

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: P651513

Luminaire Tested: **GALN-SA7D-840-U-SL4**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P651513
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-18)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GALN-SA7D-840-U-SL4
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(7) 80 CRI, 4000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV
SPILL LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 44356 lumens
Efficiency: N/A
Efficacy: 102.4 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G5

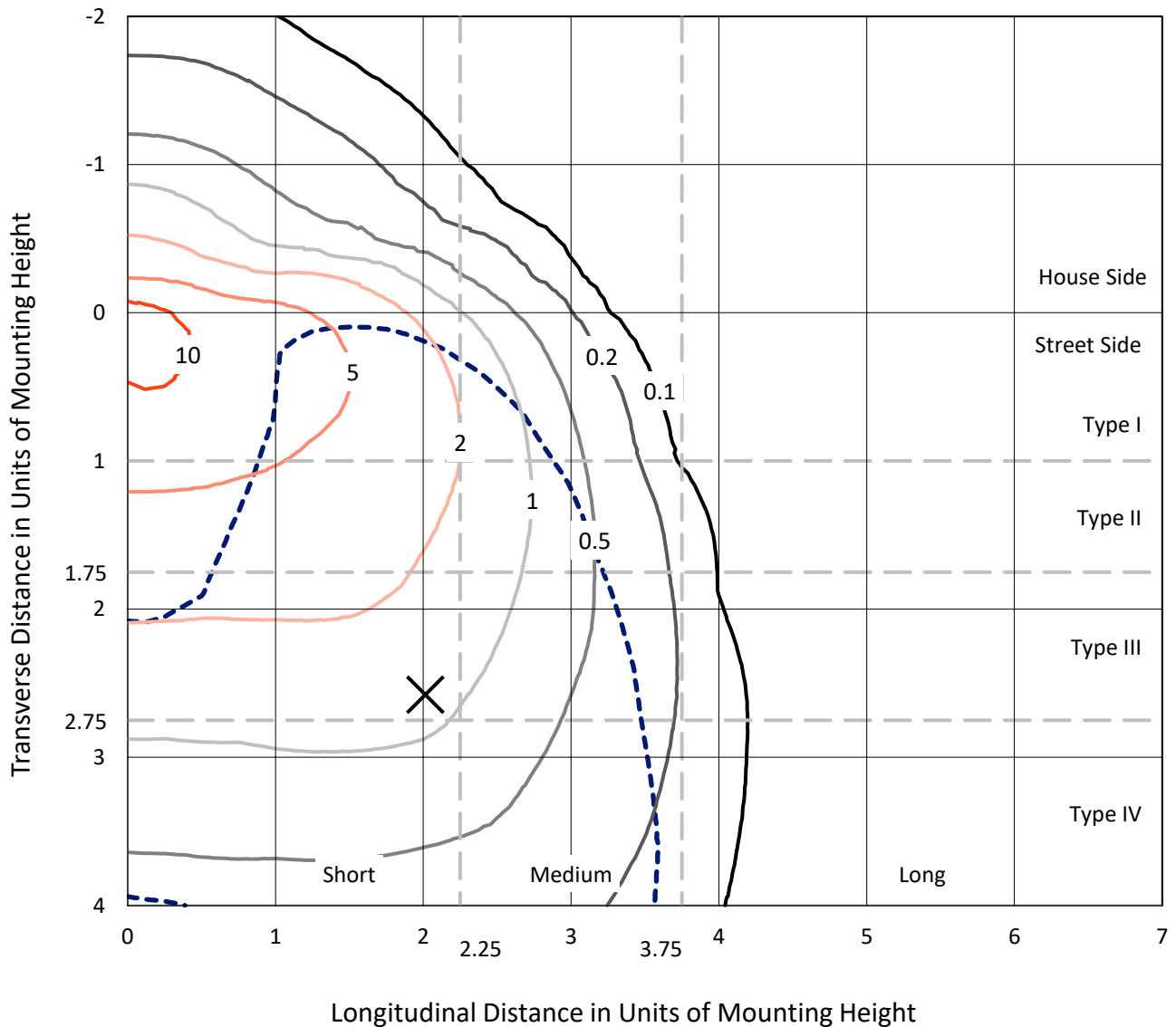
Input Watts (W): 433
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P651513
 CATALOG NUMBER: GALN-SA7D-840-U-SL4

