

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: P456538

Luminaire Tested: **GALN-SA7D-740-U-T4FT**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P456538
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-28)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GALN-SA7D-740-U-T4FT
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(7) 70 CRI, 4000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV FORWARD THROW OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 53763 lumens
Efficiency: N/A
Efficacy: 124.2 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B4 - U0 - G5

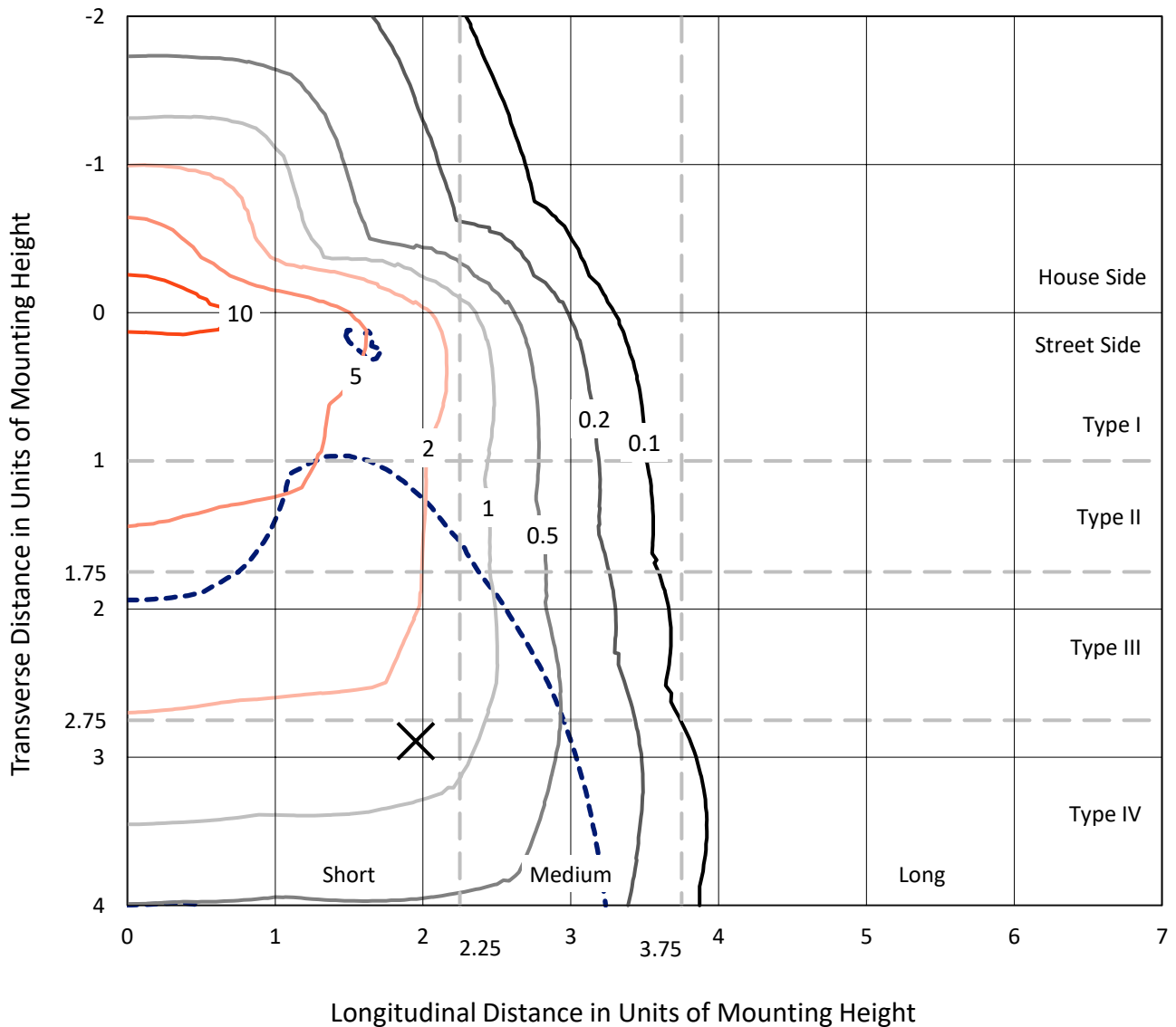
Input Watts (W): 433
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

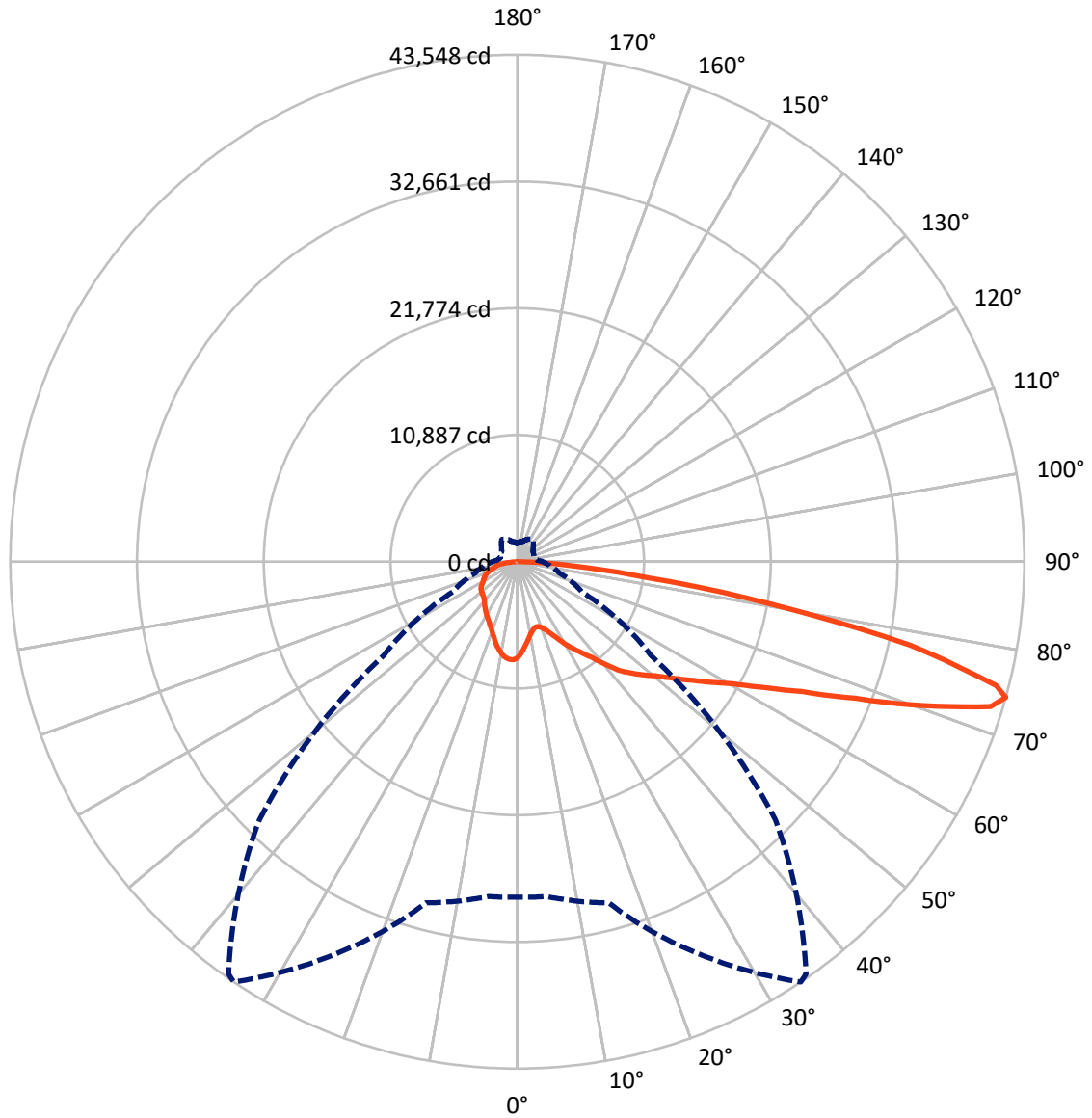
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 13.1 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 34-Deg Lateral - - - Horizontal Cone Through 74-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 11441.2 | 0.0 | 11441.2 |
| | % Fixture | 21.3 | 0.0 | 21.3 |
| Street Side | Lumens | 42321.8 | 0.0 | 42321.8 |
| | % Fixture | 78.7 | 0.0 | 78.7 |
| Total | Lumens | 53763.0 | 0.0 | 53763.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 746.5 | 1.4 |
| 10°-20° | 2043.6 | 3.8 |
| 20°-30° | 3369.4 | 6.3 |
| 30°-40° | 5046.9 | 9.4 |
| 40°-50° | 7336.9 | 13.6 |
| 50°-60° | 10247.8 | 19.1 |
| 60°-70° | 12829.8 | 23.9 |
| 70°-80° | 10609.2 | 19.7 |
| 80°-90° | 1532.9 | 2.9 |
| 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° | 53763.0 | 100.0 |
