

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: P453784

Luminaire Tested: **GALN-SA4D-750-U-T4W-HSS**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P453784
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-27)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GALN-SA4D-750-U-T4W-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 5000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 22138 lumens
Efficiency: N/A
Efficacy: 90.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B2 - U0 - G4

Input Watts (W): 245
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

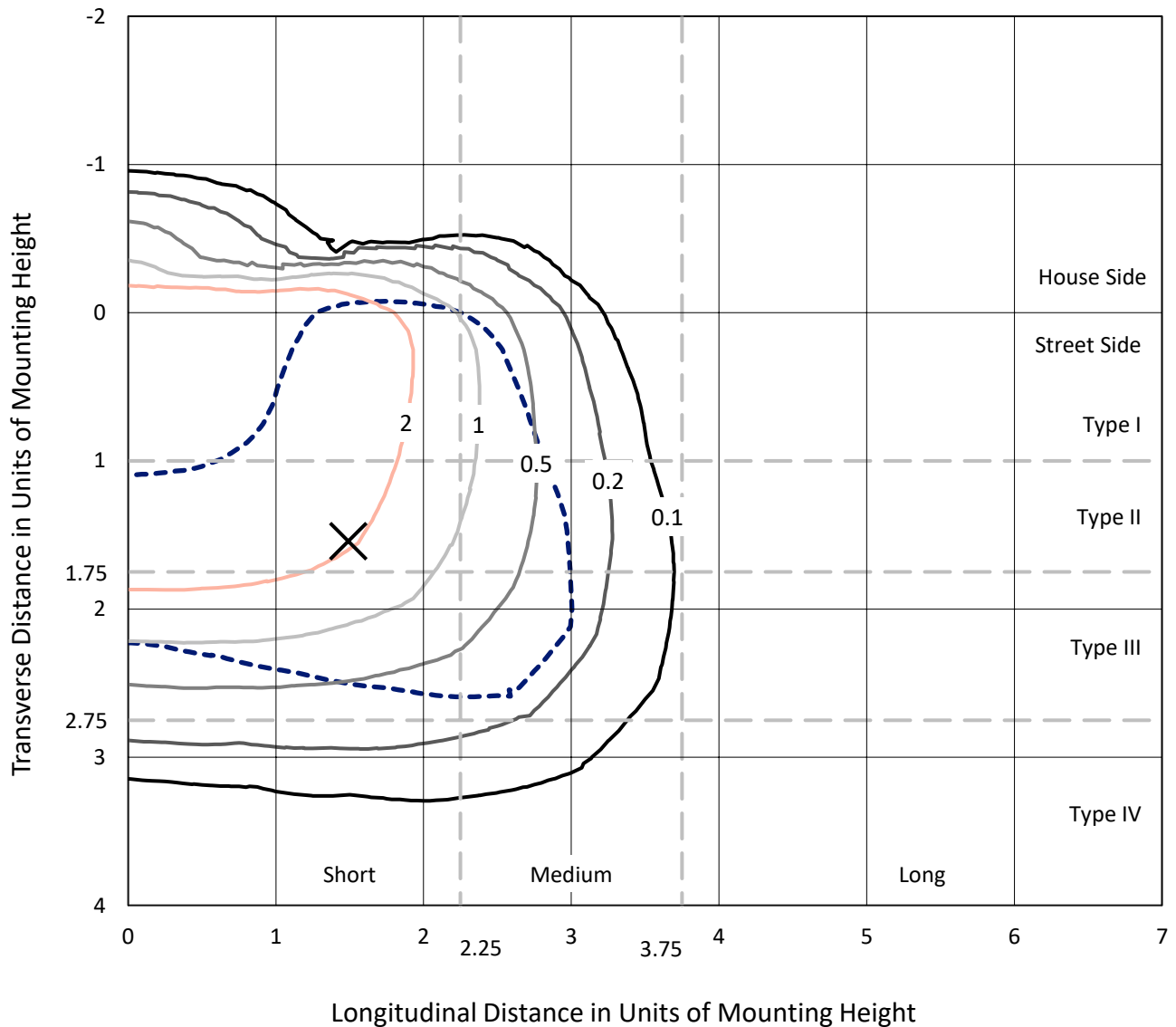




REPORT NUMBER: P453784
 CATALOG NUMBER: GALN-SA4D-750-U-T4W-HSS

Iso-Footcandle Lines of Horizontal Illumination

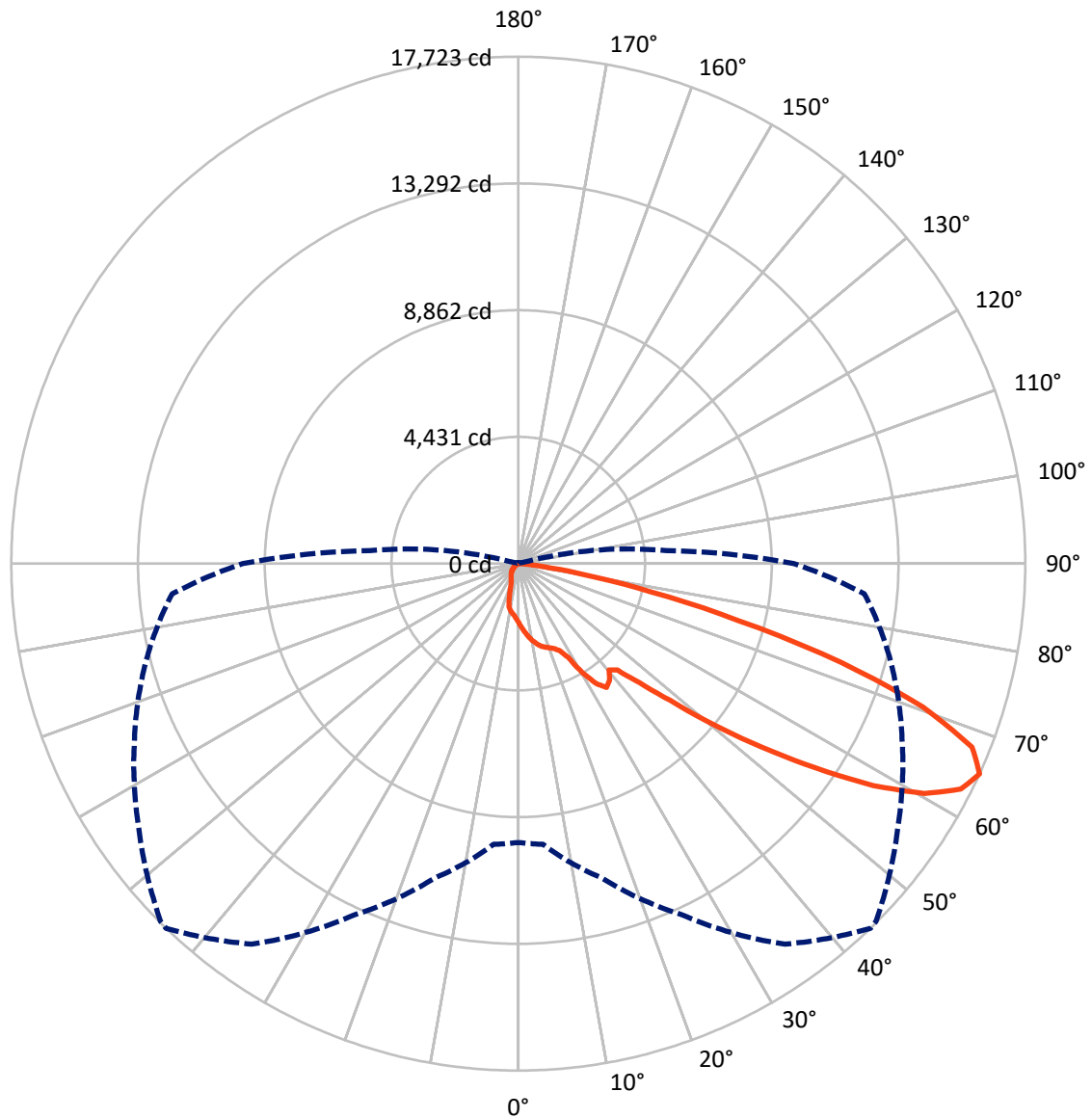
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.8 fc
 Type III - Short - N/A

REPORT NUMBER: P453784
CATALOG NUMBER: GALN-SA4D-750-U-T4W-HSS

Luminous Intensity Polar Plot



— Vertical Plane Through 44-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

