

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: P400733

Luminaire Tested: **ENC-SA1-730-U-SL4-HSS-XXB**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P400733
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-6)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENC-SA1-730-U-SL4-HSS-XXB
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 3000K LIGHTSQUARE IN BATTERY OPERATION WITH 16 LEDS AND TYPE IV SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 577 lumens
Efficiency: N/A
Efficacy: 44.4 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B0 - U0 - G0

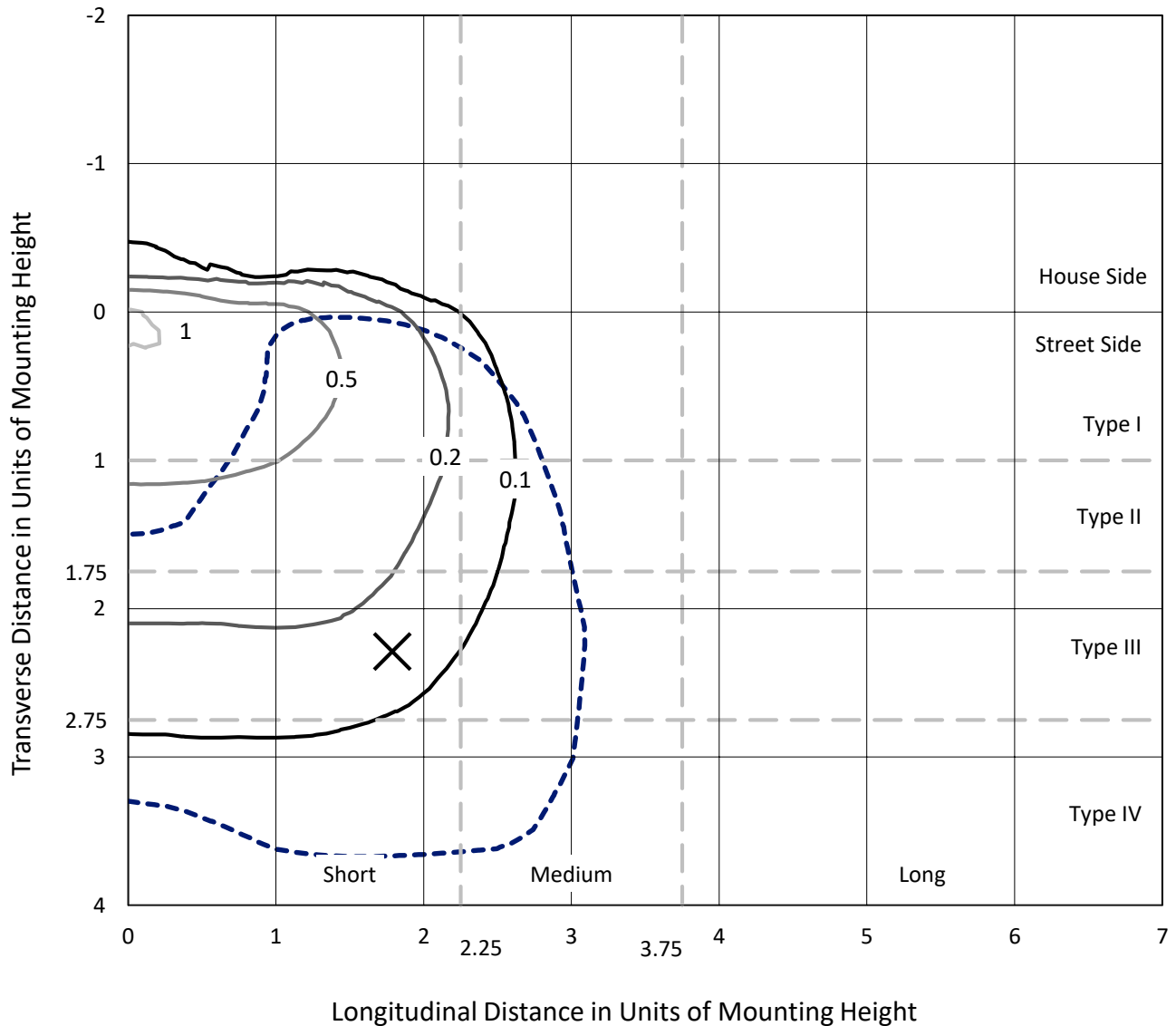
Input Watts (W): 13
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P400733
 CATALOG NUMBER: ENC-SA1-730-U-SL4-HSS-XXB

