

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: McGRAW-EDISON

Report Number: P832843

Luminaire Tested: **TTN-D0-740-U-MQ-UPL1**

Issue Date: 5/15/2024

Test Information

Test Method: LM-79-08
Report Number: P832843
REPORT IS FROM IESNA LM-79-08 TEST DATA - UPLIGHT (G3-2308-121-4) AND
Test Lab: INNOVATION CENTER
Issue Date: 5/15/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: TTN-D0-740-U-MQ-UPL1
Description: TOPTIER NANO LED PARKING GARAGE LUMINAIRE WITH UPLIGHT
4000K, 70 CRI LEDS AND MEDIUM DISTRIBUTION
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1597.7 lumens
Efficiency: N/A
Efficacy: 120.1 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 0.71' x H: 0.1')
IES Classification: Type V - Short
BUG Rating: B1 - U3 - G1

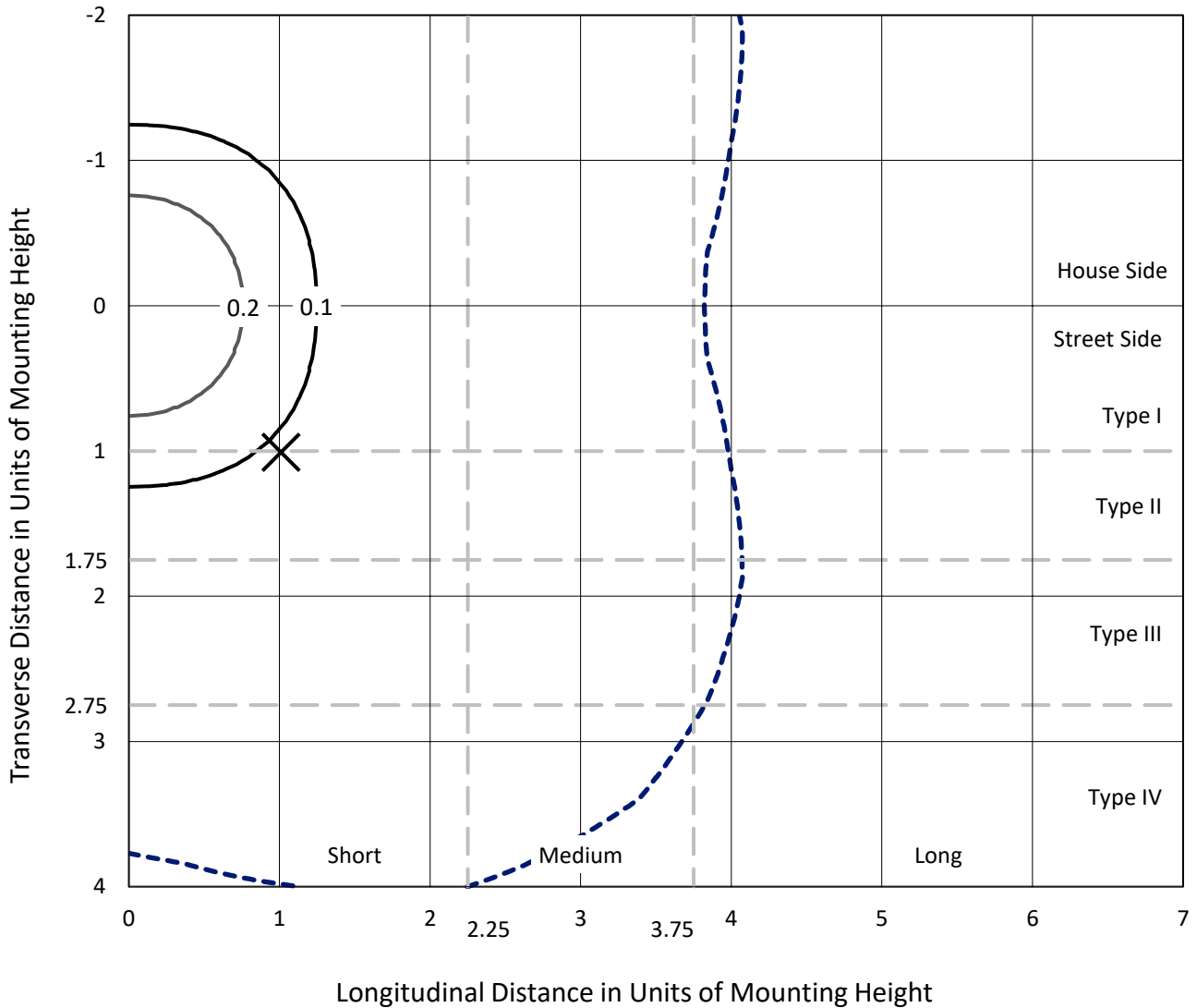
Input Watts (W): 13.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

