

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: P456429

Luminaire Tested: **GALN-SA7D-722-U-AFL**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P456429
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-24)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GALN-SA7D-722-U-AFL
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(7) 70 CRI, 2200K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE FRONTLINE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 39998 lumens
Efficiency: N/A
Efficacy: 92.4 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1.5' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G3

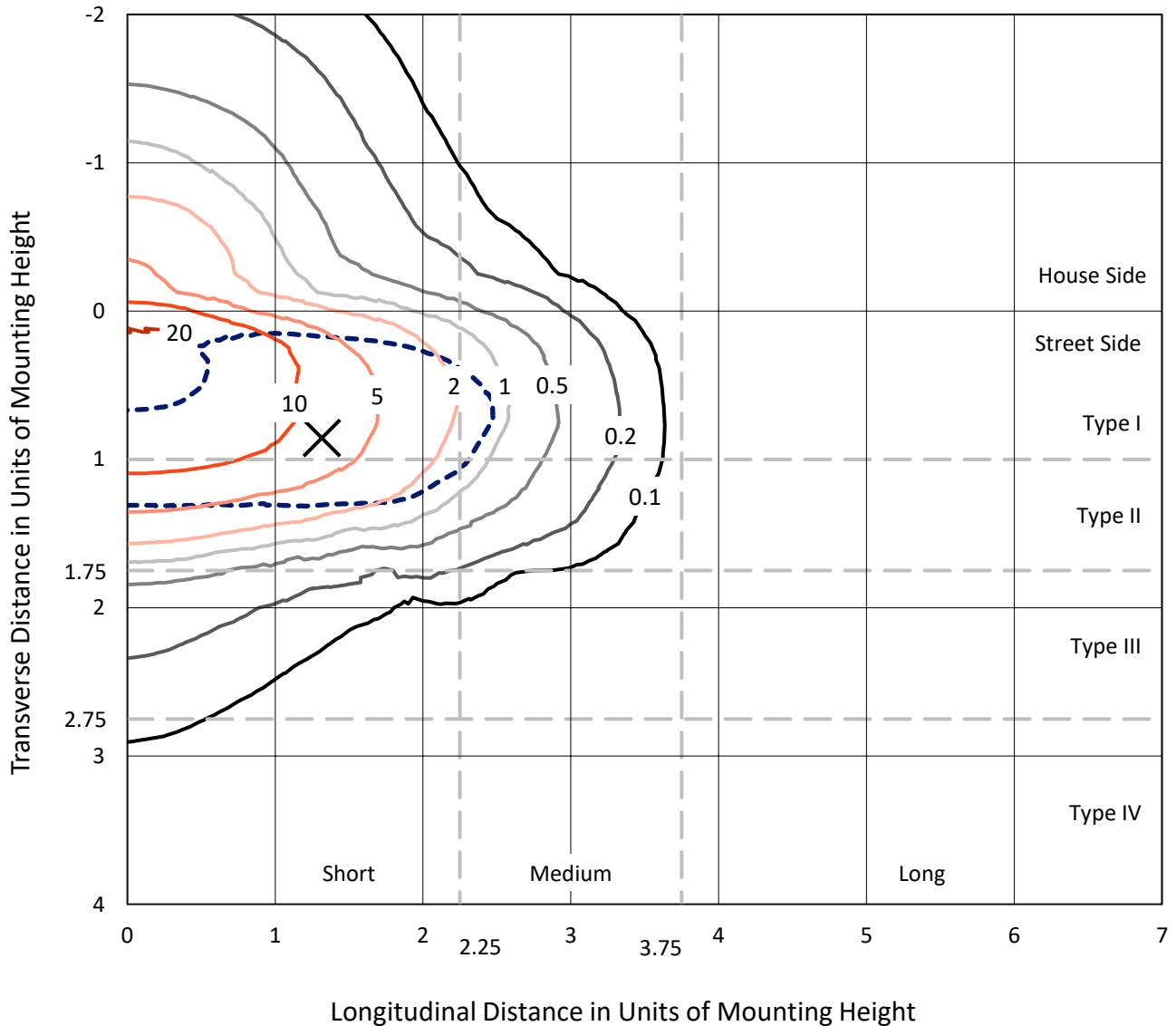
Input Watts (W): 433
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

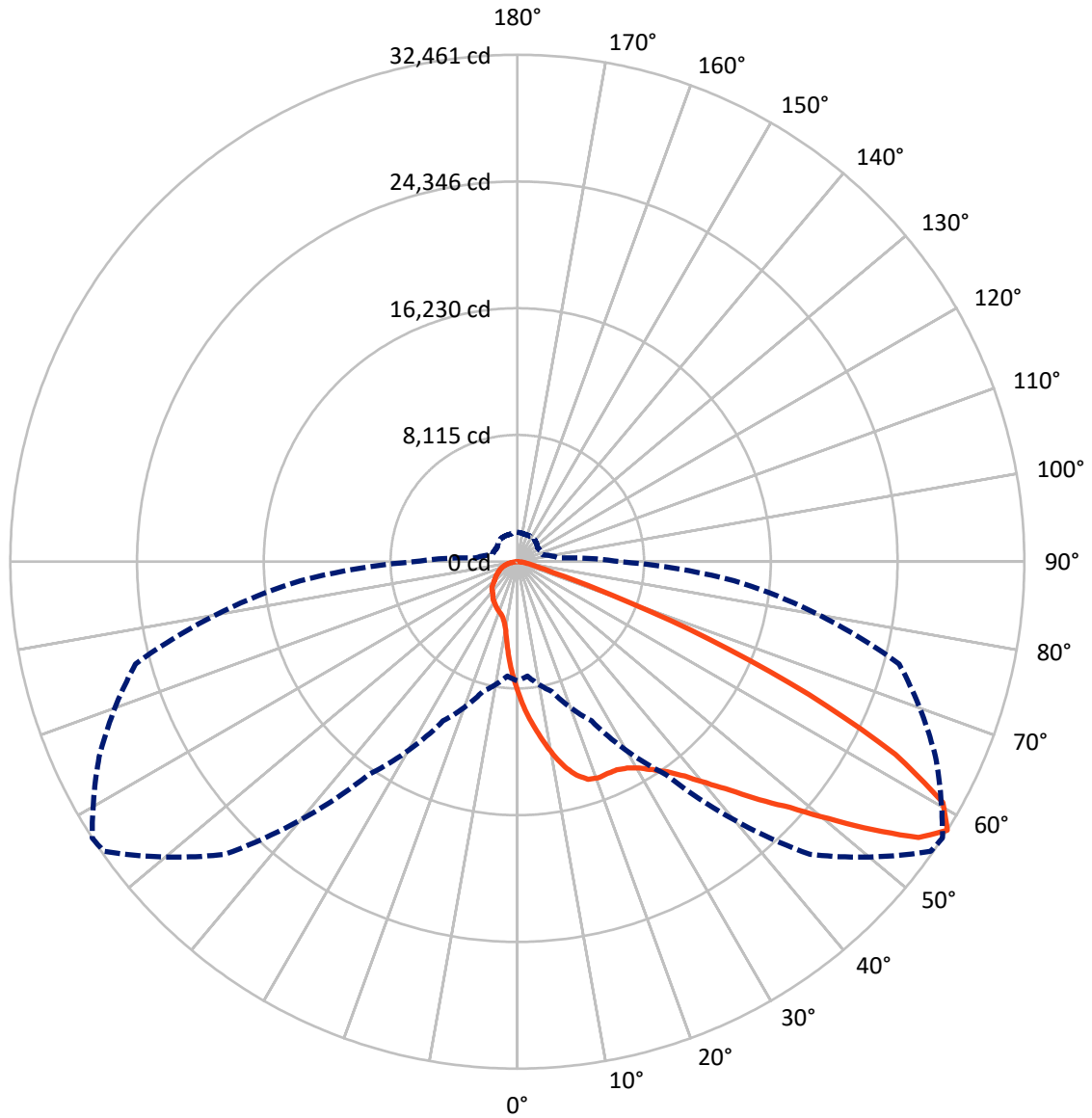
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 20.5 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 57-Deg Lateral - - - Horizontal Cone Through 57.5-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 6082.6 | 0.0 | 6082.6 |
| | % Fixture | 15.2 | 0.0 | 15.2 |
| Street Side | Lumens | 33915.4 | 0.0 | 33915.4 |
| | % Fixture | 84.8 | 0.0 | 84.8 |
| Total | Lumens | 39998.0 | 0.0 | 39998.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 807.6 | 2.0 |
| 10°-20° | 2380.1 | 6.0 |
| 20°-30° | 3952.2 | 9.9 |
| 30°-40° | 5953.2 | 14.9 |
| 40°-50° | 8938.1 | 22.3 |
| 50°-60° | 10018.5 | 25.0 |
| 60°-70° | 5863.3 | 14.7 |
| 70°-80° | 1734.3 | 4.3 |
| 80°-90° | 350.6 | 0.9 |