Iso-Footcandle Lines of Horizontal Illumination

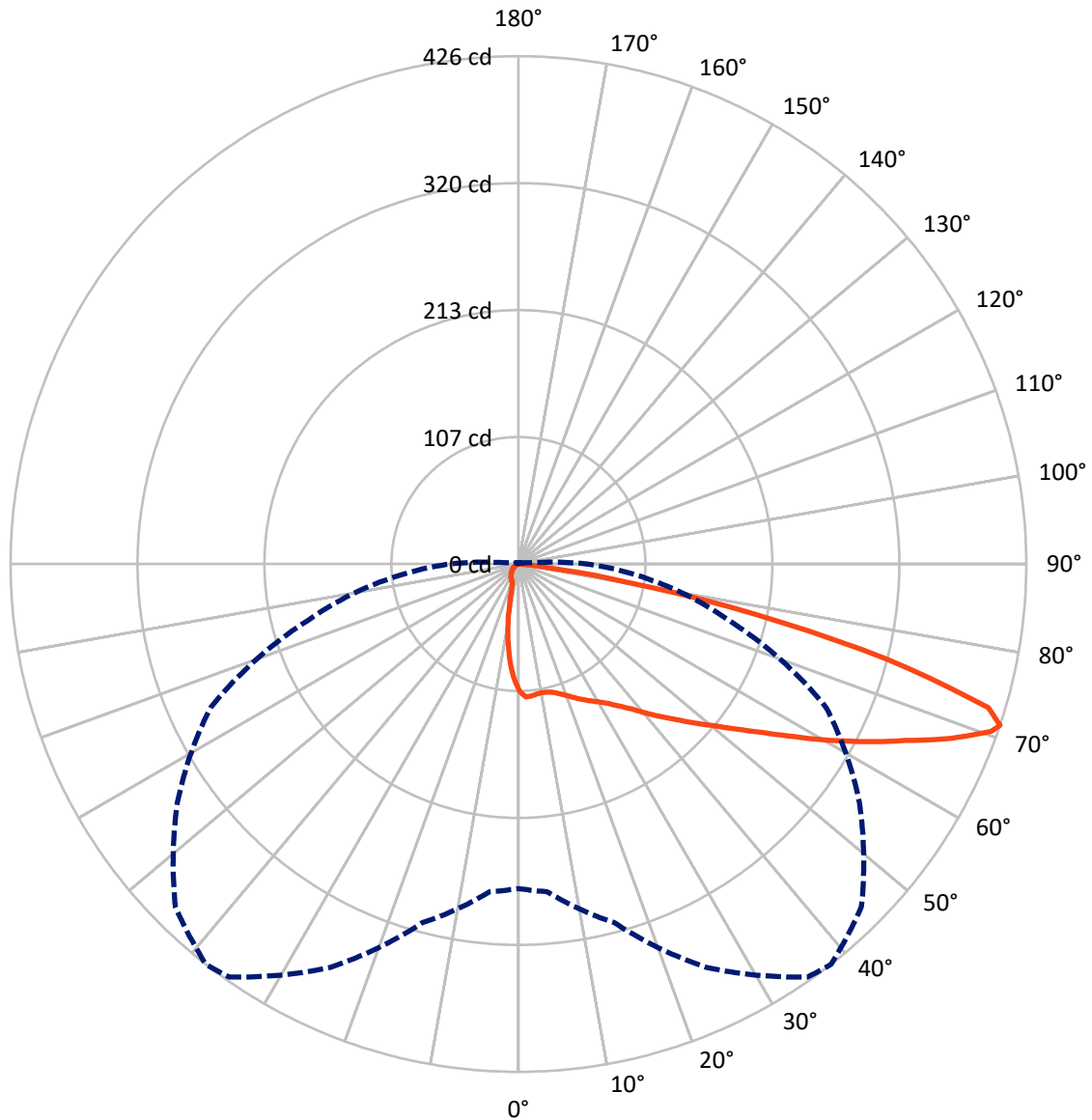
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 1.1 fc
 Type IV - Short - Semi-Cutoff

