

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: P400766

Luminaire Tested: **ENT-SA1-740-U-SL2-HSS-XXB**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P400766
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-SA1-740-U-SL2-HSS-XXB
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 4000K 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: 624 lumens
Efficiency: N/A
Efficacy: 48.0 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

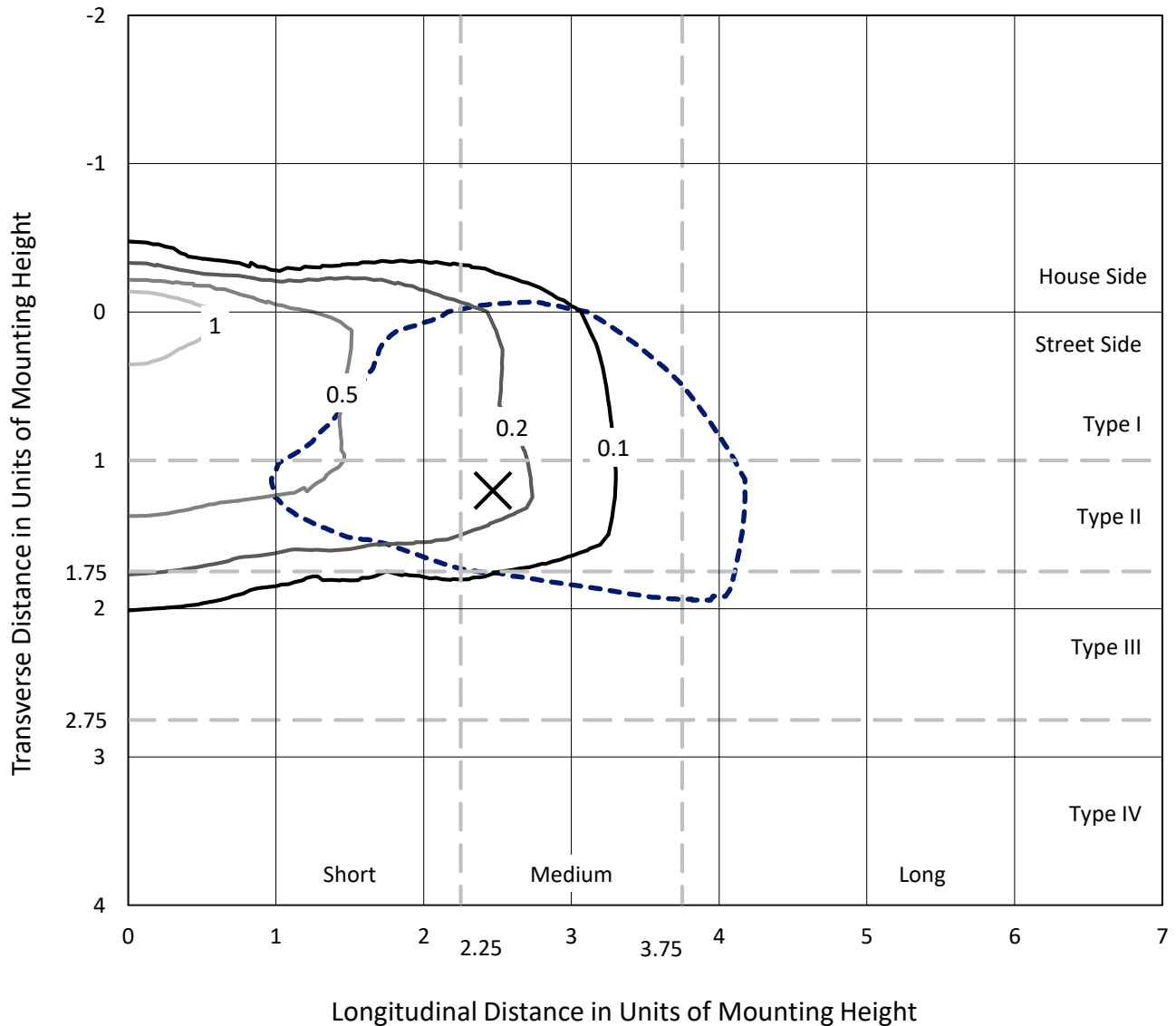
Input Watts (W): 13
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

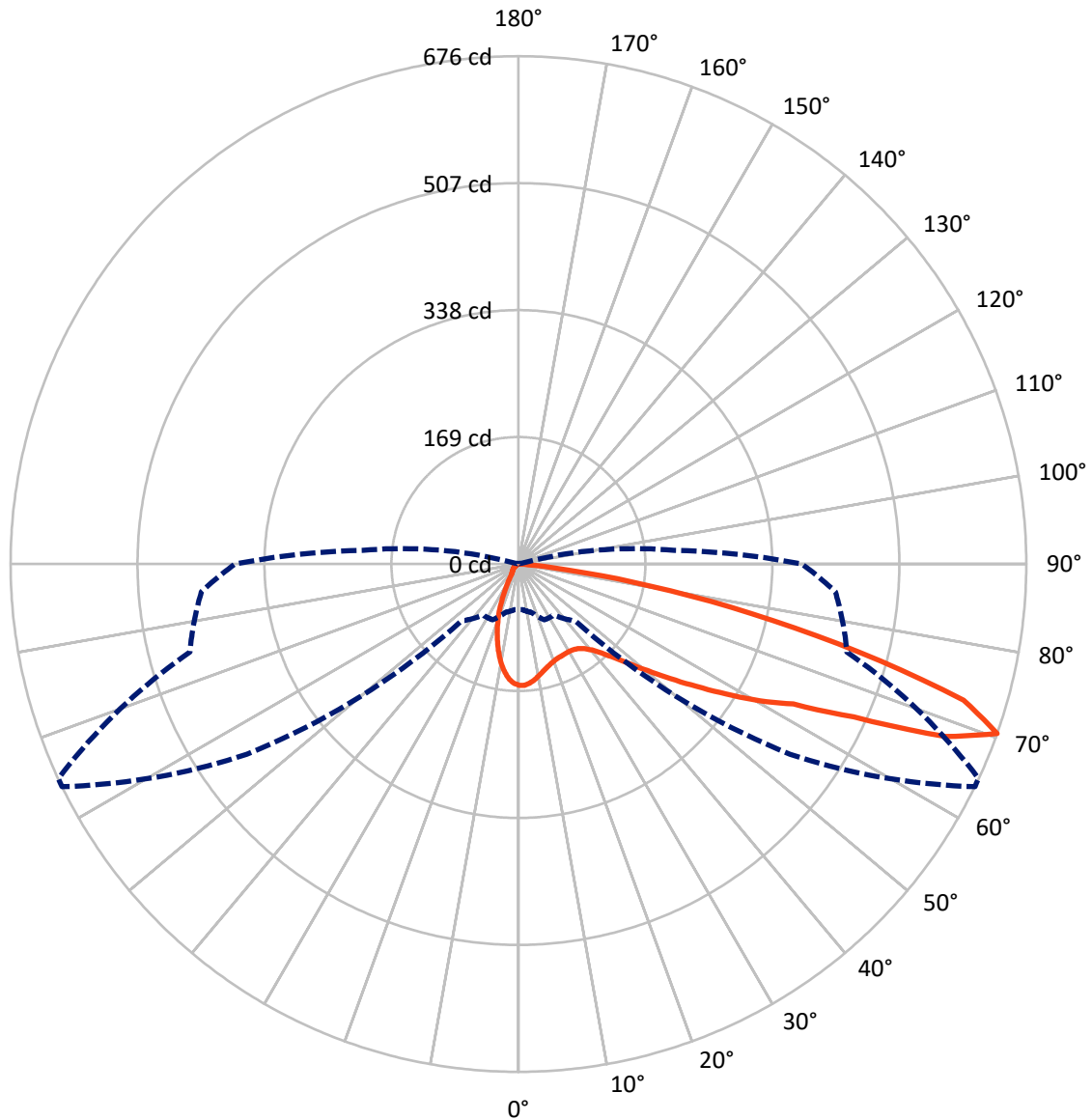
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 1.6 fc
 Type III - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



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

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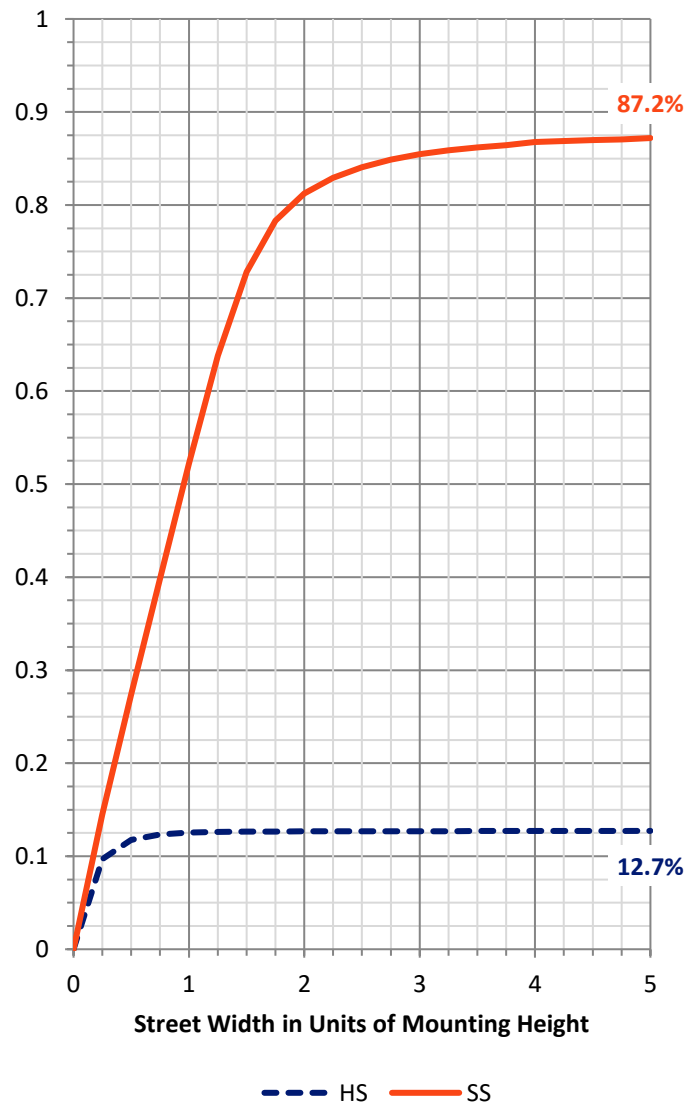
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|-------|
| House Side | Lumens | 80.2 | 0.0 | 80.2 |
| | % Fixture | 12.8 | 0.0 | 12.8 |
| Street Side | Lumens | 543.8 | 0.0 | 543.8 |
| | % Fixture | 87.2 | 0.0 | 87.2 |
| Total | Lumens | 624.0 | 0.0 | 624.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 13.6 | 2.2 |
