

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: P400705

Luminaire Tested: **ENV-SA1-722-U-T3-HSS-XXB**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P400705
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-14)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENV-SA1-722-U-T3-HSS-XXB
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 2200K LIGHTSQUARE IN BATTERY OPERATION WITH 16 LEDS AND TYPE III OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 436 lumens
Efficiency: N/A
Efficacy: 33.5 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short - Full Cutoff
BUG Rating: B0 - U0 - G0

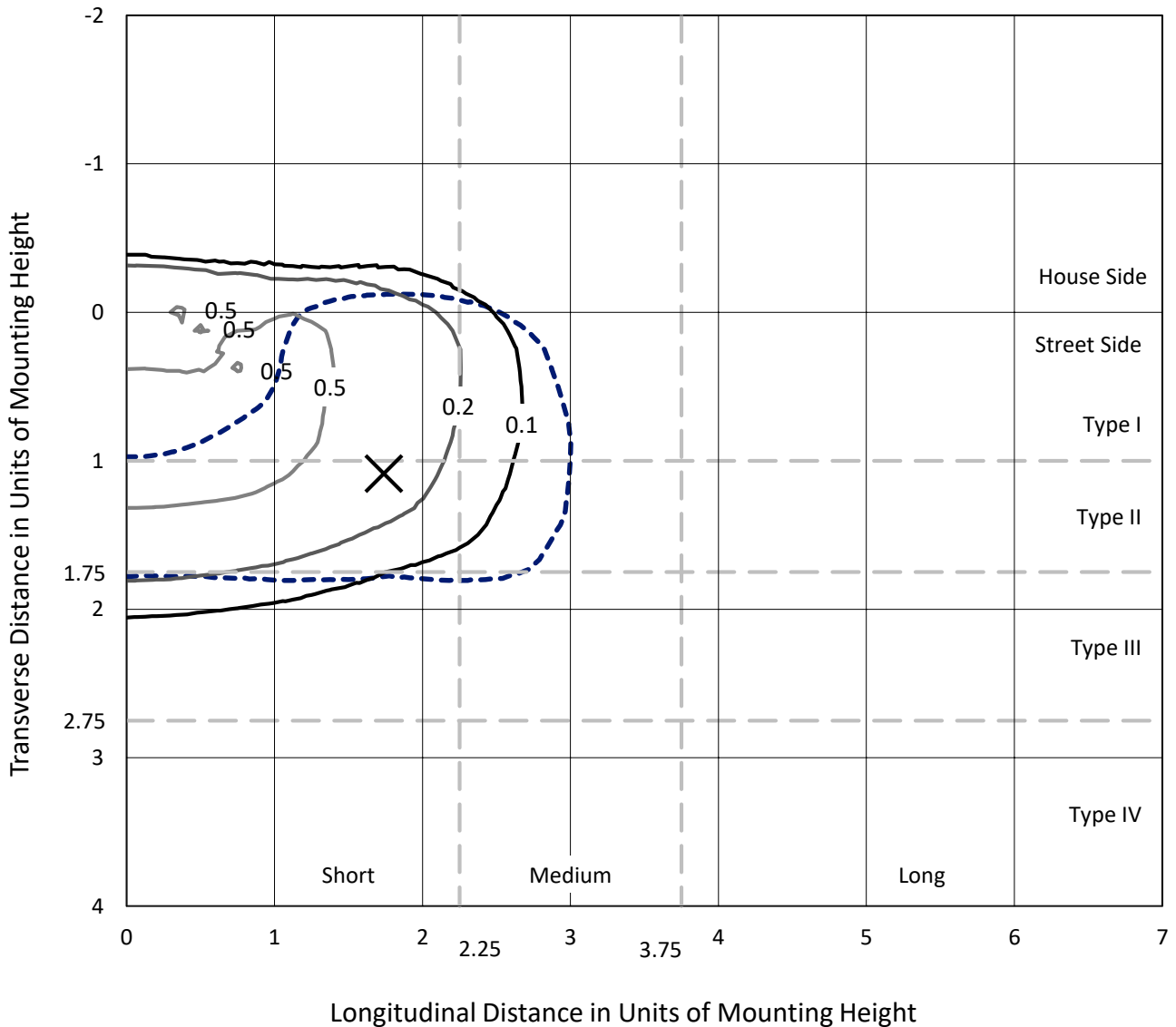
Input Watts (W): 13
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P400705
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Iso-Footcandle Lines of Horizontal Illumination

