

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: P300323

Luminaire Tested: **GAA-AF-05-LED-U-AFL-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P300323
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24165)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: GAA-AF-05-LED-U-AFL-7050
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(5) 70 CRI, 5000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Automotive Frontline OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 30417.3 lumens
Efficiency: N/A
Efficacy: 109.0 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B3 - U0 - G3

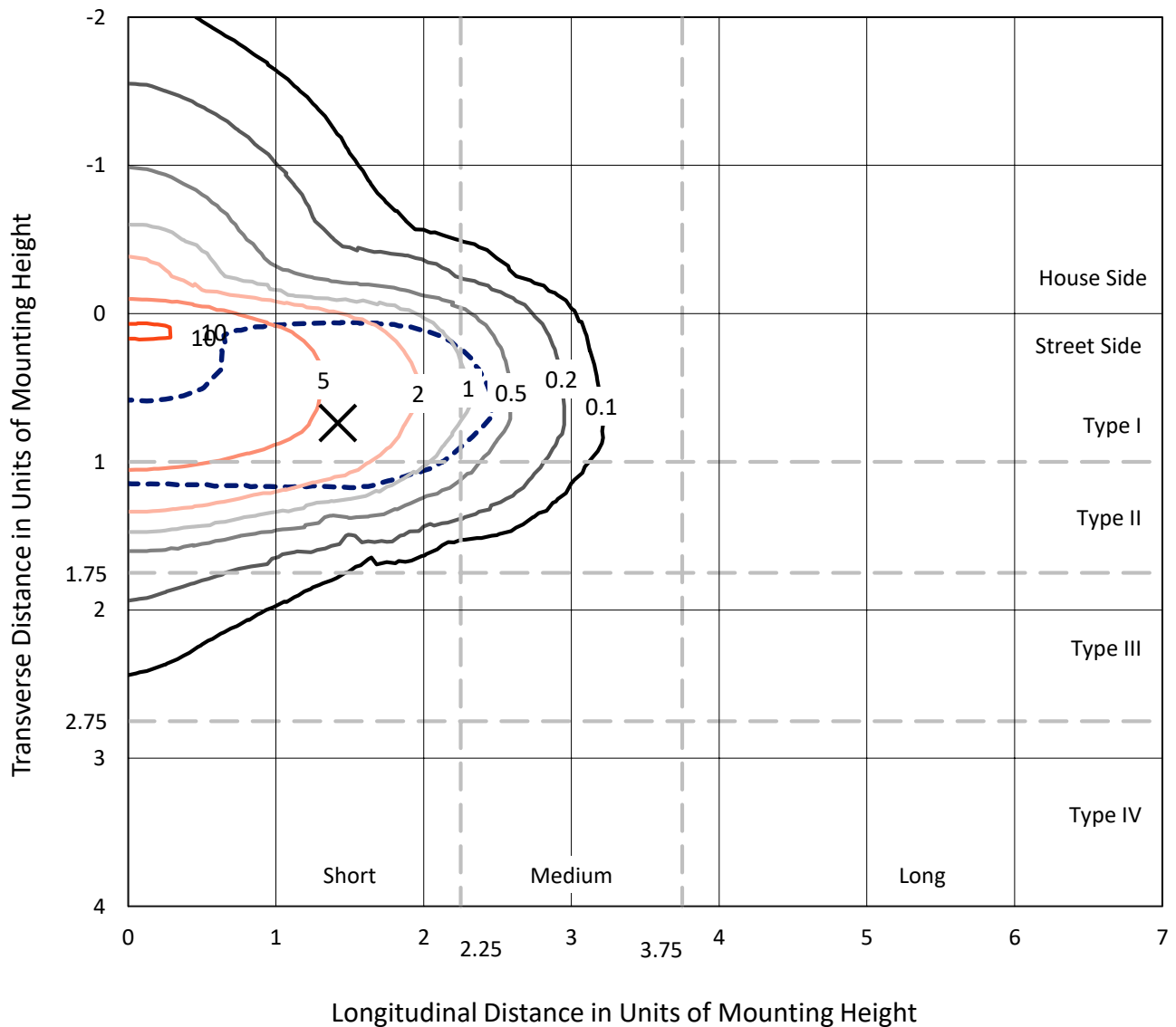
Input Watts (W): 279
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

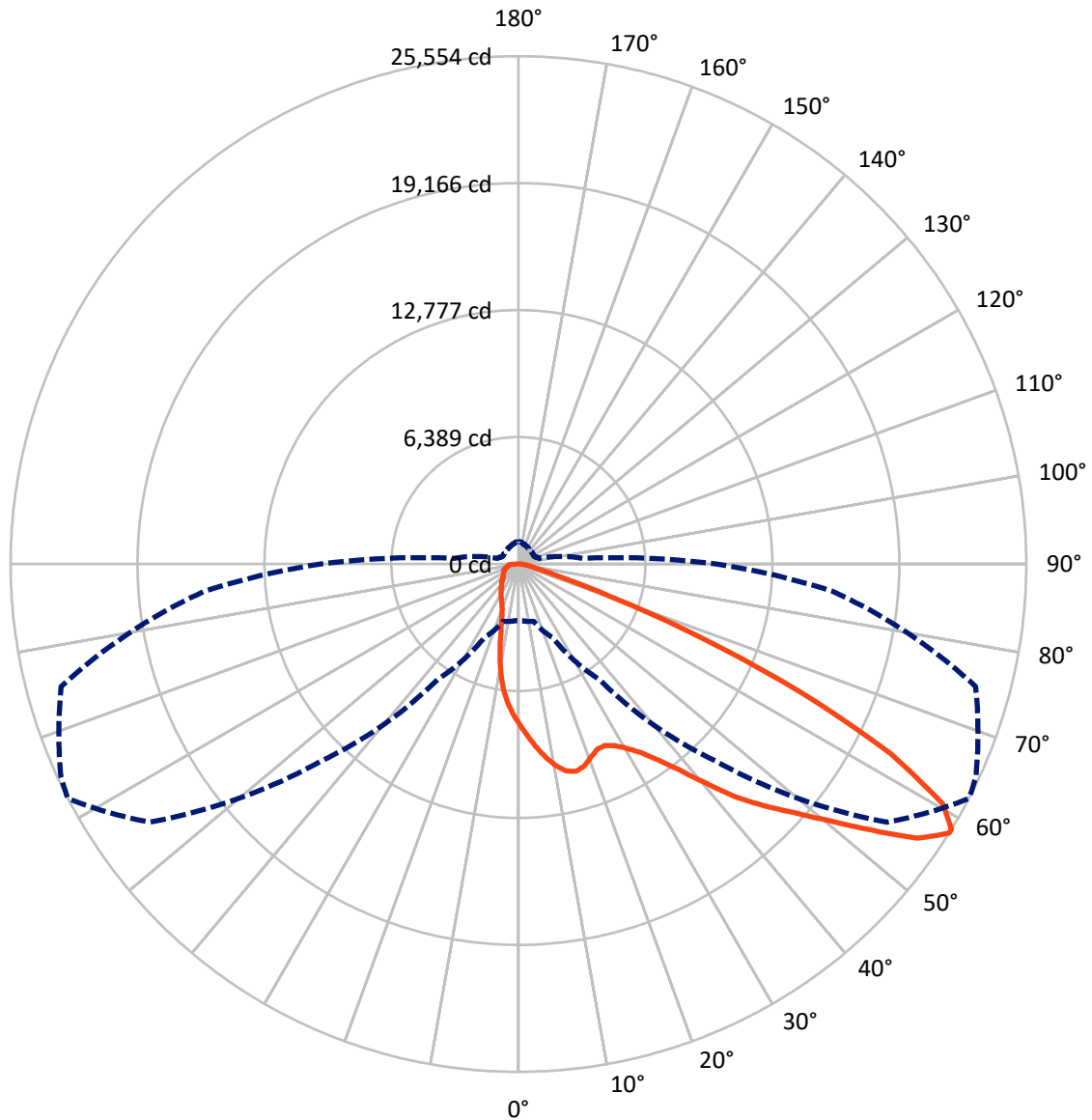
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 10.9 fc
 Type II - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 62.5-Deg Lateral - - - Horizontal Cone Through 58-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 4638.8 | 0.0 | 4638.8 |
| | % Fixture | 15.3 | 0.0 | 15.3 |
| Street Side | Lumens | 25778.6 | 0.0 | 25778.6 |
| | % Fixture | 84.7 | 0.0 | 84.7 |
| Total | Lumens | 30417.3 | 0.0 | 30417.3 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 722.6 | 2.4 |
| 10°-20° | 1847.1 | 6.1 |
| 20°-30° | 2985.9 | 9.8 |
| 30°-40° | 4740.1 | 15.6 |
| 40°-50° | 6935.8 | 22.8 |
| 50°-60° | 7254.3 | 23.8 |
| 60°-70° | 4285.8 | 14.1 |
| 70°-80° | 1207.3 | 4.0 |
