

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: P596042

Luminaire Tested: **MSA-SA1A-AMB-U-SLL**

Issue Date: 4/29/2022

Test Information

Test Method: LM-79-08
Report Number: P596042
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2109-400-23)
Test Lab: INNOVATIONS CENTER
Issue Date: 4/29/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA1A-AMB-U-SLL
Description: POST TOP DECORATIVE LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH
AND SPILL LIGHT ELIMINATOR LEFT OPTICS.
Light Source: (16) 1549K CCT, -21.5 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 678.1 lumens
Efficiency: N/A
Efficacy: 33.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short - Semi-Cutoff
BUG Rating: B0 - U0 - G1

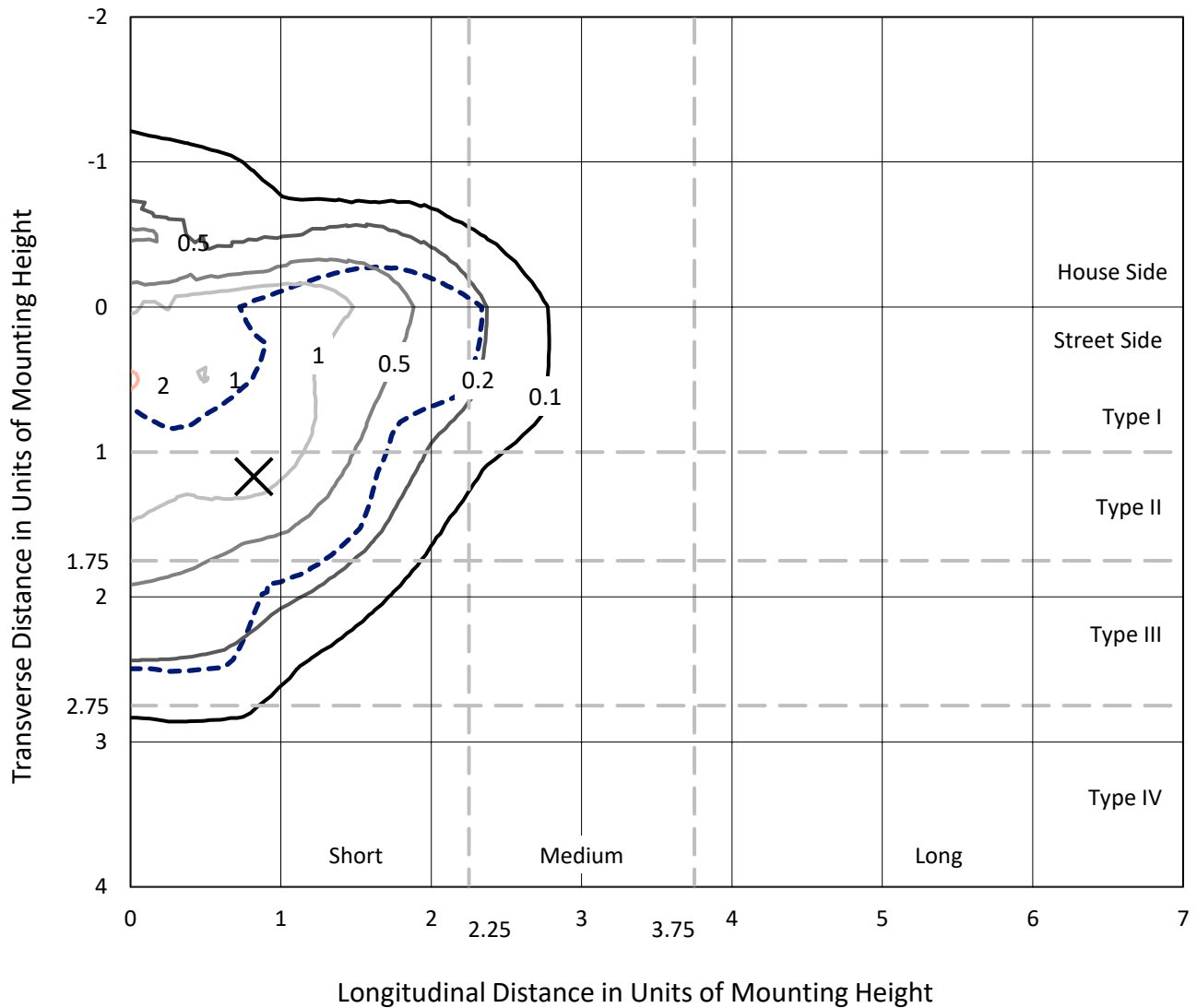
Input Watts (W): 20.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