| 0°-180° | 53763.0 | 100.0 |

Coefficient of Utilization



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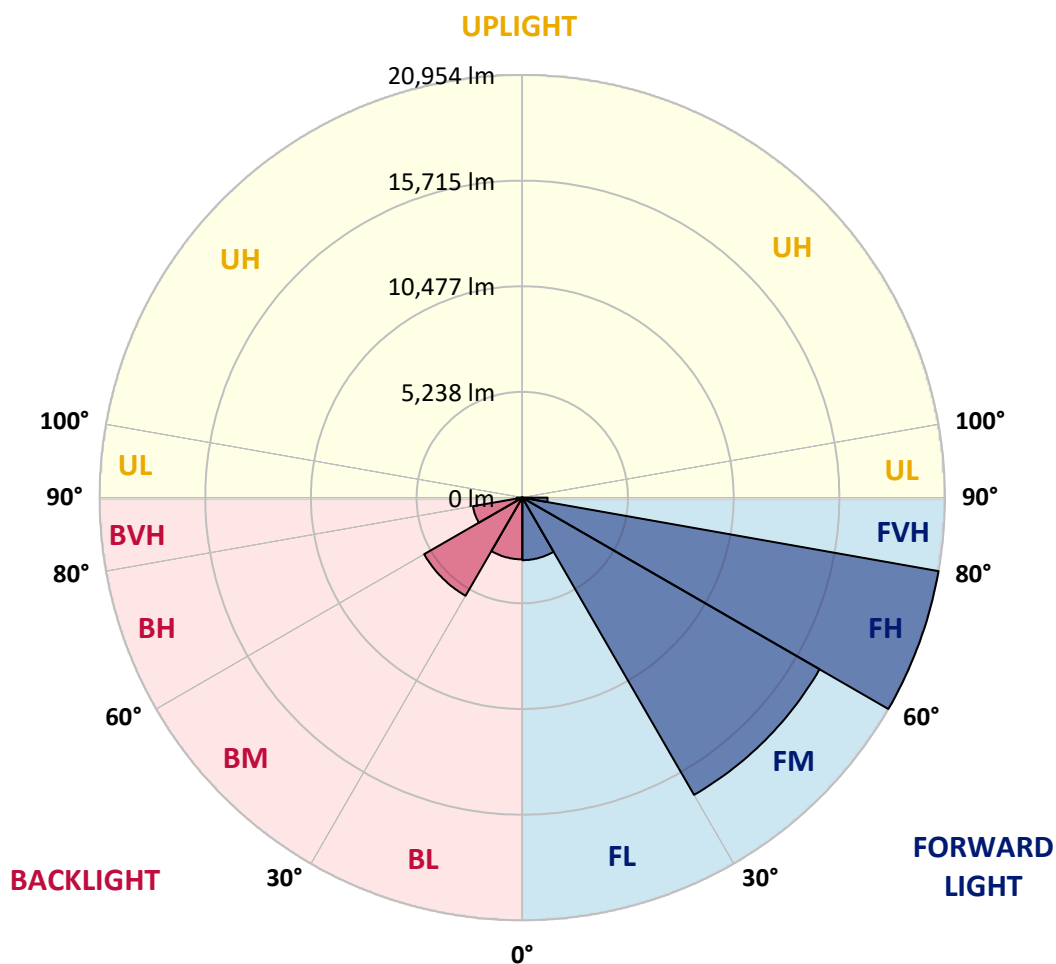
CATALOG NUMBER: GALN-SA7D-740-U-T4FT

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|---------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 3099.2 | 5.8 | | | |
| FM | (30°-60°) | 17012.8 | 31.6 | | | |
| FH | (60°-80°) | 20954.0 | 39.0 | | | G5 |
| FVH | (80°-90°) | 1255.8 | 2.3 | | | G5 |
| BL | (0°-30°) | 3060.3 | 5.7 | B4/5000 | | |
| BM | (30°-60°) | 5618.8 | 10.5 | B4/8500 | | |
| BH | (60°-80°) | 2484.9 | 4.6 | B3/2500 | | G3/2500 |
| BVH | (80°-90°) | 277.1 | 0.5 | | | G3/500 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B4-U0-G5

Type IV Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 34° | 35° | 45° | 55° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 8208.5 | 8208.5 | 8208.5 | 8208.5 | 8208.5 | 8208.5 | 8208.5 | 8208.5 | 8208.5 | 8208.5 | 8208.5 |
| 2.5° | 7586.1 | 7624.8 | 7645.6 | 7720.1 | 7738.0 | 7761.8 | 7824.3 | 7907.7 | 8014.9 | 8110.3 | 8193.7 |
| 5° | 6954.6 | 7014.2 | 7049.9 | 7115.5 | 7243.5 | 7255.4 | 7422.2 | 7612.9 | 7830.3 | 8032.8 | 8199.6 |
| 7.5° | 6356.0 | 6421.5 | 6451.3 | 6570.4 | 6740.2 | 6767.0 | 7011.2 | 7312.0 | 7675.4 | 7982.2 | 8238.3 |
| 10° | 5906.2 | 5939.0 | 6004.5 | 6093.9 | 6296.4 | 6314.3 | 6633.0 | 7035.0 | 7505.6 | 7958.4 | 8303.9 |
| 12.5° | 5662.0 | 5679.9 | 5694.8 | 5790.1 | 5989.6 | 6016.4 | 6350.0 | 6805.7 | 7371.6 | 7976.2 | 8411.1 |