| 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° | 39998.0 | 100.0 |
| 0°-180° | 39998.0 | 100.0 |

Coefficient of Utilization



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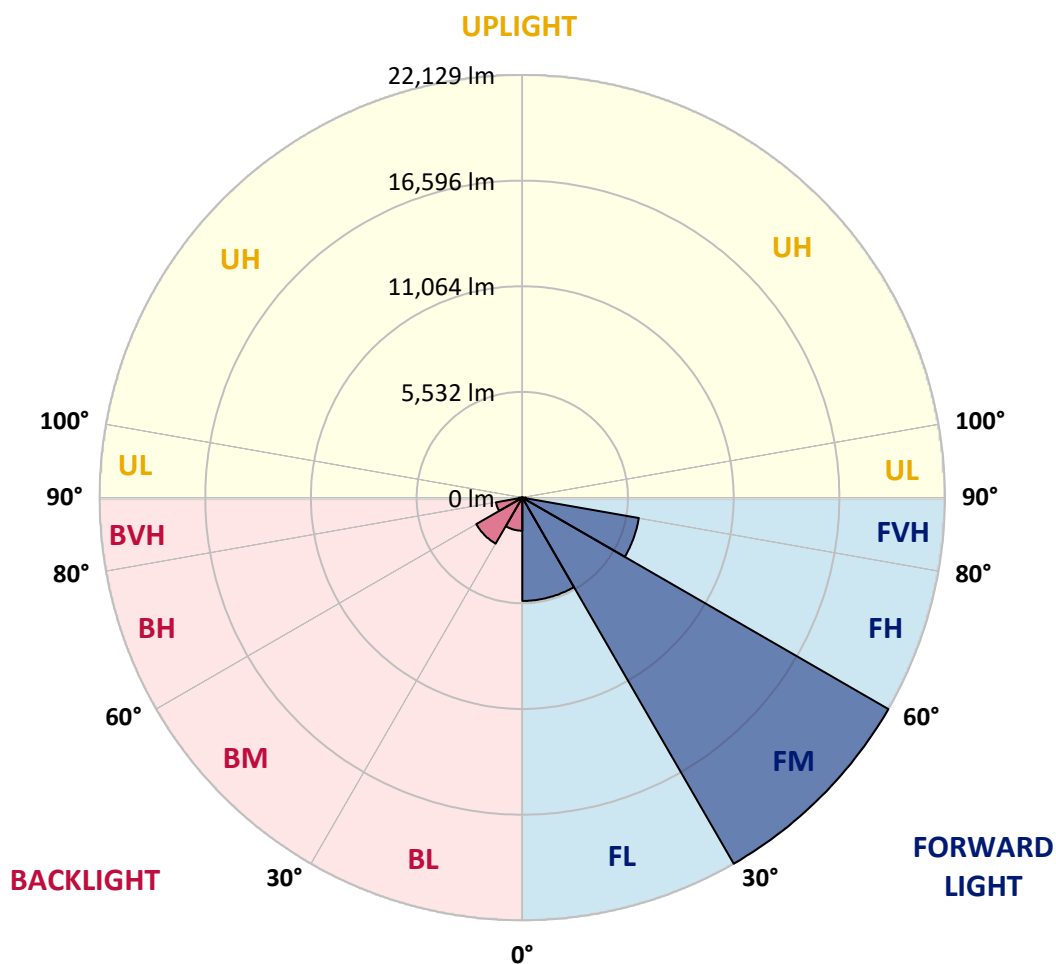
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|---------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 5406.8 | 13.5 | | | |
| FM | (30°-60°) | 22128.6 | 55.3 | | | |
| FH | (60°-80°) | 6198.1 | 15.5 | | | G3/7500 |
| FVH | (80°-90°) | 181.9 | 0.5 | | | G2/225 |
| BL | (0°-30°) | 1733.1 | 4.3 | B3/2500 | | |
| BM | (30°-60°) | 2781.2 | 7.0 | B3/5000 | | |
| BH | (60°-80°) | 1399.6 | 3.5 | B3/2500 | | G3/2500 |
| BVH | (80°-90°) | 168.7 | 0.4 | | | G2/225 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B3-U0-G3

Type II Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 57° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 8403.1 | 8403.1 | 8403.1 | 8403.1 | 8403.1 | 8403.1 | 8403.1 | 8403.1 | 8403.1 | 8403.1 | 8403.1 |
| 2.5° | 10441.5 | 10327.7 | 10237.9 | 10159.1 | 10056.2 | 9778.1 | 9500.0 | 9495.7 | 9274.5 | 8933.0 | 8582.7 |
| 5° | 12142.7 | 11989.4 | 12009.2 | 11763.9 | 11518.7 | 11115.9 | 10526.9 | 10496.2 | 10025.5 | 9386.2 | 8735.9 |
| 7.5° | 13250.6 | 13252.8 | 13191.5 | 13051.3 | 12786.4 | 12328.8 | 11661.0 | 11510.0 | 10855.3 | 9885.4 | 8911.1 |
| 10° | 13193.6 | 13252.8 | 13355.7 | 13476.1 | 13557.1 | 13331.6 | 12722.9 | 12539.0 | 11687.3 | 10489.7 | 9105.9 |
