

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: P451898

Luminaire Tested: **GALN-SA2D-740-U-T4FT**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P451898
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-28)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GALN-SA2D-740-U-T4FT
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(2) 70 CRI, 4000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV FORWARD THROW OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15522 lumens
Efficiency: N/A
Efficacy: 124.2 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G3

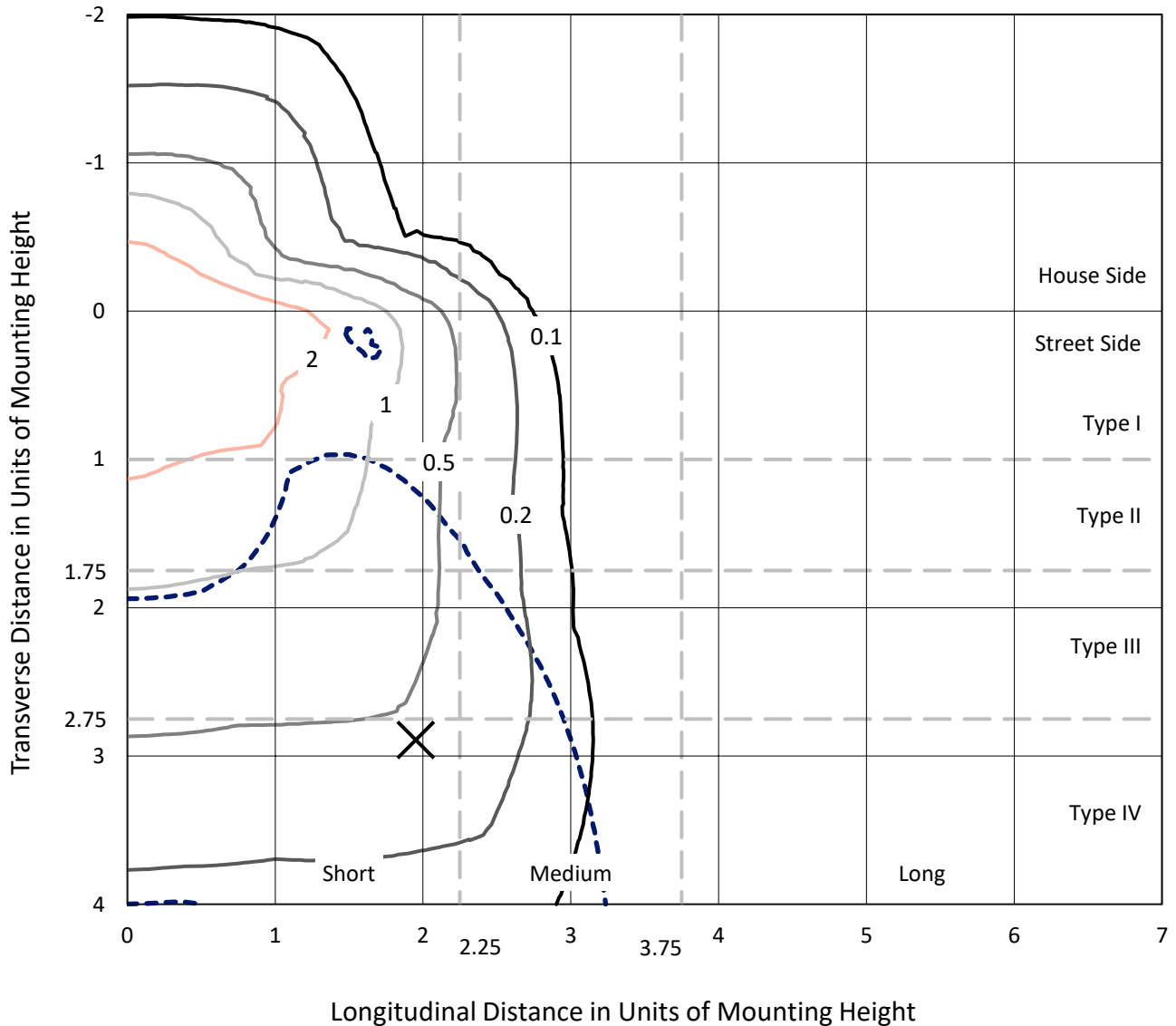
Input Watts (W): 125
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

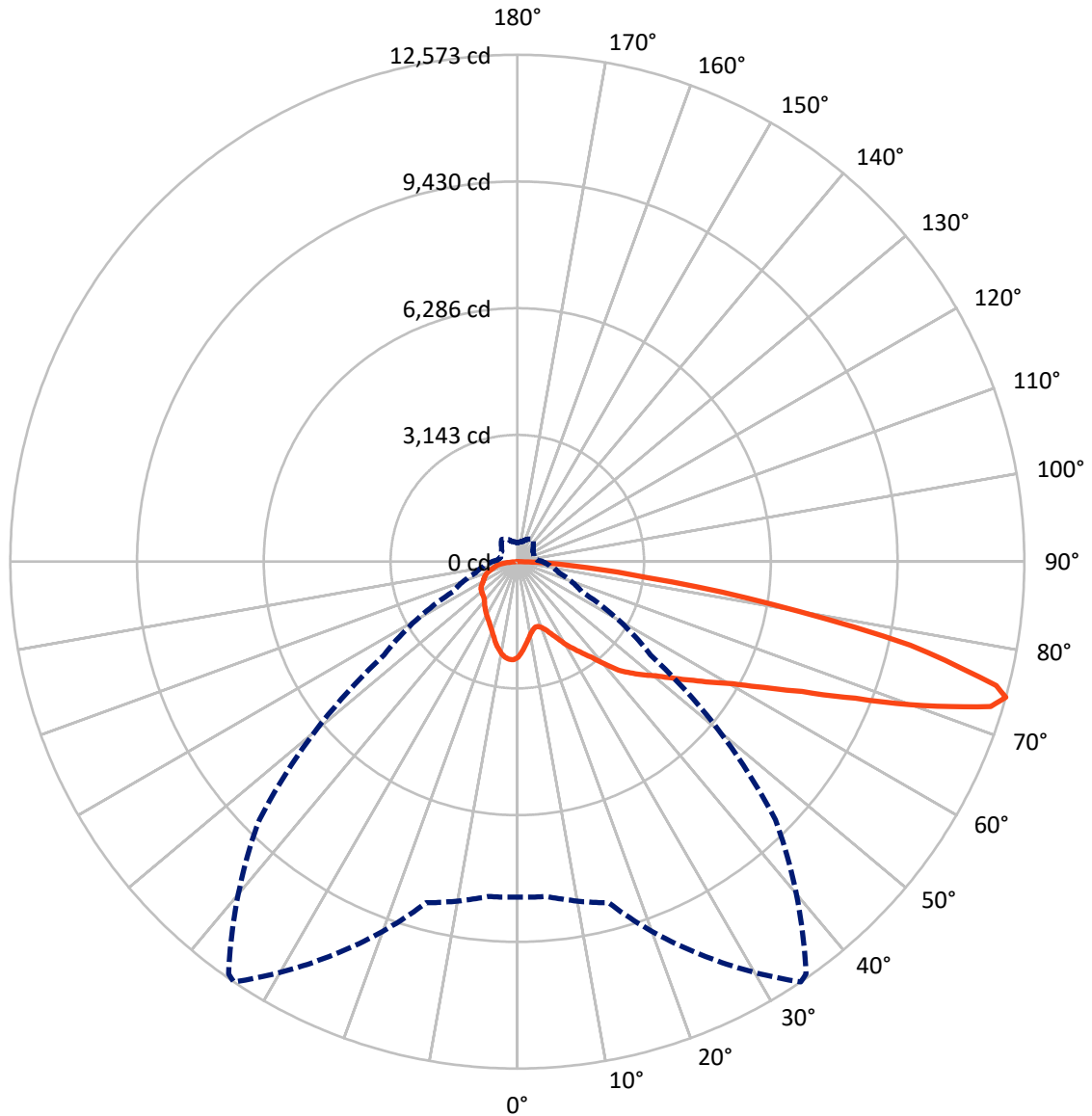
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.8 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 34-Deg Lateral - - - Horizontal Cone Through 74-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 3303.2 | 0.0 | 3303.2 |
| | % Fixture | 21.3 | 0.0 | 21.3 |
| Street Side | Lumens | 12218.8 | 0.0 | 12218.8 |
| | % Fixture | 78.7 | 0.0 | 78.7 |
| Total | Lumens | 15522.0 | 0.0 | 15522.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 215.5 | 1.4 |
| 10°-20° | 590.0 | 3.8 |
| 20°-30° | 972.8 | 6.3 |
| 30°-40° | 1457.1 | 9.4 |
| 40°-50° | 2118.2 | 13.6 |
| 50°-60° | 2958.7 | 19.1 |
| 60°-70° | 3704.1 | 23.9 |
| 70°-80° | 3063.0 | 19.7 |
| 80°-90° | 442.6 | 2.9 |
