

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: P530581

Luminaire Tested: **GALN-SA5D-740-U-T2R-GRSBK**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P530581
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-057-9)
Test Lab: INNOVATION CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GALN-SA5D-740-U-T2R-GRSBK
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(5) 70 CRI, 4000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II
ROADWAY OPTICS WITH BLACK GLARE REDUCTION SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 25622 lumens
Efficiency: N/A
Efficacy: 82.9 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type I - Short
BUG Rating: B3 - U0 - G1

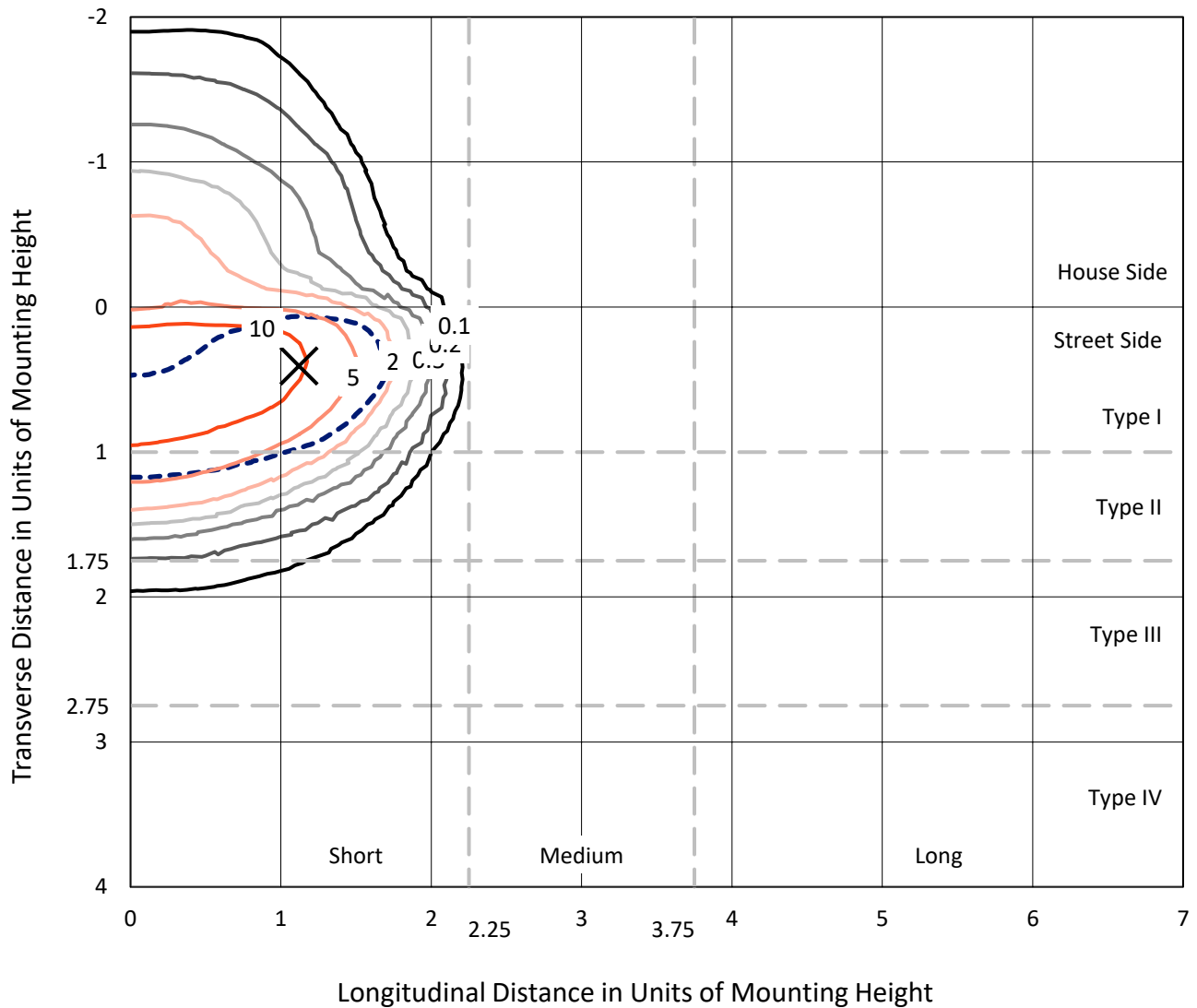
Input Watts (W): 309
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P530581
 CATALOG NUMBER: GALN-SA5D-740-U-T2R-GRSBK

