

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: P400836

Luminaire Tested: **ENC-SA1-760-U-T4W-XXB**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P400836
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-17)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENC-SA1-760-U-T4W-XXB
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 5700K LIGHTSQUARE IN BATTERY OPERATION WITH 16 LEDS AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 772 lumens
Efficiency: N/A
Efficacy: 59.4 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

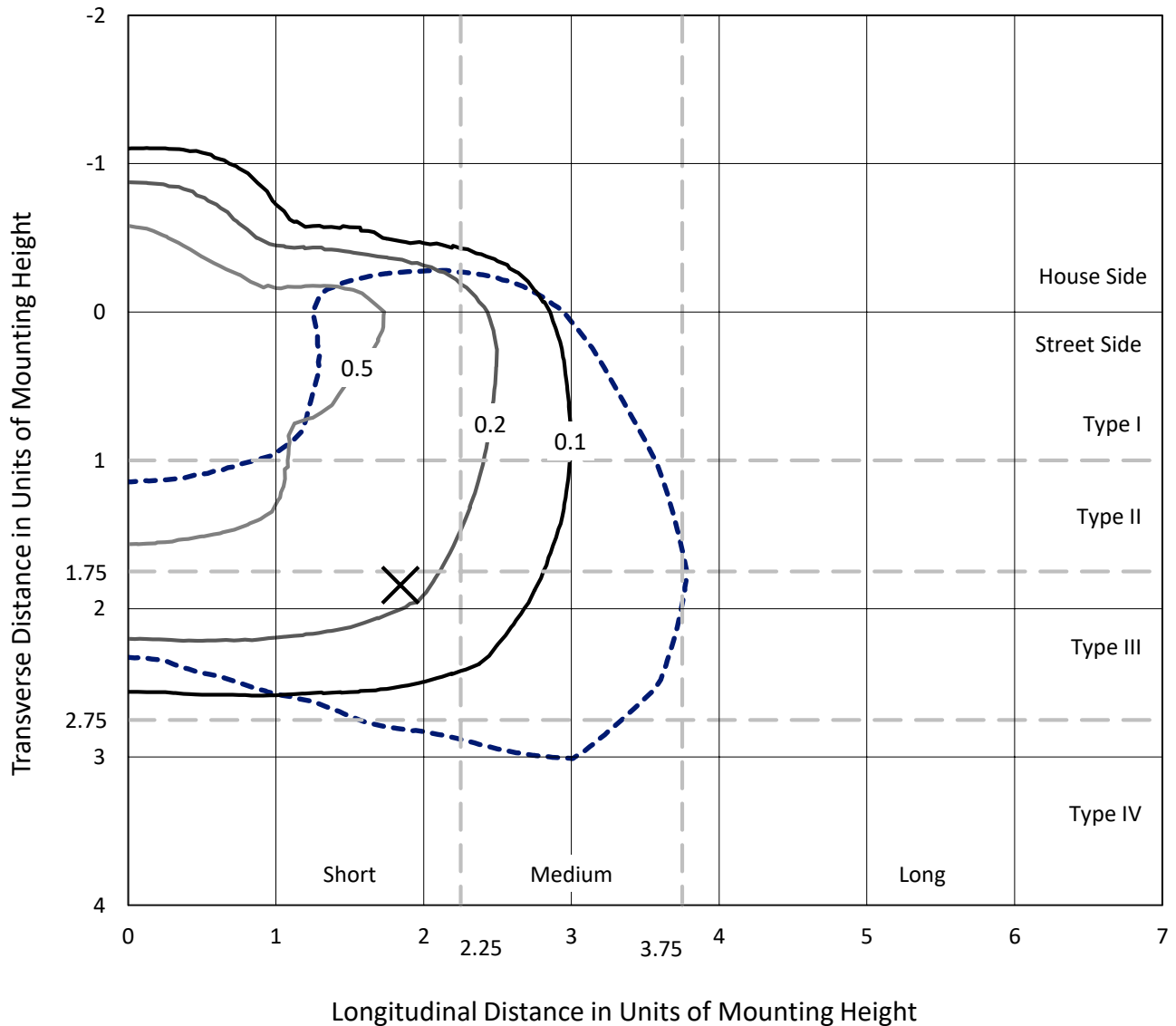


REPORT NUMBER: P400836

CATALOG NUMBER: ENC-SA1-760-U-T4W-XXB

Iso-Footcandle Lines of Horizontal Illumination

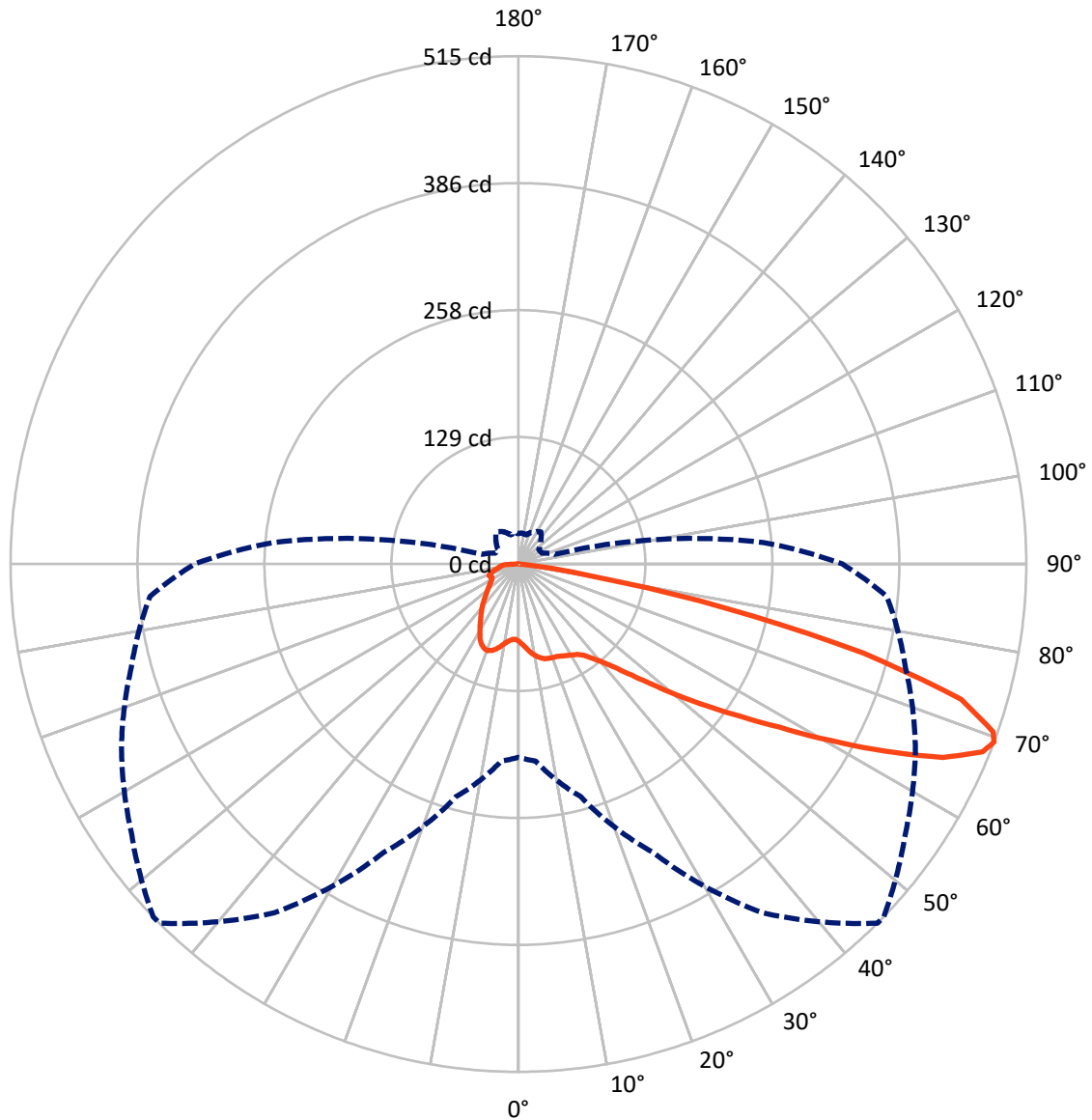
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 1 fc
 Type IV - Short - Semi-Cutoff