| 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° | 15522.0 | 100.0 |
| 0°-180° | 15522.0 | 100.0 |

Coefficient of Utilization



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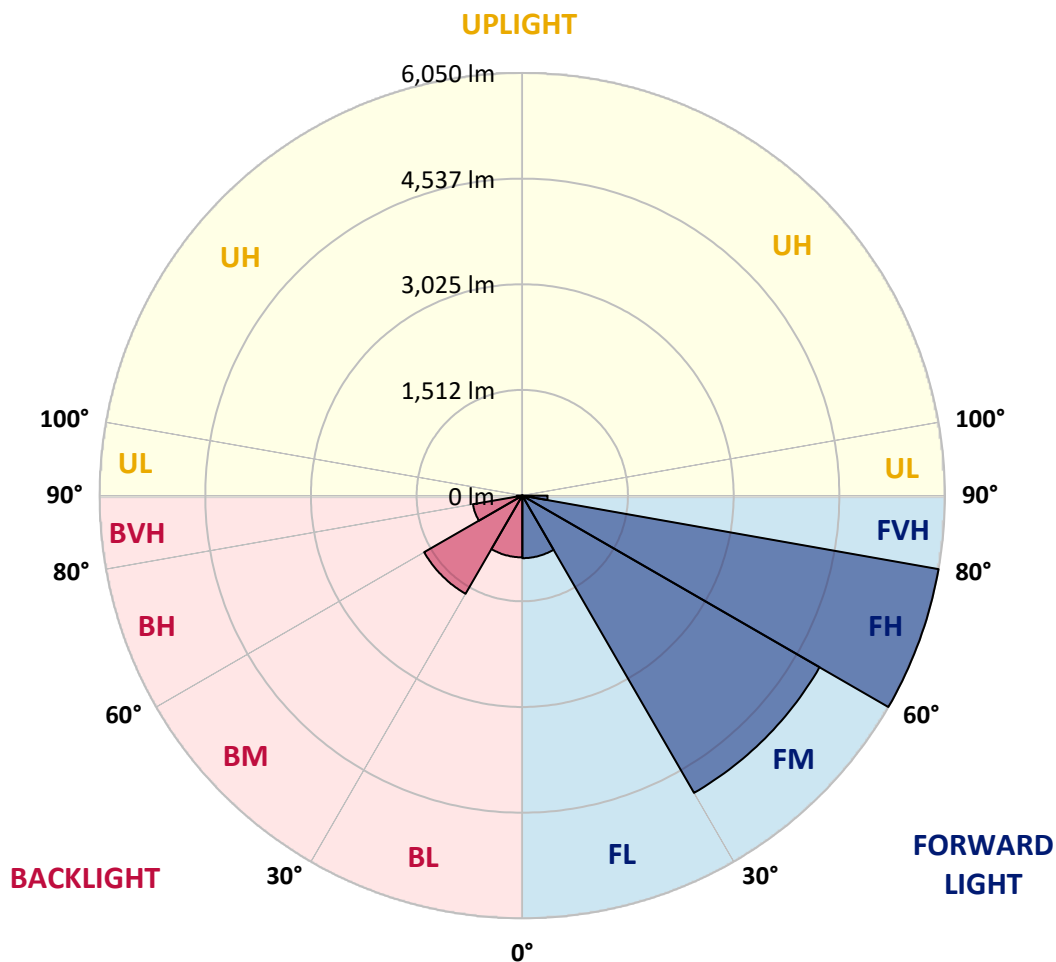
CATALOG NUMBER: GALN-SA2D-740-U-T4FT

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 894.8 | 5.8 | | | |
| FM (30°-60°) | 4911.8 | 31.6 | | | |
| FH (60°-80°) | 6049.7 | 39.0 | | | G3/7500 |
| FVH (80°-90°) | 362.6 | 2.3 | | | G3/500 |
| BL (0°-30°) | 883.5 | 5.7 | B2/1000 | | |
| BM (30°-60°) | 1622.2 | 10.5 | B2/2500 | | |
| BH (60°-80°) | 717.4 | 4.6 | B2/1000 | | G2/1000 |
| BVH (80°-90°) | 80.0 | 0.5 | | | G1/100 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B2-U0-G3

Type IV Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 34° | 35° | 45° | 55° | 65° | 75° | 85° |
|-------|--------|--------|--------|---------|---------|---------|--------|--------|--------|--------|--------|
| 0° | 2369.9 | 2369.9 | 2369.9 | 2369.9 | 2369.9 | 2369.9 | 2369.9 | 2369.9 | 2369.9 | 2369.9 | 2369.9 |
| 2.5° | 2190.2 | 2201.4 | 2207.4 | 2228.9 | 2234.0 | 2240.9 | 2259.0 | 2283.1 | 2314.0 | 2341.5 | 2365.6 |
| 5° | 2007.9 | 2025.1 | 2035.4 | 2054.3 | 2091.3 | 2094.7 | 2142.9 | 2197.9 | 2260.7 | 2319.2 | 2367.3 |
| 7.5° | 1835.0 | 1854.0 | 1862.6 | 1897.0 | 1946.0 | 1953.7 | 2024.2 | 2111.1 | 2216.0 | 2304.5 | 2378.5 |
| 10° | 1705.2 | 1714.7 | 1733.6 | 1759.4 | 1817.8 | 1823.0 | 1915.0 | 2031.1 | 2167.0 | 2297.7 | 2397.4 |