| 12.5° | 12436.1 | 12528.1 | 12674.7 | 12976.9 | 13465.1 | 13837.3 | 13629.3 | 13480.5 | 12650.7 | 11091.8 | 9320.5 |
| 15° | 11963.2 | 12017.9 | 12098.9 | 12302.5 | 12828.0 | 13719.1 | 14257.7 | 14178.9 | 13559.3 | 11772.7 | 9561.3 |
| 17.5° | 11818.7 | 11873.4 | 11899.7 | 12024.5 | 12398.9 | 13311.9 | 14505.1 | 14645.3 | 14365.0 | 12398.9 | 9804.4 |
| 20° | 11963.2 | 11989.4 | 11989.4 | 12063.9 | 12357.3 | 13073.2 | 14494.2 | 14776.6 | 15026.2 | 13149.9 | 10032.1 |
| 22.5° | 12341.9 | 12352.9 | 12337.6 | 12363.8 | 12582.8 | 13138.9 | 14391.3 | 14741.6 | 15560.4 | 13787.0 | 10209.4 |
| 25° | 12957.2 | 12974.7 | 12874.0 | 12812.7 | 12972.5 | 13427.9 | 14448.2 | 14770.1 | 15978.6 | 14395.7 | 10327.7 |
| 27.5° | 13655.6 | 13677.5 | 13554.9 | 13412.6 | 13487.0 | 13784.8 | 14671.5 | 14960.5 | 16291.7 | 14995.6 | 10402.1 |
| 30° | 14511.7 | 14520.5 | 14314.6 | 14143.9 | 14095.7 | 14316.8 | 15052.5 | 15321.8 | 16681.4 | 15702.8 | 10513.8 |
| 32.5° | 15387.5 | 15453.2 | 15188.2 | 14947.4 | 14866.4 | 14934.3 | 15615.2 | 15875.7 | 17145.6 | 16462.5 | 10693.3 |
| 35° | 16578.5 | 16589.5 | 16272.0 | 15978.6 | 15711.5 | 15799.1 | 16335.5 | 16523.8 | 17787.1 | 17340.5 | 10947.3 |
| 37.5° | 18065.2 | 18165.9 | 17728.0 | 17180.6 | 16852.2 | 16725.2 | 17206.9 | 17412.7 | 18687.0 | 18417.7 | 11330.4 |
| 40° | 19716.0 | 19753.2 | 19378.9 | 19037.3 | 18437.4 | 18069.6 | 18402.4 | 18625.7 | 19797.0 | 19702.9 | 11774.9 |
| 42.5° | 20753.8 | 20834.8 | 20863.3 | 20828.3 | 20377.2 | 19759.8 | 19886.8 | 19991.9 | 21110.7 | 20909.3 | 12230.3 |
