.7 | 3446.8 | 3358.6 | 3745.5 | 3681.1 | 3628.0 | 3478.7 | 3566.7 | 3817.0 |
| 65° | 4318.0 | 4410.0 | 4210.5 | 3712.1 | 3439.6 | 3596.0 | 3529.0 | 3494.9 | 3476.1 | 3656.1 | 3593.9 |
| 67.5° | 4106.8 | 4222.0 | 4050.8 | 3714.5 | 3145.0 | 3061.8 | 3141.0 | 3249.0 | 3186.5 | 3582.0 | 3281.4 |
| 70° | 3633.7 | 3759.8 | 3680.2 | 3496.6 | 2619.9 | 2408.9 | 2496.2 | 2659.5 | 2615.4 | 3185.8 | 2821.6 |
| 72.5° | 2726.2 | 2888.3 | 2904.0 | 3018.7 | 2079.8 | 1813.0 | 1825.7 | 1821.1 | 1897.2 | 2568.9 | 2201.8 |
| 75° | 1751.3 | 1877.4 | 2047.8 | 2435.9 | 1579.9 | 1323.7 | 1202.6 | 1173.0 | 1314.8 | 2007.3 | 1576.3 |
| 77.5° | 1016.6 | 1031.7 | 1110.3 | 1837.8 | 1131.5 | 953.7 | 871.2 | 913.4 | 963.0 | 1400.9 | 1044.8 |
| 80° | 486.3 | 493.9 | 526.3 | 945.6 | 786.1 | 825.5 | 761.8 | 809.3 | 661.2 | 805.2 | 592.8 |
| 82.5° | 154.2 | 155.9 | 161.4 | 464.6 | 488.2 | 546.8 | 350.4 | 469.8 | 408.8 | 486.7 | 394.7 |
| 85° | 25.7 | 43.9 | 54.1 | 134.2 | 275.6 | 184.5 | 76.0 | 167.6 | 228.1 | 307.0 | 179.3 |
| 87.5° | 0.0 | 0.0 | 0.0 | 2.4 | 22.4 | 10.5 | 1.7 | 9.5 | 35.0 | 68.4 | 8.1 |
| 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):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0° | 503.9 | 503.9 | 503.9 | 503.9 | 503.9 | 503.9 | 503.9 | 503.9 | 503.9 | 503.9 | 503.9 |
| 2.5° | 668.1 | 684.6 | 622.6 | 567.1 | 581.1 | 569.9 | 553.0 | 524.2 | 457.4 | 506.5 | 503.2 |
| 5° | 859.8 | 829.3 | 745.4 | 706.3 | 658.6 | 585.9 | 577.1 | 521.3 | 496.8 | 500.8 | 497.2 |
| 7.5° | 926.5 | 871.9 | 797.8 | 680.1 | 568.3 | 463.4 | 431.2 | 394.7 | 387.3 | 403.1 | 413.3 |
| 10° | 874.1 | 816.2 | 751.3 | 605.0 | 518.9 | 443.1 | 363.7 | 312.7 | 285.1 | 281.8 | 284.6 |
| 12.5° | 898.2 | 835.7 | 702.2 | 590.2 | 500.3 | 431.7 | 343.0 | 266.0 | 205.9 | 210.5 | 198.6 |
| 15° | 914.9 | 843.1 | 690.6 | 559.2 | 462.0 | 370.2 | 263.4 | 186.4 | 137.3 | 123.0 | 114.4 |
| 17.5° | 1012.8 | 910.3 | 675.8 | 523.5 | 408.3 | 288.2 | 165.4 | 108.0 | 92.0 | 87.0 | 83.0 |
