

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: P197778

Luminaire Tested: **TT-C2-LED-E1-WQ**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P197778  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P34714)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: TT-C2-LED-E1-WQ  
Description: TOPTIER LED PARKING GARAGE LUMINAIRE  
WIDE DISTRIBUTION  
Light Source: (168) 4000K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4397.3 lumens  
Efficiency: N/A  
Efficacy: 129.3 lumens/watt  
Luminous Opening: Circular (Dia: 1.12' x H: 0')  
IES Classification: Type V - Short - Semi-Cutoff  
BUG Rating: B2 - U0 - G2

Input Watts (W): 34  
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

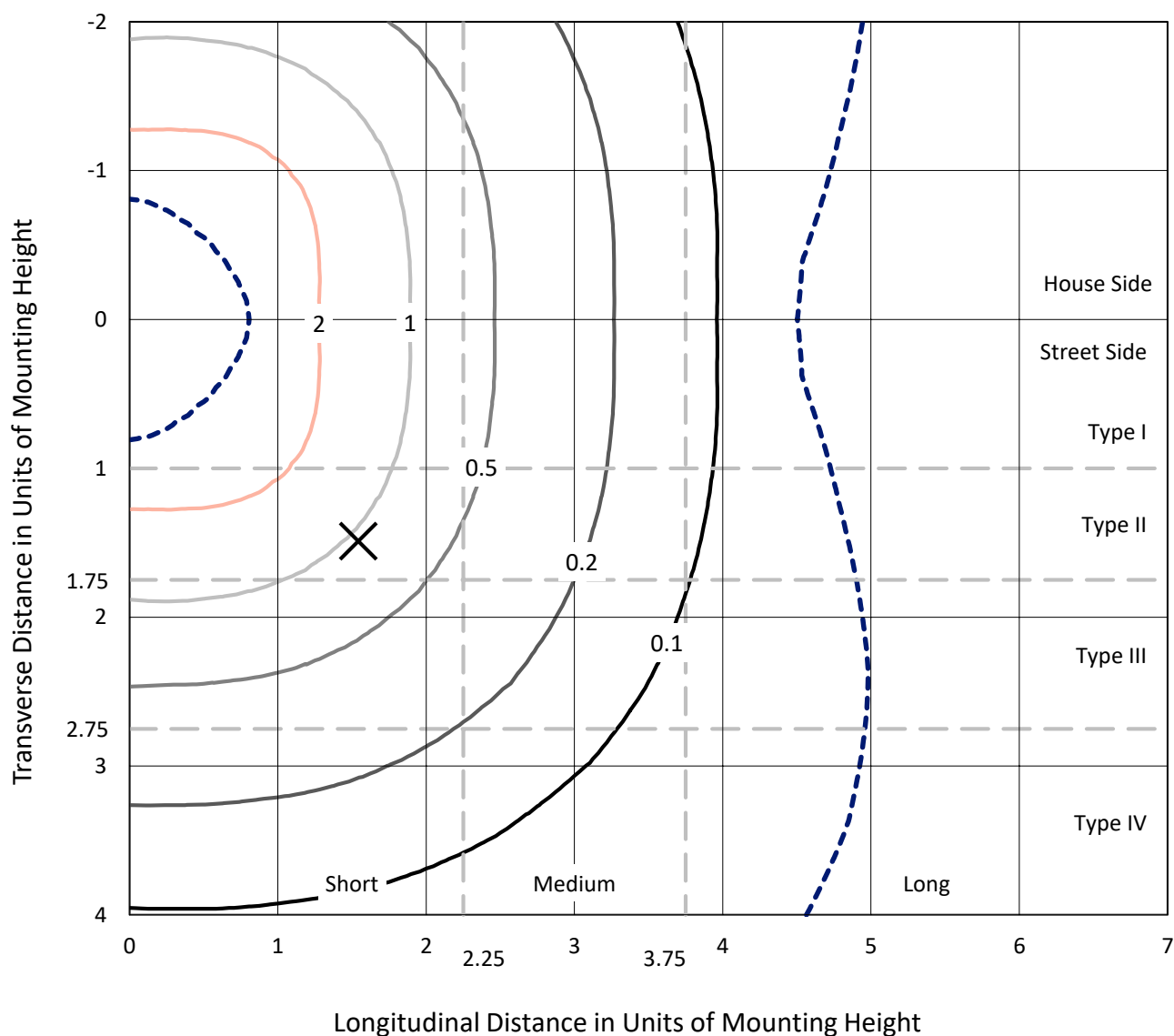


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## Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 --- 1/2 Max cd