| 45° | 21104.1 | 21224.6 | 21631.8 | 22494.4 | 22542.6 | 21933.9 | 21638.4 | 21739.1 | 22542.6 | 22126.6 | 12666.0 |
| 47.5° | 20523.9 | 20729.7 | 21480.7 | 23249.8 | 24574.4 | 24620.4 | 23729.3 | 23508.2 | 23847.5 | 23136.0 | 12981.3 |
| 50° | 19024.2 | 19067.9 | 20217.4 | 22779.1 | 25526.8 | 27188.6 | 26266.9 | 25855.3 | 25086.8 | 23882.6 | 13198.0 |
| 52.5° | 16703.3 | 16753.7 | 17717.1 | 20591.8 | 24940.1 | 28984.0 | 29235.8 | 28500.1 | 26345.7 | 24462.8 | 13340.3 |
| 55° | 12398.9 | 12690.1 | 13749.8 | 16528.2 | 22159.5 | 28815.4 | 31596.0 | 31177.8 | 27867.4 | 24922.5 | 13563.7 |
| 57.5° | 7623.7 | 7356.6 | 8613.3 | 11245.0 | 16666.1 | 26499.0 | 32325.1 | 32460.8 | 29542.3 | 25307.9 | 13938.1 |
| 60° | 3507.5 | 3560.1 | 4079.0 | 5799.9 | 10159.1 | 20729.7 | 30446.5 | 31304.8 | 30468.4 | 25294.8 | 14032.2 |
| 62.5° | 2417.2 | 2369.0 | 2237.6 | 2546.3 | 4632.9 | 13110.4 | 25717.3 | 27171.1 | 28611.8 | 24508.7 | 13657.8 |
| 65° | 2161.0 | 2112.8 | 1858.8 | 1773.5 | 2128.1 | 5714.5 | 18695.7 | 20530.5 | 24090.6 | 22525.1 | 12725.1 |
| 67.5° | 2018.7 | 1953.0 | 1690.3 | 1523.9 | 1519.5 | 2274.8 | 11023.9 | 13233.1 | 17868.1 | 19043.9 | 11026.1 |
| 70° | 1869.8 | 1817.2 | 1556.7 | 1372.8 | 1294.0 | 1429.7 | 4845.3 | 6342.8 | 11601.9 | 13723.5 | 8589.2 |
| 72.5° | 1720.9 | 1659.6 | 1425.3 | 1228.3 | 1125.4 | 1070.6 | 1856.7 | 2415.0 | 6555.2 | 8228.0 | 5265.6 |
| 75° | 1504.2 | 1473.5 | 1274.3 | 1112.2 | 1000.6 | 864.8 | 1177.9 | 1344.3 | 3135.3 | 3779.0 | 2642.7 |
