

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: P651717

Luminaire Tested: **GALN-SA2A-840-U-AFL-GRSBK**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P651717
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-057-27)
Test Lab: INNOVATION CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GALN-SA2A-840-U-AFL-GRSBK
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(2) 80 CRI, 4000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE
FRONTLINE OPTICS WITH BLACK GLARE REDUCTION SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5769.2 lumens
Efficiency: N/A
Efficacy: 91.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B1 - U0 - G0

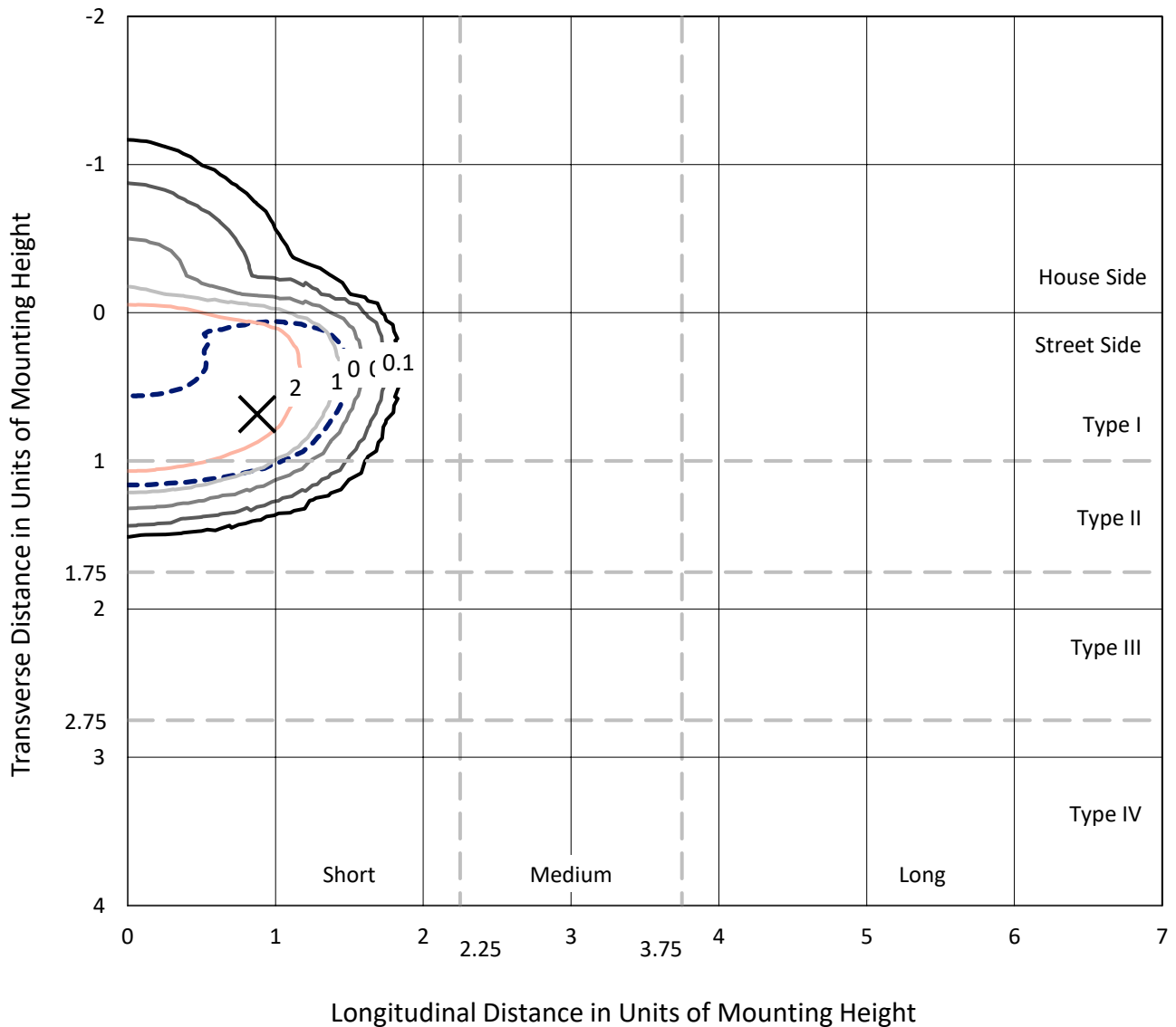
Input Watts (W): 63
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

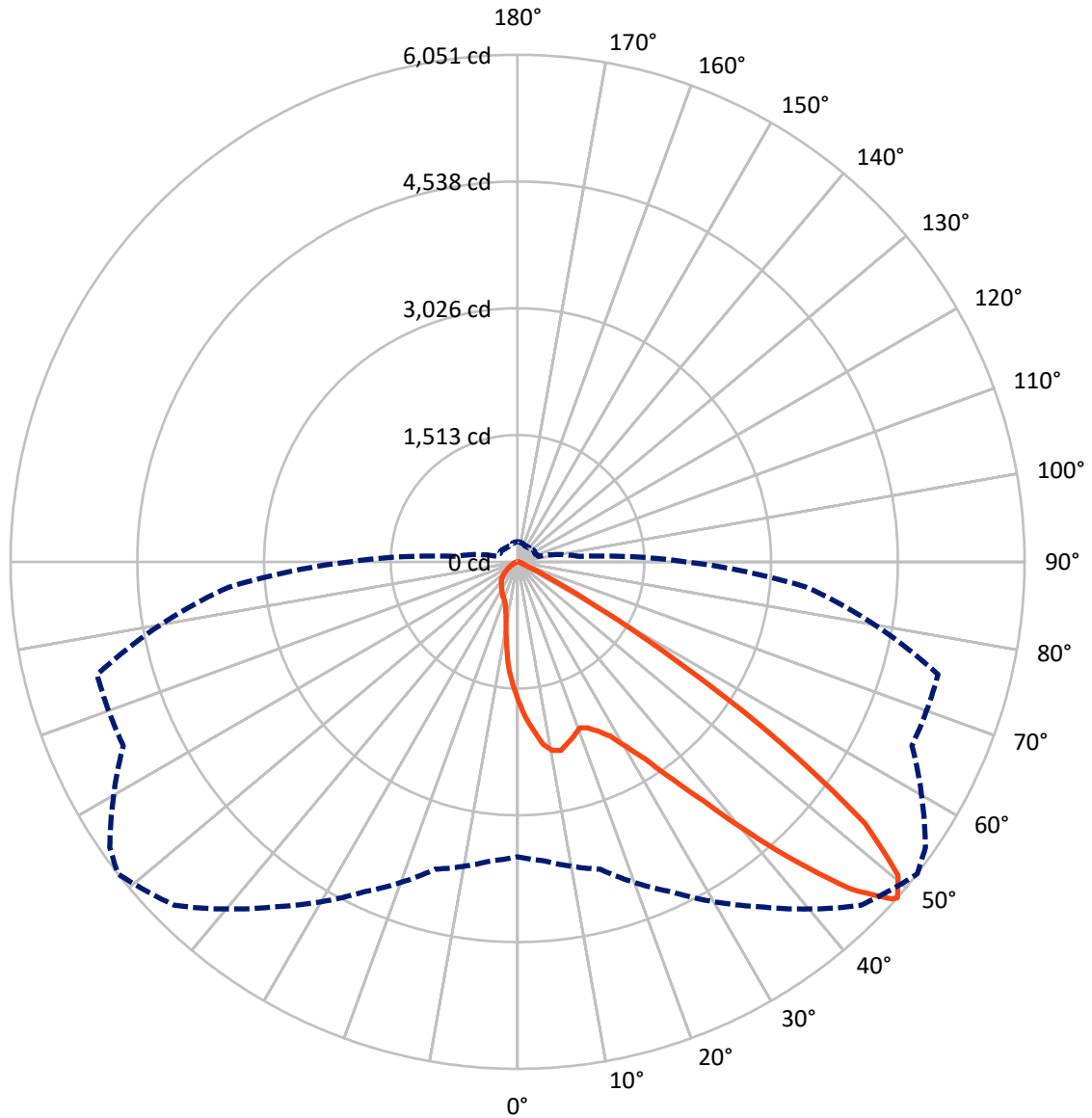
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.7 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 52-Deg Lateral - - - Horizontal Cone Through 48-Deg Vertical

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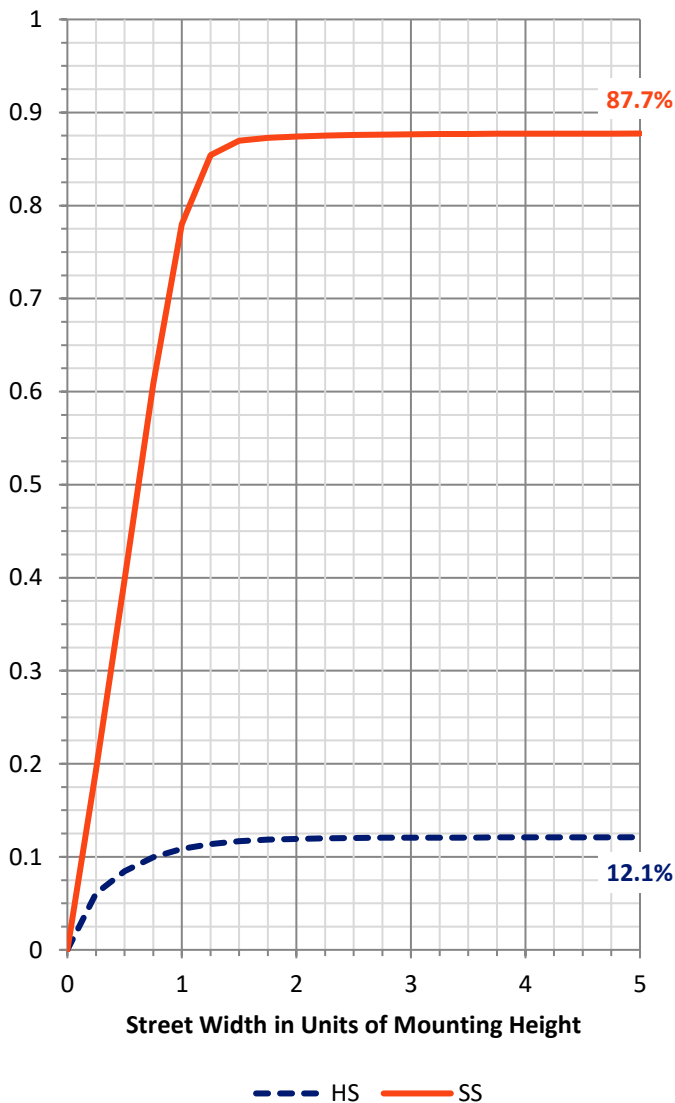
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 702.4 | 0.0 | 702.4 |
| | % Fixture | 12.2 | 0.0 | 12.2 |
| Street Side | Lumens | 5066.8 | 0.0 | 5066.8 |
| | % Fixture | 87.8 | 0.0 | 87.8 |
| Total | Lumens | 5769.2 | 0.0 | 5769.2 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 152.5 | 2.6 |
| 10°-20° | 398.5 | 6.9 |