| 15° | 5697.7 | 5703.7 | 5638.2 | 5656.0 | 5816.9 | 5855.6 | 6186.2 | 6653.8 | 7288.2 | 8020.9 | 8571.9 |
| 17.5° | 5998.6 | 5977.7 | 5816.9 | 5733.5 | 5846.7 | 5864.5 | 6153.4 | 6594.2 | 7249.5 | 8104.3 | 8738.7 |
| 20° | 6472.1 | 6442.3 | 6165.3 | 5980.7 | 6046.2 | 6061.1 | 6260.7 | 6638.9 | 7288.2 | 8241.3 | 8997.8 |
| 22.5° | 7061.9 | 7049.9 | 6630.0 | 6406.6 | 6403.6 | 6403.6 | 6507.9 | 6799.8 | 7404.4 | 8429.0 | 9268.9 |
| 25° | 7886.9 | 7824.3 | 7276.3 | 6987.4 | 6907.0 | 6901.0 | 6889.1 | 7064.8 | 7553.3 | 8628.5 | 9590.5 |
| 27.5° | 8732.8 | 8625.5 | 8137.1 | 7693.3 | 7520.5 | 7499.7 | 7422.2 | 7440.1 | 7743.9 | 8854.9 | 9956.9 |
| 30° | 9492.2 | 9423.7 | 8965.1 | 8473.6 | 8268.1 | 8220.5 | 8006.0 | 7907.7 | 8062.6 | 9262.9 | 10540.7 |
| 32.5° | 10073.0 | 10031.3 | 9673.9 | 9227.2 | 8923.4 | 8914.4 | 8601.7 | 8521.3 | 8560.0 | 9757.3 | 11207.8 |
| 35° | 10543.6 | 10558.5 | 10376.8 | 9989.6 | 9641.2 | 9590.5 | 9382.0 | 9280.8 | 9167.6 | 10472.2 | 12047.7 |
| 37.5° | 11187.0 | 11219.7 | 11207.8 | 10874.2 | 10448.3 | 10460.2 | 10412.6 | 10245.8 | 9945.0 | 11270.4 | 12980.0 |
| 40° | 11895.8 | 11919.7 | 11916.7 | 11788.6 | 11565.2 | 11577.1 | 11559.3 | 11368.7 | 10918.9 | 12286.0 | 14016.5 |
| 42.5° | 12875.7 | 12762.6 | 12467.7 | 12595.8 | 12726.8 | 12783.4 | 12905.5 | 12723.8 | 12107.3 | 13370.2 | 14990.4 |
| 45° | 13971.8 | 13757.4 | 13090.2 | 13149.8 | 13635.2 | 13742.5 | 14415.6 | 14165.4 | 13397.0 | 14615.1 | 16137.1 |
| 47.5° | 14662.8 | 14451.3 | 13888.4 | 13876.5 | 14519.8 | 14624.1 | 15815.5 | 15723.1 | 14570.5 | 15958.4 | 17537.0 |
