

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: P197846

Luminaire Tested: **TT-C1-LED-E1-WQ-CG**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P197846  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P115498)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: TT-C1-LED-E1-WQ-CG  
Description: TOPTIER LED PARKING GARAGE LUMINAIRE  
WIDE DISTRIBUTION WITH CLEAR GLASS LENS  
Light Source: (168) 4000K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3466.5 lumens  
Efficiency: N/A  
Efficacy: 123.8 lumens/watt  
Luminous Opening: Circular (Dia: 1.12' x H: 0')  
IES Classification: Type V - Short - Semi-Cutoff  
BUG Rating: B2 - U0 - G1

Input Watts (W): 28  
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

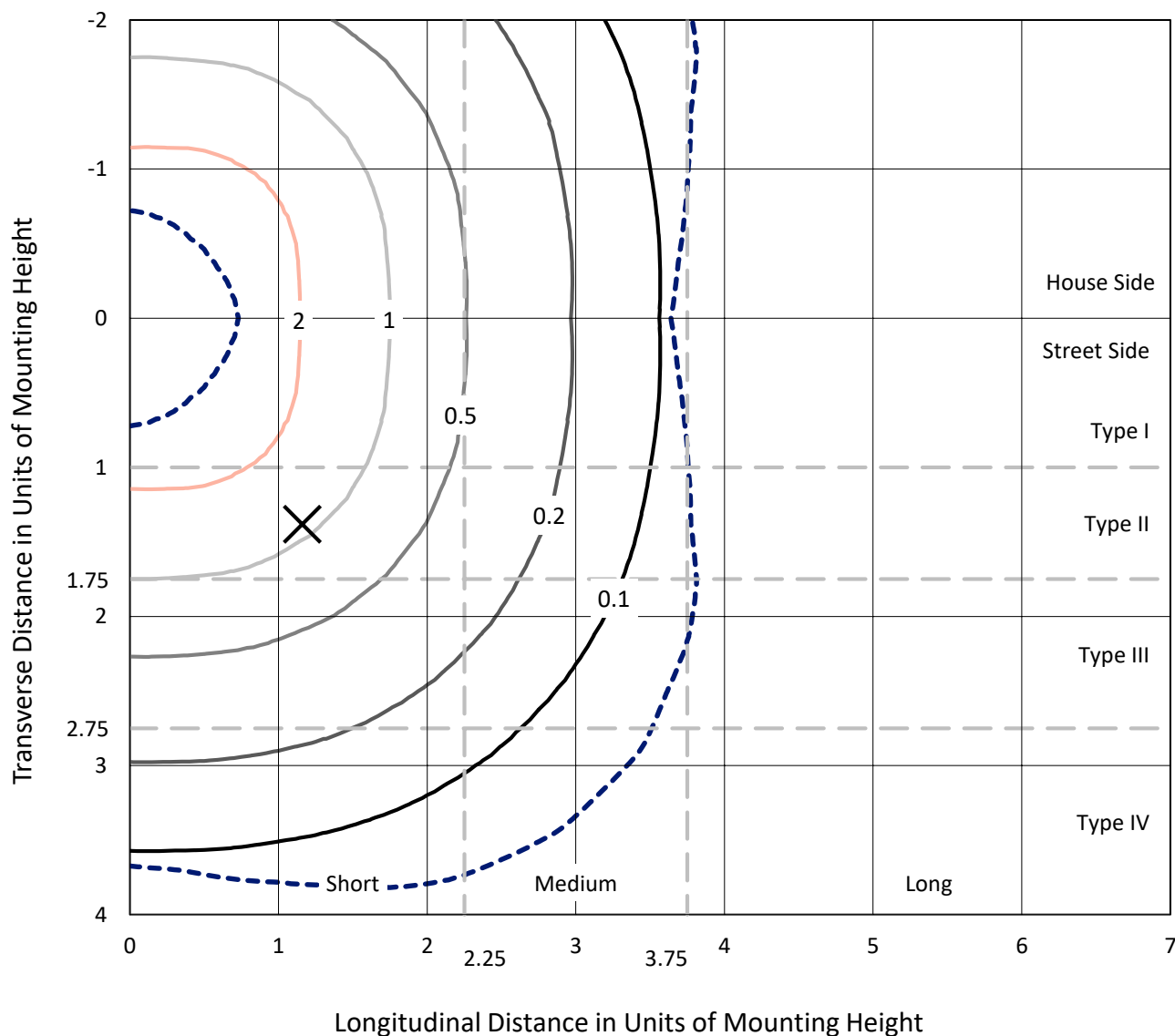


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## Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

