

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: P299980

Luminaire Tested: **GLNA-AF-08-LED-E1-SL3-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299980
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24288)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-08-LED-E1-SL3-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(8) 70 CRI, 4000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V
Square Medium OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 31320 lumens
Efficiency: N/A
Efficacy: 121.9 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type III - Medium - Non-Cutoff
BUG Rating: B3 - U0 - G4

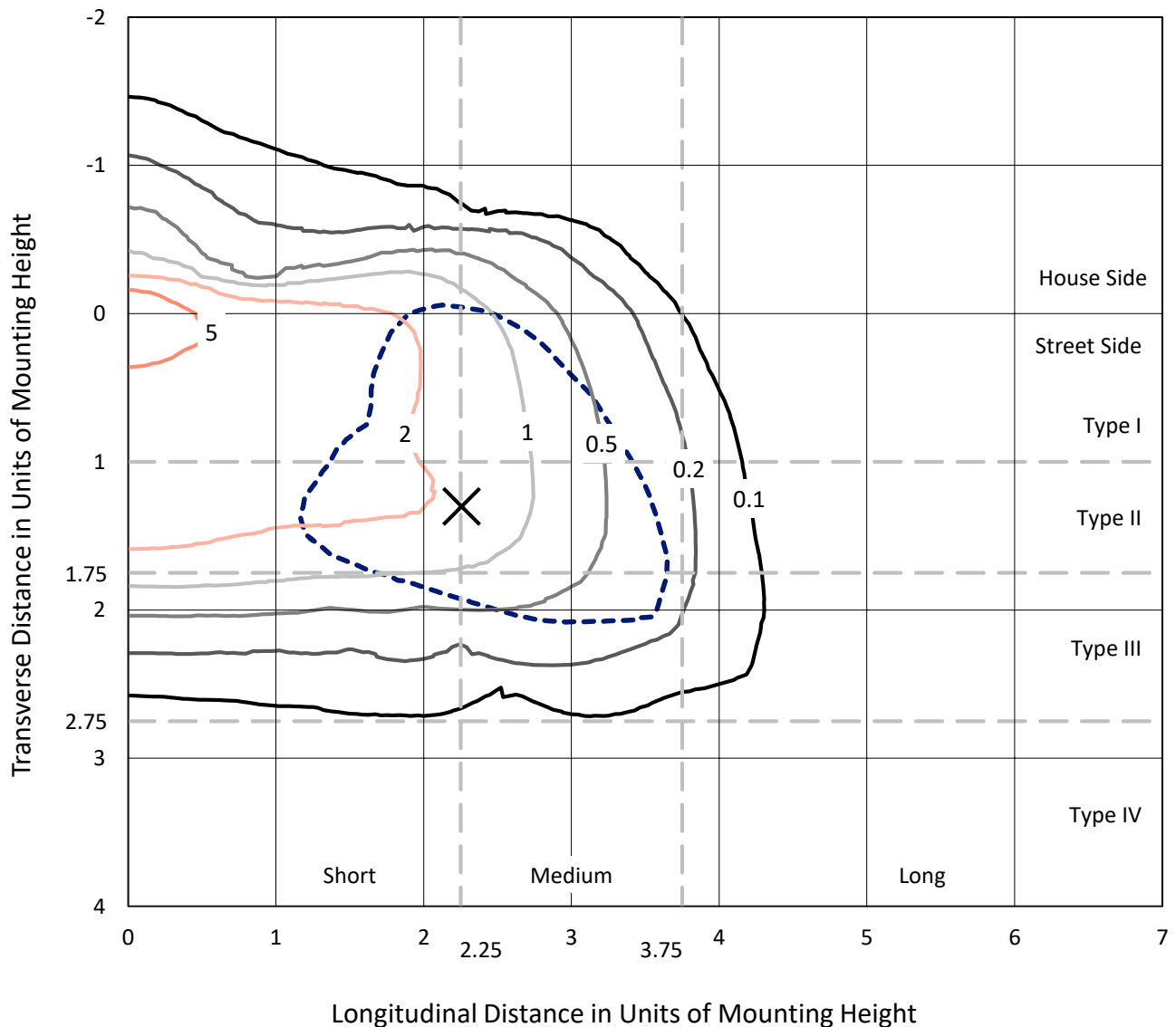
Input Watts (W): 257
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

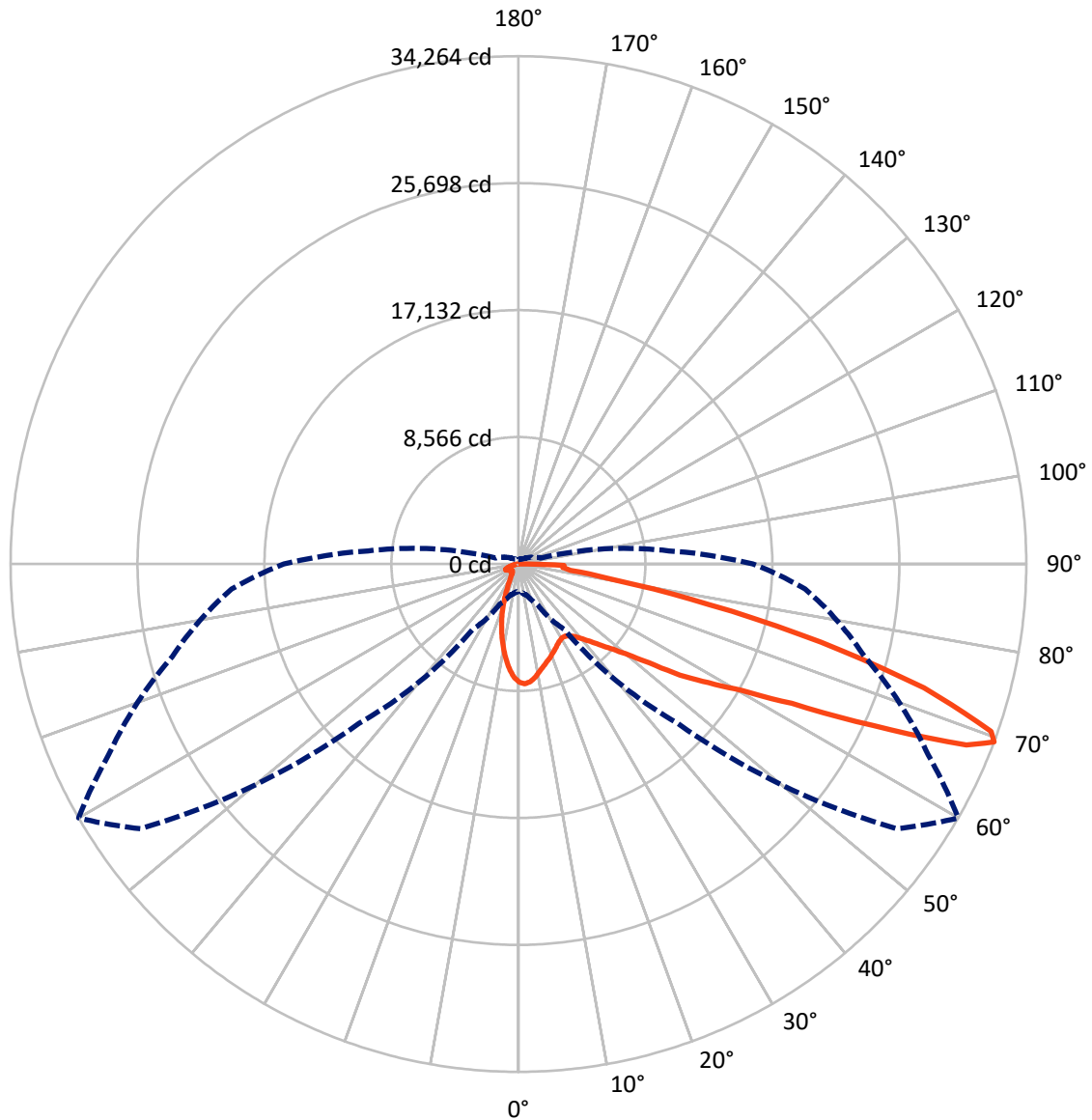
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 8.9 fc
 Type III - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 60-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 4455.9 | 0.0 | 4455.9 |
| | % Fixture | 14.2 | 0.0 | 14.2 |
| Street Side | Lumens | 26864.1 | 0.0 | 26864.1 |
| | % Fixture | 85.8 | 0.0 | 85.8 |
| Total | Lumens | 31320.0 | 0.0 | 31320.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 674.8 | 2.2 |
| 10°-20° | 1437.7 | 4.6 |
| 20°-30° | 1831.9 | 5.8 |
| 30°-40° | 2518.4 | 8.0 |
| 40°-50° | 4086.4 | 13.0 |
| 50°-60° | 6553.5 | 20.9 |
| 60°-70° | 8722.2 | 27.8 |
| 70°-80° | 4709.3 | 15.0 |
| 80°-90° | 785.8 | 2.5 |
