

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: P651760

Luminaire Tested: **GALN-SA2A-840-U-T4FT**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P651760
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-SA2A-840-U-T4FT
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(2) 80 CRI, 4000K, 615mA 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: 7717 lumens
Efficiency: N/A
Efficacy: 122.5 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

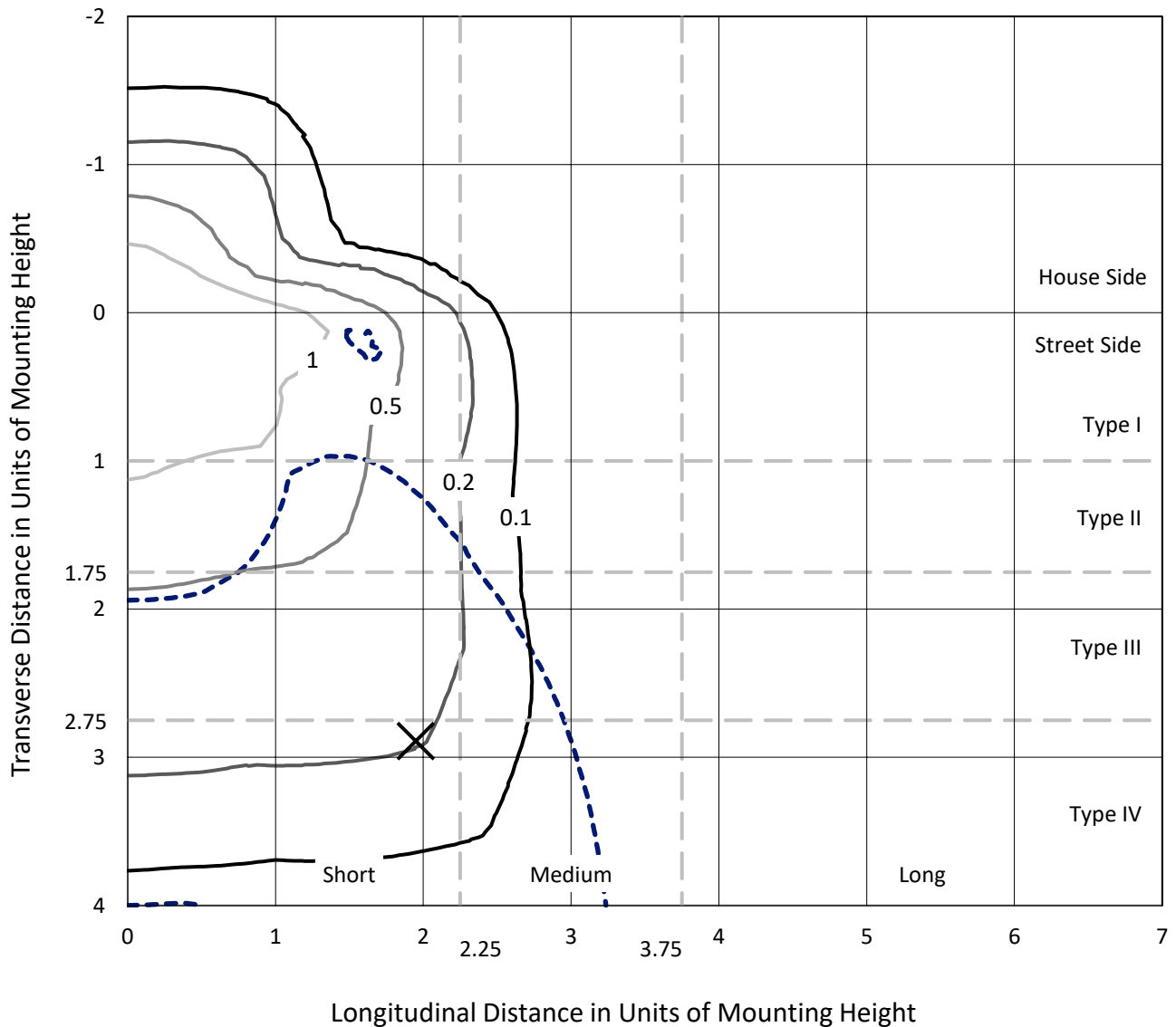
Input Watts (W): 63
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

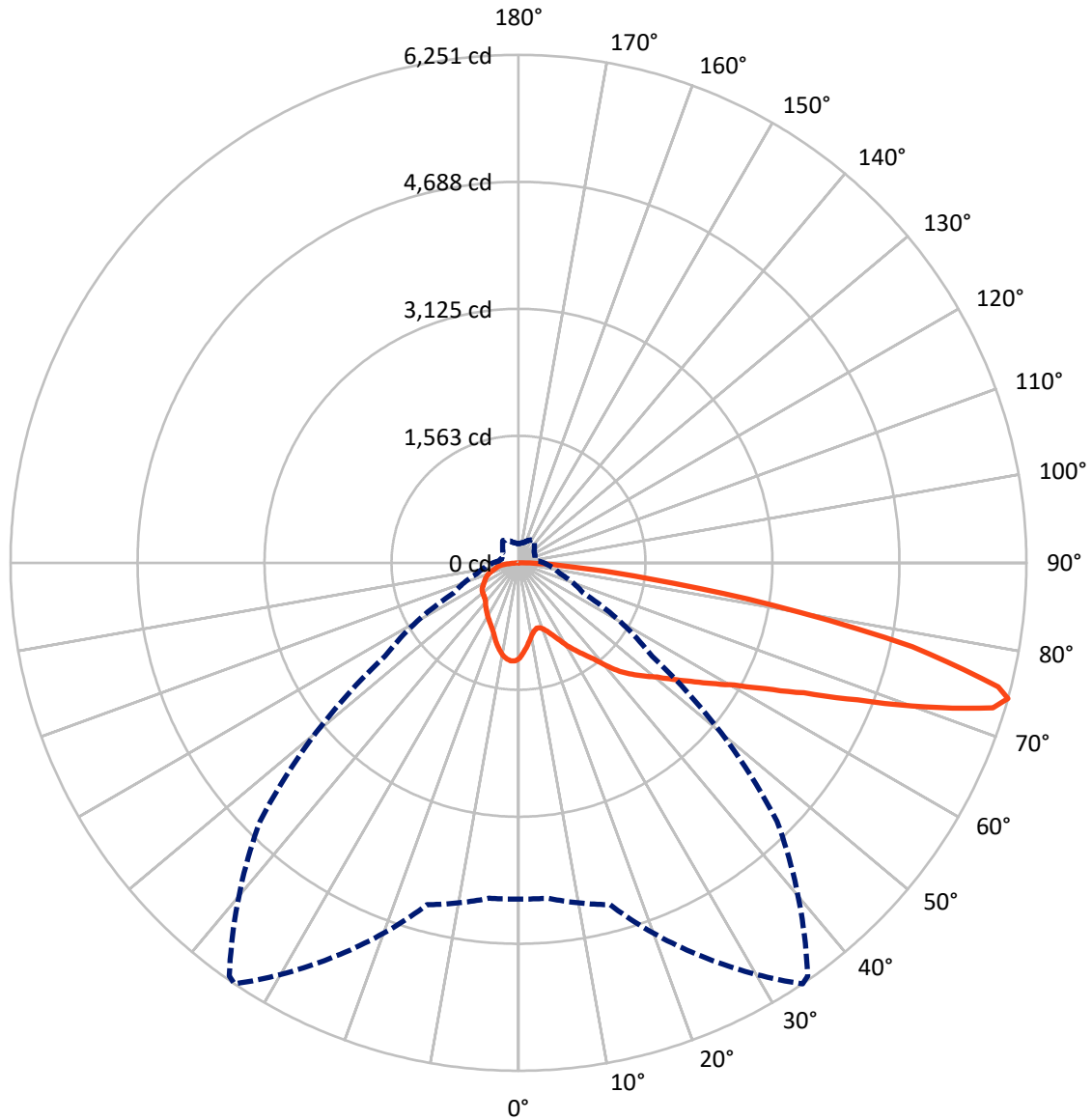
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.9 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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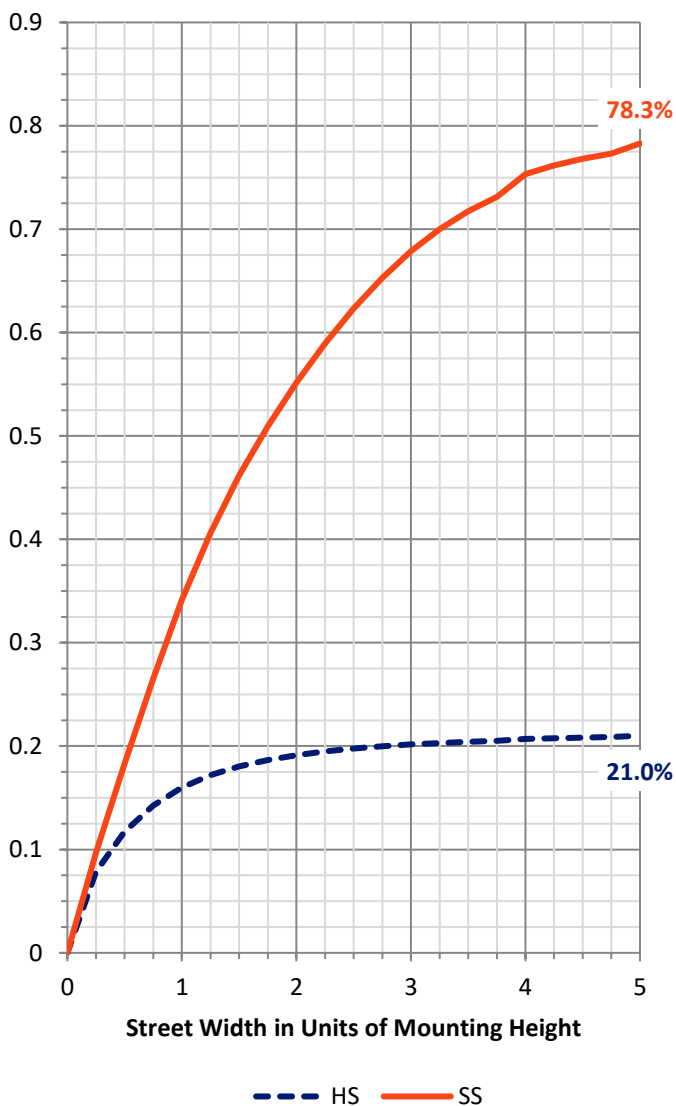
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 1642.2 | 0.0 | 1642.2 |
| | % Fixture | 21.3 | 0.0 | 21.3 |
| Street Side | Lumens | 6074.8 | 0.0 | 6074.8 |
| | % Fixture | 78.7 | 0.0 | 78.7 |
| Total | Lumens | 7717.0 | 0.0 | 7717.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 107.2 | 1.4 |
| 10°-20° | 293.3 | 3.8 |
| 20°-30° | 483.6 | 6.3 |
| 30°-40° | 724.4 | 9.4 |
| 40°-50° | 1053.1 | 13.6 |
| 50°-60° | 1470.9 | 19.1 |
| 60°-70° | 1841.6 | 23.9 |
| 70°-80° | 1522.8 | 19.7 |
| 80°-90° | 220.0 | 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° | 7717.0 | 100.0 |