Iso-Footcandle Lines of Horizontal Illumination

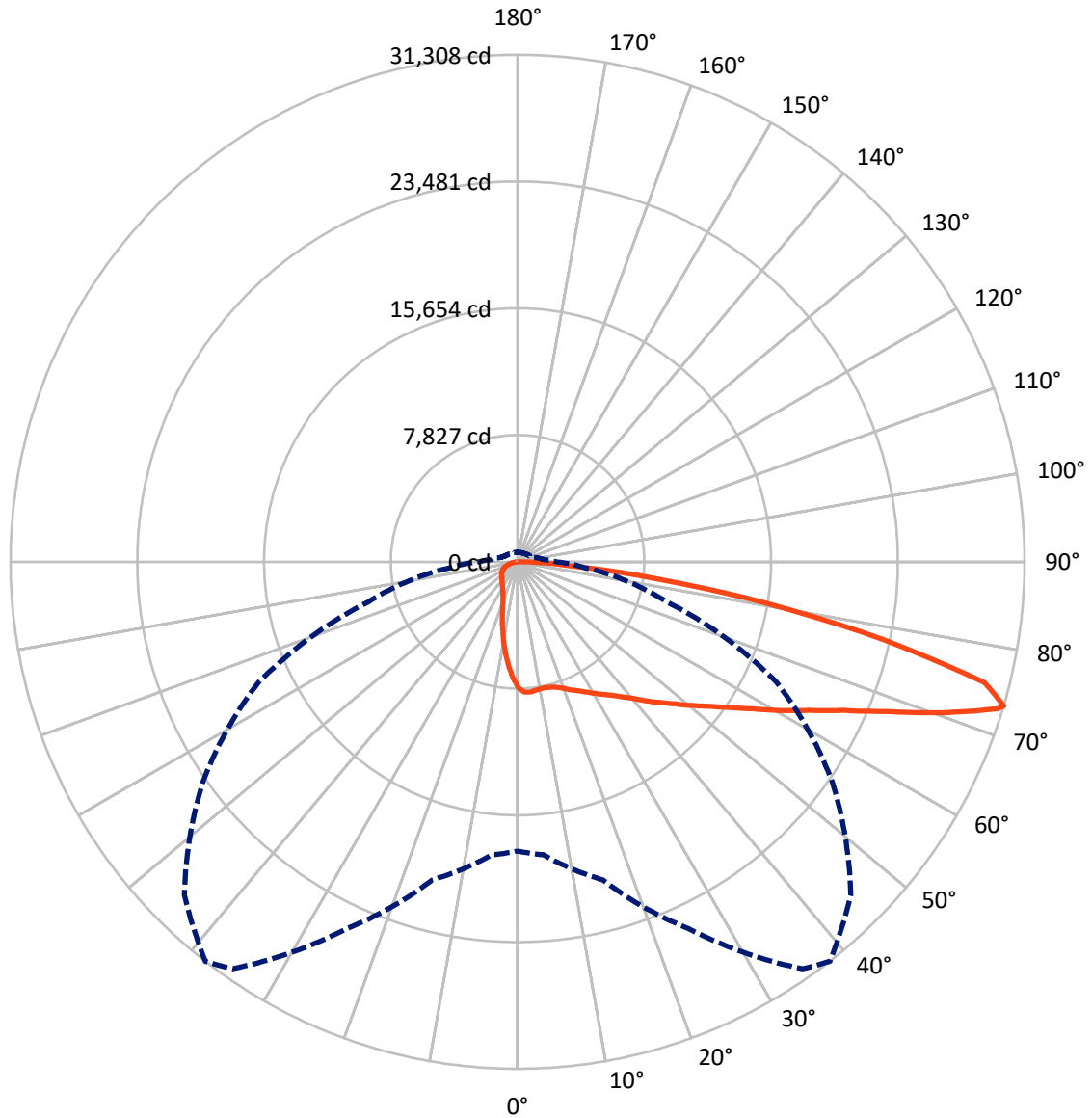
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 12.7 fc
 Type IV - Short - N/A

