

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: P400747

Luminaire Tested: **ENV-SA1-735-U-SL2-HSS-XXB**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P400747
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-2)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENV-SA1-735-U-SL2-HSS-XXB
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 3500K LIGHTSQUARE IN BATTERY OPERATION WITH 16 LEDS AND TYPE II SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 586 lumens
Efficiency: N/A
Efficacy: 45.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Medium - Non-Cutoff
BUG Rating: B0 - U0 - G0

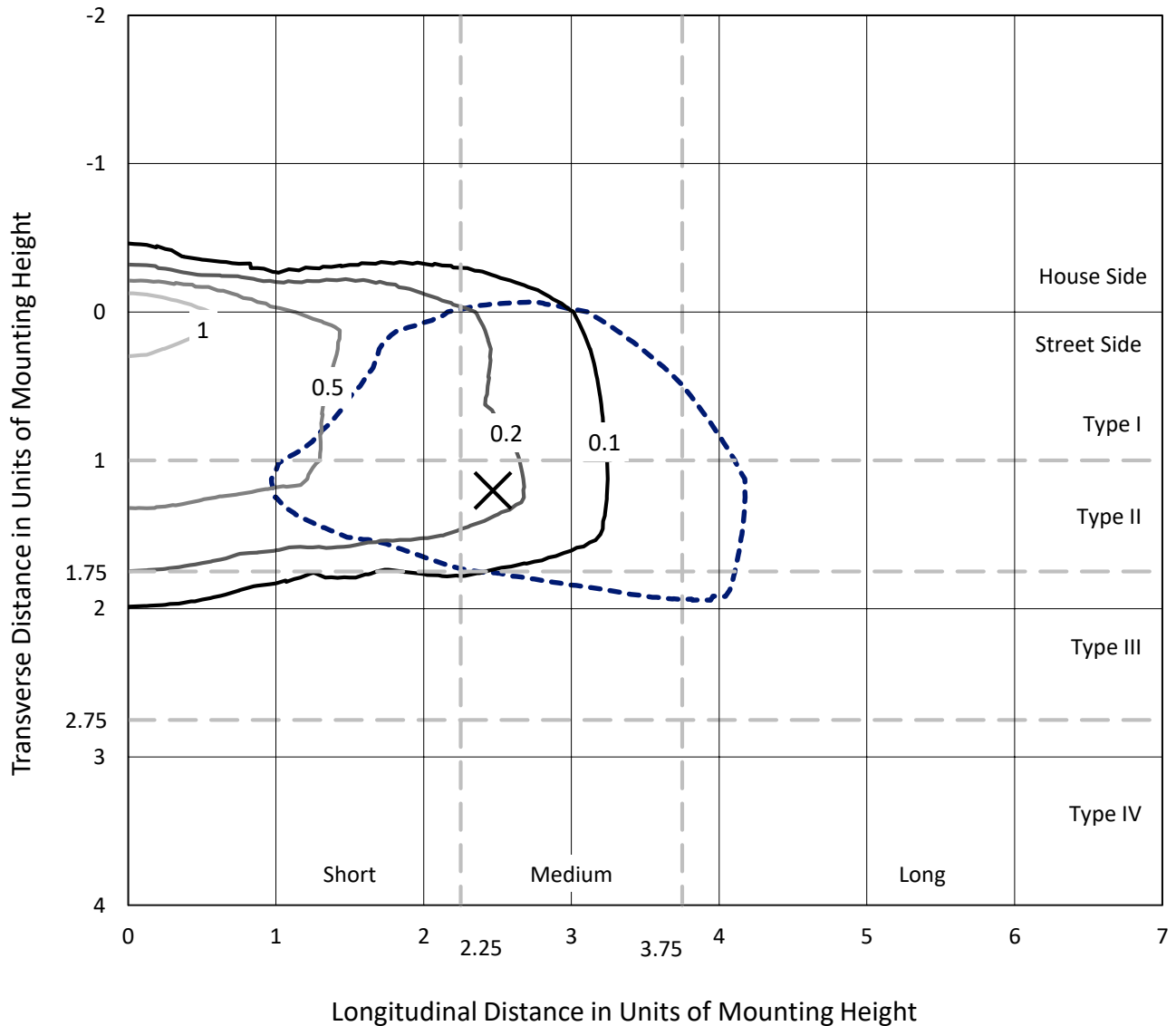
Input Watts (W): 13
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

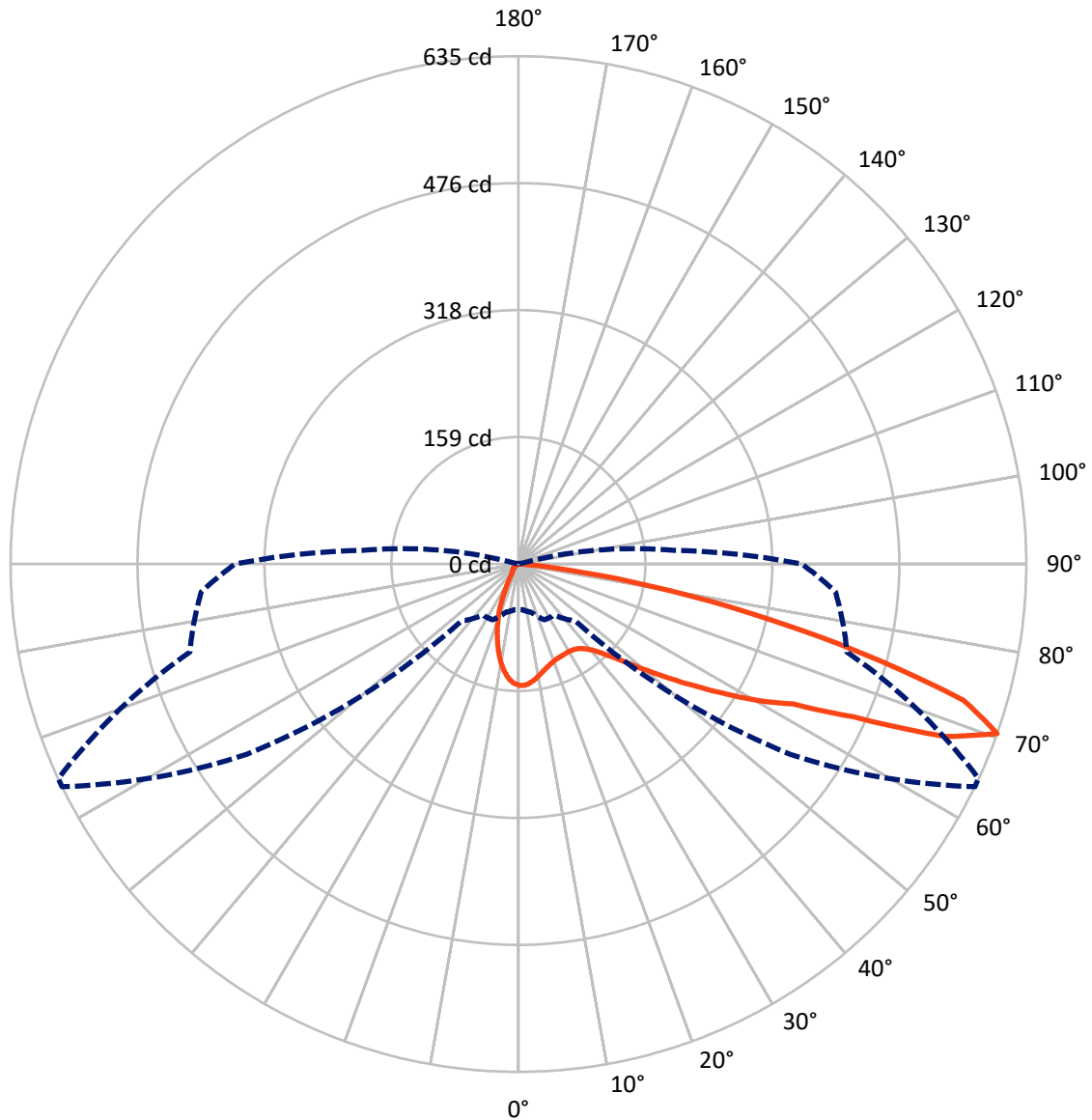
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 1.5 fc
 Type III - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 64-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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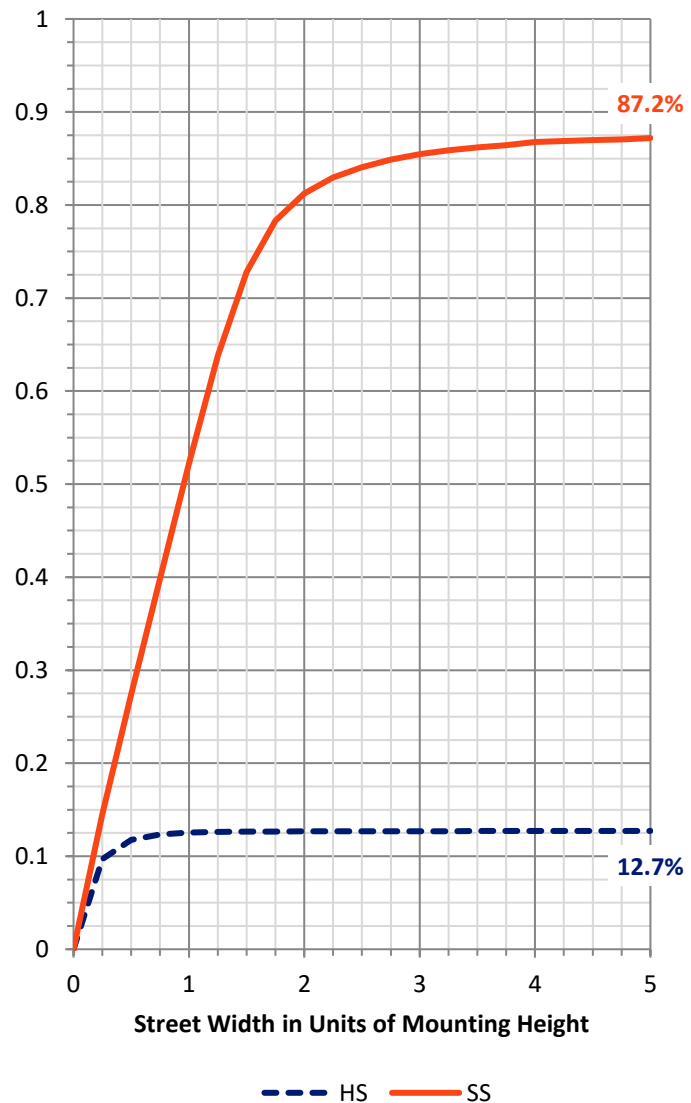
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|-------|
| House Side | Lumens | 75.3 | 0.0 | 75.3 |
| | % Fixture | 12.8 | 0.0 | 12.8 |
| Street Side | Lumens | 510.7 | 0.0 | 510.7 |
| | % Fixture | 87.2 | 0.0 | 87.2 |
