

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: P651264

Luminaire Tested: **GALN-SA2D-840-U-T4FT-HSS**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P651264
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-29)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GALN-SA2D-840-U-T4FT-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(2) 80 CRI, 4000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9420.9 lumens
Efficiency: N/A
Efficacy: 75.4 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

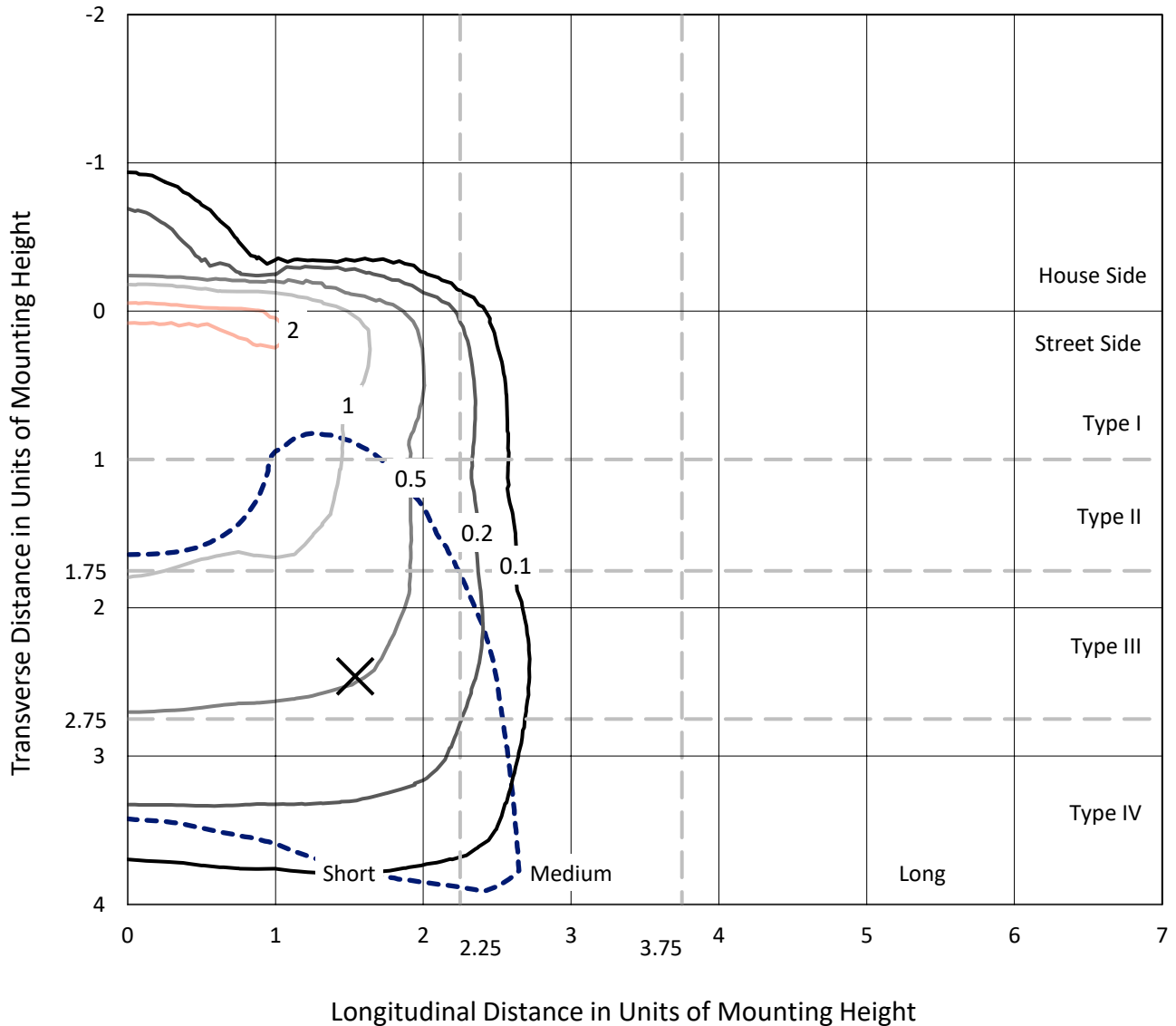
Input Watts (W): 125
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

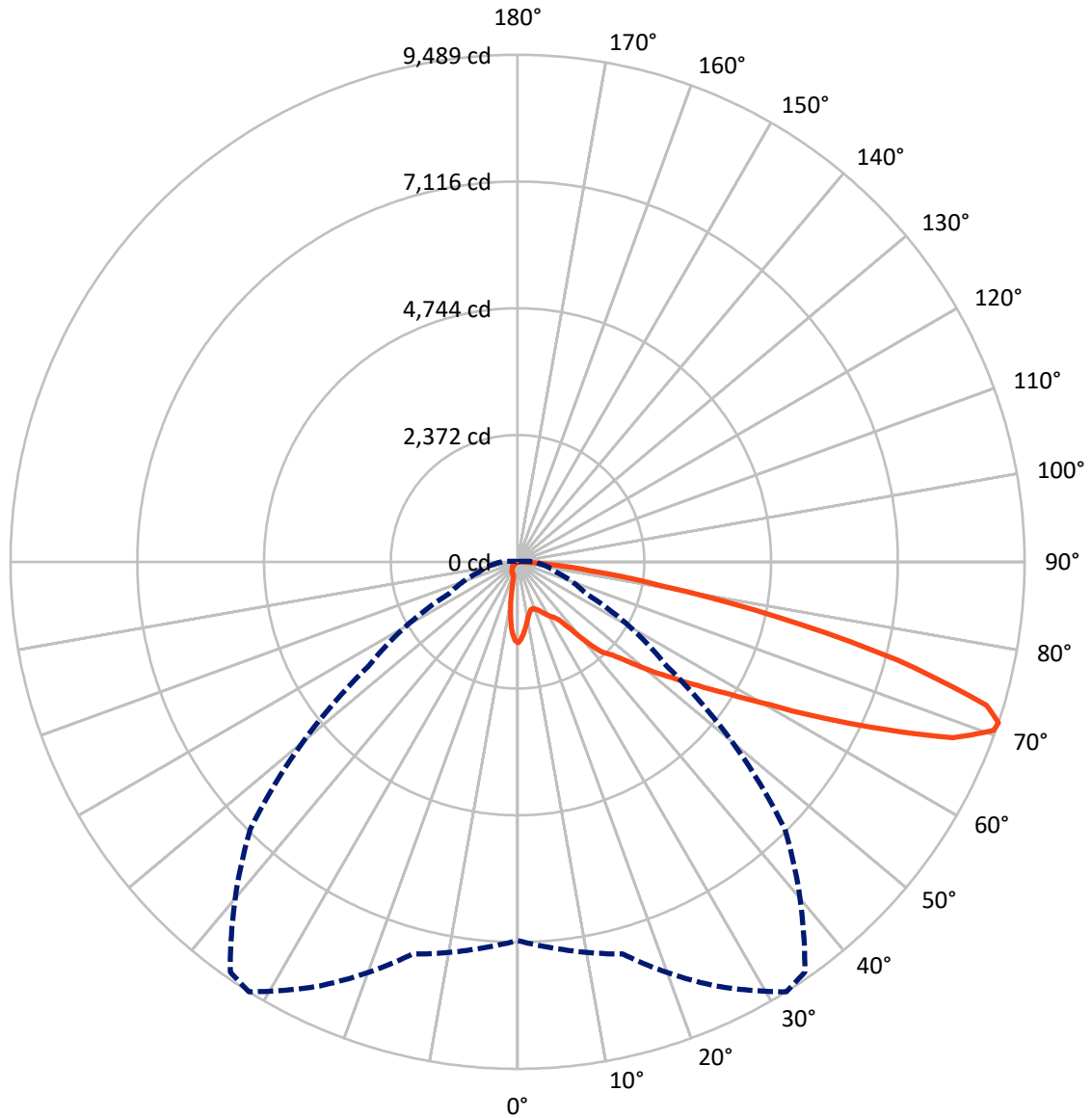
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.4 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 32-Deg Lateral - - - Horizontal Cone Through 71-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 789.1 | 0.0 | 789.1 |
| | % Fixture | 8.4 | 0.0 | 8.4 |
| Street Side | Lumens | 8631.8 | 0.0 | 8631.8 |
| | % Fixture | 91.6 | 0.0 | 91.6 |
| Total | Lumens | 9420.9 | 0.0 | 9420.9 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 123.2 | 1.3 |
| 10°-20° | 267.4 | 2.8 |
| 20°-30° | 415.9 | 4.4 |
| 30°-40° | 693.0 | 7.4 |
| 40°-50° | 1289.0 | 13.7 |
| 50°-60° | 2069.5 | 22.0 |
| 60°-70° | 2783.6 | 29.5 |
| 70°-80° | 1651.6 | 17.5 |
| 80°-90° | 127.7 | 1.4 |