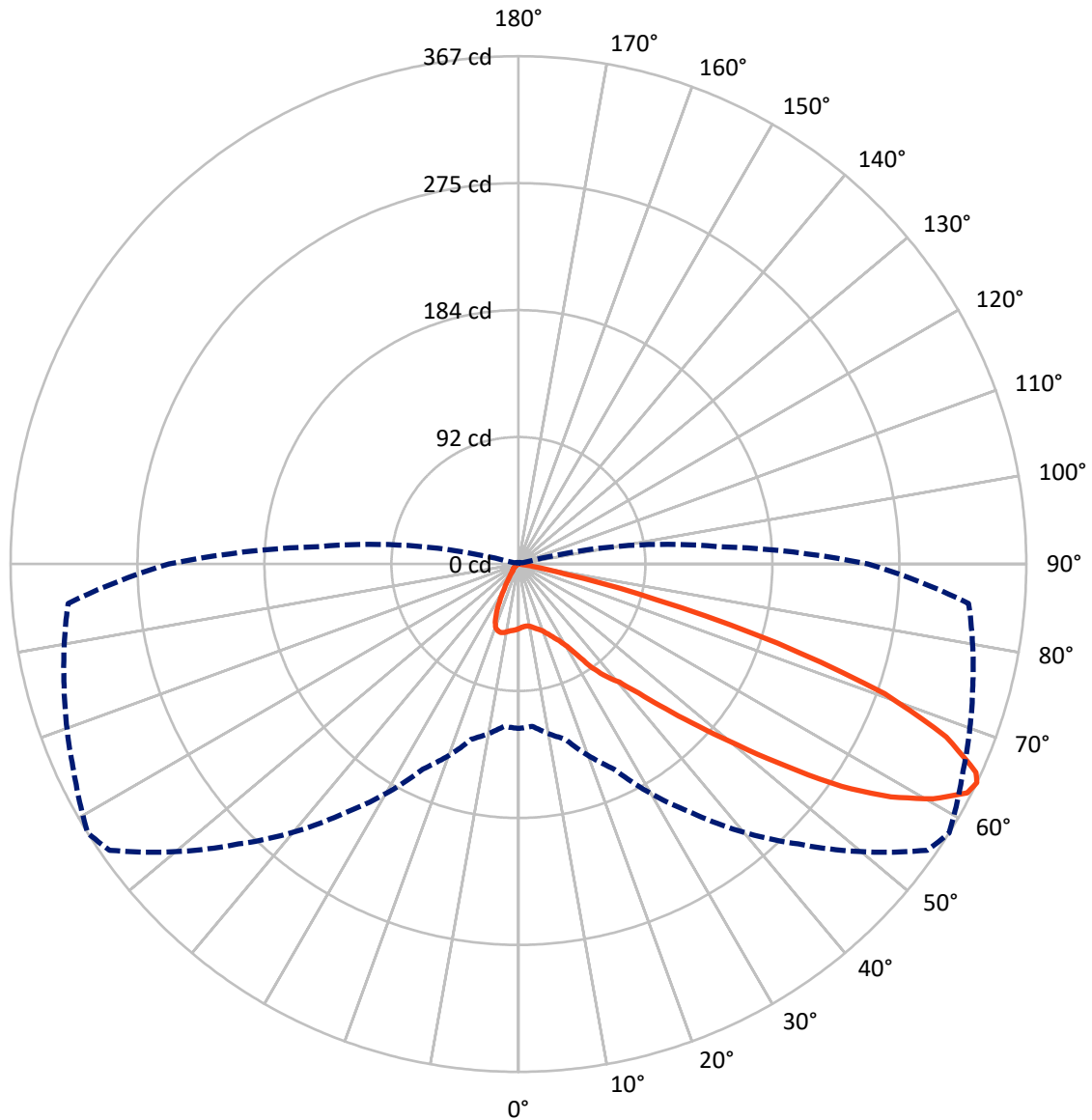
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 0.7 fc
 Type III - Short - Full Cutoff

