

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: P400757

Luminaire Tested: **ENC-SA1-735-U-T2-HSS-XXB**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P400757
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-12)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENC-SA1-735-U-T2-HSS-XXB
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 3500K LIGHTSQUARE IN BATTERY OPERATION WITH 16 LEDS AND TYPE II OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 549 lumens
Efficiency: N/A
Efficacy: 42.2 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Medium - Semi-Cutoff
BUG Rating: B0 - U0 - G0

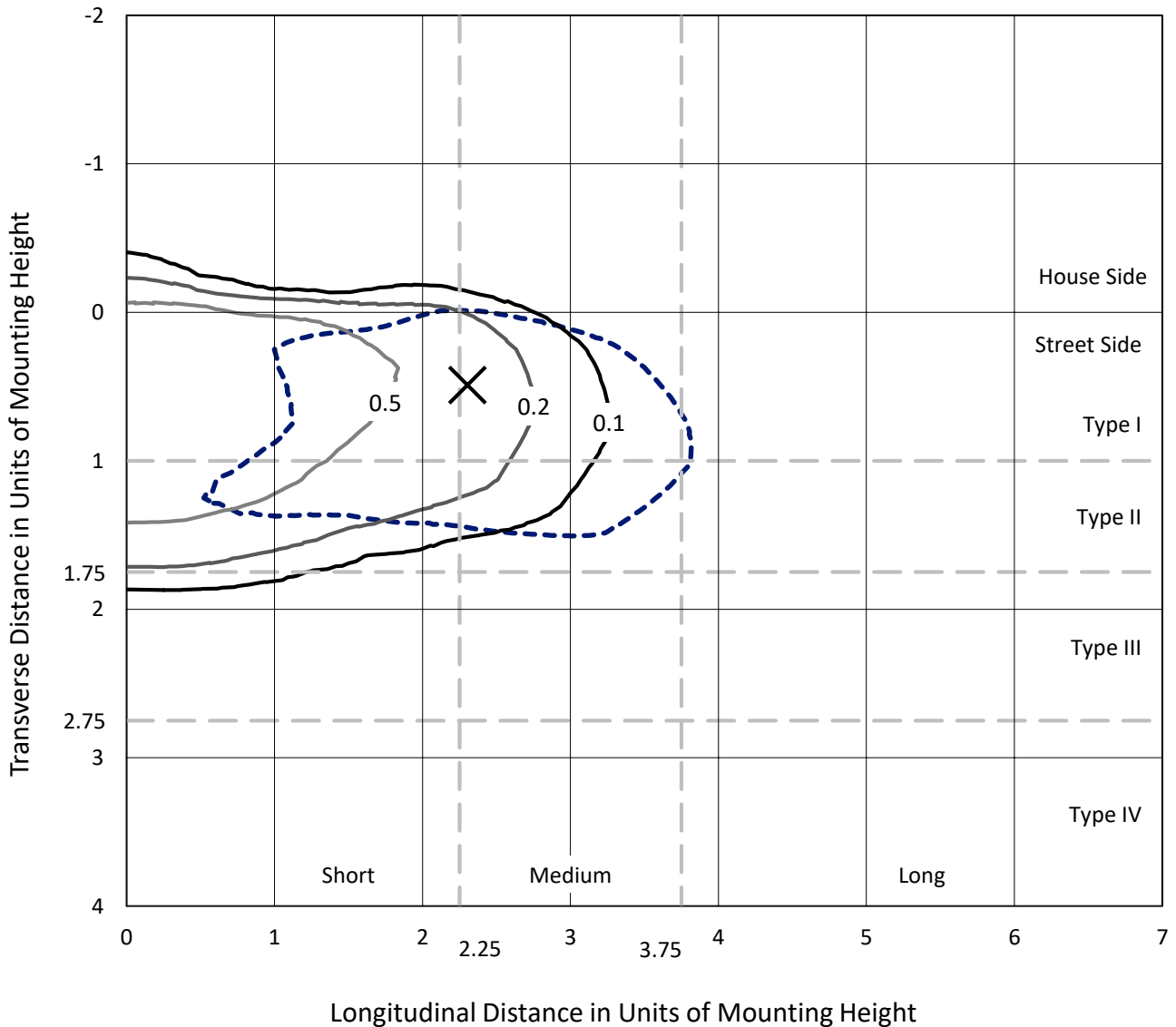
Input Watts (W): 13
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

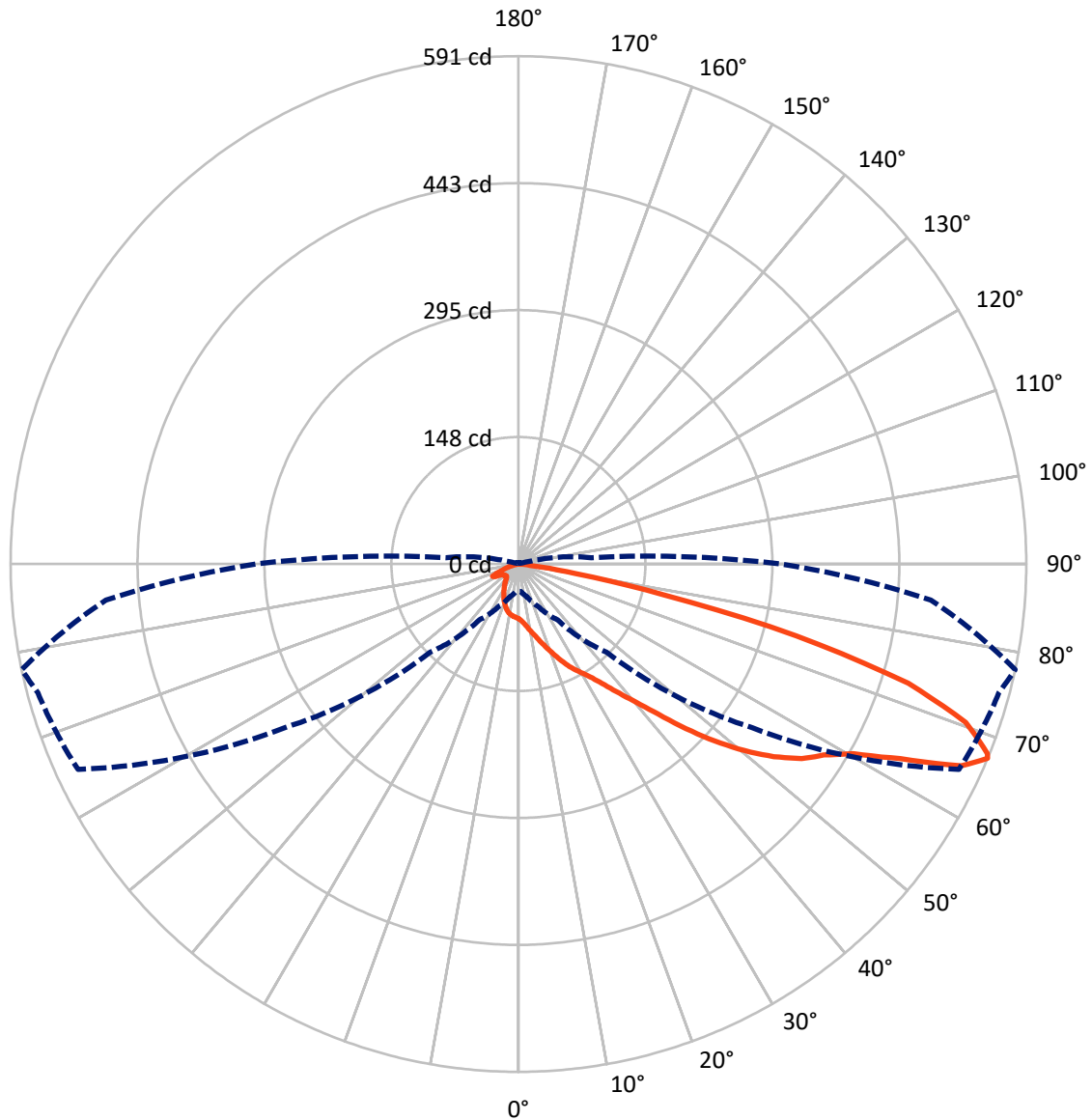
× Max cd
 - - - 1/2 Max cd



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

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Luminous Intensity Polar Plot



— Vertical Plane Through 78-Deg Lateral - - - Horizontal Cone Through 67-Deg Vertical

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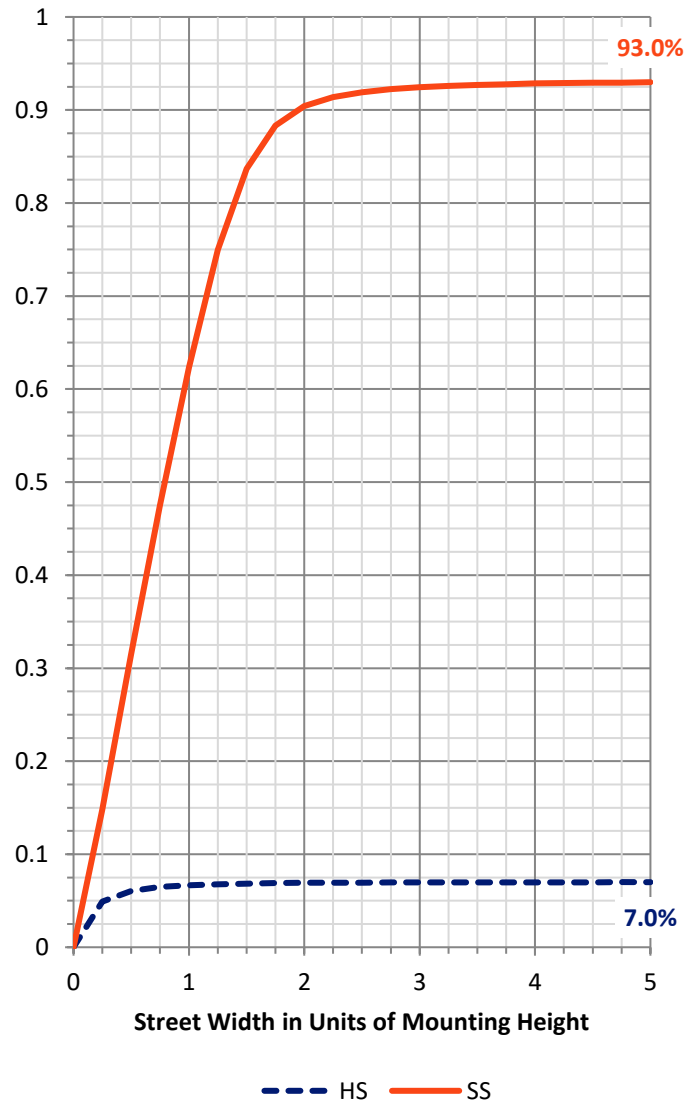
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|-------|
| House Side | Lumens | 38.7 | 0.0 | 38.7 |
| | % Fixture | 7.1 | 0.0 | 7.1 |
| Street Side | Lumens | 510.3 | 0.0 | 510.3 |