| Total | Lumens | 586.0 | 0.0 | 586.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 12.8 | 2.2 |
| 10°-20° | 28.4 | 4.8 |
| 20°-30° | 39.1 | 6.7 |
| 30°-40° | 53.8 | 9.2 |
| 40°-50° | 80.2 | 13.7 |
| 50°-60° | 126.7 | 21.6 |
| 60°-70° | 143.5 | 24.5 |
| 70°-80° | 94.2 | 16.1 |
| 80°-90° | 7.4 | 1.3 |
| 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° | 586.0 | 100.0 |
| 0°-180° | 586.0 | 100.0 |



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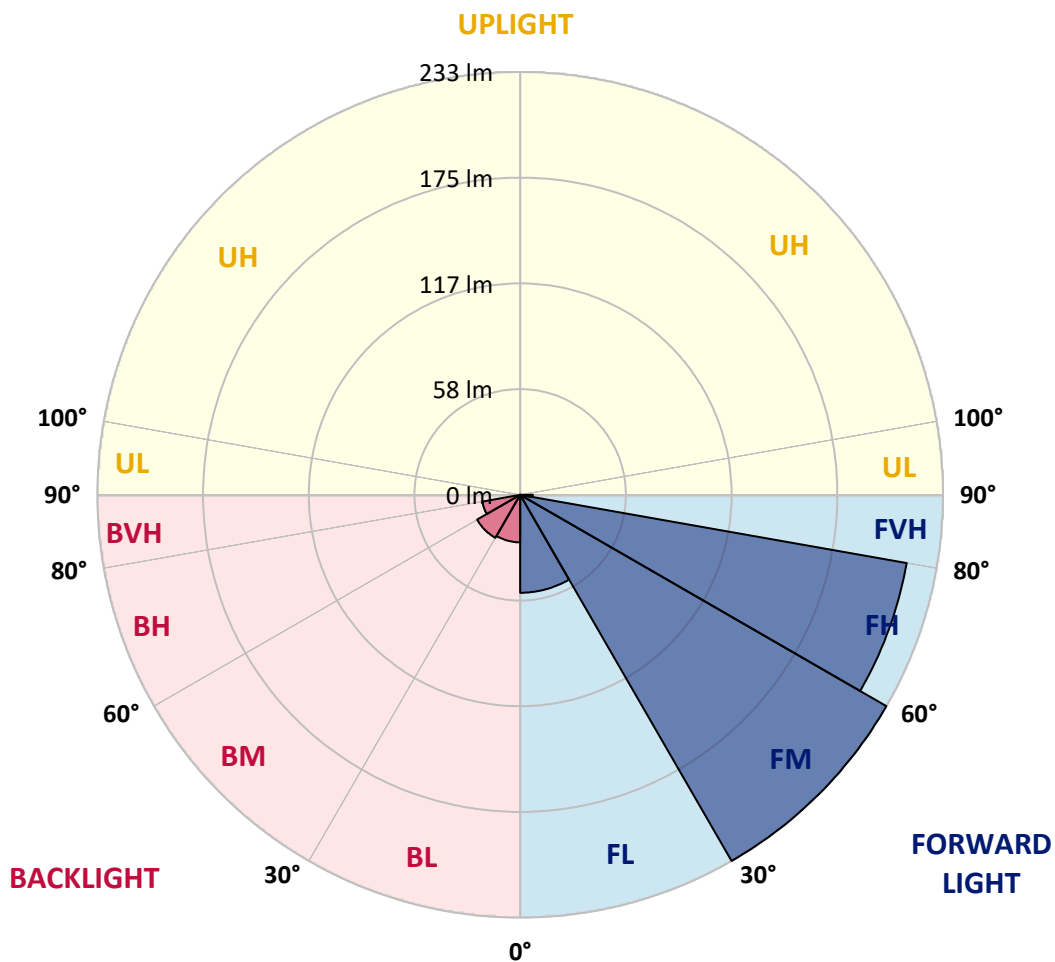
CATALOG NUMBER: ENV-SA1-735-U-SL2-HSS-XXB

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|--------|
| | | | | B | U | G |
| FL | (0°-30°) | 54.0 | 9.2 | | | |
| FM | (30°-60°) | 233.2 | 39.8 | | | |
| FH | (60°-80°) | 216.5 | 36.9 | | | G0/660 |
| FVH | (80°-90°) | 7.0 | 1.2 | | | G0/10 |
| BL | (0°-30°) | 26.2 | 4.5 | B0/110 | | |
| BM | (30°-60°) | 27.4 | 4.7 | B0/220 | | |
| BH | (60°-80°) | 21.2 | 3.6 | B0/110 | | G0/110 |
| BVH | (80°-90°) | 0.4 | 0.1 | | | G0/10 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B0-U0-G0

Type III Medium





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 64° | 65° | 75° | 85° |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0° | 151.7 | 151.7 | 151.7 | 151.7 | 151.7 | 151.7 | 151.7 | 151.7 | 151.7 | 151.7 | 151.7 |