| 10°-20° | 30.2 | 4.8 |
| 20°-30° | 41.6 | 6.7 |
| 30°-40° | 57.3 | 9.2 |
| 40°-50° | 85.4 | 13.7 |
| 50°-60° | 134.9 | 21.6 |
| 60°-70° | 152.8 | 24.5 |
| 70°-80° | 100.4 | 16.1 |
| 80°-90° | 7.9 | 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° | 624.0 | 100.0 |
| 0°-180° | 624.0 | 100.0 |



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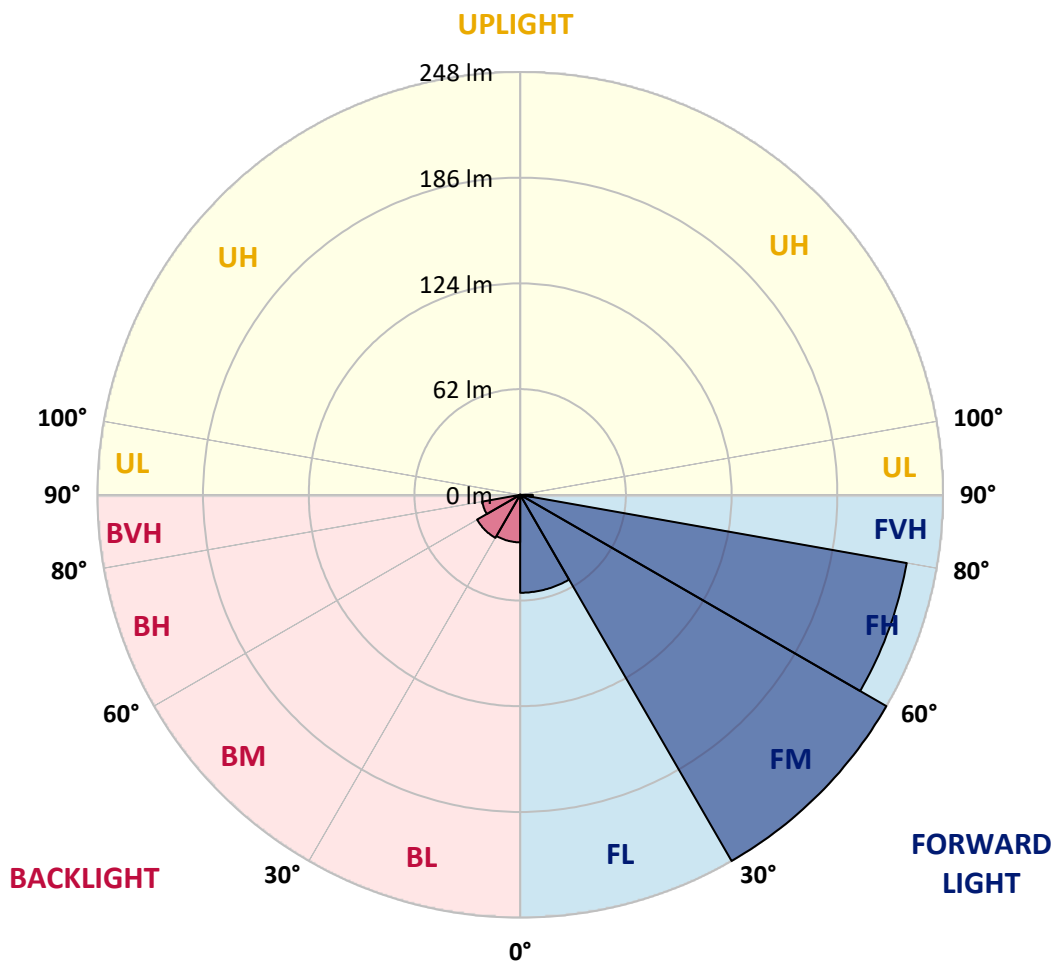
CATALOG NUMBER: ENT-SA1-740-U-SL2-HSS-XXB

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|--------|
| | | | | B | U | G |
| FL | (0°-30°) | 57.5 | 9.2 | | | |
| FM | (30°-60°) | 248.3 | 39.8 | | | |
| FH | (60°-80°) | 230.6 | 36.9 | | | G0/660 |
| FVH | (80°-90°) | 7.4 | 1.2 | | | G0/10 |
| BL | (0°-30°) | 27.9 | 4.5 | B0/110 | | |
| BM | (30°-60°) | 29.2 | 4.7 | B0/220 | | |
| BH | (60°-80°) | 22.6 | 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





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 64° | 65° | 75° | 85° |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0° | 161.5 | 161.5 | 161.5 | 161.5 | 161.5 | 161.5 | 161.5 | 161.5 | 161.5 | 161.5 | 161.5 |
| 2.5° | 157.0 | 157.0 | 157.8 | 158.6 | 159.0 | 160.2 | 161.1 | 161.7 | 161.7 | 162.2 | 161.4 |
| 5° | 146.6 | 146.6 | 147.3 | 149.1 | 151.1 | 153.6 | 156.5 | 159.3 | 159.9 | 162.0 | 161.9 |
