

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: STREETWORKS

Report Number: P299828

Luminaire Tested: **GAA-AF-03-LED-U-5WQ-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299828
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24143)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: GAA-AF-03-LED-U-5WQ-7030
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(3) 70 CRI, 3000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV
w/Spill Control OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18450.1 lumens
Efficiency: N/A
Efficacy: 111.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type V - Short - Semi-Cutoff
BUG Rating: B5 - U0 - G3

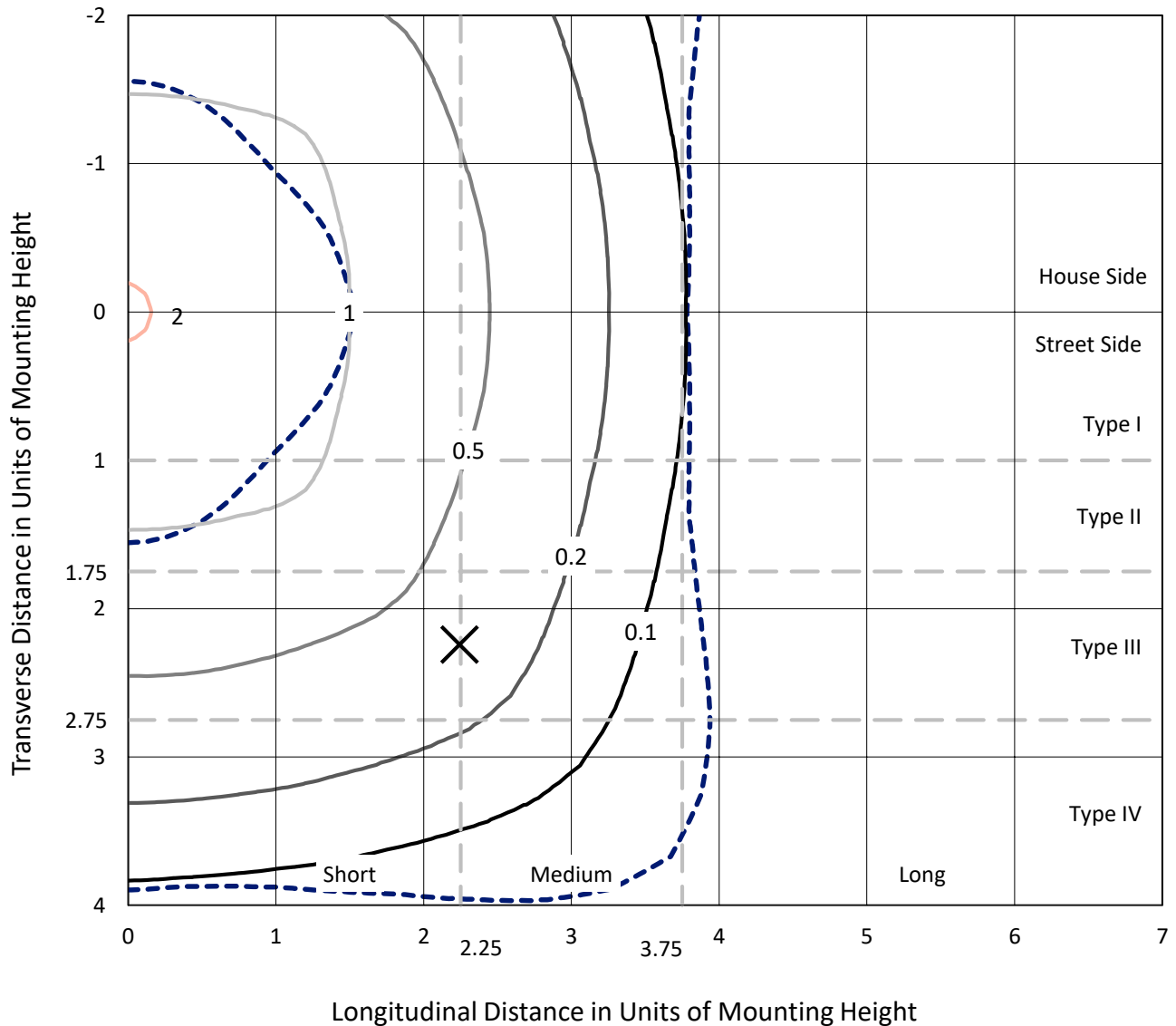
Input Watts (W): 166
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

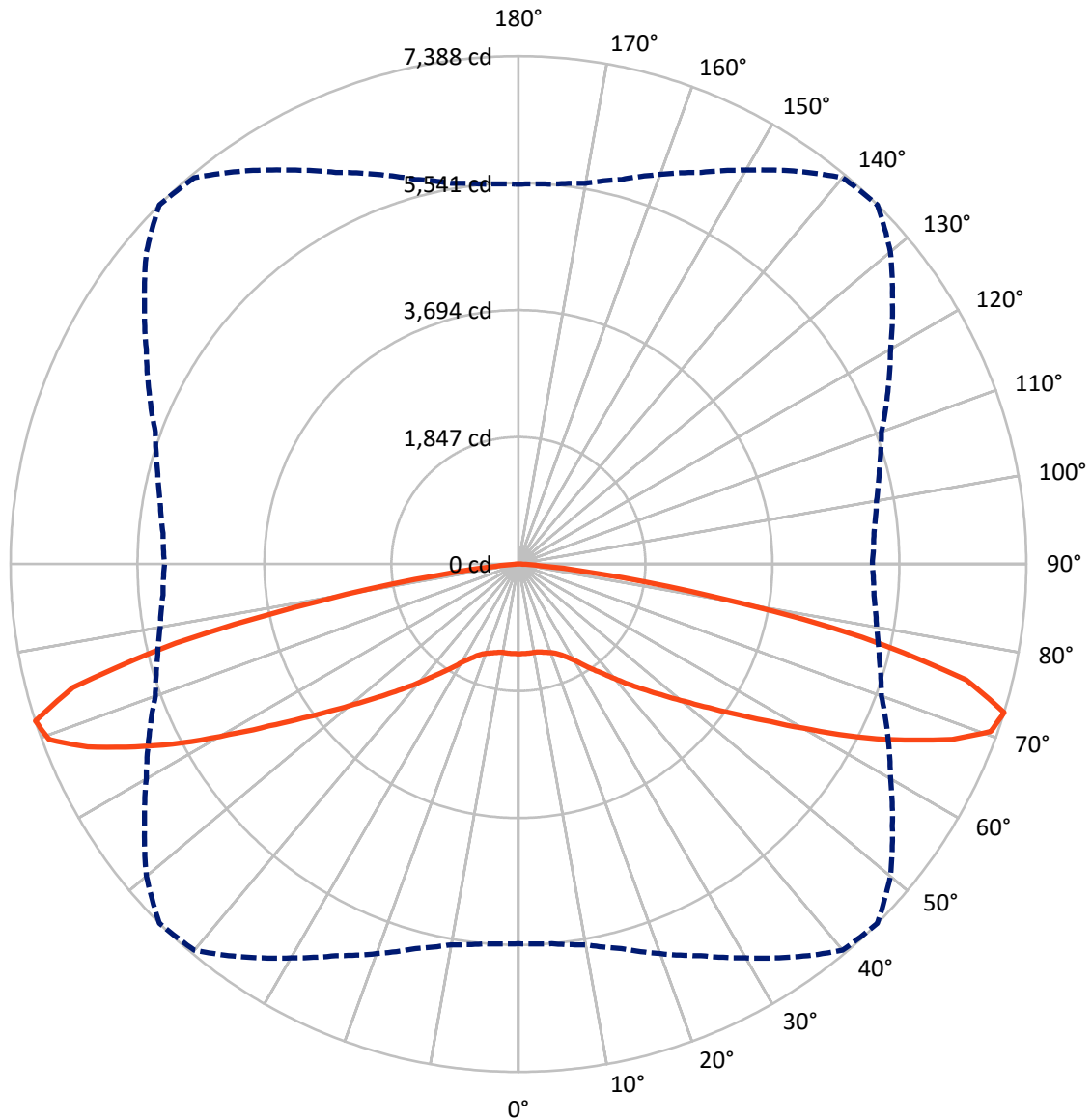
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.1 fc
 Type V - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 9225.0 | 0.0 | 9225.0 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Street Side | Lumens | 9225.0 | 0.0 | 9225.0 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Total | Lumens | 18450.1 | 0.0 | 18450.1 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 124.8 | 0.7 |
| 10°-20° | 378.9 | 2.1 |
| 20°-30° | 692.4 | 3.8 |
| 30°-40° | 1193.9 | 6.5 |
| 40°-50° | 2040.9 | 11.1 |
| 50°-60° | 3308.0 | 17.9 |
| 60°-70° | 5487.9 | 29.7 |
| 70°-80° | 4833.6 | 26.2 |
| 80°-90° | 389.7 | 2.1 |
| 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° | 18450.1 | 100.0 |