Iso-Footcandle Lines of Horizontal Illumination

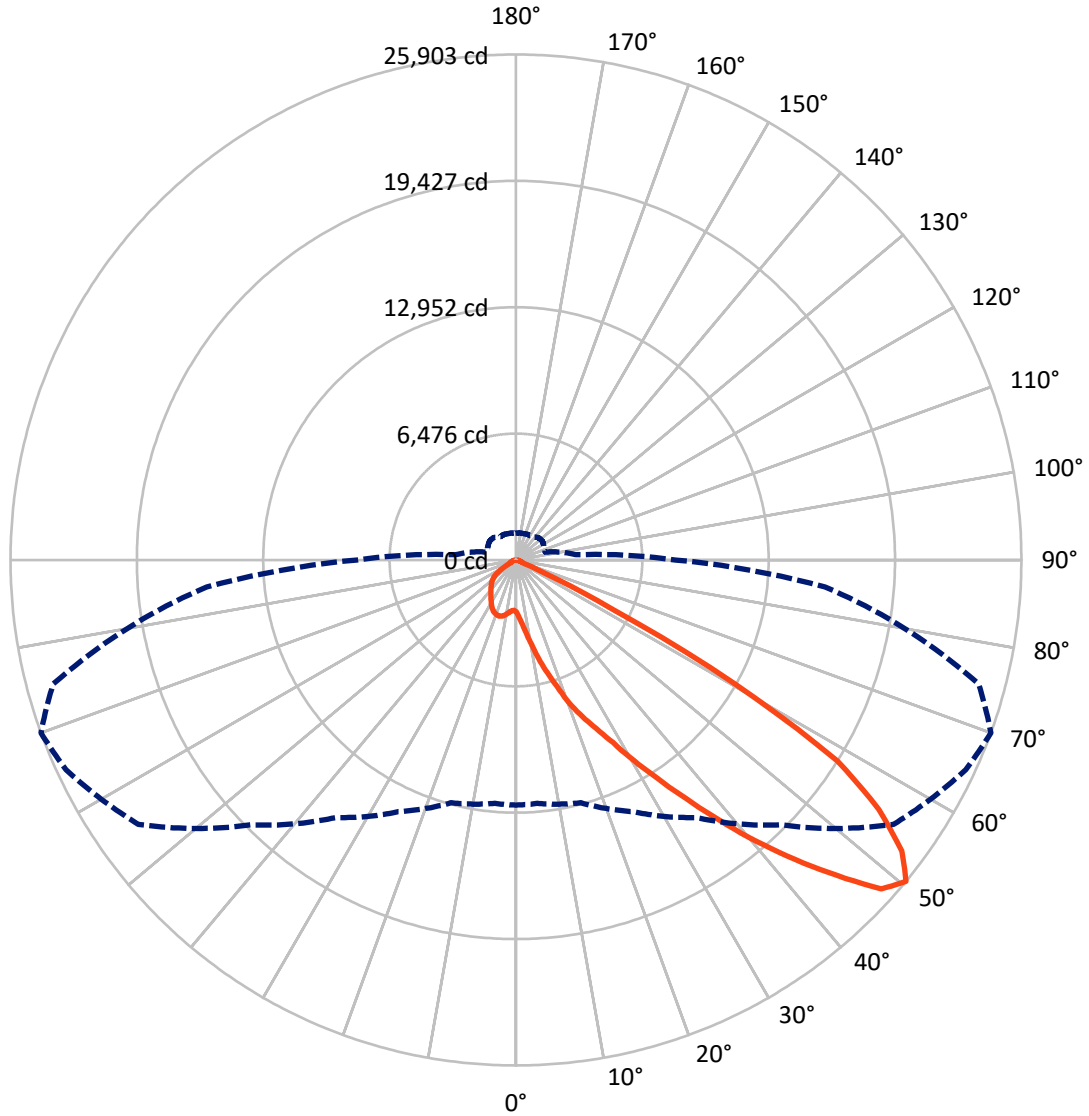
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 15.2 fc
 Type I - Short - N/A