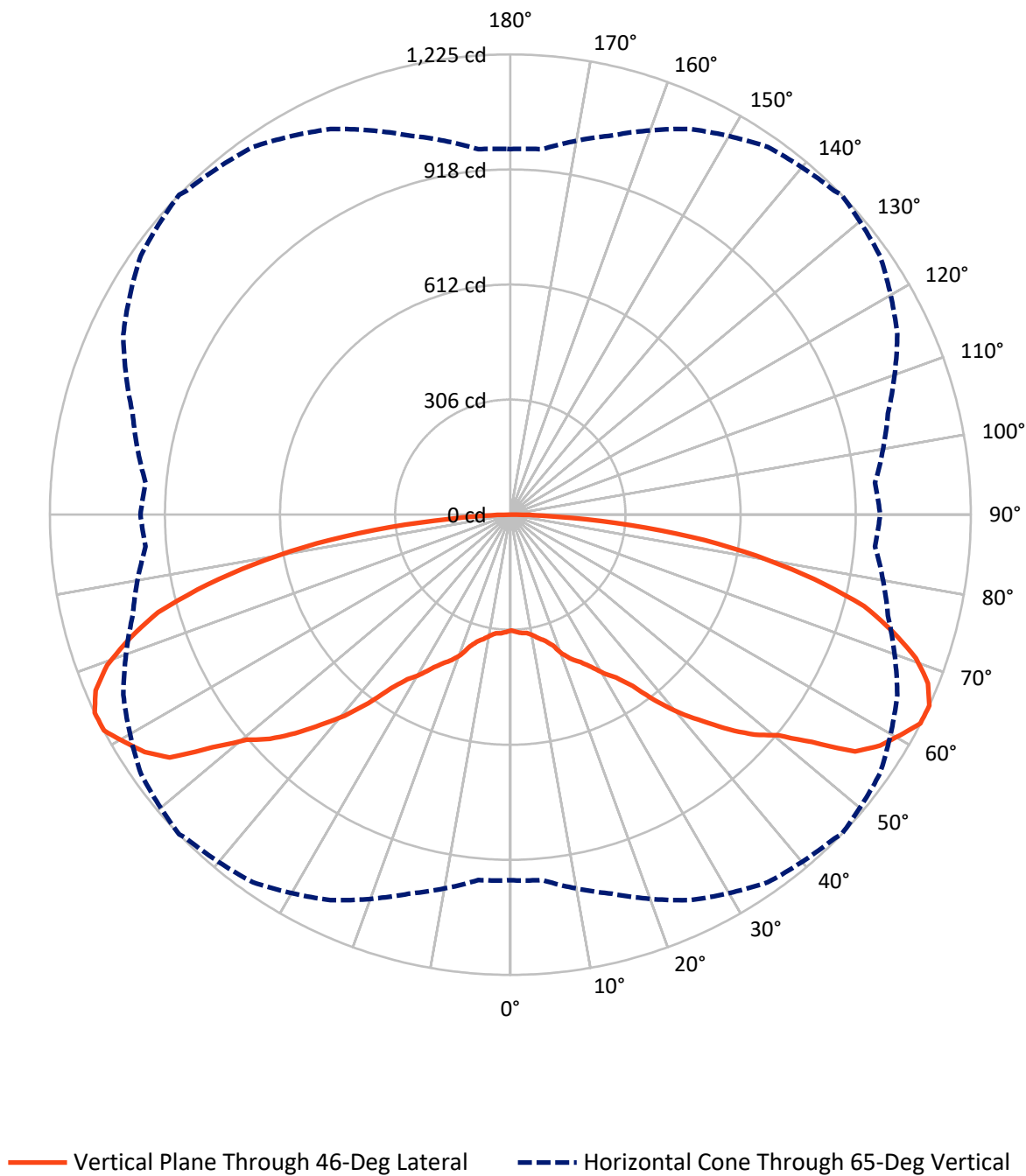


Based on 10 foot mounting height. Maximum calculated value = 3.3 fc  
 Type V - Short - Semi-Cutoff

