

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: P300940

Luminaire Tested: **GLNA-AF-07-LED-E1-SL4-7050-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P300940  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24301)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GLNA-AF-07-LED-E1-SL4-7050-800  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(7) 70 CRI, 5000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V  
Square Wide OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 32207.8 lumens  
Efficiency: N/A  
Efficacy: 109.2 lumens/watt  
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')  
IES Classification: Type IV - Short - Semi-Cutoff  
BUG Rating: B2 - U0 - G5

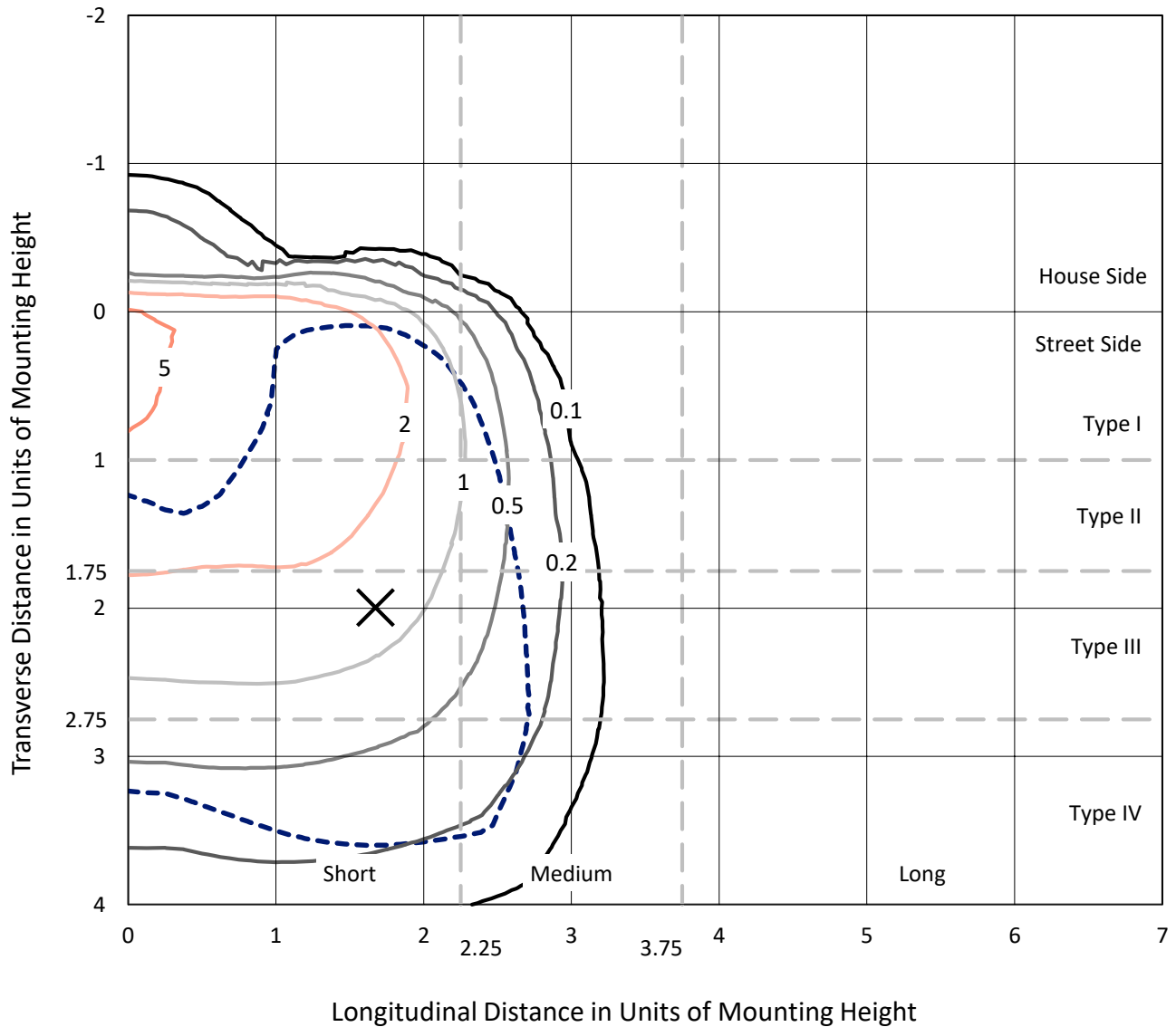
Input Watts (W): 295  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