| 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° | 31320.0 | 100.0 |
| 0°-180° | 31320.0 | 100.0 |



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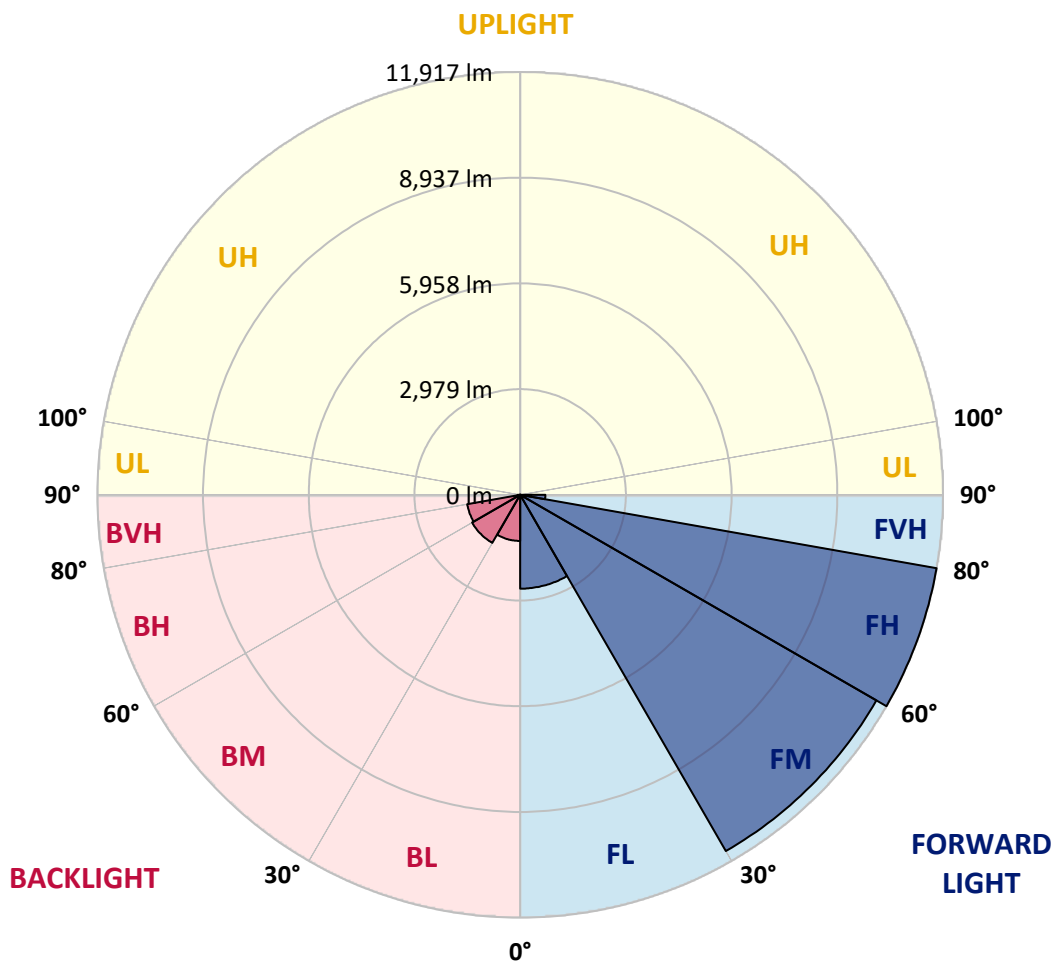
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|---------|-----------|-------------------------|------|----------|
| | | | | B | U | G |
| FL | (0°-30°) | 2644.5 | 8.4 | | | |
| FM | (30°-60°) | 11592.8 | 37.0 | | | |
| FH | (60°-80°) | 11916.7 | 38.0 | | | G4/12000 |
| FVH | (80°-90°) | 710.1 | 2.3 | | | G4/750 |
| BL | (0°-30°) | 1299.9 | 4.2 | B3/2500 | | |
| BM | (30°-60°) | 1565.4 | 5.0 | B2/2500 | | |
| BH | (60°-80°) | 1514.8 | 4.8 | B3/2500 | | G3/2500 |
| BVH | (80°-90°) | 75.7 | 0.2 | | | G1/100 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B3-U0-G4

Type III Medium





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 60° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 7980.8 | 7980.8 | 7980.8 | 7980.8 | 7980.8 | 7980.8 | 7980.8 | 7980.8 | 7980.8 | 7980.8 | 7980.8 |
| 2.5° | 8144.2 | 8162.4 | 8154.8 | 8150.3 | 8163.9 | 8142.7 | 8098.8 | 8085.2 | 8064.0 | 8014.1 | 7929.4 |
| 5° | 7838.6 | 7893.1 | 7890.0 | 7930.9 | 7999.0 | 8017.1 | 7997.4 | 8000.5 | 7961.1 | 7899.1 | 7758.4 |
| 7.5° | 7310.6 | 7333.3 | 7345.4 | 7434.6 | 7558.7 | 7658.5 | 7743.3 | 7770.5 | 7752.4 | 7699.4 | 7517.8 |
| 10° | 6765.9 | 6784.1 | 6812.8 | 6917.2 | 7074.6 | 7212.2 | 7372.6 | 7464.9 | 7504.2 | 7495.2 | 7292.4 |
| 12.5° | 6298.4 | 6316.6 | 6354.4 | 6472.4 | 6660.0 | 6829.5 | 7062.4 | 7177.4 | 7271.2 | 7327.2 | 7109.3 |