| 12.5° | 1634.7 | 1639.8 | 1644.1 | 1671.7 | 1729.3 | 1737.0 | 1833.3 | 1964.9 | 2128.3 | 2302.8 | 2428.4 |
| 15° | 1645.0 | 1646.7 | 1627.8 | 1633.0 | 1679.4 | 1690.6 | 1786.0 | 1921.0 | 2104.2 | 2315.7 | 2474.8 |
| 17.5° | 1731.9 | 1725.8 | 1679.4 | 1655.3 | 1688.0 | 1693.2 | 1776.6 | 1903.8 | 2093.0 | 2339.8 | 2523.0 |
| 20° | 1868.6 | 1860.0 | 1780.0 | 1726.7 | 1745.6 | 1749.9 | 1807.5 | 1916.7 | 2104.2 | 2379.4 | 2597.8 |
| 22.5° | 2038.8 | 2035.4 | 1914.2 | 1849.7 | 1848.8 | 1848.8 | 1878.9 | 1963.2 | 2137.7 | 2433.5 | 2676.0 |
| 25° | 2277.0 | 2259.0 | 2100.8 | 2017.3 | 1994.1 | 1992.4 | 1989.0 | 2039.7 | 2180.7 | 2491.1 | 2768.9 |
| 27.5° | 2521.2 | 2490.3 | 2349.3 | 2221.1 | 2171.3 | 2165.2 | 2142.9 | 2148.0 | 2235.8 | 2556.5 | 2874.7 |
| 30° | 2740.5 | 2720.7 | 2588.3 | 2446.4 | 2387.1 | 2373.3 | 2311.4 | 2283.1 | 2327.8 | 2674.3 | 3043.2 |
| 32.5° | 2908.2 | 2896.2 | 2793.0 | 2664.0 | 2576.3 | 2573.7 | 2483.4 | 2460.2 | 2471.4 | 2817.1 | 3235.8 |
| 35° | 3044.1 | 3048.4 | 2995.9 | 2884.1 | 2783.5 | 2768.9 | 2708.7 | 2679.5 | 2646.8 | 3023.4 | 3478.3 |
| 37.5° | 3229.8 | 3239.3 | 3235.8 | 3139.5 | 3016.6 | 3020.0 | 3006.2 | 2958.1 | 2871.2 | 3253.9 | 3747.5 |
| 40° | 3434.5 | 3441.3 | 3440.5 | 3403.5 | 3339.0 | 3342.5 | 3337.3 | 3282.3 | 3152.4 | 3547.1 | 4046.7 |
| 42.5° | 3717.4 | 3684.7 | 3599.6 | 3636.5 | 3674.4 | 3690.7 | 3726.0 | 3673.5 | 3495.5 | 3860.1 | 4327.9 |
| 45° | 4033.8 | 3971.9 | 3779.3 | 3796.5 | 3936.7 | 3967.6 | 4161.9 | 4089.7 | 3867.9 | 4219.6 | 4659.0 |