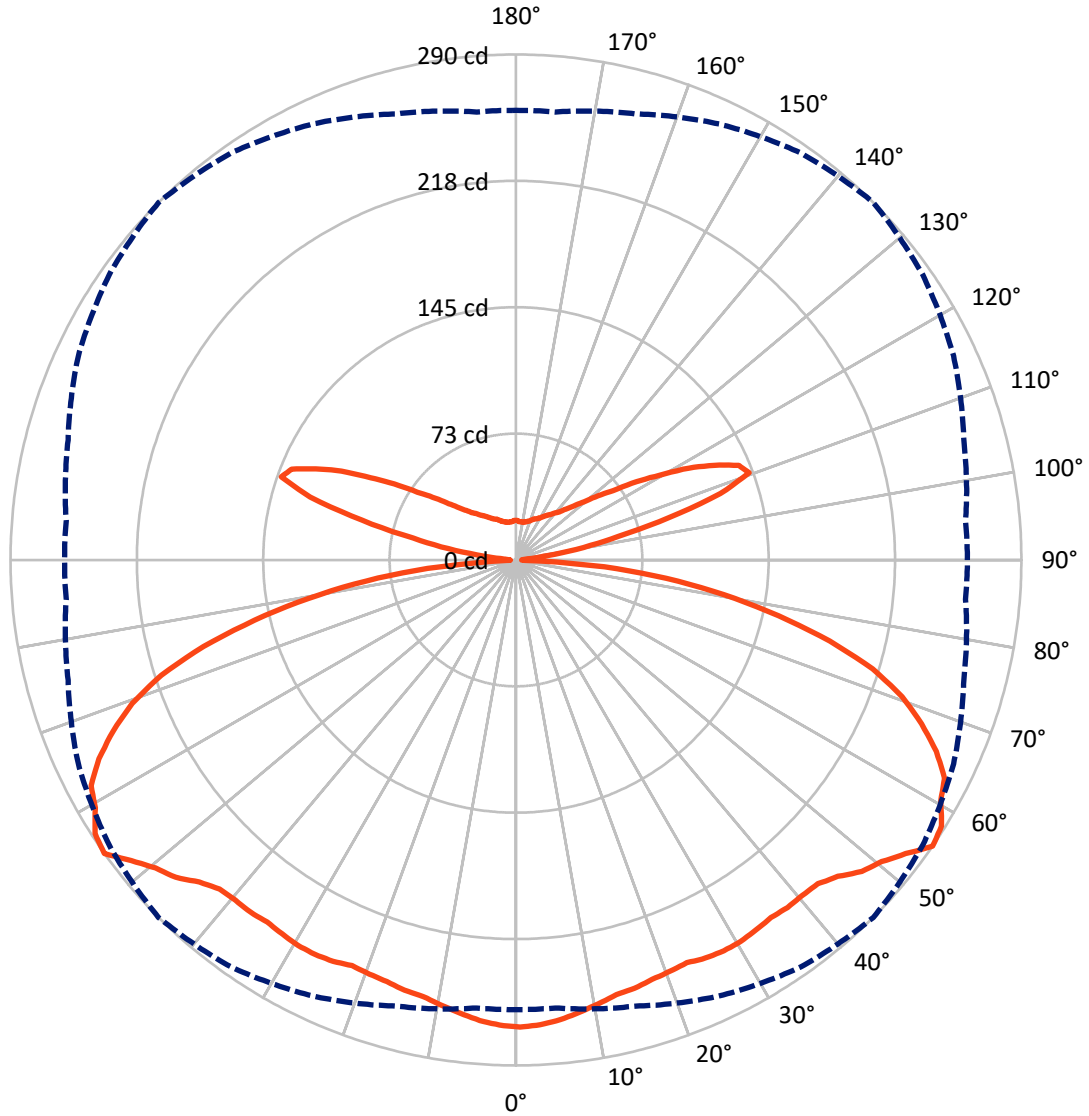
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 0.4 fc
 Type V - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 55-Deg Vertical