REPORT NUMBER: P400733
CATALOG NUMBER: ENC-SA1-730-U-SL4-HSS-XXB

Luminous Intensity Polar Plot



— Vertical Plane Through 38-Deg Lateral - - - Horizontal Cone Through 71-Deg Vertical

REPORT NUMBER: P400733

CATALOG NUMBER: ENC-SA1-730-U-SL4-HSS-XXB

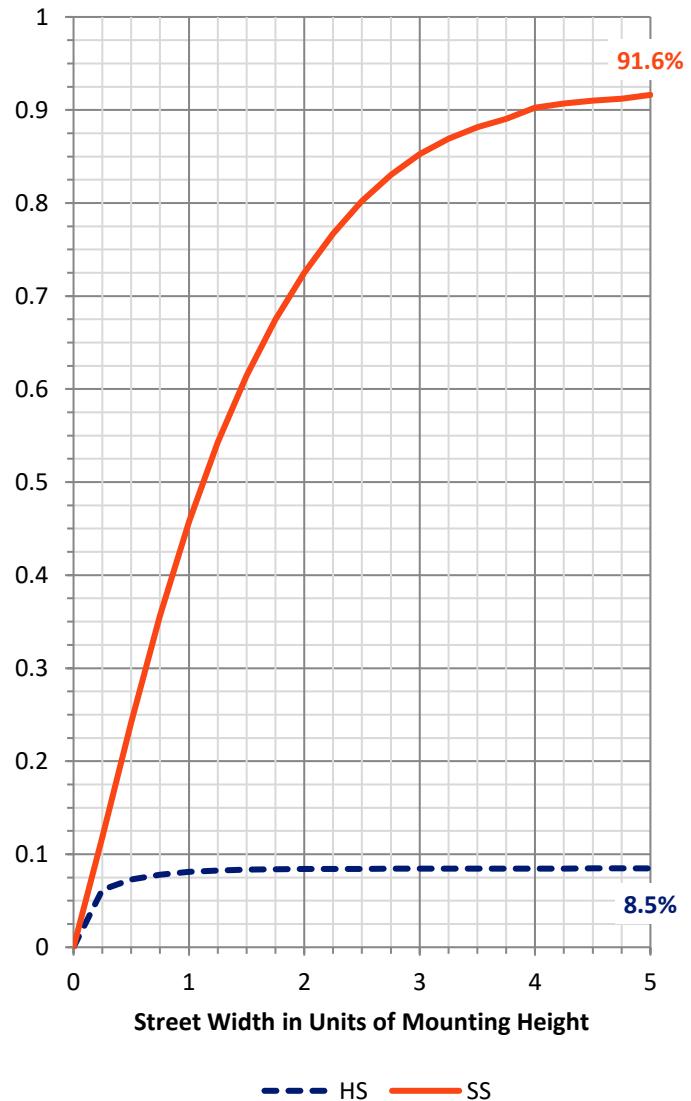
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|-------|
| House Side | Lumens | 49.3 | 0.0 | 49.3 |
| | % Fixture | 8.5 | 0.0 | 8.5 |
| Street Side | Lumens | 527.7 | 0.0 | 527.7 |
| | % Fixture | 91.5 | 0.0 | 91.5 |
| Total | Lumens | 577.0 | 0.0 | 577.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 9.0 | 1.6 |
| 10°-20° | 21.8 | 3.8 |
| 20°-30° | 34.9 | 6.0 |
| 30°-40° | 53.1 | 9.2 |
| 40°-50° | 82.7 | 14.3 |
| 50°-60° | 120.9 | 21.0 |
| 60°-70° | 155.1 | 26.9 |
| 70°-80° | 94.8 | 16.4 |
| 80°-90° | 4.8 | 0.8 |
| 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° | 577.0 | 100.0 |
| 0°-180° | 577.0 | 100.0 |