| 20°-30° | 680.4 | 11.8 |
| 30°-40° | 1253.0 | 21.7 |
| 40°-50° | 1945.9 | 33.7 |
| 50°-60° | 1171.1 | 20.3 |
| 60°-70° | 135.5 | 2.3 |
| 70°-80° | 26.2 | 0.5 |
| 80°-90° | 6.1 | 0.1 |
| 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° | 5769.2 | 100.0 |
| 0°-180° | 5769.2 | 100.0 |

Coefficient of Utilization



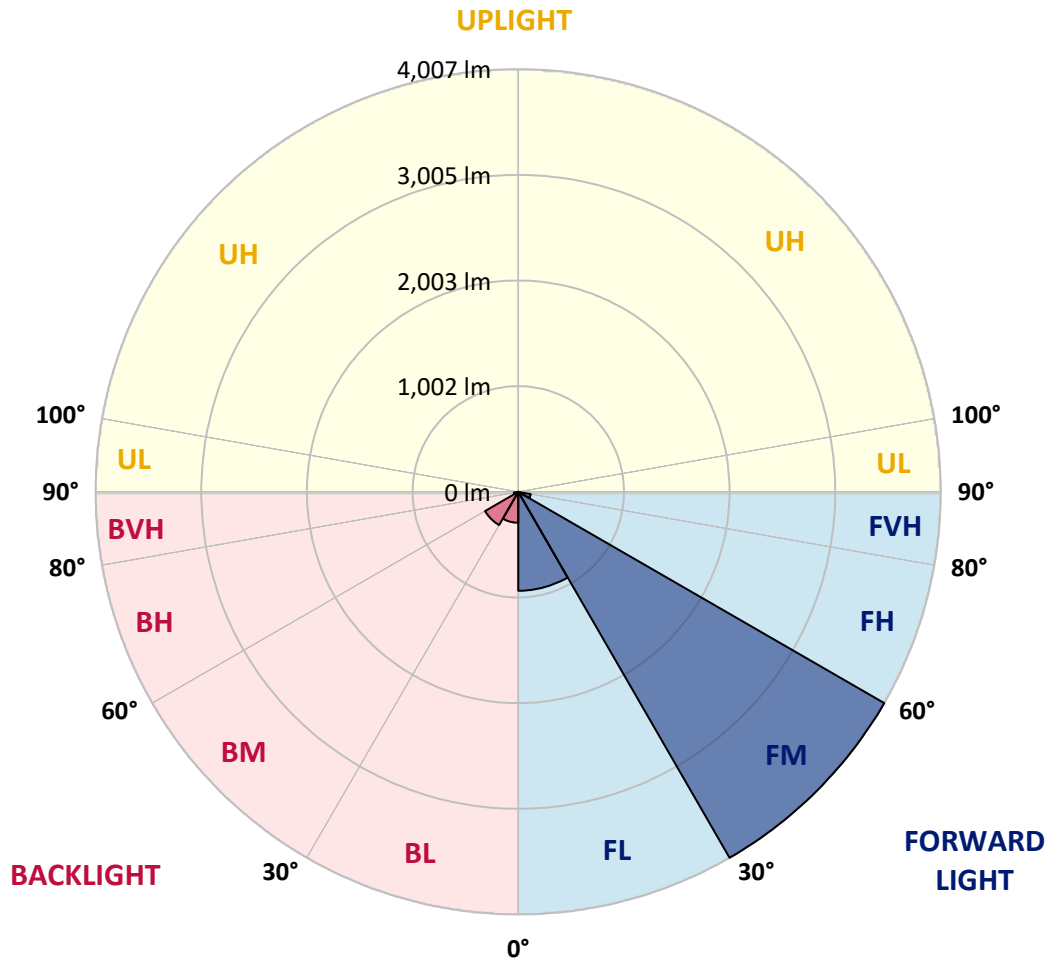
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|--------|
| | | | B | U | G |
| FL (0°-30°) | 938.0 | 16.3 | | | |
| FM (30°-60°) | 4006.6 | 69.4 | | | |
| FH (60°-80°) | 119.3 | 2.1 | | | G0/660 |
| FVH (80°-90°) | 2.9 | 0.0 | | | G0/10 |
| BL (0°-30°) | 293.4 | 5.1 | B1/500 | | |
| BM (30°-60°) | 363.4 | 6.3 | B1/1000 | | |
| BH (60°-80°) | 42.4 | 0.7 | B0/110 | | G0/110 |
| BVH (80°-90°) | 3.2 | 0.1 | | | G0/10 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B1-U0-G0

Type II Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 52° | 55° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1666.1 | 1666.1 | 1666.1 | 1666.1 | 1666.1 | 1666.1 | 1666.1 | 1666.1 | 1666.1 | 1666.1 | 1666.1 |
| 2.5° | 2019.3 | 1973.1 | 1977.3 | 1947.0 | 1929.3 | 1900.7 | 1862.1 | 1854.5 | 1812.4 | 1755.3 | 1697.2 |
| 5° | 2201.0 | 2190.0 | 2204.3 | 2160.6 | 2162.3 | 2115.2 | 2024.4 | 2026.1 | 1929.3 | 1836.0 | 1746.0 |
| 7.5° | 2212.8 | 2187.5 | 2201.8 | 2240.5 | 2263.2 | 2254.8 | 2203.5 | 2158.9 | 2067.3 | 1930.2 | 1799.0 |