| 0°-180° | 18450.1 | 100.0 |



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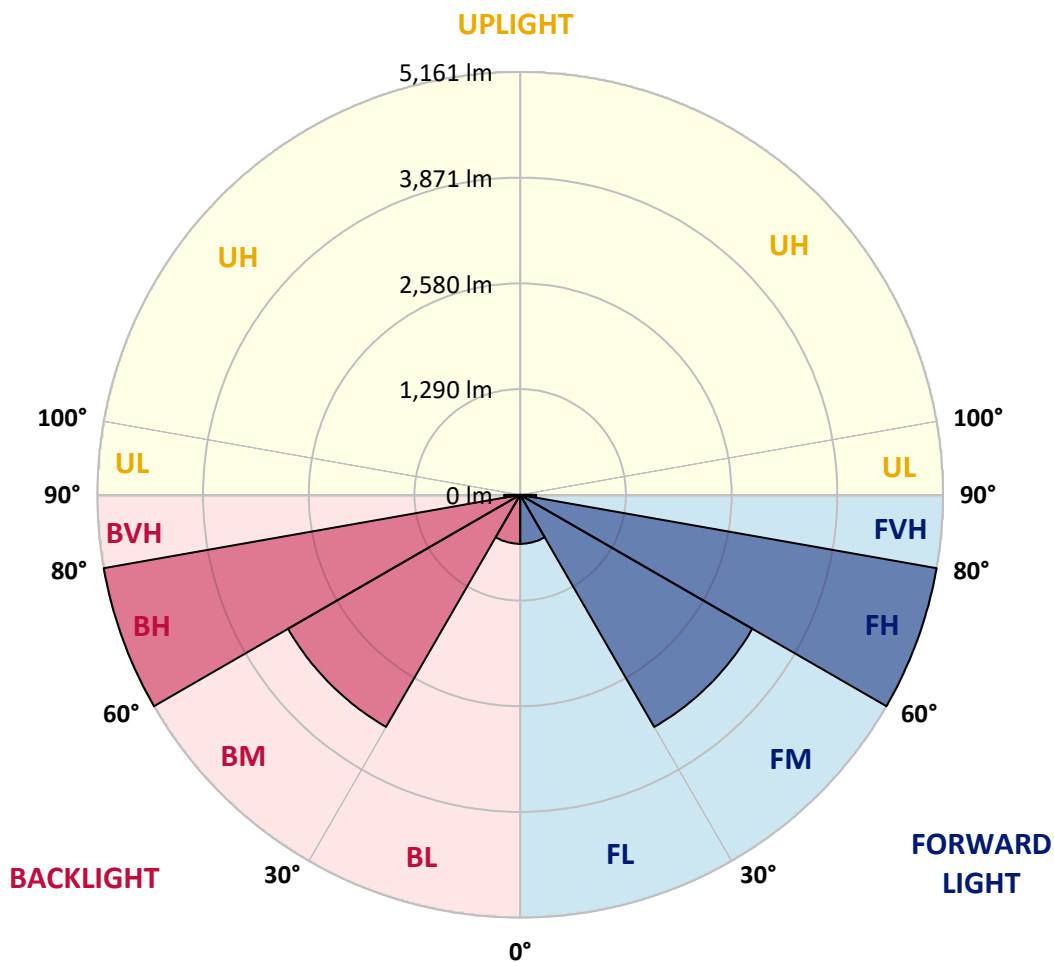
CATALOG NUMBER: GAA-AF-03-LED-U-5WQ-7030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 598.1 | 3.2 | | | |
| FM | (30°-60°) | 3271.4 | 17.7 | | | |
| FH | (60°-80°) | 5160.7 | 28.0 | | | G3/7500 |
| FVH | (80°-90°) | 194.9 | 1.1 | | | G2/225 |
| BL | (0°-30°) | 598.1 | 3.2 | B2/1000 | | |
| BM | (30°-60°) | 3271.4 | 17.7 | B3/5000 | | |
| BH | (60°-80°) | 5160.7 | 28.0 | B5 | | G3/7500 |
| BVH | (80°-90°) | 194.9 | 1.1 | | | G2/225 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B5-U0-G3

Type V Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1306.6 | 1306.6 | 1306.6 | 1306.6 | 1306.6 | 1306.6 | 1306.6 | 1306.6 | 1306.6 | 1306.6 | 1306.6 |
| 2.5° | 1306.6 | 1307.4 | 1308.2 | 1307.4 | 1307.4 | 1306.6 | 1305.7 | 1306.6 | 1305.7 | 1304.0 | 1304.9 |
| 5° | 1310.8 | 1312.5 | 1312.5 | 1310.8 | 1311.6 | 1310.8 | 1309.1 | 1309.9 | 1308.2 | 1305.7 | 1305.7 |
| 7.5° | 1315.9 | 1316.7 | 1316.7 | 1315.0 | 1315.9 | 1314.2 | 1312.5 | 1311.6 | 1309.9 | 1306.6 | 1304.0 |
| 10° | 1323.5 | 1324.3 | 1323.5 | 1321.8 | 1321.8 | 1319.2 | 1315.0 | 1313.3 | 1309.9 | 1304.9 | 1302.3 |
| 12.5° | 1331.9 | 1332.8 | 1331.9 | 1330.2 | 1329.4 | 1325.2 | 1321.8 | 1319.2 | 1316.7 | 1312.5 | 1308.2 |
| 15° | 1343.8 | 1345.5 | 1343.8 | 1340.4 | 1337.9 | 1334.5 | 1332.8 | 1333.6 | 1334.5 | 1331.1 | 1326.9 |
| 17.5° | 1365.8 | 1366.6 | 1364.1 | 1356.5 | 1353.1 | 1349.7 | 1349.7 | 1351.4 | 1353.9 | 1352.2 | 1348.0 |