REPORT NUMBER: P651513
CATALOG NUMBER: GALN-SA7D-840-U-SL4

Luminous Intensity Polar Plot



— Vertical Plane Through 38-Deg Lateral - - - Horizontal Cone Through 73-Deg Vertical

REPORT NUMBER: P651513
 CATALOG NUMBER: GALN-SA7D-840-U-SL4

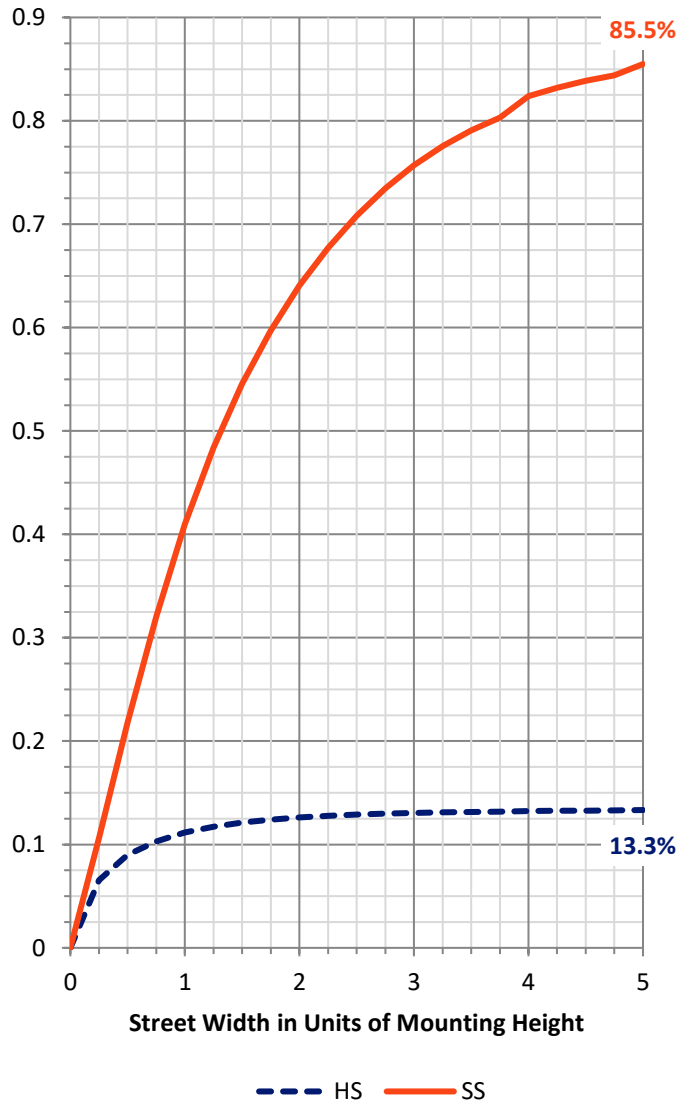
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 5962.8 | 0.0 | 5962.8 |
| | % Fixture | 13.4 | 0.0 | 13.4 |
| Street Side | Lumens | 38393.3 | 0.0 | 38393.3 |
| | % Fixture | 86.6 | 0.0 | 86.6 |
| Total | Lumens | 44356.0 | 0.0 | 44356.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 680.2 | 1.5 |
| 10°-20° | 1744.3 | 3.9 |
| 20°-30° | 2716.2 | 6.1 |
| 30°-40° | 3984.0 | 9.0 |
| 40°-50° | 5909.8 | 13.3 |
| 50°-60° | 8373.0 | 18.9 |
| 60°-70° | 10621.4 | 23.9 |
| 70°-80° | 8841.5 | 19.9 |
| 80°-90° | 1485.5 | 3.3 |
| 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° | 44356.0 | 100.0 |
| 0°-180° | 44356.0 | 100.0 |