| | % Fixture | 92.9 | 0.0 | 92.9 |
| Total | Lumens | 549.0 | 0.0 | 549.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 6.1 | 1.1 |
| 10°-20° | 17.6 | 3.2 |
| 20°-30° | 31.1 | 5.7 |
| 30°-40° | 54.8 | 10.0 |
| 40°-50° | 94.2 | 17.2 |
| 50°-60° | 141.8 | 25.8 |
| 60°-70° | 139.6 | 25.4 |
| 70°-80° | 61.0 | 11.1 |
| 80°-90° | 2.7 | 0.5 |
| 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° | 549.0 | 100.0 |
| 0°-180° | 549.0 | 100.0 |



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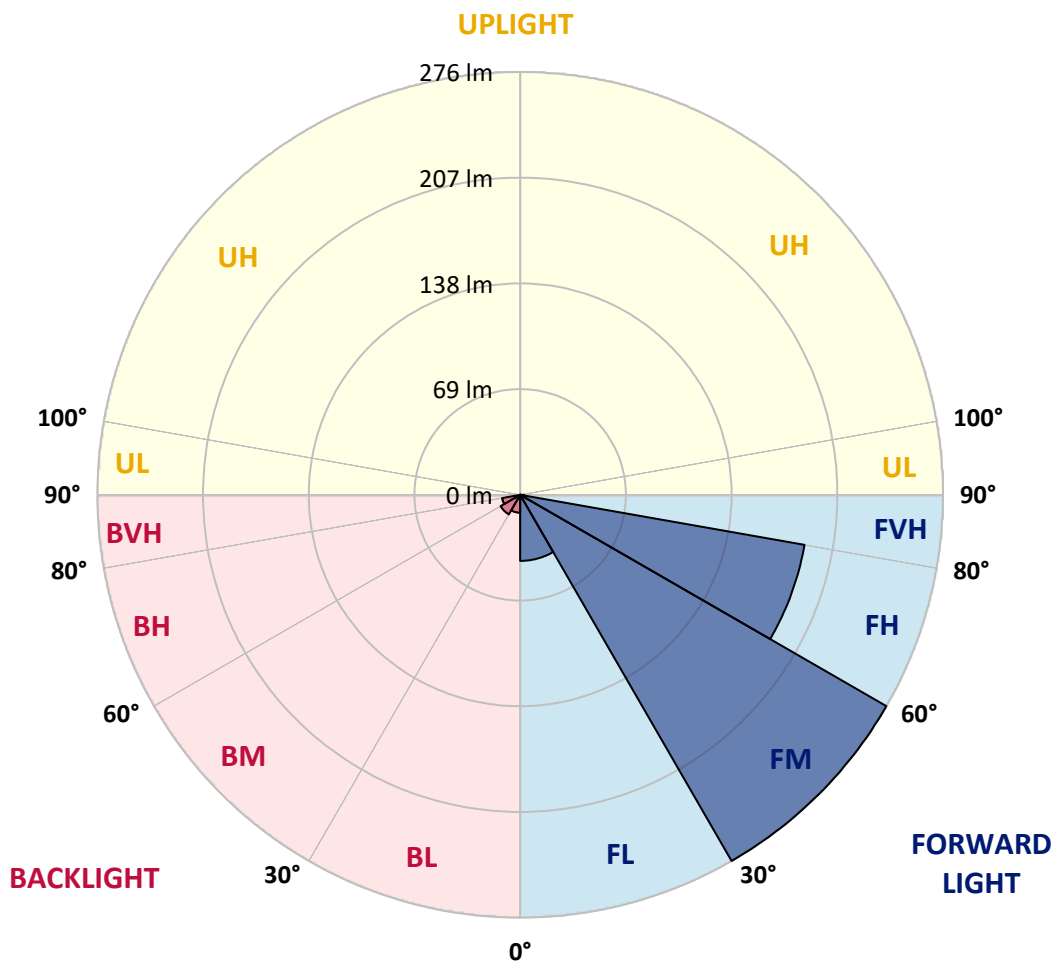
CATALOG NUMBER: ENC-SA1-735-U-T2-HSS-XXB

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|--------|
| | | | B | U | G |
| FL (0°-30°) | 43.1 | 7.9 | | | |
| FM (30°-60°) | 276.2 | 50.3 | | | |
| FH (60°-80°) | 188.6 | 34.3 | | | G0/660 |
| FVH (80°-90°) | 2.4 | 0.4 | | | G0/10 |
| BL (0°-30°) | 11.7 | 2.1 | B0/110 | | |
| BM (30°-60°) | 14.7 | 2.7 | B0/220 | | |
| BH (60°-80°) | 12.0 | 2.2 | B0/110 | | G0/110 |
| BVH (80°-90°) | 0.3 | 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 II Medium





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 78° | 85° |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0° | 63.7 | 63.7 | 63.7 | 63.7 | 63.7 | 63.7 | 63.7 | 63.7 | 63.7 | 63.7 | 63.7 |