| 50° | 15279.3 | 15249.5 | 14615.1 | 14767.0 | 15395.5 | 15550.4 | 17340.4 | 17254.0 | 15741.0 | 17542.9 | 19061.9 |
| 52.5° | 16193.7 | 15952.5 | 15446.1 | 15758.9 | 16589.8 | 16792.4 | 18853.4 | 18600.3 | 16816.2 | 18942.8 | 20542.2 |
| 55° | 16604.7 | 16548.1 | 16518.4 | 16789.4 | 17930.1 | 18076.1 | 20324.8 | 19744.0 | 17733.6 | 20128.2 | 21668.1 |
| 57.5° | 17703.8 | 17599.5 | 17894.4 | 18079.1 | 19508.7 | 19732.1 | 21861.7 | 20938.3 | 18537.7 | 21069.4 | 22216.1 |
| 60° | 19127.5 | 19070.9 | 19341.9 | 19675.5 | 21271.9 | 21611.5 | 23613.0 | 21957.0 | 19184.1 | 21543.0 | 21915.3 |
| 62.5° | 21254.1 | 21248.1 | 21197.5 | 21912.3 | 23770.8 | 24083.6 | 25623.4 | 22948.8 | 19285.3 | 21188.5 | 20360.5 |
| 65° | 24304.0 | 24196.7 | 23755.9 | 24536.3 | 26880.3 | 27246.7 | 27717.2 | 23502.8 | 18674.7 | 19368.7 | 17143.8 |
| 67.5° | 27493.9 | 27487.9 | 27130.5 | 28143.2 | 31345.0 | 31723.2 | 30335.3 | 23380.7 | 16980.0 | 15690.4 | 12175.8 |
| 70° | 30138.7 | 30010.6 | 30466.3 | 33164.8 | 37048.7 | 37486.5 | 32625.7 | 21942.1 | 13525.0 | 10362.0 | 7234.6 |
| 72.5° | 30773.1 | 30779.1 | 31726.2 | 37036.7 | 42526.0 | 42594.5 | 33450.7 | 17784.2 | 9051.4 | 5715.6 | 3618.8 |
| 74° | 28819.3 | 28869.9 | 30338.3 | 37230.3 | 43547.6 | 43237.8 | 31342.0 | 13977.8 | 6120.7 | 3732.0 | 2609.1 |
| 75° | 26305.5 | 25986.8 | 28110.4 | 35940.7 | 42487.3 | 42153.7 | 28872.9 | 11216.8 | 4670.2 | 2981.4 | 2284.5 |
| 77.5° | 14064.1 | 14388.8 | 17665.1 | 26820.7 | 34517.0 | 34132.8 | 19577.2 | 5379.0 | 2522.7 | 2076.0 | 1644.1 |