REPORT NUMBER: P400733

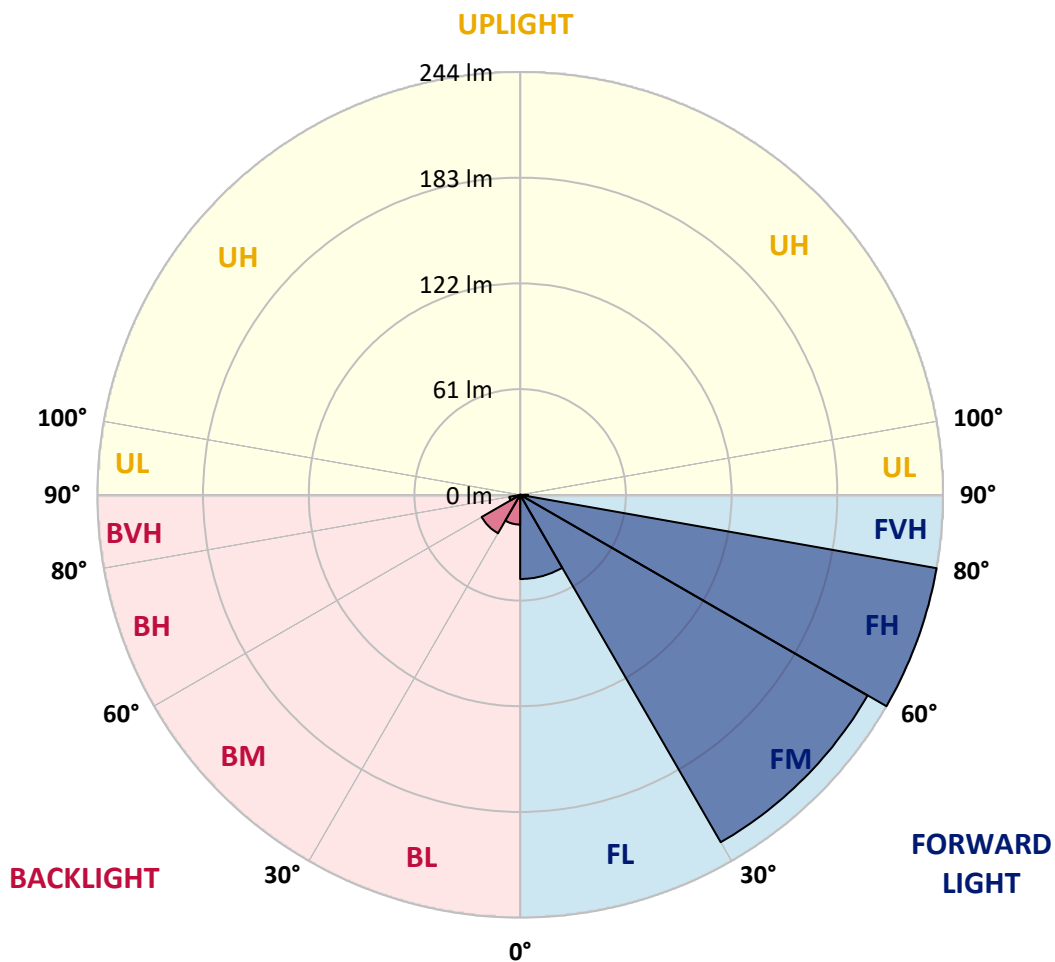
CATALOG NUMBER: ENC-SA1-730-U-SL4-HSS-XXB

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|--------|
| | | | B | U | G |
| FL (0°-30°) | 48.5 | 8.4 | | | |
| FM (30°-60°) | 231.1 | 40.0 | | | |
| FH (60°-80°) | 243.6 | 42.2 | | | G0/660 |
| FVH (80°-90°) | 4.6 | 0.8 | | | G0/10 |
| BL (0°-30°) | 17.1 | 3.0 | B0/110 | | |
| BM (30°-60°) | 25.6 | 4.4 | B0/220 | | |
| BH (60°-80°) | 6.3 | 1.1 | B0/110 | | G0/110 |
| BVH (80°-90°) | 0.2 | 0.0 | | | 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 IV Short