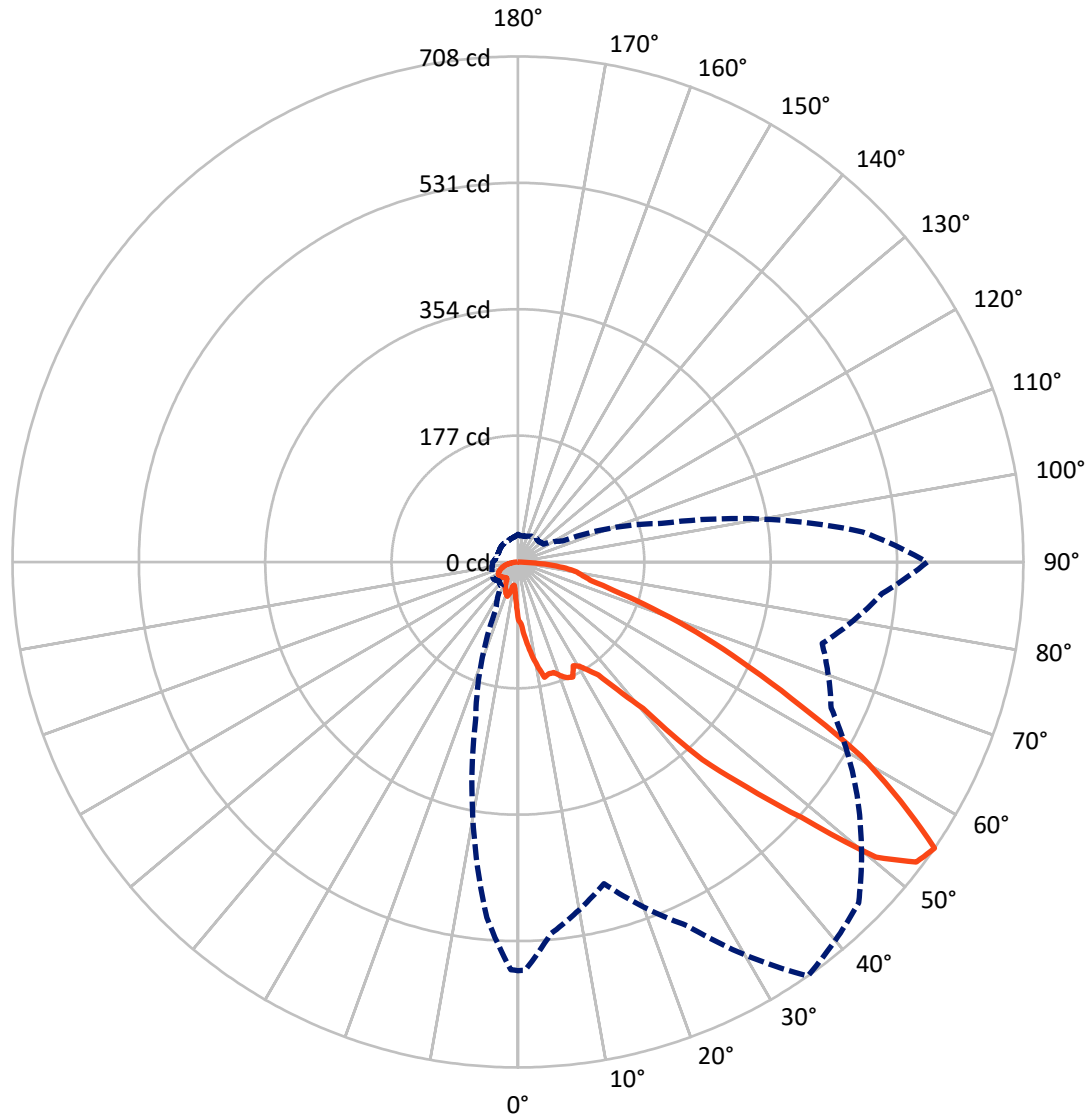
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 2.2 fc
 Type III - Short - Semi-Cutoff

REPORT NUMBER: P596042
CATALOG NUMBER: MSA-SA1A-AMB-U-SLL

Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral - - - Horizontal Cone Through 55-Deg Vertical

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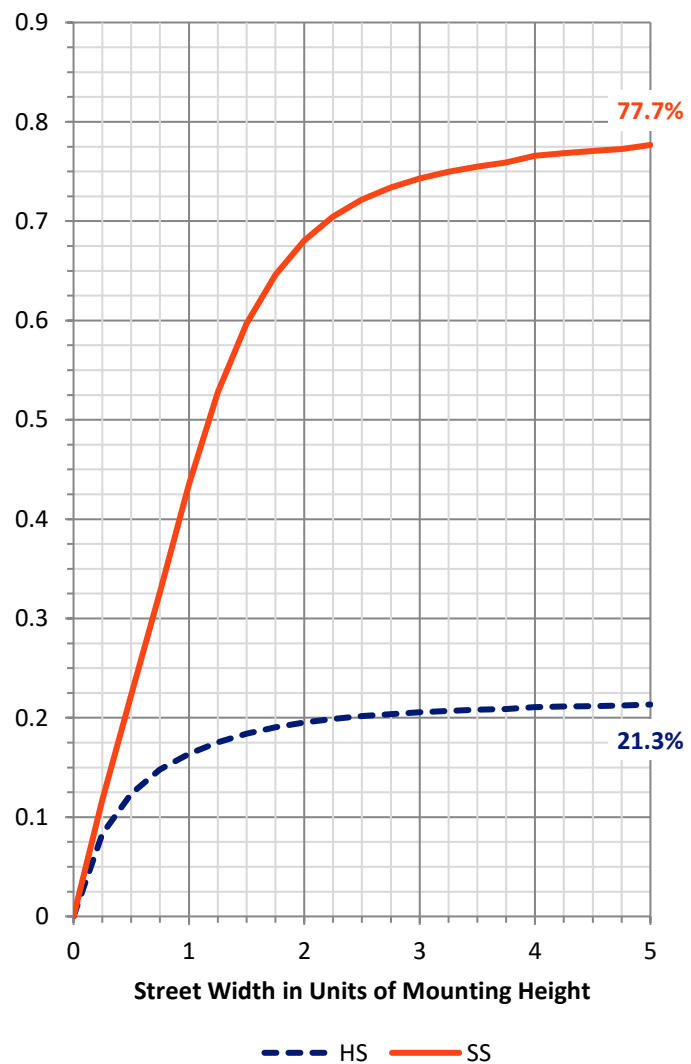
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|-------|
| House Side | Lumens | 146.4 | 0.0 | 146.4 |
| | % Fixture | 21.6 | 0.0 | 21.6 |
| Street Side | Lumens | 531.7 | 0.0 | 531.7 |
| | % Fixture | 78.4 | 0.0 | 78.4 |
| Total | Lumens | 678.1 | 0.0 | 678.1 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 7.5 | 1.1 |
| 10°-20° | 22.6 | 3.3 |
| 20°-30° | 52.1 | 7.7 |
| 30°-40° | 70.8 | 10.4 |
| 40°-50° | 126.0 | 18.6 |
| 50°-60° | 176.9 | 26.1 |
| 60°-70° | 140.2 | 20.7 |
| 70°-80° | 64.9 | 9.6 |
| 80°-90° | 17.0 | 2.5 |
| 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° | 678.1 | 100.0 |
| 0°-180° | 678.1 | 100.0 |