| 20° | 1406.4 | 1403.9 | 1397.9 | 1388.6 | 1384.4 | 1378.5 | 1377.6 | 1378.5 | 1378.5 | 1377.6 | 1374.2 |
| 22.5° | 1457.2 | 1455.5 | 1447.9 | 1436.0 | 1430.1 | 1426.7 | 1421.6 | 1417.4 | 1416.6 | 1414.0 | 1410.6 |
| 25° | 1518.1 | 1517.3 | 1508.0 | 1497.8 | 1493.6 | 1489.3 | 1485.1 | 1479.2 | 1474.1 | 1468.2 | 1464.8 |
| 27.5° | 1596.0 | 1592.6 | 1579.0 | 1574.0 | 1568.0 | 1565.5 | 1559.6 | 1552.8 | 1548.6 | 1541.0 | 1536.7 |
| 30° | 1681.4 | 1681.4 | 1670.4 | 1668.7 | 1668.7 | 1662.8 | 1656.0 | 1644.2 | 1636.6 | 1629.0 | 1626.4 |
| 32.5° | 1766.9 | 1767.7 | 1756.7 | 1760.1 | 1762.7 | 1766.9 | 1768.6 | 1764.4 | 1759.3 | 1758.4 | 1753.4 |
| 35° | 1890.4 | 1887.1 | 1876.1 | 1878.6 | 1877.7 | 1876.9 | 1876.9 | 1886.2 | 1887.9 | 1889.6 | 1879.4 |
| 37.5° | 2043.6 | 2043.6 | 2032.6 | 2032.6 | 2027.5 | 2022.4 | 2015.7 | 2021.6 | 2030.9 | 2033.4 | 2026.7 |
| 40° | 2218.8 | 2224.7 | 2211.2 | 2210.3 | 2212.0 | 2195.9 | 2188.3 | 2197.6 | 2203.5 | 2213.7 | 2206.1 |
| 42.5° | 2425.2 | 2421.0 | 2407.5 | 2405.8 | 2396.5 | 2391.4 | 2384.6 | 2392.2 | 2401.6 | 2408.3 | 2410.9 |
| 45° | 2623.3 | 2619.9 | 2604.6 | 2604.6 | 2595.3 | 2591.1 | 2594.5 | 2607.2 | 2611.4 | 2620.7 | 2630.0 |
| 47.5° | 2818.7 | 2814.5 | 2804.3 | 2808.6 | 2809.4 | 2817.0 | 2828.0 | 2839.9 | 2851.7 | 2864.4 | 2868.7 |
| 50° | 3018.4 | 3019.3 | 3008.3 | 3018.4 | 3031.1 | 3052.3 | 3081.9 | 3101.4 | 3125.9 | 3142.0 | 3147.1 |
| 52.5° | 3200.4 | 3203.8 | 3215.6 | 3239.3 | 3264.7 | 3306.2 | 3356.9 | 3404.3 | 3444.9 | 3472.0 | 3470.3 |