REPORT NUMBER: P400836
CATALOG NUMBER: ENC-SA1-760-U-T4W-XXB

Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

REPORT NUMBER: P400836

CATALOG NUMBER: ENC-SA1-760-U-T4W-XXB

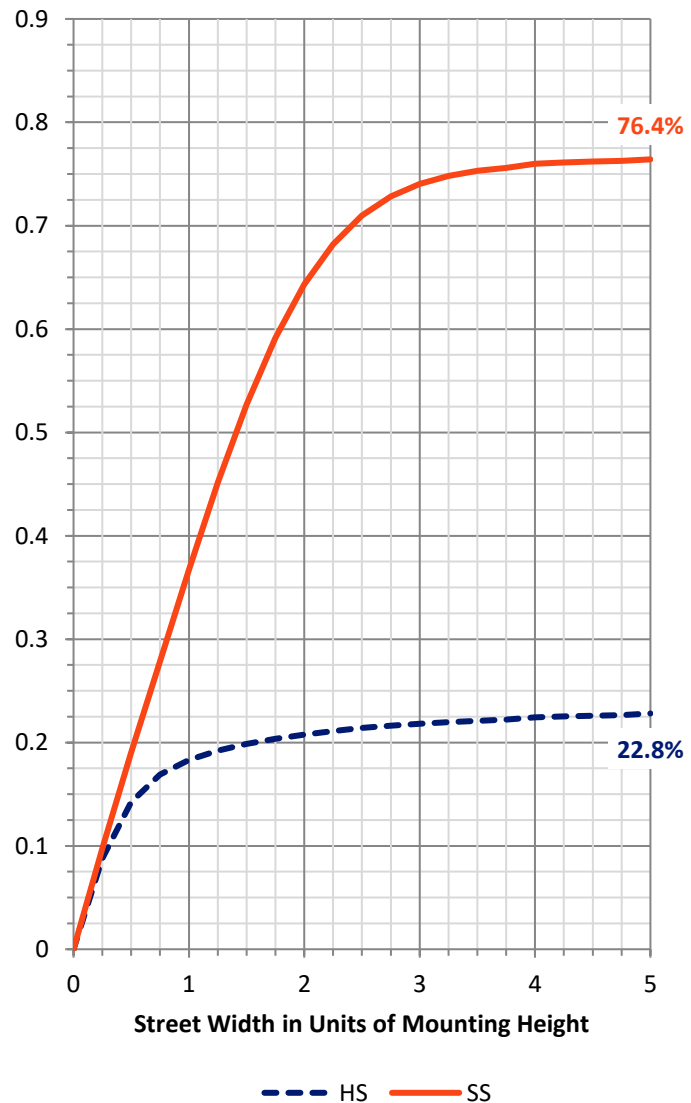
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|-------|
| House Side | Lumens | 181.8 | 0.0 | 181.8 |
| | % Fixture | 23.5 | 0.0 | 23.5 |
| Street Side | Lumens | 590.2 | 0.0 | 590.2 |
| | % Fixture | 76.5 | 0.0 | 76.5 |
| Total | Lumens | 772.0 | 0.0 | 772.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 8.0 | 1.0 |
| 10°-20° | 26.5 | 3.4 |
| 20°-30° | 44.7 | 5.8 |
| 30°-40° | 64.7 | 8.4 |
| 40°-50° | 97.7 | 12.7 |
| 50°-60° | 164.7 | 21.3 |
| 60°-70° | 226.6 | 29.3 |
| 70°-80° | 125.6 | 16.3 |
| 80°-90° | 13.7 | 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° | 772.0 | 100.0 |
| 0°-180° | 772.0 | 100.0 |



