

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: P298918

Luminaire Tested: **GLNA-AF-01-LED-E1-T2-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P298918
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24139)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-01-LED-E1-T2-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(1) 70 CRI, 4000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4924 lumens
Efficiency: N/A
Efficacy: 111.9 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Medium - Full Cutoff
BUG Rating: B1 - U0 - G1

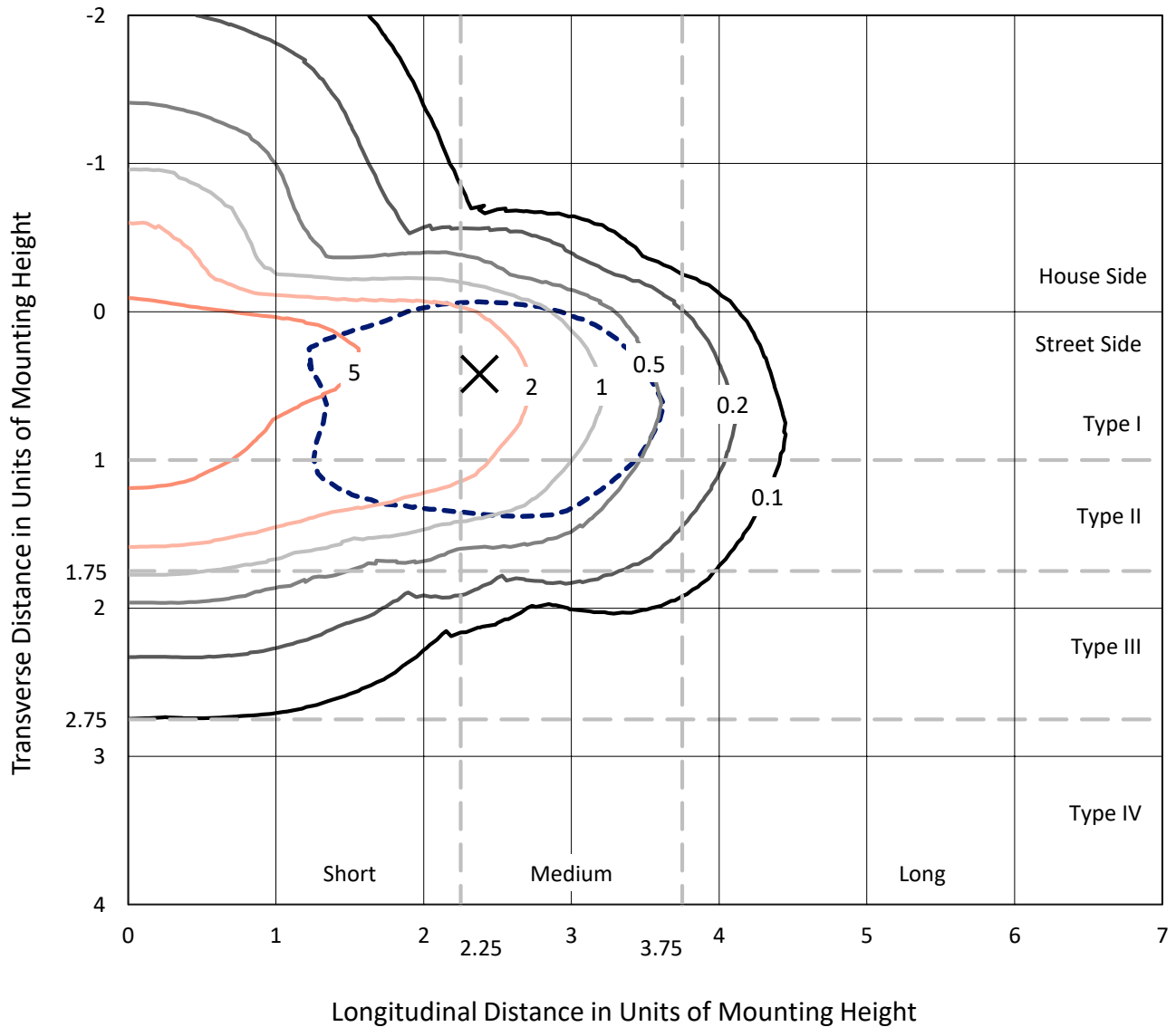
Input Watts (W): 44
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

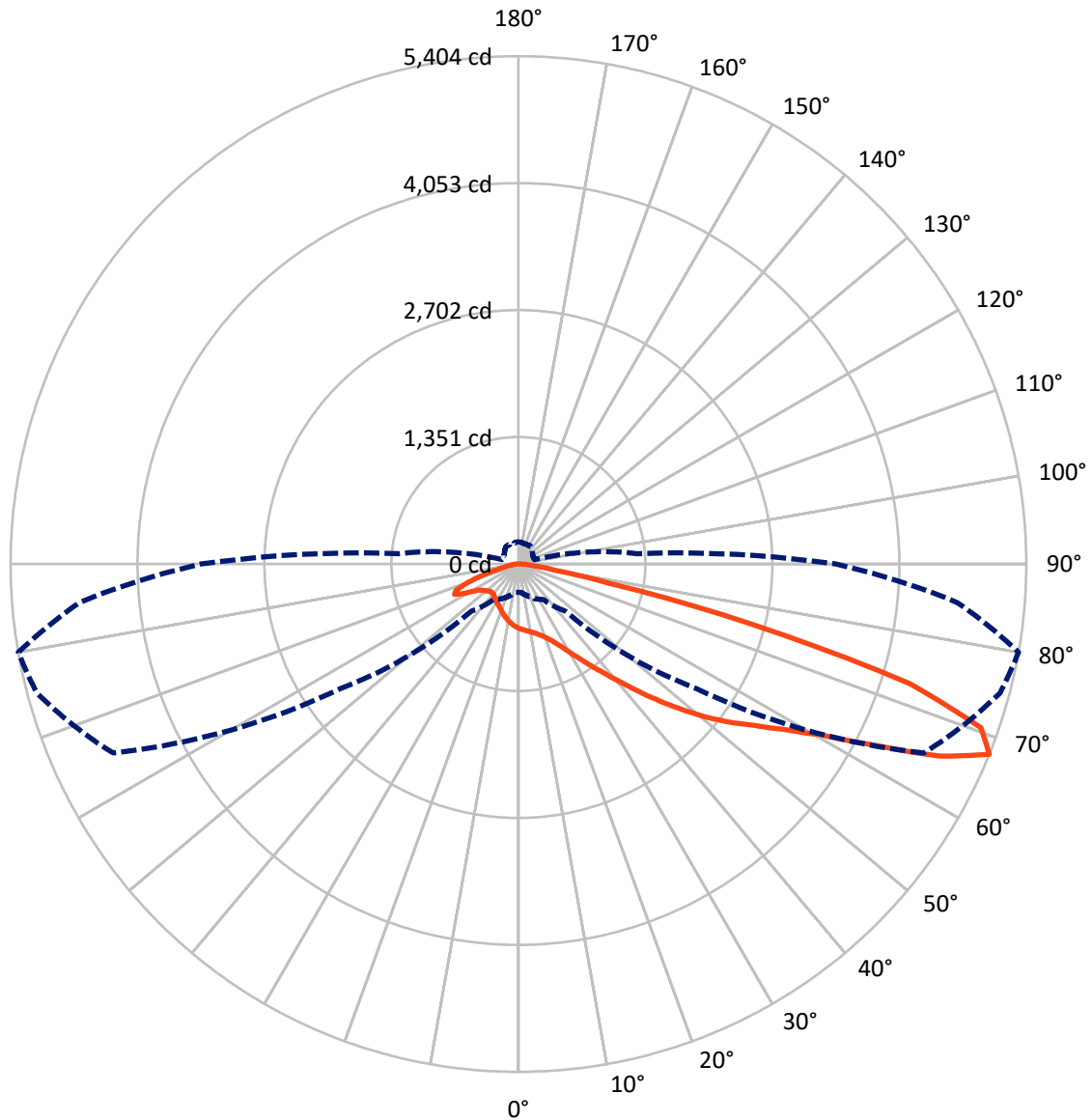
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 8.3 fc
 Type II - Medium - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 80-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 906.8 | 0.0 | 906.8 |
| | % Fixture | 18.4 | 0.0 | 18.4 |
| Street Side | Lumens | 4017.2 | 0.0 | 4017.2 |
| | % Fixture | 81.6 | 0.0 | 81.6 |
| Total | Lumens | 4924.0 | 0.0 | 4924.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 63.1 | 1.3 |
| 10°-20° | 181.8 | 3.7 |
| 20°-30° | 300.9 | 6.1 |
| 30°-40° | 492.2 | 10.0 |
| 40°-50° | 794.7 | 16.1 |
| 50°-60° | 1147.3 | 23.3 |
| 60°-70° | 1266.1 | 25.7 |
| 70°-80° | 583.6 | 11.9 |
| 80°-90° | 94.4 | 1.9 |
| 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° | 4924.0 | 100.0 |
| 0°-180° | 4924.0 | 100.0 |



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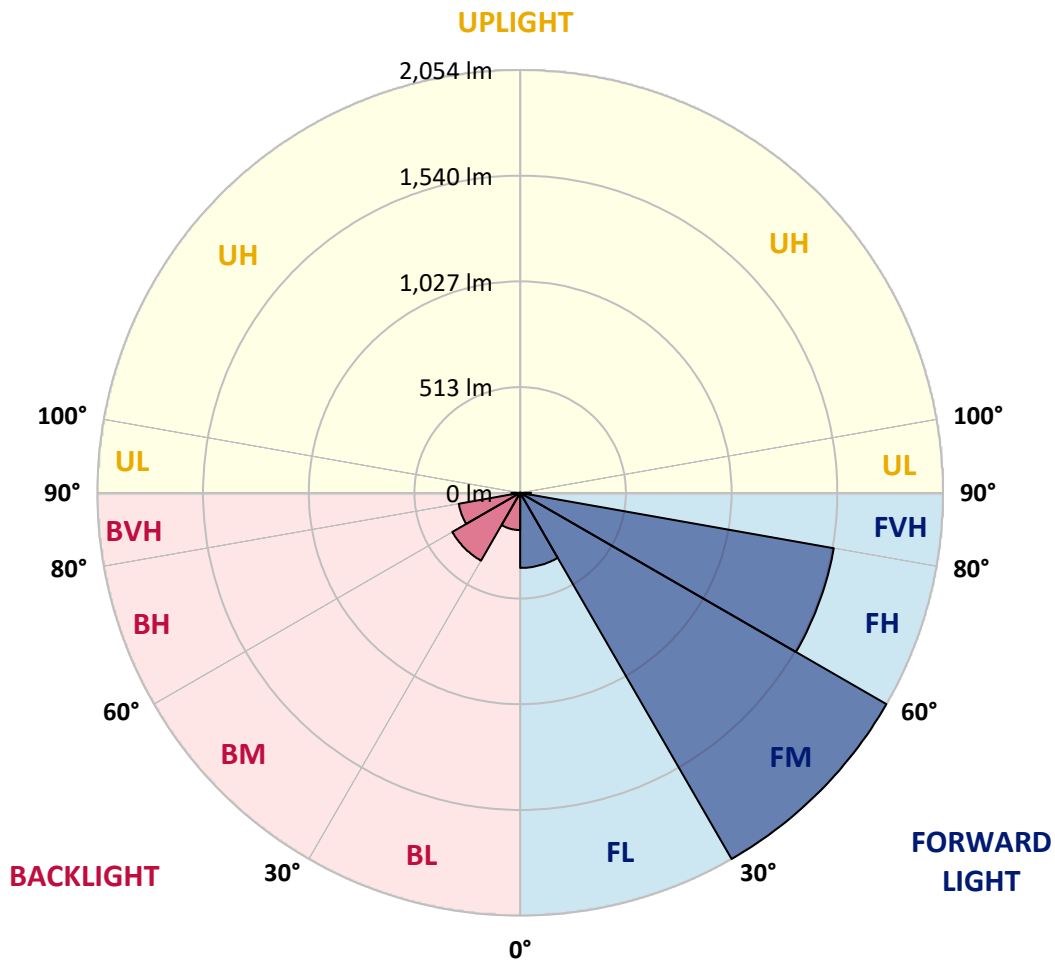