| 2.5° | 147.5 | 147.5 | 148.2 | 148.9 | 149.3 | 150.5 | 151.3 | 151.9 | 151.9 | 152.3 | 151.6 |
| 5° | 137.7 | 137.7 | 138.3 | 140.0 | 141.9 | 144.3 | 147.0 | 149.6 | 150.1 | 152.1 | 152.0 |
| 7.5° | 128.6 | 129.4 | 130.5 | 132.2 | 134.2 | 137.7 | 141.4 | 146.0 | 146.5 | 151.3 | 152.3 |
| 10° | 122.3 | 122.8 | 123.5 | 125.4 | 128.3 | 132.3 | 136.3 | 141.8 | 142.7 | 149.8 | 152.3 |
| 12.5° | 117.3 | 117.4 | 118.3 | 120.5 | 123.3 | 127.2 | 131.7 | 137.7 | 138.8 | 147.3 | 151.9 |
| 15° | 113.7 | 113.6 | 114.6 | 116.7 | 119.3 | 123.4 | 127.8 | 134.1 | 135.3 | 145.1 | 151.8 |
| 17.5° | 111.5 | 111.6 | 112.4 | 114.0 | 116.6 | 120.4 | 124.9 | 131.1 | 132.3 | 143.3 | 152.3 |
| 20° | 111.5 | 111.5 | 112.0 | 112.7 | 114.7 | 118.1 | 122.5 | 128.9 | 130.2 | 142.2 | 153.0 |
| 22.5° | 113.7 | 113.5 | 113.9 | 113.3 | 114.2 | 116.6 | 121.1 | 127.5 | 128.8 | 141.7 | 154.2 |
| 25° | 117.6 | 117.2 | 117.5 | 116.1 | 115.1 | 116.1 | 120.2 | 126.9 | 128.3 | 141.8 | 155.2 |
| 27.5° | 123.0 | 123.0 | 122.4 | 120.6 | 118.0 | 116.9 | 120.1 | 126.4 | 127.9 | 141.8 | 155.9 |
| 30° | 130.7 | 130.4 | 129.4 | 127.6 | 123.6 | 119.7 | 121.1 | 126.4 | 127.9 | 141.9 | 156.1 |
| 32.5° | 138.3 | 138.5 | 139.0 | 137.2 | 131.7 | 124.7 | 123.6 | 127.4 | 128.6 | 141.8 | 155.8 |
| 35° | 146.0 | 146.1 | 148.4 | 148.6 | 141.6 | 132.6 | 127.8 | 129.8 | 130.7 | 142.8 | 156.0 |
