

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: P299204

Luminaire Tested: **GLNA-AF-09-LED-E1-T3-7030-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299204
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24140)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-09-LED-E1-T3-7030-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(9) 70 CRI, 3000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 41449.8 lumens
Efficiency: N/A
Efficacy: 110.8 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type III - Short - Full Cutoff
BUG Rating: B3 - U0 - G5

Input Watts (W): 374
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

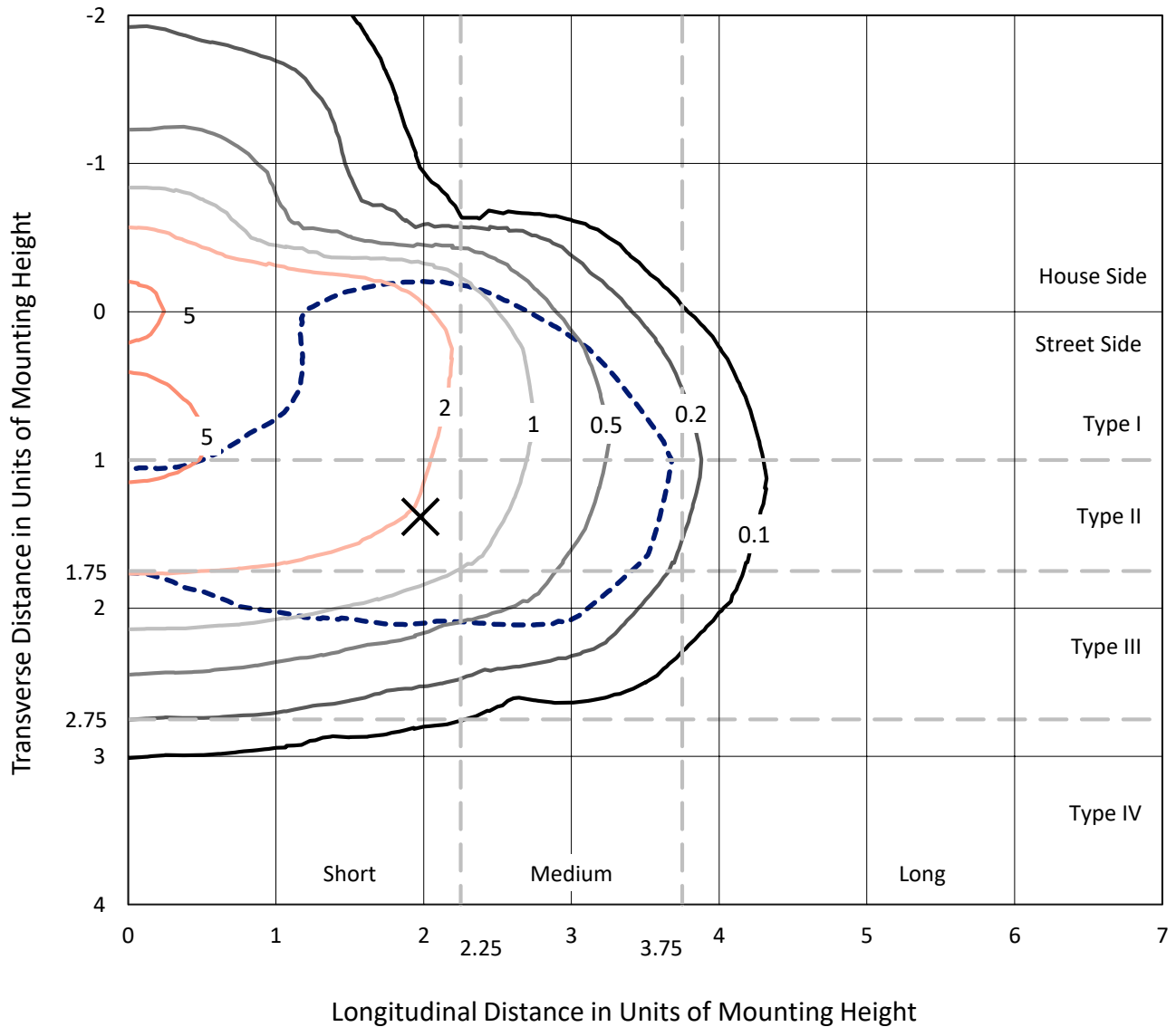


REPORT NUMBER: P299204

CATALOG NUMBER: GLNA-AF-09-LED-E1-T3-7030-800

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

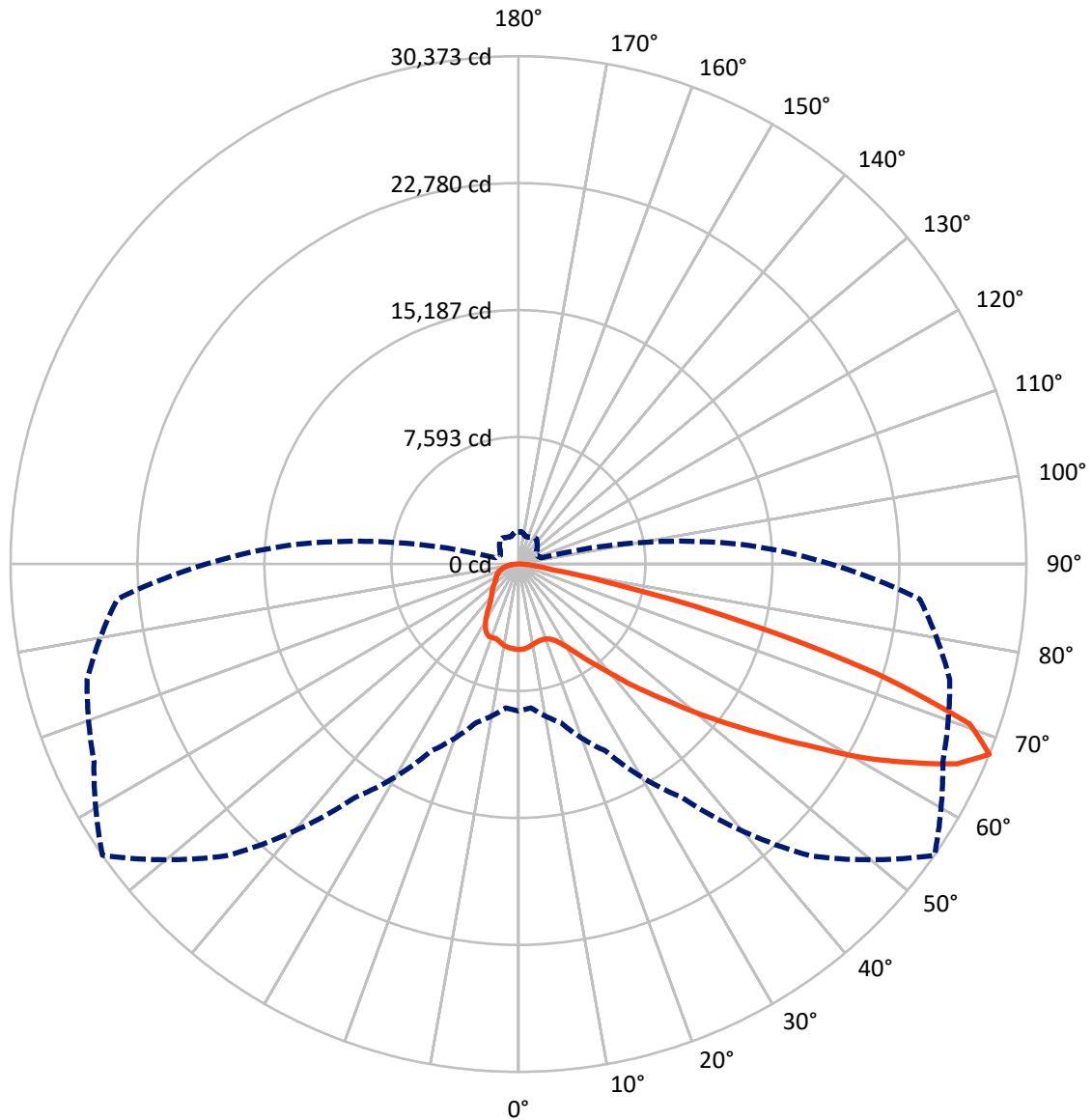


Based on 30 foot mounting height. Maximum calculated value = 5.9 fc
 Type III - Short - Full Cutoff

