

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: **ENT-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: ENT-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

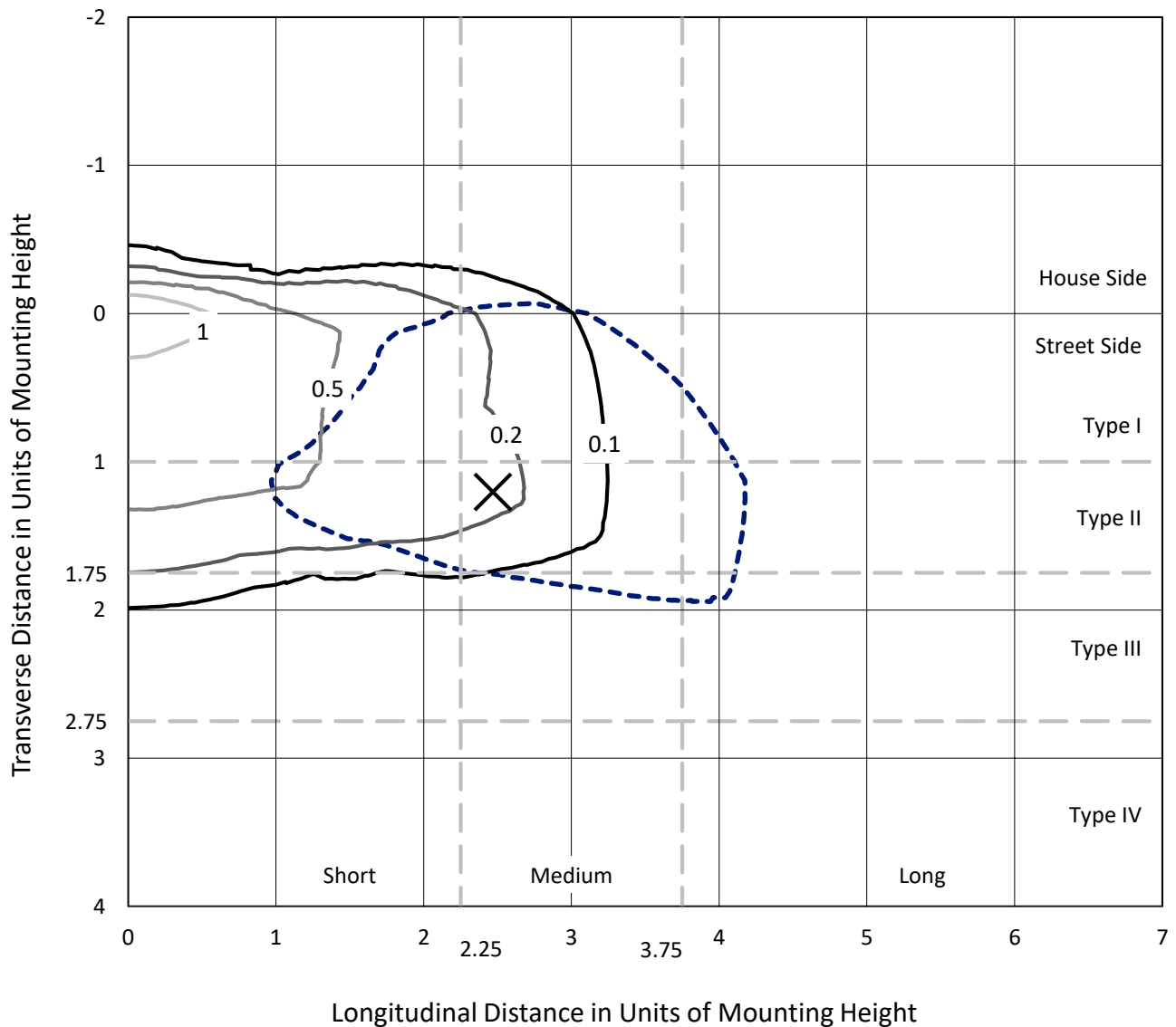
Input Watts (W): 13  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