REPORT NUMBER: P400705
CATALOG NUMBER: ENV-SA1-722-U-T3-HSS-XXB

Luminous Intensity Polar Plot



— Vertical Plane Through 58-Deg Lateral - - - Horizontal Cone Through 64-Deg Vertical

REPORT NUMBER: P400705

CATALOG NUMBER: ENV-SA1-722-U-T3-HSS-XXB

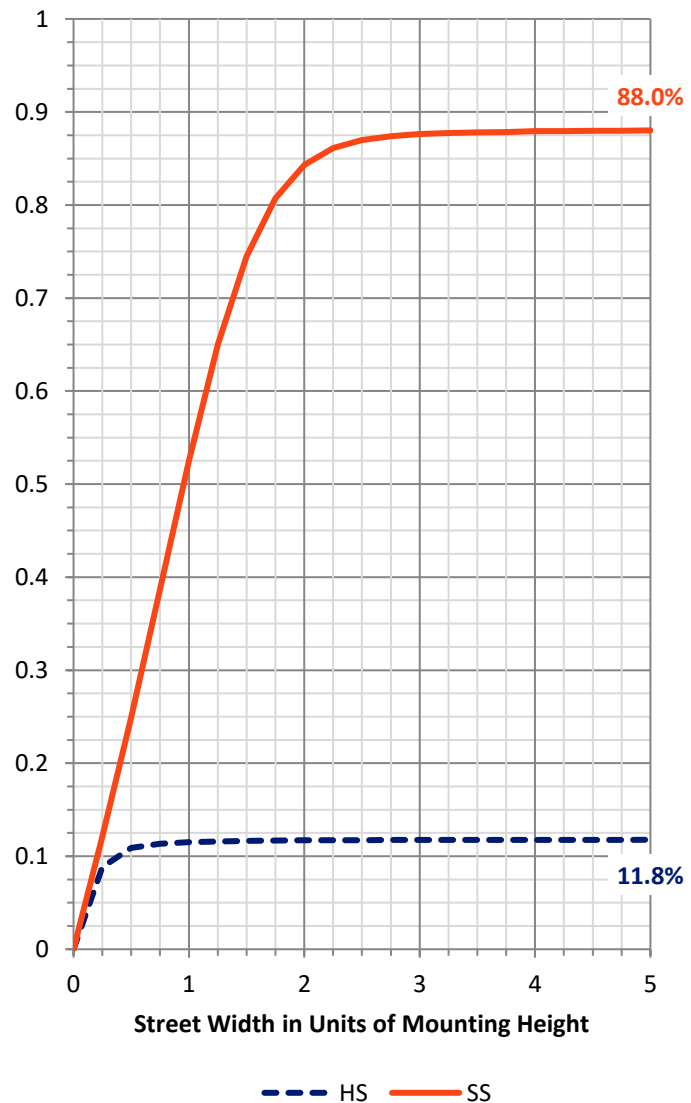
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|-------|
| House Side | Lumens | 52.0 | 0.0 | 52.0 |
| | % Fixture | 11.9 | 0.0 | 11.9 |
| Street Side | Lumens | 384.0 | 0.0 | 384.0 |
| | % Fixture | 88.1 | 0.0 | 88.1 |
| Total | Lumens | 436.0 | 0.0 | 436.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 4.4 | 1.0 |
| 10°-20° | 12.9 | 3.0 |
| 20°-30° | 23.1 | 5.3 |
| 30°-40° | 40.5 | 9.3 |
| 40°-50° | 74.1 | 17.0 |
| 50°-60° | 126.7 | 29.1 |
| 60°-70° | 122.9 | 28.2 |
| 70°-80° | 30.5 | 7.0 |
| 80°-90° | 0.9 | 0.2 |
| 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° | 436.0 | 100.0 |
| 0°-180° | 436.0 | 100.0 |