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 364.9 | 7.4 | | | |
| FM | (30°-60°) | 2053.7 | 41.7 | | | |
| FH | (60°-80°) | 1546.8 | 31.4 | | | G1/1800 |
| FVH | (80°-90°) | 51.9 | 1.1 | | | G1/100 |
| BL | (0°-30°) | 180.9 | 3.7 | B1/500 | | |
| BM | (30°-60°) | 380.5 | 7.7 | B1/1000 | | |
| BH | (60°-80°) | 302.9 | 6.2 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 42.5 | 0.9 | | | G1/100 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B1-U0-G1

Type II Medium





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 80° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 684.1 | 684.1 | 684.1 | 684.1 | 684.1 | 684.1 | 684.1 | 684.1 | 684.1 | 684.1 | 684.1 |
| 2.5° | 748.3 | 744.0 | 744.7 | 743.5 | 739.8 | 733.5 | 726.8 | 714.4 | 701.5 | 694.8 | 689.4 |
| 5° | 810.9 | 809.7 | 808.0 | 804.1 | 794.9 | 781.8 | 765.5 | 743.7 | 720.2 | 707.8 | 696.0 |
| 7.5° | 857.7 | 856.9 | 854.7 | 852.3 | 843.4 | 827.6 | 803.1 | 772.1 | 737.9 | 720.9 | 702.5 |
| 10° | 861.5 | 862.7 | 864.4 | 871.0 | 872.2 | 863.7 | 838.7 | 801.2 | 756.3 | 734.5 | 711.0 |
| 12.5° | 828.6 | 831.2 | 837.8 | 854.5 | 872.2 | 882.6 | 869.8 | 831.7 | 777.9 | 751.5 | 721.7 |
| 15° | 784.9 | 786.4 | 794.4 | 817.4 | 849.2 | 881.4 | 893.5 | 865.4 | 805.8 | 773.3 | 737.7 |
| 17.5° | 766.3 | 767.0 | 772.6 | 787.8 | 817.4 | 863.5 | 906.9 | 902.0 | 840.0 | 800.4 | 757.3 |
| 20° | 756.8 | 758.5 | 766.5 | 781.5 | 800.2 | 840.4 | 908.8 | 941.5 | 880.7 | 834.4 | 782.0 |
| 22.5° | 783.7 | 783.0 | 785.9 | 793.4 | 809.2 | 833.4 | 907.4 | 982.3 | 932.6 | 878.0 | 814.3 |