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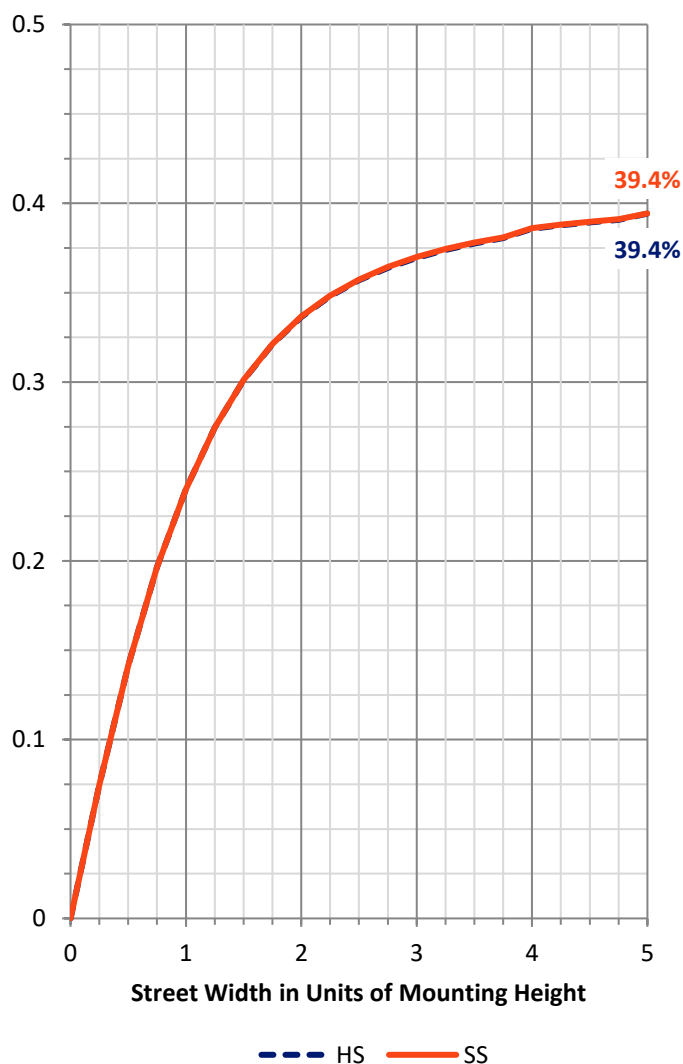
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 637.1 | 161.7 | 798.8 |
| | % Fixture | 39.9 | 10.1 | 50.0 |
| Street Side | Lumens | 637.1 | 161.7 | 798.8 |
| | % Fixture | 39.9 | 10.1 | 50.0 |
| Total | Lumens | 1274.2 | 323.4 | 1597.7 |
| | % Fixture | 79.8 | 20.2 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 25.1 | 1.6 |
| 10°-20° | 72.0 | 4.5 |
| 20°-30° | 116.4 | 7.3 |
| 30°-40° | 157.5 | 9.9 |
| 40°-50° | 197.3 | 12.3 |
| 50°-60° | 241.7 | 15.1 |
| 60°-70° | 242.3 | 15.2 |
| 70°-80° | 174.9 | 10.9 |
| 80°-90° | 47.1 | 2.9 |
| 90°-100° | 7.2 | 0.5 |
| 100°-110° | 73.4 | 4.6 |
| 110°-120° | 107.3 | 6.7 |
| 120°-130° | 62.3 | 3.9 |
| 130°-140° | 33.0 | 2.1 |
| 140°-150° | 19.6 | 1.2 |
| 150°-160° | 12.1 | 0.8 |
| 160°-170° | 6.6 | 0.4 |
| 170°-180° | 2.1 | 0.1 |
| 0°-90° | 1274.2 | 79.8 |
| 0°-180° | 1597.7 | 100.0 |