| 2.5° | 73.1 | 73.4 | 73.0 | 72.7 | 71.9 | 70.9 | 69.8 | 68.3 | 66.6 | 66.0 | 65.0 |
| 5° | 82.1 | 82.1 | 82.1 | 81.3 | 80.6 | 78.6 | 76.2 | 73.8 | 70.8 | 69.6 | 67.2 |
| 7.5° | 86.8 | 86.9 | 87.3 | 87.3 | 86.8 | 85.5 | 82.9 | 80.2 | 75.6 | 74.1 | 70.2 |
| 10° | 87.4 | 87.8 | 88.6 | 89.8 | 90.8 | 91.5 | 89.9 | 87.1 | 81.5 | 79.6 | 74.1 |
| 12.5° | 86.0 | 86.2 | 87.6 | 89.8 | 92.8 | 95.8 | 95.9 | 94.2 | 88.0 | 85.4 | 78.7 |
| 15° | 82.9 | 83.2 | 85.2 | 88.8 | 93.4 | 98.8 | 101.9 | 101.4 | 95.6 | 92.6 | 83.9 |
| 17.5° | 78.0 | 78.3 | 80.8 | 86.1 | 92.9 | 100.8 | 107.4 | 109.9 | 103.1 | 100.3 | 89.1 |
| 20° | 77.8 | 77.9 | 78.8 | 82.8 | 90.9 | 101.9 | 112.7 | 118.8 | 112.3 | 109.2 | 95.3 |
| 22.5° | 91.0 | 90.1 | 88.1 | 85.5 | 89.0 | 101.6 | 117.6 | 128.2 | 123.7 | 118.8 | 102.4 |
| 25° | 105.7 | 106.0 | 103.8 | 97.7 | 93.2 | 101.1 | 121.3 | 138.8 | 134.3 | 129.4 | 109.7 |
| 27.5° | 121.2 | 120.7 | 118.7 | 113.1 | 105.7 | 104.8 | 124.0 | 147.4 | 144.5 | 138.6 | 116.2 |
| 30° | 136.3 | 135.8 | 134.4 | 128.7 | 120.7 | 114.4 | 126.0 | 155.1 | 154.2 | 147.7 | 121.5 |
| 32.5° | 153.5 | 154.2 | 152.3 | 144.9 | 135.1 | 127.4 | 130.5 | 163.3 | 166.0 | 158.0 | 127.0 |
| 35° | 173.5 | 173.5 | 169.7 | 162.9 | 152.8 | 141.9 | 139.3 | 172.2 | 180.9 | 172.4 | 135.6 |
| 37.5° | 190.0 | 191.3 | 189.1 | 179.3 | 169.8 | 158.4 | 152.9 | 183.3 | 199.4 | 190.7 | 147.3 |