| 47.5° | 4233.3 | 4172.3 | 4009.7 | 4006.3 | 4192.0 | 4222.1 | 4566.1 | 4539.4 | 4206.7 | 4607.4 | 5063.1 |
| 50° | 4411.3 | 4402.7 | 4219.6 | 4263.4 | 4444.9 | 4489.6 | 5006.4 | 4981.4 | 4544.6 | 5064.8 | 5503.4 |
| 52.5° | 4675.3 | 4605.7 | 4459.5 | 4549.8 | 4789.7 | 4848.2 | 5443.2 | 5370.1 | 4855.0 | 5469.0 | 5930.8 |
| 55° | 4794.0 | 4777.6 | 4769.0 | 4847.3 | 5176.6 | 5218.8 | 5868.0 | 5700.3 | 5119.9 | 5811.2 | 6255.8 |
| 57.5° | 5111.3 | 5081.2 | 5166.3 | 5219.6 | 5632.4 | 5696.9 | 6311.7 | 6045.1 | 5352.1 | 6083.0 | 6414.0 |
| 60° | 5522.3 | 5506.0 | 5584.2 | 5680.5 | 6141.5 | 6239.5 | 6817.3 | 6339.2 | 5538.7 | 6219.7 | 6327.2 |
| 62.5° | 6136.3 | 6134.6 | 6120.0 | 6326.3 | 6862.9 | 6953.2 | 7397.8 | 6625.6 | 5567.9 | 6117.4 | 5878.3 |
| 65° | 7016.8 | 6985.9 | 6858.6 | 7083.9 | 7760.7 | 7866.4 | 8002.3 | 6785.5 | 5391.6 | 5592.0 | 4949.6 |
| 67.5° | 7937.8 | 7936.1 | 7832.9 | 8125.3 | 9049.7 | 9158.9 | 8758.1 | 6750.3 | 4902.3 | 4530.0 | 3515.3 |
| 70° | 8701.4 | 8664.4 | 8796.0 | 9575.1 | 10696.4 | 10822.8 | 9419.4 | 6334.9 | 3904.8 | 2991.6 | 2088.7 |
| 72.5° | 8884.6 | 8886.3 | 9159.7 | 10692.9 | 12277.7 | 12297.5 | 9657.6 | 5134.5 | 2613.3 | 1650.2 | 1044.8 |
| 74° | 8320.5 | 8335.1 | 8759.0 | 10748.8 | 12572.7 | 12483.3 | 9048.8 | 4035.5 | 1767.1 | 1077.5 | 753.3 |
| 75° | 7594.7 | 7502.7 | 8115.8 | 10376.5 | 12266.6 | 12170.3 | 8335.9 | 3238.4 | 1348.3 | 860.8 | 659.5 |
| 77.5° | 4060.5 | 4154.2 | 5100.1 | 7743.5 | 9965.5 | 9854.5 | 5652.2 | 1553.0 | 728.3 | 599.4 | 474.7 |