REPORT NUMBER: P530581
CATALOG NUMBER: GALN-SA5D-740-U-T2R-GRSBK

Luminous Intensity Polar Plot



— Vertical Plane Through 70-Deg Lateral - - - Horizontal Cone Through 50-Deg Vertical

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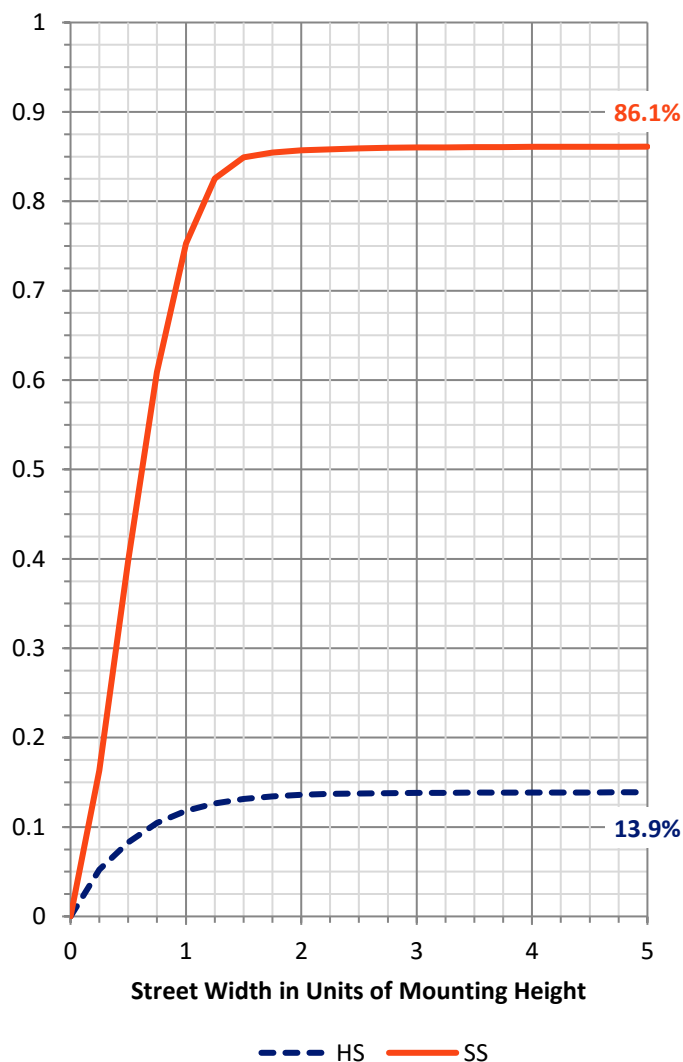
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 3578.3 | 0.0 | 3578.3 |
| | % Fixture | 14.0 | 0.0 | 14.0 |
| Street Side | Lumens | 22043.7 | 0.0 | 22043.7 |
| | % Fixture | 86.0 | 0.0 | 86.0 |
| Total | Lumens | 25622.0 | 0.0 | 25622.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 345.1 | 1.3 |
| 10°-20° | 1492.8 | 5.8 |
| 20°-30° | 3131.7 | 12.2 |
| 30°-40° | 5398.0 | 21.1 |
| 40°-50° | 7889.1 | 30.8 |
| 50°-60° | 6144.3 | 24.0 |
| 60°-70° | 1041.0 | 4.1 |
| 70°-80° | 143.0 | 0.6 |
| 80°-90° | 37.0 | 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° | 25622.0 | 100.0 |
| 0°-180° | 25622.0 | 100.0 |

