

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: P198440

Luminaire Tested: **TT-C4-LED-E1-MQ-LWR-LW-8030-UPL**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P198440  
REPORT IS FROM IESNA LM-79-08 TEST DATA - UPLIGHT (P27139) AND DOWNLIGHT  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: TT-C4-LED-E1-MQ-LWR-LW-8030-UPL  
Description: TOPTIER LED PARKING GARAGE LUMINAIRE WITH UPLIGHT  
MEDIUM DISTRIBUTION WITH LumaWatt WIRELESS SENSOR  
Light Source: (160) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5801.6 lumens  
Efficiency: N/A  
Efficacy: 76.9 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 1.12' x H: 0.1')  
IES Classification: Type V - Short - Semi-Cutoff  
BUG Rating: B2 - U4 - G2

Input Watts (W): 75.4  
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

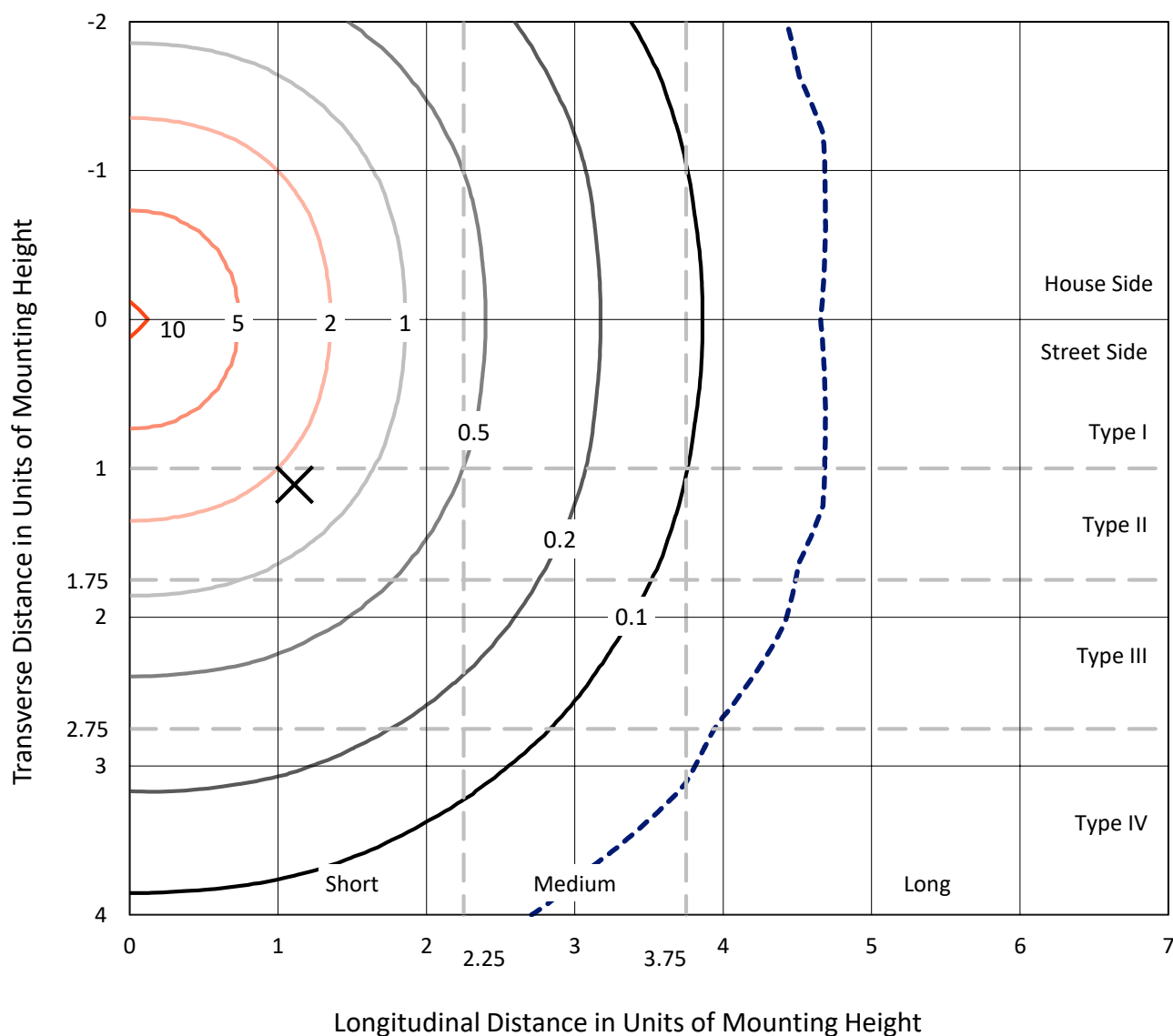


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## Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

