

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: P459547

Luminaire Tested: **GALN-SA9D-735-U-T2R-HSS**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P459547
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-7)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GALN-SA9D-735-U-T2R-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(9) 70 CRI, 3500K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II
ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 52305 lumens
Efficiency: N/A
Efficacy: 94.8 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1.5' x H: 0')
IES Classification: Type II - Short
BUG Rating: B2 - U0 - G4

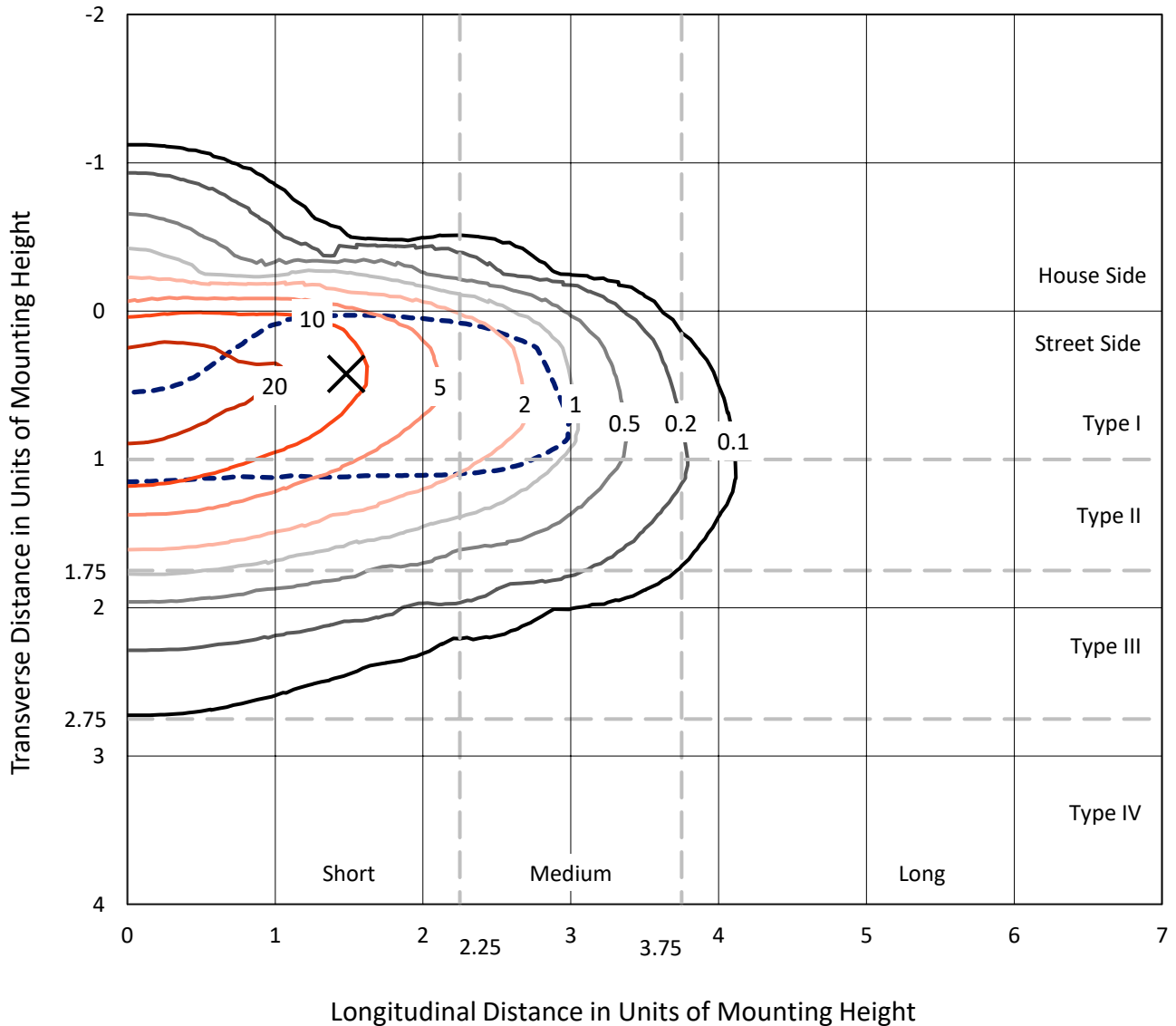
Input Watts (W): 552
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

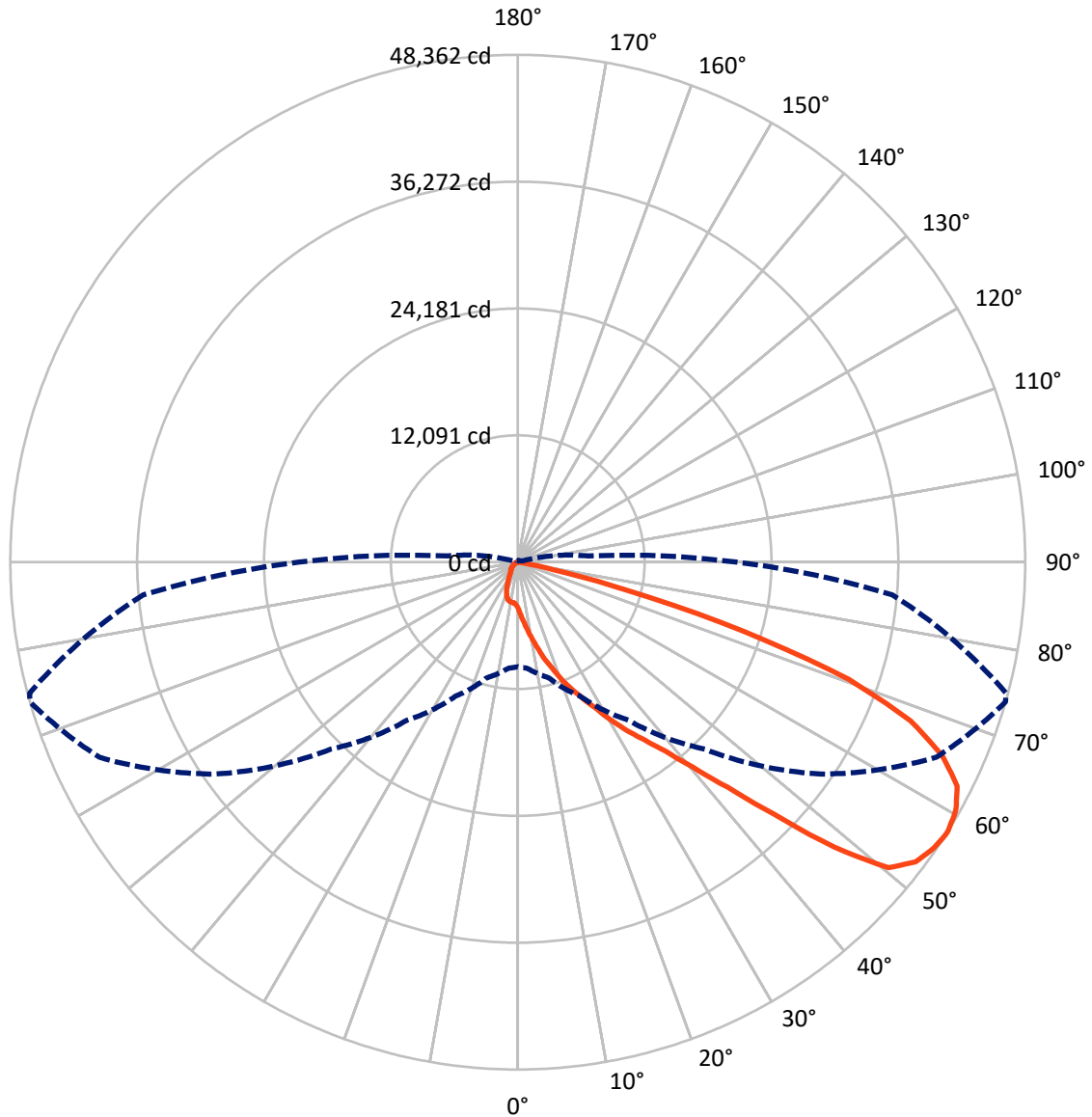
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 26.5 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 74-Deg Lateral - - - Horizontal Cone Through 57-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 3016.8 | 0.0 | 3016.8 |
| | % Fixture | 5.8 | 0.0 | 5.8 |
| Street Side | Lumens | 49288.2 | 0.0 | 49288.2 |
| | % Fixture | 94.2 | 0.0 | 94.2 |
| Total | Lumens | 52305.0 | 0.0 | 52305.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 528.7 | 1.0 |
| 10°-20° | 2084.1 | 4.0 |
| 20°-30° | 4459.4 | 8.5 |
| 30°-40° | 8196.3 | 15.7 |
| 40°-50° | 12565.0 | 24.0 |
| 50°-60° | 13292.1 | 25.4 |
| 60°-70° | 8680.1 | 16.6 |
| 70°-80° | 2371.7 | 4.5 |