| 0°-180° | 7717.0 | 100.0 |

Coefficient of Utilization

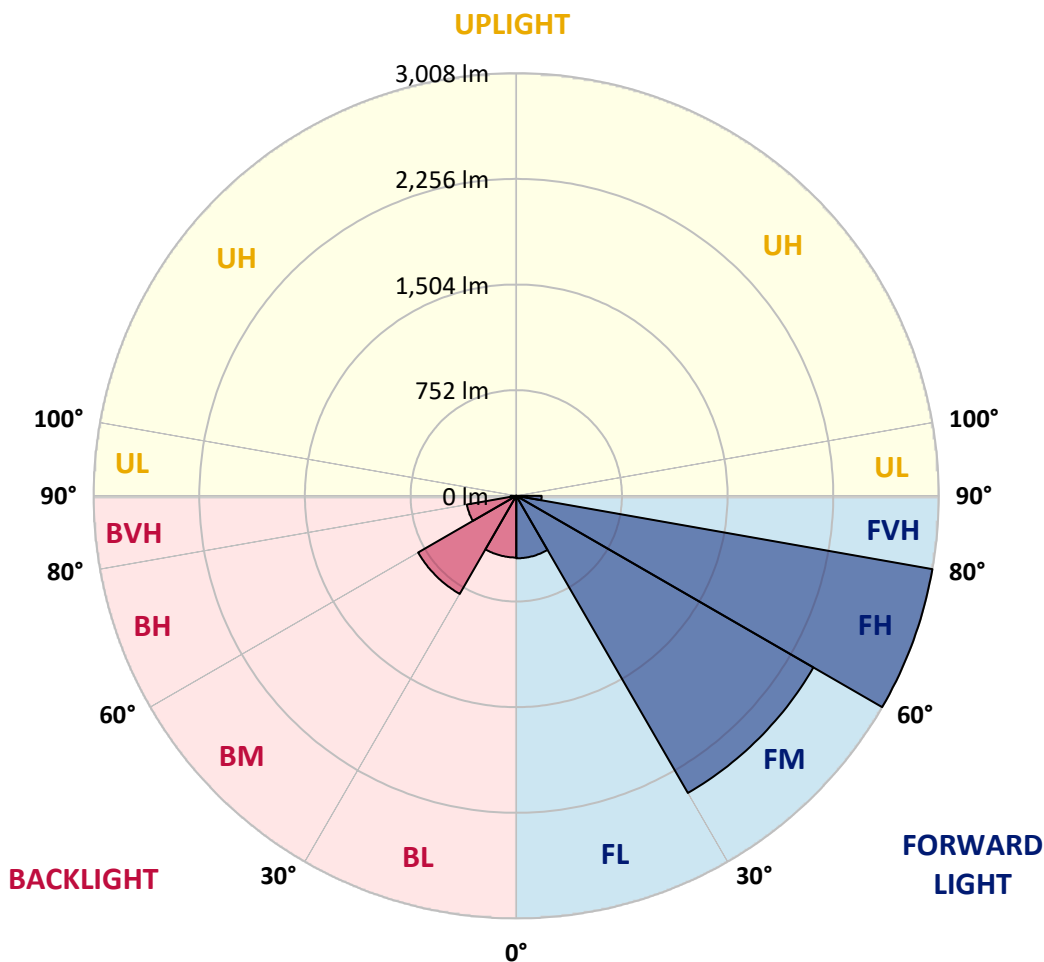


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 444.8 | 5.8 | | | |
| FM (30°-60°) | 2442.0 | 31.6 | | | |
| FH (60°-80°) | 3007.7 | 39.0 | | | G2/5000 |
| FVH (80°-90°) | 180.3 | 2.3 | | | G2/225 |
| BL (0°-30°) | 439.3 | 5.7 | B1/500 | | |
| BM (30°-60°) | 806.5 | 10.5 | B1/1000 | | |
| BH (60°-80°) | 356.7 | 4.6 | B1/500 | | G1/500 |
| BVH (80°-90°) | 39.8 | 0.5 | | | G1/100 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B1-U0-G2
 Type IV Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 34° | 35° | 45° | 55° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1178.2 | 1178.2 | 1178.2 | 1178.2 | 1178.2 | 1178.2 | 1178.2 | 1178.2 | 1178.2 | 1178.2 | 1178.2 |
| 2.5° | 1088.9 | 1094.5 | 1097.4 | 1108.1 | 1110.7 | 1114.1 | 1123.1 | 1135.1 | 1150.5 | 1164.1 | 1176.1 |
| 5° | 998.3 | 1006.8 | 1011.9 | 1021.3 | 1039.7 | 1041.4 | 1065.4 | 1092.7 | 1123.9 | 1153.0 | 1177.0 |
| 7.5° | 912.3 | 921.7 | 926.0 | 943.1 | 967.5 | 971.4 | 1006.3 | 1049.6 | 1101.7 | 1145.8 | 1182.5 |
| 10° | 847.7 | 852.4 | 861.9 | 874.7 | 903.7 | 906.3 | 952.1 | 1009.8 | 1077.3 | 1142.3 | 1191.9 |
| 12.5° | 812.7 | 815.3 | 817.5 | 831.1 | 859.8 | 863.6 | 911.5 | 976.9 | 1058.1 | 1144.9 | 1207.3 |
| 15° | 817.9 | 818.7 | 809.3 | 811.8 | 834.9 | 840.5 | 887.9 | 955.0 | 1046.1 | 1151.3 | 1230.4 |