REPORT NUMBER: P400705

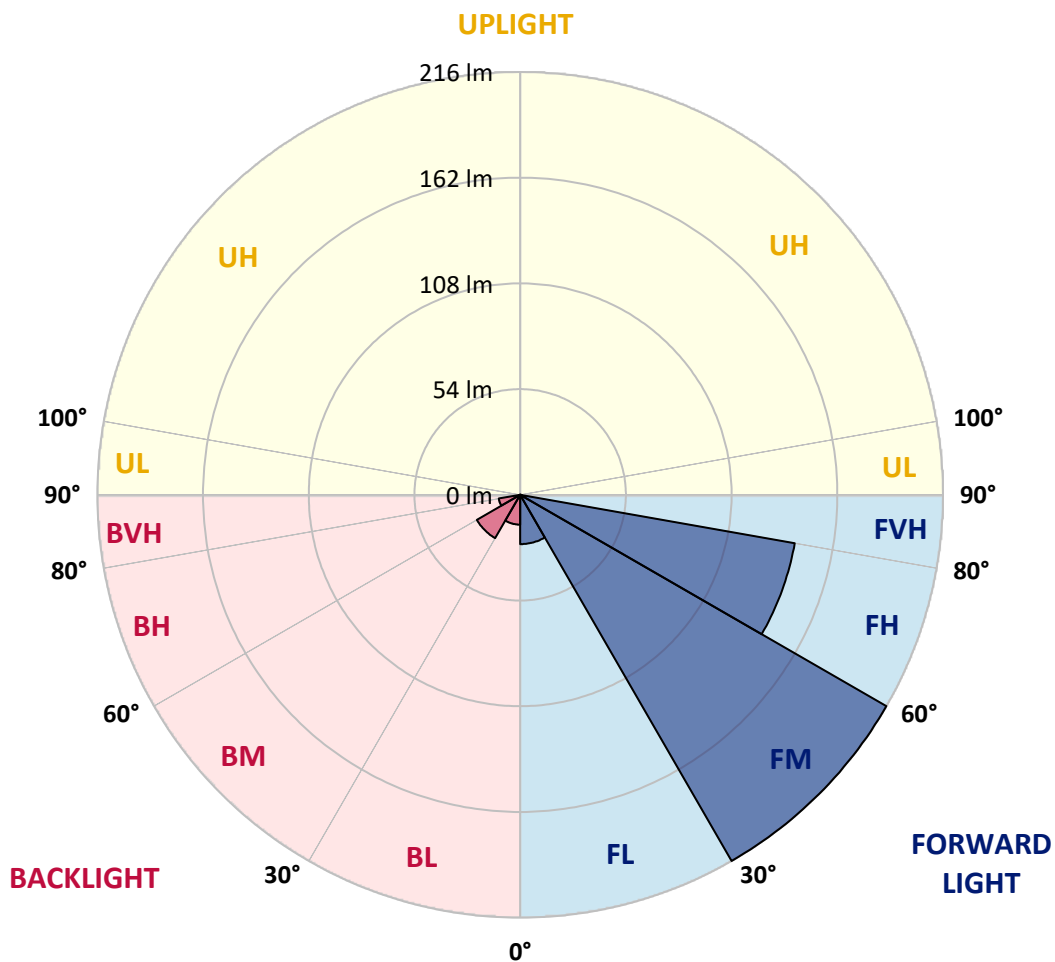
CATALOG NUMBER: ENV-SA1-722-U-T3-HSS-XXB

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|--------|
| | | | B | U | G |
| FL (0°-30°) | 25.2 | 5.8 | | | |
| FM (30°-60°) | 215.8 | 49.5 | | | |
| FH (60°-80°) | 142.3 | 32.6 | | | G0/660 |
| FVH (80°-90°) | 0.7 | 0.2 | | | G0/10 |
| BL (0°-30°) | 15.2 | 3.5 | B0/110 | | |
| BM (30°-60°) | 25.5 | 5.9 | B0/220 | | |
| BH (60°-80°) | 11.1 | 2.5 | B0/110 | | G0/110 |
| BVH (80°-90°) | 0.1 | 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 III Short