| 80° | 1445.5 | 1594.3 | 2240.9 | 4051.9 | 6389.1 | 6423.5 | 2697.5 | 712.0 | 512.5 | 442.0 | 335.4 |
| 82.5° | 589.9 | 606.2 | 962.2 | 1798.1 | 3244.4 | 3275.4 | 1101.5 | 423.1 | 366.3 | 304.4 | 200.4 |
| 85° | 230.5 | 237.3 | 425.7 | 808.3 | 1384.4 | 1474.7 | 380.9 | 223.6 | 225.3 | 174.6 | 102.3 |
| 87.5° | 77.4 | 87.7 | 174.6 | 269.2 | 470.4 | 460.9 | 110.9 | 66.2 | 80.8 | 75.7 | 31.8 |
| 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):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 2369.9 | 2369.9 | 2369.9 | 2369.9 | 2369.9 | 2369.9 | 2369.9 | 2369.9 | 2369.9 | 2369.9 | 2369.9 |
| 2.5° | 2377.6 | 2394.0 | 2405.2 | 2417.2 | 2428.4 | 2431.8 | 2429.2 | 2437.0 | 2437.8 | 2438.7 | 2439.6 |
| 5° | 2391.4 | 2413.8 | 2435.3 | 2447.3 | 2452.5 | 2448.2 | 2433.5 | 2425.8 | 2418.9 | 2413.8 | 2415.5 |
| 7.5° | 2410.3 | 2442.1 | 2461.9 | 2467.1 | 2453.3 | 2433.5 | 2397.4 | 2369.0 | 2351.0 | 2338.9 | 2338.1 |
| 10° | 2439.6 | 2470.5 | 2486.8 | 2472.2 | 2434.4 | 2386.2 | 2329.5 | 2276.2 | 2235.8 | 2223.7 | 2222.9 |
| 12.5° | 2476.5 | 2511.8 | 2510.9 | 2467.9 | 2401.7 | 2315.7 | 2223.7 | 2161.8 | 2106.8 | 2079.3 | 2090.4 |
| 15° | 2524.7 | 2551.3 | 2526.4 | 2449.0 | 2344.1 | 2226.3 | 2112.8 | 2028.5 | 1966.6 | 1937.4 | 1939.1 |
| 17.5° | 2580.6 | 2603.8 | 2537.6 | 2415.5 | 2263.3 | 2111.9 | 1980.4 | 1900.4 | 1851.4 | 1829.9 | 1828.2 |
| 20° | 2650.2 | 2657.1 | 2537.6 | 2357.0 | 2159.2 | 1978.6 | 1853.1 | 1797.2 | 1769.7 | 1758.5 | 1761.9 |