REPORT NUMBER: P400836

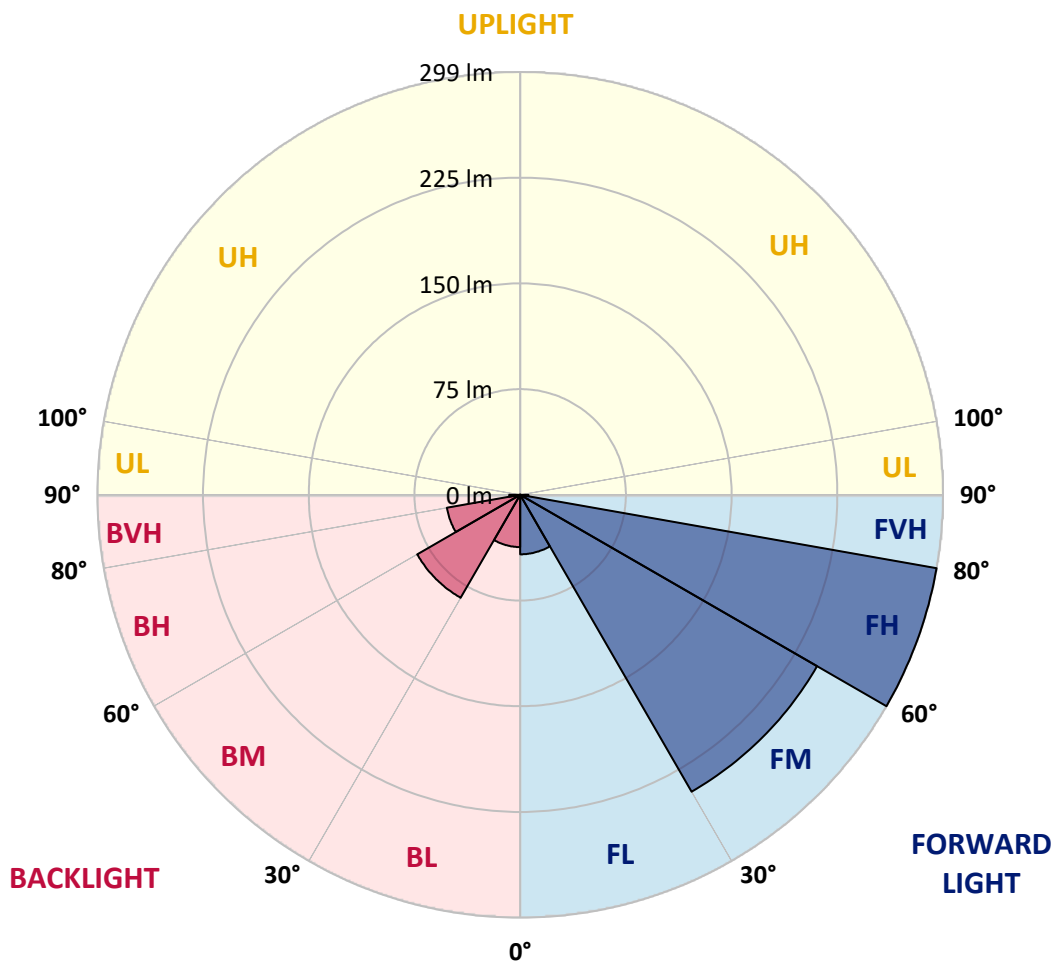
CATALOG NUMBER: ENC-SA1-760-U-T4W-XXB

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|--------|
| | | | | B | U | G |
| FL | (0°-30°) | 42.1 | 5.5 | | | |
| FM | (30°-60°) | 242.8 | 31.5 | | | |
| FH | (60°-80°) | 299.4 | 38.8 | | | G0/660 |
| FVH | (80°-90°) | 5.8 | 0.8 | | | G0/10 |
| BL | (0°-30°) | 37.0 | 4.8 | B0/110 | | |
| BM | (30°-60°) | 84.3 | 10.9 | B0/220 | | |
| BH | (60°-80°) | 52.7 | 6.8 | B0/110 | | G0/110 |
| BVH | (80°-90°) | 7.8 | 1.0 | | | 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: P400836