| 20° | 1138.7 | 993.0 | 675.5 | 485.8 | 329.2 | 180.2 | 103.2 | 78.2 | 74.4 | 77.2 | 74.1 |
| 22.5° | 1285.0 | 1103.2 | 711.5 | 438.8 | 236.2 | 113.7 | 80.3 | 69.4 | 65.6 | 67.9 | 68.2 |
| 25° | 1432.4 | 1268.4 | 740.8 | 394.3 | 164.5 | 87.2 | 71.5 | 63.9 | 59.6 | 61.7 | 60.5 |
| 27.5° | 1698.4 | 1405.2 | 734.2 | 337.3 | 121.1 | 76.8 | 66.5 | 59.8 | 53.4 | 56.7 | 56.5 |
| 30° | 1872.4 | 1646.6 | 760.2 | 257.4 | 96.1 | 67.2 | 62.0 | 54.6 | 47.7 | 51.5 | 51.2 |
| 32.5° | 2080.5 | 1750.3 | 788.3 | 197.6 | 79.9 | 63.6 | 55.8 | 48.6 | 44.6 | 47.0 | 46.5 |
| 35° | 2314.3 | 1955.3 | 736.6 | 164.5 | 69.4 | 57.4 | 49.3 | 43.9 | 40.3 | 41.5 | 41.5 |
| 37.5° | 2727.4 | 2126.7 | 705.6 | 134.0 | 64.6 | 52.0 | 46.2 | 39.6 | 37.4 | 37.4 | 38.6 |
| 40° | 2962.0 | 2388.4 | 613.1 | 106.1 | 66.0 | 47.9 | 43.1 | 36.2 | 33.4 | 33.1 | 34.3 |
| 42.5° | 3267.1 | 2539.3 | 555.2 | 85.8 | 59.8 | 46.7 | 39.6 | 32.9 | 29.6 | 29.3 | 30.5 |
| 45° | 3448.0 | 2623.7 | 473.6 | 67.5 | 53.6 | 54.3 | 36.7 | 30.3 | 25.3 | 24.3 | 26.5 |
| 47.5° | 3562.2 | 2735.5 | 427.4 | 53.6 | 46.7 | 54.1 | 35.8 | 26.2 | 21.2 | 20.0 | 21.9 |
| 50° | 3620.1 | 2790.8 | 418.3 | 46.0 | 40.5 | 48.4 | 41.0 | 21.9 | 18.1 | 16.4 | 18.1 |
| 52.5° | 3680.4 | 2880.7 | 421.7 | 42.4 | 35.8 | 38.9 | 38.9 | 18.8 | 16.0 | 14.1 | 15.3 |
| 55° | 3802.2 | 3013.4 | 414.3 | 40.3 | 32.9 | 29.6 | 25.0 | 16.7 | 14.5 | 12.4 | 13.6 |
| 57.5° | 3951.9 | 3108.8 | 414.3 | 38.4 | 30.5 | 25.3 | 20.0 | 15.5 | 13.3 | 10.7 | 11.7 |
| 60° | 3923.5 | 3008.4 | 393.8 | 36.5 | 28.6 | 23.6 | 18.1 | 14.3 | 12.4 | 9.8 | 10.5 |
| 62.5° | 3728.8 | 2735.5 | 318.9 | 33.6 | 26.9 | 22.4 | 16.4 | 13.6 | 11.7 | 8.6 | 9.3 |
| 65° | 3500.0 | 2445.7 | 221.7 | 30.5 | 25.0 | 20.3 | 14.8 | 12.9 | 10.7 | 7.6 | 8.1 |
| 67.5° | 3224.4 | 2100.3 | 123.0 | 27.4 | 23.1 | 17.6 | 13.6 | 12.6 | 10.2 | 6.9 | 7.4 |
| 70° | 2746.2 | 1585.6 | 66.0 | 25.0 | 21.7 | 16.2 | 12.9 | 12.6 | 10.2 | 6.7 | 6.9 |
| 72.5° | 2061.6 | 998.5 | 38.6 | 22.9 | 19.8 | 15.0 | 12.2 | 12.9 | 10.0 | 6.4 | 6.4 |
| 75° | 1402.8 | 606.2 | 27.7 | 19.5 | 17.6 | 12.6 | 11.7 | 12.4 | 10.2 | 6.4 | 6.0 |