| 17.5° | 861.0 | 858.0 | 834.9 | 823.0 | 839.2 | 841.8 | 883.2 | 946.5 | 1040.6 | 1163.3 | 1254.4 |
| 20° | 929.0 | 924.7 | 885.0 | 858.5 | 867.8 | 870.0 | 898.6 | 952.9 | 1046.1 | 1183.0 | 1291.5 |
| 22.5° | 1013.7 | 1011.9 | 951.7 | 919.5 | 919.1 | 919.1 | 934.1 | 976.0 | 1062.8 | 1209.9 | 1330.5 |
| 25° | 1132.1 | 1123.1 | 1044.4 | 1003.0 | 991.4 | 990.5 | 988.8 | 1014.1 | 1084.2 | 1238.5 | 1376.6 |
| 27.5° | 1253.5 | 1238.1 | 1168.0 | 1104.3 | 1079.5 | 1076.5 | 1065.4 | 1067.9 | 1111.5 | 1271.0 | 1429.2 |
| 30° | 1362.5 | 1352.7 | 1286.8 | 1216.3 | 1186.8 | 1179.9 | 1149.1 | 1135.1 | 1157.3 | 1329.5 | 1513.0 |
| 32.5° | 1445.8 | 1439.9 | 1388.6 | 1324.4 | 1280.8 | 1279.6 | 1234.7 | 1223.2 | 1228.7 | 1400.5 | 1608.7 |
| 35° | 1513.4 | 1515.6 | 1489.5 | 1433.9 | 1383.9 | 1376.6 | 1346.7 | 1332.1 | 1315.9 | 1503.1 | 1729.3 |
| 37.5° | 1605.7 | 1610.4 | 1608.7 | 1560.9 | 1499.8 | 1501.4 | 1494.6 | 1470.7 | 1427.5 | 1617.7 | 1863.2 |
| 40° | 1707.5 | 1710.9 | 1710.5 | 1692.1 | 1660.0 | 1661.7 | 1659.2 | 1631.8 | 1567.3 | 1763.5 | 2011.9 |
| 42.5° | 1848.2 | 1832.0 | 1789.6 | 1808.0 | 1826.8 | 1834.9 | 1852.5 | 1826.3 | 1737.8 | 1919.2 | 2151.7 |
| 45° | 2005.4 | 1974.7 | 1879.0 | 1887.5 | 1957.2 | 1972.6 | 2069.2 | 2033.3 | 1922.9 | 2097.8 | 2316.3 |
| 47.5° | 2104.7 | 2074.3 | 1993.5 | 1991.8 | 2084.2 | 2099.1 | 2270.1 | 2256.8 | 2091.4 | 2290.6 | 2517.2 |