| 10° | 1981.5 | 2029.4 | 2044.6 | 2108.5 | 2199.3 | 2295.2 | 2289.3 | 2291.8 | 2215.3 | 2036.1 | 1844.4 |
| 12.5° | 1842.7 | 1810.8 | 1862.1 | 1900.7 | 2037.8 | 2223.7 | 2308.6 | 2327.1 | 2333.0 | 2138.7 | 1889.8 |
| 15° | 1779.6 | 1779.6 | 1788.1 | 1799.0 | 1898.2 | 2069.8 | 2243.0 | 2296.9 | 2423.8 | 2273.3 | 1961.3 |
| 17.5° | 1819.2 | 1817.5 | 1829.3 | 1806.6 | 1843.6 | 1975.6 | 2182.5 | 2243.9 | 2525.6 | 2405.3 | 2017.6 |
| 20° | 1939.4 | 1945.3 | 1937.7 | 1872.2 | 1874.7 | 1973.9 | 2115.2 | 2211.9 | 2594.6 | 2519.7 | 2092.5 |
| 22.5° | 2106.8 | 2110.2 | 2067.3 | 1995.8 | 1974.8 | 2023.5 | 2153.9 | 2227.9 | 2650.1 | 2656.8 | 2115.2 |
| 25° | 2300.2 | 2286.8 | 2278.4 | 2177.4 | 2113.5 | 2155.6 | 2241.3 | 2284.2 | 2684.6 | 2774.5 | 2180.0 |
| 27.5° | 2568.5 | 2541.6 | 2490.3 | 2400.3 | 2353.2 | 2293.5 | 2354.9 | 2425.5 | 2783.0 | 2939.4 | 2250.6 |
| 30° | 2964.6 | 2941.1 | 2841.0 | 2724.9 | 2601.3 | 2542.4 | 2561.8 | 2600.5 | 2960.4 | 3130.3 | 2344.0 |
| 32.5° | 3560.9 | 3511.3 | 3366.6 | 3145.4 | 2977.2 | 2814.9 | 2809.9 | 2851.1 | 3119.4 | 3394.4 | 2455.0 |
| 35° | 4217.7 | 4202.6 | 3989.8 | 3761.9 | 3436.4 | 3185.8 | 3190.0 | 3211.9 | 3423.8 | 3740.9 | 2600.5 |
| 37.5° | 4654.3 | 4737.5 | 4602.0 | 4357.3 | 4084.0 | 3725.7 | 3634.9 | 3642.5 | 3841.8 | 4151.3 | 2862.8 |
| 40° | 4991.5 | 4920.9 | 4936.8 | 4879.7 | 4692.9 | 4449.0 | 4248.0 | 4208.4 | 4325.3 | 4605.4 | 3123.6 |