Coefficient of Utilization



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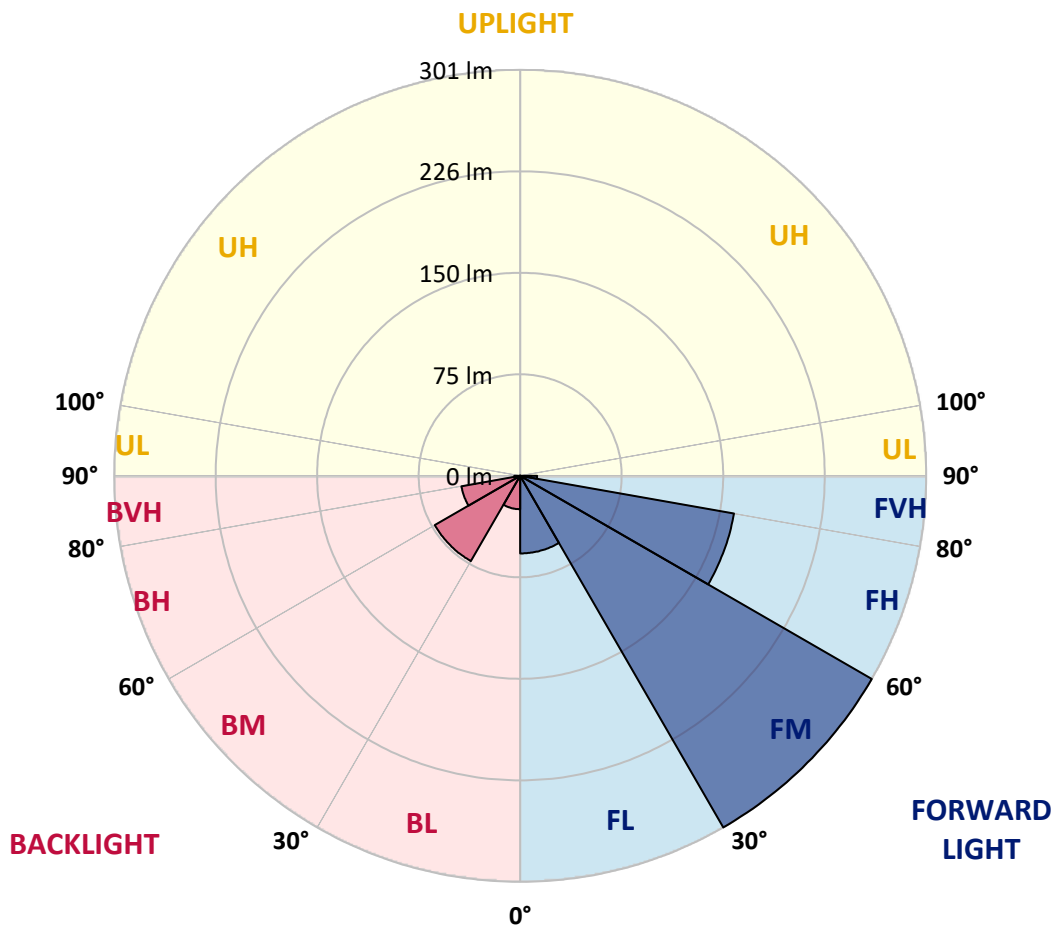
CATALOG NUMBER: MSA-SA1A-AMB-U-SLL

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|--------|
| | | | B | U | G |
| FL (0°-30°) | 57.5 | 8.5 | | | |
| FM (30°-60°) | 300.8 | 44.4 | | | |
| FH (60°-80°) | 160.8 | 23.7 | | | G0/660 |
| FVH (80°-90°) | 12.6 | 1.9 | | | G1/100 |
| BL (0°-30°) | 24.7 | 3.6 | B0/110 | | |
| BM (30°-60°) | 73.0 | 10.8 | B0/220 | | |
| BH (60°-80°) | 44.2 | 6.5 | B0/110 | | G0/110 |
| BVH (80°-90°) | 4.4 | 0.7 | | | G0/10 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B0-U0-G1