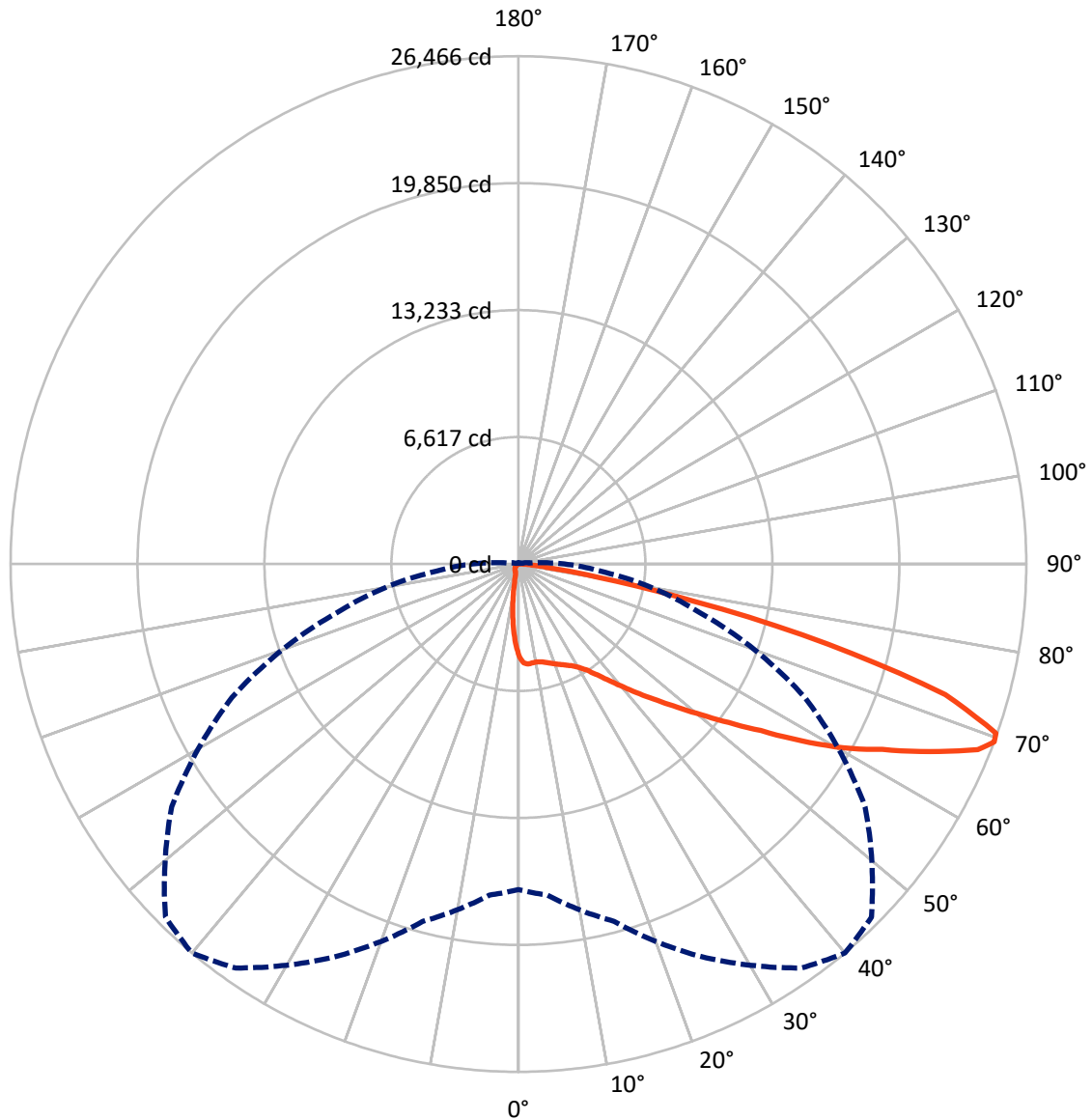
× Max cd  
 - - - 1/2 Max cd



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

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### Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral    - - - Horizontal Cone Through 69-Deg Vertical