| 77.5° | 953.7 | 426.0 | 22.6 | 17.6 | 16.0 | 11.2 | 11.9 | 12.4 | 10.2 | 5.2 | 4.1 |
| 80° | 595.4 | 219.8 | 17.2 | 14.1 | 13.8 | 9.8 | 11.9 | 10.7 | 6.7 | 1.2 | 0.0 |
| 82.5° | 416.4 | 81.8 | 10.0 | 10.7 | 10.7 | 6.9 | 9.3 | 7.6 | 3.8 | 0.0 | 0.0 |
| 85° | 174.7 | 14.1 | 5.5 | 7.6 | 6.7 | 4.1 | 7.4 | 5.7 | 2.4 | 0.0 | 0.0 |
| 87.5° | 3.1 | 0.0 | 2.1 | 4.5 | 4.8 | 2.4 | 3.8 | 2.4 | 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-SA1D-727-U-SLL-HSS

CANDELA DISTRIBUTION (continued):

| | 185° | 195° | 205° | 215° | 225° | 235° | 245° | 255° | 265° | 270° | 275° |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0° | 503.9 | 503.9 | 503.9 | 503.9 | 503.9 | 503.9 | 503.9 | 503.9 | 503.9 | 503.9 | 503.9 |
| 2.5° | 518.9 | 496.3 | 448.6 | 471.5 | 469.1 | 479.6 | 480.5 | 456.2 | 508.7 | 541.1 | 545.9 |
| 5° | 497.7 | 482.5 | 479.8 | 466.7 | 463.4 | 482.7 | 472.2 | 471.5 | 496.8 | 533.7 | 533.9 |
| 7.5° | 413.6 | 401.9 | 407.4 | 392.1 | 352.8 | 355.2 | 358.7 | 373.8 | 395.5 | 419.8 | 428.6 |
| 10° | 283.9 | 314.2 | 292.0 | 290.1 | 286.0 | 273.4 | 263.4 | 271.3 | 299.4 | 321.8 | 330.1 |
| 12.5° | 202.6 | 207.4 | 221.0 | 216.0 | 222.9 | 212.1 | 208.1 | 232.6 | 260.1 | 282.9 | 299.4 |
| 15° | 118.5 | 126.6 | 134.7 | 151.8 | 158.8 | 156.6 | 169.0 | 189.5 | 211.7 | 222.2 | 242.4 |
| 17.5° | 83.4 | 84.1 | 85.8 | 104.4 | 116.6 | 121.3 | 128.7 | 144.2 | 153.3 | 158.0 | 166.4 |
| 20° | 72.9 | 70.8 | 67.9 | 78.4 | 89.9 | 95.8 | 93.7 | 105.8 | 113.2 | 118.0 | 124.0 |
| 22.5° | 66.0 | 62.5 | 60.8 | 64.4 | 73.2 | 78.4 | 79.4 | 86.5 | 97.7 | 101.1 | 103.0 |
| 25° | 59.6 | 57.2 | 56.0 | 57.9 | 62.7 | 67.7 | 68.6 | 77.9 | 88.0 | 89.4 | 93.2 |
| 27.5° | 55.3 | 50.8 | 51.2 | 52.7 | 54.8 | 61.0 | 62.9 | 68.2 | 82.7 | 84.4 | 85.6 |
| 30° | 50.8 | 46.0 | 47.4 | 48.9 | 47.9 | 55.5 | 58.4 | 64.4 | 78.4 | 81.0 | 82.5 |
| 32.5° | 46.2 | 42.7 | 42.4 | 43.9 | 45.5 | 49.6 | 55.8 | 62.7 | 75.6 | 79.1 | 82.7 |
| 35° | 41.2 | 38.4 | 38.9 | 39.1 | 41.2 | 46.5 | 51.0 | 54.6 | 63.4 | 65.3 | 66.5 |