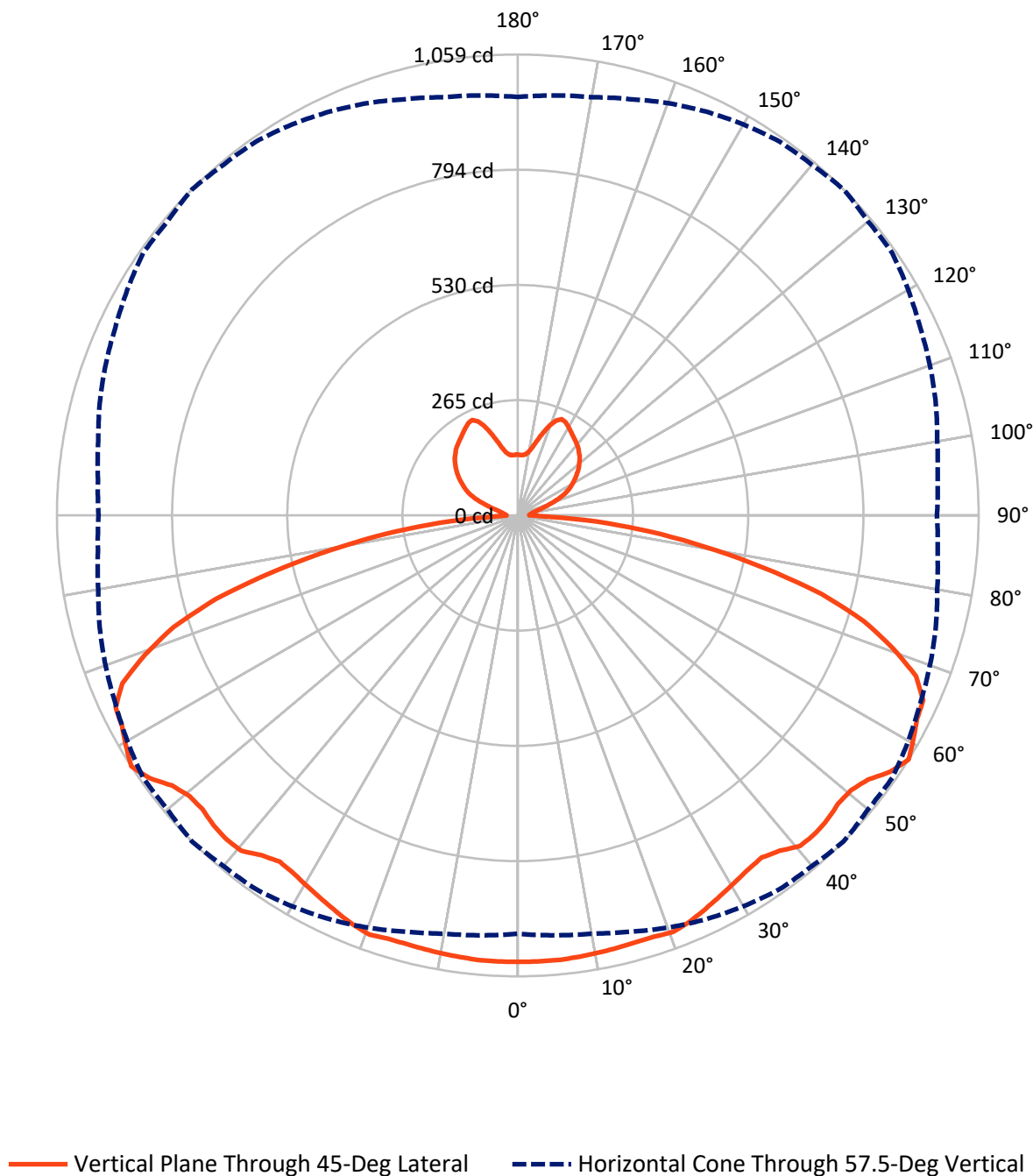


Based on 10 foot mounting height. Maximum calculated value = 10.3 fc  
 Type V - Short - Semi-Cutoff

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## Luminous Intensity Polar Plot