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## Luminous Intensity Polar Plot



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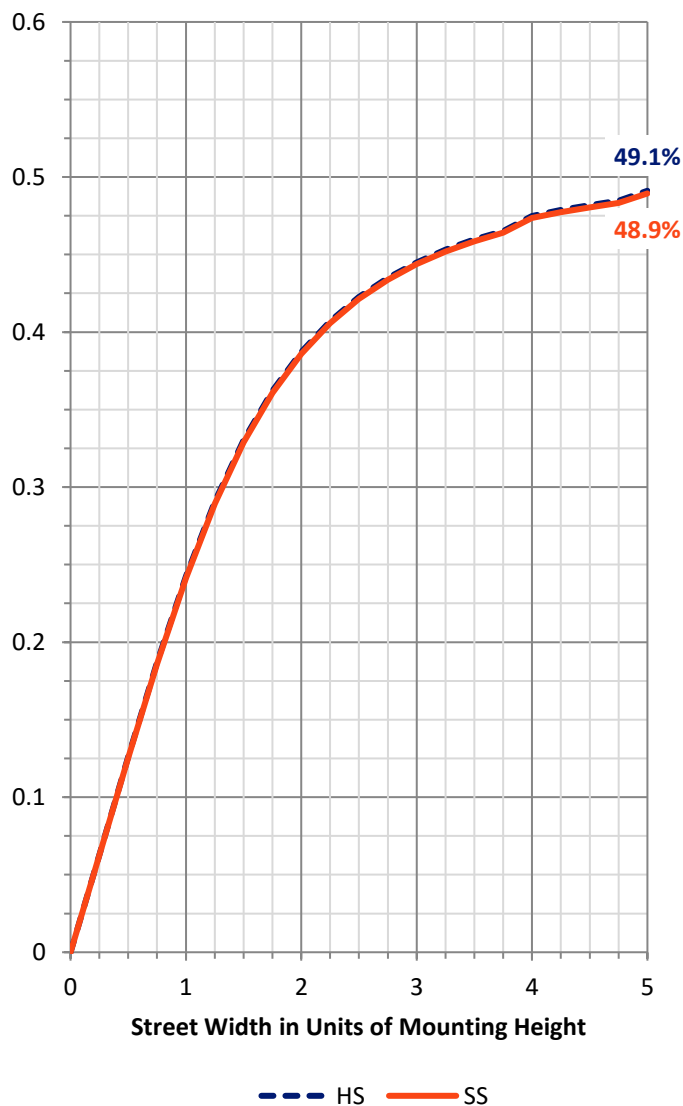
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 2198.7   | 0.0    | 2198.7 |
|                    | % Fixture | 50.0     | 0.0    | 50.0   |
| <b>Street Side</b> | Lumens    | 2198.7   | 0.0    | 2198.7 |
|                    | % Fixture | 50.0     | 0.0    | 50.0   |
| <b>Total</b>       | Lumens    | 4397.3   | 0.0    | 4397.3 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 30.5   | 0.7       |
| 10°-20°   | 101.5  | 2.3       |
| 20°-30°   | 204.3  | 4.6       |
| 30°-40°   | 355.7  | 8.1       |
| 40°-50°   | 601.6  | 13.7      |
| 50°-60°   | 896.8  | 20.4      |
| 60°-70°   | 1073.2 | 24.4      |
| 70°-80°   | 868.9  | 19.8      |
| 80°-90°   | 264.7  | 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°    | 4397.3 | 100.0     |
| 0°-180°   | 4397.3 | 100.0     |