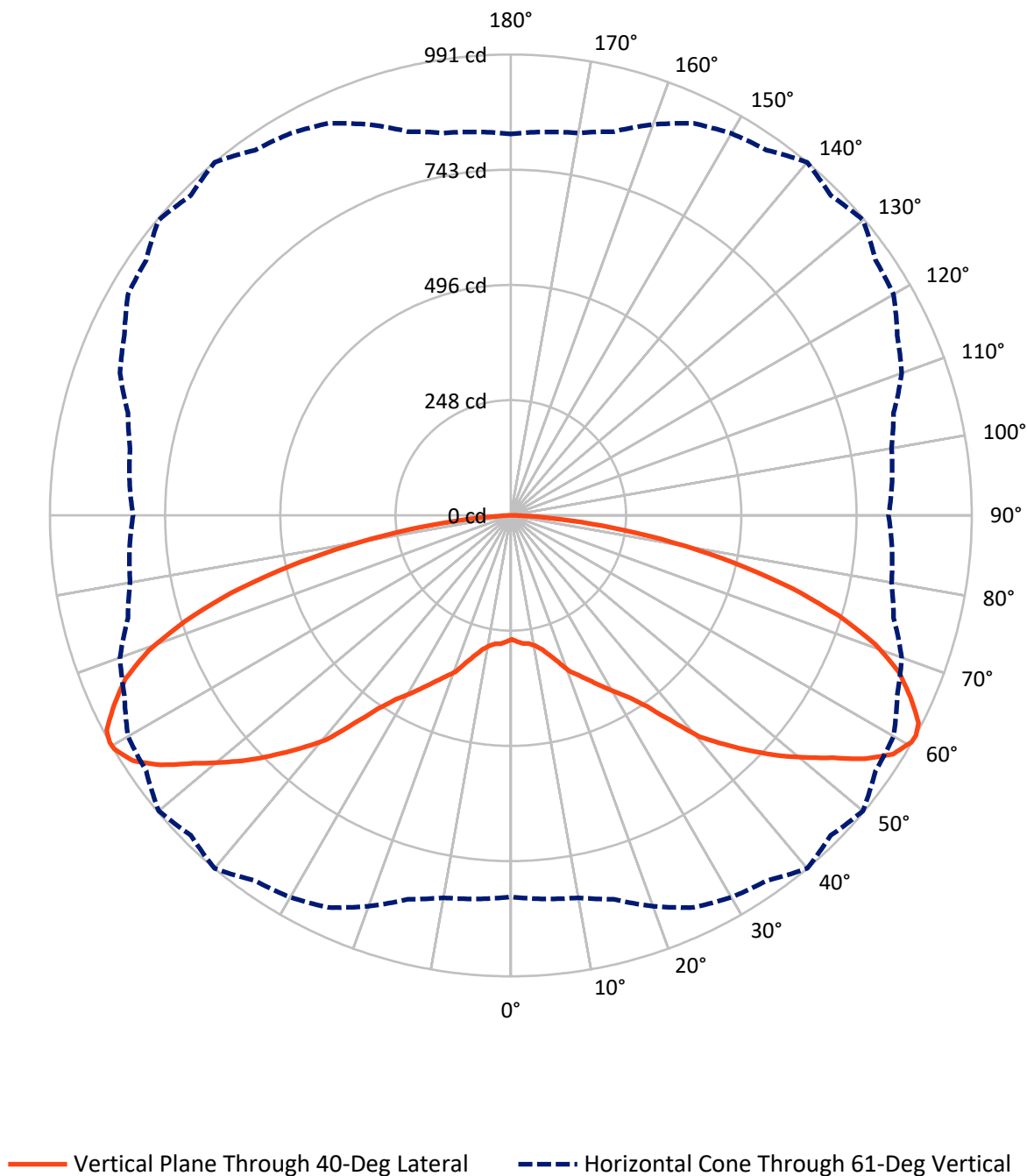


Based on 10 foot mounting height. Maximum calculated value = 3 fc  
 Type V - Short - Semi-Cutoff

