

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: P299948

Luminaire Tested: **GLNA-AF-03-LED-E1-5WQ-7030-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299948
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: MCGRAW-EDISON
Catalog Number: GLNA-AF-03-LED-E1-5WQ-7030-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(3) 70 CRI, 3000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV
w/Spill Control OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12154.2 lumens
Efficiency: N/A
Efficacy: 126.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type V - Short - Semi-Cutoff
BUG Rating: B4 - U0 - G2

Input Watts (W): 96
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: 25 FT

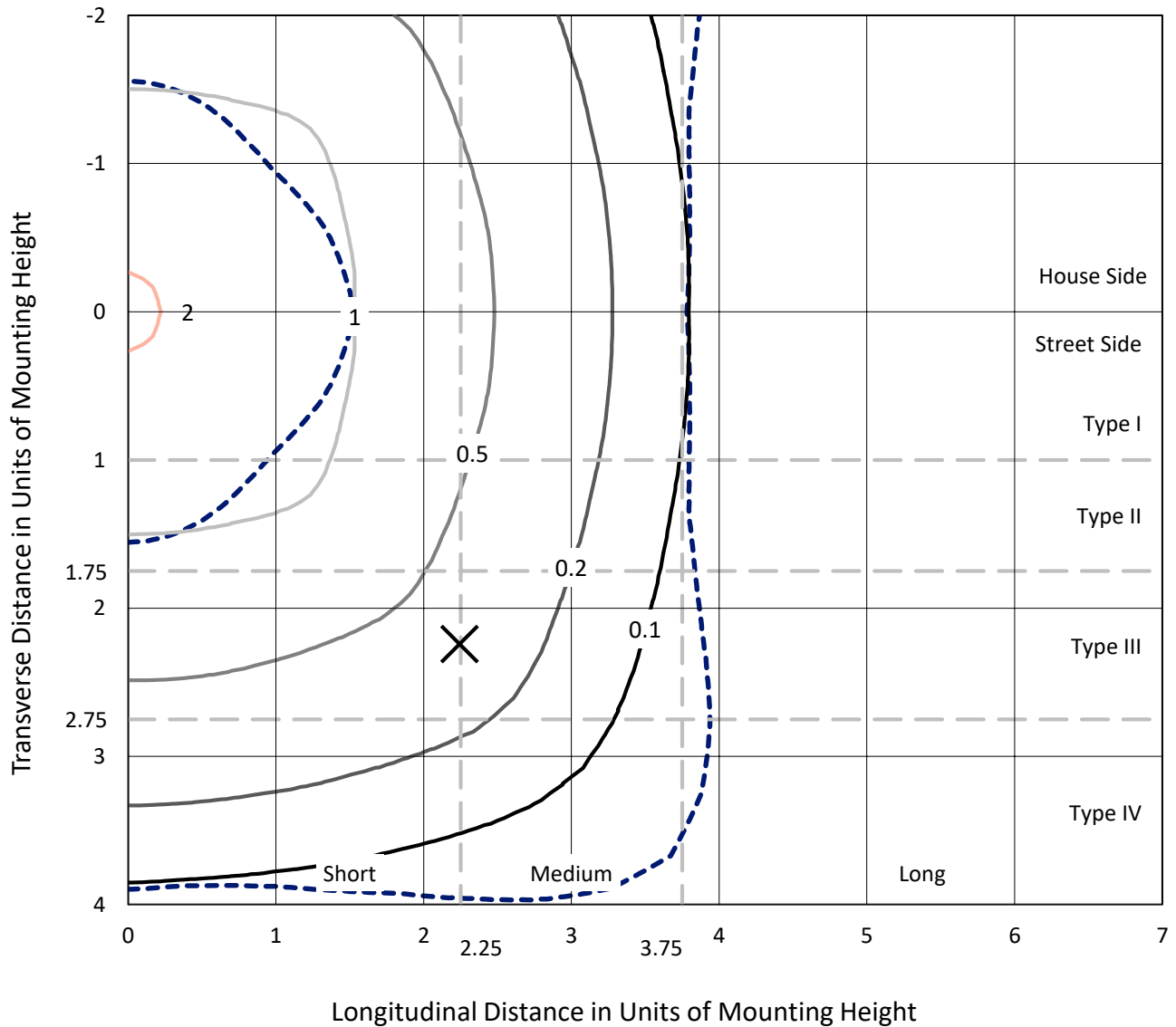


REPORT NUMBER: P299948

CATALOG NUMBER: GLNA-AF-03-LED-E1-5WQ-7030-600

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

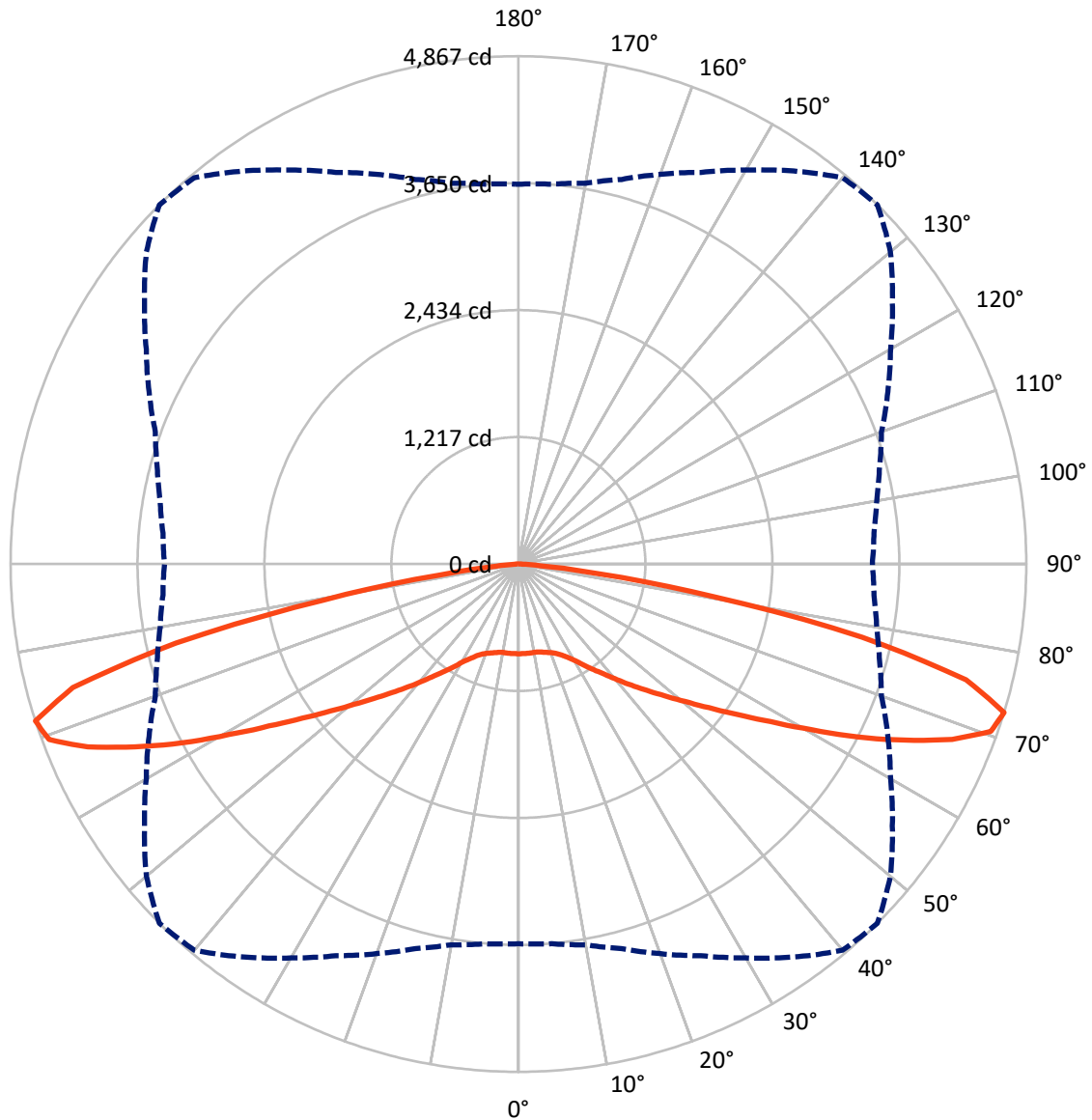


Based on 20 foot mounting height. Maximum calculated value = 2.2 fc
 Type V - Short - Semi-Cutoff