| 80°-90° | 438.3 | 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° | 30417.3 | 100.0 |
| 0°-180° | 30417.3 | 100.0 |

Coefficient of Utilization



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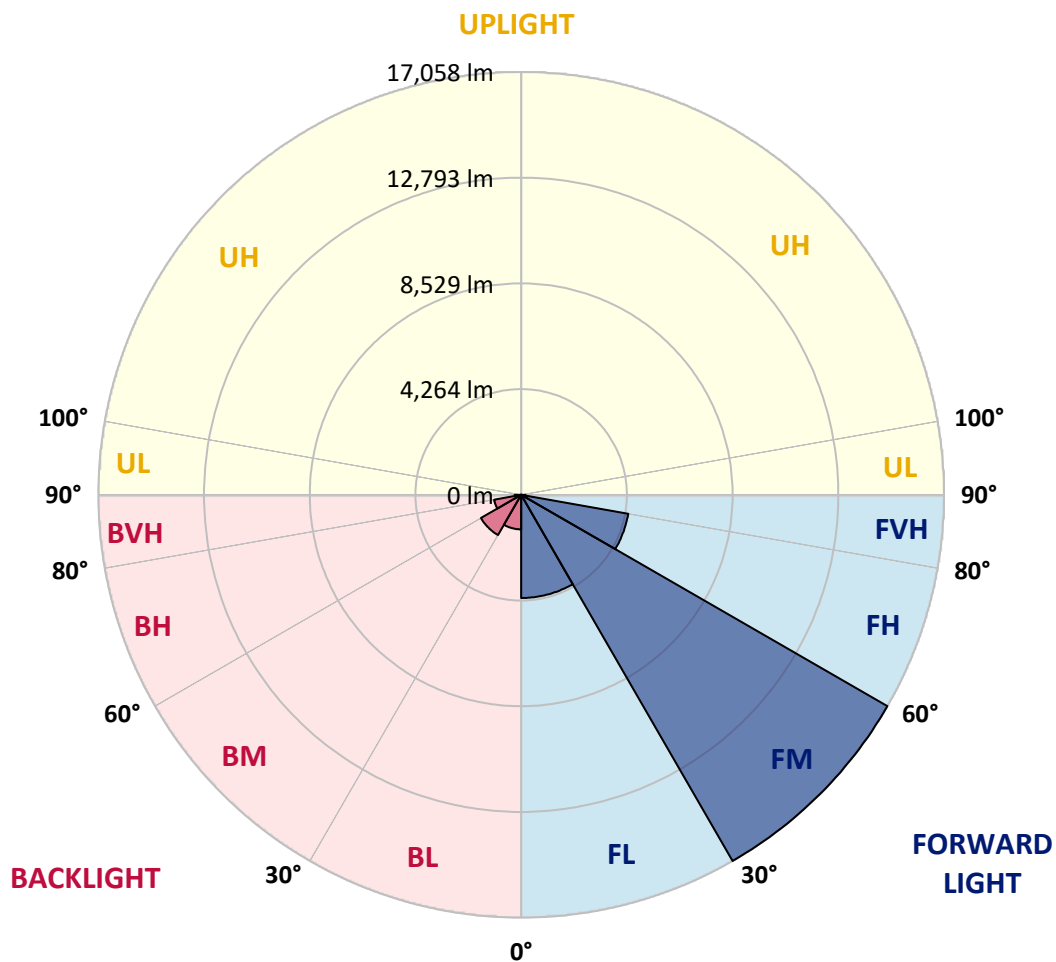
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|---------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 4161.5 | 13.7 | | | |
| FM (30°-60°) | 17057.9 | 56.1 | | | |
| FH (60°-80°) | 4386.3 | 14.4 | | | G2/5000 |
| FVH (80°-90°) | 172.9 | 0.6 | | | G2/225 |
| BL (0°-30°) | 1394.2 | 4.6 | B3/2500 | | |
| BM (30°-60°) | 1872.3 | 6.2 | B2/2500 | | |
| BH (60°-80°) | 1106.8 | 3.6 | B3/2500 | | G3/2500 |
| BVH (80°-90°) | 265.4 | 0.9 | | | G3/500 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B3-U0-G3

Type II Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 62.5° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 8079.7 | 8079.7 | 8079.7 | 8079.7 | 8079.7 | 8079.7 | 8079.7 | 8079.7 | 8079.7 | 8079.7 | 8079.7 |
| 2.5° | 9232.8 | 9158.3 | 9111.0 | 9069.5 | 9015.0 | 8899.0 | 8742.9 | 8644.1 | 8593.9 | 8423.5 | 8221.5 |
| 5° | 10138.0 | 10072.1 | 10023.4 | 9967.5 | 9870.1 | 9688.2 | 9436.1 | 9235.6 | 9136.8 | 8795.9 | 8392.0 |
| 7.5° | 9926.0 | 9953.2 | 10037.7 | 10185.3 | 10311.3 | 10286.9 | 10062.1 | 9807.1 | 9676.8 | 9202.7 | 8589.6 |
| 10° | 8648.4 | 8695.6 | 8841.7 | 9186.9 | 9745.5 | 10318.5 | 10493.2 | 10317.0 | 10185.3 | 9605.2 | 8793.0 |
| 12.5° | 8392.0 | 8390.6 | 8402.0 | 8493.7 | 8826.0 | 9632.4 | 10507.5 | 10685.1 | 10606.4 | 9989.0 | 9000.7 |