REPORT NUMBER: P299204

CATALOG NUMBER: GLNA-AF-09-LED-E1-T3-7030-800

Luminous Intensity Polar Plot



— Vertical Plane Through 55-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

REPORT NUMBER: P299204

CATALOG NUMBER: GLNA-AF-09-LED-E1-T3-7030-800

FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 8954.0 | 0.0 | 8954.0 |
| | % Fixture | 21.6 | 0.0 | 21.6 |
| Street Side | Lumens | 32495.8 | 0.0 | 32495.8 |
| | % Fixture | 78.4 | 0.0 | 78.4 |
| Total | Lumens | 41449.8 | 0.0 | 41449.8 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 477.1 | 1.2 |
| 10°-20° | 1351.2 | 3.3 |
| 20°-30° | 2263.4 | 5.5 |
| 30°-40° | 3721.9 | 9.0 |
| 40°-50° | 6265.2 | 15.1 |
| 50°-60° | 9860.9 | 23.8 |
| 60°-70° | 11767.9 | 28.4 |
| 70°-80° | 5053.4 | 12.2 |
| 80°-90° | 689.0 | 1.7 |
| 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° | 41449.8 | 100.0 |
| 0°-180° | 41449.8 | 100.0 |

Coefficient of Utilization



REPORT NUMBER: P299204

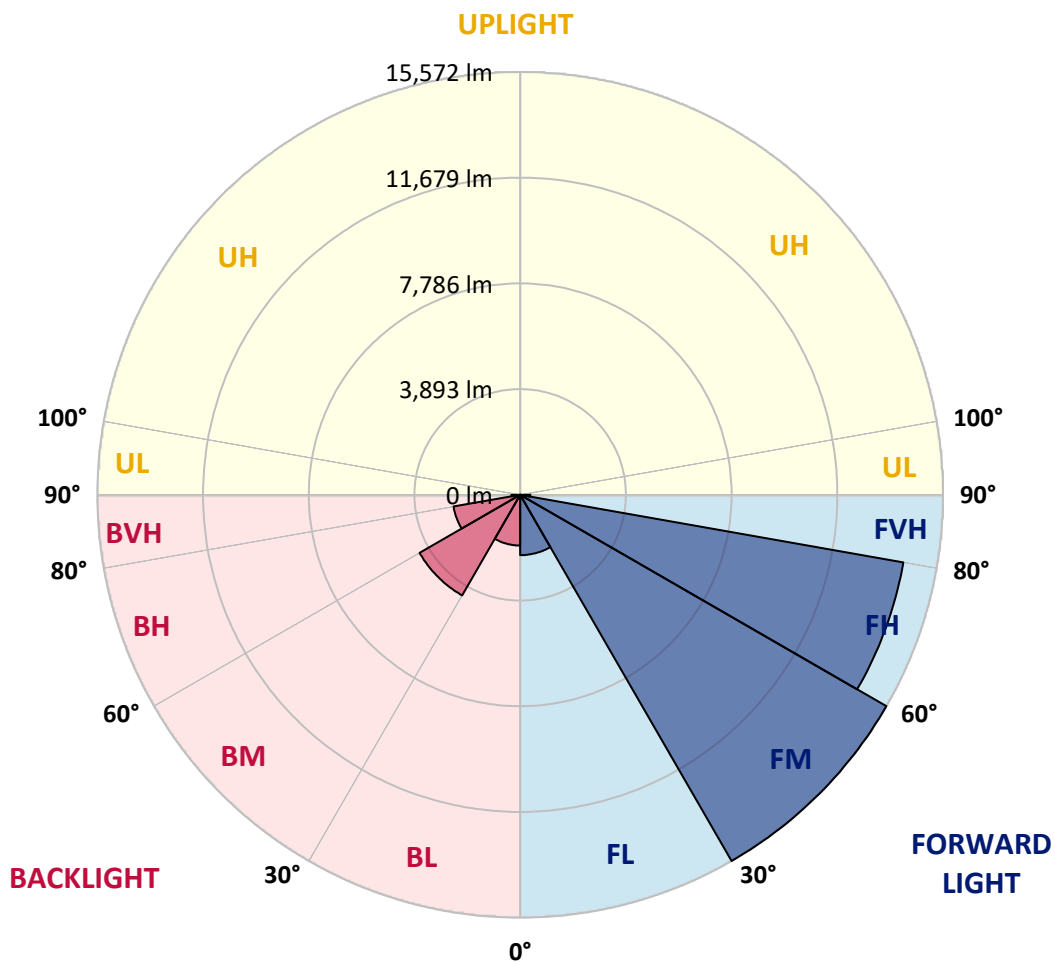
CATALOG NUMBER: GLNA-AF-09-LED-E1-T3-7030-800

