

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: LUMARK

Report Number: P144278

Luminaire Tested: **LDRC-5XQ-E01-E-8030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P144278  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33699)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: LDRC-5XQ-E01-E-8030  
Description: RC LED ROADWAY SMALL CUTOFF COBRAHEAD LUMINAIRE  
(1) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE EXTRA WIDE  
Light Source: (21) 3000K CCT, 80 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2609.7 lumens  
Efficiency: N/A  
Efficacy: 105.7 lumens/watt  
Luminous Opening: Rectangular (W 0.17' x L: 1' x H: 0')  
IES Classification: Type V - Short - Non-Cutoff  
BUG Rating: B2 - U0 - G1

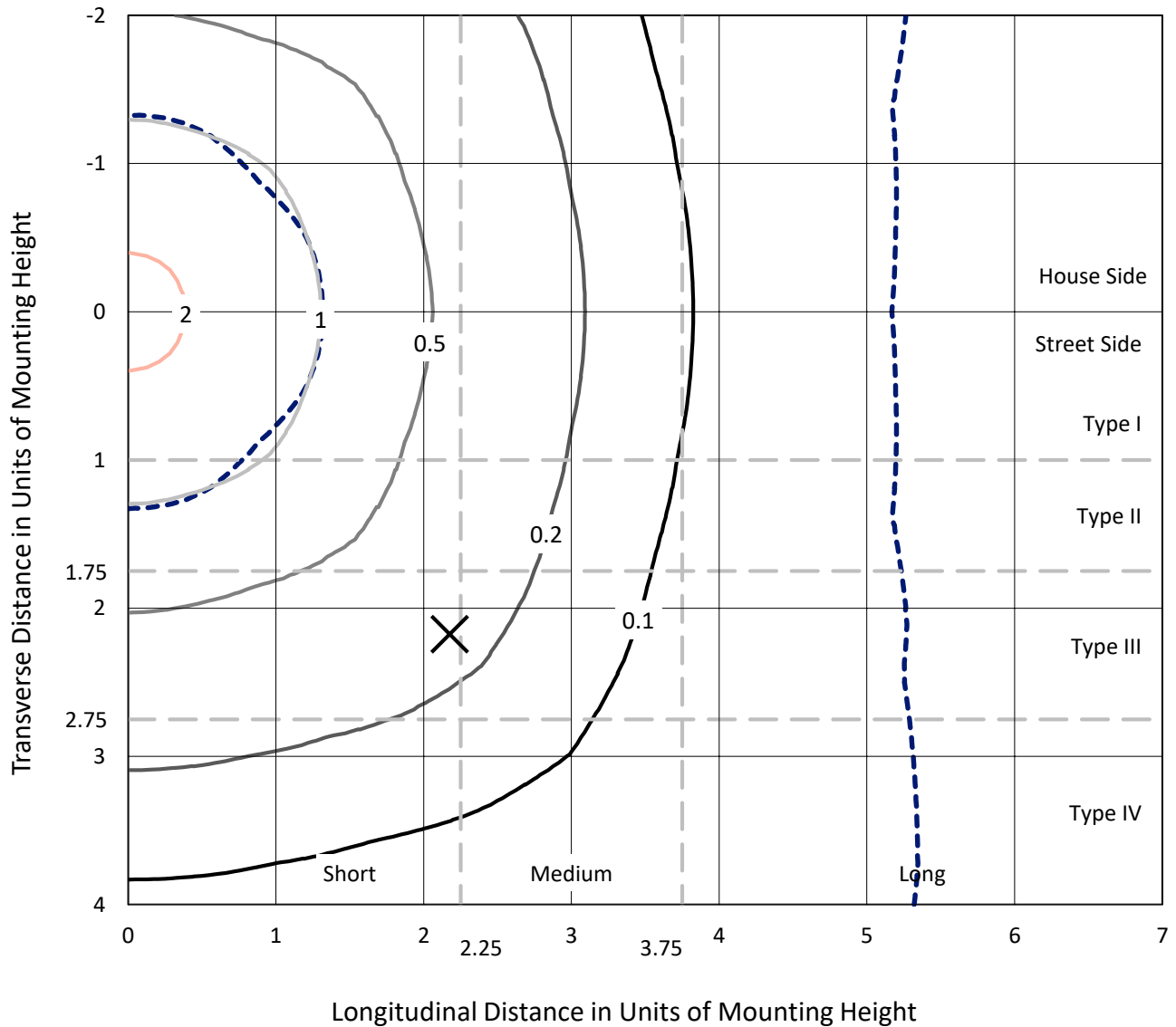
Input Watts (W): 24.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

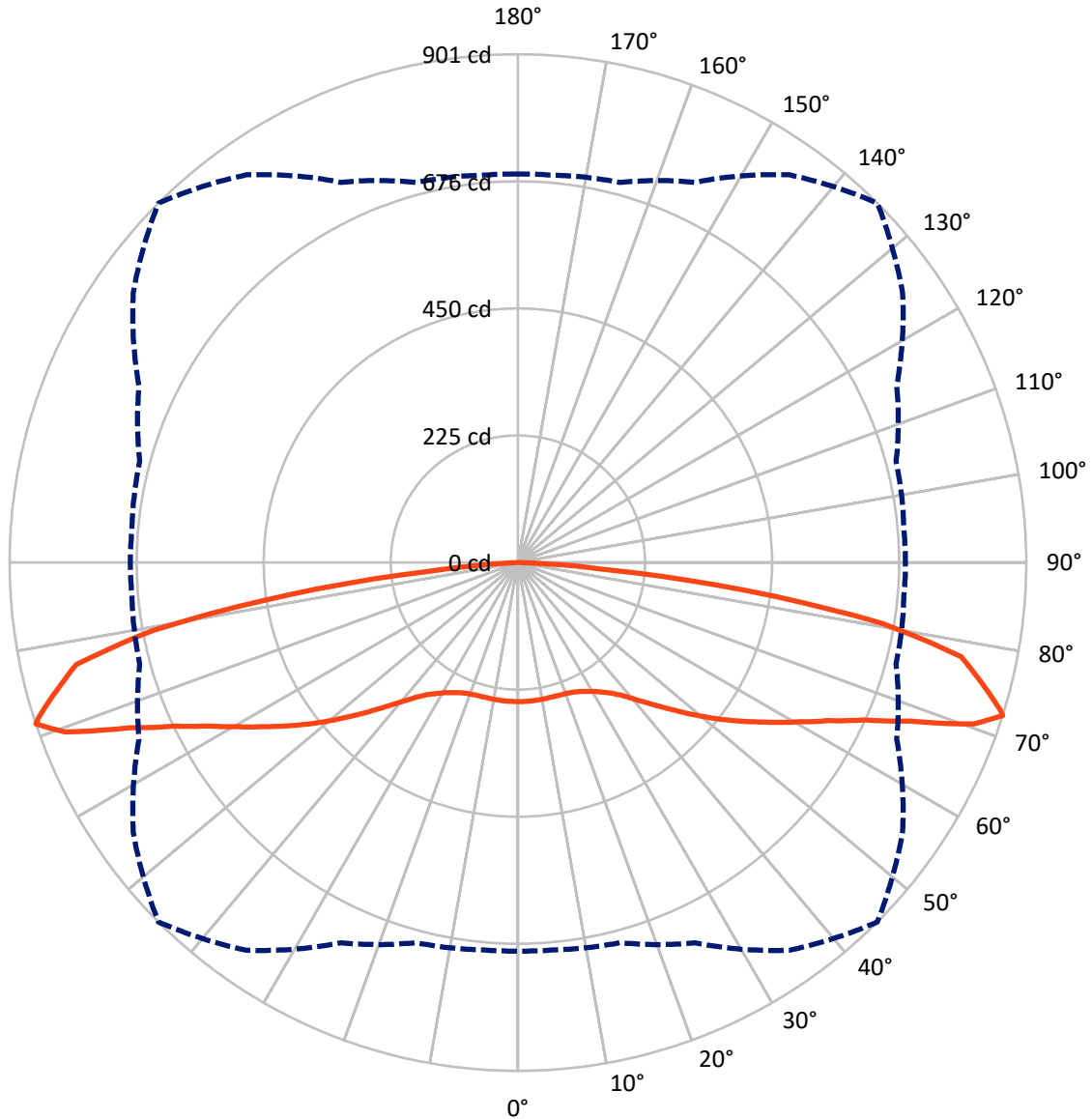
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 2.5 fc  
 Type V - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral      - - - Horizontal Cone Through 72-Deg Vertical

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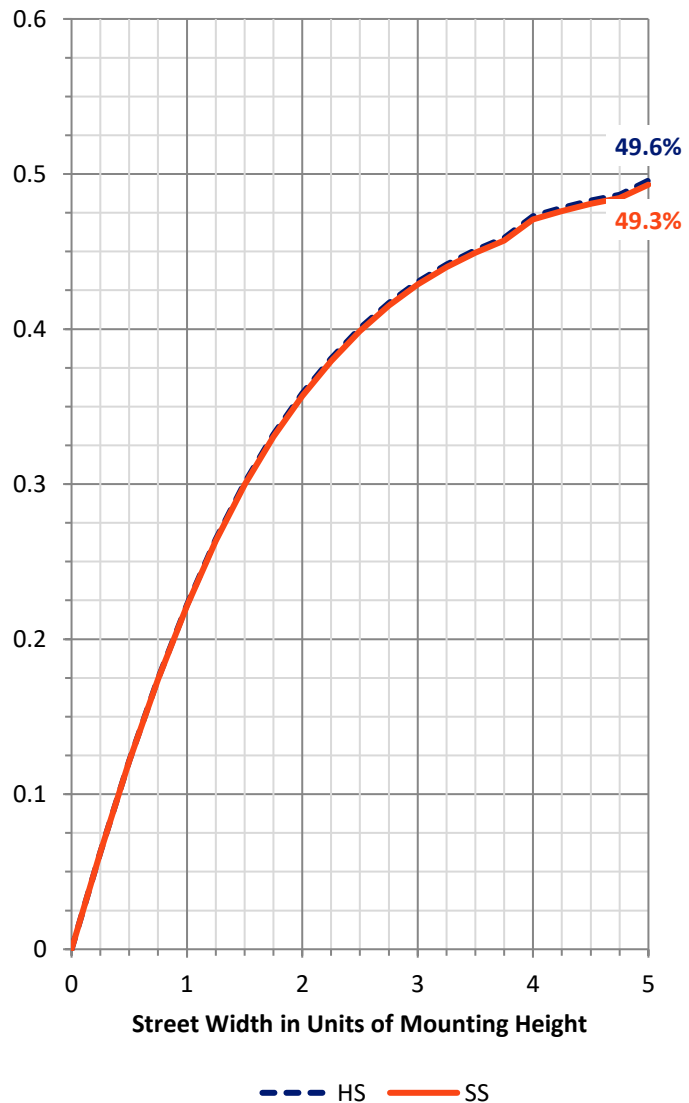
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 1304.8   | 0.0    | 1304.8 |
|                    | % Fixture | 50.0     | 0.0    | 50.0   |
| <b>Street Side</b> | Lumens    | 1304.8   | 0.0    | 1304.8 |