REPORT NUMBER: P400733

CATALOG NUMBER: ENC-SA1-730-U-SL4-HSS-XXB

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 38° | 45° | 55° | 65° | 75° | 85° |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0° | 106.4 | 106.4 | 106.4 | 106.4 | 106.4 | 106.4 | 106.4 | 106.4 | 106.4 | 106.4 | 106.4 |
| 2.5° | 112.7 | 112.4 | 112.7 | 112.4 | 111.8 | 111.5 | 111.1 | 110.0 | 109.0 | 107.8 | 106.0 |
| 5° | 112.9 | 112.7 | 112.7 | 112.3 | 111.6 | 111.3 | 110.9 | 109.8 | 108.5 | 106.7 | 104.0 |
| 7.5° | 111.8 | 111.7 | 111.5 | 111.1 | 110.3 | 110.1 | 109.8 | 108.5 | 107.2 | 105.3 | 102.0 |
| 10° | 110.0 | 110.2 | 110.1 | 110.1 | 109.8 | 109.6 | 109.4 | 107.9 | 106.5 | 104.3 | 100.8 |
| 12.5° | 108.3 | 108.5 | 109.0 | 109.8 | 110.1 | 110.2 | 110.2 | 108.7 | 107.0 | 104.6 | 101.0 |
| 15° | 107.2 | 107.6 | 109.0 | 110.6 | 111.5 | 111.8 | 112.1 | 110.5 | 108.5 | 105.9 | 102.1 |
| 17.5° | 106.9 | 107.5 | 110.2 | 112.7 | 114.4 | 114.6 | 114.6 | 112.6 | 110.5 | 107.5 | 103.4 |
| 20° | 107.9 | 108.7 | 112.2 | 115.7 | 117.8 | 118.0 | 117.6 | 115.0 | 112.5 | 109.2 | 104.5 |
| 22.5° | 110.9 | 111.6 | 115.6 | 119.7 | 121.7 | 121.9 | 121.0 | 117.4 | 114.7 | 112.0 | 106.0 |
| 25° | 116.1 | 116.5 | 120.8 | 124.7 | 125.8 | 126.1 | 124.6 | 120.3 | 117.2 | 114.7 | 108.1 |
| 27.5° | 123.0 | 123.2 | 127.1 | 130.0 | 130.2 | 130.1 | 128.5 | 124.0 | 120.9 | 118.8 | 111.3 |
| 30° | 130.2 | 130.5 | 133.7 | 135.6 | 134.8 | 134.4 | 133.0 | 128.2 | 125.4 | 123.8 | 115.9 |
| 32.5° | 136.9 | 137.2 | 140.7 | 141.7 | 139.9 | 139.6 | 138.6 | 133.5 | 131.1 | 131.9 | 122.5 |
| 35° | 143.5 | 143.5 | 147.5 | 148.0 | 146.4 | 146.4 | 146.4 | 140.3 | 139.9 | 142.6 | 131.7 |
| 37.5° | 149.4 | 150.4 | 154.6 | 154.4 | 154.1 | 154.3 | 154.9 | 150.3 | 151.7 | 156.3 | 143.8 |
| 40° | 154.4 | 155.7 | 161.3 | 161.8 | 163.1 | 164.2 | 165.1 | 162.7 | 166.0 | 173.5 | 159.3 |