| 22.5° | 2725.0 | 2711.3 | 2523.8 | 2274.5 | 2022.5 | 1839.3 | 1755.1 | 1730.1 | 1716.4 | 1714.7 | 1716.4 |
| 25° | 2809.3 | 2770.6 | 2495.4 | 2162.7 | 1879.8 | 1719.0 | 1669.9 | 1674.2 | 1676.8 | 1676.8 | 1682.8 |
| 27.5° | 2912.5 | 2835.1 | 2448.2 | 2021.6 | 1712.9 | 1607.2 | 1593.4 | 1623.5 | 1637.3 | 1639.8 | 1644.1 |
| 30° | 3048.4 | 2905.6 | 2369.9 | 1845.4 | 1571.0 | 1506.6 | 1530.6 | 1571.0 | 1586.5 | 1596.0 | 1594.3 |
| 32.5° | 3210.0 | 2983.0 | 2264.1 | 1669.1 | 1456.7 | 1436.0 | 1465.3 | 1506.6 | 1523.8 | 1528.9 | 1522.0 |
| 35° | 3400.1 | 3070.7 | 2124.8 | 1504.0 | 1356.9 | 1369.0 | 1403.4 | 1416.3 | 1431.7 | 1431.7 | 1435.2 |
| 37.5° | 3604.7 | 3141.2 | 1954.6 | 1352.6 | 1279.5 | 1323.4 | 1348.3 | 1336.3 | 1329.4 | 1320.8 | 1325.1 |
| 40° | 3812.8 | 3193.7 | 1733.6 | 1203.0 | 1202.1 | 1276.1 | 1283.0 | 1248.6 | 1221.1 | 1212.5 | 1208.2 |
| 42.5° | 3994.3 | 3226.4 | 1534.1 | 1086.9 | 1129.1 | 1229.7 | 1234.8 | 1179.8 | 1135.9 | 1110.1 | 1101.5 |
| 45° | 4208.4 | 3264.2 | 1338.9 | 990.6 | 1061.1 | 1192.7 | 1205.6 | 1131.6 | 1067.1 | 1013.0 | 999.2 |
| 47.5° | 4501.6 | 3350.2 | 1185.0 | 915.8 | 1012.1 | 1169.5 | 1187.5 | 1092.1 | 1007.0 | 936.4 | 925.3 |
| 50° | 4832.7 | 3468.0 | 1065.4 | 865.1 | 974.3 | 1148.8 | 1171.2 | 1051.7 | 951.1 | 872.8 | 864.2 |
| 52.5° | 5136.2 | 3531.6 | 962.2 | 819.5 | 937.3 | 1111.0 | 1149.7 | 1022.4 | 896.0 | 809.2 | 801.4 |