Coefficient of Utilization

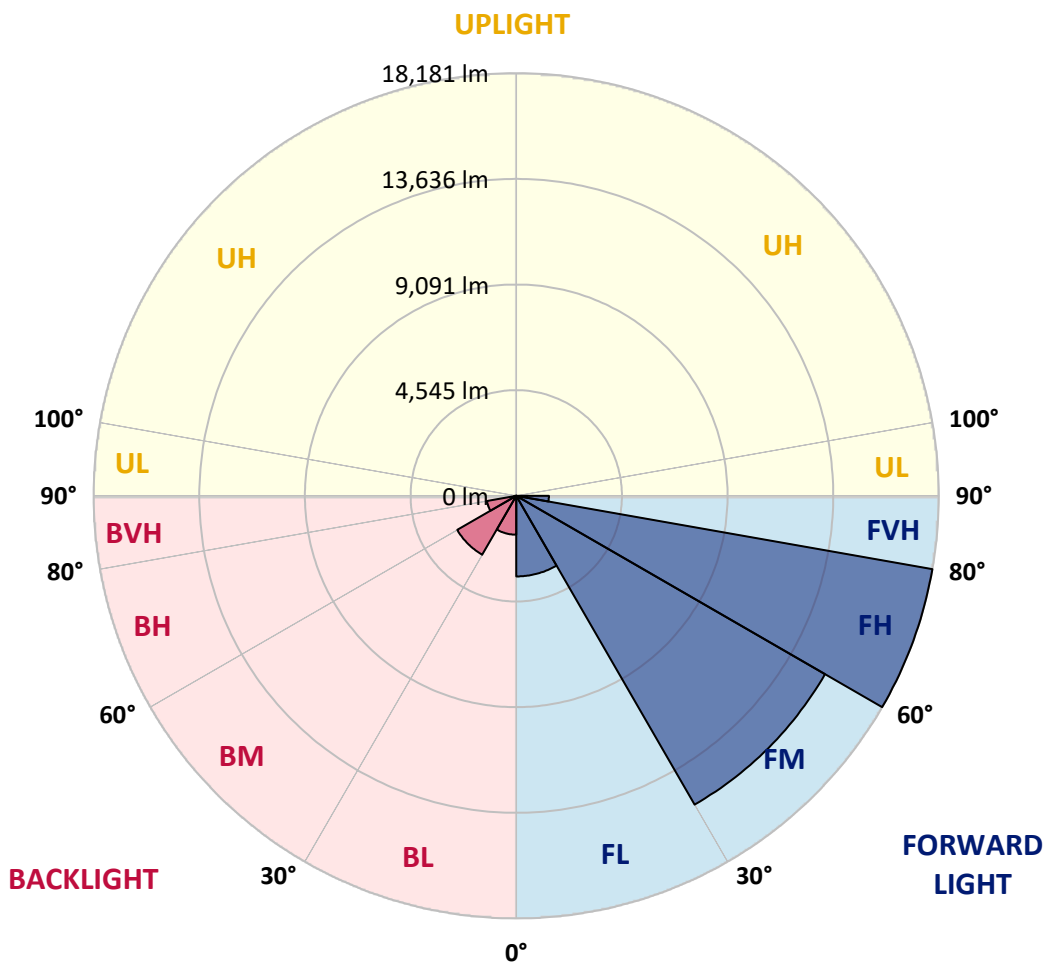


REPORT NUMBER: P651513
 CATALOG NUMBER: GALN-SA7D-840-U-SL4

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|---------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 3467.4 | 7.8 | | | |
| FM (30°-60°) | 15339.5 | 34.6 | | | |
| FH (60°-80°) | 18181.3 | 41.0 | | | G5 |
| FVH (80°-90°) | 1405.0 | 3.2 | | | G5 |
| BL (0°-30°) | 1673.2 | 3.8 | B3/2500 | | |
| BM (30°-60°) | 2927.3 | 6.6 | B3/5000 | | |
| BH (60°-80°) | 1281.6 | 2.9 | B3/2500 | | G3/2500 |
| BVH (80°-90°) | 80.6 | 0.2 | | | G1/100 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B3-U0-G5
 Type IV Short