REPORT NUMBER: P299948

CATALOG NUMBER: GLNA-AF-03-LED-E1-5WQ-7030-600

Luminous Intensity Polar Plot



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

REPORT NUMBER: P299948

CATALOG NUMBER: GLNA-AF-03-LED-E1-5WQ-7030-600

FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 6077.1 | 0.0 | 6077.1 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Street Side | Lumens | 6077.1 | 0.0 | 6077.1 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Total | Lumens | 12154.2 | 0.0 | 12154.2 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 82.2 | 0.7 |
| 10°-20° | 249.6 | 2.1 |
| 20°-30° | 456.1 | 3.8 |
| 30°-40° | 786.5 | 6.5 |
| 40°-50° | 1344.5 | 11.1 |
| 50°-60° | 2179.2 | 17.9 |
| 60°-70° | 3615.2 | 29.7 |
| 70°-80° | 3184.2 | 26.2 |
| 80°-90° | 256.7 | 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° | 12154.2 | 100.0 |
| 0°-180° | 12154.2 | 100.0 |



REPORT NUMBER: P299948

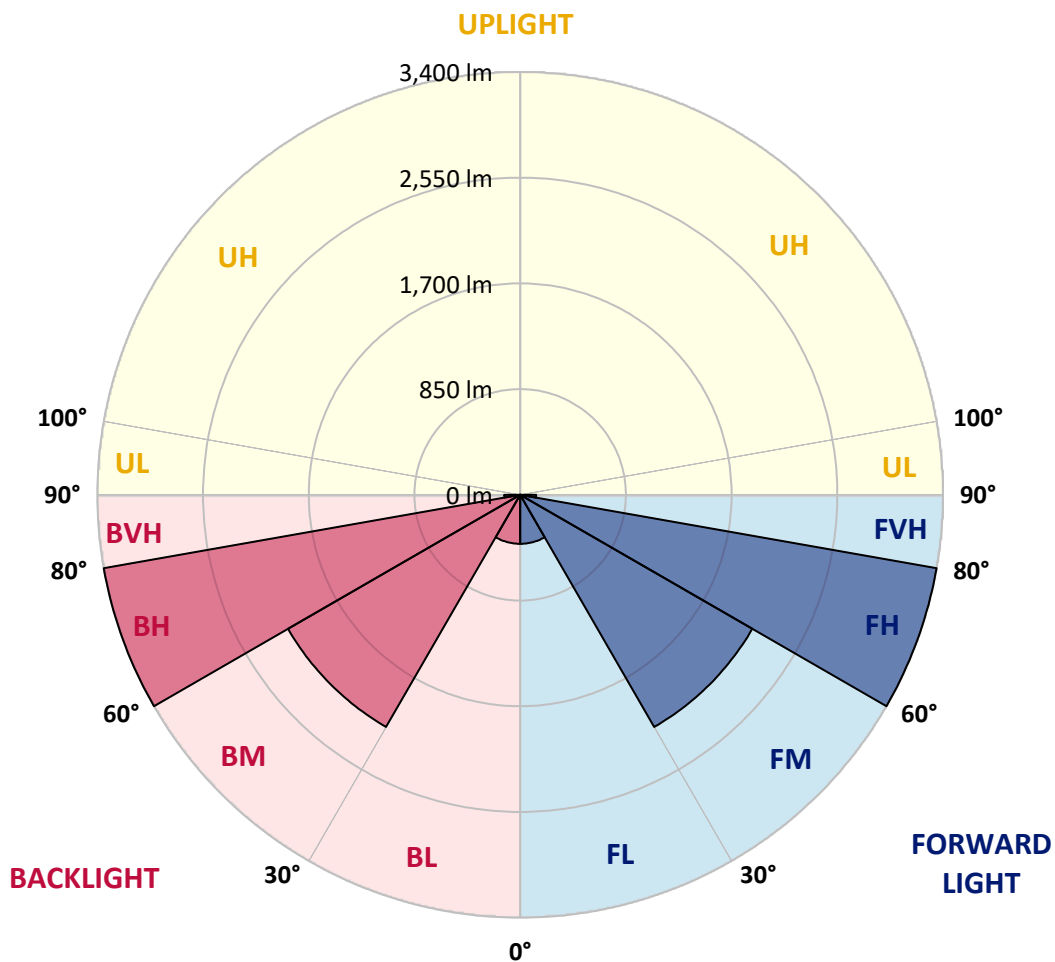
CATALOG NUMBER: GLNA-AF-03-LED-E1-5WQ-7030-600