| 7.5° | 136.9 | 137.8 | 138.9 | 140.8 | 142.9 | 146.6 | 150.6 | 155.5 | 156.0 | 161.1 | 162.2 |
| 10° | 130.3 | 130.8 | 131.5 | 133.5 | 136.6 | 140.9 | 145.2 | 151.0 | 152.0 | 159.6 | 162.2 |
| 12.5° | 124.9 | 125.0 | 126.0 | 128.3 | 131.2 | 135.4 | 140.2 | 146.6 | 147.8 | 156.8 | 161.7 |
| 15° | 121.0 | 120.9 | 122.0 | 124.2 | 127.1 | 131.4 | 136.1 | 142.8 | 144.1 | 154.5 | 161.6 |
| 17.5° | 118.7 | 118.8 | 119.7 | 121.4 | 124.1 | 128.2 | 133.0 | 139.6 | 140.9 | 152.6 | 162.2 |
| 20° | 118.7 | 118.7 | 119.3 | 120.1 | 122.1 | 125.8 | 130.5 | 137.3 | 138.6 | 151.4 | 163.0 |
| 22.5° | 121.0 | 120.8 | 121.3 | 120.6 | 121.6 | 124.1 | 128.9 | 135.7 | 137.2 | 150.9 | 164.2 |
| 25° | 125.2 | 124.8 | 125.1 | 123.7 | 122.6 | 123.7 | 128.0 | 135.1 | 136.6 | 151.0 | 165.3 |
| 27.5° | 131.0 | 131.0 | 130.4 | 128.4 | 125.6 | 124.4 | 127.8 | 134.6 | 136.2 | 151.0 | 166.0 |
| 30° | 139.1 | 138.8 | 137.8 | 135.9 | 131.6 | 127.5 | 128.9 | 134.6 | 136.2 | 151.1 | 166.2 |
| 32.5° | 147.3 | 147.5 | 148.0 | 146.1 | 140.2 | 132.8 | 131.6 | 135.6 | 136.9 | 151.0 | 165.9 |
| 35° | 155.5 | 155.6 | 158.0 | 158.2 | 150.8 | 141.2 | 136.1 | 138.3 | 139.1 | 152.1 | 166.1 |