REPORT NUMBER: P651513
 CATALOG NUMBER: GALN-SA7D-840-U-SL4

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 38° | 45° | 55° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 7792.6 | 7792.6 | 7792.6 | 7792.6 | 7792.6 | 7792.6 | 7792.6 | 7792.6 | 7792.6 | 7792.6 | 7792.6 |
| 2.5° | 8105.7 | 8145.8 | 8125.7 | 8098.2 | 8080.7 | 8063.1 | 8038.1 | 7965.4 | 7907.8 | 7845.2 | 7747.5 |
| 5° | 8165.9 | 8190.8 | 8173.3 | 8138.3 | 8098.2 | 8080.7 | 8033.1 | 7937.9 | 7845.2 | 7740.0 | 7594.7 |
| 7.5° | 8130.8 | 8140.8 | 8120.7 | 8078.1 | 8043.1 | 8010.5 | 7955.4 | 7850.2 | 7737.5 | 7609.8 | 7419.4 |
| 10° | 8005.5 | 8043.1 | 8043.1 | 8008.0 | 7972.9 | 7955.4 | 7900.3 | 7800.1 | 7697.4 | 7552.1 | 7326.7 |
| 12.5° | 7902.8 | 7942.9 | 7975.5 | 7965.4 | 7962.9 | 7962.9 | 7920.4 | 7845.2 | 7725.0 | 7587.2 | 7319.2 |
| 15° | 7832.7 | 7880.3 | 7950.4 | 7990.5 | 8015.6 | 8023.1 | 8005.5 | 7940.4 | 7817.7 | 7657.3 | 7349.2 |
| 17.5° | 7817.7 | 7875.3 | 8003.0 | 8090.7 | 8155.8 | 8153.3 | 8148.3 | 8058.1 | 7922.9 | 7757.6 | 7386.8 |
| 20° | 7885.3 | 7960.4 | 8138.3 | 8276.0 | 8371.2 | 8353.7 | 8326.2 | 8208.4 | 8050.6 | 7865.2 | 7421.9 |
| 22.5° | 8088.1 | 8165.9 | 8361.2 | 8511.5 | 8604.2 | 8604.2 | 8521.5 | 8366.2 | 8198.4 | 7990.5 | 7469.5 |
| 25° | 8378.7 | 8463.9 | 8671.8 | 8824.6 | 8867.2 | 8834.6 | 8752.0 | 8564.1 | 8371.2 | 8170.8 | 7569.7 |
| 27.5° | 8734.5 | 8837.1 | 9030.0 | 9157.7 | 9145.2 | 9120.1 | 9035.0 | 8794.5 | 8601.7 | 8418.8 | 7740.0 |
| 30° | 9177.7 | 9252.9 | 9453.3 | 9483.4 | 9438.3 | 9433.2 | 9313.1 | 9072.5 | 8892.2 | 8752.0 | 7982.9 |
| 32.5° | 9596.1 | 9663.8 | 9824.1 | 9836.6 | 9756.4 | 9766.4 | 9653.7 | 9433.2 | 9330.6 | 9280.5 | 8391.2 |
| 35° | 10039.4 | 10074.5 | 10212.3 | 10197.3 | 10144.6 | 10137.2 | 10092.1 | 9881.7 | 9914.2 | 10004.4 | 8969.9 |
| 37.5° | 10410.2 | 10480.3 | 10558.0 | 10570.4 | 10568.0 | 10593.1 | 10623.1 | 10522.9 | 10710.7 | 10993.8 | 9728.9 |
| 40° | 10750.8 | 10811.0 | 10926.2 | 10966.2 | 11063.9 | 11114.1 | 11216.8 | 11219.3 | 11652.6 | 12118.5 | 10663.1 |
| 42.5° | 10981.3 | 11084.0 | 11299.4 | 11372.0 | 11610.0 | 11760.3 | 11913.1 | 12075.9 | 12704.7 | 13303.3 | 11765.3 |
| 45° | 11181.7 | 11316.9 | 11675.1 | 11900.6 | 12223.7 | 12406.5 | 12729.6 | 13070.3 | 13974.6 | 14758.6 | 12885.0 |