| 80°-90° | 127.7 | 0.2 |
| 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° | 52305.0 | 100.0 |
| 0°-180° | 52305.0 | 100.0 |

Coefficient of Utilization



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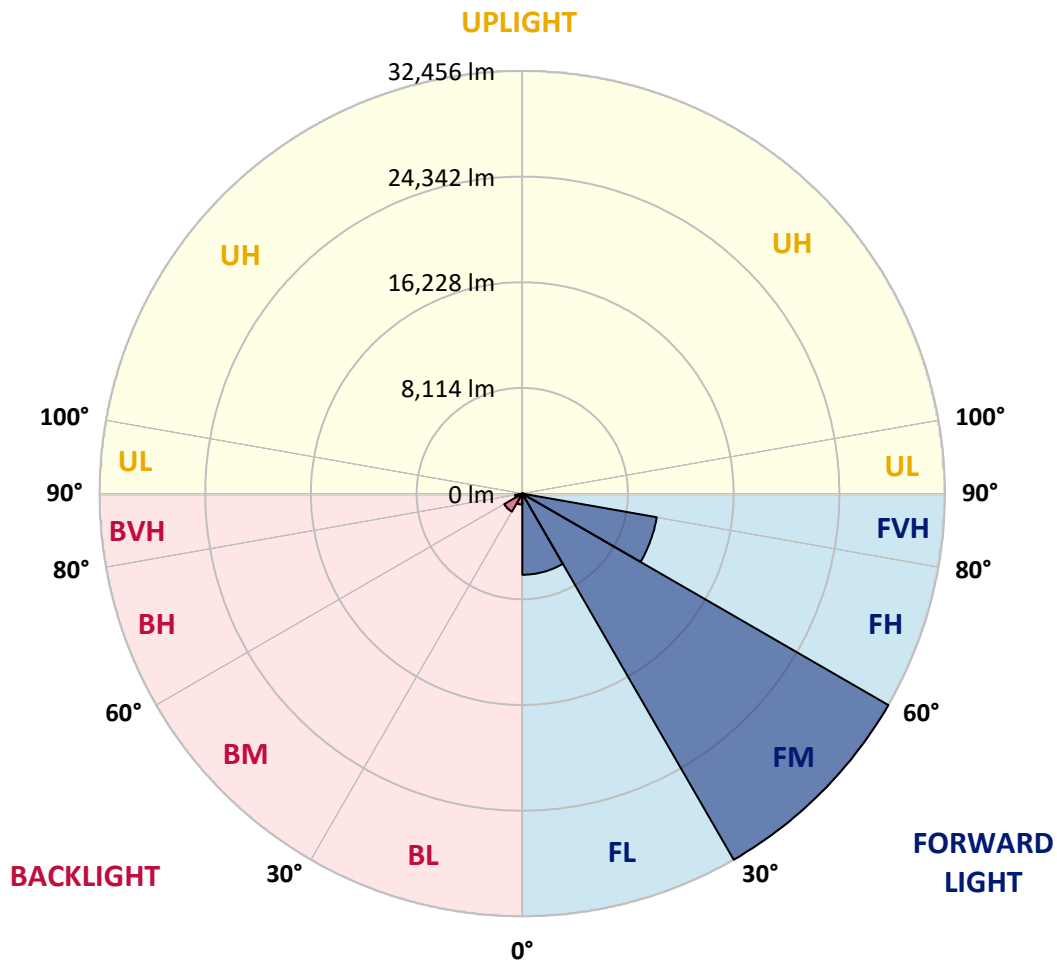
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|---------|-----------|-------------------------|------|----------|
| | | | | B | U | G |
| FL | (0°-30°) | 6229.5 | 11.9 | | | |
| FM | (30°-60°) | 32456.2 | 62.1 | | | |
| FH | (60°-80°) | 10485.4 | 20.0 | | | G4/12000 |
| FVH | (80°-90°) | 117.1 | 0.2 | | | G2/225 |
| BL | (0°-30°) | 842.7 | 1.6 | B2/1000 | | |
| BM | (30°-60°) | 1597.2 | 3.1 | B2/2500 | | |
| BH | (60°-80°) | 566.4 | 1.1 | B2/1000 | | G2/1000 |
| BVH | (80°-90°) | 10.5 | 0.0 | | | G1/100 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B2-U0-G4

Type II Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 74° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 4380.5 | 4380.5 | 4380.5 | 4380.5 | 4380.5 | 4380.5 | 4380.5 | 4380.5 | 4380.5 | 4380.5 | 4380.5 |
| 2.5° | 6410.0 | 6352.2 | 6236.7 | 6196.9 | 6027.2 | 5763.6 | 5532.5 | 5221.9 | 4976.3 | 4951.1 | 4654.9 |
| 5° | 8584.0 | 8454.0 | 8399.8 | 8139.8 | 7731.7 | 7348.9 | 6691.7 | 6193.3 | 5619.1 | 5575.8 | 4979.9 |
| 7.5° | 10678.5 | 10498.0 | 10443.8 | 10198.2 | 9721.6 | 9118.5 | 8266.2 | 7359.8 | 6449.7 | 6366.7 | 5416.9 |
| 10° | 12195.3 | 12220.6 | 12123.0 | 11960.5 | 11574.1 | 10960.2 | 9909.3 | 8670.7 | 7374.2 | 7269.5 | 5908.0 |