| 15° | 5879.3 | 5918.7 | 5955.0 | 6091.1 | 6301.4 | 6523.8 | 6787.1 | 6932.3 | 7077.6 | 7203.2 | 6947.5 |
| 17.5° | 5552.5 | 5591.9 | 5613.0 | 5737.1 | 5961.0 | 6233.4 | 6542.0 | 6713.0 | 6894.5 | 7100.3 | 6787.1 |
| 20° | 5363.4 | 5381.6 | 5372.5 | 5442.1 | 5643.3 | 5932.3 | 6298.4 | 6496.6 | 6716.0 | 7003.4 | 6626.7 |
| 22.5° | 5310.5 | 5312.0 | 5278.7 | 5271.1 | 5401.2 | 5644.8 | 6038.2 | 6278.7 | 6548.0 | 6939.9 | 6489.0 |
| 25° | 5439.1 | 5434.5 | 5343.7 | 5269.6 | 5283.2 | 5425.4 | 5787.0 | 6066.9 | 6407.3 | 6926.3 | 6383.1 |
| 27.5° | 5725.0 | 5738.6 | 5604.0 | 5464.8 | 5327.1 | 5322.6 | 5596.4 | 5891.4 | 6292.4 | 6988.3 | 6337.7 |
| 30° | 6125.9 | 6148.6 | 6004.9 | 5827.9 | 5569.2 | 5355.8 | 5522.3 | 5787.0 | 6221.2 | 7116.9 | 6330.2 |
| 32.5° | 6564.7 | 6588.9 | 6480.0 | 6293.9 | 5955.0 | 5561.6 | 5573.7 | 5796.1 | 6218.2 | 7297.0 | 6381.6 |
| 35° | 7032.2 | 7059.4 | 7003.4 | 6846.1 | 6469.4 | 5941.4 | 5770.4 | 5942.9 | 6316.6 | 7572.3 | 6519.3 |
| 37.5° | 7554.2 | 7596.5 | 7611.6 | 7461.9 | 7059.4 | 6442.1 | 6092.6 | 6221.2 | 6539.0 | 7955.1 | 6772.0 |
| 40° | 8306.1 | 8365.1 | 8360.6 | 8145.7 | 7735.7 | 7118.4 | 6590.4 | 6623.7 | 6885.4 | 8466.5 | 7175.9 |
| 42.5° | 9746.4 | 9758.5 | 9381.8 | 8914.3 | 8480.1 | 7829.5 | 7177.4 | 7150.2 | 7363.5 | 9114.0 | 7770.5 |
| 45° | 11578.6 | 11528.7 | 10690.5 | 9787.3 | 9257.7 | 8646.5 | 7941.5 | 7808.3 | 7970.2 | 9903.8 | 8514.9 |
| 47.5° | 13099.1 | 12984.1 | 11925.1 | 10678.4 | 10080.8 | 9534.6 | 8838.6 | 8605.7 | 8694.9 | 10799.4 | 9477.1 |