| 40° | 203.0 | 205.3 | 205.4 | 195.7 | 186.9 | 179.5 | 171.7 | 198.9 | 222.6 | 211.4 | 161.2 |
| 42.5° | 215.1 | 215.5 | 217.2 | 211.6 | 202.9 | 200.9 | 193.0 | 217.3 | 251.6 | 238.5 | 179.8 |
| 45° | 230.4 | 231.2 | 230.2 | 226.1 | 218.6 | 221.1 | 216.7 | 240.7 | 284.2 | 273.1 | 201.6 |
| 47.5° | 253.0 | 255.0 | 253.4 | 246.0 | 236.8 | 241.7 | 238.5 | 264.0 | 321.0 | 307.6 | 225.4 |
| 50° | 274.2 | 275.7 | 277.4 | 275.0 | 265.8 | 261.2 | 257.2 | 288.7 | 352.5 | 341.2 | 248.7 |
| 52.5° | 276.4 | 277.9 | 286.9 | 295.3 | 301.4 | 289.2 | 276.9 | 313.7 | 381.7 | 372.2 | 270.0 |
| 55° | 261.7 | 262.6 | 277.8 | 294.3 | 322.2 | 326.3 | 305.9 | 338.3 | 406.2 | 399.7 | 284.4 |
| 57.5° | 220.6 | 224.5 | 246.1 | 271.4 | 317.1 | 348.4 | 347.1 | 367.0 | 422.1 | 419.1 | 302.8 |
| 60° | 144.9 | 149.2 | 175.0 | 213.3 | 279.1 | 342.5 | 392.3 | 410.0 | 444.3 | 447.6 | 335.2 |
| 62.5° | 75.1 | 80.1 | 102.8 | 136.8 | 202.3 | 298.3 | 407.6 | 480.6 | 487.0 | 498.3 | 393.0 |
| 65° | 42.9 | 43.9 | 55.3 | 80.1 | 125.2 | 213.6 | 389.2 | 550.6 | 543.3 | 566.0 | 466.7 |
| 67° | 31.9 | 31.9 | 39.8 | 54.5 | 79.3 | 145.2 | 331.9 | 565.3 | 578.6 | 590.7 | 481.6 |
| 67.5° | 28.6 | 30.1 | 36.9 | 50.2 | 71.2 | 128.8 | 310.6 | 561.4 | 580.9 | 588.4 | 476.4 |