| 55° | 3418.7 | 3423.8 | 3452.5 | 3493.2 | 3534.6 | 3597.3 | 3672.6 | 3756.3 | 3824.0 | 3863.0 | 3838.4 |
| 57.5° | 3697.9 | 3709.0 | 3741.1 | 3796.1 | 3857.9 | 3939.1 | 4042.4 | 4168.4 | 4273.4 | 4325.8 | 4286.1 |
| 60° | 4081.3 | 4088.1 | 4127.0 | 4187.9 | 4262.4 | 4363.1 | 4501.0 | 4670.2 | 4818.3 | 4887.7 | 4842.0 |
| 62.5° | 4586.5 | 4599.2 | 4630.5 | 4692.3 | 4768.4 | 4882.6 | 5051.0 | 5262.6 | 5447.1 | 5543.5 | 5440.3 |
| 65° | 5189.8 | 5230.4 | 5256.7 | 5319.3 | 5390.4 | 5511.4 | 5687.4 | 5914.2 | 6112.2 | 6175.7 | 6056.3 |
| 67.5° | 5787.2 | 5822.8 | 5868.5 | 5940.4 | 6012.3 | 6148.6 | 6311.9 | 6531.9 | 6749.4 | 6806.9 | 6621.6 |
| 70° | 6048.7 | 6069.0 | 6140.1 | 6238.3 | 6376.2 | 6537.0 | 6725.7 | 6972.8 | 7241.9 | 7289.3 | 7054.0 |
| 72.5° | 5524.9 | 5545.2 | 5624.8 | 5791.5 | 6031.8 | 6287.4 | 6616.5 | 6979.6 | 7335.0 | 7388.3 | 7064.2 |
| 75° | 4178.6 | 4145.6 | 4263.2 | 4484.1 | 4808.2 | 5164.4 | 5624.8 | 6145.2 | 6658.8 | 6725.7 | 6339.0 |
| 77.5° | 2159.5 | 2155.3 | 2244.2 | 2518.3 | 2905.0 | 3310.4 | 3817.3 | 4405.4 | 4908.0 | 5111.1 | 4796.3 |
| 80° | 608.4 | 615.2 | 657.5 | 793.7 | 1019.7 | 1312.5 | 1708.5 | 2259.4 | 2670.6 | 2880.5 | 2704.5 |
| 82.5° | 238.6 | 257.2 | 273.3 | 298.7 | 328.3 | 371.5 | 495.9 | 737.9 | 990.1 | 1183.0 | 968.9 |
| 85° | 85.5 | 91.4 | 129.5 | 153.2 | 155.7 | 164.2 | 187.0 | 218.3 | 263.2 | 313.9 | 258.1 |
| 87.5° | 32.2 | 35.5 | 41.5 | 68.5 | 67.7 | 61.8 | 75.3 | 78.7 | 59.2 | 54.2 | 66.9 |
| 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: GAA-AF-03-LED-U-5WQ-7030