| 47.5° | 11484.8 | 11605.0 | 12015.8 | 12414.1 | 12902.5 | 13112.9 | 13596.4 | 14104.8 | 15287.1 | 16146.3 | 13957.1 |
| 50° | 11905.5 | 11978.2 | 12396.5 | 13045.3 | 13669.0 | 13939.5 | 14578.2 | 15312.2 | 16689.8 | 17516.4 | 14898.9 |
| 52.5° | 12444.1 | 12474.1 | 12807.3 | 13671.5 | 14493.1 | 14828.8 | 15675.4 | 16532.0 | 17917.3 | 18706.3 | 15645.3 |
| 55° | 13080.3 | 13030.3 | 13290.7 | 14335.3 | 15434.9 | 15873.3 | 16782.5 | 17767.0 | 19297.4 | 19668.1 | 16188.9 |
| 57.5° | 13709.1 | 13631.4 | 13839.3 | 15141.9 | 16597.1 | 17125.7 | 18185.3 | 19039.4 | 20529.8 | 20567.3 | 16569.6 |
| 60° | 14375.4 | 14317.8 | 14565.7 | 16088.7 | 18022.5 | 18648.7 | 19628.0 | 20359.4 | 21722.1 | 21193.5 | 16629.8 |
| 62.5° | 15059.2 | 14966.5 | 15319.7 | 17153.2 | 19628.0 | 20196.6 | 21146.0 | 21762.1 | 22891.9 | 21426.5 | 16051.1 |
| 65° | 15723.0 | 15680.4 | 16226.4 | 18418.2 | 21456.6 | 22102.8 | 23024.6 | 23443.0 | 23828.6 | 21075.9 | 14615.8 |
| 67.5° | 16429.4 | 16514.5 | 17386.2 | 20106.5 | 23841.2 | 24652.7 | 25647.2 | 25254.0 | 24096.7 | 19415.2 | 12308.9 |
| 70° | 17506.4 | 17561.5 | 18909.1 | 22318.3 | 26914.7 | 27894.0 | 28375.0 | 25897.7 | 22804.2 | 16261.5 | 9252.9 |
| 72.5° | 17969.8 | 18212.8 | 20269.3 | 24640.3 | 30406.4 | 31005.1 | 29291.8 | 24462.4 | 18996.8 | 11046.4 | 4861.9 |
| 73° | 17867.1 | 18157.7 | 20331.9 | 24993.4 | 30679.4 | 31308.2 | 29096.4 | 23723.4 | 17659.2 | 9513.5 | 4168.1 |
| 75° | 16587.1 | 16945.3 | 19517.8 | 24697.9 | 30148.4 | 29772.7 | 25955.3 | 20219.2 | 11933.1 | 4325.9 | 1898.6 |
| 77.5° | 13087.9 | 13190.6 | 15465.0 | 19943.6 | 23741.0 | 23044.7 | 19425.2 | 12637.0 | 4874.4 | 1608.1 | 1077.1 |
| 80° | 6565.2 | 6943.5 | 8716.9 | 11424.6 | 15875.7 | 15647.8 | 12261.3 | 5976.6 | 2031.4 | 944.4 | 713.9 |
| 82.5° | 3158.6 | 3426.7 | 4245.7 | 5570.8 | 8772.0 | 8564.1 | 6071.8 | 3266.4 | 1290.0 | 551.1 | 420.8 |
| 85° | 2034.0 | 2234.4 | 2702.7 | 2657.6 | 3607.0 | 3444.1 | 2727.8 | 2472.3 | 764.0 | 288.0 | 293.1 |
| 87.5° | 1342.6 | 1470.3 | 1763.4 | 1410.3 | 1312.5 | 1187.3 | 1204.8 | 1392.7 | 150.3 | 110.3 | 40.1 |
| 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: P651513
 CATALOG NUMBER: GALN-SA7D-840-U-SL4