| 55° | 5302.2 | 3428.4 | 860.8 | 774.8 | 886.6 | 1062.0 | 1119.6 | 982.0 | 842.7 | 775.6 | 764.5 |
| 57.5° | 5324.5 | 3215.2 | 768.8 | 726.6 | 833.2 | 1001.8 | 1063.7 | 933.0 | 808.3 | 752.4 | 743.0 |
| 60° | 5151.7 | 2897.0 | 697.4 | 687.1 | 779.1 | 933.9 | 1000.9 | 890.0 | 773.1 | 726.6 | 717.2 |
| 62.5° | 4721.7 | 2551.3 | 647.5 | 650.9 | 724.0 | 862.5 | 954.5 | 848.7 | 739.5 | 698.2 | 689.6 |
| 65° | 3982.2 | 2105.9 | 599.4 | 614.0 | 675.0 | 806.6 | 912.4 | 814.3 | 706.0 | 676.7 | 669.0 |
| 67.5° | 2766.3 | 1520.3 | 559.8 | 575.3 | 628.6 | 749.8 | 863.3 | 777.4 | 668.1 | 652.7 | 640.6 |
| 70° | 1531.5 | 935.6 | 513.4 | 531.4 | 580.4 | 686.2 | 808.3 | 721.5 | 613.1 | 606.2 | 589.0 |
| 72.5° | 804.9 | 595.9 | 460.9 | 480.7 | 515.1 | 604.5 | 724.0 | 660.4 | 558.9 | 529.7 | 507.3 |
| 74° | 628.6 | 488.4 | 425.7 | 446.3 | 469.5 | 556.4 | 674.2 | 616.6 | 520.2 | 485.8 | 468.6 |
| 75° | 547.8 | 435.1 | 395.6 | 422.2 | 442.9 | 523.7 | 635.5 | 585.6 | 498.7 | 466.1 | 450.6 |
| 77.5° | 387.0 | 325.9 | 323.3 | 355.1 | 366.3 | 459.2 | 572.7 | 533.1 | 444.6 | 410.2 | 395.6 |
| 80° | 271.7 | 244.2 | 256.3 | 276.0 | 291.5 | 405.9 | 531.4 | 460.9 | 364.6 | 324.2 | 319.0 |
| 82.5° | 177.1 | 159.9 | 183.2 | 201.2 | 206.4 | 299.2 | 429.1 | 350.0 | 265.7 | 215.8 | 200.4 |
| 85° | 81.7 | 80.0 | 104.9 | 102.3 | 101.5 | 146.2 | 254.5 | 204.7 | 153.1 | 114.4 | 107.5 |
| 87.5° | 20.6 | 19.8 | 25.8 | 21.5 | 25.8 | 22.4 | 23.2 | 6.0 | 0.9 | 0.0 | 0.0 |
| 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)