REPORT NUMBER: P453784

CATALOG NUMBER: GALN-SA4D-750-U-T4W-HSS

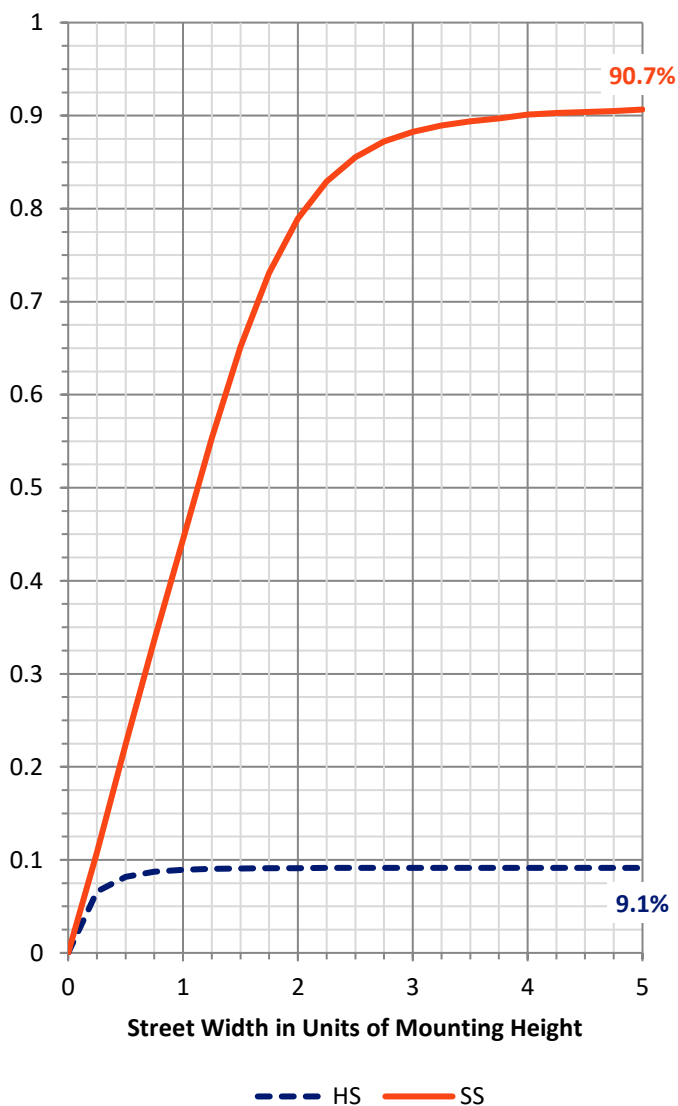
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 2039.7 | 0.0 | 2039.7 |
| | % Fixture | 9.2 | 0.0 | 9.2 |
| Street Side | Lumens | 20098.3 | 0.0 | 20098.3 |
| | % Fixture | 90.8 | 0.0 | 90.8 |
| Total | Lumens | 22138.0 | 0.0 | 22138.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 204.9 | 0.9 |
| 10°-20° | 616.8 | 2.8 |
| 20°-30° | 1045.8 | 4.7 |
| 30°-40° | 1738.8 | 7.9 |
| 40°-50° | 3036.0 | 13.7 |
| 50°-60° | 5931.3 | 26.8 |
| 60°-70° | 6881.7 | 31.1 |
| 70°-80° | 2506.0 | 11.3 |
| 80°-90° | 176.6 | 0.8 |
| 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° | 22138.0 | 100.0 |
| 0°-180° | 22138.0 | 100.0 |