Coefficient of Utilization



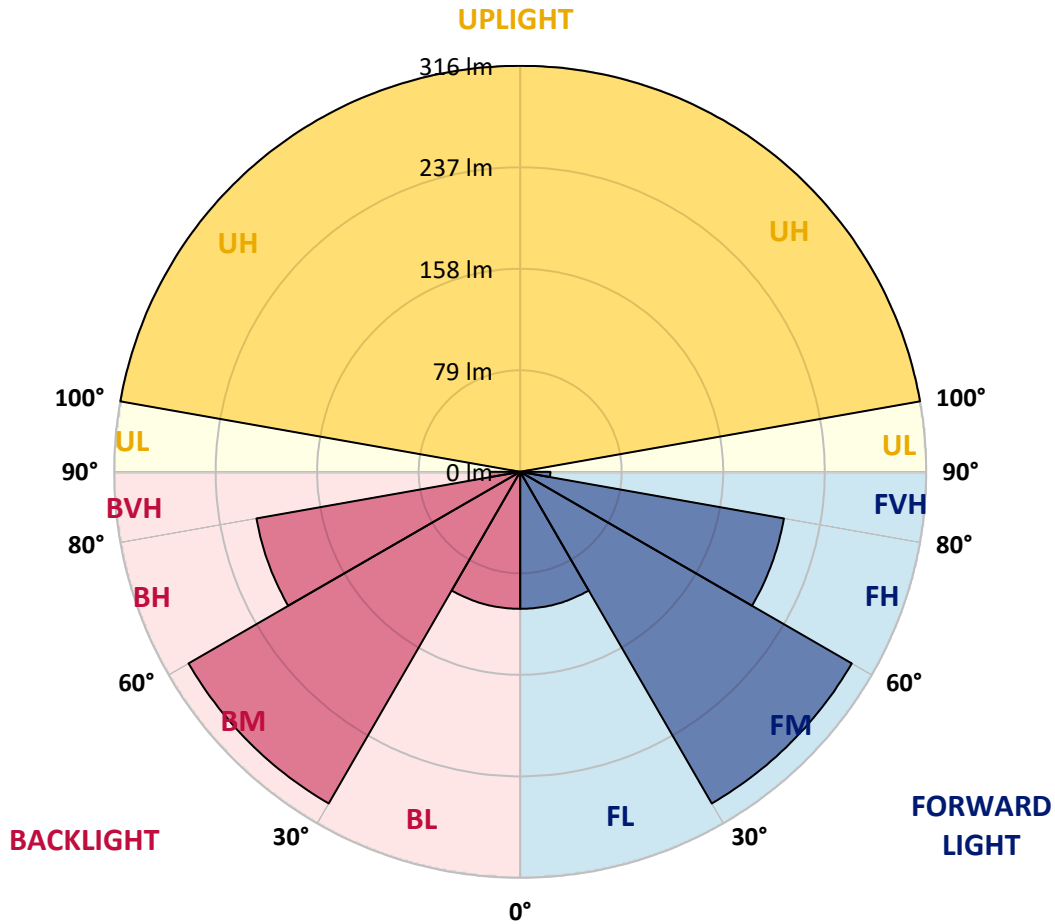
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|--------|--------|
| | | | B | U | G |
| FL (0°-30°) | 106.7 | 6.7 | | | |
| FM (30°-60°) | 298.3 | 18.7 | | | |
| FH (60°-80°) | 208.6 | 13.1 | | | G0/660 |
| FVH (80°-90°) | 23.5 | 1.5 | | | G1/100 |
| BL (0°-30°) | 106.7 | 6.7 | B0/110 | | |
| BM (30°-60°) | 298.3 | 18.7 | B1/1000 | | |
| BH (60°-80°) | 208.6 | 13.1 | B1/500 | | G0/660 |
| BVH (80°-90°) | 23.5 | 1.5 | | | G1/100 |
| UL (90°-100°) | 7.2 | 0.5 | | U1/10 | |
| UH (100°-180°) | 316.2 | 19.8 | | U3/500 | |