Type III Short





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 CATALOG NUMBER: MSA-SA1A-AMB-U-SLL

CANDELA DISTRIBUTION (FULL):

| | 0° | 1° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 85° |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0° | 81.2 | 81.2 | 81.2 | 81.2 | 81.2 | 81.2 | 81.2 | 81.2 | 81.2 | 81.2 | 81.2 |
| 2.5° | 113.0 | 113.0 | 109.4 | 99.8 | 91.4 | 86.6 | 89.6 | 87.8 | 78.8 | 84.2 | 88.4 |
| 5° | 134.3 | 130.4 | 129.5 | 128.3 | 116.3 | 107.0 | 94.7 | 92.3 | 99.2 | 121.4 | 109.1 |
| 7.5° | 133.4 | 131.9 | 130.1 | 143.9 | 139.1 | 127.4 | 117.8 | 119.6 | 130.1 | 128.6 | 116.6 |
| 10° | 124.4 | 122.3 | 124.7 | 134.9 | 140.3 | 146.9 | 152.0 | 138.2 | 131.3 | 128.3 | 107.9 |
| 12.5° | 113.3 | 111.8 | 119.3 | 144.8 | 156.5 | 165.5 | 167.3 | 157.7 | 139.7 | 123.2 | 107.6 |
| 15° | 129.5 | 127.1 | 135.8 | 149.3 | 160.1 | 162.5 | 165.5 | 159.5 | 148.1 | 135.2 | 114.2 |
| 17.5° | 156.2 | 154.1 | 161.3 | 167.3 | 167.3 | 162.8 | 161.3 | 162.5 | 156.5 | 158.9 | 146.6 |
| 20° | 203.9 | 192.8 | 206.3 | 188.3 | 170.0 | 170.0 | 167.6 | 170.0 | 176.3 | 207.2 | 194.0 |
| 22.5° | 293.2 | 292.9 | 294.1 | 235.9 | 198.2 | 176.0 | 174.2 | 183.8 | 218.9 | 268.0 | 265.0 |
| 25° | 328.9 | 324.1 | 340.0 | 286.6 | 214.4 | 178.4 | 171.8 | 185.9 | 263.2 | 306.4 | 292.9 |
| 27.5° | 283.6 | 282.1 | 287.8 | 248.5 | 205.4 | 164.6 | 149.0 | 166.4 | 230.5 | 250.3 | 269.2 |
| 30° | 282.4 | 280.0 | 288.1 | 232.9 | 200.6 | 169.1 | 148.7 | 170.3 | 205.7 | 233.5 | 282.7 |
| 32.5° | 316.9 | 312.7 | 306.1 | 253.6 | 206.0 | 180.5 | 160.7 | 166.7 | 210.8 | 255.7 | 303.7 |
| 35° | 340.6 | 338.2 | 329.5 | 272.5 | 227.0 | 194.6 | 175.7 | 188.6 | 226.4 | 273.1 | 325.3 |
| 37.5° | 391.5 | 392.7 | 368.2 | 301.0 | 250.3 | 227.0 | 216.2 | 227.3 | 257.5 | 294.4 | 365.5 |
| 40° | 433.2 | 436.8 | 400.5 | 337.3 | 297.7 | 269.5 | 275.5 | 274.6 | 289.3 | 317.8 | 409.2 |
| 42.5° | 479.7 | 478.5 | 448.5 | 379.0 | 353.2 | 378.1 | 350.5 | 324.1 | 336.7 | 343.0 | 441.9 |
| 45° | 520.8 | 524.4 | 467.4 | 403.2 | 409.2 | 450.3 | 439.8 | 390.9 | 372.4 | 368.8 | 456.9 |
| 47.5° | 539.6 | 539.0 | 486.9 | 421.2 | 466.5 | 534.8 | 542.9 | 464.4 | 415.2 | 390.9 | 474.3 |
| 50° | 550.4 | 550.1 | 498.9 | 435.9 | 511.5 | 649.7 | 626.6 | 505.2 | 433.2 | 410.1 | 486.0 |
| 52.5° | 562.7 | 560.6 | 509.1 | 453.6 | 549.8 | 698.2 | 680.3 | 559.7 | 459.9 | 422.7 | 498.3 |
| 55° | 572.3 | 572.0 | 522.9 | 466.2 | 562.1 | 707.8 | 674.9 | 581.0 | 483.9 | 441.0 | 511.5 |
| 57.5° | 568.7 | 565.4 | 523.8 | 472.5 | 520.8 | 632.0 | 616.7 | 552.2 | 474.3 | 438.9 | 507.9 |
| 60° | 546.2 | 542.6 | 518.1 | 470.4 | 459.0 | 551.9 | 516.3 | 461.1 | 420.3 | 426.6 | 487.2 |
| 62.5° | 502.2 | 498.0 | 484.2 | 443.4 | 383.7 | 445.5 | 425.4 | 375.7 | 353.8 | 409.2 | 449.7 |
| 65° | 441.9 | 431.4 | 429.3 | 411.3 | 345.7 | 356.8 | 354.7 | 304.9 | 291.4 | 378.7 | 395.7 |
| 67.5° | 370.6 | 367.0 | 372.7 | 375.1 | 297.7 | 282.7 | 269.5 | 245.2 | 243.4 | 327.1 | 331.6 |
| 70° | 289.3 | 283.3 | 306.1 | 320.8 | 233.5 | 212.0 | 189.5 | 173.3 | 194.9 | 286.9 | 270.1 |
| 72.5° | 198.8 | 199.4 | 224.3 | 264.7 | 179.0 | 148.7 | 128.6 | 122.0 | 149.0 | 230.2 | 193.1 |
| 75° | 135.8 | 132.5 | 159.8 | 205.4 | 126.2 | 106.7 | 96.8 | 94.1 | 116.0 | 184.7 | 140.3 |
| 77.5° | 106.7 | 104.0 | 114.5 | 137.3 | 95.3 | 92.9 | 87.8 | 82.4 | 90.5 | 139.7 | 110.0 |
| 80° | 86.0 | 86.6 | 87.2 | 91.7 | 73.8 | 82.4 | 77.6 | 72.6 | 73.2 | 92.6 | 73.2 |
| 82.5° | 62.1 | 60.9 | 67.5 | 70.8 | 53.7 | 63.9 | 63.0 | 60.9 | 57.3 | 65.7 | 48.9 |
| 85° | 29.1 | 28.5 | 42.0 | 63.9 | 37.5 | 37.8 | 35.7 | 32.4 | 36.3 | 47.7 | 21.9 |
| 87.5° | 1.2 | 0.9 | 1.5 | 10.2 | 5.4 | 4.5 | 3.0 | 6.0 | 5.7 | 6.3 | 3.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