| 25° | 846.5 | 849.2 | 844.1 | 835.6 | 840.7 | 857.7 | 915.1 | 1026.4 | 997.5 | 934.0 | 856.4 |
| 27.5° | 936.0 | 933.3 | 925.8 | 905.9 | 895.5 | 902.7 | 940.8 | 1073.9 | 1078.3 | 1007.7 | 912.2 |
| 30° | 1025.2 | 1023.0 | 1015.7 | 991.5 | 970.1 | 964.1 | 990.7 | 1128.4 | 1174.5 | 1096.2 | 980.6 |
| 32.5° | 1117.8 | 1115.3 | 1108.6 | 1084.3 | 1058.6 | 1044.6 | 1061.8 | 1191.5 | 1287.9 | 1201.9 | 1061.0 |
| 35° | 1231.9 | 1227.3 | 1213.0 | 1179.3 | 1154.1 | 1143.2 | 1151.2 | 1270.7 | 1418.8 | 1327.0 | 1158.7 |
| 37.5° | 1339.3 | 1346.4 | 1331.8 | 1285.3 | 1252.5 | 1248.7 | 1257.6 | 1367.4 | 1559.9 | 1466.8 | 1271.0 |
| 40° | 1447.2 | 1448.4 | 1435.3 | 1397.3 | 1363.6 | 1357.3 | 1379.8 | 1484.8 | 1726.5 | 1634.1 | 1407.4 |
| 42.5° | 1558.7 | 1561.1 | 1539.1 | 1503.9 | 1479.2 | 1480.4 | 1506.1 | 1622.2 | 1917.5 | 1831.2 | 1564.5 |
| 45° | 1690.8 | 1694.5 | 1670.2 | 1624.2 | 1601.6 | 1647.0 | 1636.3 | 1776.4 | 2126.9 | 2055.2 | 1744.9 |
| 47.5° | 1829.0 | 1834.6 | 1816.2 | 1773.0 | 1744.9 | 1807.2 | 1766.5 | 1947.3 | 2352.4 | 2295.4 | 1942.9 |
| 50° | 1904.4 | 1912.4 | 1930.3 | 1927.2 | 1921.1 | 1910.7 | 1911.7 | 2130.6 | 2584.8 | 2545.6 | 2146.6 |
| 52.5° | 1863.9 | 1863.7 | 1929.1 | 2008.6 | 2093.5 | 2099.8 | 2088.6 | 2323.8 | 2802.0 | 2790.2 | 2338.3 |
| 55° | 1678.7 | 1691.3 | 1790.5 | 1944.4 | 2176.1 | 2320.9 | 2353.8 | 2545.1 | 3015.4 | 3029.2 | 2533.0 |
| 57.5° | 1370.4 | 1380.8 | 1514.6 | 1729.1 | 2064.6 | 2452.2 | 2731.0 | 2866.8 | 3253.9 | 3318.4 | 2792.1 |
| 60° | 929.4 | 942.0 | 1083.8 | 1341.5 | 1764.5 | 2379.0 | 3090.0 | 3440.8 | 3539.5 | 3686.1 | 3155.7 |