Coefficient of Utilization



REPORT NUMBER: P453784

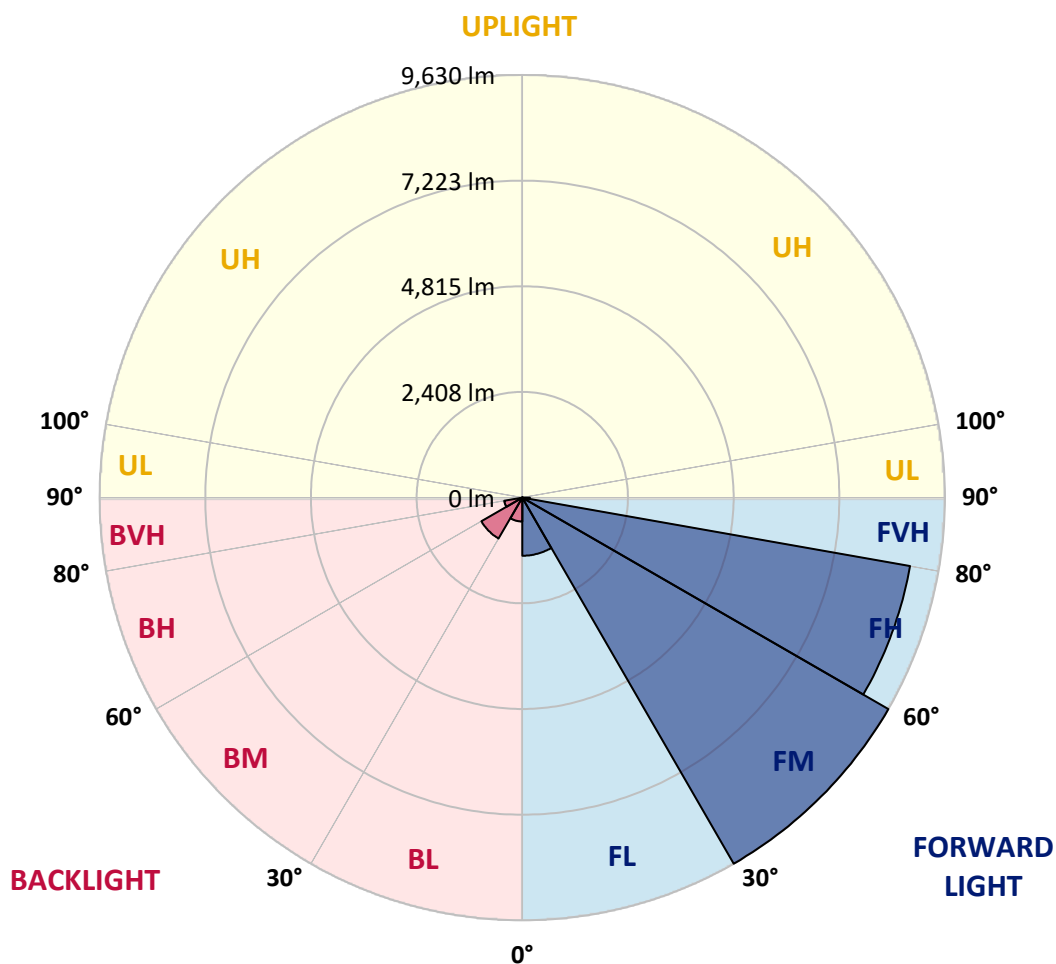
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|----------|
| | | | | B | U | G |
| FL | (0°-30°) | 1324.1 | 6.0 | | | |
| FM | (30°-60°) | 9630.1 | 43.5 | | | |
| FH | (60°-80°) | 8970.0 | 40.5 | | | G4/12000 |
| FVH | (80°-90°) | 174.2 | 0.8 | | | G2/225 |
| BL | (0°-30°) | 543.4 | 2.5 | B2/1000 | | |
| BM | (30°-60°) | 1076.1 | 4.9 | B2/2500 | | |
| BH | (60°-80°) | 417.7 | 1.9 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 2.4 | 0.0 | | | G0/10 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B2-U0-G4