BUG Rating: B1-U3-G1

Type V Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 85° | 90° |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0° | 268.0 | 268.0 | 268.0 | 268.0 | 268.0 | 268.0 | 268.0 | 268.0 | 268.0 | 268.0 | 268.0 |
| 2.5° | 267.0 | 267.0 | 267.0 | 266.0 | 267.0 | 267.0 | 267.0 | 267.0 | 267.0 | 267.0 | 267.0 |
| 5° | 265.0 | 265.0 | 265.0 | 265.0 | 265.0 | 265.0 | 265.0 | 265.0 | 265.0 | 265.0 | 265.0 |
| 7.5° | 262.0 | 262.0 | 262.0 | 262.0 | 262.0 | 262.0 | 262.0 | 262.0 | 262.0 | 262.0 | 262.0 |
| 10° | 258.0 | 258.0 | 258.0 | 258.0 | 259.0 | 259.0 | 259.0 | 259.0 | 258.0 | 258.0 | 258.0 |
| 12.5° | 255.0 | 255.0 | 255.0 | 256.0 | 256.0 | 256.0 | 256.0 | 256.0 | 256.0 | 256.0 | 255.0 |
| 15° | 254.0 | 254.0 | 254.0 | 254.0 | 255.0 | 255.0 | 255.0 | 255.0 | 254.0 | 254.0 | 254.0 |
| 17.5° | 252.0 | 252.0 | 252.0 | 253.0 | 253.0 | 253.0 | 253.0 | 253.0 | 252.0 | 252.0 | 252.0 |
| 20° | 250.0 | 250.0 | 251.0 | 251.0 | 252.0 | 252.0 | 252.0 | 251.0 | 251.0 | 250.0 | 251.0 |
| 22.5° | 250.0 | 250.0 | 250.0 | 251.0 | 251.0 | 251.0 | 251.0 | 250.0 | 250.0 | 250.0 | 250.0 |
| 25° | 250.0 | 250.0 | 251.0 | 252.0 | 252.0 | 253.0 | 252.0 | 251.0 | 250.0 | 250.0 | 250.0 |
| 27.5° | 251.0 | 251.0 | 252.0 | 253.0 | 253.0 | 254.0 | 253.0 | 252.0 | 251.0 | 251.0 | 251.0 |
| 30° | 251.0 | 251.0 | 252.0 | 253.0 | 253.0 | 254.0 | 253.0 | 252.0 | 251.0 | 251.0 | 251.0 |
| 32.5° | 249.0 | 250.0 | 251.0 | 252.0 | 253.0 | 253.0 | 253.0 | 252.0 | 251.0 | 250.0 | 250.0 |
| 35° | 248.0 | 249.0 | 250.0 | 251.0 | 252.0 | 252.0 | 252.0 | 251.0 | 250.0 | 249.0 | 249.0 |
| 37.5° | 247.0 | 247.0 | 249.0 | 250.0 | 251.0 | 253.0 | 252.0 | 250.0 | 249.0 | 248.0 | 248.0 |
| 40° | 246.0 | 247.0 | 248.0 | 250.0 | 251.0 | 253.0 | 252.0 | 250.0 | 248.0 | 247.0 | 247.0 |
| 42.5° | 246.0 | 246.0 | 248.0 | 250.0 | 252.0 | 254.0 | 253.0 | 251.0 | 248.0 | 247.0 | 246.0 |
| 45° | 247.0 | 248.0 | 251.0 | 255.0 | 257.0 | 259.0 | 258.0 | 255.0 | 250.0 | 248.0 | 247.0 |
| 47.5° | 251.0 | 252.0 | 255.0 | 259.0 | 264.0 | 267.0 | 264.0 | 259.0 | 255.0 | 252.0 | 251.0 |
| 50° | 253.0 | 254.0 | 259.0 | 264.0 | 271.0 | 272.0 | 271.0 | 264.0 | 259.0 | 254.0 | 254.0 |