| 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° | 9420.9 | 100.0 |
| 0°-180° | 9420.9 | 100.0 |

Coefficient of Utilization



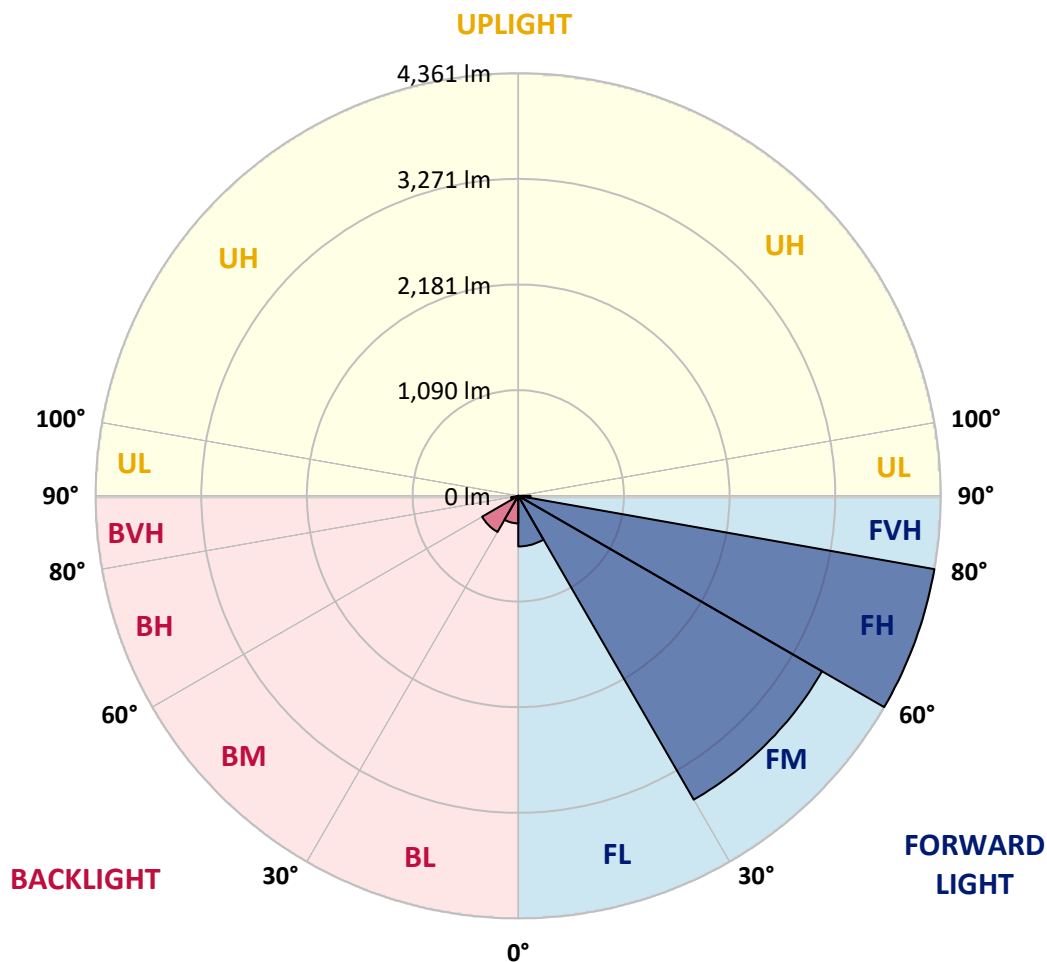
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 522.2 | 5.5 | | | |
| FM (30°-60°) | 3621.0 | 38.4 | | | |
| FH (60°-80°) | 4361.4 | 46.3 | | | G2/5000 |
| FVH (80°-90°) | 127.2 | 1.3 | | | G2/225 |
| BL (0°-30°) | 284.3 | 3.0 | B1/500 | | |
| BM (30°-60°) | 430.5 | 4.6 | B1/1000 | | |
| BH (60°-80°) | 73.8 | 0.8 | B0/110 | | G0/110 |
| BVH (80°-90°) | 0.5 | 0.0 | | | G0/10 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B1-U0-G2

Type IV Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 32° | 35° | 45° | 55° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1515.1 | 1515.1 | 1515.1 | 1515.1 | 1515.1 | 1515.1 | 1515.1 | 1515.1 | 1515.1 | 1515.1 | 1515.1 |
| 2.5° | 1405.1 | 1419.6 | 1417.4 | 1422.5 | 1434.7 | 1439.8 | 1453.6 | 1468.7 | 1489.7 | 1504.2 | 1513.5 |
| 5° | 1258.3 | 1269.2 | 1270.6 | 1295.9 | 1308.2 | 1322.0 | 1362.4 | 1406.6 | 1455.7 | 1494.8 | 1520.8 |
| 7.5° | 1101.4 | 1107.2 | 1118.7 | 1152.0 | 1183.1 | 1196.8 | 1258.3 | 1334.9 | 1412.4 | 1485.4 | 1532.4 |
| 10° | 971.9 | 978.4 | 999.4 | 1034.9 | 1063.8 | 1081.9 | 1167.2 | 1263.4 | 1371.8 | 1480.3 | 1549.0 |
| 12.5° | 898.2 | 901.8 | 909.7 | 941.6 | 978.4 | 997.9 | 1089.8 | 1199.7 | 1339.3 | 1482.5 | 1577.2 |