|                    | % Fixture | 50.0     | 0.0    | 50.0   |
| <b>Total</b>       | Lumens    | 2609.7   | 0.0    | 2609.7 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 23.5   | 0.9       |
| 10°-20°   | 69.9   | 2.7       |
| 20°-30°   | 117.4  | 4.5       |
| 30°-40°   | 178.6  | 6.8       |
| 40°-50°   | 282.4  | 10.8      |
| 50°-60°   | 431.3  | 16.5      |
| 60°-70°   | 631.9  | 24.2      |
| 70°-80°   | 717.9  | 27.5      |
| 80°-90°   | 156.8  | 6.0       |
| 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°    | 2609.7 | 100.0     |
| 0°-180°   | 2609.7 | 100.0     |



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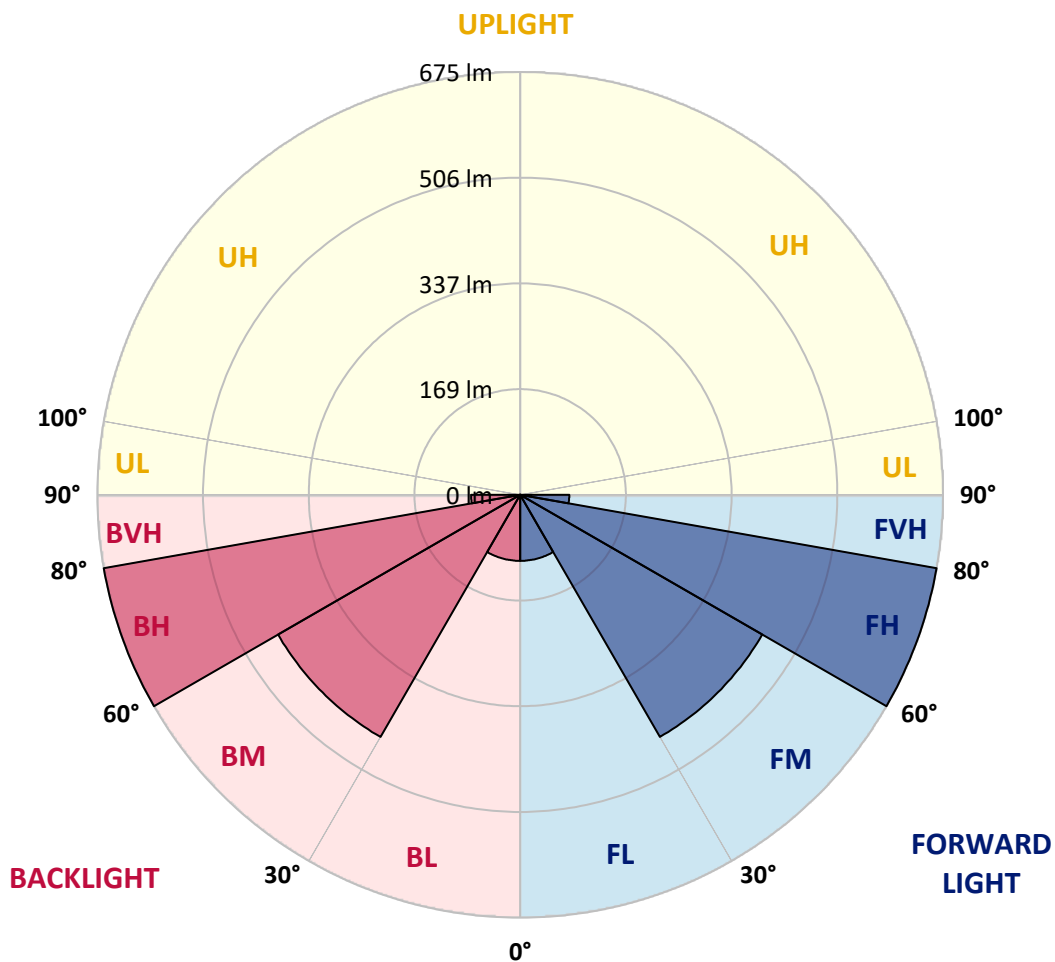
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|--------|-----------|-------------------------|------|---------|
|                |        |           | B                       | U    | G       |
| FL (0°-30°)    | 105.4  | 4.0       |                         |      |         |
| FM (30°-60°)   | 446.2  | 17.1      |                         |      |         |
| FH (60°-80°)   | 674.9  | 25.9      |                         |      | G1/1800 |
| FVH (80°-90°)  | 78.4   | 3.0       |                         |      | G1/100  |
| BL (0°-30°)    | 105.4  | 4.0       | B0/110                  |      |         |
| BM (30°-60°)   | 446.2  | 17.1      | B1/1000                 |      |         |