| 70° | 19.6 | 20.6 | 26.5 | 36.0 | 48.0 | 67.0 | 203.6 | 496.5 | 559.7 | 552.0 | 431.8 |
| 72.5° | 11.8 | 12.2 | 17.5 | 25.9 | 35.8 | 35.9 | 111.1 | 376.9 | 474.2 | 474.1 | 352.6 |
| 75° | 7.3 | 7.7 | 10.3 | 17.3 | 25.1 | 22.5 | 51.4 | 256.4 | 340.6 | 334.0 | 236.3 |
| 77.5° | 4.1 | 4.7 | 6.2 | 9.5 | 15.9 | 14.3 | 21.7 | 143.7 | 184.0 | 172.7 | 117.4 |
| 80° | 1.7 | 2.0 | 3.5 | 4.5 | 9.0 | 8.6 | 8.9 | 50.5 | 74.5 | 67.1 | 39.3 |
| 82.5° | 0.4 | 0.5 | 1.2 | 2.2 | 3.5 | 3.5 | 2.8 | 13.8 | 17.6 | 16.4 | 10.1 |
| 85° | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.2 | 0.7 | 1.5 | 1.9 | 2.2 | 1.7 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.2 | 0.3 | 0.3 | 0.3 | 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 |



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CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|-------|------|------|------|------|------|------|------|------|------|------|
| 0° | 63.7 | 63.7 | 63.7 | 63.7 | 63.7 | 63.7 | 63.7 | 63.7 | 63.7 | 63.7 | 63.7 |
| 2.5° | 64.2 | 63.4 | 62.0 | 60.4 | 58.9 | 57.7 | 56.6 | 55.2 | 55.0 | 55.0 | 55.0 |
| 5° | 65.5 | 63.8 | 60.5 | 57.2 | 53.9 | 51.0 | 48.8 | 47.0 | 45.5 | 45.0 | 45.4 |
| 7.5° | 67.5 | 64.5 | 58.7 | 52.9 | 47.8 | 43.5 | 40.4 | 38.0 | 36.8 | 36.2 | 35.7 |
| 10° | 70.0 | 65.4 | 56.2 | 47.8 | 41.3 | 36.2 | 32.9 | 30.5 | 29.4 | 28.7 | 28.8 |