| 80° | 5006.7 | 5522.0 | 7761.8 | 14034.4 | 22129.7 | 22248.9 | 9343.3 | 2466.1 | 1775.1 | 1530.9 | 1161.6 |
| 82.5° | 2043.2 | 2099.8 | 3332.9 | 6227.9 | 11237.6 | 11344.8 | 3815.4 | 1465.4 | 1268.8 | 1054.4 | 694.0 |
| 85° | 798.2 | 822.0 | 1474.3 | 2799.7 | 4795.3 | 5108.0 | 1319.4 | 774.4 | 780.3 | 604.6 | 354.4 |
| 87.5° | 268.1 | 303.8 | 604.6 | 932.2 | 1629.2 | 1596.4 | 384.2 | 229.3 | 280.0 | 262.1 | 110.2 |
| 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-740-U-T4FT

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|---------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 8208.5 | 8208.5 | 8208.5 | 8208.5 | 8208.5 | 8208.5 | 8208.5 | 8208.5 | 8208.5 | 8208.5 | 8208.5 |
| 2.5° | 8235.4 | 8291.9 | 8330.7 | 8372.4 | 8411.1 | 8423.0 | 8414.1 | 8440.9 | 8443.8 | 8446.8 | 8449.8 |
| 5° | 8283.0 | 8360.4 | 8434.9 | 8476.6 | 8494.5 | 8479.6 | 8429.0 | 8402.1 | 8378.3 | 8360.4 | 8366.4 |
| 7.5° | 8348.5 | 8458.7 | 8527.2 | 8545.1 | 8497.5 | 8429.0 | 8303.9 | 8205.6 | 8143.0 | 8101.3 | 8098.3 |
| 10° | 8449.8 | 8557.0 | 8613.6 | 8563.0 | 8431.9 | 8265.1 | 8068.6 | 7883.9 | 7743.9 | 7702.2 | 7699.2 |
| 12.5° | 8577.9 | 8700.0 | 8697.0 | 8548.1 | 8318.7 | 8020.9 | 7702.2 | 7487.8 | 7297.1 | 7201.8 | 7240.6 |
| 15° | 8744.7 | 8837.0 | 8750.6 | 8482.6 | 8119.2 | 7711.1 | 7318.0 | 7026.1 | 6811.7 | 6710.4 | 6716.4 |
| 17.5° | 8938.3 | 9018.7 | 8789.3 | 8366.4 | 7839.2 | 7315.0 | 6859.3 | 6582.3 | 6412.6 | 6338.1 | 6332.1 |
| 20° | 9179.5 | 9203.3 | 8789.3 | 8163.9 | 7478.8 | 6853.4 | 6418.5 | 6224.9 | 6129.6 | 6090.9 | 6102.8 |