| 50° | 2193.2 | 2188.9 | 2097.8 | 2119.7 | 2209.8 | 2232.1 | 2489.0 | 2476.6 | 2259.4 | 2518.0 | 2736.1 |
| 52.5° | 2324.4 | 2289.8 | 2217.1 | 2262.0 | 2381.3 | 2410.3 | 2706.2 | 2669.8 | 2413.8 | 2719.0 | 2948.5 |
| 55° | 2383.4 | 2375.3 | 2371.0 | 2409.9 | 2573.6 | 2594.6 | 2917.3 | 2834.0 | 2545.5 | 2889.2 | 3110.2 |
| 57.5° | 2541.2 | 2526.2 | 2568.5 | 2595.0 | 2800.2 | 2832.3 | 3137.9 | 3005.5 | 2660.8 | 3024.2 | 3188.8 |
| 60° | 2745.5 | 2737.4 | 2776.3 | 2824.2 | 3053.3 | 3102.0 | 3389.3 | 3151.6 | 2753.6 | 3092.2 | 3145.7 |
| 62.5° | 3050.7 | 3049.9 | 3042.7 | 3145.3 | 3412.0 | 3456.9 | 3677.9 | 3294.0 | 2768.2 | 3041.4 | 2922.5 |
| 65° | 3488.6 | 3473.2 | 3409.8 | 3521.9 | 3858.3 | 3910.9 | 3978.4 | 3373.5 | 2680.5 | 2780.2 | 2460.8 |
| 67.5° | 3946.4 | 3945.6 | 3894.3 | 4039.6 | 4499.2 | 4553.5 | 4354.3 | 3356.0 | 2437.3 | 2252.2 | 1747.7 |
| 70° | 4326.0 | 4307.7 | 4373.0 | 4760.4 | 5317.9 | 5380.7 | 4683.0 | 3149.5 | 1941.4 | 1487.3 | 1038.5 |
| 72.5° | 4417.1 | 4417.9 | 4553.9 | 5316.1 | 6104.1 | 6113.9 | 4801.4 | 2552.7 | 1299.3 | 820.4 | 519.4 |
| 74° | 4136.6 | 4143.9 | 4354.7 | 5344.0 | 6250.7 | 6206.2 | 4498.8 | 2006.4 | 878.5 | 535.7 | 374.5 |
| 75° | 3775.8 | 3730.1 | 4034.9 | 5158.9 | 6098.5 | 6050.7 | 4144.4 | 1610.0 | 670.4 | 428.0 | 327.9 |
| 77.5° | 2018.7 | 2065.3 | 2535.6 | 3849.8 | 4954.5 | 4899.3 | 2810.0 | 772.1 | 362.1 | 298.0 | 236.0 |
| 80° | 718.6 | 792.6 | 1114.1 | 2014.4 | 3176.5 | 3193.5 | 1341.1 | 354.0 | 254.8 | 219.8 | 166.8 |