| 15° | 893.1 | 891.6 | 882.3 | 895.2 | 928.5 | 948.8 | 1038.5 | 1156.4 | 1310.4 | 1489.7 | 1610.5 |
| 17.5° | 919.9 | 916.3 | 893.8 | 893.8 | 921.3 | 938.0 | 1016.8 | 1133.2 | 1295.9 | 1506.3 | 1657.5 |
| 20° | 961.1 | 955.3 | 918.5 | 915.5 | 942.3 | 959.7 | 1029.8 | 1134.7 | 1298.8 | 1537.4 | 1720.4 |
| 22.5° | 1013.2 | 1006.7 | 950.9 | 952.4 | 981.4 | 998.7 | 1067.4 | 1160.7 | 1316.8 | 1575.8 | 1787.6 |
| 25° | 1081.1 | 1073.9 | 1008.1 | 1005.2 | 1035.6 | 1050.7 | 1123.1 | 1206.9 | 1342.2 | 1623.5 | 1875.9 |
| 27.5° | 1171.5 | 1156.4 | 1077.5 | 1073.2 | 1105.7 | 1125.3 | 1190.4 | 1269.2 | 1387.1 | 1689.3 | 1994.5 |
| 30° | 1246.0 | 1229.4 | 1154.2 | 1142.6 | 1177.3 | 1192.5 | 1259.7 | 1353.0 | 1475.3 | 1804.3 | 2158.7 |
| 32.5° | 1343.7 | 1319.0 | 1230.8 | 1200.4 | 1237.4 | 1256.9 | 1360.2 | 1509.3 | 1606.1 | 1925.8 | 2353.9 |
| 35° | 1563.5 | 1548.3 | 1440.5 | 1334.2 | 1332.1 | 1356.6 | 1508.5 | 1666.9 | 1740.6 | 2115.3 | 2620.1 |
| 37.5° | 1878.0 | 1867.2 | 1753.0 | 1610.5 | 1569.2 | 1557.7 | 1688.6 | 1840.4 | 1955.4 | 2375.6 | 2929.5 |
| 40° | 2243.3 | 2218.0 | 2113.1 | 1992.3 | 1938.8 | 1904.8 | 1901.2 | 2098.6 | 2236.1 | 2729.2 | 3252.1 |
| 42.5° | 2505.0 | 2458.7 | 2331.5 | 2322.8 | 2311.2 | 2275.8 | 2173.1 | 2476.1 | 2598.4 | 3109.6 | 3597.0 |
| 45° | 2779.8 | 2709.7 | 2520.2 | 2487.7 | 2483.3 | 2481.2 | 2583.9 | 2923.1 | 2993.2 | 3521.8 | 3951.4 |