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## Luminous Intensity Polar Plot



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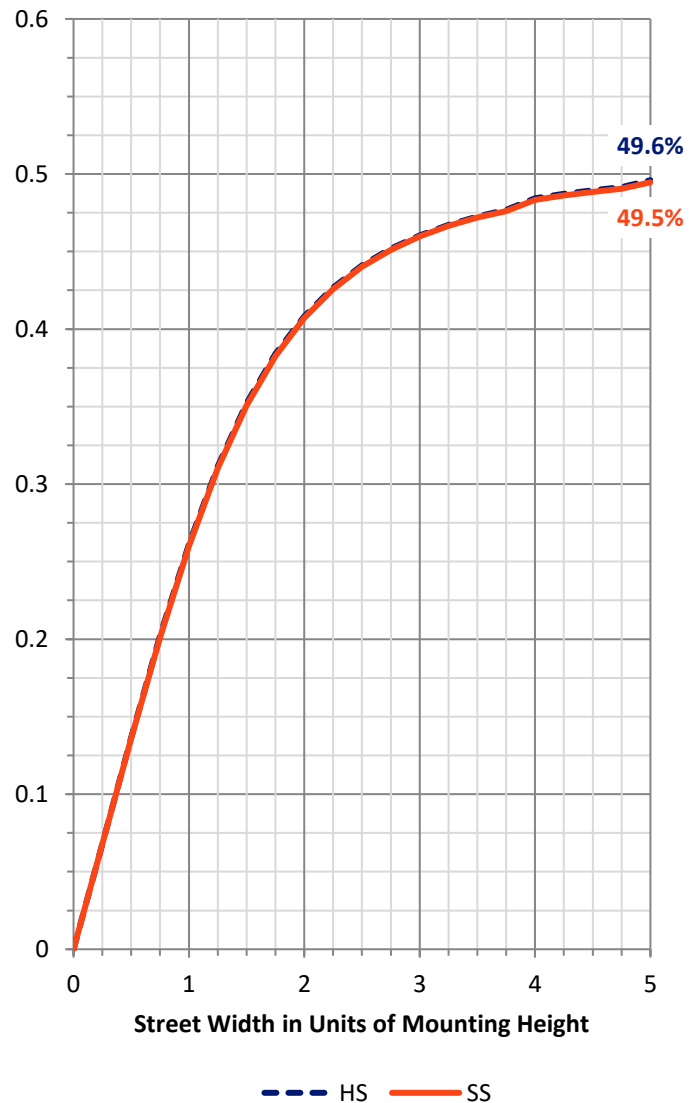
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 1733.2   | 0.0    | 1733.2 |
|                    | % Fixture | 50.0     | 0.0    | 50.0   |
| <b>Street Side</b> | Lumens    | 1733.2   | 0.0    | 1733.2 |
|                    | % Fixture | 50.0     | 0.0    | 50.0   |
| <b>Total</b>       | Lumens    | 3466.5   | 0.0    | 3466.5 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 26.5   | 0.8       |
| 10°-20°   | 89.6   | 2.6       |
| 20°-30°   | 181.8  | 5.2       |
| 30°-40°   | 316.1  | 9.1       |
| 40°-50°   | 532.2  | 15.4      |
| 50°-60°   | 766.7  | 22.1      |
| 60°-70°   | 850.7  | 24.5      |
| 70°-80°   | 577.8  | 16.7      |
| 80°-90°   | 125.1  | 3.6       |
| 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°    | 3466.5 | 100.0     |
| 0°-180°   | 3466.5 | 100.0     |