| 37.5° | 37.7 | 35.3 | 34.8 | 37.2 | 39.3 | 43.4 | 45.1 | 46.7 | 58.4 | 62.7 | 62.9 |
| 40° | 33.4 | 31.9 | 31.9 | 33.6 | 38.4 | 37.9 | 40.0 | 45.3 | 56.5 | 61.0 | 61.5 |
| 42.5° | 30.3 | 28.4 | 28.8 | 30.5 | 33.8 | 31.5 | 35.8 | 43.4 | 55.8 | 60.3 | 60.1 |
| 45° | 25.5 | 25.0 | 26.0 | 27.4 | 28.8 | 26.7 | 33.4 | 41.5 | 53.4 | 59.4 | 57.7 |
| 47.5° | 21.2 | 21.2 | 22.4 | 23.8 | 23.1 | 23.8 | 30.3 | 38.9 | 52.0 | 57.4 | 56.3 |
| 50° | 17.4 | 17.6 | 18.8 | 21.2 | 19.1 | 21.0 | 27.2 | 36.2 | 49.6 | 55.5 | 54.6 |
| 52.5° | 14.8 | 15.0 | 15.7 | 17.4 | 16.4 | 19.1 | 25.0 | 33.6 | 47.2 | 52.2 | 51.7 |
| 55° | 12.9 | 13.3 | 13.3 | 14.3 | 14.8 | 17.9 | 22.6 | 31.0 | 43.6 | 49.1 | 48.2 |
| 57.5° | 11.4 | 11.9 | 11.7 | 12.4 | 12.9 | 15.7 | 20.3 | 28.1 | 40.0 | 44.6 | 43.1 |
| 60° | 10.2 | 10.7 | 10.5 | 11.4 | 11.2 | 13.6 | 17.6 | 25.0 | 36.2 | 39.8 | 38.6 |
| 62.5° | 9.1 | 9.5 | 9.5 | 10.0 | 10.2 | 11.4 | 15.3 | 22.2 | 32.4 | 35.3 | 34.3 |
| 65° | 8.1 | 8.6 | 8.8 | 8.6 | 9.1 | 9.8 | 12.9 | 20.0 | 28.1 | 31.0 | 29.6 |
| 67.5° | 7.4 | 7.9 | 8.3 | 7.4 | 7.9 | 8.1 | 11.0 | 17.9 | 24.8 | 27.2 | 26.0 |
| 70° | 7.2 | 7.4 | 7.4 | 6.4 | 6.2 | 6.4 | 9.5 | 15.3 | 21.7 | 24.1 | 22.4 |
| 72.5° | 6.7 | 6.9 | 6.7 | 5.2 | 4.5 | 5.0 | 8.1 | 12.9 | 18.4 | 20.3 | 18.8 |
| 75° | 6.2 | 6.4 | 6.2 | 4.3 | 2.9 | 3.6 | 6.7 | 11.2 | 15.7 | 16.7 | 16.0 |
| 77.5° | 5.2 | 5.7 | 5.7 | 3.1 | 1.0 | 2.1 | 5.0 | 9.1 | 13.1 | 13.1 | 13.3 |
| 80° | 0.5 | 1.4 | 2.4 | 1.7 | 0.0 | 0.2 | 1.7 | 4.8 | 8.3 | 8.1 | 8.8 |
| 82.5° | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.9 | 2.1 | 2.4 |
| 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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| 25° | 93.0 | 98.7 | 115.6 | 163.0 | 287.7 | 469.8 | 772.8 | 1148.5 | 1323.9 | 1351.8 |
| 27.5° | 81.3 | 89.9 | 102.5 | 134.4 | 246.7 | 463.1 | 804.3 | 1338.2 | 1547.5 | 1574.9 |
| 30° | 77.7 | 88.2 | 100.4 | 122.5 | 218.1 | 437.4 | 854.3 | 1509.3 | 1707.9 | 1756.8 |