**Coefficient of Utilization**



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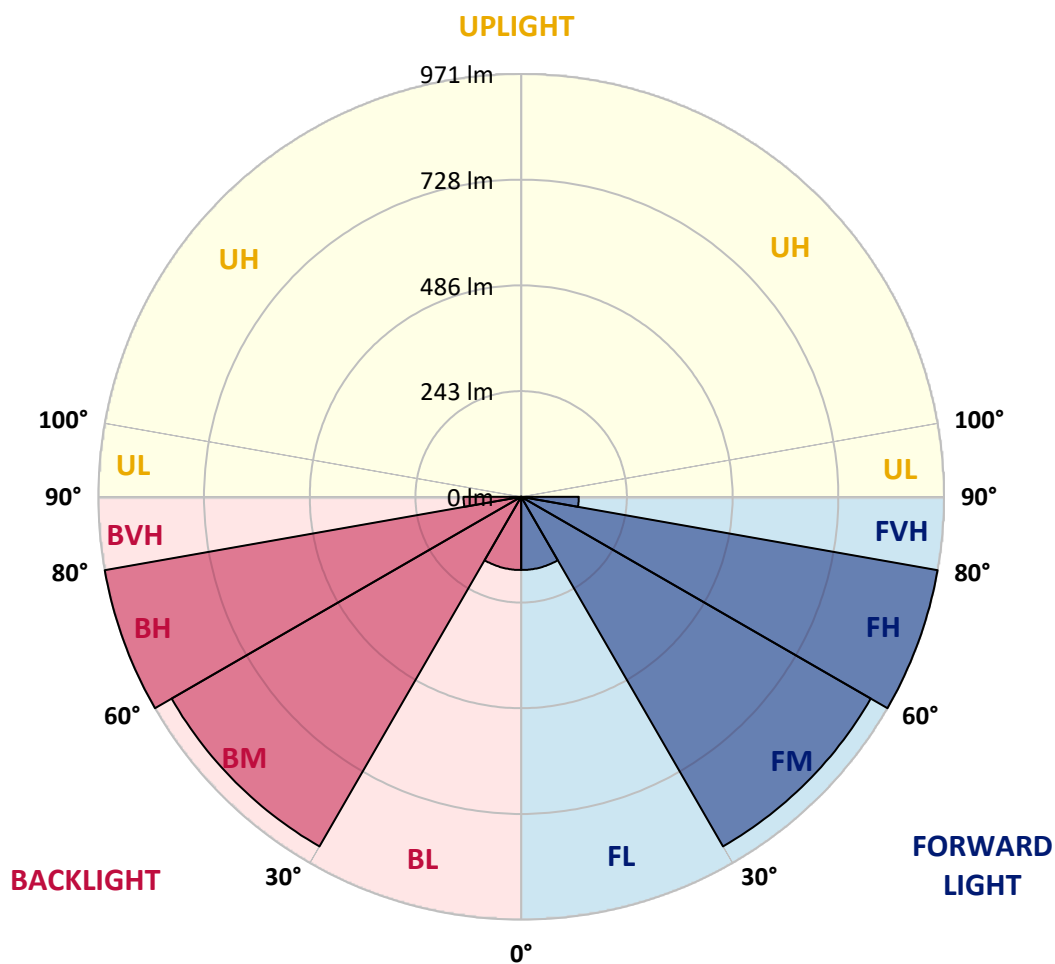
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 168.2  | 3.8       |                         |      |         |
| FM   | (30°-60°)   | 927.1  | 21.1      |                         |      |         |
| FH   | (60°-80°)   | 971.1  | 22.1      |                         |      | G1/1800 |
| FVH  | (80°-90°)   | 132.4  | 3.0       |                         |      | G2/225  |
| BL   | (0°-30°)    | 168.2  | 3.8       | B1/500                  |      |         |
| BM   | (30°-60°)   | 927.1  | 21.1      | B1/1000                 |      |         |
| BH   | (60°-80°)   | 971.1  | 22.1      | B2/1000                 |      | G1/1800 |
| BVH  | (80°-90°)   | 132.4  | 3.0       |                         |      | G2/225  |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B2-U0-G2**