| 42.5° | 158.9 | 160.4 | 167.6 | 169.9 | 173.5 | 175.0 | 176.7 | 176.1 | 183.4 | 197.0 | 179.1 |
| 45° | 164.7 | 166.3 | 173.7 | 179.2 | 184.1 | 186.1 | 189.9 | 192.5 | 204.6 | 220.2 | 200.4 |
| 47.5° | 172.4 | 173.5 | 180.3 | 188.9 | 195.7 | 199.3 | 205.2 | 211.9 | 226.6 | 244.8 | 219.5 |
| 50° | 182.9 | 183.0 | 188.0 | 199.3 | 209.4 | 213.3 | 223.5 | 232.2 | 250.6 | 266.5 | 233.3 |
| 52.5° | 194.4 | 193.8 | 197.8 | 212.1 | 224.9 | 230.2 | 242.2 | 254.3 | 272.8 | 282.2 | 239.5 |
| 55° | 205.4 | 205.7 | 208.2 | 225.7 | 244.4 | 249.5 | 264.7 | 277.0 | 293.1 | 291.8 | 242.9 |
| 57.5° | 218.1 | 218.0 | 221.2 | 240.6 | 267.2 | 273.1 | 289.0 | 299.1 | 305.4 | 298.7 | 243.5 |
| 60° | 230.1 | 229.8 | 234.7 | 258.4 | 291.5 | 300.2 | 314.5 | 314.1 | 317.7 | 303.1 | 243.0 |
| 62.5° | 240.8 | 241.5 | 250.1 | 279.1 | 318.7 | 328.1 | 335.3 | 330.3 | 331.3 | 308.2 | 236.8 |
| 65° | 253.8 | 255.1 | 269.0 | 304.2 | 352.3 | 356.8 | 359.6 | 351.5 | 341.5 | 304.1 | 218.0 |
| 67.5° | 270.2 | 274.1 | 293.7 | 341.2 | 387.3 | 390.4 | 390.5 | 364.3 | 341.1 | 283.4 | 183.4 |
| 70° | 276.7 | 280.8 | 312.0 | 370.5 | 416.8 | 420.7 | 408.5 | 362.3 | 314.2 | 221.9 | 123.8 |
| 71° | 272.2 | 275.9 | 311.5 | 373.3 | 422.9 | 426.0 | 406.9 | 349.2 | 284.9 | 182.9 | 95.9 |
| 72.5° | 239.7 | 249.3 | 292.3 | 355.7 | 412.0 | 412.1 | 381.0 | 318.3 | 226.6 | 114.2 | 48.2 |
| 75° | 129.5 | 141.1 | 214.2 | 270.7 | 317.8 | 320.3 | 293.1 | 221.0 | 109.7 | 29.6 | 11.7 |
| 77.5° | 42.7 | 48.1 | 96.1 | 140.6 | 199.3 | 203.2 | 179.3 | 98.2 | 34.6 | 10.0 | 6.1 |
| 80° | 26.8 | 27.4 | 32.5 | 59.1 | 88.7 | 92.0 | 73.8 | 39.8 | 15.6 | 5.5 | 4.2 |
| 82.5° | 4.5 | 5.4 | 15.3 | 17.4 | 31.3 | 24.8 | 16.8 | 20.3 | 7.3 | 2.5 | 3.6 |
| 85° | 0.0 | 0.0 | 0.1 | 0.1 | 0.5 | 0.1 | 0.1 | 4.1 | 0.4 | 0.4 | 1.9 |
| 87.5° | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 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 |