Type III Short





REPORT NUMBER: P453784

CATALOG NUMBER: GALN-SA4D-750-U-T4W-HSS

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 44° | 45° | 55° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 2060.4 | 2060.4 | 2060.4 | 2060.4 | 2060.4 | 2060.4 | 2060.4 | 2060.4 | 2060.4 | 2060.4 | 2060.4 |
| 2.5° | 2319.2 | 2309.1 | 2304.0 | 2276.9 | 2256.6 | 2231.2 | 2231.2 | 2199.1 | 2161.9 | 2121.3 | 2084.1 |
| 5° | 2578.0 | 2561.1 | 2539.1 | 2515.4 | 2468.1 | 2400.4 | 2400.4 | 2332.7 | 2254.9 | 2185.6 | 2109.4 |
| 7.5° | 2826.7 | 2811.5 | 2774.2 | 2728.6 | 2650.8 | 2579.7 | 2574.6 | 2476.5 | 2383.5 | 2278.6 | 2170.3 |
| 10° | 3044.9 | 3033.1 | 3000.9 | 2913.0 | 2831.8 | 2738.7 | 2737.0 | 2627.1 | 2518.8 | 2390.3 | 2256.6 |
| 12.5° | 3197.2 | 3198.8 | 3156.6 | 3072.0 | 2967.1 | 2879.1 | 2872.4 | 2764.1 | 2650.8 | 2512.0 | 2348.0 |
| 15° | 3305.4 | 3305.4 | 3261.4 | 3166.7 | 3072.0 | 2994.2 | 2987.4 | 2892.7 | 2775.9 | 2625.4 | 2447.8 |
| 17.5° | 3335.9 | 3346.0 | 3298.7 | 3214.1 | 3137.9 | 3070.3 | 3068.6 | 2989.1 | 2896.0 | 2750.6 | 2549.3 |
| 20° | 3324.0 | 3334.2 | 3297.0 | 3231.0 | 3178.5 | 3139.6 | 3134.6 | 3102.4 | 3016.2 | 2879.1 | 2657.5 |
| 22.5° | 3298.7 | 3308.8 | 3281.7 | 3242.8 | 3217.5 | 3229.3 | 3220.8 | 3247.9 | 3202.2 | 3036.4 | 2786.1 |
| 25° | 3303.7 | 3313.9 | 3293.6 | 3271.6 | 3293.6 | 3366.3 | 3388.3 | 3505.0 | 3464.4 | 3236.1 | 2924.8 |
| 27.5° | 3462.7 | 3483.0 | 3454.3 | 3464.4 | 3542.2 | 3711.4 | 3753.7 | 3955.0 | 3775.7 | 3489.8 | 3141.3 |
| 30° | 3816.3 | 3802.8 | 3748.6 | 3797.7 | 4068.3 | 4427.0 | 4415.1 | 4383.0 | 4102.2 | 3782.5 | 3398.5 |
| 32.5° | 4137.7 | 4125.9 | 4122.5 | 4333.9 | 4824.5 | 4998.7 | 4990.3 | 4679.0 | 4394.8 | 4117.4 | 3652.2 |
| 35° | 4267.9 | 4222.3 | 4212.1 | 4724.7 | 5545.1 | 5315.1 | 5262.6 | 4800.8 | 4750.1 | 4482.8 | 3911.0 |
| 37.5° | 4660.4 | 4628.3 | 4470.9 | 4789.0 | 5257.5 | 5181.4 | 5140.8 | 5010.6 | 5129.0 | 4805.9 | 4203.7 |
| 40° | 5469.0 | 5379.3 | 5237.2 | 4926.0 | 4849.9 | 4882.0 | 4922.6 | 5279.5 | 5577.3 | 5247.4 | 4594.4 |