| 77.5° | 1315.9 | 1283.0 | 1131.9 | 972.1 | 891.1 | 702.8 | 836.4 | 913.0 | 1322.4 | 1532.6 | 1193.3 |
| 80° | 963.4 | 996.2 | 954.6 | 858.3 | 794.8 | 551.7 | 562.7 | 626.2 | 786.0 | 869.2 | 729.1 |
| 82.5° | 610.9 | 672.2 | 735.7 | 661.2 | 602.1 | 435.7 | 389.7 | 413.8 | 536.4 | 569.3 | 324.0 |
| 85° | 256.2 | 260.5 | 426.9 | 402.9 | 343.7 | 258.4 | 234.3 | 247.4 | 286.8 | 300.0 | 151.1 |
| 87.5° | 98.5 | 96.3 | 151.1 | 140.1 | 107.3 | 74.4 | 74.4 | 83.2 | 113.9 | 105.1 | 48.2 |
| 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-SA7D-722-U-AFL

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 8403.1 | 8403.1 | 8403.1 | 8403.1 | 8403.1 | 8403.1 | 8403.1 | 8403.1 | 8403.1 | 8403.1 | 8403.1 |
| 2.5° | 8431.6 | 8276.1 | 7967.4 | 7584.3 | 7304.0 | 6988.7 | 6710.7 | 6511.4 | 6437.0 | 6402.0 | 6336.3 |
| 5° | 8425.0 | 8118.5 | 7479.2 | 6809.2 | 6270.6 | 5718.9 | 5252.5 | 4950.4 | 4924.1 | 4722.7 | 4702.9 |
| 7.5° | 8427.2 | 7958.7 | 6940.6 | 5955.3 | 5134.3 | 4569.4 | 4184.0 | 4083.3 | 3962.9 | 3932.3 | 3947.6 |
| 10° | 8433.8 | 7755.0 | 6362.6 | 5110.2 | 4315.4 | 3945.4 | 3800.9 | 3761.5 | 3765.9 | 3779.0 | 3781.2 |
| 12.5° | 8442.5 | 7558.0 | 5762.6 | 4468.7 | 3855.6 | 3702.4 | 3687.0 | 3722.1 | 3759.3 | 3787.8 | 3794.3 |
| 15° | 8453.5 | 7332.5 | 5178.1 | 3952.0 | 3625.7 | 3612.6 | 3663.0 | 3722.1 | 3774.6 | 3816.2 | 3822.8 |
| 17.5° | 8440.3 | 7069.7 | 4687.6 | 3634.5 | 3498.7 | 3562.2 | 3645.4 | 3719.9 | 3768.0 | 3807.5 | 3811.8 |