| 12.5° | 72.8 | 66.1 | 53.1 | 42.2 | 35.0 | 30.3 | 27.5 | 25.6 | 23.7 | 22.6 | 22.9 |
| 15° | 75.6 | 66.6 | 49.3 | 37.0 | 30.1 | 26.0 | 22.1 | 18.6 | 17.3 | 17.1 | 17.0 |
| 17.5° | 78.7 | 66.5 | 45.1 | 32.2 | 26.0 | 20.2 | 16.3 | 15.9 | 15.8 | 15.8 | 15.7 |
| 20° | 81.9 | 66.0 | 40.2 | 28.2 | 21.9 | 15.4 | 14.7 | 14.5 | 14.2 | 14.1 | 14.0 |
| 22.5° | 85.4 | 65.1 | 35.8 | 24.7 | 16.3 | 14.0 | 13.2 | 12.6 | 12.1 | 11.8 | 11.9 |
| 25° | 88.6 | 63.3 | 31.5 | 21.4 | 13.9 | 12.6 | 11.4 | 10.5 | 10.0 | 9.6 | 9.7 |
| 27.5° | 90.8 | 60.2 | 27.7 | 17.2 | 12.8 | 11.1 | 9.8 | 8.9 | 8.1 | 7.8 | 7.8 |
| 30° | 91.0 | 55.8 | 24.4 | 14.1 | 11.7 | 9.8 | 8.4 | 7.3 | 6.9 | 6.7 | 6.6 |
| 32.5° | 90.8 | 51.3 | 22.0 | 13.0 | 10.6 | 8.6 | 7.1 | 6.4 | 6.0 | 5.8 | 5.8 |
| 35° | 91.8 | 46.6 | 19.7 | 12.0 | 9.5 | 7.5 | 6.3 | 5.6 | 5.3 | 5.1 | 5.1 |
| 37.5° | 94.9 | 43.4 | 17.3 | 10.9 | 8.5 | 6.6 | 5.7 | 5.1 | 4.7 | 4.5 | 4.5 |
| 40° | 99.1 | 40.7 | 14.4 | 9.9 | 7.4 | 6.0 | 5.2 | 4.6 | 4.2 | 4.0 | 4.0 |
| 42.5° | 106.5 | 39.7 | 12.1 | 8.9 | 6.5 | 5.4 | 4.7 | 4.1 | 3.7 | 3.5 | 3.5 |
| 45° | 117.6 | 40.2 | 11.0 | 7.9 | 5.9 | 4.8 | 4.2 | 3.6 | 3.2 | 3.1 | 3.1 |
| 47.5° | 129.8 | 42.4 | 10.3 | 7.1 | 5.4 | 4.5 | 3.8 | 3.2 | 2.8 | 2.7 | 2.7 |
| 50° | 143.4 | 45.8 | 9.7 | 6.3 | 4.8 | 4.1 | 3.4 | 2.8 | 2.5 | 2.4 | 2.4 |