**Coefficient of Utilization**



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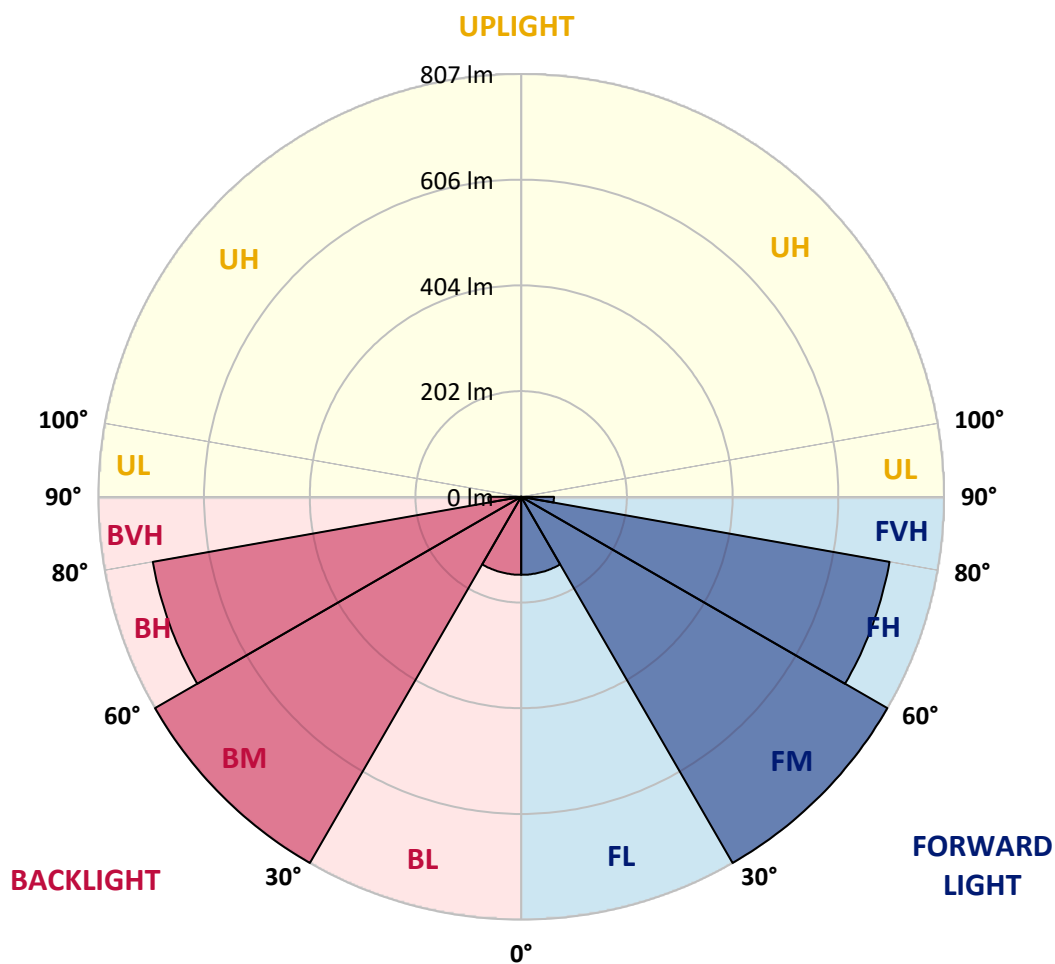
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 149.0  | 4.3       |                         |      |         |
| FM   | (30°-60°)   | 807.5  | 23.3      |                         |      |         |
| FH   | (60°-80°)   | 714.2  | 20.6      |                         |      | G1/1800 |
| FVH  | (80°-90°)   | 62.6   | 1.8       |                         |      | G1/100  |
| BL   | (0°-30°)    | 149.0  | 4.3       | B1/500                  |      |         |
| BM   | (30°-60°)   | 807.5  | 23.3      | B1/1000                 |      |         |
| BH   | (60°-80°)   | 714.2  | 20.6      | B2/1000                 |      | G1/1800 |
| BVH  | (80°-90°)   | 62.6   | 1.8       |                         |      | 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°    | 266.3 | 266.3 | 266.3 | 266.3 | 266.3 | 266.3 | 266.3 | 266.3 | 266.3 | 266.3 | 266.3 |
| 2.5°  | 272.6 | 272.6 | 272.6 | 272.6 | 272.6 | 271.9 | 272.6 | 271.9 | 271.9 | 271.9 | 271.9 |
| 5°    | 274.7 | 275.4 | 275.4 | 275.4 | 275.4 | 276.1 | 276.1 | 276.8 | 276.8 | 276.8 | 276.8 |
| 7.5°  | 276.8 | 276.8 | 276.8 | 276.8 | 276.8 | 276.8 | 277.5 | 277.5 | 278.2 | 278.2 | 278.9 |
| 10°   | 285.2 | 285.2 | 285.9 | 285.9 | 285.2 | 285.2 | 285.2 | 284.5 | 284.5 | 283.8 | 283.8 |
| 12.5° | 297.2 | 297.2 | 297.9 | 298.6 | 298.6 | 297.9 | 297.2 | 295.8 | 295.1 | 295.1 | 295.1 |