| 37.5° | 152.8 | 153.3 | 157.8 | 159.9 | 154.2 | 142.8 | 134.5 | 134.5 | 134.9 | 145.6 | 157.3 |
| 40° | 160.5 | 161.8 | 167.2 | 172.0 | 169.7 | 155.9 | 144.3 | 141.3 | 141.5 | 150.7 | 160.0 |
| 42.5° | 169.3 | 171.0 | 178.0 | 185.0 | 184.9 | 172.0 | 156.6 | 152.1 | 152.3 | 159.4 | 165.7 |
| 45° | 180.5 | 181.7 | 190.5 | 199.3 | 201.2 | 189.7 | 172.2 | 166.2 | 166.4 | 172.7 | 176.7 |
| 47.5° | 194.3 | 195.6 | 204.1 | 214.7 | 219.4 | 211.1 | 192.4 | 185.9 | 185.3 | 189.7 | 192.6 |
| 50° | 212.2 | 214.8 | 219.8 | 229.9 | 241.3 | 235.8 | 216.1 | 209.6 | 208.8 | 212.3 | 213.2 |
| 52.5° | 229.3 | 231.7 | 233.7 | 243.0 | 265.2 | 266.5 | 245.2 | 238.1 | 237.2 | 238.1 | 239.2 |
| 55° | 231.9 | 233.2 | 234.8 | 247.3 | 284.4 | 305.6 | 278.2 | 269.8 | 267.4 | 265.9 | 269.7 |
| 57.5° | 211.4 | 210.5 | 215.7 | 232.8 | 287.6 | 348.7 | 323.0 | 306.6 | 304.3 | 295.8 | 291.9 |
| 60° | 167.4 | 166.2 | 171.1 | 194.5 | 269.7 | 370.2 | 385.0 | 347.3 | 341.7 | 313.1 | 309.4 |
| 62.5° | 117.6 | 116.2 | 122.5 | 136.3 | 209.2 | 365.9 | 455.0 | 385.8 | 374.8 | 328.4 | 323.4 |
| 65° | 90.6 | 90.0 | 93.4 | 96.5 | 127.7 | 317.0 | 493.5 | 461.1 | 438.3 | 345.1 | 338.6 |
| 67.5° | 71.0 | 71.8 | 76.1 | 85.0 | 82.4 | 197.6 | 489.9 | 575.9 | 553.1 | 375.8 | 371.7 |