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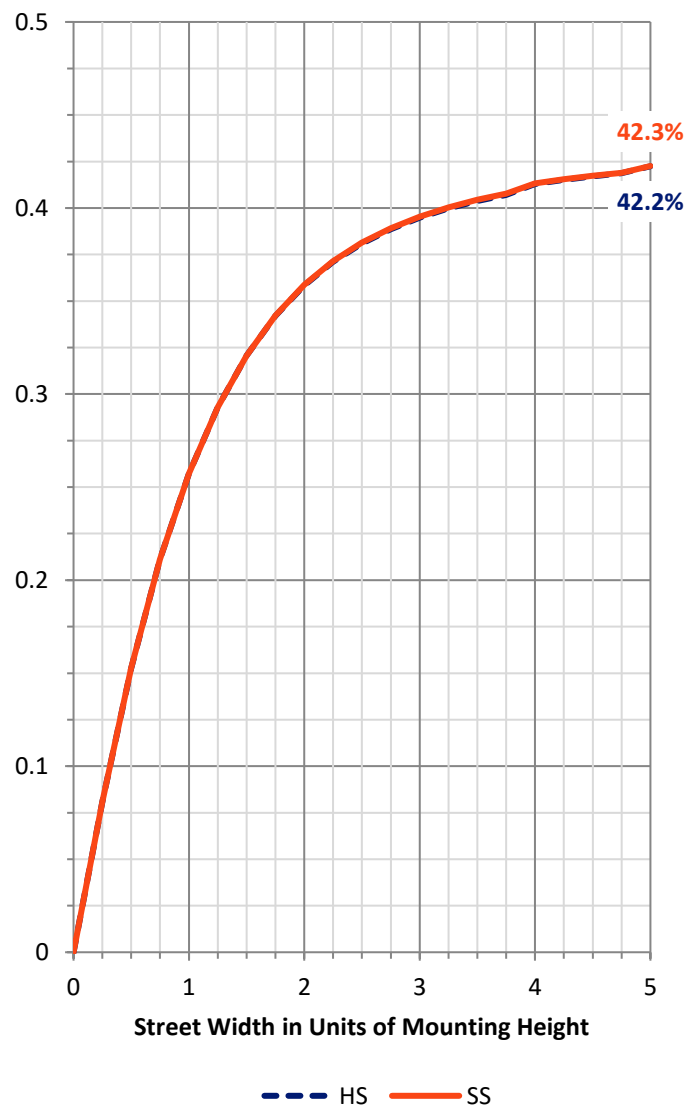
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 2488.8   | 412.0  | 2900.8 |
|                    | % Fixture | 42.9     | 7.1    | 50.0   |
| <b>Street Side</b> | Lumens    | 2488.8   | 412.0  | 2900.8 |
|                    | % Fixture | 42.9     | 7.1    | 50.0   |
| <b>Total</b>       | Lumens    | 4977.6   | 824.0  | 5801.6 |
|                    | % Fixture | 85.8     | 14.2   | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 97.7   | 1.7       |
| 10°-20°   | 288.3  | 5.0       |
| 20°-30°   | 461.8  | 8.0       |
| 30°-40°   | 607.9  | 10.5      |
| 40°-50°   | 757.2  | 13.1      |
| 50°-60°   | 892.0  | 15.4      |
| 60°-70°   | 948.3  | 16.3      |
| 70°-80°   | 711.1  | 12.3      |
| 80°-90°   | 213.2  | 3.7       |
| 90°-100°  | 38.3   | 0.7       |
| 100°-110° | 59.4   | 1.0       |
| 110°-120° | 119.3  | 2.1       |
| 120°-130° | 148.7  | 2.6       |
| 130°-140° | 153.2  | 2.6       |
| 140°-150° | 136.0  | 2.3       |
| 150°-160° | 103.7  | 1.8       |
| 160°-170° | 51.8   | 0.9       |
| 170°-180° | 13.6   | 0.2       |
| 0°-90°    | 4977.6 | 85.8      |
| 0°-180°   | 5801.6 | 100.0     |

**Coefficient of Utilization**



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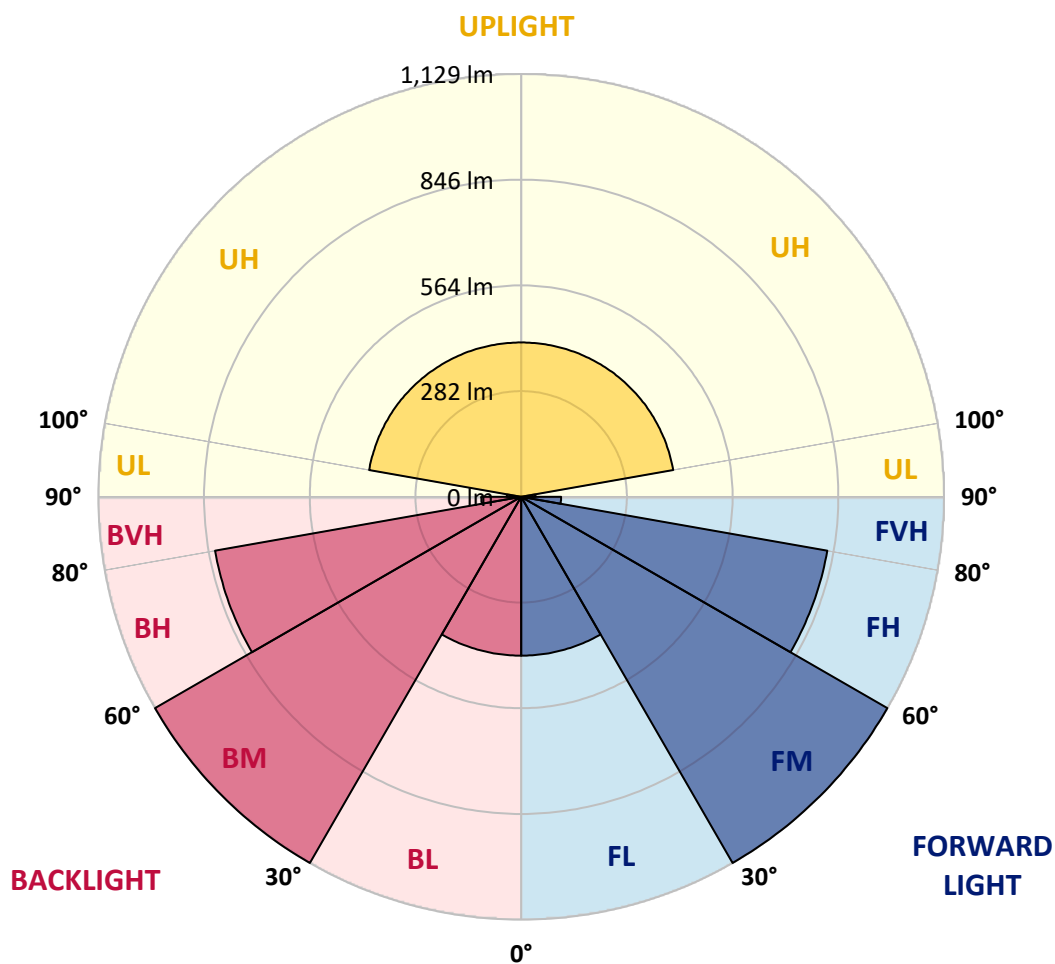
CATALOG NUMBER: TT-C4-LED-E1-MQ-LWR-LW-8030-UPL