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 394.0 | 3.2 | | | |
| FM | (30°-60°) | 2155.1 | 17.7 | | | |
| FH | (60°-80°) | 3399.7 | 28.0 | | | G2/5000 |
| FVH | (80°-90°) | 128.4 | 1.1 | | | G2/225 |
| BL | (0°-30°) | 394.0 | 3.2 | B1/500 | | |
| BM | (30°-60°) | 2155.1 | 17.7 | B2/2500 | | |
| BH | (60°-80°) | 3399.7 | 28.0 | B4/5000 | | G2/5000 |
| BVH | (80°-90°) | 128.4 | 1.1 | | | G2/225 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B4-U0-G2

Type V Short





REPORT NUMBER: P299948

CATALOG NUMBER: GLNA-AF-03-LED-E1-5WQ-7030-600

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 860.7 | 860.7 | 860.7 | 860.7 | 860.7 | 860.7 | 860.7 | 860.7 | 860.7 | 860.7 | 860.7 |
| 2.5° | 860.7 | 861.3 | 861.8 | 861.3 | 861.3 | 860.7 | 860.2 | 860.7 | 860.2 | 859.0 | 859.6 |
| 5° | 863.5 | 864.6 | 864.6 | 863.5 | 864.1 | 863.5 | 862.4 | 862.9 | 861.8 | 860.2 | 860.2 |
| 7.5° | 866.8 | 867.4 | 867.4 | 866.3 | 866.8 | 865.7 | 864.6 | 864.1 | 862.9 | 860.7 | 859.0 |
| 10° | 871.9 | 872.4 | 871.9 | 870.7 | 870.7 | 869.1 | 866.3 | 865.2 | 862.9 | 859.6 | 857.9 |
| 12.5° | 877.4 | 878.0 | 877.4 | 876.3 | 875.8 | 873.0 | 870.7 | 869.1 | 867.4 | 864.6 | 861.8 |
| 15° | 885.2 | 886.4 | 885.2 | 883.0 | 881.3 | 879.1 | 878.0 | 878.5 | 879.1 | 876.9 | 874.1 |
| 17.5° | 899.7 | 900.3 | 898.6 | 893.6 | 891.4 | 889.1 | 889.1 | 890.3 | 891.9 | 890.8 | 888.0 |
| 20° | 926.5 | 924.8 | 920.9 | 914.8 | 912.0 | 908.1 | 907.5 | 908.1 | 908.1 | 907.5 | 905.3 |
| 22.5° | 959.9 | 958.8 | 953.8 | 946.0 | 942.1 | 939.9 | 936.5 | 933.7 | 933.2 | 931.5 | 929.3 |
| 25° | 1000.1 | 999.5 | 993.4 | 986.7 | 983.9 | 981.1 | 978.3 | 974.4 | 971.1 | 967.2 | 965.0 |
| 27.5° | 1051.4 | 1049.1 | 1040.2 | 1036.9 | 1033.0 | 1031.3 | 1027.4 | 1022.9 | 1020.1 | 1015.1 | 1012.3 |
| 30° | 1107.7 | 1107.7 | 1100.4 | 1099.3 | 1099.3 | 1095.4 | 1090.9 | 1083.1 | 1078.1 | 1073.1 | 1071.4 |
| 32.5° | 1164.0 | 1164.5 | 1157.3 | 1159.5 | 1161.2 | 1164.0 | 1165.1 | 1162.3 | 1158.9 | 1158.4 | 1155.0 |
| 35° | 1245.4 | 1243.1 | 1235.9 | 1237.5 | 1237.0 | 1236.4 | 1236.4 | 1242.6 | 1243.7 | 1244.8 | 1238.1 |
| 37.5° | 1346.3 | 1346.3 | 1339.0 | 1339.0 | 1335.7 | 1332.3 | 1327.9 | 1331.8 | 1337.9 | 1339.6 | 1335.1 |