REPORT NUMBER: P400747  
 CATALOG NUMBER: ENT-SA1-735-U-SL2-HSS-XXB

### Iso-Footcandle Lines of Horizontal Illumination

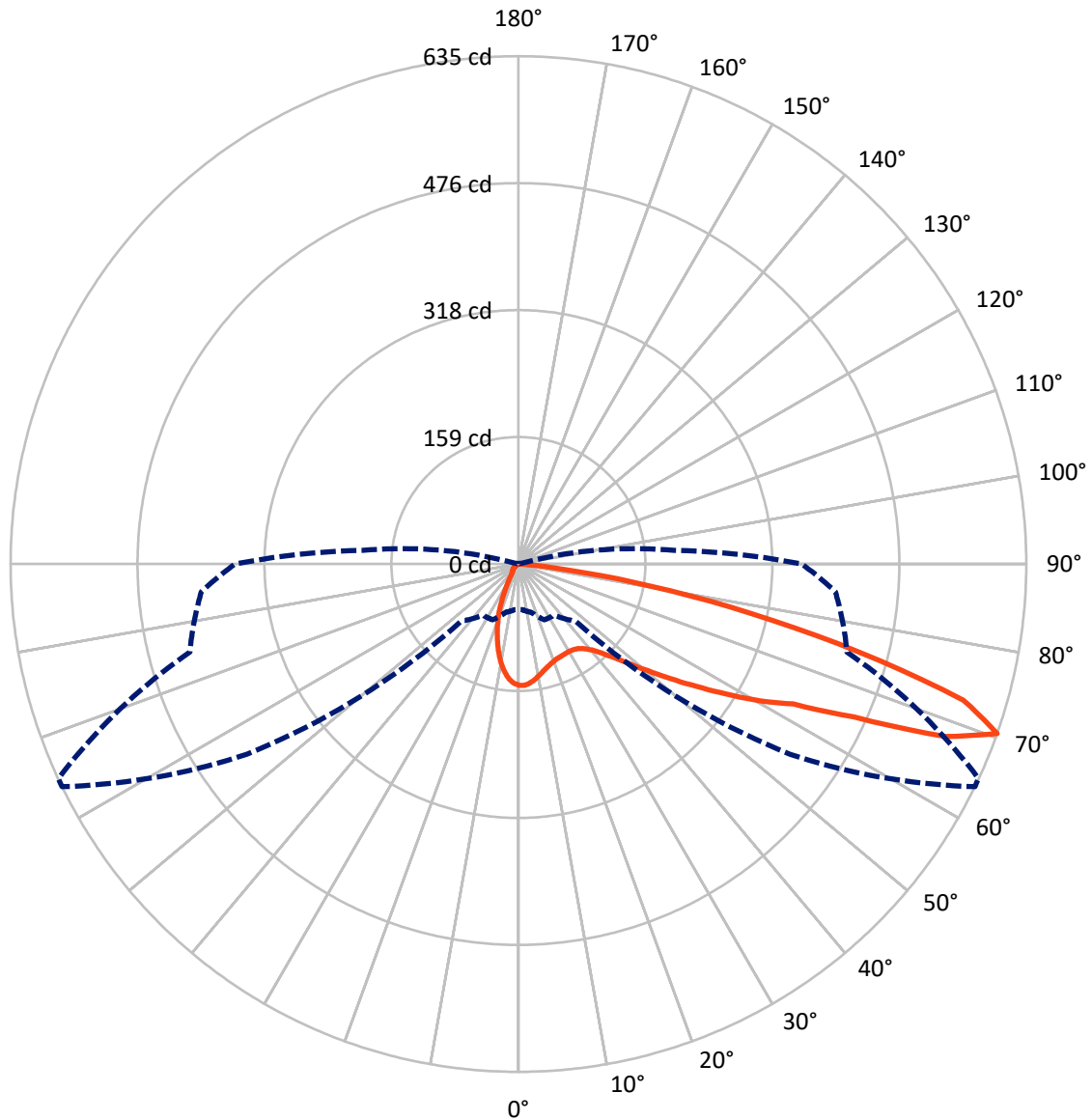
× Max cd  
 - - - 1/2 Max cd



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

REPORT NUMBER: P400747  
CATALOG NUMBER: ENT-SA1-735-U-SL2-HSS-XXB

### Luminous Intensity Polar Plot



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

REPORT NUMBER: P400747

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

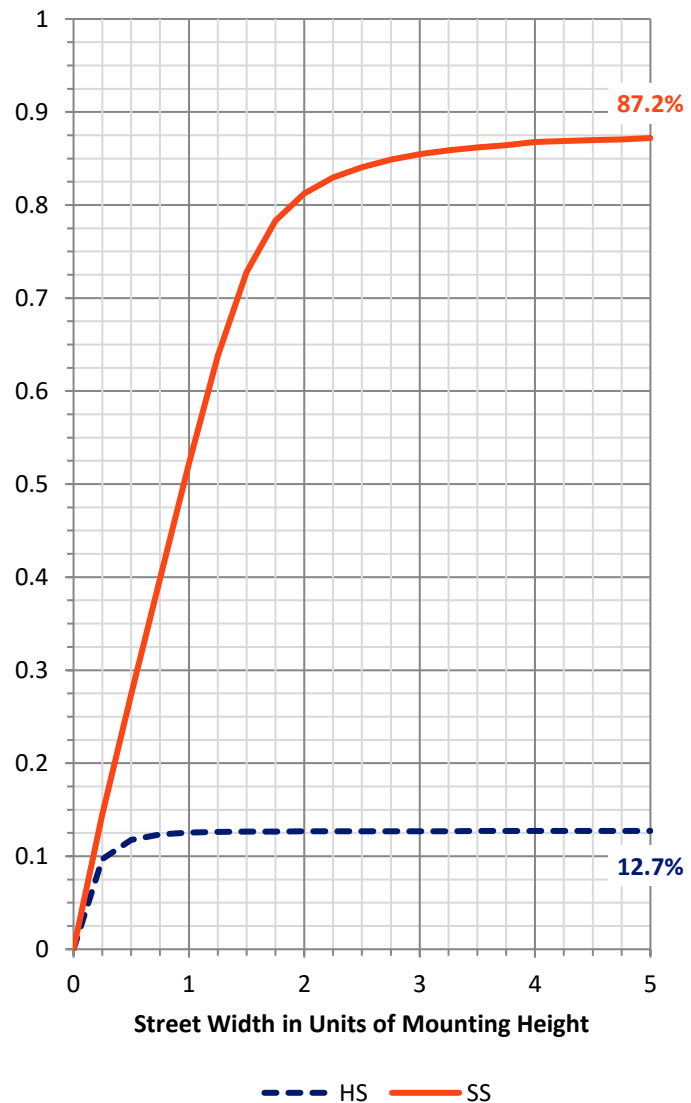
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total |
|--------------------|-----------|----------|--------|-------|
| <b>House Side</b>  | Lumens    | 75.3     | 0.0    | 75.3  |
|                    | % Fixture | 12.8     | 0.0    | 12.8  |
| <b>Street Side</b> | Lumens    | 510.7    | 0.0    | 510.7 |
|                    | % Fixture | 87.2     | 0.0    | 87.2  |
| <b>Total</b>       | 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     |