| 50° | 13627.1 | 13540.9 | 12663.4 | 11419.7 | 10859.9 | 10617.9 | 9943.1 | 9613.3 | 9637.5 | 11867.6 | 10604.3 |
| 52.5° | 13513.7 | 13501.6 | 12916.0 | 11908.4 | 11589.2 | 11755.6 | 11507.5 | 11061.2 | 10825.2 | 13053.7 | 11820.7 |
| 55° | 13245.9 | 13271.6 | 13059.8 | 12477.3 | 12422.8 | 12854.0 | 13551.5 | 13221.7 | 12487.9 | 14250.5 | 13077.9 |
| 57.5° | 12315.4 | 12382.0 | 12848.0 | 13192.9 | 13764.8 | 14406.3 | 15197.6 | 15103.8 | 14277.7 | 15544.0 | 14572.7 |
| 60° | 9921.9 | 10076.2 | 11325.9 | 13053.7 | 15146.1 | 17152.3 | 17506.3 | 17288.5 | 16123.5 | 17149.3 | 16547.1 |
| 62.5° | 6952.0 | 7112.4 | 8598.1 | 11301.7 | 14919.2 | 20253.9 | 21633.7 | 20694.1 | 18774.2 | 19514.0 | 19102.5 |
| 65° | 3721.9 | 3799.0 | 4933.7 | 7841.6 | 12595.3 | 20893.8 | 27665.8 | 26236.1 | 22971.1 | 22429.5 | 21288.7 |
| 67.5° | 2053.1 | 2095.4 | 2529.7 | 3959.4 | 8067.0 | 18399.0 | 31508.7 | 32588.9 | 28216.5 | 24370.6 | 20890.8 |
| 69° | 1856.4 | 1895.7 | 2180.2 | 2998.7 | 5398.2 | 15212.7 | 31133.5 | 34263.8 | 30516.2 | 24178.4 | 19420.2 |
| 70° | 1815.5 | 1851.8 | 2107.5 | 2764.2 | 4369.4 | 12539.3 | 29876.2 | 33835.6 | 31063.9 | 23490.0 | 18137.2 |
| 72.5° | 1634.0 | 1673.3 | 1921.4 | 2482.7 | 3734.0 | 6251.5 | 23665.6 | 28608.4 | 28202.9 | 20367.3 | 13757.2 |
| 75° | 1523.5 | 1559.9 | 1980.5 | 2431.3 | 3575.1 | 3956.4 | 15601.5 | 21084.5 | 20731.9 | 14247.4 | 7418.0 |
| 77.5° | 652.1 | 649.1 | 918.4 | 2057.6 | 3628.1 | 3830.8 | 8383.3 | 13171.7 | 12017.4 | 6089.6 | 2130.2 |