REPORT NUMBER: P596042

CATALOG NUMBER: MSA-SA1A-AMB-U-SLL

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|-------|-------|-------|------|------|------|------|------|------|-------|------|
| 0° | 81.2 | 81.2 | 81.2 | 81.2 | 81.2 | 81.2 | 81.2 | 81.2 | 81.2 | 81.2 | 81.2 |
| 2.5° | 101.9 | 89.6 | 100.1 | 87.8 | 81.2 | 83.9 | 83.9 | 76.4 | 75.9 | 68.1 | 80.9 |
| 5° | 121.7 | 109.1 | 101.0 | 88.4 | 77.0 | 67.5 | 65.4 | 64.8 | 68.1 | 64.2 | 70.8 |
| 7.5° | 119.3 | 103.7 | 93.8 | 75.9 | 64.5 | 57.6 | 53.7 | 55.2 | 58.8 | 57.6 | 59.1 |
| 10° | 101.9 | 93.2 | 79.4 | 67.8 | 64.8 | 58.5 | 52.5 | 48.3 | 48.0 | 45.0 | 44.7 |
| 12.5° | 99.5 | 90.2 | 79.7 | 69.9 | 62.4 | 56.4 | 49.2 | 43.8 | 40.5 | 37.5 | 36.9 |
| 15° | 105.2 | 95.0 | 80.6 | 68.4 | 57.9 | 50.1 | 43.8 | 38.1 | 33.6 | 31.8 | 31.8 |
| 17.5° | 125.0 | 111.5 | 83.9 | 63.6 | 51.6 | 45.3 | 37.8 | 32.4 | 29.7 | 30.6 | 30.0 |
| 20° | 184.4 | 141.2 | 89.0 | 58.5 | 47.4 | 39.9 | 33.3 | 30.6 | 30.3 | 33.0 | 35.1 |
| 22.5° | 237.4 | 182.3 | 94.1 | 59.7 | 46.2 | 39.9 | 34.8 | 34.5 | 35.1 | 41.1 | 43.2 |
| 25° | 259.0 | 203.9 | 106.7 | 69.6 | 58.5 | 54.3 | 55.5 | 51.9 | 52.2 | 62.1 | 65.4 |
| 27.5° | 260.5 | 202.1 | 100.1 | 67.8 | 58.5 | 58.8 | 69.0 | 80.0 | 85.1 | 100.4 | 95.3 |
| 30° | 265.0 | 227.0 | 89.0 | 47.7 | 37.5 | 36.6 | 38.7 | 43.5 | 50.1 | 75.9 | 78.8 |
| 32.5° | 305.2 | 240.4 | 94.4 | 44.1 | 33.9 | 31.5 | 29.7 | 29.7 | 32.1 | 39.9 | 41.4 |
| 35° | 325.3 | 265.9 | 97.1 | 47.7 | 34.8 | 31.2 | 30.3 | 29.7 | 30.9 | 34.5 | 35.4 |
| 37.5° | 373.3 | 283.9 | 101.9 | 52.5 | 36.3 | 32.4 | 30.9 | 30.6 | 32.4 | 35.4 | 36.6 |
| 40° | 415.2 | 303.1 | 109.4 | 57.3 | 37.5 | 33.6 | 32.4 | 32.4 | 33.6 | 36.6 | 37.2 |
| 42.5° | 459.9 | 344.5 | 121.1 | 61.2 | 38.7 | 34.8 | 34.2 | 34.2 | 35.1 | 36.9 | 38.1 |
| 45° | 498.0 | 375.1 | 134.9 | 63.3 | 39.0 | 37.8 | 36.0 | 36.0 | 36.0 | 36.9 | 38.4 |
| 47.5° | 529.5 | 411.0 | 154.7 | 64.5 | 40.2 | 39.0 | 38.1 | 37.2 | 36.9 | 37.2 | 38.4 |
| 50° | 543.2 | 447.3 | 176.0 | 64.8 | 41.4 | 39.9 | 40.2 | 38.4 | 37.2 | 37.5 | 39.0 |
| 52.5° | 561.2 | 472.2 | 192.8 | 67.5 | 42.6 | 41.1 | 41.7 | 39.0 | 36.9 | 36.9 | 38.7 |
| 55° | 573.2 | 484.2 | 208.4 | 69.3 | 43.8 | 40.8 | 42.6 | 39.9 | 37.2 | 36.9 | 38.7 |
| 57.5° | 567.8 | 480.6 | 217.1 | 71.1 | 45.9 | 41.1 | 43.2 | 40.2 | 37.5 | 36.9 | 38.7 |
| 60° | 528.6 | 445.2 | 213.5 | 71.7 | 47.1 | 40.5 | 41.1 | 40.5 | 36.9 | 36.3 | 37.8 |
| 62.5° | 474.6 | 387.9 | 193.7 | 67.2 | 46.2 | 39.3 | 39.3 | 38.7 | 35.4 | 35.1 | 36.3 |
| 65° | 402.0 | 325.0 | 161.0 | 62.7 | 42.9 | 37.2 | 37.5 | 35.7 | 33.6 | 32.7 | 34.2 |
| 67.5° | 329.5 | 260.8 | 129.5 | 58.5 | 39.6 | 34.2 | 35.1 | 33.9 | 31.5 | 30.6 | 31.8 |
| 70° | 261.1 | 203.6 | 100.1 | 51.3 | 35.4 | 31.2 | 32.1 | 30.9 | 28.8 | 27.9 | 29.1 |
| 72.5° | 185.9 | 140.6 | 80.9 | 45.3 | 30.9 | 27.0 | 28.5 | 27.6 | 26.1 | 24.6 | 25.5 |
| 75° | 138.5 | 104.6 | 58.5 | 37.2 | 26.7 | 23.4 | 24.9 | 24.6 | 23.1 | 21.9 | 22.8 |
| 77.5° | 108.2 | 85.1 | 40.8 | 29.7 | 22.8 | 20.1 | 21.0 | 20.7 | 19.2 | 17.4 | 18.0 |
| 80° | 79.4 | 67.5 | 28.8 | 22.2 | 18.3 | 16.5 | 17.1 | 16.5 | 15.0 | 12.9 | 13.2 |
| 82.5° | 53.7 | 49.8 | 19.5 | 15.3 | 13.2 | 12.3 | 12.6 | 12.6 | 11.1 | 9.0 | 8.7 |
| 85° | 16.8 | 19.2 | 12.0 | 9.6 | 8.1 | 6.6 | 7.2 | 7.8 | 6.9 | 5.4 | 5.1 |
| 87.5° | 2.7 | 3.3 | 3.3 | 3.3 | 2.7 | 2.4 | 3.0 | 3.0 | 2.7 | 2.1 | 1.5 |
| 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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CATALOG NUMBER: MSA-SA1A-AMB-U-SLL