| 32.5° | 83.9 | 87.5 | 93.4 | 112.3 | 195.9 | 410.2 | 942.3 | 1713.9 | 1840.7 | 1904.3 |
| 35° | 66.5 | 72.9 | 83.4 | 103.0 | 186.6 | 408.8 | 992.1 | 1845.4 | 2053.5 | 2092.9 |
| 37.5° | 65.1 | 71.0 | 84.6 | 100.4 | 197.8 | 419.8 | 1066.0 | 2115.0 | 2437.3 | 2517.9 |
| 40° | 63.2 | 70.8 | 83.7 | 99.2 | 197.8 | 430.5 | 1113.2 | 2330.8 | 2695.5 | 2777.2 |
| 42.5° | 62.5 | 72.2 | 83.4 | 104.2 | 191.6 | 436.5 | 1184.4 | 2546.0 | 2968.2 | 3032.8 |
| 45° | 62.0 | 73.7 | 84.1 | 110.1 | 190.2 | 456.0 | 1224.7 | 2650.6 | 3143.6 | 3217.7 |
| 47.5° | 60.8 | 73.7 | 93.9 | 106.6 | 182.4 | 454.1 | 1276.9 | 2805.8 | 3248.2 | 3310.7 |
| 50° | 59.8 | 74.1 | 106.3 | 99.9 | 183.5 | 442.4 | 1347.7 | 2951.5 | 3394.8 | 3439.4 |
| 52.5° | 57.7 | 75.8 | 104.4 | 90.6 | 180.0 | 441.2 | 1453.3 | 3158.6 | 3587.7 | 3620.3 |
| 55° | 52.9 | 73.7 | 94.4 | 79.1 | 167.3 | 427.6 | 1593.2 | 3428.0 | 3855.1 | 3860.8 |
| 57.5° | 48.6 | 68.4 | 78.9 | 72.7 | 140.2 | 429.3 | 1713.9 | 3675.9 | 4093.5 | 4120.2 |
| 60° | 44.3 | 71.0 | 61.3 | 67.7 | 116.1 | 398.8 | 1772.3 | 3770.7 | 4267.0 | 4306.1 |
| 62.5° | 40.3 | 65.6 | 52.2 | 62.2 | 103.5 | 370.4 | 1731.7 | 3694.5 | 4289.2 | 4371.2 |
| 65° | 35.8 | 45.5 | 44.1 | 55.8 | 104.6 | 330.6 | 1596.3 | 3471.1 | 4205.0 | 4318.0 |
| 67.5° | 30.7 | 35.8 | 38.9 | 48.2 | 112.0 | 296.5 | 1364.2 | 3112.6 | 3978.8 | 4106.8 |
| 70° | 26.9 | 32.2 | 33.8 | 42.2 | 116.6 | 274.1 | 1076.5 | 2615.1 | 3515.4 | 3633.7 |
| 72.5° | 22.4 | 29.8 | 30.3 | 36.9 | 112.3 | 252.0 | 767.1 | 1877.4 | 2669.5 | 2726.2 |
| 75° | 19.3 | 24.8 | 27.4 | 31.0 | 94.4 | 188.1 | 422.6 | 1162.0 | 1687.9 | 1751.3 |
| 77.5° | 17.4 | 18.8 | 20.7 | 21.5 | 40.0 | 98.0 | 145.4 | 716.5 | 945.1 | 1016.6 |
| 80° | 13.3 | 14.8 | 14.3 | 14.8 | 21.9 | 33.8 | 55.3 | 335.9 | 446.5 | 486.3 |
| 82.5° | 4.3 | 7.2 | 7.9 | 6.7 | 14.3 | 16.7 | 16.0 | 116.1 | 145.2 | 154.2 |
| 85° | 1.0 | 2.6 | 1.2 | 0.0 | 4.8 | 8.6 | 1.2 | 17.6 | 34.8 | 25.7 |
| 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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