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

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |        |         |
|------|-------------|--------|-----------|-------------------------|--------|---------|
|      |             |        |           | B                       | U      | G       |
| FL   | (0°-30°)    | 423.9  | 7.3       |                         |        |         |
| FM   | (30°-60°)   | 1128.6 | 19.5      |                         |        |         |
| FH   | (60°-80°)   | 829.7  | 14.3      |                         |        | G1/1800 |
| FVH  | (80°-90°)   | 106.6  | 1.8       |                         |        | G2/225  |
| BL   | (0°-30°)    | 423.9  | 7.3       | B1/500                  |        |         |
| BM   | (30°-60°)   | 1128.6 | 19.5      | B2/2500                 |        |         |
| BH   | (60°-80°)   | 829.7  | 14.3      | B2/1000                 |        | G1/1800 |
| BVH  | (80°-90°)   | 106.6  | 1.8       |                         |        | G2/225  |
| UL   | (90°-100°)  | 38.3   | 0.7       |                         | U2/50  |         |
| UH   | (100°-180°) | 412.0  | 7.1       |                         | U3/500 |         |

**BUG Rating: B2-U4-G2**

Type V Short



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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 5°     | 10°    | 15°    | 20°    | 25°    | 30°    | 35°    | 40°    | 45°    | 50°    |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°     | 1025.9 | 1025.9 | 1025.9 | 1025.9 | 1025.9 | 1025.9 | 1025.9 | 1025.9 | 1025.9 | 1025.9 | 1025.9 |
| 2.5°   | 1024.8 | 1024.8 | 1024.8 | 1025.9 | 1025.9 | 1025.9 | 1025.9 | 1025.9 | 1025.9 | 1025.9 | 1025.9 |
| 5°     | 1024.8 | 1024.8 | 1024.8 | 1024.8 | 1024.8 | 1024.8 | 1025.9 | 1025.9 | 1025.9 | 1025.9 | 1025.9 |
| 7.5°   | 1022.7 | 1022.7 | 1022.7 | 1022.7 | 1022.7 | 1023.8 | 1023.8 | 1023.8 | 1023.8 | 1023.8 | 1023.8 |
| 10°    | 1020.6 | 1020.6 | 1020.6 | 1020.6 | 1021.7 | 1021.7 | 1021.7 | 1021.7 | 1021.7 | 1021.7 | 1021.7 |
| 12.5°  | 1018.6 | 1018.6 | 1017.5 | 1018.6 | 1018.6 | 1018.6 | 1019.6 | 1019.6 | 1019.6 | 1019.6 | 1019.6 |
| 15°    | 1014.4 | 1014.4 | 1015.4 | 1015.4 | 1016.5 | 1016.5 | 1016.5 | 1016.5 | 1017.5 | 1017.5 | 1017.5 |
| 17.5°  | 1012.3 | 1012.3 | 1013.4 | 1014.4 | 1014.4 | 1015.4 | 1016.5 | 1016.5 | 1017.5 | 1017.5 | 1017.5 |
| 20°    | 1015.4 | 1015.4 | 1015.4 | 1016.5 | 1017.5 | 1018.6 | 1019.6 | 1020.6 | 1020.6 | 1021.7 | 1020.6 |
| 22.5°  | 1009.2 | 1009.2 | 1009.2 | 1010.2 | 1010.2 | 1010.2 | 1011.3 | 1012.3 | 1012.3 | 1013.4 | 1012.3 |
| 25°    | 997.7  | 997.7  | 998.8  | 998.8  | 999.8  | 999.8  | 1000.9 | 1000.9 | 1000.9 | 1001.9 | 1001.9 |
| 27.5°  | 986.3  | 985.2  | 987.3  | 987.3  | 988.4  | 988.4  | 989.4  | 990.4  | 990.4  | 990.4  | 991.5  |
| 30°    | 973.8  | 973.8  | 974.8  | 974.8  | 975.9  | 976.9  | 977.9  | 979.0  | 979.0  | 980.0  | 980.0  |
| 32.5°  | 960.2  | 961.3  | 962.3  | 963.4  | 964.4  | 966.5  | 967.5  | 968.6  | 969.6  | 970.7  | 969.6  |
| 35°    | 950.9  | 951.9  | 953.0  | 955.0  | 958.2  | 960.2  | 962.3  | 964.4  | 965.5  | 965.5  | 965.5  |