| 82.5° | 293.3 | 301.4 | 478.4 | 893.9 | 1613.0 | 1628.4 | 547.7 | 210.3 | 182.2 | 151.4 | 99.6 |
| 85° | 114.5 | 118.0 | 211.6 | 401.8 | 688.3 | 733.2 | 189.4 | 111.2 | 112.0 | 86.8 | 50.9 |
| 87.5° | 38.5 | 43.6 | 86.8 | 133.8 | 233.9 | 229.2 | 55.2 | 32.9 | 40.2 | 37.6 | 15.8 |
| 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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 CATALOG NUMBER: GALN-SA2A-840-U-T4FT

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1178.2 | 1178.2 | 1178.2 | 1178.2 | 1178.2 | 1178.2 | 1178.2 | 1178.2 | 1178.2 | 1178.2 | 1178.2 |
| 2.5° | 1182.1 | 1190.2 | 1195.7 | 1201.8 | 1207.3 | 1209.0 | 1207.8 | 1211.5 | 1212.0 | 1212.5 | 1212.9 |
| 5° | 1188.9 | 1200.0 | 1210.7 | 1216.7 | 1219.3 | 1217.2 | 1209.9 | 1206.0 | 1202.6 | 1200.0 | 1200.9 |
| 7.5° | 1198.3 | 1214.2 | 1224.0 | 1226.5 | 1219.7 | 1209.9 | 1191.9 | 1177.8 | 1168.8 | 1162.9 | 1162.4 |
| 10° | 1212.9 | 1228.3 | 1236.4 | 1229.1 | 1210.3 | 1186.4 | 1158.1 | 1131.6 | 1111.5 | 1105.6 | 1105.2 |
| 12.5° | 1231.2 | 1248.8 | 1248.4 | 1226.9 | 1194.1 | 1151.3 | 1105.6 | 1074.8 | 1047.4 | 1033.8 | 1039.3 |
| 15° | 1255.2 | 1268.5 | 1256.0 | 1217.6 | 1165.4 | 1106.8 | 1050.4 | 1008.5 | 977.7 | 963.2 | 964.0 |
| 17.5° | 1282.9 | 1294.6 | 1261.6 | 1200.9 | 1125.3 | 1050.0 | 984.6 | 944.8 | 920.5 | 909.8 | 908.9 |