| 42.5° | 6473.8 | 6453.5 | 6189.6 | 5609.4 | 5039.3 | 5083.3 | 5135.7 | 5841.1 | 6221.8 | 5912.2 | 5232.2 |
| 45° | 7679.9 | 7708.7 | 7328.1 | 6643.0 | 5895.3 | 5932.5 | 6008.6 | 6670.0 | 7094.6 | 6945.8 | 6235.3 |
| 47.5° | 8776.1 | 8754.1 | 8625.5 | 7913.4 | 7223.2 | 7140.3 | 7263.8 | 7734.1 | 8302.4 | 8326.1 | 7480.3 |
| 50° | 9879.0 | 9995.8 | 9804.6 | 9525.5 | 9012.9 | 8838.7 | 8793.0 | 9023.1 | 9889.2 | 9775.8 | 8975.7 |
| 52.5° | 11464.1 | 11525.0 | 11166.4 | 11095.3 | 11212.0 | 10647.0 | 10601.4 | 10657.2 | 11431.9 | 11042.9 | 10095.6 |
| 55° | 12460.4 | 12424.9 | 12291.3 | 12846.1 | 13307.9 | 12602.5 | 12545.0 | 12320.0 | 12712.5 | 11937.7 | 11173.1 |
| 57.5° | 12775.1 | 12825.8 | 13137.1 | 14140.2 | 15233.0 | 14634.2 | 14529.3 | 13889.9 | 13636.1 | 12771.7 | 12164.4 |
| 60° | 12634.7 | 12727.7 | 13399.3 | 14891.3 | 16407.0 | 16317.3 | 16227.7 | 15153.5 | 14299.2 | 13468.6 | 12859.7 |
| 62.5° | 11634.9 | 11765.2 | 12839.4 | 14757.7 | 16804.5 | 17364.4 | 17252.8 | 15941.8 | 14740.7 | 13807.0 | 12981.5 |
| 65° | 9750.5 | 9846.9 | 11389.6 | 13544.8 | 16239.5 | 17723.1 | 17682.5 | 16188.8 | 14810.1 | 13497.4 | 12147.5 |
| 67.5° | 6950.8 | 7279.0 | 8708.4 | 11415.0 | 14568.2 | 17110.7 | 17180.0 | 15892.7 | 14158.8 | 12159.3 | 10060.0 |
| 70° | 4369.4 | 4592.7 | 5617.9 | 8172.2 | 11678.9 | 15011.4 | 15239.8 | 14537.7 | 12287.9 | 9478.1 | 6734.3 |
| 72.5° | 2084.1 | 2249.8 | 2980.6 | 5173.0 | 8243.2 | 11810.9 | 11991.9 | 11934.3 | 9501.8 | 5971.4 | 3474.6 |
| 75° | 928.7 | 991.3 | 1422.6 | 2640.6 | 5321.8 | 7938.8 | 8407.3 | 8485.1 | 5937.6 | 2921.4 | 1351.6 |
| 77.5° | 473.7 | 475.3 | 666.5 | 1278.9 | 2657.5 | 4736.5 | 4829.6 | 5101.9 | 3219.1 | 1287.3 | 470.3 |
| 80° | 252.1 | 269.0 | 353.5 | 603.9 | 1378.7 | 2332.7 | 2320.9 | 2551.0 | 1427.7 | 631.0 | 157.3 |
| 82.5° | 113.3 | 125.2 | 199.6 | 316.3 | 673.3 | 884.7 | 954.1 | 1043.7 | 612.4 | 402.6 | 69.4 |
| 85° | 33.8 | 40.6 | 98.1 | 159.0 | 243.6 | 255.4 | 285.9 | 368.8 | 346.8 | 285.9 | 35.5 |
| 87.5° | 5.1 | 5.1 | 40.6 | 44.0 | 35.5 | 45.7 | 47.4 | 52.4 | 111.6 | 104.9 | 18.6 |
| 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: P453784