| 15° | 8496.5 | 8499.4 | 8490.8 | 8529.5 | 8632.6 | 8952.0 | 10069.2 | 10826.9 | 10882.8 | 10375.8 | 9215.6 |
| 17.5° | 8771.5 | 8764.4 | 8731.4 | 8731.4 | 8768.7 | 8893.3 | 9553.6 | 10695.2 | 10953.0 | 10718.1 | 9404.6 |
| 20° | 9232.8 | 9199.8 | 9112.4 | 9032.2 | 8992.1 | 9059.4 | 9341.6 | 10391.5 | 10831.2 | 11017.4 | 9560.8 |
| 22.5° | 9791.4 | 9765.6 | 9623.8 | 9451.9 | 9313.0 | 9311.5 | 9450.5 | 10126.5 | 10620.7 | 11299.6 | 9692.5 |
| 25° | 10513.3 | 10471.7 | 10261.2 | 9986.2 | 9742.7 | 9649.6 | 9688.2 | 10113.6 | 10506.1 | 11606.1 | 9810.0 |
| 27.5° | 11361.2 | 11285.3 | 11036.1 | 10639.3 | 10281.2 | 10093.6 | 10037.7 | 10347.1 | 10610.7 | 11985.7 | 9973.3 |
| 30° | 12389.6 | 12302.2 | 11982.8 | 11465.8 | 10960.1 | 10652.2 | 10533.3 | 10761.0 | 10957.3 | 12448.3 | 10235.4 |
| 32.5° | 13559.8 | 13433.8 | 13064.2 | 12494.2 | 11829.6 | 11359.8 | 11166.4 | 11308.2 | 11464.3 | 13005.5 | 10563.4 |
| 35° | 15176.9 | 15026.5 | 14492.3 | 13705.9 | 12955.4 | 12309.4 | 12000.0 | 12103.1 | 12255.0 | 13836.2 | 11037.5 |
| 37.5° | 16279.8 | 16212.5 | 15857.3 | 15118.2 | 14301.8 | 13558.4 | 13080.0 | 13140.1 | 13226.1 | 14874.7 | 11644.8 |
| 40° | 16269.8 | 16297.0 | 16304.1 | 16311.3 | 15755.6 | 15043.7 | 14529.5 | 14466.5 | 14449.3 | 16014.8 | 12335.2 |
| 42.5° | 15454.8 | 15566.5 | 15927.4 | 16659.4 | 16997.4 | 16670.8 | 16199.6 | 16017.7 | 15927.4 | 17358.3 | 13067.1 |
| 45° | 14207.2 | 14267.4 | 14943.4 | 16372.9 | 17633.3 | 18282.2 | 17925.5 | 17352.6 | 17189.3 | 18593.0 | 13674.4 |