| 40° | 1461.6 | 1465.5 | 1456.6 | 1456.1 | 1457.2 | 1446.6 | 1441.6 | 1447.7 | 1451.6 | 1458.3 | 1453.3 |
| 42.5° | 1597.7 | 1594.9 | 1586.0 | 1584.8 | 1578.7 | 1575.4 | 1570.9 | 1575.9 | 1582.1 | 1586.5 | 1588.2 |
| 45° | 1728.1 | 1725.9 | 1715.8 | 1715.8 | 1709.7 | 1706.9 | 1709.2 | 1717.5 | 1720.3 | 1726.4 | 1732.6 |
| 47.5° | 1856.9 | 1854.1 | 1847.4 | 1850.2 | 1850.7 | 1855.8 | 1863.0 | 1870.8 | 1878.6 | 1887.0 | 1889.8 |
| 50° | 1988.4 | 1989.0 | 1981.8 | 1988.4 | 1996.8 | 2010.7 | 2030.2 | 2043.1 | 2059.2 | 2069.8 | 2073.2 |
| 52.5° | 2108.3 | 2110.5 | 2118.3 | 2133.9 | 2150.7 | 2178.0 | 2211.4 | 2242.6 | 2269.4 | 2287.2 | 2286.1 |
| 55° | 2252.1 | 2255.5 | 2274.4 | 2301.2 | 2328.5 | 2369.7 | 2419.4 | 2474.5 | 2519.1 | 2544.8 | 2528.6 |
| 57.5° | 2436.1 | 2443.3 | 2464.5 | 2500.7 | 2541.4 | 2595.0 | 2663.0 | 2746.0 | 2815.1 | 2849.7 | 2823.5 |
| 60° | 2688.6 | 2693.1 | 2718.7 | 2758.8 | 2807.9 | 2874.2 | 2965.1 | 3076.6 | 3174.1 | 3219.9 | 3189.8 |
| 62.5° | 3021.4 | 3029.8 | 3050.4 | 3091.1 | 3141.3 | 3216.5 | 3327.4 | 3466.8 | 3588.3 | 3651.9 | 3583.9 |
| 65° | 3418.9 | 3445.6 | 3462.9 | 3504.2 | 3551.0 | 3630.7 | 3746.7 | 3896.0 | 4026.5 | 4068.3 | 3989.7 |
| 67.5° | 3812.4 | 3835.8 | 3865.9 | 3913.3 | 3960.7 | 4050.5 | 4158.1 | 4303.0 | 4446.3 | 4484.2 | 4362.1 |
| 70° | 3984.7 | 3998.1 | 4044.9 | 4109.6 | 4200.4 | 4306.3 | 4430.6 | 4593.4 | 4770.7 | 4801.9 | 4646.9 |
| 72.5° | 3639.6 | 3653.0 | 3705.4 | 3815.2 | 3973.5 | 4141.9 | 4358.7 | 4597.9 | 4832.0 | 4867.1 | 4653.6 |
| 75° | 2752.7 | 2731.0 | 2808.5 | 2954.0 | 3167.5 | 3402.1 | 3705.4 | 4048.2 | 4386.6 | 4430.6 | 4175.9 |
| 77.5° | 1422.6 | 1419.8 | 1478.4 | 1659.0 | 1913.7 | 2180.8 | 2514.7 | 2902.1 | 3233.2 | 3367.0 | 3159.7 |
| 80° | 400.8 | 405.3 | 433.1 | 522.9 | 671.7 | 864.6 | 1125.5 | 1488.4 | 1759.3 | 1897.6 | 1781.6 |
| 82.5° | 157.2 | 169.5 | 180.1 | 196.8 | 216.3 | 244.7 | 326.7 | 486.1 | 652.2 | 779.3 | 638.3 |
| 85° | 56.3 | 60.2 | 85.3 | 100.9 | 102.6 | 108.1 | 123.2 | 143.8 | 173.4 | 206.8 | 170.0 |
| 87.5° | 21.2 | 23.4 | 27.3 | 45.2 | 44.6 | 40.7 | 49.6 | 51.8 | 39.0 | 35.7 | 44.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