REPORT NUMBER: P400705

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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 58° | 65° | 75° | 85° |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0° | 46.7 | 46.7 | 46.7 | 46.7 | 46.7 | 46.7 | 46.7 | 46.7 | 46.7 | 46.7 | 46.7 |
| 2.5° | 44.8 | 44.8 | 44.9 | 45.0 | 45.3 | 45.5 | 45.8 | 45.9 | 46.1 | 46.5 | 46.6 |
| 5° | 42.3 | 42.4 | 42.6 | 43.0 | 43.6 | 44.2 | 45.0 | 45.3 | 45.9 | 46.7 | 47.3 |
| 7.5° | 41.4 | 41.5 | 41.7 | 42.2 | 42.9 | 43.9 | 44.8 | 45.2 | 46.1 | 47.3 | 48.2 |
| 10° | 41.2 | 41.2 | 41.5 | 42.3 | 43.2 | 44.4 | 45.4 | 45.8 | 47.0 | 48.6 | 49.8 |
| 12.5° | 41.2 | 41.2 | 41.6 | 42.5 | 43.6 | 45.1 | 46.5 | 47.1 | 48.5 | 50.4 | 52.0 |
| 15° | 41.9 | 42.1 | 42.3 | 42.9 | 44.1 | 45.8 | 47.8 | 48.5 | 50.2 | 52.5 | 54.5 |
| 17.5° | 47.1 | 46.9 | 46.1 | 45.4 | 45.2 | 46.6 | 49.0 | 49.9 | 52.4 | 55.4 | 57.6 |
| 20° | 57.1 | 57.0 | 55.6 | 52.0 | 48.9 | 48.1 | 50.9 | 51.9 | 55.6 | 59.5 | 61.1 |
| 22.5° | 69.2 | 69.6 | 67.4 | 62.6 | 56.1 | 52.0 | 53.6 | 55.1 | 59.8 | 64.5 | 65.5 |
| 25° | 81.2 | 81.7 | 79.6 | 73.6 | 65.7 | 58.6 | 57.4 | 58.7 | 64.0 | 68.8 | 68.4 |
| 27.5° | 95.4 | 95.0 | 92.9 | 86.1 | 77.0 | 67.4 | 62.5 | 62.8 | 66.9 | 72.2 | 70.9 |
| 30° | 105.8 | 105.3 | 103.2 | 98.6 | 90.0 | 79.0 | 69.8 | 69.0 | 70.3 | 76.1 | 74.8 |
| 32.5° | 115.3 | 115.7 | 114.2 | 108.1 | 99.9 | 91.1 | 80.7 | 78.7 | 78.2 | 83.2 | 81.0 |
| 35° | 124.8 | 124.7 | 124.1 | 118.7 | 110.7 | 102.4 | 93.6 | 92.3 | 92.1 | 97.0 | 90.8 |
| 37.5° | 136.1 | 135.5 | 134.5 | 129.0 | 122.6 | 114.6 | 105.3 | 103.2 | 102.8 | 103.7 | 96.6 |
| 40° | 148.2 | 148.9 | 147.2 | 141.5 | 134.5 | 128.6 | 115.6 | 112.3 | 109.5 | 112.4 | 107.8 |
| 42.5° | 166.2 | 166.7 | 163.7 | 159.8 | 150.8 | 145.3 | 132.1 | 127.6 | 126.3 | 130.6 | 125.4 |