| 15°   | 306.3 | 307.0 | 308.4 | 309.8 | 310.5 | 310.5 | 311.2 | 311.2 | 311.2 | 310.5 | 309.8 |
| 17.5° | 323.8 | 323.8 | 324.5 | 325.2 | 325.2 | 325.9 | 327.3 | 328.7 | 331.5 | 332.2 | 330.1 |
| 20°   | 349.0 | 349.7 | 351.8 | 351.1 | 351.1 | 352.5 | 353.9 | 354.6 | 356.7 | 358.1 | 358.1 |
| 22.5° | 367.9 | 369.3 | 372.1 | 372.1 | 371.4 | 372.1 | 373.5 | 373.5 | 373.5 | 372.8 | 374.2 |
| 25°   | 382.7 | 384.1 | 386.2 | 386.2 | 387.6 | 391.1 | 395.3 | 394.6 | 392.5 | 392.5 | 391.8 |
| 27.5° | 402.3 | 403.0 | 404.4 | 404.4 | 406.5 | 408.6 | 411.4 | 414.2 | 415.6 | 414.9 | 413.5 |
| 30°   | 426.8 | 428.2 | 429.6 | 427.5 | 431.0 | 433.1 | 434.5 | 434.5 | 440.1 | 442.9 | 438.0 |
| 32.5° | 445.0 | 447.8 | 450.6 | 452.7 | 459.7 | 463.3 | 461.2 | 463.3 | 466.1 | 468.9 | 468.9 |
| 35°   | 475.2 | 478.0 | 480.1 | 481.5 | 488.5 | 493.4 | 499.0 | 504.6 | 503.9 | 501.8 | 506.0 |
| 37.5° | 518.6 | 521.4 | 523.5 | 526.3 | 535.4 | 538.9 | 543.1 | 555.1 | 559.3 | 553.7 | 556.5 |
| 40°   | 564.9 | 569.8 | 576.8 | 585.2 | 598.5 | 602.7 | 609.7 | 618.1 | 625.8 | 628.7 | 621.6 |
| 42.5° | 604.8 | 610.4 | 611.8 | 625.1 | 641.3 | 653.9 | 663.7 | 665.8 | 672.8 | 679.1 | 674.2 |
| 45°   | 647.6 | 652.5 | 656.0 | 667.2 | 676.3 | 693.8 | 709.9 | 717.7 | 721.2 | 720.5 | 726.1 |
| 47.5° | 687.5 | 693.1 | 698.0 | 709.9 | 721.2 | 735.9 | 746.4 | 764.6 | 770.9 | 762.5 | 771.6 |
| 50°   | 712.1 | 719.1 | 725.4 | 747.8 | 767.4 | 782.8 | 791.2 | 806.7 | 817.9 | 812.3 | 814.4 |
| 52.5° | 752.7 | 755.5 | 760.4 | 773.0 | 799.0 | 834.7 | 843.1 | 851.5 | 865.5 | 872.5 | 859.9 |