| BH (60°-80°)   | 674.9  | 25.9      | B2/1000                 |      | G1/1800 |
| BVH (80°-90°)  | 78.4   | 3.0       |                         |      | G1/100  |
| UL (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B2-U0-G1**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 5°    | 10°   | 15°   | 20°   | 25°   | 30°   | 35°   | 40°   | 45°   | 50°   |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0°    | 246.4 | 246.4 | 246.4 | 246.4 | 246.4 | 246.4 | 246.4 | 246.4 | 246.4 | 246.4 | 246.4 |
| 2.5°  | 247.0 | 246.9 | 246.7 | 246.6 | 246.5 | 246.4 | 246.4 | 246.4 | 246.4 | 246.3 | 246.3 |
| 5°    | 247.0 | 246.8 | 246.7 | 246.6 | 246.5 | 246.4 | 246.4 | 246.4 | 246.3 | 246.3 | 246.4 |
| 7.5°  | 246.6 | 246.7 | 246.6 | 246.4 | 246.4 | 246.4 | 246.3 | 246.3 | 246.2 | 246.1 | 246.2 |
| 10°   | 246.7 | 247.0 | 246.8 | 246.5 | 246.4 | 246.4 | 246.2 | 246.0 | 246.0 | 246.0 | 245.9 |
| 12.5° | 246.8 | 247.2 | 246.9 | 246.6 | 246.5 | 246.4 | 246.2 | 246.0 | 245.9 | 245.8 | 245.6 |
| 15°   | 247.4 | 247.6 | 247.4 | 247.1 | 246.8 | 246.6 | 246.4 | 246.2 | 246.0 | 245.8 | 245.6 |
| 17.5° | 247.7 | 248.2 | 247.8 | 247.6 | 247.2 | 247.0 | 246.8 | 246.6 | 246.4 | 246.2 | 246.0 |
| 20°   | 248.3 | 248.7 | 248.4 | 248.2 | 248.0 | 247.9 | 247.8 | 247.6 | 247.5 | 247.4 | 247.1 |
| 22.5° | 249.4 | 249.7 | 249.7 | 249.6 | 249.6 | 249.6 | 249.7 | 249.8 | 249.6 | 249.6 | 249.2 |