Coefficient of Utilization



REPORT NUMBER: P530581

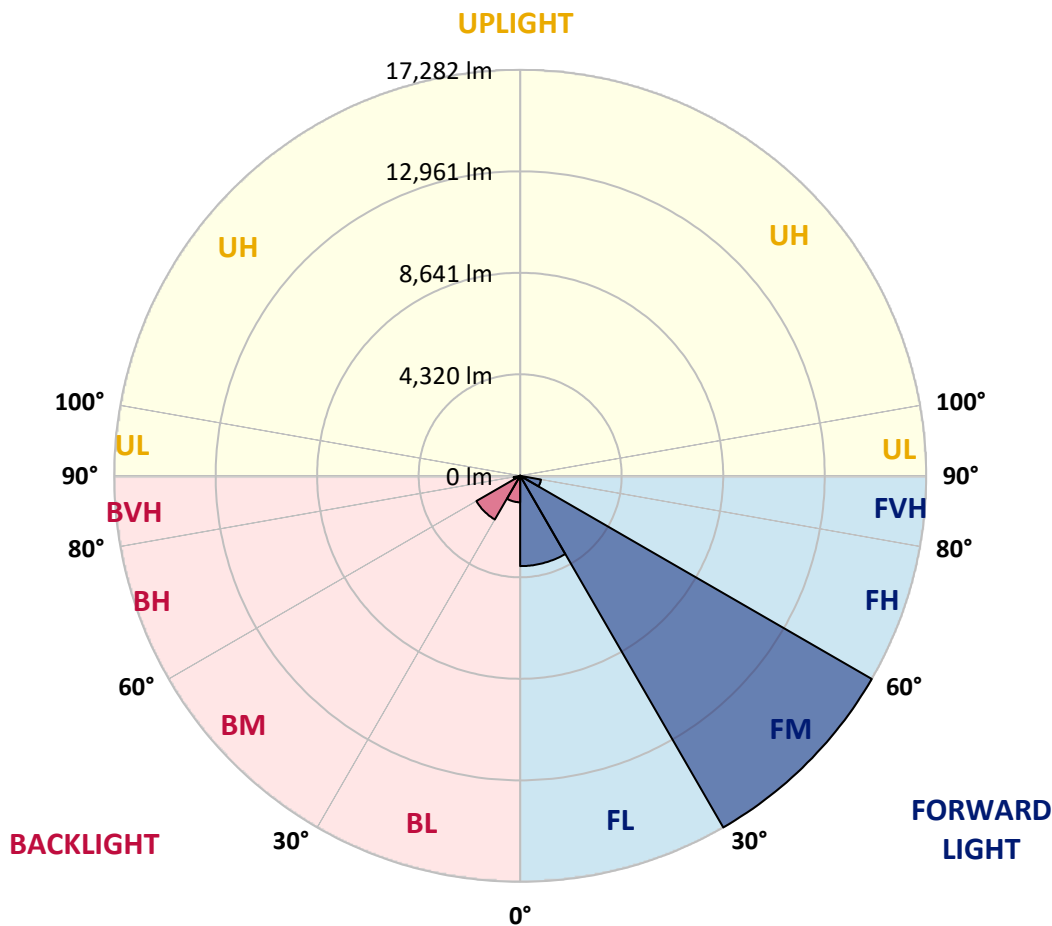
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|---------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 3843.6 | 15.0 | | | |
| FM (30°-60°) | 17281.6 | 67.4 | | | |
| FH (60°-80°) | 901.4 | 3.5 | | | G1/1800 |
| FVH (80°-90°) | 17.1 | 0.1 | | | G1/100 |
| BL (0°-30°) | 1126.0 | 4.4 | B3/2500 | | |
| BM (30°-60°) | 2149.7 | 8.4 | B2/2500 | | |
| BH (60°-80°) | 282.7 | 1.1 | B1/500 | | G1/500 |
| BVH (80°-90°) | 19.9 | 0.1 | | | G1/100 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B3-U0-G1