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 7792.6 | 7792.6 | 7792.6 | 7792.6 | 7792.6 | 7792.6 | 7792.6 | 7792.6 | 7792.6 | 7792.6 | 7792.6 |
| 2.5° | 7707.4 | 7674.9 | 7567.1 | 7461.9 | 7361.8 | 7266.6 | 7203.9 | 7121.3 | 7066.2 | 7081.2 | 7103.8 |
| 5° | 7514.6 | 7441.9 | 7251.5 | 7066.2 | 6890.8 | 6682.9 | 6515.1 | 6379.8 | 6277.1 | 6239.6 | 6232.1 |
| 7.5° | 7311.7 | 7189.0 | 6915.9 | 6597.8 | 6299.7 | 6041.7 | 5743.6 | 5595.8 | 5423.0 | 5362.9 | 5342.9 |
| 10° | 7189.0 | 7023.6 | 6640.4 | 6197.0 | 5748.7 | 5320.3 | 4997.2 | 4734.2 | 4496.2 | 4451.2 | 4428.6 |
| 12.5° | 7153.9 | 6936.0 | 6419.9 | 5848.8 | 5252.7 | 4726.7 | 4248.2 | 3902.6 | 3672.1 | 3619.5 | 3541.9 |
| 15° | 7133.9 | 6863.3 | 6214.6 | 5498.1 | 4741.7 | 4100.5 | 3597.0 | 3193.7 | 2983.3 | 2843.0 | 2845.5 |
| 17.5° | 7116.3 | 6780.6 | 5984.1 | 5114.9 | 4300.9 | 3561.9 | 3005.8 | 2642.6 | 2449.7 | 2374.6 | 2367.1 |
| 20° | 7091.2 | 6682.9 | 5718.5 | 4711.6 | 3797.4 | 3070.9 | 2567.5 | 2296.9 | 2166.7 | 2104.1 | 2101.6 |
| 22.5° | 7081.2 | 6587.8 | 5458.1 | 4300.9 | 3351.5 | 2692.7 | 2276.9 | 2086.5 | 2003.9 | 1961.3 | 1961.3 |
| 25° | 7106.3 | 6520.1 | 5185.0 | 3910.1 | 2955.7 | 2369.6 | 2076.5 | 1946.2 | 1898.6 | 1876.1 | 1868.6 |
| 27.5° | 7183.9 | 6490.1 | 4914.6 | 3519.3 | 2592.6 | 2149.2 | 1941.3 | 1851.1 | 1816.1 | 1798.5 | 1801.0 |
| 30° | 7331.7 | 6487.6 | 4649.0 | 3133.6 | 2322.0 | 1981.3 | 1833.5 | 1770.9 | 1743.4 | 1733.4 | 1730.9 |
| 32.5° | 7569.7 | 6542.6 | 4388.5 | 2815.4 | 2094.1 | 1841.0 | 1733.4 | 1688.3 | 1675.8 | 1668.2 | 1665.8 |
| 35° | 7972.9 | 6698.0 | 4130.5 | 2524.9 | 1918.7 | 1715.8 | 1638.2 | 1615.6 | 1598.1 | 1605.6 | 1608.1 |
| 37.5° | 8516.5 | 6966.0 | 3885.0 | 2296.9 | 1785.9 | 1623.1 | 1558.0 | 1538.0 | 1527.9 | 1535.5 | 1543.0 |
| 40° | 9245.4 | 7351.8 | 3679.6 | 2114.1 | 1690.7 | 1545.5 | 1487.9 | 1470.3 | 1460.3 | 1472.8 | 1475.4 |
| 42.5° | 10049.4 | 7797.6 | 3509.3 | 1971.3 | 1613.1 | 1480.3 | 1425.2 | 1405.2 | 1397.7 | 1405.2 | 1407.7 |