| 25°   | 251.7 | 251.7 | 251.8 | 252.0 | 252.3 | 252.6 | 252.8 | 253.0 | 253.1 | 253.2 | 252.8 |
| 27.5° | 255.6 | 256.0 | 256.1 | 256.2 | 256.7 | 257.1 | 257.5 | 258.0 | 258.2 | 258.5 | 258.1 |
| 30°   | 260.8 | 260.8 | 261.1 | 261.4 | 262.1 | 262.8 | 263.4 | 264.0 | 264.5 | 265.0 | 264.6 |
| 32.5° | 267.4 | 267.8 | 268.2 | 268.6 | 269.5 | 270.4 | 271.4 | 272.4 | 273.0 | 273.6 | 273.2 |
| 35°   | 277.4 | 277.9 | 278.3 | 278.8 | 279.7 | 280.6 | 281.8 | 282.9 | 283.4 | 284.0 | 283.6 |
| 37.5° | 291.6 | 291.6 | 292.2 | 292.8 | 293.4 | 294.0 | 295.5 | 297.0 | 297.6 | 298.2 | 297.8 |
| 40°   | 310.8 | 310.8 | 311.0 | 311.1 | 311.6 | 312.2 | 314.0 | 315.9 | 317.0 | 318.1 | 317.0 |
| 42.5° | 332.8 | 333.7 | 333.6 | 333.6 | 334.0 | 334.4 | 336.2 | 338.0 | 339.5 | 341.1 | 340.4 |
| 45°   | 358.8 | 358.6 | 358.3 | 357.9 | 359.0 | 360.2 | 362.8 | 365.3 | 366.7 | 368.0 | 366.8 |
| 47.5° | 385.0 | 384.8 | 384.3 | 383.8 | 385.0 | 386.2 | 390.0 | 393.8 | 395.7 | 397.6 | 395.5 |
| 50°   | 411.2 | 412.2 | 411.6 | 411.0 | 412.7 | 414.4 | 419.2 | 424.0 | 427.0 | 429.8 | 427.4 |
| 52.5° | 440.2 | 440.9 | 440.2 | 439.6 | 441.9 | 444.2 | 449.9 | 455.6 | 459.5 | 463.4 | 460.1 |
| 55°   | 470.1 | 469.2 | 469.6 | 470.0 | 472.2 | 474.4 | 481.4 | 488.4 | 493.0 | 497.6 | 493.9 |
| 57.5° | 498.1 | 498.4 | 498.1 | 497.7 | 501.2 | 504.6 | 513.4 | 522.3 | 528.1 | 533.9 | 529.3 |
| 60°   | 526.8 | 526.9 | 526.1 | 525.2 | 529.0 | 532.7 | 545.4 | 558.0 | 565.6 | 573.2 | 566.8 |