| 37.5°  | 953.0  | 954.0  | 956.1  | 960.2  | 965.5  | 968.6  | 972.7  | 975.9  | 976.9  | 977.9  | 977.9  |
| 40°    | 964.4  | 966.5  | 969.6  | 974.8  | 981.1  | 986.3  | 992.5  | 995.7  | 997.7  | 998.8  | 997.7  |
| 42.5°  | 963.4  | 966.5  | 969.6  | 975.9  | 983.2  | 988.4  | 994.6  | 997.7  | 999.8  | 1000.9 | 999.8  |
| 45°    | 960.2  | 962.3  | 965.5  | 971.7  | 976.9  | 984.2  | 990.4  | 993.6  | 996.7  | 997.7  | 996.7  |
| 47.5°  | 953.0  | 953.0  | 954.0  | 960.2  | 967.5  | 976.9  | 982.1  | 987.3  | 990.4  | 990.4  | 990.4  |
| 50°    | 943.6  | 947.7  | 949.8  | 958.2  | 965.5  | 973.8  | 983.2  | 990.4  | 991.5  | 992.5  | 991.5  |
| 52.5°  | 943.6  | 944.6  | 951.9  | 957.1  | 971.7  | 984.2  | 993.6  | 1000.9 | 1007.1 | 1008.2 | 1008.2 |
| 55°    | 960.2  | 962.3  | 966.5  | 979.0  | 990.4  | 1009.2 | 1024.8 | 1031.1 | 1035.2 | 1039.4 | 1035.2 |
| 57.5°  | 961.3  | 968.6  | 975.9  | 990.4  | 1008.2 | 1023.8 | 1037.3 | 1048.8 | 1051.9 | 1059.2 | 1050.9 |
| 60°    | 948.8  | 950.9  | 958.2  | 975.9  | 998.8  | 1015.4 | 1027.9 | 1038.4 | 1048.8 | 1044.6 | 1048.8 |
| 62.5°  | 929.0  | 934.2  | 944.6  | 958.2  | 976.9  | 996.7  | 1015.4 | 1018.6 | 1034.2 | 1030.0 | 1036.3 |
| 65°    | 913.4  | 917.5  | 928.0  | 947.7  | 970.7  | 983.2  | 1004.0 | 1016.5 | 1015.4 | 1023.8 | 1014.4 |
| 67.5°  | 874.8  | 878.0  | 887.3  | 907.1  | 929.0  | 947.7  | 954.0  | 973.8  | 975.9  | 987.3  | 976.9  |
| 70°    | 811.3  | 818.6  | 832.1  | 850.9  | 868.6  | 884.2  | 895.7  | 906.1  | 912.3  | 914.4  | 912.3  |
| 72.5°  | 732.2  | 743.6  | 754.0  | 771.7  | 789.4  | 799.9  | 807.1  | 821.7  | 825.9  | 832.1  | 830.1  |
| 75°    | 650.9  | 650.9  | 661.3  | 674.9  | 688.4  | 694.7  | 698.8  | 708.2  | 713.4  | 720.7  | 714.5  |
| 77.5°  | 539.5  | 545.7  | 555.1  | 566.6  | 564.5  | 567.6  | 567.6  | 572.8  | 570.7  | 575.9  | 580.1  |
| 80°    | 422.8  | 429.1  | 437.4  | 445.8  | 444.7  | 437.4  | 442.6  | 436.4  | 434.3  | 435.3  | 438.5  |
| 82.5°  | 302.0  | 306.2  | 313.5  | 318.7  | 318.7  | 313.5  | 315.6  | 309.3  | 311.4  | 306.2  | 310.4  |
| 85°    | 172.9  | 178.1  | 183.3  | 188.5  | 188.5  | 185.4  | 188.5  | 180.2  | 181.2  | 181.2  | 181.2  |
| 87.5°  | 42.7   | 46.9   | 48.9   | 52.1   | 50.0   | 55.2   | 58.3   | 53.1   | 54.2   | 52.1   | 55.2   |
| 90°    | 36.0   | 36.0   | 36.0   | 36.0   | 35.0   | 34.0   | 31.0   | 29.0   | 27.0   | 26.0   | 26.0   |
| 92.5°  | 40.0   | 39.0   | 39.0   | 38.0   | 36.0   | 34.0   | 32.0   | 29.0   | 27.0   | 27.0   | 27.0   |
| 95°    | 44.0   | 43.0   | 42.0   | 41.0   | 38.0   | 36.0   | 34.0   | 32.0   | 31.0   | 30.0   | 30.0   |
| 97.5°  | 42.0   | 42.0   | 41.0   | 40.0   | 38.0   | 37.0   | 36.0   | 35.0   | 34.0   | 33.0   | 32.0   |
| 100°   | 45.0   | 45.0   | 45.0   | 44.0   | 42.0   | 40.0   | 39.0   | 38.0   | 36.0   | 36.0   | 35.0   |
| 102.5° | 51.0   | 51.0   | 50.0   | 49.0   | 47.0   | 46.0   | 45.0   | 44.0   | 42.0   | 42.0   | 42.0   |
| 105°   | 60.0   | 60.0   | 59.0   | 57.0   | 55.0   | 54.0   | 53.0   | 53.0   | 51.0   | 52.0   | 52.0   |