| 20° | 1317.6 | 1321.0 | 1261.6 | 1171.8 | 1073.5 | 983.7 | 921.3 | 893.5 | 879.9 | 874.3 | 876.0 |
| 22.5° | 1354.8 | 1348.0 | 1254.8 | 1130.8 | 1005.5 | 914.4 | 872.5 | 860.2 | 853.4 | 852.4 | 853.4 |
| 25° | 1396.7 | 1377.5 | 1240.6 | 1075.2 | 934.5 | 854.6 | 830.2 | 832.3 | 833.7 | 833.7 | 836.6 |
| 27.5° | 1448.0 | 1409.5 | 1217.2 | 1005.1 | 851.6 | 799.0 | 792.2 | 807.2 | 814.0 | 815.3 | 817.5 |
| 30° | 1515.6 | 1444.6 | 1178.2 | 917.4 | 781.0 | 749.0 | 761.0 | 781.0 | 788.8 | 793.5 | 792.6 |
| 32.5° | 1595.9 | 1483.0 | 1125.7 | 829.8 | 724.2 | 713.9 | 728.5 | 749.0 | 757.6 | 760.1 | 756.7 |
| 35° | 1690.4 | 1526.7 | 1056.4 | 747.7 | 674.7 | 680.6 | 697.7 | 704.1 | 711.8 | 711.8 | 713.5 |
| 37.5° | 1792.2 | 1561.7 | 971.8 | 672.5 | 636.1 | 657.9 | 670.4 | 664.4 | 660.9 | 656.7 | 658.8 |
| 40° | 1895.6 | 1587.8 | 861.9 | 598.1 | 597.7 | 634.5 | 637.8 | 620.7 | 607.0 | 602.8 | 600.6 |
| 42.5° | 1985.9 | 1604.0 | 762.7 | 540.3 | 561.4 | 611.3 | 613.9 | 586.5 | 564.7 | 551.9 | 547.7 |
| 45° | 2092.2 | 1622.9 | 665.7 | 492.5 | 527.6 | 593.0 | 599.4 | 562.6 | 530.6 | 503.6 | 496.8 |
| 47.5° | 2238.1 | 1665.6 | 589.1 | 455.3 | 503.2 | 581.4 | 590.4 | 542.9 | 500.6 | 465.6 | 460.0 |
| 50° | 2402.7 | 1724.1 | 529.7 | 430.1 | 484.4 | 571.1 | 582.3 | 522.8 | 472.8 | 434.0 | 429.7 |
| 52.5° | 2553.5 | 1755.8 | 478.4 | 407.5 | 466.0 | 552.4 | 571.6 | 508.3 | 445.5 | 402.3 | 398.5 |
| 55° | 2636.0 | 1704.5 | 428.0 | 385.2 | 440.8 | 528.0 | 556.7 | 488.2 | 419.0 | 385.6 | 380.0 |