| 12.5° | 13282.3 | 13278.7 | 13296.7 | 13293.1 | 13087.3 | 12621.4 | 11516.4 | 10089.9 | 8392.6 | 8186.8 | 6471.4 |
| 15° | 13990.1 | 14000.9 | 14055.1 | 14242.9 | 14264.5 | 13975.6 | 13054.8 | 11447.7 | 9573.5 | 9317.1 | 7081.7 |
| 17.5° | 14705.1 | 14780.9 | 14867.6 | 15044.6 | 15203.5 | 15087.9 | 14437.9 | 12863.4 | 10642.4 | 10451.0 | 7735.3 |
| 20° | 15886.0 | 15990.7 | 15940.2 | 16048.5 | 16131.6 | 16142.4 | 15640.4 | 14170.6 | 11938.9 | 11617.5 | 8482.9 |
| 22.5° | 17774.7 | 17771.1 | 17641.1 | 17446.1 | 17283.6 | 17276.3 | 16821.3 | 15514.0 | 13116.1 | 12805.6 | 9234.0 |
| 25° | 20161.7 | 20172.6 | 19919.8 | 19363.7 | 18959.2 | 18464.4 | 17940.8 | 16691.3 | 14376.5 | 13993.7 | 10024.9 |
| 27.5° | 22899.1 | 22830.5 | 22447.7 | 21682.1 | 20880.4 | 20035.3 | 19280.6 | 18060.0 | 15712.7 | 15394.9 | 10931.3 |
| 30° | 25358.4 | 25333.1 | 24885.3 | 23950.0 | 22895.5 | 22046.8 | 20952.6 | 19775.3 | 17442.5 | 17052.4 | 11946.1 |
| 32.5° | 27647.9 | 27684.0 | 27062.9 | 26095.1 | 25076.7 | 24098.0 | 22942.4 | 21414.9 | 19139.8 | 18587.2 | 13051.1 |
| 35° | 29435.5 | 29471.6 | 28828.8 | 28023.5 | 26976.2 | 26163.7 | 25062.2 | 23162.7 | 20815.4 | 20349.5 | 14322.3 |
| 37.5° | 30388.9 | 30435.8 | 30063.9 | 29457.2 | 28803.5 | 28395.4 | 27369.8 | 25412.5 | 22852.1 | 22570.5 | 15824.6 |
| 40° | 30569.4 | 30623.6 | 30461.1 | 30298.6 | 30262.5 | 30555.0 | 30255.3 | 28063.2 | 25676.2 | 25235.6 | 18063.6 |
| 42.5° | 30027.7 | 30100.0 | 30172.2 | 30533.3 | 31270.0 | 32342.6 | 33386.2 | 31660.0 | 29312.7 | 28720.5 | 20800.9 |