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|---------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 2221.8 | 5.4 | | | |
| FM (30°-60°) | 15571.6 | 37.6 | | | |
| FH (60°-80°) | 14329.4 | 34.6 | | | G5 |
| FVH (80°-90°) | 373.0 | 0.9 | | | G3/500 |
| BL (0°-30°) | 1869.8 | 4.5 | B3/2500 | | |
| BM (30°-60°) | 4276.4 | 10.3 | B3/5000 | | |
| BH (60°-80°) | 2491.9 | 6.0 | B3/2500 | | G3/2500 |
| BVH (80°-90°) | 316.0 | 0.8 | | | G3/500 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B3-U0-G5

Type III Short





REPORT NUMBER: P299204

CATALOG NUMBER: GLNA-AF-09-LED-E1-T3-7030-800

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 85° | 90° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 5111.2 | 5111.2 | 5111.2 | 5111.2 | 5111.2 | 5111.2 | 5111.2 | 5111.2 | 5111.2 | 5111.2 | 5111.2 |
| 2.5° | 5067.2 | 5069.2 | 5073.2 | 5089.2 | 5103.2 | 5099.2 | 5101.2 | 5093.2 | 5091.2 | 5079.2 | 5091.2 |
| 5° | 5003.1 | 5009.1 | 5011.1 | 5037.1 | 5053.2 | 5057.2 | 5051.2 | 5041.1 | 5029.1 | 5017.1 | 5023.1 |
| 7.5° | 4857.0 | 4873.0 | 4875.0 | 4911.0 | 4937.0 | 4971.1 | 4973.1 | 4975.1 | 4969.1 | 4961.1 | 4973.1 |
| 10° | 4764.9 | 4768.9 | 4766.9 | 4792.9 | 4812.9 | 4850.9 | 4873.0 | 4911.0 | 4927.0 | 4931.0 | 4939.0 |
| 12.5° | 4758.9 | 4754.9 | 4748.8 | 4748.8 | 4742.8 | 4758.9 | 4798.9 | 4853.0 | 4891.0 | 4903.0 | 4913.0 |
| 15° | 4822.9 | 4820.9 | 4800.9 | 4770.9 | 4732.8 | 4720.8 | 4754.9 | 4814.9 | 4865.0 | 4891.0 | 4901.0 |
| 17.5° | 4967.1 | 4955.1 | 4923.0 | 4855.0 | 4772.9 | 4740.8 | 4744.8 | 4794.9 | 4853.0 | 4887.0 | 4897.0 |
| 20° | 5231.3 | 5231.3 | 5163.3 | 5035.1 | 4889.0 | 4812.9 | 4776.9 | 4806.9 | 4863.0 | 4909.0 | 4923.0 |
| 22.5° | 5687.8 | 5691.8 | 5577.7 | 5367.5 | 5121.2 | 4959.1 | 4869.0 | 4863.0 | 4929.0 | 4981.1 | 4997.1 |
| 25° | 6334.5 | 6318.4 | 6158.3 | 5858.0 | 5483.6 | 5215.3 | 5059.2 | 5023.1 | 5079.2 | 5137.2 | 5157.3 |
| 27.5° | 7087.2 | 7029.2 | 6839.0 | 6476.6 | 5992.1 | 5599.7 | 5359.5 | 5301.4 | 5355.5 | 5421.5 | 5441.6 |
| 30° | 7832.0 | 7771.9 | 7545.7 | 7149.3 | 6610.7 | 6114.2 | 5769.9 | 5675.8 | 5751.9 | 5846.0 | 5858.0 |
| 32.5° | 8576.7 | 8576.7 | 8324.5 | 7862.0 | 7275.4 | 6728.9 | 6316.4 | 6204.3 | 6330.5 | 6444.6 | 6470.6 |
| 35° | 9467.7 | 9471.7 | 9227.4 | 8670.8 | 8040.2 | 7461.6 | 7007.1 | 6925.1 | 7115.3 | 7195.3 | 7257.4 |