CANDELA DISTRIBUTION (continued):

| | 185° | 195° | 205° | 215° | 225° | 235° | 245° | 255° | 265° | 270° | 275° |
|-------|------|------|------|------|------|------|------|------|------|-------|-------|
| 0° | 81.2 | 81.2 | 81.2 | 81.2 | 81.2 | 81.2 | 81.2 | 81.2 | 81.2 | 81.2 | 81.2 |
| 2.5° | 74.7 | 69.0 | 60.0 | 59.7 | 53.1 | 51.6 | 51.0 | 60.3 | 60.0 | 75.6 | 73.5 |
| 5° | 68.1 | 63.3 | 56.4 | 44.1 | 37.8 | 40.8 | 48.3 | 58.8 | 62.7 | 71.4 | 71.4 |
| 7.5° | 55.8 | 50.1 | 44.4 | 36.3 | 31.2 | 31.8 | 41.4 | 48.6 | 53.1 | 58.2 | 58.5 |
| 10° | 41.7 | 39.0 | 35.1 | 33.0 | 33.3 | 32.1 | 36.0 | 41.1 | 45.0 | 46.8 | 48.0 |
| 12.5° | 36.0 | 34.2 | 33.9 | 35.1 | 39.6 | 40.5 | 41.1 | 39.9 | 39.6 | 40.8 | 40.8 |
| 15° | 32.4 | 33.6 | 38.1 | 44.4 | 48.3 | 49.5 | 45.6 | 42.0 | 37.5 | 35.4 | 36.0 |
| 17.5° | 31.5 | 39.6 | 46.8 | 50.1 | 52.5 | 51.6 | 47.4 | 45.0 | 40.2 | 36.0 | 35.4 |
| 20° | 35.4 | 42.6 | 46.5 | 48.3 | 45.3 | 43.2 | 46.8 | 46.5 | 44.1 | 40.8 | 37.2 |
| 22.5° | 45.0 | 52.5 | 51.3 | 45.6 | 36.3 | 36.0 | 47.4 | 53.1 | 53.4 | 47.4 | 42.0 |
| 25° | 66.3 | 62.4 | 56.4 | 41.7 | 30.3 | 31.2 | 47.7 | 59.1 | 68.4 | 61.5 | 57.0 |
| 27.5° | 92.0 | 76.4 | 61.5 | 39.6 | 28.8 | 30.0 | 46.5 | 64.8 | 86.9 | 95.0 | 93.2 |
| 30° | 80.9 | 66.3 | 51.3 | 34.2 | 27.9 | 28.2 | 40.8 | 61.8 | 89.0 | 102.2 | 102.8 |
| 32.5° | 41.4 | 40.5 | 35.1 | 28.8 | 27.3 | 27.3 | 31.2 | 40.5 | 55.5 | 53.7 | 54.6 |
| 35° | 35.1 | 32.1 | 29.7 | 27.9 | 27.0 | 27.3 | 28.5 | 31.5 | 35.7 | 36.3 | 36.9 |
| 37.5° | 35.1 | 32.1 | 29.4 | 27.9 | 27.6 | 27.6 | 28.8 | 30.6 | 34.5 | 36.3 | 36.6 |
| 40° | 35.7 | 32.1 | 29.7 | 28.5 | 28.5 | 28.2 | 29.1 | 30.6 | 34.5 | 36.9 | 37.2 |
| 42.5° | 35.7 | 32.7 | 30.3 | 29.1 | 29.4 | 29.4 | 29.4 | 30.9 | 34.5 | 37.2 | 37.5 |
| 45° | 35.7 | 33.0 | 31.2 | 30.0 | 31.2 | 30.6 | 30.3 | 30.9 | 34.2 | 37.2 | 37.8 |
| 47.5° | 36.0 | 33.6 | 31.8 | 30.9 | 31.8 | 31.2 | 31.2 | 30.9 | 33.9 | 37.5 | 38.1 |
| 50° | 36.6 | 34.2 | 32.1 | 31.8 | 32.4 | 31.8 | 30.9 | 31.2 | 33.9 | 37.2 | 37.8 |
| 52.5° | 36.6 | 34.5 | 32.7 | 32.1 | 32.1 | 31.5 | 30.6 | 30.9 | 33.0 | 36.3 | 36.9 |
| 55° | 36.3 | 34.2 | 32.7 | 32.4 | 32.1 | 30.9 | 30.0 | 30.6 | 32.4 | 35.4 | 35.7 |
| 57.5° | 36.6 | 33.9 | 32.4 | 32.4 | 32.1 | 30.3 | 29.4 | 29.7 | 32.1 | 34.8 | 35.1 |
| 60° | 35.7 | 33.0 | 31.5 | 31.8 | 30.9 | 29.4 | 27.9 | 28.5 | 30.9 | 34.2 | 34.8 |
| 62.5° | 34.2 | 31.8 | 30.3 | 30.6 | 30.0 | 28.2 | 26.4 | 27.3 | 29.7 | 32.7 | 33.6 |
| 65° | 32.4 | 30.3 | 28.5 | 28.5 | 27.9 | 26.1 | 24.9 | 26.1 | 28.2 | 30.9 | 31.8 |
| 67.5° | 30.3 | 28.2 | 26.7 | 26.7 | 25.5 | 24.3 | 23.4 | 24.3 | 26.1 | 28.5 | 29.7 |
| 70° | 27.6 | 25.8 | 24.3 | 24.0 | 22.8 | 21.9 | 21.6 | 22.2 | 24.3 | 26.1 | 26.7 |
| 72.5° | 24.9 | 23.7 | 21.9 | 21.6 | 20.4 | 19.5 | 19.2 | 19.8 | 21.9 | 23.4 | 24.0 |
| 75° | 22.2 | 21.0 | 19.8 | 19.2 | 18.0 | 17.4 | 17.1 | 18.0 | 19.8 | 20.7 | 21.0 |
| 77.5° | 18.0 | 17.4 | 16.5 | 16.2 | 15.3 | 15.0 | 15.0 | 15.6 | 16.8 | 17.1 | 17.7 |
| 80° | 14.1 | 13.8 | 13.5 | 13.2 | 12.0 | 12.3 | 12.3 | 12.6 | 13.2 | 12.9 | 13.5 |
| 82.5° | 10.2 | 10.2 | 9.6 | 9.6 | 8.4 | 9.0 | 9.3 | 9.3 | 9.0 | 8.4 | 9.0 |
| 85° | 5.7 | 6.3 | 6.0 | 6.0 | 4.8 | 6.0 | 5.7 | 5.7 | 5.4 | 4.5 | 5.7 |
| 87.5° | 2.1 | 2.1 | 2.1 | 1.8 | 0.6 | 1.8 | 2.4 | 2.4 | 2.4 | 1.5 | 2.7 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



REPORT NUMBER: P596042
 CATALOG NUMBER: MSA-SA1A-AMB-U-SLL

CANDELA DISTRIBUTION (continued):