Type V Short



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 5°    | 15°    | 25°    | 35°    | 45°    | 46°    | 55°    | 65°    | 75°    | 85°   |
|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|-------|
| 0°    | 308.0 | 308.0 | 308.0  | 308.0  | 308.0  | 308.0  | 308.0  | 308.0  | 308.0  | 308.0  | 308.0 |
| 2.5°  | 313.3 | 312.6 | 312.6  | 312.6  | 312.6  | 312.6  | 312.6  | 312.6  | 312.6  | 312.6  | 313.3 |
| 5°    | 318.7 | 318.7 | 317.9  | 317.1  | 317.1  | 316.4  | 316.4  | 316.4  | 317.1  | 317.9  | 317.9 |
| 7.5°  | 320.9 | 320.2 | 320.2  | 319.4  | 318.7  | 318.7  | 317.9  | 318.7  | 319.4  | 320.2  | 320.2 |
| 10°   | 325.5 | 326.3 | 327.0  | 327.8  | 328.6  | 327.8  | 326.3  | 327.8  | 327.8  | 327.0  | 325.5 |
| 12.5° | 336.2 | 336.2 | 338.4  | 340.7  | 340.7  | 340.0  | 337.7  | 340.7  | 340.0  | 337.7  | 336.2 |
| 15°   | 350.6 | 351.4 | 351.4  | 353.6  | 352.1  | 350.6  | 348.3  | 352.1  | 352.1  | 350.6  | 349.8 |
| 17.5° | 371.1 | 369.6 | 367.3  | 368.9  | 370.4  | 370.4  | 365.8  | 370.4  | 367.3  | 365.8  | 368.1 |
| 20°   | 394.0 | 393.2 | 392.4  | 394.0  | 400.0  | 397.8  | 395.5  | 398.5  | 394.7  | 389.4  | 390.9 |
| 22.5° | 411.4 | 413.0 | 415.3  | 417.5  | 423.6  | 422.1  | 417.5  | 422.9  | 416.8  | 415.3  | 410.7 |
| 25°   | 433.5 | 432.7 | 438.8  | 438.8  | 442.6  | 440.4  | 435.0  | 442.6  | 436.5  | 438.8  | 432.0 |
| 27.5° | 455.6 | 454.8 | 459.4  | 459.4  | 466.2  | 465.4  | 458.6  | 466.2  | 459.4  | 457.8  | 455.6 |
| 30°   | 480.7 | 479.1 | 479.9  | 486.0  | 495.9  | 495.9  | 489.8  | 493.6  | 486.0  | 478.4  | 477.6 |
| 32.5° | 507.3 | 504.2 | 508.8  | 518.7  | 524.0  | 522.5  | 516.4  | 522.5  | 520.2  | 507.3  | 504.2 |
| 35°   | 533.1 | 536.9 | 545.3  | 553.7  | 563.6  | 565.1  | 559.8  | 562.8  | 554.4  | 544.5  | 536.9 |
| 37.5° | 576.5 | 582.6 | 593.2  | 613.0  | 628.2  | 632.8  | 628.2  | 626.7  | 614.5  | 592.5  | 581.8 |
| 40°   | 637.3 | 638.8 | 653.3  | 683.0  | 698.9  | 702.0  | 693.6  | 695.9  | 681.4  | 657.1  | 634.3 |
| 42.5° | 686.8 | 684.5 | 710.3  | 737.0  | 753.7  | 760.5  | 751.4  | 754.5  | 734.7  | 711.1  | 686.0 |
| 45°   | 727.1 | 729.4 | 756.0  | 782.6  | 809.2  | 822.1  | 815.3  | 810.0  | 781.1  | 754.5  | 732.4 |
| 47.5° | 764.3 | 775.0 | 793.2  | 832.0  | 865.5  | 879.9  | 874.6  | 867.0  | 836.6  | 792.5  | 775.7 |
| 50°   | 811.5 | 818.3 | 840.4  | 890.6  | 921.8  | 927.1  | 922.5  | 922.5  | 893.6  | 842.7  | 819.9 |