| 37.5° | 162.7 | 163.3 | 168.0 | 170.3 | 164.2 | 152.1 | 143.2 | 143.2 | 143.6 | 155.1 | 167.5 |
| 40° | 170.9 | 172.3 | 178.0 | 183.1 | 180.7 | 166.0 | 153.6 | 150.4 | 150.7 | 160.4 | 170.4 |
| 42.5° | 180.3 | 182.1 | 189.5 | 197.0 | 196.9 | 183.1 | 166.8 | 162.0 | 162.2 | 169.8 | 176.5 |
| 45° | 192.3 | 193.5 | 202.9 | 212.2 | 214.2 | 202.0 | 183.4 | 177.0 | 177.2 | 183.9 | 188.2 |
| 47.5° | 206.9 | 208.3 | 217.4 | 228.6 | 233.6 | 224.7 | 204.9 | 198.0 | 197.3 | 202.0 | 205.1 |
| 50° | 225.9 | 228.7 | 234.1 | 244.8 | 257.0 | 251.1 | 230.1 | 223.2 | 222.3 | 226.1 | 227.0 |
| 52.5° | 244.2 | 246.7 | 248.9 | 258.8 | 282.3 | 283.8 | 261.1 | 253.5 | 252.6 | 253.5 | 254.7 |
| 55° | 246.9 | 248.3 | 250.0 | 263.4 | 302.9 | 325.4 | 296.3 | 287.3 | 284.8 | 283.1 | 287.2 |
| 57.5° | 225.1 | 224.2 | 229.7 | 247.9 | 306.3 | 371.3 | 343.9 | 326.5 | 324.0 | 314.9 | 310.9 |
| 60° | 178.2 | 177.0 | 182.2 | 207.1 | 287.2 | 394.2 | 410.0 | 369.8 | 363.9 | 333.4 | 329.4 |
| 62.5° | 125.2 | 123.8 | 130.5 | 145.2 | 222.8 | 389.7 | 484.5 | 410.8 | 399.1 | 349.7 | 344.3 |
| 65° | 96.5 | 95.8 | 99.4 | 102.7 | 136.0 | 337.5 | 525.5 | 491.0 | 466.7 | 367.5 | 360.6 |
| 67.5° | 75.6 | 76.5 | 81.0 | 90.5 | 87.8 | 210.4 | 521.7 | 613.2 | 588.9 | 400.2 | 395.8 |