| 45° | 188.7 | 187.7 | 185.7 | 182.9 | 175.5 | 167.0 | 153.3 | 149.1 | 147.7 | 155.0 | 146.6 |
| 47.5° | 206.3 | 206.2 | 206.3 | 205.7 | 204.6 | 194.4 | 178.1 | 175.2 | 173.8 | 184.4 | 175.0 |
| 50° | 217.5 | 218.1 | 220.9 | 227.9 | 233.0 | 228.8 | 209.6 | 206.1 | 205.0 | 216.0 | 203.3 |
| 52.5° | 225.9 | 227.4 | 232.0 | 245.9 | 262.4 | 263.8 | 248.0 | 243.0 | 240.6 | 243.7 | 226.1 |
| 55° | 230.1 | 230.9 | 237.9 | 258.4 | 284.2 | 294.7 | 288.0 | 283.8 | 274.1 | 268.3 | 252.8 |
| 57.5° | 220.1 | 219.0 | 231.1 | 257.1 | 295.5 | 319.5 | 322.3 | 317.6 | 301.9 | 297.4 | 285.2 |
| 60° | 193.9 | 193.4 | 207.1 | 238.4 | 285.7 | 325.3 | 347.7 | 344.7 | 330.4 | 319.7 | 308.2 |
| 62.5° | 147.9 | 148.7 | 163.2 | 195.0 | 250.6 | 308.6 | 361.8 | 364.3 | 349.0 | 333.0 | 325.2 |
| 64° | 118.8 | 117.8 | 131.1 | 163.5 | 219.9 | 286.3 | 360.8 | 367.2 | 354.7 | 340.1 | 326.8 |
| 65° | 99.8 | 97.7 | 110.3 | 139.7 | 193.9 | 270.2 | 353.4 | 363.6 | 355.1 | 341.8 | 321.2 |
| 67.5° | 52.5 | 53.6 | 59.0 | 84.9 | 130.9 | 204.3 | 318.2 | 333.7 | 337.2 | 318.6 | 279.9 |
| 70° | 23.6 | 23.7 | 27.2 | 43.3 | 72.4 | 132.5 | 255.9 | 281.0 | 283.0 | 261.7 | 202.8 |
| 72.5° | 7.8 | 7.9 | 12.0 | 17.3 | 30.4 | 61.4 | 172.9 | 195.7 | 199.9 | 169.7 | 110.0 |
| 75° | 4.8 | 5.0 | 6.4 | 9.4 | 14.1 | 21.5 | 87.6 | 103.1 | 104.0 | 75.3 | 40.0 |
| 77.5° | 3.1 | 3.2 | 3.9 | 5.6 | 7.7 | 8.1 | 28.7 | 34.8 | 39.4 | 27.1 | 12.4 |
| 80° | 1.9 | 1.9 | 2.5 | 3.4 | 4.0 | 3.5 | 7.8 | 10.3 | 12.4 | 9.1 | 4.2 |
| 82.5° | 0.7 | 0.7 | 1.3 | 1.9 | 1.7 | 1.2 | 2.1 | 2.7 | 4.8 | 4.5 | 2.0 |
| 85° | 0.0 | 0.0 | 0.1 | 0.2 | 0.1 | 0.2 | 0.4 | 0.6 | 0.9 | 1.3 | 0.6 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.2 | 0.2 | 0.2 | 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 |