| 52.5° | 862.4 | 863.2 | 895.9  | 947.6  | 987.2  | 1008.5 | 1004.7 | 994.0  | 948.4  | 903.5  | 866.3 |
| 55°   | 923.3 | 914.9 | 965.9  | 1019.9 | 1079.2 | 1114.2 | 1112.7 | 1089.8 | 1027.5 | 968.2  | 918.7 |
| 57.5° | 957.5 | 959.0 | 1005.4 | 1086.8 | 1143.8 | 1153.7 | 1159.1 | 1145.4 | 1098.2 | 1006.9 | 968.2 |
| 60°   | 965.1 | 983.4 | 1026.0 | 1115.7 | 1160.6 | 1189.5 | 1191.0 | 1168.2 | 1118.7 | 1032.0 | 991.0 |
| 62.5° | 968.2 | 990.2 | 1042.7 | 1114.2 | 1190.2 | 1218.4 | 1223.7 | 1200.1 | 1120.3 | 1045.0 | 984.9 |
| 65°   | 972.7 | 975.8 | 1044.2 | 1131.7 | 1194.0 | 1218.4 | 1224.5 | 1200.1 | 1135.5 | 1039.7 | 973.5 |
| 67.5° | 953.7 | 946.1 | 1006.2 | 1101.3 | 1162.1 | 1191.0 | 1197.8 | 1168.9 | 1103.5 | 1007.7 | 956.0 |
| 70°   | 885.3 | 888.3 | 955.2  | 1045.7 | 1112.7 | 1140.0 | 1144.6 | 1113.4 | 1045.0 | 962.1  | 902.0 |
| 72.5° | 813.0 | 820.6 | 876.9  | 968.2  | 1028.2 | 1054.9 | 1063.2 | 1030.5 | 972.7  | 887.5  | 825.2 |
| 75°   | 712.6 | 727.1 | 781.1  | 863.2  | 923.3  | 963.6  | 972.0  | 929.4  | 860.2  | 786.4  | 726.3 |
| 77.5° | 601.6 | 611.5 | 663.2  | 733.9  | 798.6  | 819.1  | 826.7  | 806.2  | 737.7  | 672.3  | 616.0 |
| 80°   | 473.1 | 476.9 | 529.3  | 585.6  | 635.8  | 652.5  | 663.9  | 638.1  | 591.7  | 532.4  | 477.6 |
| 82.5° | 324.7 | 330.1 | 367.3  | 419.1  | 463.2  | 470.0  | 484.5  | 463.2  | 419.8  | 374.2  | 333.1 |
| 85°   | 168.8 | 176.4 | 205.3  | 233.5  | 267.7  | 276.1  | 280.6  | 264.7  | 241.9  | 204.6  | 177.2 |
| 87.5° | 36.5  | 40.3  | 44.9   | 57.8   | 69.2   | 79.1   | 85.9   | 71.5   | 57.0   | 47.9   | 36.5  |
| 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°   |
|-------|-------|
| 0°    | 308.0 |
| 2.5°  | 312.6 |
| 5°    | 317.9 |
| 7.5°  | 320.2 |
| 10°   | 325.5 |
| 12.5° | 335.4 |
| 15°   | 350.6 |
| 17.5° | 369.6 |
| 20°   | 390.2 |
| 22.5° | 408.4 |
| 25°   | 430.5 |
| 27.5° | 455.6 |
| 30°   | 481.4 |
| 32.5° | 502.7 |
| 35°   | 532.4 |
| 37.5° | 581.0 |
| 40°   | 639.6 |
| 42.5° | 686.8 |
| 45°   | 725.6 |
| 47.5° | 768.9 |
| 50°   | 812.3 |
| 52.5° | 867.8 |
| 55°   | 922.5 |
| 57.5° | 950.7 |
| 60°   | 968.2 |
| 62.5° | 981.9 |
| 65°   | 983.4 |
| 67.5° | 943.8 |
| 70°   | 883.7 |
| 72.5° | 815.3 |
| 75°   | 714.9 |
| 77.5° | 609.2 |
| 80°   | 473.1 |
| 82.5° | 332.4 |
| 85°   | 174.2 |
| 87.5° | 34.2  |
| 90°   | 0.0   |

(END OF REPORT)