| 107.5° | 72.0   | 72.0   | 72.0   | 70.0   | 68.0   | 67.0   | 66.0   | 66.0   | 66.0   | 68.0   | 68.0   |
| 110°   | 86.0   | 86.0   | 87.0   | 89.0   | 86.0   | 85.0   | 85.0   | 86.0   | 86.0   | 87.0   | 86.0   |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 5°    | 10°   | 15°   | 20°   | 25°   | 30°   | 35°   | 40°   | 45°   | 50°   |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 112.5° | 101.0 | 102.0 | 104.0 | 108.0 | 106.0 | 107.0 | 107.0 | 110.0 | 108.0 | 107.0 | 103.0 |
| 115°   | 121.0 | 122.0 | 123.0 | 128.0 | 126.0 | 128.0 | 127.0 | 129.0 | 126.0 | 124.0 | 120.0 |
| 117.5° | 140.0 | 141.0 | 141.0 | 144.0 | 141.0 | 141.0 | 140.0 | 141.0 | 138.0 | 136.0 | 135.0 |
| 120°   | 152.0 | 153.0 | 154.0 | 155.0 | 151.0 | 149.0 | 147.0 | 149.0 | 147.0 | 147.0 | 148.0 |
| 122.5° | 161.0 | 162.0 | 163.0 | 164.0 | 159.0 | 154.0 | 153.0 | 155.0 | 156.0 | 158.0 | 158.0 |
| 125°   | 169.0 | 169.0 | 170.0 | 172.0 | 168.0 | 163.0 | 160.0 | 165.0 | 166.0 | 168.0 | 167.0 |
| 127.5° | 177.0 | 177.0 | 179.0 | 181.0 | 177.0 | 171.0 | 170.0 | 176.0 | 177.0 | 178.0 | 175.0 |
| 130°   | 187.0 | 188.0 | 190.0 | 191.0 | 185.0 | 179.0 | 179.0 | 186.0 | 187.0 | 186.0 | 183.0 |
| 132.5° | 198.0 | 199.0 | 200.0 | 201.0 | 193.0 | 186.0 | 187.0 | 193.0 | 195.0 | 195.0 | 191.0 |
| 135°   | 210.0 | 210.0 | 211.0 | 209.0 | 199.0 | 192.0 | 193.0 | 199.0 | 202.0 | 201.0 | 197.0 |
| 137.5° | 221.0 | 219.0 | 217.0 | 213.0 | 203.0 | 197.0 | 198.0 | 205.0 | 207.0 | 208.0 | 203.0 |
| 140°   | 229.0 | 226.0 | 222.0 | 216.0 | 205.0 | 200.0 | 201.0 | 207.0 | 210.0 | 213.0 | 212.0 |
| 142.5° | 235.0 | 231.0 | 225.0 | 218.0 | 206.0 | 201.0 | 202.0 | 208.0 | 212.0 | 218.0 | 218.0 |
| 145°   | 235.0 | 230.0 | 225.0 | 218.0 | 207.0 | 202.0 | 204.0 | 211.0 | 215.0 | 223.0 | 225.0 |
| 147.5° | 230.0 | 227.0 | 223.0 | 219.0 | 210.0 | 207.0 | 209.0 | 216.0 | 220.0 | 229.0 | 233.0 |
| 150°   | 224.0 | 221.0 | 219.0 | 220.0 | 215.0 | 214.0 | 216.0 | 222.0 | 227.0 | 235.0 | 239.0 |
| 152.5° | 216.0 | 214.0 | 216.0 | 221.0 | 220.0 | 220.0 | 224.0 | 230.0 | 234.0 | 241.0 | 241.0 |
| 155°   | 208.0 | 207.0 | 211.0 | 219.0 | 222.0 | 224.0 | 229.0 | 237.0 | 239.0 | 243.0 | 239.0 |
| 157.5° | 203.0 | 203.0 | 207.0 | 216.0 | 220.0 | 224.0 | 229.0 | 234.0 | 232.0 | 235.0 | 230.0 |
| 160°   | 199.0 | 198.0 | 203.0 | 210.0 | 212.0 | 213.0 | 216.0 | 219.0 | 216.0 | 219.0 | 216.0 |
| 162.5° | 185.0 | 184.0 | 188.0 | 193.0 | 194.0 | 193.0 | 196.0 | 198.0 | 195.0 | 198.0 | 196.0 |
| 165°   | 169.0 | 167.0 | 169.0 | 173.0 | 173.0 | 173.0 | 175.0 | 176.0 | 174.0 | 177.0 | 175.0 |
| 167.5° | 154.0 | 152.0 | 153.0 | 156.0 | 156.0 | 155.0 | 157.0 | 159.0 | 157.0 | 159.0 | 158.0 |
| 170°   | 142.0 | 141.0 | 142.0 | 145.0 | 144.0 | 144.0 | 146.0 | 147.0 | 146.0 | 147.0 | 147.0 |
| 172.5° | 137.0 | 135.0 | 136.0 | 139.0 | 139.0 | 138.0 | 140.0 | 141.0 | 140.0 | 141.0 | 140.0 |
| 175°   | 136.0 | 134.0 | 135.0 | 137.0 | 137.0 | 137.0 | 138.0 | 139.0 | 138.0 | 139.0 | 138.0 |
| 177.5° | 137.0 | 136.0 | 136.0 | 139.0 | 138.0 | 138.0 | 139.0 | 140.0 | 139.0 | 139.0 | 138.0 |
| 180°   | 140.0 | 140.0 | 140.0 | 140.0 | 140.0 | 140.0 | 140.0 | 140.0 | 140.0 | 140.0 | 140.0 |