| 47.5° | 13564.1 | 13630.0 | 14055.4 | 15613.8 | 17626.2 | 19584.2 | 19790.4 | 18699.0 | 18406.8 | 19667.2 | 14198.6 |
| 50° | 12033.0 | 12170.5 | 12706.1 | 14293.2 | 16983.1 | 20182.9 | 21739.8 | 20303.2 | 19698.7 | 20712.8 | 14724.3 |
| 52.5° | 9221.3 | 9433.3 | 10033.4 | 12121.8 | 15351.6 | 19886.4 | 23299.6 | 22248.3 | 21394.6 | 21795.7 | 15175.5 |
| 55° | 5816.7 | 5974.2 | 6478.4 | 8561.0 | 12280.7 | 18343.8 | 23891.2 | 24352.4 | 23593.2 | 22821.2 | 15566.5 |
| 57.5° | 3162.6 | 3232.8 | 3421.8 | 4726.7 | 7988.1 | 14933.4 | 23028.9 | 25549.8 | 25234.7 | 23692.1 | 15861.6 |
| 58° | 2830.3 | 2877.5 | 2995.0 | 4096.4 | 7084.3 | 14001.0 | 22646.5 | 25554.1 | 25396.5 | 23819.5 | 15884.5 |
| 60° | 2099.8 | 2075.4 | 1970.9 | 2337.6 | 3943.2 | 9672.5 | 20334.7 | 24531.4 | 24994.0 | 23975.7 | 15772.7 |
| 62.5° | 1844.8 | 1786.1 | 1572.7 | 1548.3 | 1917.9 | 4456.0 | 15559.3 | 21013.6 | 22106.5 | 23084.8 | 15093.8 |
| 65° | 1733.1 | 1670.1 | 1395.1 | 1306.3 | 1383.6 | 1884.9 | 9165.4 | 15759.9 | 17130.6 | 20383.4 | 13357.8 |
| 67.5° | 1650.0 | 1568.4 | 1281.9 | 1160.2 | 1165.9 | 1246.1 | 3673.9 | 9926.0 | 11468.6 | 15476.3 | 10390.1 |
| 70° | 1569.8 | 1481.0 | 1186.0 | 1045.6 | 1012.7 | 985.4 | 1461.0 | 4968.7 | 6368.1 | 9775.6 | 6624.5 |
| 72.5° | 1483.9 | 1396.5 | 1101.5 | 955.4 | 890.9 | 800.7 | 953.9 | 2032.5 | 2838.9 | 4625.0 | 3005.0 |
| 75° | 1359.3 | 1280.5 | 1016.9 | 875.1 | 783.5 | 663.2 | 720.5 | 1061.4 | 1273.3 | 1842.0 | 1448.1 |