CATALOG NUMBER: ENC-SA1-760-U-T4W-XXB

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 46° | 55° | 65° | 75° | 85° |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0° | 78.4 | 78.4 | 78.4 | 78.4 | 78.4 | 78.4 | 78.4 | 78.4 | 78.4 | 78.4 | 78.4 |
| 2.5° | 83.3 | 83.2 | 83.3 | 82.9 | 82.4 | 81.8 | 81.5 | 80.8 | 80.2 | 79.5 | 78.8 |
| 5° | 89.4 | 89.8 | 89.7 | 89.1 | 87.4 | 86.0 | 86.0 | 84.4 | 82.6 | 81.0 | 79.5 |
| 7.5° | 96.1 | 96.1 | 95.5 | 94.4 | 92.6 | 90.7 | 90.4 | 88.2 | 85.7 | 83.4 | 81.0 |
| 10° | 101.0 | 101.2 | 100.2 | 98.7 | 96.5 | 94.4 | 94.2 | 91.6 | 89.2 | 86.3 | 83.3 |
| 12.5° | 104.4 | 104.4 | 103.5 | 102.1 | 99.4 | 97.5 | 97.2 | 94.9 | 92.4 | 89.3 | 85.9 |
| 15° | 106.1 | 105.9 | 105.1 | 103.6 | 101.3 | 99.7 | 99.3 | 97.3 | 95.3 | 92.2 | 88.6 |
| 17.5° | 105.8 | 105.8 | 105.1 | 103.6 | 102.0 | 100.6 | 100.4 | 99.0 | 97.5 | 94.5 | 90.9 |
| 20° | 104.4 | 104.3 | 104.0 | 102.8 | 101.7 | 101.2 | 101.0 | 100.3 | 99.3 | 96.8 | 93.4 |
| 22.5° | 103.1 | 102.9 | 102.6 | 101.8 | 101.4 | 101.7 | 101.7 | 101.6 | 101.5 | 99.5 | 96.2 |
| 25° | 103.8 | 103.7 | 103.1 | 102.0 | 101.8 | 103.4 | 103.5 | 103.8 | 104.0 | 102.4 | 99.0 |
| 27.5° | 109.2 | 108.9 | 107.0 | 104.2 | 103.2 | 105.1 | 105.4 | 106.3 | 106.1 | 104.4 | 101.4 |
| 30° | 119.7 | 119.8 | 115.7 | 109.5 | 106.2 | 107.1 | 107.2 | 108.3 | 108.0 | 106.6 | 104.2 |
| 32.5° | 135.6 | 135.6 | 128.8 | 119.5 | 111.2 | 109.4 | 109.1 | 110.1 | 111.4 | 109.5 | 107.1 |
| 35° | 155.8 | 155.3 | 147.1 | 132.7 | 119.6 | 113.4 | 113.1 | 112.7 | 115.0 | 113.3 | 109.7 |
| 37.5° | 176.1 | 174.2 | 166.2 | 150.4 | 131.5 | 121.1 | 120.2 | 118.9 | 120.2 | 116.4 | 113.4 |
| 40° | 192.5 | 192.2 | 185.6 | 169.6 | 145.5 | 130.4 | 129.7 | 123.9 | 124.8 | 121.8 | 120.6 |
| 42.5° | 210.5 | 210.7 | 206.3 | 190.2 | 162.3 | 143.0 | 141.2 | 132.2 | 134.8 | 133.7 | 133.1 |
| 45° | 230.3 | 230.0 | 226.7 | 209.8 | 182.8 | 160.6 | 158.4 | 147.3 | 152.4 | 151.8 | 154.9 |
| 47.5° | 245.4 | 246.6 | 244.7 | 232.8 | 207.2 | 181.9 | 180.2 | 166.7 | 174.5 | 179.8 | 185.6 |
| 50° | 266.0 | 265.9 | 260.9 | 255.9 | 235.5 | 209.1 | 207.4 | 192.4 | 203.6 | 211.3 | 221.9 |
| 52.5° | 291.6 | 290.7 | 280.3 | 278.5 | 270.0 | 238.8 | 237.4 | 221.7 | 237.7 | 244.4 | 266.0 |
| 55° | 307.6 | 307.5 | 302.1 | 305.2 | 305.4 | 272.0 | 270.2 | 256.3 | 274.4 | 282.1 | 314.8 |
| 57.5° | 321.0 | 321.1 | 325.6 | 336.4 | 343.6 | 312.2 | 311.6 | 294.6 | 312.9 | 323.6 | 362.3 |
| 60° | 331.3 | 333.5 | 346.1 | 370.7 | 382.8 | 363.6 | 360.7 | 342.7 | 355.0 | 359.3 | 398.6 |
| 62.5° | 327.2 | 330.0 | 354.8 | 391.0 | 422.1 | 418.0 | 417.0 | 391.0 | 390.9 | 388.7 | 425.7 |
| 65° | 294.2 | 300.4 | 339.4 | 390.3 | 448.0 | 473.3 | 471.9 | 436.6 | 424.3 | 413.3 | 433.8 |
| 67.5° | 240.8 | 242.1 | 289.2 | 360.4 | 447.8 | 508.1 | 506.6 | 469.7 | 445.0 | 418.1 | 410.0 |
| 69° | 196.0 | 200.8 | 244.4 | 322.7 | 432.0 | 515.2 | 515.2 | 478.9 | 444.3 | 406.6 | 375.1 |
| 70° | 169.6 | 169.8 | 211.8 | 292.6 | 410.5 | 511.0 | 512.0 | 478.9 | 438.0 | 391.6 | 344.2 |
| 72.5° | 79.5 | 84.4 | 111.0 | 191.0 | 331.5 | 469.7 | 472.1 | 447.3 | 401.7 | 337.4 | 258.2 |
| 75° | 23.8 | 24.7 | 37.0 | 90.5 | 190.0 | 361.8 | 367.2 | 372.2 | 327.2 | 248.4 | 159.0 |
| 77.5° | 14.2 | 14.0 | 17.9 | 30.7 | 87.9 | 214.6 | 217.0 | 238.0 | 212.3 | 138.1 | 72.2 |
| 80° | 6.9 | 7.1 | 9.5 | 14.9 | 32.9 | 77.9 | 85.7 | 111.3 | 94.1 | 54.0 | 26.4 |
| 82.5° | 2.3 | 2.5 | 4.0 | 6.0 | 13.9 | 25.1 | 27.8 | 34.9 | 30.1 | 19.6 | 11.3 |
| 85° | 0.0 | 0.0 | 0.1 | 0.2 | 0.8 | 1.9 | 1.9 | 4.2 | 6.3 | 6.9 | 3.7 |
| 87.5° | 0.0 | 0.0 | 0.1 | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.3 |
| 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: P400836