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**CANDELA DISTRIBUTION (continued):**

|        | 55°    | 60°    | 65°    | 70°    | 75°    | 80°    | 85°    | 90°    |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°     | 1025.9 | 1025.9 | 1025.9 | 1025.9 | 1025.9 | 1025.9 | 1025.9 | 1025.9 |
| 2.5°   | 1025.9 | 1024.8 | 1025.9 | 1025.9 | 1025.9 | 1025.9 | 1024.8 | 1024.8 |
| 5°     | 1025.9 | 1025.9 | 1025.9 | 1024.8 | 1024.8 | 1024.8 | 1024.8 | 1024.8 |
| 7.5°   | 1023.8 | 1023.8 | 1023.8 | 1022.7 | 1022.7 | 1022.7 | 1022.7 | 1022.7 |
| 10°    | 1021.7 | 1021.7 | 1020.6 | 1020.6 | 1020.6 | 1020.6 | 1020.6 | 1020.6 |
| 12.5°  | 1019.6 | 1019.6 | 1018.6 | 1018.6 | 1018.6 | 1018.6 | 1018.6 | 1017.5 |
| 15°    | 1017.5 | 1017.5 | 1016.5 | 1016.5 | 1015.4 | 1015.4 | 1014.4 | 1014.4 |
| 17.5°  | 1017.5 | 1016.5 | 1015.4 | 1014.4 | 1014.4 | 1013.4 | 1012.3 | 1012.3 |
| 20°    | 1020.6 | 1019.6 | 1018.6 | 1017.5 | 1016.5 | 1015.4 | 1015.4 | 1014.4 |
| 22.5°  | 1012.3 | 1011.3 | 1010.2 | 1010.2 | 1009.2 | 1009.2 | 1009.2 | 1008.2 |
| 25°    | 1001.9 | 1000.9 | 1000.9 | 998.8  | 998.8  | 997.7  | 997.7  | 996.7  |
| 27.5°  | 990.4  | 989.4  | 989.4  | 988.4  | 987.3  | 986.3  | 985.2  | 985.2  |
| 30°    | 979.0  | 977.9  | 977.9  | 976.9  | 974.8  | 974.8  | 973.8  | 972.7  |
| 32.5°  | 968.6  | 968.6  | 967.5  | 965.5  | 963.4  | 962.3  | 960.2  | 960.2  |
| 35°    | 965.5  | 963.4  | 961.3  | 958.2  | 955.0  | 953.0  | 951.9  | 950.9  |
| 37.5°  | 976.9  | 973.8  | 968.6  | 965.5  | 961.3  | 957.1  | 955.0  | 953.0  |
| 40°    | 996.7  | 991.5  | 986.3  | 981.1  | 974.8  | 969.6  | 965.5  | 964.4  |
| 42.5°  | 997.7  | 994.6  | 989.4  | 983.2  | 975.9  | 969.6  | 965.5  | 964.4  |
| 45°    | 994.6  | 990.4  | 984.2  | 976.9  | 971.7  | 964.4  | 961.3  | 960.2  |
| 47.5°  | 987.3  | 983.2  | 976.9  | 966.5  | 959.2  | 954.0  | 953.0  | 953.0  |
| 50°    | 991.5  | 983.2  | 972.7  | 966.5  | 959.2  | 950.9  | 947.7  | 945.7  |
| 52.5°  | 1000.9 | 992.5  | 986.3  | 972.7  | 957.1  | 949.8  | 945.7  | 942.5  |
| 55°    | 1031.1 | 1026.9 | 1008.2 | 989.4  | 977.9  | 968.6  | 964.4  | 962.3  |
| 57.5°  | 1050.9 | 1036.3 | 1020.6 | 1008.2 | 994.6  | 979.0  | 968.6  | 963.4  |
| 60°    | 1040.4 | 1024.8 | 1017.5 | 1000.9 | 972.7  | 956.1  | 949.8  | 946.7  |
| 62.5°  | 1017.5 | 1017.5 | 997.7  | 971.7  | 961.3  | 946.7  | 935.2  | 931.1  |
| 65°    | 1016.5 | 1002.9 | 983.2  | 973.8  | 948.8  | 926.9  | 915.5  | 913.4  |
| 67.5°  | 972.7  | 954.0  | 948.8  | 928.0  | 907.1  | 887.3  | 879.0  | 874.8  |
| 70°    | 906.1  | 899.8  | 884.2  | 870.7  | 851.9  | 831.1  | 819.6  | 815.5  |
| 72.5°  | 821.7  | 811.3  | 804.0  | 792.6  | 774.9  | 748.8  | 739.5  | 734.2  |
| 75°    | 707.2  | 702.0  | 702.0  | 689.5  | 672.8  | 657.2  | 656.1  | 654.0  |
| 77.5°  | 568.6  | 570.7  | 575.9  | 562.4  | 567.6  | 559.3  | 552.0  | 546.8  |
| 80°    | 432.2  | 441.6  | 442.6  | 445.8  | 448.9  | 437.4  | 432.2  | 426.0  |
| 82.5°  | 307.2  | 312.4  | 318.7  | 319.7  | 321.8  | 313.5  | 309.3  | 303.1  |
| 85°    | 181.2  | 184.3  | 189.5  | 189.5  | 189.5  | 182.3  | 180.2  | 175.0  |
| 87.5°  | 53.1   | 53.1   | 56.2   | 53.1   | 53.1   | 53.1   | 47.9   | 51.0   |
| 90°    | 28.0   | 30.0   | 32.0   | 33.0   | 34.0   | 34.0   | 34.0   | 34.0   |
| 92.5°  | 28.0   | 30.0   | 32.0   | 33.0   | 35.0   | 36.0   | 36.0   | 36.0   |
| 95°    | 30.0   | 32.0   | 34.0   | 35.0   | 37.0   | 38.0   | 39.0   | 38.0   |
| 97.5°  | 33.0   | 34.0   | 34.0   | 35.0   | 36.0   | 36.0   | 36.0   | 36.0   |
| 100°   | 36.0   | 37.0   | 38.0   | 38.0   | 38.0   | 38.0   | 37.0   | 37.0   |
| 102.5° | 43.0   | 44.0   | 44.0   | 42.0   | 42.0   | 41.0   | 41.0   | 41.0   |
| 105°   | 54.0   | 54.0   | 53.0   | 51.0   | 49.0   | 48.0   | 48.0   | 49.0   |
| 107.5° | 68.0   | 68.0   | 66.0   | 63.0   | 60.0   | 59.0   | 59.0   | 60.0   |
| 110°   | 84.0   | 83.0   | 84.0   | 81.0   | 78.0   | 76.0   | 74.0   | 75.0   |