Type I Short





REPORT NUMBER: P530581

CATALOG NUMBER: GALN-SA5D-740-U-T2R-GRSBK

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 70° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 2653.9 | 2653.9 | 2653.9 | 2653.9 | 2653.9 | 2653.9 | 2653.9 | 2653.9 | 2653.9 | 2653.9 | 2653.9 |
| 2.5° | 3475.4 | 3450.1 | 3395.4 | 3294.2 | 3252.1 | 3151.0 | 3092.0 | 2978.3 | 2906.7 | 2826.7 | 2738.2 |
| 5° | 4895.0 | 4764.4 | 4684.4 | 4570.7 | 4237.9 | 4031.5 | 3690.2 | 3399.6 | 3264.8 | 3117.3 | 2915.1 |
| 7.5° | 6361.0 | 6276.8 | 6167.2 | 5922.9 | 5695.4 | 5265.7 | 4680.2 | 4039.9 | 3766.1 | 3513.3 | 3113.1 |
| 10° | 7574.2 | 7338.3 | 7325.7 | 7144.6 | 6896.0 | 6382.1 | 5678.6 | 4882.4 | 4393.7 | 4023.0 | 3395.4 |
| 12.5° | 8421.0 | 8206.1 | 8303.0 | 8282.0 | 8050.3 | 7578.5 | 6765.4 | 5712.3 | 5202.6 | 4625.4 | 3686.0 |
| 15° | 9191.9 | 9103.4 | 9073.9 | 9048.7 | 8956.0 | 8606.3 | 7877.6 | 6723.3 | 5986.1 | 5291.0 | 4014.6 |
| 17.5° | 9945.9 | 9718.5 | 9828.0 | 9849.0 | 9840.6 | 9524.7 | 8842.2 | 7683.8 | 6816.0 | 5994.5 | 4360.0 |
| 20° | 10615.7 | 10636.8 | 10489.4 | 10459.9 | 10434.6 | 10422.0 | 9756.4 | 8635.8 | 7835.4 | 6731.7 | 4810.8 |
| 22.5° | 11475.1 | 11327.7 | 11458.3 | 11374.0 | 11209.7 | 11108.6 | 10598.9 | 9478.3 | 8720.1 | 7620.6 | 5270.0 |
| 25° | 12490.3 | 12608.3 | 12300.8 | 12267.1 | 12085.9 | 11736.3 | 11277.1 | 10422.0 | 9571.0 | 8446.3 | 5767.0 |
| 27.5° | 13741.5 | 13535.1 | 13455.0 | 13269.7 | 12941.1 | 12793.7 | 12254.4 | 11395.1 | 10598.9 | 9314.0 | 6247.3 |
| 30° | 14815.7 | 14760.9 | 14360.7 | 14141.7 | 13855.2 | 13851.0 | 13097.0 | 12713.6 | 11938.5 | 10674.7 | 6908.7 |
| 32.5° | 15691.9 | 15451.8 | 15304.4 | 15152.7 | 14921.0 | 14984.2 | 14348.1 | 14145.9 | 13366.6 | 11938.5 | 7688.0 |
| 35° | 16277.5 | 16104.7 | 16016.3 | 15784.6 | 15717.2 | 15999.4 | 15734.0 | 15649.8 | 15009.5 | 13716.2 | 8602.1 |
| 37.5° | 16462.8 | 16517.6 | 16500.7 | 16210.1 | 16353.3 | 17115.8 | 17457.0 | 17237.9 | 16900.9 | 15590.8 | 9592.1 |
| 40° | 16627.1 | 16665.0 | 16580.8 | 16922.0 | 17330.6 | 18198.4 | 19432.7 | 19070.4 | 18944.0 | 17490.7 | 10969.6 |