| | 285° | 295° | 305° | 315° | 325° | 335° | 345° | 355° | 359° | 360° |
|-------|------|------|------|------|------|------|-------|-------|-------|-------|
| 0° | 81.2 | 81.2 | 81.2 | 81.2 | 81.2 | 81.2 | 81.2 | 81.2 | 81.2 | 81.2 |
| 2.5° | 77.0 | 75.9 | 77.9 | 83.6 | 79.7 | 79.1 | 89.6 | 88.4 | 106.4 | 113.0 |
| 5° | 76.1 | 72.0 | 69.6 | 70.2 | 74.1 | 88.1 | 106.1 | 105.8 | 126.2 | 134.3 |
| 7.5° | 59.4 | 60.9 | 60.3 | 60.6 | 65.1 | 85.4 | 105.5 | 116.9 | 128.6 | 133.4 |
| 10° | 51.9 | 54.0 | 57.9 | 63.0 | 66.6 | 75.0 | 95.3 | 109.7 | 119.3 | 124.4 |
| 12.5° | 44.7 | 50.4 | 55.5 | 63.3 | 71.1 | 77.0 | 94.1 | 104.6 | 111.2 | 113.3 |
| 15° | 37.8 | 40.8 | 47.4 | 57.3 | 66.0 | 76.7 | 95.6 | 116.9 | 125.0 | 129.5 |
| 17.5° | 36.3 | 36.9 | 40.2 | 49.5 | 62.7 | 78.8 | 101.3 | 140.9 | 148.7 | 156.2 |
| 20° | 36.0 | 36.0 | 39.3 | 44.7 | 57.9 | 76.4 | 126.5 | 181.4 | 186.2 | 203.9 |
| 22.5° | 38.1 | 38.1 | 41.4 | 50.4 | 63.0 | 85.7 | 158.0 | 253.6 | 288.1 | 293.2 |
| 25° | 47.7 | 53.1 | 61.2 | 72.3 | 80.6 | 99.2 | 167.0 | 277.6 | 313.9 | 328.9 |
| 27.5° | 93.2 | 97.1 | 97.1 | 85.7 | 82.4 | 87.8 | 139.1 | 243.4 | 274.9 | 283.6 |
| 30° | 96.5 | 86.6 | 72.6 | 60.6 | 60.0 | 63.6 | 128.3 | 256.0 | 274.9 | 282.4 |
| 32.5° | 45.0 | 39.6 | 39.0 | 40.2 | 46.2 | 57.3 | 134.9 | 286.6 | 302.2 | 316.9 |
| 35° | 34.8 | 34.2 | 35.1 | 37.8 | 44.1 | 59.1 | 138.5 | 317.5 | 333.7 | 340.6 |
| 37.5° | 34.8 | 33.9 | 34.8 | 36.6 | 44.1 | 61.5 | 142.1 | 362.2 | 394.5 | 391.5 |
| 40° | 36.0 | 34.8 | 34.8 | 36.0 | 43.2 | 66.3 | 148.4 | 395.4 | 435.0 | 433.2 |
| 42.5° | 36.9 | 36.0 | 35.7 | 35.7 | 42.3 | 67.8 | 157.7 | 431.4 | 478.8 | 479.7 |
| 45° | 38.4 | 37.5 | 36.6 | 36.3 | 41.1 | 69.6 | 167.3 | 448.5 | 519.3 | 520.8 |
| 47.5° | 39.6 | 39.3 | 38.1 | 37.2 | 39.9 | 69.9 | 187.1 | 470.7 | 536.9 | 539.6 |
| 50° | 39.9 | 39.9 | 40.2 | 37.5 | 40.2 | 67.5 | 202.7 | 487.8 | 550.4 | 550.4 |
| 52.5° | 38.7 | 39.9 | 40.8 | 37.8 | 40.2 | 69.3 | 215.3 | 495.6 | 563.0 | 562.7 |
| 55° | 37.8 | 39.9 | 41.4 | 37.8 | 41.1 | 72.0 | 228.2 | 499.8 | 571.1 | 572.3 |
| 57.5° | 37.8 | 40.5 | 40.8 | 38.1 | 43.2 | 75.9 | 233.2 | 476.1 | 559.7 | 568.7 |
| 60° | 37.5 | 40.5 | 39.3 | 37.8 | 45.3 | 77.3 | 227.6 | 438.9 | 525.0 | 546.2 |
| 62.5° | 36.3 | 39.3 | 37.5 | 36.9 | 45.6 | 77.3 | 209.0 | 384.3 | 473.1 | 502.2 |
| 65° | 34.2 | 36.6 | 35.4 | 35.1 | 44.4 | 73.8 | 175.4 | 319.0 | 415.2 | 441.9 |
| 67.5° | 32.1 | 33.6 | 33.3 | 32.7 | 41.7 | 70.5 | 137.9 | 248.2 | 337.9 | 370.6 |
| 70° | 29.7 | 31.2 | 30.9 | 30.0 | 38.4 | 64.5 | 107.6 | 187.1 | 254.2 | 289.3 |
| 72.5° | 26.1 | 28.2 | 27.6 | 26.7 | 33.6 | 53.7 | 83.0 | 125.6 | 175.1 | 198.8 |
| 75° | 23.4 | 24.6 | 23.7 | 22.8 | 27.3 | 41.1 | 58.8 | 95.9 | 122.0 | 135.8 |
| 77.5° | 20.4 | 21.6 | 20.1 | 19.2 | 21.9 | 31.8 | 42.3 | 84.5 | 99.8 | 106.7 |
| 80° | 16.2 | 18.0 | 16.2 | 15.0 | 16.5 | 21.0 | 28.5 | 66.3 | 82.7 | 86.0 |
| 82.5° | 11.4 | 12.6 | 11.4 | 10.5 | 12.0 | 14.4 | 18.3 | 47.4 | 59.1 | 62.1 |
| 85° | 6.9 | 7.2 | 6.3 | 5.7 | 7.2 | 8.4 | 10.8 | 24.0 | 28.2 | 29.1 |
| 87.5° | 2.4 | 2.7 | 2.4 | 0.9 | 1.8 | 2.1 | 2.4 | 1.5 | 1.5 | 1.2 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)