REPORT NUMBER: P299948

CATALOG NUMBER: GLNA-AF-03-LED-E1-5WQ-7030-600

CANDELA DISTRIBUTION (continued):

| | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 860.7 | 860.7 | 860.7 | 860.7 | 860.7 | 860.7 | 860.7 | 860.7 |
| 2.5° | 858.5 | 859.0 | 859.0 | 859.6 | 860.2 | 860.2 | 861.3 | 861.3 |
| 5° | 859.0 | 859.0 | 857.9 | 858.5 | 857.9 | 857.9 | 858.5 | 858.5 |
| 7.5° | 857.9 | 857.4 | 856.3 | 855.7 | 854.6 | 854.6 | 854.6 | 854.6 |
| 10° | 856.3 | 855.7 | 854.6 | 854.0 | 853.5 | 853.5 | 853.5 | 853.5 |
| 12.5° | 860.7 | 859.0 | 857.9 | 857.4 | 857.4 | 857.4 | 857.4 | 857.4 |
| 15° | 872.4 | 868.5 | 865.7 | 865.7 | 866.3 | 867.4 | 867.4 | 868.5 |
| 17.5° | 886.9 | 882.5 | 879.7 | 877.4 | 878.5 | 880.2 | 881.3 | 882.5 |
| 20° | 904.2 | 902.0 | 898.1 | 895.8 | 895.8 | 898.1 | 899.2 | 899.7 |
| 22.5° | 928.2 | 926.5 | 924.8 | 922.0 | 922.0 | 923.1 | 925.4 | 925.4 |
| 25° | 963.8 | 962.7 | 961.6 | 959.4 | 958.8 | 958.8 | 959.9 | 961.1 |
| 27.5° | 1008.4 | 1009.0 | 1007.9 | 1007.3 | 1005.6 | 1005.1 | 1006.8 | 1006.2 |
| 30° | 1068.1 | 1070.9 | 1073.7 | 1071.4 | 1068.6 | 1067.0 | 1065.3 | 1063.1 |
| 32.5° | 1148.9 | 1145.6 | 1143.3 | 1139.4 | 1134.4 | 1130.0 | 1126.6 | 1122.7 |
| 35° | 1225.3 | 1219.7 | 1217.5 | 1220.8 | 1220.3 | 1217.5 | 1213.6 | 1210.2 |
| 37.5° | 1318.9 | 1317.8 | 1318.9 | 1325.1 | 1324.0 | 1326.7 | 1318.9 | 1318.4 |
| 40° | 1437.1 | 1438.2 | 1446.0 | 1453.3 | 1457.2 | 1461.1 | 1456.6 | 1452.2 |
| 42.5° | 1574.3 | 1573.7 | 1576.5 | 1586.5 | 1593.2 | 1597.7 | 1588.2 | 1587.1 |
| 45° | 1719.2 | 1715.3 | 1717.5 | 1725.9 | 1732.6 | 1737.6 | 1727.0 | 1727.0 |
| 47.5° | 1878.6 | 1871.9 | 1864.7 | 1874.2 | 1878.1 | 1881.4 | 1873.0 | 1870.3 |
| 50° | 2056.4 | 2042.5 | 2026.9 | 2030.8 | 2030.8 | 2029.7 | 2019.1 | 2018.5 |
| 52.5° | 2260.5 | 2234.8 | 2206.4 | 2195.8 | 2189.7 | 2183.0 | 2164.6 | 2155.7 |
| 55° | 2495.2 | 2456.7 | 2412.1 | 2384.8 | 2370.3 | 2351.9 | 2321.2 | 2312.9 |
| 57.5° | 2769.4 | 2709.2 | 2632.3 | 2598.9 | 2566.5 | 2536.4 | 2502.4 | 2492.9 |
| 60° | 3094.4 | 3005.8 | 2903.8 | 2841.9 | 2806.8 | 2777.8 | 2742.7 | 2741.0 |
| 62.5° | 3456.8 | 3316.9 | 3201.5 | 3145.7 | 3120.1 | 3094.4 | 3061.0 | 3065.4 |
| 65° | 3825.3 | 3679.2 | 3571.1 | 3525.9 | 3501.9 | 3480.7 | 3447.3 | 3452.3 |
| 67.5° | 4188.7 | 4054.4 | 3935.6 | 3889.4 | 3862.6 | 3835.8 | 3805.7 | 3810.8 |
| 70° | 4449.6 | 4282.9 | 4149.1 | 4046.6 | 3982.5 | 3910.0 | 3863.2 | 3851.5 |
| 72.5° | 4374.9 | 4117.9 | 3905.5 | 3702.1 | 3582.8 | 3485.8 | 3420.0 | 3391.6 |
| 75° | 3786.2 | 3435.0 | 3161.9 | 2912.1 | 2771.7 | 2657.4 | 2574.3 | 2522.5 |
| 77.5° | 2811.8 | 2417.1 | 2094.4 | 1806.7 | 1579.3 | 1426.5 | 1318.9 | 1249.3 |
| 80° | 1539.1 | 1170.7 | 855.7 | 601.5 | 442.1 | 367.4 | 324.4 | 303.8 |
| 82.5° | 479.4 | 309.4 | 228.0 | 196.8 | 182.8 | 175.0 | 162.2 | 141.6 |
| 85° | 152.7 | 133.8 | 124.3 | 118.7 | 113.2 | 98.7 | 68.0 | 61.9 |
| 87.5° | 59.1 | 60.8 | 60.2 | 56.9 | 58.0 | 41.8 | 33.4 | 29.5 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)