| 70° | 57.1 | 57.3 | 62.6 | 76.9 | 77.8 | 100.6 | 414.8 | 635.2 | 634.9 | 425.4 | 398.0 |
| 72.5° | 34.5 | 35.5 | 44.0 | 66.5 | 78.5 | 77.0 | 278.9 | 582.0 | 590.1 | 436.9 | 358.9 |
| 75° | 16.6 | 17.5 | 22.8 | 44.6 | 78.0 | 74.9 | 150.9 | 440.7 | 451.0 | 391.8 | 291.0 |
| 77.5° | 6.2 | 7.0 | 10.5 | 21.8 | 57.8 | 68.6 | 79.4 | 297.1 | 305.2 | 286.8 | 197.1 |
| 80° | 2.0 | 2.3 | 4.1 | 10.0 | 29.4 | 56.7 | 51.1 | 167.6 | 173.0 | 125.5 | 66.3 |
| 82.5° | 0.2 | 0.3 | 1.1 | 3.4 | 11.3 | 28.9 | 30.0 | 63.1 | 65.9 | 24.5 | 13.4 |
| 85° | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.2 | 7.4 | 12.1 | 9.9 | 2.4 | 3.9 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.2 | 0.3 | 0.3 | 0.3 | 0.4 |
| 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: ENV-SA1-735-U-SL2-HSS-XXB

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0° | 151.7 | 151.7 | 151.7 | 151.7 | 151.7 | 151.7 | 151.7 | 151.7 | 151.7 | 151.7 | 151.7 |
| 2.5° | 151.5 | 151.5 | 150.8 | 149.6 | 148.2 | 146.1 | 145.6 | 144.0 | 144.0 | 142.6 | 142.4 |
| 5° | 151.7 | 151.1 | 148.7 | 145.2 | 140.4 | 135.1 | 131.8 | 128.2 | 125.1 | 123.1 | 123.4 |
| 7.5° | 151.7 | 150.4 | 145.6 | 137.9 | 128.8 | 119.7 | 112.8 | 104.8 | 101.1 | 98.6 | 99.8 |
| 10° | 151.3 | 149.0 | 140.8 | 129.0 | 114.7 | 102.1 | 90.8 | 81.5 | 75.1 | 72.4 | 70.2 |