| 52.5° | 257.0 | 257.0 | 263.0 | 272.0 | 278.0 | 280.0 | 278.0 | 273.0 | 263.0 | 258.0 | 257.0 |
| 55° | 258.0 | 258.0 | 265.0 | 276.0 | 285.0 | 290.0 | 285.0 | 277.0 | 266.0 | 259.0 | 259.0 |
| 57.5° | 252.0 | 254.0 | 263.0 | 274.0 | 285.0 | 288.0 | 285.0 | 275.0 | 264.0 | 255.0 | 254.0 |
| 60° | 245.0 | 248.0 | 256.0 | 269.0 | 277.0 | 280.0 | 278.0 | 269.0 | 257.0 | 248.0 | 247.0 |
| 62.5° | 238.0 | 242.0 | 251.0 | 261.0 | 273.0 | 276.0 | 273.0 | 261.0 | 251.0 | 242.0 | 238.0 |
| 65° | 223.0 | 227.0 | 240.0 | 252.0 | 263.0 | 265.0 | 264.0 | 252.0 | 240.0 | 227.0 | 225.0 |
| 67.5° | 208.0 | 211.0 | 220.0 | 239.0 | 248.0 | 251.0 | 249.0 | 238.0 | 221.0 | 211.0 | 210.0 |
| 70° | 192.0 | 195.0 | 203.0 | 221.0 | 230.0 | 235.0 | 231.0 | 221.0 | 203.0 | 195.0 | 194.0 |
| 72.5° | 171.0 | 175.0 | 184.0 | 200.0 | 209.0 | 214.0 | 210.0 | 200.0 | 184.0 | 174.0 | 172.0 |
| 75° | 146.0 | 149.0 | 160.0 | 173.0 | 182.0 | 186.0 | 183.0 | 174.0 | 160.0 | 149.0 | 148.0 |
| 77.5° | 119.0 | 122.0 | 132.0 | 145.0 | 150.0 | 154.0 | 151.0 | 144.0 | 132.0 | 122.0 | 121.0 |
| 80° | 90.0 | 93.0 | 102.0 | 112.0 | 117.0 | 121.0 | 118.0 | 111.0 | 102.0 | 93.0 | 92.0 |
| 82.5° | 59.0 | 62.0 | 70.0 | 78.0 | 83.0 | 87.0 | 84.0 | 77.0 | 71.0 | 62.0 | 61.0 |
| 85° | 25.0 | 28.0 | 35.0 | 43.0 | 47.0 | 51.0 | 48.0 | 42.0 | 35.0 | 29.0 | 28.0 |
| 87.5° | 2.0 | 3.0 | 3.0 | 4.0 | 3.0 | 5.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| 90° | 2.8 | 2.8 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 2.8 | 2.8 |
| 92.5° | 2.8 | 2.8 | 2.8 | 3.9 | 4.4 | 3.9 | 4.4 | 3.3 | 3.3 | 2.8 | 2.8 |
| 95° | 3.3 | 3.3 | 3.9 | 5.0 | 6.1 | 6.6 | 6.6 | 3.9 | 3.9 | 3.3 | 3.3 |
| 97.5° | 4.4 | 5.0 | 5.0 | 6.1 | 10.0 | 18.3 | 11.1 | 5.5 | 5.5 | 5.0 | 4.4 |
| 100° | 7.2 | 7.7 | 7.7 | 13.8 | 29.3 | 39.3 | 28.2 | 14.4 | 10.5 | 7.7 | 7.7 |
| 102.5° | 23.2 | 24.3 | 29.9 | 44.8 | 66.4 | 60.3 | 50.9 | 48.1 | 33.2 | 26.6 | 25.5 |
| 105° | 59.2 | 58.7 | 63.1 | 74.7 | 93.0 | 91.3 | 84.1 | 76.4 | 65.8 | 60.9 | 60.9 |
| 107.5° | 78.0 | 78.0 | 81.9 | 91.9 | 105.7 | 123.4 | 125.1 | 99.0 | 86.9 | 81.3 | 80.8 |
| 110° | 88.0 | 88.0 | 91.3 | 99.6 | 117.9 | 142.8 | 141.6 | 122.3 | 107.3 | 100.2 | 99.0 |