| 70° | 60.8 | 61.0 | 66.6 | 81.9 | 82.8 | 107.1 | 441.7 | 676.4 | 676.1 | 453.0 | 423.8 |
| 72.5° | 36.8 | 37.7 | 46.9 | 70.8 | 83.6 | 82.0 | 296.9 | 619.8 | 628.3 | 465.3 | 382.2 |
| 75° | 17.7 | 18.7 | 24.3 | 47.5 | 83.1 | 79.8 | 160.7 | 469.2 | 480.2 | 417.2 | 309.9 |
| 77.5° | 6.6 | 7.5 | 11.2 | 23.3 | 61.6 | 73.1 | 84.5 | 316.4 | 325.0 | 305.4 | 209.9 |
| 80° | 2.1 | 2.4 | 4.4 | 10.6 | 31.3 | 60.4 | 54.4 | 178.4 | 184.2 | 133.7 | 70.6 |
| 82.5° | 0.2 | 0.3 | 1.2 | 3.6 | 12.1 | 30.7 | 31.9 | 67.2 | 70.1 | 26.1 | 14.3 |
| 85° | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.2 | 7.9 | 12.8 | 10.5 | 2.5 | 4.2 |
| 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 |



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CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0° | 161.5 | 161.5 | 161.5 | 161.5 | 161.5 | 161.5 | 161.5 | 161.5 | 161.5 | 161.5 | 161.5 |
| 2.5° | 161.3 | 161.3 | 160.5 | 159.3 | 157.8 | 155.6 | 155.1 | 153.3 | 153.3 | 151.9 | 151.7 |
| 5° | 161.5 | 160.9 | 158.3 | 154.6 | 149.5 | 143.9 | 140.4 | 136.5 | 133.2 | 131.1 | 131.4 |
| 7.5° | 161.5 | 160.1 | 155.1 | 146.8 | 137.2 | 127.5 | 120.2 | 111.6 | 107.7 | 105.0 | 106.2 |
| 10° | 161.1 | 158.7 | 149.9 | 137.4 | 122.1 | 108.7 | 96.7 | 86.8 | 80.0 | 77.1 | 74.7 |