| 55°   | 804.6 | 812.3 | 819.3 | 835.4 | 848.7 | 875.3 | 913.9 | 924.4 | 923.7 | 945.4 | 925.8 |
| 57.5° | 815.8 | 827.0 | 841.0 | 870.4 | 896.4 | 911.8 | 936.3 | 965.8 | 968.6 | 970.0 | 972.8 |
| 60°   | 817.2 | 824.2 | 833.3 | 857.8 | 903.4 | 931.4 | 945.4 | 964.4 | 989.6 | 971.4 | 990.3 |
| 61°   | 820.0 | 827.7 | 834.7 | 854.3 | 894.3 | 930.0 | 948.2 | 958.7 | 991.0 | 972.8 | 988.2 |
| 62.5° | 815.1 | 824.2 | 834.7 | 853.6 | 880.3 | 916.7 | 951.7 | 951.7 | 984.0 | 972.1 | 980.5 |
| 65°   | 785.6 | 794.0 | 814.4 | 838.9 | 871.1 | 890.1 | 926.5 | 949.6 | 944.7 | 965.8 | 944.7 |
| 67.5° | 735.9 | 742.9 | 760.4 | 789.1 | 824.2 | 850.8 | 867.6 | 904.8 | 899.9 | 921.6 | 897.8 |
| 70°   | 665.8 | 674.9 | 696.6 | 716.3 | 749.2 | 777.2 | 799.7 | 822.1 | 831.9 | 829.8 | 831.2 |
| 72.5° | 581.7 | 588.0 | 607.6 | 629.4 | 655.3 | 686.8 | 707.1 | 721.2 | 736.6 | 735.9 | 738.7 |
| 75°   | 484.3 | 489.9 | 506.7 | 522.8 | 548.1 | 572.6 | 595.7 | 610.4 | 623.0 | 622.3 | 619.5 |
| 77.5° | 373.5 | 379.9 | 398.8 | 412.8 | 424.7 | 452.0 | 469.6 | 479.4 | 489.9 | 489.9 | 491.3 |
| 80°   | 260.7 | 264.9 | 279.6 | 294.4 | 305.6 | 318.9 | 341.3 | 343.4 | 355.3 | 352.5 | 355.3 |
| 82.5° | 157.0 | 159.8 | 171.0 | 179.4 | 187.1 | 199.7 | 210.3 | 214.5 | 221.5 | 218.7 | 222.9 |
| 85°   | 70.8  | 72.2  | 79.2  | 84.1  | 87.6  | 94.6  | 100.2 | 102.3 | 105.8 | 105.1 | 107.9 |
| 87.5° | 14.7  | 16.1  | 18.2  | 19.6  | 20.3  | 23.1  | 25.2  | 25.2  | 26.6  | 26.6  | 27.3  |
| 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):**