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CANDELA DISTRIBUTION (continued):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 85° | 90° |
|--------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|
| 112.5° | 90.2 | 90.7 | 95.2 | 107.9 | 127.8 | 138.9 | 133.9 | 126.2 | 119.5 | 114.0 | 112.9 |
| 115° | 93.5 | 93.5 | 98.5 | 110.7 | 121.7 | 126.2 | 120.6 | 114.5 | 110.1 | 107.9 | 109.0 |
| 117.5° | 92.4 | 94.1 | 95.2 | 101.8 | 109.0 | 112.3 | 109.6 | 101.3 | 97.9 | 96.8 | 95.2 |
| 120° | 85.8 | 85.8 | 86.9 | 90.2 | 94.1 | 95.7 | 94.6 | 89.1 | 86.3 | 85.8 | 84.7 |
| 122.5° | 76.4 | 76.9 | 76.4 | 78.0 | 80.8 | 82.4 | 81.3 | 76.9 | 75.8 | 75.8 | 74.7 |
| 125° | 67.0 | 67.0 | 66.4 | 67.5 | 69.2 | 68.6 | 69.2 | 67.0 | 66.4 | 66.4 | 65.8 |
| 127.5° | 60.3 | 59.8 | 58.7 | 59.2 | 59.8 | 59.8 | 60.3 | 58.1 | 58.7 | 59.2 | 58.7 |
| 130° | 53.7 | 53.7 | 52.6 | 52.6 | 52.6 | 51.5 | 52.6 | 51.5 | 52.0 | 52.6 | 53.1 |
| 132.5° | 47.6 | 47.6 | 45.9 | 45.4 | 45.4 | 45.4 | 45.9 | 45.4 | 46.5 | 47.6 | 47.6 |
| 135° | 42.6 | 42.6 | 40.9 | 41.5 | 41.5 | 40.9 | 41.5 | 40.9 | 42.1 | 42.6 | 42.6 |
| 137.5° | 38.7 | 38.7 | 37.6 | 37.6 | 37.6 | 37.1 | 37.6 | 37.6 | 38.2 | 39.3 | 39.8 |
| 140° | 35.4 | 35.4 | 34.9 | 34.9 | 34.3 | 34.9 | 34.9 | 34.9 | 35.4 | 36.0 | 36.0 |
| 142.5° | 33.8 | 33.2 | 32.6 | 32.1 | 32.6 | 32.6 | 32.6 | 32.1 | 32.6 | 33.8 | 33.8 |
| 145° | 31.0 | 31.0 | 30.4 | 30.4 | 30.4 | 31.0 | 30.4 | 30.4 | 31.0 | 31.0 | 31.5 |
| 147.5° | 29.3 | 29.3 | 28.8 | 29.3 | 29.3 | 29.3 | 29.3 | 28.8 | 29.3 | 29.3 | 29.9 |
| 150° | 28.8 | 28.2 | 27.7 | 28.2 | 28.2 | 27.7 | 27.7 | 27.7 | 27.7 | 28.2 | 28.2 |
| 152.5° | 27.1 | 27.1 | 26.6 | 27.1 | 26.6 | 26.6 | 26.6 | 26.6 | 26.6 | 27.1 | 27.7 |
| 155° | 26.0 | 26.0 | 25.5 | 26.0 | 26.0 | 26.0 | 26.0 | 26.0 | 26.0 | 26.0 | 26.0 |
| 157.5° | 24.9 | 25.5 | 24.9 | 24.9 | 24.9 | 24.9 | 24.9 | 24.9 | 24.9 | 25.5 | 25.5 |
| 160° | 24.3 | 24.3 | 24.3 | 24.3 | 23.8 | 23.8 | 23.8 | 24.3 | 24.3 | 24.3 | 24.9 |
| 162.5° | 23.8 | 23.8 | 23.8 | 23.8 | 23.2 | 23.2 | 23.2 | 23.2 | 23.8 | 23.8 | 24.3 |
| 165° | 23.8 | 23.2 | 23.2 | 23.2 | 22.7 | 22.7 | 22.7 | 22.7 | 23.2 | 23.8 | 23.2 |
| 167.5° | 22.7 | 22.7 | 22.7 | 22.7 | 22.7 | 22.1 | 22.1 | 22.7 | 22.7 | 22.7 | 23.2 |
| 170° | 22.7 | 22.7 | 22.1 | 22.1 | 22.1 | 22.1 | 22.1 | 22.1 | 22.1 | 22.1 | 22.7 |
| 172.5° | 22.7 | 22.7 | 22.7 | 22.7 | 22.1 | 22.1 | 22.1 | 22.1 | 22.1 | 22.7 | 22.7 |
| 175° | 22.7 | 22.7 | 22.7 | 22.7 | 22.1 | 22.1 | 22.1 | 22.7 | 22.7 | 22.7 | 22.1 |
| 177.5° | 22.7 | 22.7 | 22.7 | 22.7 | 22.1 | 22.7 | 22.7 | 22.7 | 22.7 | 22.7 | 22.7 |
| 180° | 22.7 | 22.7 | 22.7 | 22.7 | 22.7 | 22.7 | 22.7 | 22.7 | 22.7 | 22.7 | 22.7 |

(END OF REPORT)