| 62.5° | 546.2 | 557.5 | 673.2 | 846.3 | 1242.4 | 2038.9 | 3247.6 | 4257.5 | 3993.0 | 4241.0 | 3710.4 |
| 65° | 376.0 | 383.7 | 440.0 | 526.8 | 713.9 | 1373.3 | 3052.2 | 4821.3 | 4690.9 | 4928.5 | 4353.5 |
| 67.5° | 302.5 | 301.6 | 346.2 | 405.3 | 459.6 | 708.1 | 2308.0 | 4757.6 | 5304.7 | 5403.9 | 4687.3 |
| 70° | 249.2 | 248.2 | 278.5 | 327.5 | 367.3 | 398.8 | 1257.2 | 4014.8 | 5179.6 | 5219.9 | 4379.9 |
| 72.5° | 208.5 | 209.4 | 228.8 | 265.2 | 301.3 | 300.3 | 552.5 | 2824.4 | 4074.7 | 4353.0 | 3491.5 |
| 75° | 176.0 | 176.5 | 189.3 | 215.0 | 244.6 | 241.9 | 299.6 | 1530.1 | 2368.6 | 2562.3 | 1935.4 |
| 77.5° | 149.8 | 150.3 | 158.5 | 172.8 | 193.9 | 193.0 | 218.7 | 661.1 | 988.1 | 976.0 | 662.0 |
| 80° | 133.6 | 133.6 | 137.4 | 140.1 | 151.8 | 147.4 | 162.2 | 317.6 | 417.7 | 385.7 | 264.2 |
| 82.5° | 104.7 | 105.2 | 129.0 | 128.0 | 119.5 | 113.9 | 113.9 | 187.1 | 221.3 | 204.6 | 154.7 |
| 85° | 58.9 | 58.7 | 83.1 | 100.4 | 105.2 | 80.2 | 79.5 | 104.7 | 120.5 | 106.2 | 74.9 |
| 87.5° | 25.2 | 25.7 | 38.5 | 44.6 | 59.6 | 49.9 | 49.2 | 54.1 | 61.3 | 53.1 | 34.7 |
| 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° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0° | 684.1 | 684.1 | 684.1 | 684.1 | 684.1 | 684.1 | 684.1 | 684.1 | 684.1 | 684.1 | 684.1 |
| 2.5° | 684.3 | 678.0 | 664.2 | 647.0 | 631.5 | 621.3 | 612.1 | 598.8 | 599.5 | 590.3 | 583.5 |
| 5° | 683.8 | 670.8 | 638.8 | 600.7 | 564.1 | 537.7 | 517.8 | 499.9 | 495.5 | 487.0 | 481.9 |
| 7.5° | 684.3 | 663.0 | 609.2 | 548.3 | 503.0 | 469.6 | 452.6 | 443.1 | 440.9 | 438.0 | 438.3 |