REPORT NUMBER: P400733

CATALOG NUMBER: ENC-SA1-730-U-SL4-HSS-XXB

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0° | 106.4 | 106.4 | 106.4 | 106.4 | 106.4 | 106.4 | 106.4 | 106.4 | 106.4 | 106.4 | 106.4 |
| 2.5° | 105.2 | 104.4 | 102.8 | 101.1 | 99.0 | 97.2 | 96.6 | 95.3 | 94.7 | 94.2 | 94.2 |
| 5° | 102.3 | 100.9 | 97.5 | 94.0 | 90.6 | 87.0 | 83.7 | 80.6 | 79.1 | 77.0 | 78.0 |
| 7.5° | 99.9 | 97.5 | 92.7 | 87.2 | 80.2 | 73.1 | 67.6 | 62.8 | 58.8 | 57.5 | 56.6 |
| 10° | 98.2 | 95.2 | 88.2 | 79.8 | 69.6 | 59.5 | 51.0 | 43.1 | 38.5 | 35.7 | 35.7 |
| 12.5° | 98.0 | 94.2 | 85.1 | 72.2 | 57.5 | 43.8 | 33.3 | 25.8 | 22.1 | 20.4 | 20.3 |
| 15° | 98.7 | 94.1 | 82.3 | 65.3 | 46.4 | 30.4 | 20.8 | 17.5 | 16.6 | 16.4 | 16.4 |
| 17.5° | 99.3 | 94.0 | 79.0 | 57.5 | 34.2 | 20.0 | 16.5 | 15.9 | 15.7 | 15.6 | 15.6 |
| 20° | 99.9 | 93.5 | 75.2 | 48.7 | 24.2 | 16.3 | 15.4 | 15.1 | 15.0 | 14.9 | 14.9 |
| 22.5° | 100.7 | 93.0 | 71.3 | 38.7 | 17.9 | 15.2 | 14.7 | 14.4 | 14.3 | 14.3 | 14.3 |
| 25° | 101.8 | 92.7 | 66.5 | 29.3 | 15.4 | 14.4 | 13.9 | 13.7 | 13.7 | 13.6 | 13.6 |
| 27.5° | 103.9 | 93.0 | 61.3 | 21.0 | 14.4 | 13.6 | 13.3 | 13.1 | 13.1 | 13.0 | 13.0 |
| 30° | 106.8 | 93.9 | 54.8 | 16.4 | 13.6 | 12.8 | 12.5 | 12.4 | 12.3 | 12.3 | 12.3 |
| 32.5° | 110.9 | 95.3 | 47.7 | 14.0 | 12.6 | 12.0 | 11.7 | 11.6 | 11.6 | 11.6 | 11.5 |
| 35° | 117.2 | 98.2 | 39.0 | 12.8 | 11.7 | 11.1 | 10.8 | 10.8 | 10.8 | 10.7 | 10.8 |
| 37.5° | 126.8 | 102.9 | 30.2 | 11.8 | 10.7 | 10.2 | 10.0 | 9.9 | 9.9 | 9.9 | 9.9 |
| 40° | 138.9 | 110.5 | 22.0 | 10.9 | 9.8 | 9.3 | 9.1 | 9.0 | 8.9 | 8.9 | 8.9 |
| 42.5° | 154.5 | 118.9 | 16.0 | 9.9 | 9.0 | 8.5 | 8.3 | 8.1 | 7.9 | 7.8 | 7.8 |
| 45° | 170.7 | 128.9 | 12.5 | 9.1 | 8.2 | 7.8 | 7.6 | 7.3 | 7.0 | 6.7 | 6.7 |
| 47.5° | 186.3 | 136.6 | 10.7 | 8.2 | 7.5 | 7.1 | 6.9 | 6.5 | 6.0 | 5.7 | 5.7 |
| 50° | 196.2 | 139.0 | 9.6 | 7.4 | 6.8 | 6.5 | 6.2 | 5.7 | 5.0 | 4.7 | 4.7 |
| 52.5° | 199.3 | 134.6 | 8.6 | 6.7 | 6.2 | 5.9 | 5.5 | 4.8 | 4.1 | 3.7 | 3.7 |
| 55° | 200.5 | 126.1 | 7.6 | 6.2 | 5.6 | 5.2 | 4.7 | 4.0 | 3.3 | 2.9 | 2.9 |
| 57.5° | 199.0 | 114.1 | 6.8 | 5.6 | 5.0 | 4.6 | 4.0 | 3.2 | 2.5 | 2.2 | 2.2 |
| 60° | 193.9 | 96.7 | 6.1 | 5.0 | 4.4 | 3.9 | 3.3 | 2.5 | 1.9 | 1.5 | 1.6 |
| 62.5° | 180.2 | 74.8 | 5.3 | 4.2 | 3.8 | 3.3 | 2.6 | 1.9 | 1.2 | 1.0 | 1.0 |
| 65° | 158.2 | 51.8 | 4.5 | 3.5 | 3.2 | 2.7 | 2.0 | 1.3 | 0.7 | 0.6 | 0.6 |
| 67.5° | 128.5 | 33.5 | 3.5 | 2.9 | 2.7 | 2.2 | 1.5 | 0.8 | 0.4 | 0.4 | 0.3 |
| 70° | 80.7 | 16.6 | 2.8 | 2.2 | 2.2 | 1.7 | 1.1 | 0.5 | 0.3 | 0.3 | 0.3 |
| 71° | 57.1 | 11.3 | 2.5 | 2.0 | 2.0 | 1.6 | 1.0 | 0.4 | 0.3 | 0.3 | 0.3 |
| 72.5° | 25.8 | 7.1 | 2.1 | 1.8 | 1.7 | 1.3 | 0.9 | 0.4 | 0.4 | 0.4 | 0.4 |
| 75° | 8.1 | 3.9 | 1.5 | 1.4 | 1.4 | 1.1 | 0.8 | 0.5 | 0.5 | 0.5 | 0.5 |
| 77.5° | 5.4 | 3.0 | 1.0 | 0.9 | 1.1 | 1.1 | 0.8 | 0.6 | 0.6 | 0.6 | 0.6 |
| 80° | 4.4 | 1.6 | 0.6 | 0.6 | 0.8 | 1.0 | 0.8 | 0.6 | 0.7 | 0.6 | 0.6 |
| 82.5° | 4.3 | 0.8 | 0.2 | 0.3 | 0.5 | 0.6 | 0.6 | 0.5 | 0.6 | 0.6 | 0.6 |
| 85° | 1.8 | 0.2 | 0.1 | 0.2 | 0.2 | 0.3 | 0.3 | 0.4 | 0.5 | 0.5 | 0.5 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.2 | 0.2 | 0.3 | 0.4 | 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 |

(END OF REPORT)