| 47.5° | 2993.2 | 2937.4 | 2782.0 | 2767.6 | 2785.6 | 2834.8 | 3126.9 | 3397.4 | 3382.9 | 3889.2 | 4248.6 |
| 50° | 3277.4 | 3235.4 | 3062.6 | 3090.1 | 3183.4 | 3263.7 | 3739.5 | 3914.5 | 3703.3 | 4178.4 | 4464.8 |
| 52.5° | 3612.9 | 3535.6 | 3375.0 | 3449.4 | 3592.7 | 3726.5 | 4389.6 | 4367.1 | 3928.2 | 4396.1 | 4626.1 |
| 55° | 3903.7 | 3848.7 | 3793.8 | 3871.1 | 4085.2 | 4252.2 | 4976.8 | 4706.3 | 4091.6 | 4571.1 | 4696.9 |
| 57.5° | 4395.4 | 4382.4 | 4325.9 | 4404.8 | 4664.4 | 4837.9 | 5502.6 | 4969.6 | 4196.5 | 4662.3 | 4613.8 |
| 60° | 5122.9 | 5101.9 | 4997.1 | 5097.6 | 5436.0 | 5708.6 | 5987.1 | 5206.0 | 4220.4 | 4626.8 | 4374.4 |
| 62.5° | 5997.9 | 5926.3 | 5836.6 | 5984.9 | 6449.1 | 6569.2 | 6443.4 | 5346.3 | 4131.4 | 4344.8 | 3797.3 |
| 65° | 6815.0 | 6741.3 | 6743.5 | 7055.9 | 7561.3 | 7643.1 | 6975.6 | 5325.4 | 3871.1 | 3638.3 | 2800.8 |
| 67.5° | 7440.6 | 7428.3 | 7516.5 | 8126.2 | 8787.1 | 8730.8 | 7451.4 | 5011.5 | 3099.5 | 2358.2 | 1488.2 |
| 70° | 7472.5 | 7496.3 | 7749.4 | 8778.4 | 9449.6 | 9359.9 | 7411.0 | 4073.6 | 1932.3 | 1084.7 | 586.5 |
| 71° | 7087.7 | 7248.2 | 7598.3 | 8758.3 | 9488.6 | 9372.2 | 7069.6 | 3411.9 | 1417.4 | 756.4 | 423.0 |
| 72.5° | 6039.8 | 6124.5 | 6880.9 | 8242.6 | 9179.9 | 8931.1 | 6204.0 | 2391.5 | 907.6 | 462.8 | 243.0 |
| 75° | 3326.6 | 3534.8 | 4608.0 | 6466.5 | 7342.3 | 7123.9 | 4043.2 | 1136.1 | 452.7 | 253.1 | 100.5 |