| 12.5° | 160.1 | 156.6 | 143.4 | 125.6 | 106.1 | 88.6 | 71.9 | 58.9 | 49.9 | 45.4 | 44.9 |
| 15° | 159.2 | 154.4 | 135.9 | 112.8 | 88.0 | 65.1 | 46.4 | 34.0 | 26.3 | 24.6 | 24.8 |
| 17.5° | 159.0 | 152.3 | 128.6 | 99.2 | 70.3 | 43.3 | 26.8 | 21.6 | 20.5 | 20.1 | 20.0 |
| 20° | 159.1 | 150.4 | 120.7 | 85.7 | 49.8 | 27.0 | 20.3 | 19.1 | 18.7 | 18.4 | 18.3 |
| 22.5° | 159.6 | 148.4 | 112.9 | 71.5 | 34.0 | 19.8 | 18.1 | 17.3 | 16.8 | 16.5 | 16.4 |
| 25° | 159.6 | 146.1 | 104.2 | 56.5 | 22.3 | 17.3 | 16.2 | 15.3 | 14.5 | 14.0 | 14.0 |
| 27.5° | 159.2 | 143.4 | 95.3 | 42.9 | 17.7 | 15.5 | 14.3 | 12.9 | 12.0 | 11.4 | 11.4 |
| 30° | 158.2 | 140.2 | 86.6 | 30.0 | 15.5 | 13.8 | 12.3 | 10.6 | 9.4 | 8.9 | 8.7 |
| 32.5° | 156.8 | 136.8 | 76.6 | 21.1 | 13.9 | 12.1 | 10.3 | 8.6 | 7.5 | 6.8 | 6.8 |
| 35° | 155.3 | 133.4 | 65.8 | 16.1 | 12.6 | 10.6 | 8.7 | 6.9 | 5.9 | 5.5 | 5.4 |
| 37.5° | 154.5 | 129.8 | 55.3 | 13.9 | 11.3 | 9.1 | 7.0 | 5.6 | 4.8 | 4.5 | 4.4 |
| 40° | 155.1 | 127.1 | 45.0 | 12.5 | 10.1 | 7.7 | 5.8 | 4.7 | 4.1 | 3.6 | 3.6 |
| 42.5° | 158.3 | 125.5 | 35.2 | 11.4 | 9.0 | 6.5 | 4.8 | 3.8 | 3.2 | 2.9 | 2.9 |
| 45° | 165.0 | 126.6 | 26.8 | 10.4 | 7.7 | 5.4 | 4.1 | 3.1 | 2.4 | 2.1 | 2.1 |