CATALOG NUMBER: GALN-SA4D-750-U-T4W-HSS

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 2060.4 | 2060.4 | 2060.4 | 2060.4 | 2060.4 | 2060.4 | 2060.4 | 2060.4 | 2060.4 | 2060.4 | 2060.4 |
| 2.5° | 2063.8 | 2051.9 | 2009.6 | 1974.1 | 1943.7 | 1925.1 | 1903.1 | 1889.5 | 1882.8 | 1877.7 | 1879.4 |
| 5° | 2072.2 | 2043.5 | 1970.7 | 1913.2 | 1869.2 | 1821.9 | 1789.7 | 1771.1 | 1762.7 | 1749.1 | 1749.1 |
| 7.5° | 2119.6 | 2073.9 | 1972.4 | 1884.5 | 1808.3 | 1744.1 | 1683.2 | 1661.2 | 1645.9 | 1642.6 | 1639.2 |
| 10° | 2187.3 | 2129.7 | 1991.0 | 1869.2 | 1761.0 | 1673.0 | 1586.7 | 1510.6 | 1451.4 | 1415.9 | 1410.8 |
| 12.5° | 2271.8 | 2189.0 | 2019.8 | 1859.1 | 1720.4 | 1564.7 | 1336.4 | 1182.4 | 1079.3 | 1047.1 | 1052.2 |
| 15° | 2349.7 | 2260.0 | 2048.5 | 1850.6 | 1645.9 | 1297.5 | 1038.7 | 862.7 | 810.3 | 805.2 | 806.9 |
| 17.5° | 2442.7 | 2336.1 | 2082.4 | 1838.8 | 1441.3 | 991.3 | 771.4 | 724.0 | 734.2 | 751.1 | 749.4 |
| 20° | 2539.1 | 2417.3 | 2123.0 | 1767.7 | 1150.3 | 746.0 | 681.7 | 686.8 | 702.0 | 717.2 | 720.6 |
| 22.5° | 2642.3 | 2510.4 | 2170.3 | 1596.9 | 877.9 | 649.6 | 646.2 | 653.0 | 668.2 | 685.1 | 688.5 |
| 25° | 2784.4 | 2627.1 | 2205.9 | 1373.6 | 664.8 | 600.5 | 607.3 | 619.1 | 632.7 | 651.3 | 654.7 |
| 27.5° | 2967.1 | 2784.4 | 2224.5 | 1082.6 | 575.1 | 556.5 | 558.2 | 575.1 | 592.1 | 609.0 | 609.0 |
| 30° | 3203.9 | 2972.2 | 2187.3 | 818.7 | 531.2 | 514.3 | 507.5 | 517.6 | 539.6 | 556.5 | 558.2 |
| 32.5° | 3415.4 | 3149.8 | 2089.1 | 625.9 | 499.0 | 475.3 | 458.4 | 460.1 | 468.6 | 478.7 | 480.4 |
| 35° | 3626.8 | 3322.3 | 1921.7 | 526.1 | 465.2 | 438.1 | 412.8 | 399.2 | 392.5 | 387.4 | 392.5 |
| 37.5° | 3897.5 | 3537.2 | 1698.4 | 478.7 | 436.4 | 402.6 | 367.1 | 338.3 | 314.6 | 299.4 | 302.8 |
| 40° | 4246.0 | 3834.9 | 1434.5 | 448.3 | 409.4 | 368.8 | 321.4 | 284.2 | 243.6 | 230.1 | 223.3 |
| 42.5° | 4821.1 | 4286.6 | 1157.1 | 422.9 | 382.3 | 333.2 | 274.0 | 223.3 | 186.1 | 172.5 | 175.9 |
| 45° | 5729.5 | 4856.6 | 891.5 | 395.8 | 355.2 | 294.3 | 230.1 | 175.9 | 145.5 | 138.7 | 142.1 |
| 47.5° | 6933.9 | 5594.2 | 686.8 | 365.4 | 321.4 | 252.1 | 181.0 | 138.7 | 120.1 | 118.4 | 116.7 |
| 50° | 8067.3 | 6281.0 | 573.5 | 331.6 | 280.8 | 209.8 | 148.9 | 116.7 | 104.9 | 103.2 | 103.2 |
| 52.5° | 9092.4 | 6773.2 | 466.9 | 292.6 | 236.8 | 172.5 | 125.2 | 103.2 | 93.0 | 88.0 | 88.0 |
| 55° | 10004.2 | 7094.6 | 378.9 | 245.3 | 186.1 | 137.0 | 108.3 | 93.0 | 81.2 | 74.4 | 72.7 |
| 57.5° | 10692.7 | 7133.5 | 284.2 | 196.2 | 138.7 | 106.6 | 93.0 | 81.2 | 67.7 | 59.2 | 55.8 |
| 60° | 10987.0 | 6796.9 | 209.8 | 148.9 | 103.2 | 84.6 | 74.4 | 66.0 | 50.7 | 42.3 | 40.6 |
| 62.5° | 10691.0 | 6142.3 | 155.6 | 113.3 | 79.5 | 62.6 | 52.4 | 49.1 | 35.5 | 25.4 | 23.7 |
| 65° | 9630.4 | 5196.6 | 123.5 | 86.3 | 59.2 | 45.7 | 33.8 | 32.1 | 22.0 | 11.8 | 10.1 |
| 67.5° | 7715.5 | 4070.0 | 98.1 | 64.3 | 42.3 | 30.4 | 22.0 | 20.3 | 11.8 | 3.4 | 3.4 |
| 70° | 5017.3 | 2601.7 | 79.5 | 47.4 | 27.1 | 20.3 | 13.5 | 10.1 | 6.8 | 1.7 | 0.0 |
| 72.5° | 2481.6 | 1216.3 | 64.3 | 37.2 | 18.6 | 10.1 | 5.1 | 3.4 | 5.1 | 0.0 | 0.0 |
| 75° | 962.5 | 433.1 | 47.4 | 25.4 | 10.1 | 5.1 | 3.4 | 0.0 | 1.7 | 0.0 | 0.0 |
| 77.5° | 319.7 | 143.8 | 28.8 | 13.5 | 6.8 | 3.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80° | 118.4 | 55.8 | 15.2 | 8.5 | 3.4 | 1.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 47.4 | 22.0 | 10.1 | 6.8 | 3.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 23.7 | 13.5 | 6.8 | 5.1 | 3.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 16.9 | 10.1 | 6.8 | 5.1 | 3.4 | 1.7 | 0.0 | 0.0 | 0.0 | 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)