| 77.5° | 1583.7 | 1543.2 | 2248.3 | 3845.8 | 4978.2 | 4966.7 | 2037.2 | 504.8 | 264.0 | 171.4 | 50.6 |
| 80° | 452.7 | 509.1 | 860.6 | 1828.2 | 2763.9 | 2794.3 | 782.5 | 243.7 | 183.0 | 133.8 | 26.1 |
| 82.5° | 136.7 | 139.6 | 316.0 | 808.5 | 1374.7 | 1295.9 | 293.6 | 124.4 | 131.6 | 106.3 | 15.2 |
| 85° | 23.9 | 29.7 | 93.3 | 284.9 | 524.3 | 397.7 | 73.8 | 59.3 | 86.8 | 70.1 | 8.7 |
| 87.5° | 1.4 | 2.2 | 31.1 | 32.5 | 46.3 | 26.7 | 13.0 | 8.7 | 18.8 | 18.8 | 5.0 |
| 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-SA2D-840-U-T4FT-HSS

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1515.1 | 1515.1 | 1515.1 | 1515.1 | 1515.1 | 1515.1 | 1515.1 | 1515.1 | 1515.1 | 1515.1 | 1515.1 |
| 2.5° | 1520.1 | 1524.4 | 1521.5 | 1515.1 | 1504.2 | 1491.2 | 1473.8 | 1459.3 | 1447.0 | 1440.5 | 1448.5 |
| 5° | 1529.5 | 1535.2 | 1520.8 | 1488.2 | 1439.1 | 1385.5 | 1324.8 | 1277.8 | 1241.0 | 1229.4 | 1225.0 |
| 7.5° | 1544.0 | 1547.6 | 1508.5 | 1436.2 | 1332.1 | 1205.5 | 1094.9 | 1001.5 | 929.3 | 907.6 | 875.7 |
| 10° | 1562.7 | 1560.6 | 1486.8 | 1352.3 | 1169.3 | 979.2 | 807.8 | 680.5 | 584.3 | 549.6 | 546.7 |
| 12.5° | 1591.7 | 1580.1 | 1459.3 | 1238.0 | 975.6 | 726.8 | 514.9 | 402.8 | 342.0 | 321.8 | 317.5 |
| 15° | 1627.8 | 1600.3 | 1416.0 | 1104.2 | 747.1 | 469.4 | 317.5 | 283.5 | 275.5 | 274.1 | 272.7 |