| 77.5° | 1206.0 | 1141.6 | 922.4 | 809.3 | 694.7 | 538.6 | 554.3 | 736.2 | 816.4 | 1054.2 | 860.8 |
| 80° | 866.6 | 889.5 | 820.7 | 727.6 | 618.8 | 436.9 | 425.4 | 537.1 | 580.1 | 677.5 | 560.0 |
| 82.5° | 608.7 | 621.6 | 678.9 | 594.4 | 511.3 | 343.8 | 313.7 | 378.1 | 403.9 | 445.5 | 302.2 |
| 85° | 419.7 | 405.3 | 465.5 | 413.9 | 369.5 | 229.2 | 214.8 | 256.4 | 272.1 | 276.4 | 156.1 |
| 87.5° | 252.1 | 252.1 | 269.3 | 222.0 | 199.1 | 118.9 | 116.0 | 146.1 | 156.1 | 149.0 | 85.9 |
| 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-05-LED-U-AFL-7050

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 8079.7 | 8079.7 | 8079.7 | 8079.7 | 8079.7 | 8079.7 | 8079.7 | 8079.7 | 8079.7 | 8079.7 | 8079.7 |
| 2.5° | 8101.2 | 7999.5 | 7783.2 | 7609.9 | 7390.8 | 7163.1 | 7035.6 | 6899.5 | 6806.4 | 6739.1 | 6846.5 |
| 5° | 8162.8 | 7955.1 | 7508.2 | 7084.3 | 6615.9 | 6128.9 | 5759.4 | 5415.6 | 5176.4 | 5027.5 | 5167.8 |
| 7.5° | 8260.2 | 7940.8 | 7228.9 | 6504.2 | 5663.4 | 4852.7 | 4128.0 | 3673.9 | 3408.9 | 3278.6 | 3360.2 |
| 10° | 8371.9 | 7917.9 | 6900.9 | 5717.8 | 4514.7 | 3493.4 | 2952.0 | 2768.7 | 2708.5 | 2684.2 | 2695.6 |
| 12.5° | 8465.0 | 7869.2 | 6498.5 | 4766.8 | 3390.3 | 2758.7 | 2602.5 | 2598.2 | 2611.1 | 2614.0 | 2618.3 |
| 15° | 8530.9 | 7797.6 | 5901.2 | 3775.6 | 2711.4 | 2513.7 | 2505.1 | 2530.9 | 2555.3 | 2565.3 | 2571.0 |
| 17.5° | 8575.3 | 7650.0 | 5226.5 | 2985.0 | 2429.2 | 2394.8 | 2414.9 | 2447.8 | 2473.6 | 2480.8 | 2486.5 |
| 20° | 8571.0 | 7433.8 | 4423.0 | 2489.4 | 2276.0 | 2276.0 | 2310.3 | 2336.1 | 2337.6 | 2329.0 | 2333.3 |