CANDELA DISTRIBUTION (continued):

| | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1306.6 | 1306.6 | 1306.6 | 1306.6 | 1306.6 | 1306.6 | 1306.6 | 1306.6 |
| 2.5° | 1303.2 | 1304.0 | 1304.0 | 1304.9 | 1305.7 | 1305.7 | 1307.4 | 1307.4 |
| 5° | 1304.0 | 1304.0 | 1302.3 | 1303.2 | 1302.3 | 1302.3 | 1303.2 | 1303.2 |
| 7.5° | 1302.3 | 1301.5 | 1299.8 | 1298.9 | 1297.2 | 1297.2 | 1297.2 | 1297.2 |
| 10° | 1299.8 | 1298.9 | 1297.2 | 1296.4 | 1295.6 | 1295.6 | 1295.6 | 1295.6 |
| 12.5° | 1306.6 | 1304.0 | 1302.3 | 1301.5 | 1301.5 | 1301.5 | 1301.5 | 1301.5 |
| 15° | 1324.3 | 1318.4 | 1314.2 | 1314.2 | 1315.0 | 1316.7 | 1316.7 | 1318.4 |
| 17.5° | 1346.3 | 1339.6 | 1335.3 | 1331.9 | 1333.6 | 1336.2 | 1337.9 | 1339.6 |
| 20° | 1372.6 | 1369.2 | 1363.2 | 1359.9 | 1359.9 | 1363.2 | 1364.9 | 1365.8 |
| 22.5° | 1408.9 | 1406.4 | 1403.9 | 1399.6 | 1399.6 | 1401.3 | 1404.7 | 1404.7 |
| 25° | 1463.1 | 1461.4 | 1459.7 | 1456.3 | 1455.5 | 1455.5 | 1457.2 | 1458.9 |
| 27.5° | 1530.8 | 1531.6 | 1530.0 | 1529.1 | 1526.6 | 1525.7 | 1528.3 | 1527.4 |
| 30° | 1621.3 | 1625.6 | 1629.8 | 1626.4 | 1622.2 | 1619.7 | 1617.1 | 1613.7 |
| 32.5° | 1744.0 | 1739.0 | 1735.6 | 1729.7 | 1722.0 | 1715.3 | 1710.2 | 1704.3 |
| 35° | 1860.0 | 1851.5 | 1848.1 | 1853.2 | 1852.4 | 1848.1 | 1842.2 | 1837.1 |
| 37.5° | 2002.1 | 2000.4 | 2002.1 | 2011.4 | 2009.8 | 2014.0 | 2002.1 | 2001.3 |
| 40° | 2181.5 | 2183.2 | 2195.1 | 2206.1 | 2212.0 | 2217.9 | 2211.2 | 2204.4 |