| 42.5° | 4844.3 | 4847.7 | 4946.1 | 5081.5 | 5127.7 | 5110.1 | 4904.9 | 4830.0 | 4739.2 | 4977.2 | 3371.7 |
| 45° | 4428.8 | 4515.4 | 4643.3 | 5001.6 | 5316.1 | 5611.3 | 5571.0 | 5446.5 | 5025.1 | 5271.6 | 3514.6 |
| 47.5° | 3766.1 | 3762.7 | 3972.1 | 4438.0 | 5137.0 | 5828.3 | 6011.6 | 5924.2 | 5227.8 | 5238.8 | 3485.2 |
| 48° | 3521.4 | 3581.9 | 3798.0 | 4346.4 | 5023.5 | 5796.3 | 6051.2 | 5941.0 | 5193.3 | 5195.0 | 3460.0 |
| 50° | 2603.0 | 2592.0 | 2861.2 | 3534.0 | 4486.8 | 5446.5 | 5884.6 | 5970.4 | 5192.5 | 4973.8 | 3283.3 |
| 52.5° | 1375.0 | 1422.1 | 1618.2 | 2222.0 | 3172.3 | 4457.4 | 5190.8 | 5324.5 | 5009.2 | 4612.1 | 3029.4 |
| 55° | 584.5 | 528.1 | 678.7 | 1003.3 | 1784.7 | 2978.1 | 3808.1 | 4105.8 | 4235.4 | 4081.5 | 2650.1 |
| 57.5° | 208.6 | 227.9 | 262.4 | 377.6 | 750.2 | 1629.9 | 2270.8 | 2502.1 | 2934.3 | 2994.9 | 1805.7 |
| 60° | 133.7 | 136.2 | 147.2 | 173.2 | 281.7 | 628.2 | 1077.3 | 1261.5 | 1457.5 | 1504.5 | 842.7 |
| 62.5° | 103.4 | 104.3 | 109.3 | 113.5 | 133.7 | 243.9 | 404.5 | 479.4 | 497.9 | 428.1 | 221.2 |
| 65° | 86.6 | 87.5 | 89.1 | 89.1 | 95.0 | 114.4 | 141.3 | 155.6 | 151.4 | 149.7 | 125.3 |
| 67.5° | 66.4 | 68.1 | 71.5 | 71.5 | 74.8 | 69.8 | 78.2 | 83.3 | 94.2 | 114.4 | 106.8 |
| 70° | 52.1 | 53.0 | 55.5 | 57.2 | 57.2 | 50.5 | 56.3 | 61.4 | 69.0 | 84.9 | 84.1 |
| 72.5° | 40.4 | 42.0 | 43.7 | 43.7 | 41.2 | 34.5 | 40.4 | 44.6 | 49.6 | 58.9 | 57.2 |