| 12.5° | 150.4 | 147.1 | 134.7 | 118.0 | 99.7 | 83.2 | 67.5 | 55.3 | 46.9 | 42.7 | 42.1 |
| 15° | 149.5 | 145.0 | 127.6 | 105.9 | 82.6 | 61.1 | 43.6 | 31.9 | 24.7 | 23.1 | 23.3 |
| 17.5° | 149.3 | 143.0 | 120.8 | 93.2 | 66.1 | 40.7 | 25.1 | 20.3 | 19.3 | 18.9 | 18.8 |
| 20° | 149.4 | 141.3 | 113.4 | 80.5 | 46.8 | 25.4 | 19.1 | 17.9 | 17.5 | 17.3 | 17.2 |
| 22.5° | 149.8 | 139.3 | 106.0 | 67.2 | 31.9 | 18.5 | 17.0 | 16.3 | 15.8 | 15.5 | 15.4 |
| 25° | 149.8 | 137.2 | 97.9 | 53.1 | 20.9 | 16.3 | 15.3 | 14.3 | 13.6 | 13.2 | 13.2 |
| 27.5° | 149.5 | 134.7 | 89.4 | 40.3 | 16.6 | 14.5 | 13.4 | 12.2 | 11.2 | 10.7 | 10.7 |
| 30° | 148.6 | 131.7 | 81.3 | 28.1 | 14.5 | 13.0 | 11.5 | 10.0 | 8.9 | 8.3 | 8.1 |
| 32.5° | 147.3 | 128.5 | 71.9 | 19.8 | 13.1 | 11.3 | 9.7 | 8.0 | 7.0 | 6.4 | 6.4 |
| 35° | 145.8 | 125.3 | 61.8 | 15.1 | 11.9 | 10.0 | 8.1 | 6.5 | 5.6 | 5.2 | 5.0 |
| 37.5° | 145.1 | 121.9 | 51.9 | 13.1 | 10.6 | 8.6 | 6.6 | 5.3 | 4.5 | 4.2 | 4.1 |
| 40° | 145.6 | 119.3 | 42.3 | 11.7 | 9.5 | 7.2 | 5.5 | 4.4 | 3.8 | 3.4 | 3.4 |
| 42.5° | 148.7 | 117.9 | 33.1 | 10.7 | 8.5 | 6.1 | 4.5 | 3.6 | 3.0 | 2.7 | 2.7 |
| 45° | 155.0 | 118.9 | 25.1 | 9.8 | 7.2 | 5.0 | 3.8 | 2.9 | 2.3 | 2.0 | 2.0 |
| 47.5° | 165.5 | 123.0 | 19.1 | 9.0 | 6.2 | 4.1 | 3.1 | 2.3 | 1.8 | 1.5 | 1.4 |
| 50° | 180.9 | 131.2 | 14.9 | 8.1 | 5.2 | 3.5 | 2.6 | 1.8 | 1.3 | 1.1 | 1.1 |