| 20° | 8409.7 | 6776.4 | 4214.7 | 3411.2 | 3419.9 | 3522.8 | 3612.6 | 3682.7 | 3735.2 | 3754.9 | 3770.2 |
| 22.5° | 8291.5 | 6426.0 | 3803.1 | 3238.2 | 3325.8 | 3468.1 | 3575.4 | 3617.0 | 3557.9 | 3516.3 | 3527.2 |
| 25° | 8090.0 | 5970.6 | 3419.9 | 3098.1 | 3240.4 | 3391.5 | 3500.9 | 3400.2 | 3352.1 | 3334.5 | 3343.3 |
| 27.5° | 7838.2 | 5471.4 | 3130.9 | 2951.4 | 3130.9 | 3306.1 | 3275.4 | 3257.9 | 3236.0 | 3207.5 | 3214.1 |
| 30° | 7566.8 | 4983.2 | 2885.7 | 2837.5 | 3012.7 | 3113.4 | 3126.5 | 3155.0 | 3130.9 | 3087.1 | 3104.6 |
| 32.5° | 7315.0 | 4523.4 | 2699.6 | 2741.2 | 2929.5 | 2914.2 | 3012.7 | 3045.5 | 2933.9 | 2787.2 | 2793.7 |
| 35° | 7100.4 | 4096.5 | 2559.5 | 2647.0 | 2787.2 | 2793.7 | 2892.3 | 2778.4 | 2658.0 | 2587.9 | 2592.3 |
| 37.5° | 6938.4 | 3763.7 | 2467.5 | 2566.0 | 2605.4 | 2688.6 | 2636.1 | 2577.0 | 2561.7 | 2513.5 | 2515.7 |
| 40° | 6842.0 | 3472.5 | 2408.4 | 2502.5 | 2496.0 | 2552.9 | 2384.3 | 2443.4 | 2465.3 | 2450.0 | 2452.2 |
| 42.5° | 6745.7 | 3266.7 | 2347.1 | 2415.0 | 2412.8 | 2301.1 | 2263.9 | 2314.3 | 2371.2 | 2377.7 | 2373.4 |
| 45° | 6669.1 | 3106.8 | 2283.6 | 2281.4 | 2325.2 | 2150.0 | 2139.1 | 2169.7 | 2250.8 | 2290.2 | 2288.0 |
| 47.5° | 6583.7 | 2973.3 | 2187.3 | 2126.0 | 2139.1 | 2055.9 | 2038.4 | 2051.5 | 2150.0 | 2213.5 | 2231.1 |
| 50° | 6476.4 | 2839.7 | 2066.8 | 1983.6 | 1928.9 | 1968.3 | 1972.7 | 1974.9 | 2073.4 | 2145.7 | 2161.0 |
| 52.5° | 6391.0 | 2739.0 | 1928.9 | 1867.6 | 1801.9 | 1889.5 | 1922.3 | 1926.7 | 1985.8 | 2044.9 | 2055.9 |