| 75° | 31.1 | 31.1 | 32.0 | 26.1 | 20.2 | 17.7 | 24.4 | 29.4 | 37.0 | 38.7 | 32.0 |
| 77.5° | 8.4 | 9.3 | 8.4 | 7.6 | 8.4 | 12.6 | 16.0 | 18.5 | 23.5 | 23.5 | 21.0 |
| 80° | 0.0 | 0.8 | 2.5 | 5.0 | 8.4 | 11.8 | 14.3 | 16.0 | 18.5 | 20.2 | 19.3 |
| 82.5° | 0.0 | 0.8 | 2.5 | 5.0 | 7.6 | 9.3 | 12.6 | 13.5 | 15.1 | 17.7 | 17.7 |
| 85° | 0.0 | 0.8 | 1.7 | 3.4 | 5.0 | 5.9 | 5.9 | 5.0 | 5.0 | 4.2 | 3.4 |
| 87.5° | 0.0 | 0.0 | 0.8 | 1.7 | 1.7 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 |
| 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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CATALOG NUMBER: GALN-SA2A-840-U-AFL-GRSBK

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1666.1 | 1666.1 | 1666.1 | 1666.1 | 1666.1 | 1666.1 | 1666.1 | 1666.1 | 1666.1 | 1666.1 | 1666.1 |
| 2.5° | 1674.5 | 1648.4 | 1608.9 | 1546.7 | 1486.9 | 1448.2 | 1411.2 | 1370.0 | 1347.3 | 1345.6 | 1333.0 |
| 5° | 1694.7 | 1635.8 | 1541.6 | 1434.7 | 1320.4 | 1222.0 | 1122.7 | 1058.0 | 999.9 | 968.0 | 962.1 |
| 7.5° | 1705.6 | 1629.1 | 1476.8 | 1297.7 | 1102.6 | 941.9 | 830.9 | 749.3 | 717.4 | 693.8 | 693.0 |
| 10° | 1728.3 | 1617.3 | 1380.1 | 1116.0 | 874.6 | 712.3 | 635.8 | 598.8 | 581.1 | 574.4 | 564.3 |
| 12.5° | 1745.2 | 1595.5 | 1280.8 | 929.3 | 691.3 | 590.4 | 556.7 | 548.3 | 549.2 | 552.5 | 548.3 |
| 15° | 1768.7 | 1576.1 | 1147.1 | 762.8 | 580.3 | 531.5 | 531.5 | 533.2 | 545.0 | 546.6 | 545.8 |