| 62.5° | 558.9 | 558.8 | 557.3 | 555.8 | 560.3 | 564.7 | 580.4 | 596.1 | 606.5 | 616.8 | 609.1 |
| 65°   | 598.2 | 597.2 | 596.4 | 595.6 | 600.6 | 605.8 | 625.2 | 644.7 | 658.7 | 672.8 | 662.8 |
| 67.5° | 656.2 | 655.4 | 653.7 | 651.9 | 657.6 | 663.3 | 688.3 | 713.2 | 731.4 | 749.4 | 736.2 |
| 70°   | 720.0 | 718.6 | 719.8 | 721.0 | 734.2 | 747.3 | 780.9 | 814.4 | 835.8 | 857.2 | 835.0 |
| 72°   | 688.6 | 689.1 | 693.2 | 697.3 | 720.4 | 743.4 | 791.1 | 838.7 | 869.7 | 900.7 | 866.4 |
| 72.5° | 677.6 | 678.0 | 682.7 | 687.3 | 709.4 | 731.4 | 780.5 | 829.6 | 861.7 | 893.8 | 858.5 |
| 75°   | 631.0 | 632.3 | 637.7 | 643.0 | 665.4 | 687.7 | 737.2 | 786.7 | 817.4 | 848.2 | 812.9 |
| 77.5° | 555.0 | 559.1 | 564.6 | 570.0 | 596.6 | 623.2 | 679.2 | 735.2 | 769.1 | 803.0 | 762.9 |
| 80°   | 423.5 | 422.0 | 431.4 | 440.7 | 466.1 | 491.6 | 534.8 | 578.1 | 617.2 | 656.3 | 611.3 |
| 82.5° | 164.6 | 168.2 | 187.6 | 207.0 | 233.7 | 260.3 | 299.1 | 337.8 | 373.1 | 408.3 | 370.8 |
| 85°   | 17.0  | 19.3  | 26.3  | 33.2  | 47.8  | 62.3  | 85.9  | 109.6 | 132.7 | 155.9 | 130.8 |
| 87.5° | 6.8   | 7.5   | 9.6   | 11.8  | 12.4  | 13.0  | 15.6  | 18.3  | 18.2  | 18.0  | 17.8  |
| 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):**

|       | 55°   | 60°   | 65°   | 70°   | 75°   | 80°   | 85°   | 90°   |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0°    | 246.4 | 246.4 | 246.4 | 246.4 | 246.4 | 246.4 | 246.4 | 246.4 |