| 22.5° | 8526.6 | 7137.3 | 3643.8 | 2225.8 | 2139.9 | 2164.2 | 2198.6 | 2174.3 | 2074.0 | 2008.1 | 2012.4 |
| 25° | 8452.1 | 6783.5 | 2976.4 | 2058.2 | 2013.8 | 2056.8 | 2046.8 | 1863.5 | 1720.2 | 1655.8 | 1655.8 |
| 27.5° | 8386.3 | 6365.2 | 2463.6 | 1912.2 | 1887.8 | 1940.8 | 1763.2 | 1597.0 | 1536.9 | 1506.8 | 1496.8 |
| 30° | 8339.0 | 5914.1 | 2121.3 | 1771.8 | 1768.9 | 1730.2 | 1529.7 | 1483.9 | 1473.9 | 1449.5 | 1440.9 |
| 32.5° | 8350.4 | 5457.2 | 1902.1 | 1648.6 | 1658.6 | 1481.0 | 1418.0 | 1428.0 | 1419.4 | 1393.7 | 1382.2 |
| 35° | 8445.0 | 5023.2 | 1758.9 | 1536.9 | 1506.8 | 1337.8 | 1352.1 | 1370.7 | 1367.9 | 1332.1 | 1320.6 |
| 37.5° | 8614.0 | 4612.1 | 1664.4 | 1443.8 | 1314.9 | 1266.2 | 1289.1 | 1317.7 | 1310.6 | 1286.2 | 1277.6 |
| 40° | 8791.6 | 4225.4 | 1587.0 | 1370.7 | 1201.7 | 1217.5 | 1237.5 | 1253.3 | 1260.4 | 1267.6 | 1261.9 |
| 42.5° | 8964.9 | 3821.4 | 1492.5 | 1296.3 | 1154.5 | 1171.6 | 1180.2 | 1196.0 | 1234.7 | 1261.9 | 1260.4 |
| 45° | 9068.0 | 3441.9 | 1395.1 | 1190.3 | 1117.2 | 1127.2 | 1121.5 | 1153.0 | 1200.3 | 1244.7 | 1246.1 |
| 47.5° | 9182.6 | 3146.8 | 1317.7 | 1092.9 | 1081.4 | 1088.6 | 1071.4 | 1102.9 | 1145.9 | 1200.3 | 1206.0 |
| 50° | 9321.6 | 2970.6 | 1256.1 | 1015.5 | 1032.7 | 1032.7 | 1028.4 | 1057.1 | 1117.2 | 1180.2 | 1191.7 |
| 52.5° | 9479.1 | 2936.3 | 1204.6 | 959.7 | 984.0 | 982.6 | 986.9 | 1029.8 | 1095.7 | 1157.3 | 1167.3 |
| 55° | 9671.0 | 3029.4 | 1148.7 | 918.1 | 936.7 | 942.5 | 956.8 | 1005.5 | 1061.4 | 1131.5 | 1135.8 |