| 10° | 686.0 | 656.0 | 576.7 | 499.4 | 451.9 | 429.8 | 425.7 | 428.6 | 432.0 | 432.9 | 433.2 |
| 12.5° | 689.9 | 649.7 | 541.1 | 455.7 | 419.9 | 413.1 | 420.1 | 430.0 | 436.6 | 439.7 | 439.5 |
| 15° | 698.6 | 644.8 | 506.9 | 421.6 | 402.2 | 405.8 | 418.9 | 432.9 | 442.4 | 446.8 | 447.0 |
| 17.5° | 708.1 | 637.8 | 471.7 | 395.4 | 389.1 | 398.3 | 414.5 | 431.0 | 442.6 | 447.5 | 448.5 |
| 20° | 720.5 | 629.1 | 434.9 | 375.7 | 376.7 | 387.1 | 402.4 | 418.9 | 431.7 | 435.9 | 437.8 |
| 22.5° | 736.7 | 619.6 | 402.6 | 359.7 | 362.6 | 370.6 | 382.5 | 396.8 | 408.0 | 409.9 | 411.6 |
| 25° | 758.5 | 609.4 | 377.0 | 345.2 | 346.4 | 351.0 | 359.0 | 367.5 | 375.3 | 373.1 | 374.8 |
| 27.5° | 787.8 | 600.7 | 357.8 | 331.9 | 329.7 | 330.7 | 334.8 | 337.4 | 341.6 | 335.5 | 336.2 |
| 30° | 822.3 | 591.2 | 343.0 | 320.2 | 314.2 | 312.5 | 313.4 | 314.9 | 318.0 | 309.8 | 308.6 |
| 32.5° | 862.3 | 579.9 | 329.2 | 310.0 | 301.6 | 298.2 | 298.7 | 302.5 | 314.7 | 309.6 | 306.9 |
| 35° | 908.8 | 567.0 | 314.7 | 298.9 | 293.1 | 288.2 | 287.7 | 299.9 | 336.0 | 332.8 | 330.4 |
| 37.5° | 963.3 | 554.2 | 300.1 | 286.3 | 286.8 | 281.4 | 279.7 | 293.6 | 340.1 | 327.7 | 326.0 |
| 40° | 1032.7 | 547.4 | 287.7 | 273.0 | 279.0 | 278.3 | 274.9 | 281.9 | 313.0 | 290.4 | 287.5 |
| 42.5° | 1118.5 | 548.3 | 278.5 | 258.7 | 269.8 | 277.6 | 272.2 | 272.5 | 283.6 | 266.7 | 264.0 |
| 45° | 1224.4 | 559.7 | 272.0 | 247.3 | 259.4 | 276.8 | 271.3 | 267.4 | 268.4 | 259.4 | 257.9 |
| 47.5° | 1348.1 | 583.2 | 267.4 | 237.8 | 249.4 | 274.2 | 271.0 | 265.9 | 263.7 | 258.9 | 257.7 |