CATALOG NUMBER: ENC-SA1-760-U-T4W-XXB

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|-------|-------|-------|------|------|------|------|------|------|------|------|
| 0° | 78.4 | 78.4 | 78.4 | 78.4 | 78.4 | 78.4 | 78.4 | 78.4 | 78.4 | 78.4 | 78.4 |
| 2.5° | 78.5 | 78.3 | 77.8 | 77.4 | 77.2 | 76.6 | 76.7 | 76.5 | 76.4 | 76.4 | 76.5 |
| 5° | 78.7 | 78.4 | 77.7 | 77.3 | 76.8 | 76.6 | 77.2 | 77.4 | 77.6 | 77.6 | 77.7 |
| 7.5° | 80.0 | 79.3 | 78.6 | 78.0 | 78.1 | 78.5 | 79.3 | 80.0 | 80.3 | 80.6 | 80.8 |
| 10° | 82.2 | 81.4 | 80.3 | 80.2 | 80.4 | 81.3 | 82.5 | 83.5 | 84.4 | 84.9 | 84.9 |
| 12.5° | 84.5 | 83.5 | 82.6 | 82.9 | 83.8 | 85.2 | 86.4 | 87.5 | 88.2 | 88.8 | 88.9 |
| 15° | 87.0 | 86.0 | 85.2 | 85.7 | 87.4 | 88.9 | 90.0 | 90.4 | 90.8 | 91.3 | 91.4 |
| 17.5° | 89.3 | 88.5 | 87.7 | 89.1 | 90.5 | 91.7 | 92.1 | 91.9 | 91.4 | 91.7 | 92.0 |
| 20° | 91.7 | 91.0 | 90.5 | 92.1 | 93.1 | 93.2 | 92.3 | 91.3 | 90.2 | 90.2 | 90.3 |
| 22.5° | 94.7 | 93.7 | 93.5 | 94.3 | 93.9 | 92.6 | 90.4 | 88.9 | 87.4 | 87.1 | 87.5 |
| 25° | 97.6 | 96.6 | 96.5 | 95.9 | 93.1 | 89.7 | 86.7 | 84.9 | 83.7 | 83.8 | 84.5 |
| 27.5° | 100.4 | 99.8 | 99.9 | 96.9 | 90.5 | 85.4 | 81.4 | 80.0 | 80.3 | 80.6 | 81.2 |
| 30° | 103.3 | 103.3 | 103.7 | 96.9 | 87.0 | 79.3 | 75.6 | 75.5 | 76.4 | 77.0 | 77.8 |
| 32.5° | 106.6 | 107.6 | 106.8 | 95.7 | 82.3 | 73.2 | 70.2 | 70.5 | 71.4 | 72.5 | 73.2 |
| 35° | 109.7 | 112.1 | 109.9 | 93.0 | 75.8 | 67.6 | 65.2 | 64.9 | 65.6 | 66.6 | 66.9 |
| 37.5° | 114.8 | 118.5 | 112.5 | 88.7 | 69.1 | 62.7 | 60.3 | 59.4 | 58.6 | 59.4 | 59.3 |
| 40° | 123.6 | 128.1 | 114.5 | 81.5 | 62.7 | 58.1 | 55.5 | 53.9 | 52.0 | 50.4 | 50.4 |
| 42.5° | 137.6 | 140.6 | 115.6 | 72.9 | 56.2 | 53.4 | 50.9 | 48.5 | 45.7 | 42.7 | 42.7 |