| 57.5° | 2647.2 | 1598.5 | 382.2 | 361.2 | 414.3 | 498.0 | 528.8 | 463.9 | 401.8 | 374.1 | 369.4 |
| 60° | 2561.3 | 1440.3 | 346.7 | 341.6 | 387.4 | 464.3 | 497.6 | 442.5 | 384.3 | 361.2 | 356.6 |
| 62.5° | 2347.5 | 1268.5 | 321.9 | 323.6 | 359.9 | 428.8 | 474.6 | 421.9 | 367.7 | 347.2 | 342.9 |
| 65° | 1979.8 | 1047.0 | 298.0 | 305.3 | 335.6 | 401.0 | 453.6 | 404.9 | 350.9 | 336.5 | 332.6 |
| 67.5° | 1375.3 | 755.9 | 278.3 | 286.0 | 312.5 | 372.8 | 429.2 | 386.4 | 332.2 | 324.5 | 318.5 |
| 70° | 761.4 | 465.2 | 255.2 | 264.2 | 288.5 | 341.2 | 401.8 | 358.7 | 304.8 | 301.4 | 292.8 |
| 72.5° | 400.1 | 296.3 | 229.2 | 239.0 | 256.1 | 300.6 | 359.9 | 328.3 | 277.9 | 263.3 | 252.2 |
| 74° | 312.5 | 242.8 | 211.6 | 221.9 | 233.5 | 276.6 | 335.1 | 306.5 | 258.6 | 241.5 | 233.0 |
| 75° | 272.3 | 216.3 | 196.6 | 209.9 | 220.2 | 260.4 | 316.0 | 291.2 | 247.9 | 231.7 | 224.0 |
| 77.5° | 192.4 | 162.1 | 160.7 | 176.5 | 182.2 | 228.3 | 284.8 | 265.1 | 221.0 | 203.9 | 196.6 |
| 80° | 135.1 | 121.4 | 127.4 | 137.3 | 144.9 | 201.8 | 264.2 | 229.2 | 181.2 | 161.1 | 158.6 |
| 82.5° | 88.1 | 79.6 | 91.1 | 100.1 | 102.6 | 148.8 | 213.4 | 174.0 | 132.1 | 107.3 | 99.6 |
| 85° | 40.6 | 39.8 | 52.1 | 50.9 | 50.5 | 72.7 | 126.6 | 101.8 | 76.1 | 56.9 | 53.4 |
| 87.5° | 10.3 | 9.8 | 12.9 | 10.7 | 12.9 | 11.1 | 11.5 | 3.0 | 0.4 | 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)