| 80° | 435.7 | 428.2 | 435.7 | 605.2 | 3327.0 | 3852.0 | 4392.1 | 6685.7 | 5050.2 | 1552.3 | 1050.0 |
| 82.5° | 375.2 | 369.2 | 382.8 | 369.2 | 1169.5 | 4396.6 | 3734.0 | 3555.4 | 2401.1 | 882.0 | 520.5 |
| 85° | 252.7 | 242.1 | 329.8 | 331.3 | 552.2 | 3906.4 | 4206.0 | 3003.2 | 1942.6 | 523.5 | 257.2 |
| 87.5° | 121.0 | 118.0 | 192.1 | 234.5 | 323.8 | 1587.1 | 4718.9 | 3077.3 | 1959.3 | 267.8 | 122.5 |
| 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: GLNA-AF-08-LED-E1-SL3-600

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|---------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 7980.8 | 7980.8 | 7980.8 | 7980.8 | 7980.8 | 7980.8 | 7980.8 | 7980.8 | 7980.8 | 7980.8 | 7980.8 |
| 2.5° | 7903.6 | 7841.6 | 7781.1 | 7708.5 | 7632.8 | 7548.1 | 7505.7 | 7463.4 | 7452.8 | 7440.7 | 7398.3 |
| 5° | 7685.8 | 7598.0 | 7446.7 | 7280.3 | 7104.8 | 6933.8 | 6803.7 | 6722.0 | 6660.0 | 6628.2 | 6572.3 |
| 7.5° | 7404.4 | 7275.8 | 7011.0 | 6723.5 | 6428.5 | 6159.2 | 5926.2 | 5779.5 | 5640.3 | 5575.2 | 5501.1 |
| 10° | 7136.6 | 6944.4 | 6532.9 | 6109.3 | 5685.7 | 5278.7 | 4895.9 | 4625.1 | 4384.5 | 4249.9 | 4154.6 |
| 12.5° | 6906.6 | 6643.4 | 6073.0 | 5499.6 | 4918.6 | 4339.1 | 3765.7 | 3314.9 | 2938.1 | 2740.0 | 2638.6 |
| 15° | 6682.7 | 6365.0 | 5635.7 | 4908.0 | 4162.1 | 3373.9 | 2620.4 | 2109.1 | 1797.4 | 1673.3 | 1631.0 |
| 17.5° | 6480.0 | 6073.0 | 5197.0 | 4311.9 | 3381.4 | 2428.3 | 1761.1 | 1479.7 | 1360.1 | 1319.3 | 1305.7 |