| 42.5° | 16719.8 | 16690.3 | 16690.3 | 17280.1 | 17899.3 | 19643.3 | 21341.0 | 21100.9 | 21004.0 | 19512.7 | 12562.0 |
| 45° | 16319.6 | 16033.1 | 16340.7 | 17141.0 | 18388.0 | 20355.3 | 22866.0 | 23198.8 | 23059.7 | 21918.1 | 14423.9 |
| 47.5° | 14824.1 | 15001.0 | 15173.8 | 16243.8 | 17794.0 | 20136.2 | 23801.2 | 24934.3 | 25191.3 | 23940.2 | 15645.6 |
| 50° | 12562.0 | 12524.0 | 12882.1 | 14230.1 | 16113.2 | 19192.6 | 23620.0 | 25435.6 | 25903.2 | 24546.8 | 15902.5 |
| 52.5° | 9137.1 | 9415.1 | 9802.7 | 11142.3 | 13375.0 | 16749.3 | 21282.0 | 24142.4 | 24765.8 | 23801.2 | 15734.0 |
| 55° | 5320.5 | 5013.0 | 5885.0 | 7018.2 | 9124.5 | 12633.6 | 17992.0 | 21400.0 | 22554.2 | 22444.7 | 14883.1 |
| 57.5° | 2131.6 | 2064.2 | 2363.3 | 3184.7 | 4760.2 | 7831.2 | 13084.3 | 17583.4 | 19432.7 | 20557.5 | 13080.1 |
| 60° | 935.2 | 914.1 | 1074.2 | 1297.5 | 1946.2 | 3610.2 | 7157.2 | 10935.9 | 12865.3 | 14364.9 | 9002.3 |
| 62.5° | 674.0 | 665.6 | 745.6 | 825.7 | 1027.9 | 1571.3 | 3007.8 | 4406.4 | 5493.2 | 6634.8 | 4031.5 |
| 65° | 543.4 | 564.5 | 619.3 | 661.4 | 758.3 | 872.0 | 1061.6 | 1225.9 | 1503.9 | 1558.7 | 888.9 |
| 67.5° | 442.3 | 459.2 | 509.7 | 556.1 | 572.9 | 471.8 | 488.7 | 429.7 | 429.7 | 383.3 | 307.5 |
| 70° | 324.4 | 328.6 | 387.6 | 442.3 | 353.9 | 189.6 | 332.8 | 332.8 | 299.1 | 286.5 | 261.2 |
| 72.5° | 240.1 | 244.3 | 290.7 | 273.8 | 139.0 | 118.0 | 244.3 | 269.6 | 244.3 | 231.7 | 210.6 |
| 75° | 176.9 | 181.1 | 151.7 | 63.2 | 59.0 | 75.8 | 143.2 | 185.4 | 176.9 | 172.7 | 160.1 |
| 77.5° | 33.7 | 25.3 | 21.1 | 29.5 | 42.1 | 63.2 | 92.7 | 113.7 | 118.0 | 126.4 | 118.0 |
| 80° | 4.2 | 4.2 | 12.6 | 25.3 | 46.3 | 67.4 | 96.9 | 109.5 | 113.7 | 118.0 | 109.5 |
| 82.5° | 0.0 | 4.2 | 12.6 | 25.3 | 46.3 | 63.2 | 84.3 | 96.9 | 105.3 | 109.5 | 105.3 |
| 85° | 0.0 | 4.2 | 8.4 | 21.1 | 37.9 | 46.3 | 42.1 | 29.5 | 25.3 | 29.5 | 21.1 |
| 87.5° | 0.0 | 0.0 | 4.2 | 4.2 | 8.4 | 8.4 | 8.4 | 8.4 | 8.4 | 8.4 | 8.4 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