| 45° | 160.6 | 161.2 | 116.0 | 63.7 | 50.3 | 48.8 | 46.2 | 43.9 | 40.2 | 37.2 | 36.5 |
| 47.5° | 191.2 | 188.3 | 117.1 | 54.8 | 45.1 | 44.8 | 42.6 | 39.9 | 35.9 | 33.1 | 32.8 |
| 50° | 232.3 | 220.0 | 121.9 | 47.6 | 40.9 | 41.3 | 39.6 | 36.5 | 32.7 | 30.7 | 30.3 |
| 52.5° | 278.6 | 260.1 | 125.7 | 41.9 | 37.3 | 38.3 | 37.1 | 34.1 | 30.8 | 29.2 | 28.9 |
| 55° | 329.2 | 298.6 | 124.8 | 38.1 | 34.6 | 35.7 | 35.2 | 32.7 | 29.7 | 28.3 | 28.0 |
| 57.5° | 370.5 | 325.7 | 117.1 | 34.7 | 31.8 | 33.4 | 33.8 | 31.8 | 29.1 | 27.8 | 27.4 |
| 60° | 401.5 | 340.5 | 101.3 | 31.8 | 29.6 | 31.5 | 32.7 | 31.3 | 29.0 | 28.2 | 27.9 |
| 62.5° | 415.5 | 339.2 | 80.8 | 29.6 | 28.0 | 30.2 | 32.8 | 32.2 | 30.6 | 31.2 | 31.3 |
| 65° | 407.6 | 322.7 | 60.6 | 28.0 | 27.0 | 30.4 | 34.7 | 34.7 | 32.4 | 33.4 | 33.5 |
| 67.5° | 367.1 | 279.3 | 44.1 | 26.8 | 26.0 | 31.5 | 38.2 | 36.0 | 31.6 | 32.4 | 32.0 |
| 69° | 328.6 | 249.9 | 37.9 | 26.1 | 25.2 | 32.0 | 39.7 | 36.2 | 30.7 | 31.6 | 30.7 |
| 70° | 300.3 | 223.3 | 34.0 | 25.6 | 24.9 | 32.0 | 40.2 | 36.0 | 30.3 | 30.9 | 30.0 |
| 72.5° | 213.7 | 155.1 | 28.0 | 24.5 | 23.7 | 29.6 | 39.4 | 34.8 | 29.1 | 28.3 | 26.4 |
| 75° | 124.2 | 85.7 | 23.8 | 23.3 | 21.0 | 26.0 | 37.4 | 33.5 | 27.9 | 26.4 | 25.1 |
| 77.5° | 52.1 | 38.3 | 20.3 | 21.2 | 18.5 | 23.2 | 35.0 | 32.2 | 26.4 | 24.5 | 23.8 |
| 80° | 21.2 | 19.1 | 16.9 | 18.3 | 16.1 | 20.4 | 32.3 | 30.0 | 24.4 | 22.4 | 21.4 |
| 82.5° | 11.1 | 10.5 | 13.0 | 14.8 | 13.4 | 18.8 | 30.4 | 28.4 | 22.6 | 20.6 | 19.4 |
| 85° | 3.3 | 4.4 | 7.4 | 10.1 | 10.2 | 16.9 | 29.5 | 26.3 | 19.6 | 17.0 | 16.8 |
| 87.5° | 0.2 | 0.9 | 2.5 | 5.3 | 6.7 | 13.0 | 23.9 | 21.6 | 15.9 | 13.4 | 13.5 |
| 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)