| 20° | 6260.6 | 5778.0 | 4741.6 | 3688.6 | 2567.5 | 1697.5 | 1375.3 | 1251.2 | 1202.8 | 1190.7 | 1184.6 |
| 22.5° | 6048.8 | 5487.5 | 4305.9 | 3021.4 | 1844.3 | 1310.2 | 1181.6 | 1130.2 | 1122.6 | 1133.2 | 1133.2 |
| 25° | 5868.7 | 5227.2 | 3835.3 | 2323.9 | 1354.1 | 1102.9 | 1057.6 | 1045.4 | 1074.2 | 1113.5 | 1121.1 |
| 27.5° | 5734.1 | 5013.9 | 3334.5 | 1715.7 | 1078.7 | 959.2 | 957.7 | 977.4 | 1048.5 | 1124.1 | 1139.3 |
| 30° | 5641.8 | 4811.2 | 2799.0 | 1237.6 | 904.7 | 844.2 | 868.4 | 910.8 | 1015.2 | 1122.6 | 1151.4 |
| 32.5° | 5594.9 | 4661.4 | 2240.7 | 957.7 | 774.6 | 741.3 | 782.2 | 833.6 | 936.5 | 1036.4 | 1074.2 |
| 35° | 5631.2 | 4551.0 | 1714.2 | 798.8 | 683.9 | 658.1 | 700.5 | 750.4 | 810.9 | 853.3 | 882.0 |
| 37.5° | 5767.4 | 4507.1 | 1293.6 | 715.6 | 621.8 | 597.6 | 630.9 | 659.6 | 683.9 | 696.0 | 709.6 |
| 40° | 6060.9 | 4554.0 | 1036.4 | 673.3 | 587.0 | 556.8 | 570.4 | 581.0 | 596.1 | 608.2 | 614.3 |
| 42.5° | 6493.6 | 4694.7 | 929.0 | 656.6 | 568.9 | 525.0 | 522.0 | 526.5 | 546.2 | 568.9 | 573.4 |
| 45° | 7098.8 | 4942.8 | 921.4 | 667.2 | 559.8 | 499.3 | 485.7 | 491.7 | 522.0 | 556.8 | 562.8 |
| 47.5° | 7871.9 | 5321.0 | 981.9 | 699.0 | 567.4 | 485.7 | 463.0 | 470.5 | 508.4 | 555.3 | 562.8 |
| 50° | 8808.4 | 5849.1 | 1083.3 | 745.9 | 600.6 | 488.7 | 455.4 | 459.9 | 499.3 | 550.7 | 558.3 |
| 52.5° | 9914.4 | 6598.0 | 1193.7 | 791.3 | 635.4 | 508.4 | 461.4 | 450.9 | 487.2 | 532.6 | 541.6 |
| 55° | 11144.4 | 7558.7 | 1307.2 | 832.1 | 653.6 | 532.6 | 473.6 | 438.8 | 464.5 | 502.3 | 509.9 |