| 37.5° | 10562.8 | 10584.8 | 10270.5 | 9597.8 | 8907.1 | 8298.5 | 7757.9 | 7645.8 | 7836.0 | 8054.2 | 8254.4 |
| 40° | 11746.0 | 11774.0 | 11427.7 | 10598.8 | 9908.1 | 9271.5 | 8686.9 | 8484.7 | 8801.0 | 9217.4 | 9475.7 |
| 42.5° | 12875.1 | 13019.3 | 12684.9 | 11832.1 | 11089.3 | 10430.6 | 9838.0 | 9543.7 | 9940.1 | 10568.8 | 10793.0 |
| 45° | 14506.8 | 14610.9 | 14028.3 | 13255.5 | 12556.8 | 11820.1 | 11035.3 | 10724.9 | 11279.5 | 12072.3 | 12118.4 |
| 47.5° | 15593.9 | 15515.8 | 15219.5 | 14739.0 | 14296.6 | 13607.9 | 12426.7 | 12086.3 | 12823.1 | 13756.0 | 13497.8 |
| 50° | 16172.5 | 16196.5 | 16156.5 | 16184.5 | 16200.5 | 15768.1 | 14132.4 | 13665.9 | 14544.8 | 15672.0 | 15077.4 |
| 52.5° | 16713.0 | 16552.9 | 16685.0 | 17341.7 | 18134.5 | 17974.3 | 15988.3 | 15501.8 | 16390.7 | 17798.2 | 16747.1 |
| 55° | 16701.0 | 16456.8 | 16887.2 | 18046.4 | 19766.2 | 19950.4 | 18072.4 | 17511.9 | 18342.7 | 20078.5 | 18516.9 |
| 57.5° | 16110.4 | 16122.4 | 16785.1 | 18302.7 | 20903.3 | 21808.2 | 20490.9 | 19650.0 | 20412.8 | 22388.8 | 20132.5 |
| 60° | 15297.6 | 15407.7 | 16362.7 | 18260.6 | 21814.3 | 23331.8 | 23457.9 | 21954.4 | 22440.9 | 24489.0 | 21469.9 |
| 62.5° | 13986.3 | 14102.4 | 15419.7 | 17824.2 | 21676.1 | 24799.3 | 26140.7 | 24569.1 | 24561.1 | 25762.3 | 21862.3 |
| 65° | 11918.2 | 11884.1 | 13267.5 | 16192.5 | 20516.9 | 25884.4 | 28805.4 | 26829.4 | 26158.7 | 25782.3 | 21073.5 |
| 67.5° | 8789.0 | 8636.8 | 9824.0 | 12332.6 | 17053.4 | 24669.2 | 30373.0 | 28006.6 | 26703.2 | 24086.6 | 18663.0 |
| 70° | 4560.7 | 4408.5 | 5369.5 | 7201.3 | 11215.4 | 19253.6 | 28637.2 | 27397.9 | 25500.0 | 20190.6 | 14620.9 |
| 72.5° | 1950.0 | 1924.0 | 2314.4 | 3159.2 | 5425.5 | 11105.3 | 22454.9 | 23714.2 | 21880.3 | 15043.3 | 10052.3 |
| 75° | 1311.3 | 1303.3 | 1449.5 | 1721.8 | 2440.5 | 4506.6 | 14052.3 | 16833.2 | 16008.3 | 9327.5 | 5653.8 |
| 77.5° | 1029.0 | 1019.0 | 1105.1 | 1237.3 | 1581.6 | 1777.8 | 6236.4 | 9037.2 | 8364.5 | 4060.1 | 2474.5 |
| 80° | 804.8 | 796.8 | 850.9 | 922.9 | 1137.2 | 1121.1 | 2052.1 | 3595.7 | 2782.8 | 1555.6 | 1203.2 |
| 82.5° | 634.6 | 634.6 | 678.7 | 680.7 | 806.8 | 764.8 | 1071.1 | 1583.6 | 1389.4 | 906.9 | 736.8 |
| 85° | 580.6 | 580.6 | 626.6 | 508.5 | 526.5 | 482.5 | 664.7 | 939.0 | 880.9 | 372.4 | 320.3 |
| 87.5° | 292.3 | 284.3 | 526.5 | 450.5 | 286.3 | 256.3 | 324.3 | 454.5 | 488.5 | 206.2 | 160.2 |
| 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: P299204