|       | 55°   | 60°   | 65°   | 70°   | 75°   | 80°   | 85°   | 90°   |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0°    | 266.3 | 266.3 | 266.3 | 266.3 | 266.3 | 266.3 | 266.3 | 266.3 |
| 2.5°  | 271.9 | 272.6 | 271.9 | 271.9 | 271.9 | 272.6 | 271.9 | 272.6 |
| 5°    | 276.8 | 276.8 | 276.8 | 276.1 | 275.4 | 275.4 | 275.4 | 274.7 |
| 7.5°  | 279.6 | 279.6 | 278.9 | 278.2 | 277.5 | 278.2 | 278.2 | 278.2 |
| 10°   | 285.2 | 286.6 | 287.3 | 287.3 | 286.6 | 286.6 | 286.6 | 285.9 |
| 12.5° | 295.1 | 295.8 | 297.9 | 298.6 | 299.3 | 298.6 | 296.5 | 295.8 |
| 15°   | 308.4 | 308.4 | 309.1 | 310.5 | 310.5 | 307.7 | 305.6 | 304.9 |
| 17.5° | 327.3 | 326.6 | 325.2 | 325.2 | 325.9 | 324.5 | 322.4 | 322.4 |
| 20°   | 356.0 | 353.2 | 351.8 | 349.7 | 351.8 | 351.8 | 347.6 | 345.5 |
| 22.5° | 376.4 | 373.5 | 370.0 | 367.9 | 370.7 | 372.8 | 367.9 | 365.1 |
| 25°   | 393.9 | 394.6 | 389.0 | 386.2 | 386.9 | 388.3 | 382.0 | 381.3 |
| 27.5° | 412.1 | 413.5 | 410.7 | 405.8 | 404.4 | 407.2 | 402.3 | 400.9 |
| 30°   | 434.5 | 433.8 | 435.2 | 428.9 | 426.1 | 428.2 | 427.5 | 424.0 |
| 32.5° | 464.0 | 460.5 | 461.9 | 456.2 | 450.6 | 450.6 | 446.4 | 442.2 |
| 35°   | 504.6 | 496.9 | 493.4 | 489.9 | 479.4 | 480.1 | 476.6 | 473.1 |
| 37.5° | 557.9 | 546.0 | 536.1 | 538.2 | 522.8 | 521.4 | 519.3 | 514.4 |
| 40°   | 618.8 | 613.2 | 602.0 | 595.7 | 579.6 | 571.9 | 569.1 | 560.0 |
| 42.5° | 664.4 | 665.8 | 649.0 | 637.8 | 625.1 | 611.8 | 610.4 | 601.3 |
| 45°   | 713.5 | 708.5 | 693.1 | 674.9 | 669.3 | 653.2 | 651.1 | 642.0 |
| 47.5° | 762.5 | 745.7 | 736.6 | 717.7 | 708.5 | 688.2 | 689.6 | 681.2 |
| 50°   | 808.8 | 789.1 | 780.7 | 758.3 | 744.3 | 724.0 | 719.1 | 705.0 |
| 52.5° | 857.8 | 839.6 | 826.3 | 797.6 | 777.2 | 761.8 | 753.4 | 747.8 |
| 55°   | 923.7 | 905.5 | 875.3 | 848.7 | 831.9 | 806.7 | 803.9 | 794.0 |
| 57.5° | 954.5 | 941.2 | 908.3 | 889.4 | 859.2 | 833.3 | 824.9 | 805.3 |
| 60°   | 958.0 | 952.4 | 917.4 | 899.2 | 855.0 | 834.0 | 823.5 | 811.6 |
| 61°   | 957.3 | 950.3 | 916.7 | 894.3 | 852.2 | 831.2 | 822.8 | 812.3 |
| 62.5° | 954.5 | 946.1 | 909.0 | 885.9 | 846.6 | 826.3 | 819.3 | 803.9 |
| 65°   | 945.4 | 922.3 | 890.1 | 869.0 | 826.3 | 808.1 | 791.2 | 775.8 |
| 67.5° | 905.5 | 862.0 | 848.7 | 822.1 | 778.6 | 758.3 | 742.9 | 729.6 |
| 70°   | 820.0 | 791.2 | 777.2 | 744.3 | 709.2 | 692.4 | 674.9 | 658.1 |
| 72.5° | 719.8 | 700.8 | 688.9 | 649.0 | 623.0 | 606.2 | 590.1 | 574.0 |
| 75°   | 607.6 | 593.6 | 571.9 | 541.7 | 518.6 | 501.8 | 487.1 | 479.4 |
| 77.5° | 477.3 | 468.2 | 451.3 | 421.2 | 408.6 | 393.9 | 379.2 | 367.2 |
| 80°   | 343.4 | 336.4 | 323.1 | 301.4 | 290.8 | 276.1 | 265.6 | 255.8 |
| 82.5° | 213.8 | 208.1 | 200.4 | 184.3 | 180.1 | 171.0 | 161.2 | 154.2 |
| 85°   | 102.3 | 98.8  | 96.0  | 85.5  | 84.8  | 77.1  | 73.6  | 69.4  |
| 87.5° | 26.6  | 25.9  | 24.5  | 21.0  | 20.3  | 18.2  | 16.8  | 14.7  |
| 90°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |

(END OF REPORT)