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**CANDELA DISTRIBUTION (continued):**

|        | 55°   | 60°   | 65°   | 70°   | 75°   | 80°   | 85°   | 90°   |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|
| 112.5° | 102.0 | 102.0 | 105.0 | 103.0 | 100.0 | 98.0  | 95.0  | 94.0  |
| 115°   | 121.0 | 123.0 | 125.0 | 124.0 | 123.0 | 121.0 | 116.0 | 113.0 |
| 117.5° | 138.0 | 140.0 | 141.0 | 139.0 | 139.0 | 139.0 | 133.0 | 129.0 |
| 120°   | 150.0 | 151.0 | 153.0 | 148.0 | 148.0 | 148.0 | 145.0 | 142.0 |
| 122.5° | 159.0 | 160.0 | 162.0 | 156.0 | 155.0 | 156.0 | 153.0 | 150.0 |
| 125°   | 167.0 | 167.0 | 168.0 | 164.0 | 163.0 | 164.0 | 160.0 | 158.0 |
| 127.5° | 176.0 | 175.0 | 175.0 | 173.0 | 173.0 | 173.0 | 166.0 | 163.0 |
| 130°   | 183.0 | 182.0 | 183.0 | 181.0 | 184.0 | 181.0 | 171.0 | 169.0 |
| 132.5° | 190.0 | 189.0 | 192.0 | 189.0 | 192.0 | 190.0 | 179.0 | 176.0 |
| 135°   | 196.0 | 197.0 | 201.0 | 199.0 | 199.0 | 195.0 | 185.0 | 184.0 |
| 137.5° | 203.0 | 205.0 | 210.0 | 207.0 | 204.0 | 198.0 | 191.0 | 190.0 |
| 140°   | 212.0 | 214.0 | 217.0 | 214.0 | 209.0 | 202.0 | 195.0 | 195.0 |
| 142.5° | 220.0 | 222.0 | 223.0 | 217.0 | 211.0 | 204.0 | 198.0 | 198.0 |
| 145°   | 230.0 | 230.0 | 227.0 | 217.0 | 211.0 | 205.0 | 201.0 | 202.0 |
| 147.5° | 239.0 | 236.0 | 229.0 | 218.0 | 212.0 | 207.0 | 204.0 | 206.0 |
| 150°   | 242.0 | 240.0 | 232.0 | 220.0 | 214.0 | 211.0 | 210.0 | 211.0 |
| 152.5° | 242.0 | 241.0 | 235.0 | 223.0 | 219.0 | 217.0 | 215.0 | 216.0 |
| 155°   | 238.0 | 237.0 | 234.0 | 227.0 | 224.0 | 223.0 | 220.0 | 219.0 |
| 157.5° | 228.0 | 229.0 | 229.0 | 226.0 | 226.0 | 225.0 | 222.0 | 219.0 |
| 160°   | 215.0 | 217.0 | 219.0 | 219.0 | 221.0 | 222.0 | 218.0 | 215.0 |
| 162.5° | 196.0 | 199.0 | 200.0 | 201.0 | 204.0 | 208.0 | 207.0 | 207.0 |
| 165°   | 176.0 | 179.0 | 181.0 | 181.0 | 185.0 | 189.0 | 190.0 | 192.0 |
| 167.5° | 160.0 | 163.0 | 165.0 | 164.0 | 168.0 | 171.0 | 172.0 | 174.0 |
| 170°   | 148.0 | 150.0 | 152.0 | 152.0 | 155.0 | 158.0 | 159.0 | 160.0 |
| 172.5° | 141.0 | 144.0 | 145.0 | 144.0 | 146.0 | 149.0 | 149.0 | 151.0 |
| 175°   | 138.0 | 140.0 | 141.0 | 140.0 | 141.0 | 143.0 | 143.0 | 144.0 |
| 177.5° | 138.0 | 140.0 | 140.0 | 138.0 | 140.0 | 141.0 | 141.0 | 141.0 |
| 180°   | 140.0 | 140.0 | 140.0 | 140.0 | 140.0 | 140.0 | 140.0 | 140.0 |

(END OF REPORT)