| 22.5° | 9438.6 | 9391.0 | 8741.7 | 7877.9 | 7005.3 | 6370.9 | 6079.0 | 5992.6 | 5944.9 | 5939.0 | 5944.9 |
| 25° | 9730.5 | 9596.5 | 8643.4 | 7490.7 | 6510.8 | 5953.9 | 5784.1 | 5799.0 | 5807.9 | 5807.9 | 5828.8 |
| 27.5° | 10087.9 | 9819.9 | 8479.6 | 7002.3 | 5933.0 | 5566.7 | 5519.0 | 5623.3 | 5670.9 | 5679.9 | 5694.8 |
| 30° | 10558.5 | 10064.1 | 8208.5 | 6391.7 | 5441.6 | 5218.2 | 5301.6 | 5441.6 | 5495.2 | 5528.0 | 5522.0 |
| 32.5° | 11118.5 | 10332.2 | 7842.2 | 5781.1 | 5045.5 | 4974.0 | 5075.2 | 5218.2 | 5277.8 | 5295.6 | 5271.8 |
| 35° | 11776.7 | 10636.0 | 7359.7 | 5209.3 | 4700.0 | 4741.7 | 4860.8 | 4905.5 | 4959.1 | 4959.1 | 4971.0 |
| 37.5° | 12485.6 | 10880.2 | 6770.0 | 4685.1 | 4431.9 | 4583.8 | 4670.2 | 4628.5 | 4604.6 | 4574.9 | 4589.8 |
| 40° | 13206.3 | 11061.9 | 6004.5 | 4166.8 | 4163.8 | 4420.0 | 4443.8 | 4324.7 | 4229.4 | 4199.6 | 4184.7 |
| 42.5° | 13834.8 | 11175.1 | 5313.5 | 3764.7 | 3910.7 | 4259.2 | 4277.0 | 4086.4 | 3934.5 | 3845.2 | 3815.4 |
| 45° | 14576.4 | 11306.1 | 4637.4 | 3431.1 | 3675.4 | 4131.1 | 4175.8 | 3919.6 | 3696.2 | 3508.6 | 3460.9 |
| 47.5° | 15592.1 | 11604.0 | 4104.3 | 3172.0 | 3505.6 | 4050.7 | 4113.2 | 3782.6 | 3487.7 | 3243.5 | 3204.8 |
| 50° | 16738.8 | 12012.0 | 3690.3 | 2996.3 | 3374.6 | 3979.2 | 4056.6 | 3642.6 | 3294.1 | 3023.1 | 2993.3 |
| 52.5° | 17790.1 | 12232.4 | 3332.9 | 2838.4 | 3246.5 | 3848.1 | 3982.2 | 3541.4 | 3103.5 | 2802.7 | 2775.9 |
| 55° | 18365.0 | 11875.0 | 2981.4 | 2683.6 | 3070.8 | 3678.4 | 3877.9 | 3401.4 | 2918.9 | 2686.5 | 2647.8 |