| 42.5° | 2389.7 | 2388.9 | 2393.1 | 2408.3 | 2418.5 | 2425.2 | 2410.9 | 2409.2 |
| 45° | 2609.7 | 2603.8 | 2607.2 | 2619.9 | 2630.0 | 2637.6 | 2621.6 | 2621.6 |
| 47.5° | 2851.7 | 2841.6 | 2830.6 | 2845.0 | 2850.9 | 2856.0 | 2843.3 | 2839.0 |
| 50° | 3121.7 | 3100.5 | 3076.8 | 3082.8 | 3082.8 | 3081.1 | 3065.0 | 3064.1 |
| 52.5° | 3431.4 | 3392.5 | 3349.3 | 3333.2 | 3323.9 | 3313.8 | 3285.8 | 3272.3 |
| 55° | 3787.6 | 3729.3 | 3661.6 | 3620.1 | 3598.1 | 3570.2 | 3523.6 | 3510.9 |
| 57.5° | 4204.0 | 4112.6 | 3995.8 | 3945.0 | 3896.0 | 3850.3 | 3798.6 | 3784.3 |
| 60° | 4697.3 | 4562.8 | 4407.9 | 4314.0 | 4260.7 | 4216.7 | 4163.4 | 4160.8 |
| 62.5° | 5247.4 | 5035.0 | 4859.8 | 4775.2 | 4736.3 | 4697.3 | 4646.6 | 4653.3 |
| 65° | 5806.7 | 5585.0 | 5420.8 | 5352.3 | 5315.9 | 5283.8 | 5233.0 | 5240.6 |
| 67.5° | 6358.4 | 6154.5 | 5974.3 | 5904.0 | 5863.4 | 5822.8 | 5777.1 | 5784.7 |
| 70° | 6754.5 | 6501.5 | 6298.4 | 6142.7 | 6045.3 | 5935.3 | 5864.3 | 5846.5 |
| 72.5° | 6641.1 | 6251.0 | 5928.6 | 5619.7 | 5438.6 | 5291.4 | 5191.5 | 5148.4 |
| 75° | 5747.5 | 5214.4 | 4799.7 | 4420.6 | 4207.4 | 4033.9 | 3907.8 | 3829.1 |
| 77.5° | 4268.3 | 3669.2 | 3179.2 | 2742.6 | 2397.3 | 2165.5 | 2002.1 | 1896.4 |
| 80° | 2336.4 | 1777.0 | 1298.9 | 913.1 | 671.0 | 557.7 | 492.5 | 461.2 |
| 82.5° | 727.7 | 469.6 | 346.1 | 298.7 | 277.6 | 265.7 | 246.2 | 214.9 |
| 85° | 231.9 | 203.1 | 188.7 | 180.2 | 171.8 | 149.8 | 103.2 | 93.9 |
| 87.5° | 89.7 | 92.2 | 91.4 | 86.3 | 88.0 | 63.5 | 50.8 | 44.8 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)