| 47.5° | 176.2 | 131.0 | 20.3 | 9.5 | 6.6 | 4.4 | 3.3 | 2.4 | 1.9 | 1.6 | 1.5 |
| 50° | 192.6 | 139.7 | 15.9 | 8.7 | 5.5 | 3.7 | 2.7 | 1.9 | 1.4 | 1.2 | 1.2 |
| 52.5° | 216.2 | 154.7 | 13.6 | 7.7 | 4.5 | 3.1 | 2.2 | 1.4 | 1.1 | 0.9 | 0.9 |
| 55° | 245.1 | 173.8 | 12.3 | 6.8 | 3.6 | 2.5 | 1.8 | 1.1 | 0.8 | 0.7 | 0.5 |
| 57.5° | 268.6 | 189.0 | 11.5 | 5.9 | 3.1 | 2.2 | 1.3 | 0.9 | 0.7 | 0.4 | 0.4 |
| 60° | 289.4 | 198.7 | 10.2 | 4.9 | 2.6 | 1.8 | 1.1 | 0.7 | 0.4 | 0.3 | 0.3 |
| 62.5° | 306.2 | 205.1 | 8.4 | 4.0 | 2.2 | 1.4 | 0.9 | 0.5 | 0.4 | 0.3 | 0.3 |
| 65° | 325.3 | 210.3 | 6.9 | 3.1 | 1.9 | 1.2 | 0.8 | 0.4 | 0.3 | 0.3 | 0.3 |
| 67.5° | 362.7 | 221.8 | 5.2 | 2.4 | 1.4 | 1.0 | 0.7 | 0.4 | 0.3 | 0.2 | 0.2 |
| 70° | 377.3 | 208.3 | 4.1 | 2.0 | 1.1 | 0.9 | 0.7 | 0.4 | 0.2 | 0.2 | 0.2 |
| 72.5° | 321.1 | 155.9 | 3.2 | 1.6 | 1.0 | 0.8 | 0.7 | 0.4 | 0.3 | 0.3 | 0.2 |
| 75° | 254.7 | 105.3 | 2.5 | 1.3 | 1.0 | 0.9 | 0.7 | 0.7 | 0.5 | 0.4 | 0.4 |
| 77.5° | 162.6 | 46.6 | 2.0 | 1.1 | 1.0 | 1.1 | 1.0 | 0.7 | 0.7 | 0.5 | 0.5 |
| 80° | 48.5 | 11.2 | 1.4 | 0.9 | 0.8 | 0.9 | 1.0 | 0.7 | 0.4 | 0.3 | 0.3 |
| 82.5° | 10.5 | 2.6 | 0.9 | 0.4 | 0.5 | 0.4 | 0.7 | 0.7 | 0.4 | 0.3 | 0.3 |
| 85° | 3.5 | 1.0 | 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)