| 52.5° | 156.4 | 50.1 | 9.1 | 5.7 | 4.5 | 3.7 | 3.0 | 2.5 | 2.3 | 2.2 | 2.2 |
| 55° | 166.3 | 52.9 | 8.6 | 5.3 | 4.2 | 3.4 | 2.7 | 2.4 | 2.1 | 2.0 | 2.0 |
| 57.5° | 180.1 | 57.6 | 7.9 | 4.7 | 3.8 | 3.1 | 2.5 | 2.2 | 1.9 | 1.9 | 1.9 |
| 60° | 208.1 | 70.0 | 7.0 | 4.3 | 3.4 | 2.8 | 2.4 | 2.0 | 1.8 | 1.7 | 1.7 |
| 62.5° | 258.7 | 90.7 | 6.1 | 4.0 | 3.0 | 2.5 | 2.1 | 1.8 | 1.5 | 1.3 | 1.3 |
| 65° | 307.4 | 99.2 | 5.2 | 3.5 | 2.7 | 2.2 | 1.9 | 1.5 | 1.1 | 0.9 | 0.9 |
| 67° | 304.7 | 84.9 | 4.3 | 3.0 | 2.3 | 2.0 | 1.5 | 1.2 | 0.8 | 0.5 | 0.5 |
| 67.5° | 297.5 | 79.0 | 4.2 | 2.9 | 2.2 | 1.9 | 1.5 | 1.1 | 0.7 | 0.4 | 0.4 |
| 70° | 252.8 | 55.3 | 3.3 | 2.3 | 1.9 | 1.7 | 1.2 | 0.8 | 0.4 | 0.2 | 0.2 |
| 72.5° | 205.4 | 43.8 | 2.6 | 1.9 | 1.5 | 1.2 | 1.0 | 0.5 | 0.3 | 0.1 | 0.1 |
| 75° | 145.2 | 26.9 | 2.3 | 1.7 | 1.2 | 0.9 | 0.8 | 0.5 | 0.3 | 0.2 | 0.1 |
| 77.5° | 71.7 | 12.4 | 1.9 | 1.4 | 1.1 | 0.9 | 0.7 | 0.6 | 0.5 | 0.4 | 0.2 |
| 80° | 21.0 | 4.0 | 1.2 | 1.0 | 1.0 | 0.9 | 0.8 | 0.7 | 0.6 | 0.5 | 0.3 |
| 82.5° | 4.7 | 1.4 | 0.4 | 0.5 | 0.7 | 0.7 | 0.7 | 0.5 | 0.4 | 0.2 | 0.1 |
| 85° | 0.6 | 0.3 | 0.3 | 0.3 | 0.4 | 0.4 | 0.3 | 0.2 | 0.2 | 0.0 | 0.0 |
| 87.5° | 0.2 | 0.2 | 0.2 | 0.3 | 0.3 | 0.3 | 0.2 | 0.1 | 0.1 | 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)