| 17.5° | 1767.0 | 1538.2 | 1009.2 | 628.2 | 513.0 | 506.3 | 508.8 | 524.8 | 532.4 | 534.9 | 529.0 |
| 20° | 1787.2 | 1502.9 | 867.1 | 536.6 | 475.2 | 485.3 | 502.1 | 506.3 | 515.5 | 517.2 | 510.5 |
| 22.5° | 1781.3 | 1414.6 | 735.0 | 464.2 | 446.6 | 465.9 | 482.7 | 487.8 | 485.3 | 480.2 | 479.4 |
| 25° | 1770.4 | 1338.9 | 613.9 | 416.3 | 425.5 | 446.6 | 462.6 | 453.3 | 448.3 | 449.1 | 449.9 |
| 27.5° | 1751.0 | 1243.0 | 513.9 | 382.7 | 397.0 | 428.1 | 427.2 | 423.9 | 428.9 | 424.7 | 428.9 |
| 30° | 1747.7 | 1147.1 | 431.4 | 352.4 | 375.9 | 398.6 | 400.3 | 406.2 | 412.1 | 404.5 | 412.1 |
| 32.5° | 1752.7 | 1042.0 | 372.6 | 333.9 | 363.3 | 364.2 | 382.7 | 388.5 | 384.3 | 367.5 | 369.2 |
| 35° | 1791.4 | 961.3 | 329.7 | 323.8 | 343.1 | 344.0 | 361.6 | 354.1 | 335.6 | 325.5 | 331.4 |
| 37.5° | 1873.0 | 894.0 | 309.5 | 314.5 | 316.2 | 327.1 | 328.0 | 312.9 | 314.5 | 313.7 | 317.1 |
| 40° | 1977.3 | 842.7 | 295.2 | 306.1 | 304.4 | 312.0 | 281.7 | 290.1 | 297.7 | 300.2 | 301.9 |
| 42.5° | 2048.8 | 805.7 | 285.9 | 292.7 | 289.3 | 275.8 | 259.0 | 267.4 | 273.3 | 282.6 | 284.3 |
| 45° | 2080.7 | 776.2 | 275.0 | 269.1 | 269.1 | 244.7 | 238.0 | 239.7 | 253.1 | 263.2 | 261.6 |
| 47.5° | 2028.6 | 747.6 | 255.7 | 238.0 | 243.9 | 223.7 | 216.1 | 216.1 | 230.4 | 243.0 | 240.5 |
| 48° | 2008.4 | 735.9 | 256.5 | 231.3 | 235.5 | 220.3 | 212.8 | 211.1 | 227.1 | 238.8 | 238.8 |
| 50° | 1908.3 | 692.1 | 234.6 | 212.8 | 204.4 | 202.7 | 197.6 | 199.3 | 209.4 | 220.3 | 220.3 |