| 17.5° | 1670.5 | 1627.1 | 1358.8 | 940.1 | 525.0 | 304.4 | 265.4 | 264.7 | 265.4 | 264.0 | 263.2 |
| 20° | 1728.3 | 1655.3 | 1290.9 | 745.5 | 347.1 | 256.8 | 253.1 | 253.1 | 253.8 | 253.1 | 253.1 |
| 22.5° | 1789.8 | 1688.6 | 1206.9 | 569.1 | 261.8 | 243.7 | 243.0 | 244.4 | 245.9 | 245.2 | 245.2 |
| 25° | 1865.8 | 1732.0 | 1096.3 | 389.8 | 234.3 | 232.9 | 233.5 | 236.5 | 239.3 | 240.1 | 239.3 |
| 27.5° | 1975.7 | 1785.5 | 977.7 | 268.3 | 214.8 | 216.2 | 223.5 | 230.7 | 235.1 | 235.7 | 235.7 |
| 30° | 2099.3 | 1844.8 | 822.9 | 217.7 | 198.9 | 198.9 | 207.6 | 221.3 | 230.7 | 232.1 | 232.9 |
| 32.5° | 2258.4 | 1913.5 | 651.6 | 196.0 | 183.7 | 182.2 | 190.2 | 206.8 | 224.2 | 229.3 | 229.3 |
| 35° | 2455.1 | 1994.5 | 484.5 | 182.2 | 172.8 | 169.2 | 173.6 | 187.3 | 209.7 | 224.2 | 225.6 |
| 37.5° | 2685.8 | 2071.1 | 354.3 | 170.0 | 162.7 | 157.7 | 160.5 | 171.4 | 189.5 | 211.2 | 217.0 |
| 40° | 2899.2 | 2139.1 | 264.7 | 159.8 | 152.6 | 148.9 | 151.1 | 156.2 | 171.4 | 191.7 | 195.3 |
| 42.5° | 3132.1 | 2191.9 | 210.4 | 148.9 | 142.5 | 141.0 | 141.0 | 143.2 | 153.3 | 164.9 | 165.6 |
| 45° | 3364.2 | 2210.7 | 176.4 | 136.0 | 131.6 | 133.0 | 132.4 | 130.9 | 135.2 | 133.8 | 133.8 |
| 47.5° | 3529.8 | 2188.3 | 146.1 | 123.6 | 123.6 | 125.8 | 122.2 | 117.2 | 115.0 | 106.3 | 107.1 |
| 50° | 3643.3 | 2106.5 | 120.0 | 109.2 | 115.0 | 117.9 | 110.7 | 102.7 | 94.7 | 85.4 | 83.2 |