| 45° | 28604.9 | 28597.7 | 28883.0 | 29818.3 | 31468.6 | 33758.2 | 36658.0 | 36163.3 | 34267.4 | 33563.2 | 24668.6 |
| 47.5° | 26170.9 | 26134.8 | 26752.3 | 28084.9 | 30656.1 | 34018.2 | 39326.8 | 41630.8 | 40590.7 | 39940.7 | 28825.2 |
| 50° | 22462.1 | 22639.1 | 23610.5 | 25470.3 | 28637.4 | 33230.9 | 40150.1 | 45216.8 | 45780.1 | 45090.4 | 32183.7 |
| 52.5° | 18117.8 | 18110.5 | 19634.5 | 22158.8 | 25647.3 | 31497.5 | 39576.0 | 45866.8 | 47466.6 | 46939.3 | 33837.6 |
| 55° | 13408.7 | 13502.6 | 15087.9 | 17633.9 | 21765.1 | 28334.1 | 37701.7 | 45198.7 | 48109.4 | 47737.4 | 34928.2 |
| 57° | 9974.3 | 10140.5 | 11411.6 | 14105.6 | 18385.0 | 25203.1 | 35206.3 | 44003.4 | 48362.2 | 48160.0 | 35834.7 |
| 57.5° | 9309.9 | 9317.1 | 10555.8 | 13004.2 | 17395.5 | 24000.5 | 34491.3 | 43505.0 | 48355.0 | 48243.0 | 35982.7 |
| 60° | 5731.1 | 5911.7 | 6767.5 | 8789.8 | 12733.4 | 18731.7 | 29699.1 | 40641.3 | 47979.4 | 48141.9 | 36614.7 |
| 62.5° | 3430.7 | 3506.5 | 4062.7 | 5297.7 | 8208.4 | 13672.3 | 24303.9 | 36975.8 | 47000.7 | 47495.5 | 36571.4 |
| 65° | 2206.5 | 2224.5 | 2477.3 | 3206.8 | 5131.6 | 9241.3 | 18728.1 | 32133.1 | 44469.2 | 45379.3 | 35141.3 |
| 67.5° | 1704.5 | 1733.4 | 1834.5 | 2105.4 | 2975.7 | 5756.4 | 13246.2 | 26965.4 | 40374.0 | 41547.7 | 31674.5 |
| 70° | 1513.1 | 1527.6 | 1563.7 | 1650.4 | 1968.1 | 3250.1 | 8240.9 | 21064.6 | 33480.1 | 33812.4 | 24787.8 |