| 57.5° | 18442.4 | 11136.3 | 2662.7 | 2516.8 | 2886.1 | 3469.9 | 3684.3 | 3231.6 | 2799.7 | 2606.1 | 2573.4 |
| 60° | 17843.8 | 10034.3 | 2415.5 | 2379.8 | 2698.5 | 3234.6 | 3466.9 | 3082.7 | 2677.6 | 2516.8 | 2484.0 |
| 62.5° | 16354.5 | 8837.0 | 2242.8 | 2254.7 | 2507.8 | 2987.4 | 3306.1 | 2939.7 | 2561.4 | 2418.5 | 2388.7 |
| 65° | 13793.1 | 7294.2 | 2076.0 | 2126.6 | 2338.1 | 2793.8 | 3160.1 | 2820.6 | 2445.3 | 2344.0 | 2317.2 |
| 67.5° | 9581.6 | 5265.9 | 1939.0 | 1992.6 | 2177.2 | 2597.2 | 2990.3 | 2692.5 | 2314.2 | 2260.6 | 2218.9 |
| 70° | 5304.6 | 3240.5 | 1778.1 | 1840.7 | 2010.4 | 2376.8 | 2799.7 | 2498.9 | 2123.6 | 2099.8 | 2040.2 |
| 72.5° | 2787.8 | 2064.1 | 1596.4 | 1664.9 | 1784.1 | 2093.8 | 2507.8 | 2287.4 | 1936.0 | 1834.7 | 1757.3 |
| 74° | 2177.2 | 1691.7 | 1474.3 | 1545.8 | 1626.2 | 1927.0 | 2335.1 | 2135.5 | 1801.9 | 1682.8 | 1623.2 |
| 75° | 1897.3 | 1507.1 | 1370.1 | 1462.4 | 1533.9 | 1813.9 | 2201.1 | 2028.3 | 1727.5 | 1614.3 | 1560.7 |
| 77.5° | 1340.3 | 1128.8 | 1119.9 | 1230.1 | 1268.8 | 1590.5 | 1983.6 | 1846.6 | 1539.8 | 1420.7 | 1370.1 |
| 80° | 941.2 | 845.9 | 887.6 | 956.1 | 1009.7 | 1405.8 | 1840.7 | 1596.4 | 1262.9 | 1122.9 | 1105.0 |
| 82.5° | 613.6 | 554.0 | 634.4 | 697.0 | 714.8 | 1036.5 | 1486.2 | 1212.2 | 920.3 | 747.6 | 694.0 |
| 85° | 283.0 | 277.0 | 363.4 | 354.4 | 351.5 | 506.3 | 881.6 | 708.9 | 530.2 | 396.1 | 372.3 |
| 87.5° | 71.5 | 68.5 | 89.4 | 74.5 | 89.4 | 77.4 | 80.4 | 20.8 | 3.0 | 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)