CATALOG NUMBER: GLNA-AF-09-LED-E1-T3-7030-800

CANDELA DISTRIBUTION (continued):

| | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 5111.2 | 5111.2 | 5111.2 | 5111.2 | 5111.2 | 5111.2 | 5111.2 | 5111.2 | 5111.2 | 5111.2 |
| 2.5° | 5087.2 | 5085.2 | 5089.2 | 5091.2 | 5107.2 | 5129.2 | 5139.2 | 5153.3 | 5161.3 | 5157.3 |
| 5° | 5027.1 | 5031.1 | 5047.1 | 5059.2 | 5087.2 | 5123.2 | 5143.2 | 5159.3 | 5173.3 | 5167.3 |
| 7.5° | 4977.1 | 4987.1 | 5011.1 | 5021.1 | 5037.1 | 5047.1 | 5045.1 | 5051.2 | 5063.2 | 5049.2 |
| 10° | 4949.0 | 4961.1 | 4979.1 | 4965.1 | 4927.0 | 4873.0 | 4822.9 | 4796.9 | 4804.9 | 4794.9 |
| 12.5° | 4921.0 | 4937.0 | 4923.0 | 4857.0 | 4750.8 | 4680.8 | 4642.7 | 4646.7 | 4664.8 | 4668.8 |
| 15° | 4905.0 | 4911.0 | 4850.9 | 4726.8 | 4618.7 | 4608.7 | 4628.7 | 4624.7 | 4626.7 | 4626.7 |
| 17.5° | 4905.0 | 4889.0 | 4776.9 | 4652.7 | 4606.7 | 4588.7 | 4526.6 | 4448.5 | 4414.5 | 4402.5 |
| 20° | 4931.0 | 4889.0 | 4752.8 | 4670.8 | 4570.7 | 4416.5 | 4252.3 | 4108.2 | 4044.1 | 4026.1 |
| 22.5° | 5009.1 | 4937.0 | 4820.9 | 4678.8 | 4394.5 | 4136.2 | 3876.0 | 3703.8 | 3587.7 | 3567.6 |
| 25° | 5167.3 | 5087.2 | 4955.1 | 4572.7 | 4114.2 | 3745.8 | 3449.5 | 3257.3 | 3141.2 | 3125.2 |
| 27.5° | 5443.6 | 5391.5 | 5027.1 | 4338.4 | 3741.8 | 3347.4 | 3073.1 | 2925.0 | 2838.9 | 2832.9 |
| 30° | 5860.0 | 5834.0 | 4991.1 | 3992.1 | 3283.3 | 2961.0 | 2828.9 | 2742.8 | 2678.7 | 2676.7 |
| 32.5° | 6524.7 | 6314.4 | 4873.0 | 3569.6 | 2864.9 | 2686.7 | 2632.7 | 2580.6 | 2530.6 | 2530.6 |
| 35° | 7379.5 | 6702.8 | 4648.7 | 3117.2 | 2610.7 | 2534.6 | 2466.5 | 2384.4 | 2318.4 | 2314.4 |
| 37.5° | 8384.6 | 6943.1 | 4246.3 | 2752.8 | 2490.5 | 2432.5 | 2332.4 | 2210.3 | 2094.1 | 2074.1 |
| 40° | 9399.6 | 7015.2 | 3679.8 | 2528.6 | 2414.5 | 2330.4 | 2208.3 | 2064.1 | 1952.0 | 1946.0 |