| 55° | 6441.4 | 2682.1 | 1793.2 | 1749.4 | 1690.3 | 1808.5 | 1872.0 | 1880.7 | 1893.9 | 1937.7 | 1944.2 |
| 57.5° | 6592.4 | 2695.2 | 1683.7 | 1626.8 | 1583.0 | 1712.2 | 1819.4 | 1826.0 | 1817.2 | 1869.8 | 1878.6 |
| 60° | 6638.4 | 2688.6 | 1602.7 | 1491.0 | 1464.7 | 1609.2 | 1742.8 | 1755.9 | 1753.8 | 1830.4 | 1845.7 |
| 62.5° | 6445.8 | 2605.4 | 1521.7 | 1377.2 | 1359.7 | 1504.2 | 1635.5 | 1688.1 | 1699.0 | 1808.5 | 1828.2 |
| 65° | 5992.5 | 2434.7 | 1414.4 | 1256.7 | 1256.7 | 1392.5 | 1532.6 | 1604.9 | 1635.5 | 1782.2 | 1804.1 |
| 67.5° | 5394.8 | 2233.2 | 1304.9 | 1153.8 | 1149.5 | 1285.2 | 1423.1 | 1497.6 | 1545.8 | 1745.0 | 1758.1 |
| 70° | 4477.4 | 1961.8 | 1169.2 | 1042.2 | 1042.2 | 1164.8 | 1289.6 | 1379.4 | 1449.4 | 1674.9 | 1674.9 |
| 72.5° | 3067.4 | 1631.1 | 1005.0 | 915.2 | 917.4 | 1031.2 | 1158.2 | 1258.9 | 1342.1 | 1534.8 | 1539.2 |
| 75° | 1939.9 | 1274.3 | 825.4 | 779.4 | 788.2 | 895.5 | 1026.9 | 1131.9 | 1298.3 | 1517.3 | 1523.9 |
| 77.5° | 1031.2 | 895.5 | 656.8 | 645.9 | 656.8 | 755.4 | 902.1 | 1046.6 | 1302.7 | 1315.9 | 1294.0 |
| 80° | 667.8 | 634.9 | 518.9 | 497.0 | 501.4 | 608.7 | 803.5 | 994.0 | 1046.6 | 1059.7 | 1011.5 |
| 82.5° | 363.4 | 402.9 | 367.8 | 345.9 | 345.9 | 475.1 | 685.3 | 790.4 | 751.0 | 624.0 | 595.5 |
| 85° | 155.5 | 188.3 | 190.5 | 166.4 | 159.8 | 293.4 | 459.8 | 431.3 | 400.7 | 383.2 | 378.8 |
| 87.5° | 43.8 | 61.3 | 61.3 | 46.0 | 35.0 | 81.0 | 92.0 | 26.3 | 0.0 | 2.2 | 4.4 |
| 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)