| 2.5°  | 246.4 | 246.4 | 246.5 | 246.5 | 246.6 | 246.6 | 246.8 | 246.6 |
| 5°    | 246.4 | 246.5 | 246.5 | 246.5 | 246.6 | 246.6 | 246.8 | 246.6 |
| 7.5°  | 246.2 | 246.2 | 246.2 | 246.3 | 246.4 | 246.5 | 246.5 | 246.4 |
| 10°   | 245.8 | 245.8 | 245.9 | 246.0 | 246.1 | 246.2 | 246.4 | 246.4 |
| 12.5° | 245.6 | 245.6 | 245.6 | 245.8 | 245.8 | 246.0 | 246.1 | 246.3 |
| 15°   | 245.5 | 245.6 | 245.6 | 245.7 | 245.8 | 245.9 | 246.1 | 246.3 |
| 17.5° | 245.8 | 245.8 | 245.7 | 245.8 | 245.8 | 246.0 | 246.2 | 246.4 |
| 20°   | 246.8 | 246.7 | 246.6 | 246.5 | 246.5 | 246.7 | 247.0 | 247.0 |
| 22.5° | 249.0 | 248.6 | 248.2 | 248.0 | 248.0 | 248.0 | 248.0 | 248.1 |
| 25°   | 252.4 | 251.8 | 251.0 | 250.8 | 250.6 | 250.6 | 250.5 | 250.7 |
| 27.5° | 257.8 | 257.0 | 256.2 | 255.8 | 255.3 | 255.0 | 254.8 | 254.9 |
| 30°   | 264.4 | 263.4 | 262.5 | 261.8 | 261.0 | 260.7 | 260.4 | 260.5 |
| 32.5° | 272.7 | 271.6 | 270.6 | 269.6 | 268.6 | 268.1 | 267.6 | 267.7 |
| 35°   | 283.3 | 282.1 | 280.8 | 280.0 | 279.2 | 278.5 | 277.8 | 278.3 |
| 37.5° | 297.2 | 296.1 | 295.0 | 294.4 | 293.8 | 293.2 | 292.6 | 292.7 |
| 40°   | 316.0 | 314.8 | 313.6 | 313.2 | 312.7 | 311.9 | 311.1 | 311.3 |
| 42.5° | 339.8 | 338.0 | 336.2 | 335.4 | 334.6 | 334.2 | 333.8 | 334.1 |
| 45°   | 365.5 | 363.7 | 361.9 | 361.2 | 360.5 | 359.4 | 358.4 | 359.4 |