| 42.5° | 10330.5 | 6877.0 | 3079.1 | 2374.4 | 2338.4 | 2226.3 | 2098.1 | 1970.0 | 1881.9 | 1879.9 |
| 45° | 11111.3 | 6518.6 | 2574.6 | 2228.3 | 2258.3 | 2132.2 | 2018.1 | 1914.0 | 1845.9 | 1831.9 |
| 47.5° | 11846.1 | 6012.1 | 2220.3 | 2074.1 | 2178.2 | 2080.1 | 1984.0 | 1885.9 | 1819.9 | 1809.8 |
| 50° | 12699.0 | 5465.6 | 1972.0 | 1924.0 | 2108.2 | 2062.1 | 2012.1 | 1909.9 | 1799.8 | 1787.8 |
| 52.5° | 13732.0 | 4993.1 | 1777.8 | 1791.8 | 2054.1 | 2086.1 | 2084.1 | 1978.0 | 1785.8 | 1769.8 |
| 55° | 14885.2 | 4468.6 | 1631.7 | 1683.7 | 2032.1 | 2130.2 | 2102.1 | 2042.1 | 1797.8 | 1773.8 |
| 57.5° | 16020.3 | 3855.9 | 1529.6 | 1601.6 | 2000.0 | 2126.2 | 2016.1 | 1930.0 | 1825.9 | 1791.8 |
| 60° | 16871.2 | 3033.1 | 1451.5 | 1529.6 | 1930.0 | 2060.1 | 1922.0 | 1807.8 | 1819.9 | 1793.8 |
| 62.5° | 16927.3 | 2344.4 | 1357.4 | 1467.5 | 1823.9 | 1994.0 | 1859.9 | 1753.8 | 1845.9 | 1821.9 |
| 65° | 15932.3 | 1771.8 | 1267.3 | 1393.4 | 1709.7 | 1952.0 | 1799.8 | 1723.8 | 1899.9 | 1873.9 |
| 67.5° | 13413.7 | 1425.5 | 1191.2 | 1317.3 | 1595.6 | 1863.9 | 1745.8 | 1695.7 | 1948.0 | 1901.9 |
| 70° | 9683.9 | 1215.2 | 1117.1 | 1225.2 | 1493.5 | 1763.8 | 1697.7 | 1645.7 | 1817.9 | 1745.8 |
| 72.5° | 5962.1 | 1053.1 | 1033.1 | 1103.1 | 1415.4 | 1659.7 | 1625.7 | 1551.6 | 1637.7 | 1579.6 |
| 75° | 2977.0 | 912.9 | 939.0 | 983.0 | 1305.3 | 1541.6 | 1505.5 | 1431.5 | 1443.5 | 1431.5 |
| 77.5° | 1425.5 | 780.8 | 828.8 | 862.9 | 1163.2 | 1407.4 | 1369.4 | 1293.3 | 1279.3 | 1281.3 |
| 80° | 902.9 | 652.7 | 698.7 | 722.7 | 1039.1 | 1251.3 | 1213.2 | 1137.2 | 1297.3 | 1203.2 |
| 82.5° | 564.6 | 530.5 | 542.6 | 586.6 | 904.9 | 1089.1 | 1039.1 | 971.0 | 1169.2 | 924.9 |
| 85° | 312.3 | 370.4 | 386.4 | 424.4 | 696.7 | 910.9 | 860.9 | 774.8 | 694.7 | 682.7 |
| 87.5° | 186.2 | 220.2 | 226.2 | 254.3 | 468.5 | 658.7 | 582.6 | 552.6 | 458.5 | 456.5 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)