| 72.5° | 1235.1 | 1274.8 | 1386.7 | 1415.6 | 1560.1 | 2029.5 | 4586.3 | 14138.1 | 22494.6 | 22577.7 | 13867.3 |
| 75° | 957.0 | 964.2 | 1130.3 | 1213.4 | 1314.5 | 1397.6 | 2047.6 | 7128.7 | 10804.9 | 10227.1 | 5344.7 |
| 77.5° | 715.0 | 747.5 | 823.4 | 928.1 | 1072.5 | 1000.3 | 917.3 | 2686.8 | 3354.9 | 3293.5 | 1552.8 |
| 80° | 458.6 | 476.7 | 574.2 | 697.0 | 834.2 | 653.6 | 516.4 | 787.3 | 736.7 | 758.4 | 372.0 |
| 82.5° | 231.1 | 234.7 | 368.3 | 567.0 | 530.9 | 328.6 | 325.0 | 321.4 | 274.5 | 270.8 | 173.3 |
| 85° | 25.3 | 54.2 | 238.3 | 325.0 | 238.3 | 108.3 | 151.7 | 148.1 | 144.5 | 148.1 | 101.1 |
| 87.5° | 3.6 | 3.6 | 39.7 | 46.9 | 32.5 | 36.1 | 43.3 | 46.9 | 57.8 | 54.2 | 43.3 |
| 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-SA9D-735-U-T2R-HSS

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 4380.5 | 4380.5 | 4380.5 | 4380.5 | 4380.5 | 4380.5 | 4380.5 | 4380.5 | 4380.5 | 4380.5 | 4380.5 |
| 2.5° | 4510.5 | 4366.0 | 4098.8 | 3842.4 | 3651.0 | 3528.2 | 3369.3 | 3311.5 | 3228.5 | 3217.6 | 3177.9 |
| 5° | 4705.5 | 4431.0 | 3965.2 | 3596.8 | 3300.7 | 3076.8 | 2881.8 | 2719.3 | 2589.3 | 2560.4 | 2574.8 |
| 7.5° | 4983.6 | 4575.5 | 3925.5 | 3423.5 | 3011.8 | 2629.0 | 2318.4 | 2127.0 | 1989.8 | 1939.3 | 1946.5 |
| 10° | 5297.7 | 4766.9 | 3918.2 | 3239.3 | 2611.0 | 2141.5 | 1802.0 | 1632.3 | 1552.8 | 1524.0 | 1491.5 |
| 12.5° | 5669.7 | 4987.2 | 3900.2 | 2954.0 | 2170.4 | 1708.1 | 1466.2 | 1365.1 | 1289.2 | 1267.6 | 1267.6 |
| 15° | 6088.6 | 5221.9 | 3813.5 | 2600.1 | 1762.3 | 1412.0 | 1249.5 | 1170.1 | 1144.8 | 1123.1 | 1123.1 |