| 47.5° | 393.5 | 391.2 | 389.0 | 387.7 | 386.5 | 386.8 | 387.2 | 386.4 |
| 50°   | 425.0 | 421.2 | 417.4 | 416.0 | 414.5 | 414.5 | 414.5 | 414.4 |
| 52.5° | 456.8 | 451.6 | 446.4 | 445.1 | 443.8 | 443.6 | 443.2 | 442.9 |
| 55°   | 490.2 | 483.8 | 477.4 | 475.1 | 472.7 | 473.0 | 473.4 | 474.3 |
| 57.5° | 524.6 | 516.2 | 507.8 | 505.1 | 502.4 | 502.6 | 502.8 | 504.4 |
| 60°   | 560.4 | 549.6 | 538.8 | 535.7 | 532.7 | 533.5 | 534.4 | 535.3 |
| 62.5° | 601.3 | 588.2 | 575.1 | 571.1 | 567.1 | 568.1 | 569.1 | 571.6 |
| 65°   | 652.8 | 636.4 | 620.0 | 615.8 | 611.6 | 612.1 | 612.6 | 616.8 |
| 67.5° | 723.0 | 701.2 | 679.4 | 675.6 | 671.8 | 672.4 | 673.0 | 679.9 |
| 70°   | 812.8 | 780.5 | 748.2 | 732.3 | 716.4 | 713.9 | 711.4 | 715.0 |
| 72°   | 832.1 | 786.4 | 740.8 | 717.3 | 693.8 | 690.2 | 686.5 | 686.8 |
| 72.5° | 823.2 | 777.0 | 730.9 | 708.1 | 685.4 | 682.4 | 679.4 | 678.7 |
| 75°   | 777.6 | 732.4 | 687.2 | 663.7 | 640.2 | 634.4 | 628.8 | 628.8 |
| 77.5° | 722.8 | 665.9 | 609.0 | 583.6 | 558.2 | 552.2 | 546.3 | 541.7 |
| 80°   | 566.2 | 515.2 | 464.2 | 438.4 | 412.6 | 403.1 | 393.6 | 387.9 |
| 82.5° | 333.3 | 286.4 | 239.4 | 206.7 | 174.0 | 164.1 | 154.2 | 140.6 |
| 85°   | 105.6 | 81.2  | 56.9  | 44.4  | 31.9  | 25.8  | 19.6  | 17.2  |
| 87.5° | 17.6  | 14.2  | 11.0  | 10.6  | 10.2  | 8.0   | 5.8   | 4.9   |
| 90°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |

(END OF REPORT)