REPORT NUMBER: P400705

CATALOG NUMBER: ENV-SA1-722-U-T3-HSS-XXB

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|-------|-------|------|------|------|------|------|------|------|------|------|
| 0° | 46.7 | 46.7 | 46.7 | 46.7 | 46.7 | 46.7 | 46.7 | 46.7 | 46.7 | 46.7 | 46.7 |
| 2.5° | 46.9 | 47.0 | 47.3 | 47.4 | 47.5 | 47.3 | 47.5 | 47.3 | 47.4 | 47.4 | 47.4 |
| 5° | 47.6 | 47.8 | 48.1 | 48.2 | 48.1 | 47.5 | 47.7 | 47.3 | 47.2 | 47.2 | 47.2 |
| 7.5° | 48.6 | 48.8 | 49.2 | 49.0 | 48.5 | 47.7 | 47.6 | 47.0 | 46.8 | 46.8 | 46.9 |
| 10° | 50.3 | 50.6 | 50.7 | 50.3 | 49.3 | 48.1 | 47.2 | 46.0 | 45.4 | 45.2 | 45.2 |
| 12.5° | 52.6 | 52.8 | 52.8 | 51.9 | 50.2 | 47.7 | 45.2 | 42.8 | 41.1 | 40.5 | 39.8 |
| 15° | 55.0 | 55.3 | 55.2 | 53.5 | 50.1 | 45.7 | 40.8 | 35.3 | 31.9 | 29.8 | 29.4 |
| 17.5° | 57.8 | 58.2 | 57.4 | 54.3 | 48.9 | 41.4 | 32.2 | 24.8 | 19.8 | 18.0 | 17.9 |
| 20° | 61.3 | 61.1 | 59.2 | 54.4 | 46.7 | 33.5 | 21.5 | 15.5 | 13.4 | 12.9 | 12.8 |
| 22.5° | 65.3 | 64.5 | 61.0 | 53.9 | 40.7 | 22.7 | 13.9 | 12.3 | 12.0 | 11.9 | 11.9 |
| 25° | 67.5 | 66.2 | 61.6 | 52.5 | 31.4 | 14.5 | 11.8 | 11.5 | 11.1 | 10.8 | 10.7 |
| 27.5° | 69.3 | 67.4 | 61.9 | 48.0 | 20.9 | 11.1 | 10.6 | 10.3 | 9.8 | 9.4 | 9.3 |
| 30° | 72.5 | 69.6 | 62.3 | 40.1 | 12.8 | 9.5 | 9.3 | 8.7 | 8.0 | 7.5 | 7.3 |
| 32.5° | 78.3 | 74.1 | 63.9 | 30.0 | 9.4 | 8.4 | 7.7 | 7.0 | 6.2 | 5.7 | 5.7 |
| 35° | 84.5 | 78.4 | 64.7 | 19.8 | 8.1 | 7.3 | 6.4 | 5.5 | 4.8 | 4.4 | 4.3 |
| 37.5° | 90.3 | 84.5 | 64.4 | 12.1 | 7.3 | 6.3 | 5.2 | 4.4 | 3.7 | 3.4 | 3.4 |
| 40° | 102.0 | 95.3 | 61.1 | 8.3 | 6.4 | 5.3 | 4.3 | 3.4 | 3.0 | 2.7 | 2.7 |
| 42.5° | 118.7 | 107.0 | 53.8 | 7.1 | 5.6 | 4.4 | 3.4 | 2.8 | 2.5 | 2.3 | 2.3 |
| 45° | 137.4 | 120.0 | 42.9 | 6.4 | 4.8 | 3.7 | 2.8 | 2.3 | 2.0 | 1.9 | 1.9 |
| 47.5° | 161.9 | 135.8 | 31.5 | 5.7 | 4.2 | 3.1 | 2.3 | 1.9 | 1.8 | 1.7 | 1.7 |
| 50° | 183.3 | 148.5 | 21.5 | 5.0 | 3.7 | 2.7 | 2.0 | 1.8 | 1.6 | 1.5 | 1.5 |
| 52.5° | 202.9 | 157.4 | 14.2 | 4.4 | 3.3 | 2.2 | 1.9 | 1.6 | 1.5 | 1.5 | 1.5 |
| 55° | 225.9 | 164.1 | 9.6 | 3.8 | 2.9 | 2.0 | 1.8 | 1.6 | 1.5 | 1.5 | 1.4 |
| 57.5° | 245.4 | 168.2 | 6.9 | 3.2 | 2.6 | 1.9 | 1.7 | 1.5 | 1.4 | 1.3 | 1.3 |
| 60° | 256.7 | 163.4 | 5.0 | 2.8 | 2.3 | 1.7 | 1.5 | 1.4 | 1.3 | 1.2 | 1.2 |
| 62.5° | 259.9 | 154.2 | 3.9 | 2.4 | 1.9 | 1.5 | 1.4 | 1.2 | 1.1 | 1.0 | 1.0 |
| 64° | 252.6 | 144.4 | 3.3 | 2.1 | 1.7 | 1.4 | 1.3 | 1.1 | 1.0 | 0.8 | 0.8 |
| 65° | 242.4 | 135.3 | 3.0 | 1.9 | 1.5 | 1.3 | 1.2 | 1.0 | 0.8 | 0.6 | 0.6 |
| 67.5° | 202.0 | 107.8 | 2.4 | 1.6 | 1.2 | 1.1 | 1.0 | 0.8 | 0.6 | 0.4 | 0.4 |
| 70° | 143.4 | 75.4 | 1.9 | 1.3 | 1.0 | 1.0 | 0.9 | 0.6 | 0.3 | 0.2 | 0.2 |
| 72.5° | 75.9 | 39.2 | 1.5 | 1.0 | 0.8 | 0.8 | 0.7 | 0.4 | 0.2 | 0.2 | 0.1 |
| 75° | 26.5 | 12.9 | 1.3 | 0.9 | 0.7 | 0.6 | 0.5 | 0.3 | 0.2 | 0.2 | 0.1 |
| 77.5° | 8.1 | 4.3 | 1.1 | 0.9 | 0.6 | 0.5 | 0.6 | 0.5 | 0.5 | 0.3 | 0.2 |
| 80° | 2.6 | 1.5 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.5 | 0.6 | 0.4 | 0.3 |
| 82.5° | 1.0 | 0.6 | 0.2 | 0.3 | 0.3 | 0.4 | 0.4 | 0.3 | 0.2 | 0.1 | 0.0 |
| 85° | 0.3 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.1 | 0.0 | 0.0 |
| 87.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 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 |

(END OF REPORT)