REPORT NUMBER: P400747

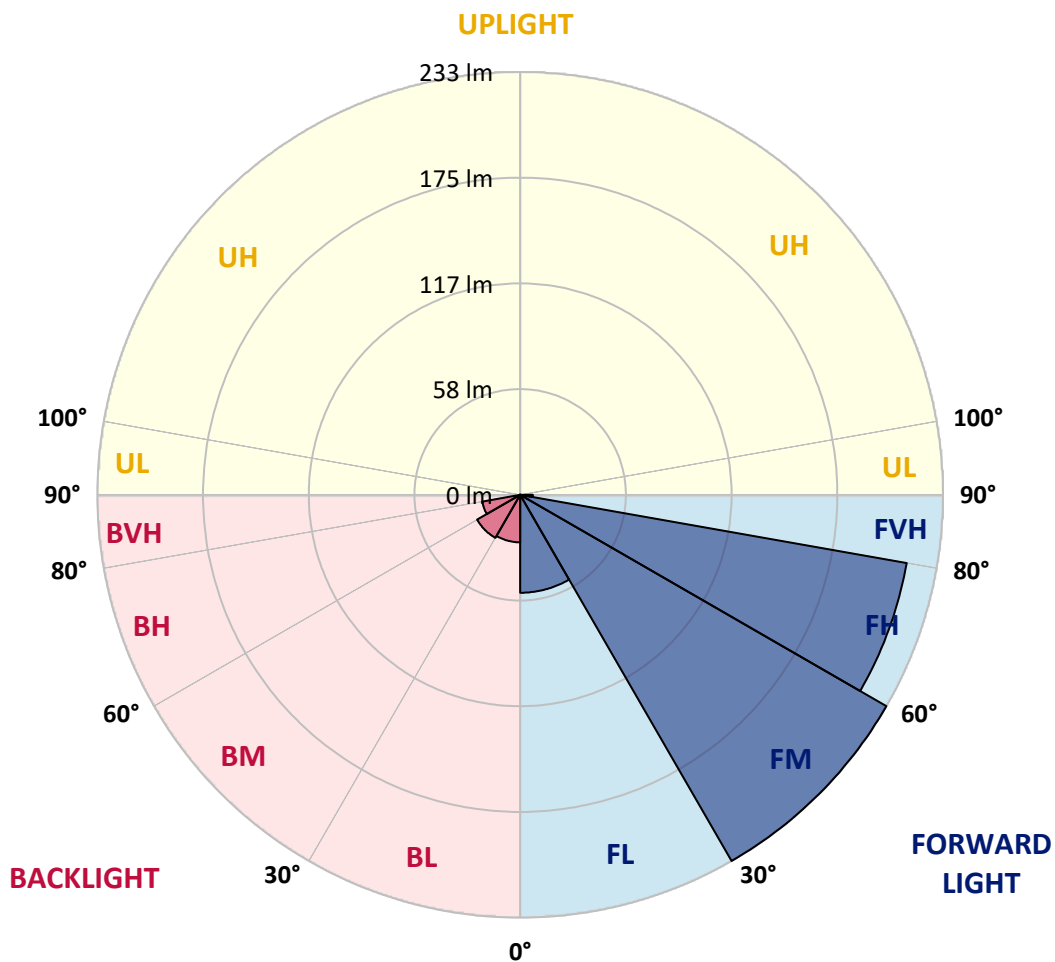
CATALOG NUMBER: ENT-SA1-735-U-SL2-HSS-XXB

**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





REPORT NUMBER: P400747

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

**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   |



REPORT NUMBER: P400747

CATALOG NUMBER: ENT-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)