| 50° | 1485.5 | 617.4 | 264.0 | 228.8 | 240.5 | 269.8 | 271.3 | 264.5 | 262.0 | 260.1 | 259.4 |
| 52.5° | 1620.5 | 656.5 | 258.9 | 221.1 | 233.4 | 264.5 | 272.0 | 263.0 | 260.4 | 258.9 | 258.2 |
| 55° | 1771.1 | 705.2 | 251.1 | 214.5 | 227.6 | 257.7 | 272.0 | 260.8 | 257.9 | 258.2 | 257.9 |
| 57.5° | 1974.5 | 784.0 | 241.9 | 209.0 | 220.6 | 249.4 | 267.4 | 258.4 | 254.8 | 255.0 | 255.3 |
| 60° | 2292.3 | 922.9 | 230.8 | 203.4 | 211.9 | 239.7 | 261.1 | 253.1 | 249.4 | 250.4 | 250.7 |
| 62.5° | 2759.6 | 1126.7 | 216.2 | 195.1 | 202.7 | 229.3 | 252.4 | 246.3 | 242.7 | 245.1 | 245.1 |
| 65° | 3245.4 | 1306.6 | 198.3 | 184.7 | 193.0 | 217.9 | 241.4 | 237.8 | 234.2 | 239.7 | 239.5 |
| 67.5° | 3376.1 | 1266.4 | 180.4 | 173.3 | 183.3 | 205.3 | 228.4 | 226.4 | 224.5 | 234.2 | 233.7 |
| 70° | 2999.1 | 1016.7 | 163.9 | 161.7 | 172.6 | 191.7 | 214.3 | 214.3 | 213.1 | 220.4 | 218.7 |
| 72.5° | 2285.0 | 720.9 | 148.1 | 149.3 | 160.5 | 177.0 | 199.0 | 200.7 | 198.8 | 202.4 | 201.0 |
| 75° | 1223.2 | 412.6 | 132.4 | 135.8 | 145.4 | 161.9 | 182.1 | 183.7 | 182.5 | 182.3 | 183.0 |
| 77.5° | 406.5 | 201.7 | 115.9 | 121.2 | 129.7 | 146.4 | 164.4 | 167.0 | 164.1 | 163.6 | 163.4 |
| 80° | 181.1 | 126.8 | 97.7 | 104.7 | 112.2 | 128.7 | 145.7 | 147.9 | 144.7 | 149.1 | 143.5 |
| 82.5° | 116.4 | 83.4 | 78.3 | 86.1 | 93.3 | 111.0 | 127.0 | 127.5 | 124.6 | 144.7 | 123.4 |
| 85° | 56.5 | 51.6 | 58.9 | 65.9 | 72.2 | 87.3 | 105.2 | 105.4 | 98.2 | 89.5 | 86.3 |
| 87.5° | 28.1 | 30.1 | 39.3 | 45.6 | 48.7 | 59.9 | 76.6 | 75.1 | 72.0 | 65.5 | 60.4 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)