| 17.5° | 6525.6 | 5453.0 | 3632.9 | 2163.2 | 1462.6 | 1209.8 | 1108.7 | 1061.7 | 1025.6 | 1000.3 | 1000.3 |
| 20° | 7023.9 | 5680.5 | 3344.0 | 1776.7 | 1235.1 | 1079.8 | 1000.3 | 946.2 | 917.3 | 895.6 | 888.4 |
| 22.5° | 7497.0 | 5864.7 | 2975.7 | 1459.0 | 1076.2 | 971.4 | 899.2 | 841.4 | 812.5 | 801.7 | 801.7 |
| 25° | 7988.1 | 5976.7 | 2531.5 | 1206.2 | 982.3 | 881.2 | 801.7 | 754.8 | 729.5 | 722.3 | 718.6 |
| 27.5° | 8464.8 | 6041.7 | 2141.5 | 1054.5 | 895.6 | 798.1 | 722.3 | 686.1 | 660.9 | 653.6 | 657.3 |
| 30° | 9042.6 | 6052.5 | 1762.3 | 946.2 | 819.8 | 718.6 | 650.0 | 617.5 | 603.1 | 595.9 | 592.2 |
| 32.5° | 9627.7 | 6038.1 | 1480.6 | 881.2 | 747.5 | 650.0 | 592.2 | 567.0 | 556.1 | 545.3 | 545.3 |
| 35° | 10284.9 | 5962.2 | 1260.3 | 816.1 | 678.9 | 592.2 | 541.7 | 520.0 | 505.6 | 494.7 | 491.1 |
| 37.5° | 11101.1 | 5922.5 | 1133.9 | 743.9 | 617.5 | 538.1 | 491.1 | 469.5 | 458.6 | 444.2 | 440.6 |
| 40° | 12386.7 | 6099.4 | 1094.2 | 678.9 | 556.1 | 487.5 | 444.2 | 418.9 | 404.5 | 390.0 | 386.4 |
| 42.5° | 13990.1 | 6410.0 | 1029.2 | 613.9 | 502.0 | 440.6 | 397.2 | 368.3 | 343.1 | 325.0 | 317.8 |
| 45° | 16066.6 | 6818.1 | 928.1 | 545.3 | 455.0 | 390.0 | 350.3 | 314.2 | 281.7 | 267.2 | 263.6 |
| 47.5° | 18244.2 | 7211.7 | 837.8 | 491.1 | 404.5 | 346.7 | 303.3 | 263.6 | 234.7 | 223.9 | 220.3 |
| 50° | 19580.3 | 7291.2 | 780.0 | 429.7 | 353.9 | 299.7 | 256.4 | 220.3 | 202.2 | 191.4 | 191.4 |