| 52.5° | 203.0 | 145.3 | 12.8 | 7.2 | 4.2 | 2.9 | 2.1 | 1.3 | 1.0 | 0.8 | 0.8 |
| 55° | 230.2 | 163.2 | 11.5 | 6.4 | 3.4 | 2.4 | 1.6 | 1.0 | 0.7 | 0.6 | 0.5 |
| 57.5° | 252.3 | 177.5 | 10.8 | 5.6 | 2.9 | 2.1 | 1.2 | 0.8 | 0.6 | 0.4 | 0.4 |
| 60° | 271.7 | 186.6 | 9.6 | 4.6 | 2.5 | 1.6 | 1.0 | 0.6 | 0.4 | 0.3 | 0.3 |
| 62.5° | 287.5 | 192.6 | 7.9 | 3.7 | 2.1 | 1.3 | 0.8 | 0.5 | 0.4 | 0.3 | 0.3 |
| 65° | 305.4 | 197.4 | 6.5 | 2.9 | 1.8 | 1.1 | 0.7 | 0.4 | 0.3 | 0.3 | 0.3 |
| 67.5° | 340.6 | 208.3 | 4.8 | 2.3 | 1.3 | 0.9 | 0.6 | 0.4 | 0.3 | 0.2 | 0.2 |
| 70° | 354.3 | 195.6 | 3.8 | 1.9 | 1.0 | 0.8 | 0.6 | 0.4 | 0.2 | 0.2 | 0.2 |
| 72.5° | 301.5 | 146.4 | 3.0 | 1.5 | 0.9 | 0.7 | 0.6 | 0.4 | 0.3 | 0.3 | 0.2 |
| 75° | 239.2 | 98.9 | 2.4 | 1.2 | 0.9 | 0.8 | 0.6 | 0.6 | 0.5 | 0.4 | 0.4 |
| 77.5° | 152.7 | 43.8 | 1.9 | 1.0 | 0.9 | 1.0 | 0.9 | 0.6 | 0.6 | 0.5 | 0.5 |
| 80° | 45.5 | 10.5 | 1.3 | 0.8 | 0.7 | 0.8 | 0.9 | 0.6 | 0.4 | 0.3 | 0.3 |
| 82.5° | 9.9 | 2.5 | 0.8 | 0.4 | 0.5 | 0.4 | 0.6 | 0.6 | 0.4 | 0.3 | 0.3 |
| 85° | 3.3 | 0.9 | 0.5 | 0.4 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.2 |
| 87.5° | 0.2 | 0.3 | 0.3 | 0.2 | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 | 0.2 | 0.2 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)