| 57.5° | 12654.3 | 8902.2 | 1503.9 | 871.5 | 665.7 | 549.2 | 485.7 | 426.7 | 435.7 | 463.0 | 469.0 |
| 60° | 14698.3 | 10802.5 | 1850.3 | 936.5 | 692.9 | 555.3 | 484.1 | 416.1 | 407.0 | 422.1 | 425.1 |
| 62.5° | 17147.8 | 12866.1 | 2139.3 | 1018.2 | 738.3 | 559.8 | 475.1 | 408.5 | 382.8 | 382.8 | 385.8 |
| 65° | 18601.7 | 13418.3 | 1978.9 | 1086.3 | 776.1 | 555.3 | 464.5 | 400.9 | 364.6 | 348.0 | 349.5 |
| 67.5° | 17368.7 | 11801.0 | 1696.0 | 1099.9 | 774.6 | 534.1 | 447.8 | 387.3 | 346.5 | 320.7 | 319.2 |
| 69° | 15823.9 | 10182.1 | 1568.9 | 1063.6 | 738.3 | 506.8 | 426.7 | 372.2 | 332.8 | 305.6 | 304.1 |
| 70° | 14578.8 | 9194.2 | 1485.7 | 1024.3 | 699.0 | 487.2 | 410.0 | 358.6 | 322.3 | 296.5 | 293.5 |
| 72.5° | 10599.7 | 6024.6 | 1269.4 | 880.5 | 576.4 | 408.5 | 354.0 | 314.7 | 287.5 | 272.3 | 269.3 |
| 75° | 5296.8 | 2873.1 | 1030.3 | 714.1 | 441.8 | 326.8 | 290.5 | 263.3 | 249.6 | 246.6 | 245.1 |
| 77.5° | 1739.9 | 1316.3 | 736.8 | 532.6 | 328.3 | 255.7 | 234.5 | 214.8 | 211.8 | 220.9 | 217.9 |
| 80° | 956.2 | 765.6 | 467.5 | 352.5 | 223.9 | 187.6 | 184.6 | 174.0 | 178.5 | 193.7 | 190.6 |
| 82.5° | 487.2 | 397.9 | 289.0 | 211.8 | 151.3 | 134.7 | 146.8 | 140.7 | 146.8 | 160.4 | 158.9 |
| 85° | 240.6 | 217.9 | 183.1 | 128.6 | 99.9 | 86.2 | 104.4 | 108.9 | 112.0 | 122.5 | 122.5 |
| 87.5° | 139.2 | 128.6 | 96.8 | 60.5 | 49.9 | 45.4 | 60.5 | 59.0 | 69.6 | 75.6 | 74.1 |
| 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)