| 52.5° | 20190.6 | 7164.8 | 700.6 | 375.6 | 307.0 | 263.6 | 220.3 | 191.4 | 180.6 | 173.3 | 169.7 |
| 55° | 20616.8 | 6969.8 | 595.9 | 325.0 | 263.6 | 223.9 | 195.0 | 173.3 | 158.9 | 151.7 | 148.1 |
| 57° | 20865.9 | 6706.1 | 516.4 | 285.3 | 227.5 | 195.0 | 173.3 | 155.3 | 140.8 | 126.4 | 126.4 |
| 57.5° | 20876.8 | 6605.0 | 494.7 | 281.7 | 216.7 | 187.8 | 169.7 | 151.7 | 133.6 | 119.2 | 115.6 |
| 60° | 20555.4 | 5911.7 | 397.2 | 238.3 | 173.3 | 158.9 | 140.8 | 119.2 | 93.9 | 79.4 | 75.8 |
| 62.5° | 19522.5 | 5030.5 | 328.6 | 202.2 | 140.8 | 122.8 | 101.1 | 90.3 | 65.0 | 46.9 | 46.9 |
| 65° | 17958.9 | 4080.7 | 281.7 | 162.5 | 115.6 | 90.3 | 68.6 | 65.0 | 39.7 | 21.7 | 18.1 |
| 67.5° | 15698.2 | 3177.9 | 238.3 | 133.6 | 97.5 | 65.0 | 46.9 | 43.3 | 21.7 | 7.2 | 0.0 |
| 70° | 11960.5 | 2166.8 | 198.6 | 108.3 | 72.2 | 46.9 | 32.5 | 25.3 | 14.4 | 3.6 | 0.0 |
| 72.5° | 6893.9 | 1191.7 | 166.1 | 83.1 | 54.2 | 36.1 | 25.3 | 14.4 | 14.4 | 0.0 | 0.0 |
| 75° | 2462.9 | 512.8 | 126.4 | 61.4 | 43.3 | 28.9 | 18.1 | 7.2 | 10.8 | 3.6 | 0.0 |
| 77.5° | 783.6 | 274.5 | 83.1 | 46.9 | 36.1 | 21.7 | 14.4 | 7.2 | 7.2 | 3.6 | 0.0 |
| 80° | 231.1 | 144.5 | 50.6 | 39.7 | 25.3 | 18.1 | 10.8 | 3.6 | 7.2 | 3.6 | 0.0 |
| 82.5° | 126.4 | 72.2 | 39.7 | 28.9 | 25.3 | 14.4 | 10.8 | 3.6 | 3.6 | 3.6 | 0.0 |
| 85° | 65.0 | 43.3 | 32.5 | 28.9 | 25.3 | 14.4 | 10.8 | 3.6 | 0.0 | 3.6 | 3.6 |
| 87.5° | 36.1 | 32.5 | 32.5 | 28.9 | 25.3 | 18.1 | 10.8 | 3.6 | 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)