| 57.5° | 9894.5 | 3218.4 | 1104.3 | 885.2 | 893.8 | 912.4 | 935.3 | 979.7 | 1039.9 | 1117.2 | 1121.5 |
| 58° | 9931.7 | 3258.5 | 1097.2 | 882.3 | 885.2 | 906.7 | 932.4 | 975.4 | 1035.6 | 1120.1 | 1124.4 |
| 60° | 9933.2 | 3391.7 | 1081.4 | 869.4 | 852.2 | 888.0 | 916.7 | 959.7 | 1028.4 | 1130.1 | 1140.1 |
| 62.5° | 9580.8 | 3390.3 | 1069.9 | 850.8 | 817.9 | 862.3 | 895.2 | 945.3 | 1021.2 | 1154.5 | 1174.5 |
| 65° | 8436.4 | 3080.9 | 1015.5 | 822.2 | 790.6 | 839.3 | 876.6 | 935.3 | 1041.3 | 1260.4 | 1273.3 |
| 67.5° | 6598.7 | 2525.2 | 913.8 | 782.0 | 754.8 | 816.4 | 865.1 | 933.9 | 1062.8 | 1284.8 | 1293.4 |
| 70° | 4362.9 | 1889.2 | 802.1 | 736.2 | 717.6 | 789.2 | 870.9 | 982.6 | 1038.4 | 1233.2 | 1210.3 |
| 72.5° | 2264.5 | 1326.3 | 711.9 | 678.9 | 674.6 | 764.9 | 953.9 | 976.8 | 1014.1 | 1160.2 | 1131.5 |
| 75° | 1188.8 | 921.0 | 633.1 | 615.9 | 623.1 | 759.1 | 1125.8 | 951.1 | 982.6 | 1110.1 | 1164.5 |
| 77.5° | 727.6 | 743.4 | 565.8 | 558.6 | 572.9 | 741.9 | 1124.4 | 918.1 | 936.7 | 1021.2 | 1081.4 |
| 80° | 487.0 | 603.0 | 514.2 | 515.6 | 525.7 | 678.9 | 1009.8 | 866.6 | 880.9 | 965.4 | 1027.0 |
| 82.5° | 307.9 | 356.6 | 466.9 | 491.3 | 478.4 | 560.0 | 858.0 | 789.2 | 809.3 | 1104.3 | 1167.3 |
| 85° | 156.1 | 223.4 | 405.3 | 472.7 | 431.1 | 392.5 | 696.1 | 691.8 | 701.8 | 796.4 | 832.2 |
| 87.5° | 71.6 | 123.2 | 316.5 | 412.5 | 325.1 | 244.9 | 505.6 | 512.8 | 552.9 | 565.8 | 565.8 |
| 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)