| 52.5° | 1713.2 | 598.0 | 198.5 | 182.5 | 167.4 | 177.5 | 180.0 | 176.6 | 181.7 | 191.7 | 190.9 |
| 55° | 1429.7 | 459.2 | 158.9 | 151.4 | 139.6 | 150.5 | 155.6 | 151.4 | 146.3 | 153.9 | 153.9 |
| 57.5° | 915.8 | 247.3 | 127.0 | 128.7 | 116.9 | 127.8 | 132.0 | 121.9 | 112.7 | 118.6 | 117.7 |
| 60° | 412.9 | 148.0 | 104.3 | 101.8 | 94.2 | 106.8 | 113.5 | 101.8 | 89.1 | 93.4 | 97.6 |
| 62.5° | 154.7 | 105.1 | 79.1 | 77.4 | 75.7 | 87.5 | 90.8 | 81.6 | 69.0 | 71.5 | 72.3 |
| 65° | 113.5 | 92.5 | 63.1 | 57.2 | 60.6 | 69.0 | 67.3 | 58.0 | 49.6 | 49.6 | 51.3 |
| 67.5° | 96.7 | 80.7 | 51.3 | 44.6 | 44.6 | 45.4 | 42.0 | 37.0 | 34.5 | 36.2 | 37.8 |
| 70° | 75.7 | 63.9 | 40.4 | 34.5 | 31.1 | 27.8 | 24.4 | 23.5 | 21.0 | 23.5 | 22.7 |
| 72.5° | 48.8 | 42.9 | 31.1 | 26.1 | 23.5 | 19.3 | 16.0 | 15.1 | 12.6 | 11.8 | 11.8 |
| 75° | 26.1 | 26.1 | 24.4 | 21.0 | 18.5 | 15.1 | 12.6 | 10.1 | 6.7 | 5.0 | 5.0 |
| 77.5° | 18.5 | 20.2 | 21.9 | 20.2 | 16.8 | 12.6 | 10.1 | 6.7 | 3.4 | 1.7 | 1.7 |
| 80° | 17.7 | 20.2 | 21.9 | 19.3 | 16.8 | 12.6 | 9.3 | 5.0 | 2.5 | 0.8 | 0.8 |
| 82.5° | 16.0 | 18.5 | 20.2 | 17.7 | 15.1 | 10.9 | 8.4 | 5.0 | 2.5 | 0.8 | 0.8 |
| 85° | 3.4 | 4.2 | 5.0 | 5.0 | 5.9 | 7.6 | 5.9 | 4.2 | 1.7 | 0.8 | 0.8 |
| 87.5° | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 1.7 | 1.7 | 0.8 | 0.8 | 0.8 |
| 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)