| 45° | 10876.1 | 8316.1 | 3421.6 | 1868.6 | 1548.0 | 1432.8 | 1375.2 | 1352.6 | 1335.1 | 1330.0 | 1337.6 |
| 47.5° | 11690.2 | 8767.0 | 3419.1 | 1806.0 | 1495.4 | 1390.2 | 1327.6 | 1302.5 | 1280.0 | 1267.5 | 1264.9 |
| 50° | 12354.0 | 9125.2 | 3479.2 | 1778.5 | 1450.3 | 1342.6 | 1280.0 | 1254.9 | 1224.8 | 1199.9 | 1204.8 |
| 52.5° | 12854.9 | 9358.1 | 3506.8 | 1765.9 | 1425.2 | 1292.5 | 1229.9 | 1207.3 | 1172.3 | 1139.7 | 1139.7 |
| 55° | 13178.0 | 9413.2 | 3439.2 | 1753.4 | 1405.2 | 1239.9 | 1172.3 | 1152.3 | 1117.2 | 1084.6 | 1084.6 |
| 57.5° | 13288.2 | 9242.9 | 3196.2 | 1723.4 | 1385.2 | 1194.8 | 1114.7 | 1097.1 | 1069.6 | 1037.0 | 1032.0 |
| 60° | 13032.7 | 8666.8 | 2770.3 | 1633.1 | 1345.1 | 1147.2 | 1052.0 | 1044.5 | 1034.5 | 1006.9 | 1004.4 |
| 62.5° | 12048.3 | 7444.4 | 2306.9 | 1515.4 | 1277.5 | 1097.1 | 994.4 | 1006.9 | 1014.5 | 999.4 | 996.9 |
| 65° | 10410.2 | 6044.2 | 1971.3 | 1352.6 | 1187.3 | 1027.0 | 931.8 | 964.4 | 984.4 | 984.4 | 979.4 |
| 67.5° | 8443.9 | 4641.5 | 1660.7 | 1212.4 | 1074.5 | 931.8 | 861.7 | 886.8 | 901.7 | 896.8 | 909.3 |
| 70° | 6001.6 | 3143.6 | 1352.6 | 1052.0 | 931.8 | 824.1 | 771.5 | 771.5 | 761.4 | 756.5 | 756.5 |
| 72.5° | 2910.6 | 1796.0 | 1097.1 | 879.2 | 794.1 | 703.8 | 661.3 | 643.8 | 623.7 | 621.2 | 608.7 |
| 73° | 2432.2 | 1610.6 | 1047.0 | 846.6 | 761.4 | 686.3 | 638.7 | 611.2 | 598.6 | 588.6 | 586.2 |
| 75° | 1480.3 | 1222.4 | 874.2 | 713.9 | 648.7 | 591.1 | 548.6 | 523.5 | 511.0 | 503.5 | 501.0 |
| 77.5° | 974.4 | 911.7 | 678.9 | 546.1 | 495.9 | 460.9 | 443.4 | 418.3 | 410.8 | 400.7 | 400.7 |
| 80° | 726.4 | 696.3 | 485.9 | 385.8 | 355.7 | 325.6 | 320.6 | 315.6 | 295.6 | 283.1 | 278.0 |
| 82.5° | 468.4 | 495.9 | 330.7 | 258.0 | 225.5 | 200.4 | 202.9 | 210.4 | 190.4 | 172.8 | 167.9 |
| 85° | 333.1 | 358.2 | 200.4 | 117.7 | 95.2 | 82.7 | 92.7 | 82.7 | 85.2 | 67.6 | 55.1 |
| 87.5° | 55.1 | 95.2 | 35.1 | 15.1 | 7.5 | 5.0 | 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)