REPORT NUMBER: P530581

CATALOG NUMBER: GALN-SA5D-740-U-T2R-GRSBK

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 2653.9 | 2653.9 | 2653.9 | 2653.9 | 2653.9 | 2653.9 | 2653.9 | 2653.9 | 2653.9 | 2653.9 | 2653.9 |
| 2.5° | 2687.6 | 2670.8 | 2611.8 | 2548.6 | 2493.9 | 2519.1 | 2493.9 | 2472.8 | 2481.2 | 2472.8 | 2464.4 |
| 5° | 2835.1 | 2759.2 | 2632.9 | 2578.1 | 2531.8 | 2527.6 | 2514.9 | 2510.7 | 2514.9 | 2514.9 | 2477.0 |
| 7.5° | 2974.1 | 2851.9 | 2717.1 | 2658.1 | 2603.4 | 2607.6 | 2578.1 | 2578.1 | 2573.9 | 2552.8 | 2544.4 |
| 10° | 3184.7 | 3020.4 | 2847.7 | 2742.4 | 2675.0 | 2662.4 | 2632.9 | 2603.4 | 2603.4 | 2603.4 | 2561.3 |
| 12.5° | 3416.4 | 3210.0 | 2974.1 | 2851.9 | 2771.9 | 2708.7 | 2662.4 | 2653.9 | 2607.6 | 2599.2 | 2578.1 |
| 15° | 3618.6 | 3357.4 | 3058.3 | 2889.8 | 2788.7 | 2704.5 | 2632.9 | 2586.5 | 2565.5 | 2552.8 | 2536.0 |
| 17.5° | 3816.6 | 3483.8 | 3104.7 | 2889.8 | 2780.3 | 2683.4 | 2607.6 | 2565.5 | 2514.9 | 2523.3 | 2489.6 |
| 20° | 4082.0 | 3618.6 | 3117.3 | 2835.1 | 2700.3 | 2607.6 | 2506.5 | 2485.4 | 2455.9 | 2430.7 | 2439.1 |
| 22.5° | 4339.0 | 3715.5 | 3079.4 | 2767.7 | 2573.9 | 2464.4 | 2413.8 | 2388.5 | 2375.9 | 2354.8 | 2325.4 |
| 25° | 4570.7 | 3820.8 | 3020.4 | 2645.5 | 2439.1 | 2359.1 | 2312.7 | 2308.5 | 2279.0 | 2279.0 | 2224.3 |
| 27.5° | 4806.6 | 3858.7 | 2919.3 | 2502.3 | 2321.1 | 2274.8 | 2253.7 | 2245.3 | 2232.7 | 2203.2 | 2165.3 |
| 30° | 5076.2 | 3871.4 | 2771.9 | 2354.8 | 2215.8 | 2165.3 | 2194.8 | 2215.8 | 2161.1 | 2106.3 | 2123.1 |
| 32.5° | 5299.4 | 3841.9 | 2595.0 | 2215.8 | 2140.0 | 2114.7 | 2173.7 | 2194.8 | 2131.6 | 2072.6 | 2043.1 |
| 35° | 5569.1 | 3770.3 | 2422.2 | 2106.3 | 2064.2 | 2114.7 | 2165.3 | 2165.3 | 2038.9 | 1967.3 | 1950.4 |
| 37.5° | 5977.7 | 3690.2 | 2262.2 | 2013.6 | 1984.1 | 2089.4 | 2156.8 | 2110.5 | 1912.5 | 1824.1 | 1803.0 |
| 40° | 6415.8 | 3639.7 | 2106.3 | 1920.9 | 1942.0 | 2047.3 | 2085.2 | 1942.0 | 1739.8 | 1685.0 | 1668.2 |