| 52.5° | 3690.3 | 1961.2 | 98.3 | 90.4 | 101.9 | 105.5 | 96.9 | 87.5 | 75.2 | 67.3 | 65.1 |
| 55° | 3659.9 | 1781.9 | 81.7 | 73.8 | 86.0 | 90.4 | 81.7 | 70.9 | 57.1 | 48.4 | 47.0 |
| 57.5° | 3526.1 | 1567.8 | 69.4 | 58.6 | 68.7 | 71.6 | 65.8 | 54.2 | 40.5 | 31.8 | 31.8 |
| 60° | 3294.7 | 1346.5 | 56.4 | 46.3 | 51.4 | 55.7 | 49.9 | 39.0 | 27.5 | 19.5 | 18.1 |
| 62.5° | 2825.4 | 1093.4 | 45.6 | 36.2 | 36.2 | 39.8 | 34.7 | 28.2 | 17.3 | 10.1 | 9.4 |
| 65° | 2040.0 | 749.9 | 36.2 | 26.7 | 26.1 | 26.1 | 21.7 | 18.8 | 10.1 | 4.4 | 2.9 |
| 67.5° | 1108.6 | 423.0 | 28.9 | 20.3 | 18.1 | 17.3 | 13.7 | 10.8 | 4.4 | 0.8 | 0.0 |
| 70° | 436.1 | 162.7 | 22.5 | 13.7 | 11.6 | 10.8 | 7.2 | 5.0 | 2.9 | 0.0 | 0.0 |
| 71° | 295.8 | 112.1 | 19.5 | 11.6 | 9.4 | 8.0 | 5.8 | 4.4 | 2.2 | 0.0 | 0.0 |
| 72.5° | 169.2 | 69.4 | 15.2 | 8.7 | 7.2 | 5.8 | 4.4 | 2.9 | 2.2 | 0.0 | 0.0 |
| 75° | 73.8 | 35.4 | 9.4 | 6.5 | 5.0 | 3.6 | 2.9 | 2.2 | 0.8 | 0.0 | 0.0 |
| 77.5° | 37.6 | 19.5 | 6.5 | 5.0 | 2.9 | 2.2 | 1.4 | 0.8 | 0.0 | 0.0 | 0.0 |
| 80° | 20.9 | 10.1 | 4.4 | 2.9 | 2.2 | 1.4 | 0.8 | 0.8 | 0.0 | 0.0 | 0.0 |
| 82.5° | 11.6 | 5.8 | 2.2 | 1.4 | 0.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 7.2 | 3.6 | 0.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 3.6 | 1.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.8 | 0.8 | 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)