| 42.5° | 7051.9 | 3538.6 | 1967.3 | 1840.9 | 1904.1 | 1988.3 | 1988.3 | 1731.4 | 1655.5 | 1626.1 | 1621.8 |
| 45° | 7843.9 | 3467.0 | 1845.1 | 1773.5 | 1849.3 | 1870.4 | 1803.0 | 1621.8 | 1567.1 | 1558.7 | 1562.9 |
| 47.5° | 8231.4 | 3327.9 | 1718.7 | 1693.5 | 1748.2 | 1752.4 | 1575.5 | 1533.4 | 1487.0 | 1474.4 | 1466.0 |
| 50° | 8172.4 | 3079.4 | 1554.4 | 1588.1 | 1664.0 | 1621.8 | 1436.5 | 1444.9 | 1402.8 | 1398.6 | 1377.5 |
| 52.5° | 7759.6 | 2687.6 | 1390.2 | 1470.2 | 1554.4 | 1432.3 | 1322.8 | 1314.3 | 1314.3 | 1259.6 | 1238.5 |
| 55° | 6879.2 | 2165.3 | 1192.2 | 1293.3 | 1394.4 | 1204.8 | 1175.3 | 1166.9 | 1145.8 | 1095.3 | 1082.6 |
| 57.5° | 5446.9 | 1588.1 | 897.3 | 1006.8 | 1183.7 | 1023.7 | 1019.4 | 981.5 | 926.8 | 888.9 | 888.9 |
| 60° | 3239.5 | 914.1 | 564.5 | 615.0 | 783.5 | 829.9 | 922.6 | 905.7 | 813.0 | 754.1 | 737.2 |
| 62.5° | 1478.6 | 471.8 | 358.1 | 366.5 | 421.3 | 539.2 | 724.6 | 838.3 | 707.7 | 606.6 | 598.2 |
| 65° | 497.1 | 349.6 | 294.9 | 282.2 | 290.7 | 324.4 | 433.9 | 594.0 | 564.5 | 467.6 | 450.7 |
| 67.5° | 303.3 | 311.7 | 278.0 | 257.0 | 257.0 | 252.8 | 248.5 | 269.6 | 332.8 | 324.4 | 328.6 |
| 70° | 261.2 | 286.5 | 257.0 | 231.7 | 223.3 | 210.6 | 176.9 | 147.4 | 126.4 | 147.4 | 155.9 |
| 72.5° | 210.6 | 227.5 | 219.1 | 198.0 | 176.9 | 160.1 | 126.4 | 96.9 | 71.6 | 63.2 | 63.2 |
| 75° | 155.9 | 168.5 | 176.9 | 151.7 | 134.8 | 113.7 | 92.7 | 63.2 | 37.9 | 25.3 | 25.3 |
| 77.5° | 113.7 | 126.4 | 130.6 | 118.0 | 101.1 | 80.0 | 59.0 | 42.1 | 21.1 | 8.4 | 8.4 |
| 80° | 96.9 | 113.7 | 126.4 | 118.0 | 105.3 | 75.8 | 54.8 | 29.5 | 16.9 | 4.2 | 4.2 |
| 82.5° | 92.7 | 113.7 | 126.4 | 113.7 | 101.1 | 71.6 | 54.8 | 33.7 | 12.6 | 4.2 | 4.2 |
| 85° | 21.1 | 29.5 | 37.9 | 46.3 | 54.8 | 54.8 | 42.1 | 25.3 | 12.6 | 4.2 | 4.2 |
| 87.5° | 8.4 | 8.4 | 8.4 | 8.4 | 8.4 | 8.4 | 8.4 | 8.4 | 4.2 | 4.2 | 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)