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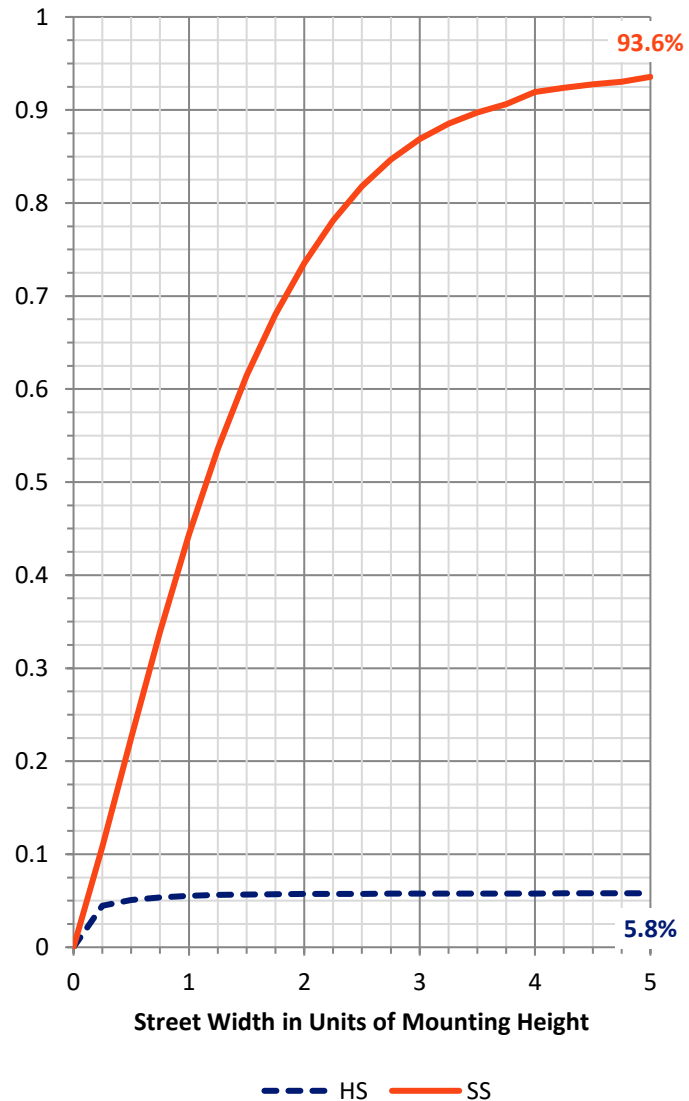
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 1884.3   | 0.0    | 1884.3  |
|                    | % Fixture | 5.9      | 0.0    | 5.9     |
| <b>Street Side</b> | Lumens    | 30323.5  | 0.0    | 30323.5 |
|                    | % Fixture | 94.1     | 0.0    | 94.1    |
| <b>Total</b>       | Lumens    | 32207.8  | 0.0    | 32207.8 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 390.2   | 1.2       |
| 10°-20°   | 959.5   | 3.0       |
| 20°-30°   | 1616.1  | 5.0       |
| 30°-40°   | 2645.6  | 8.2       |
| 40°-50°   | 4580.7  | 14.2      |
| 50°-60°   | 7215.1  | 22.4      |
| 60°-70°   | 9422.6  | 29.3      |
| 70°-80°   | 4853.1  | 15.1      |
| 80°-90°   | 525.0   | 1.6       |
| 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°    | 32207.8 | 100.0     |
| 0°-180°   | 32207.8 | 100.0     |

**Coefficient of Utilization**



REPORT NUMBER: P300940

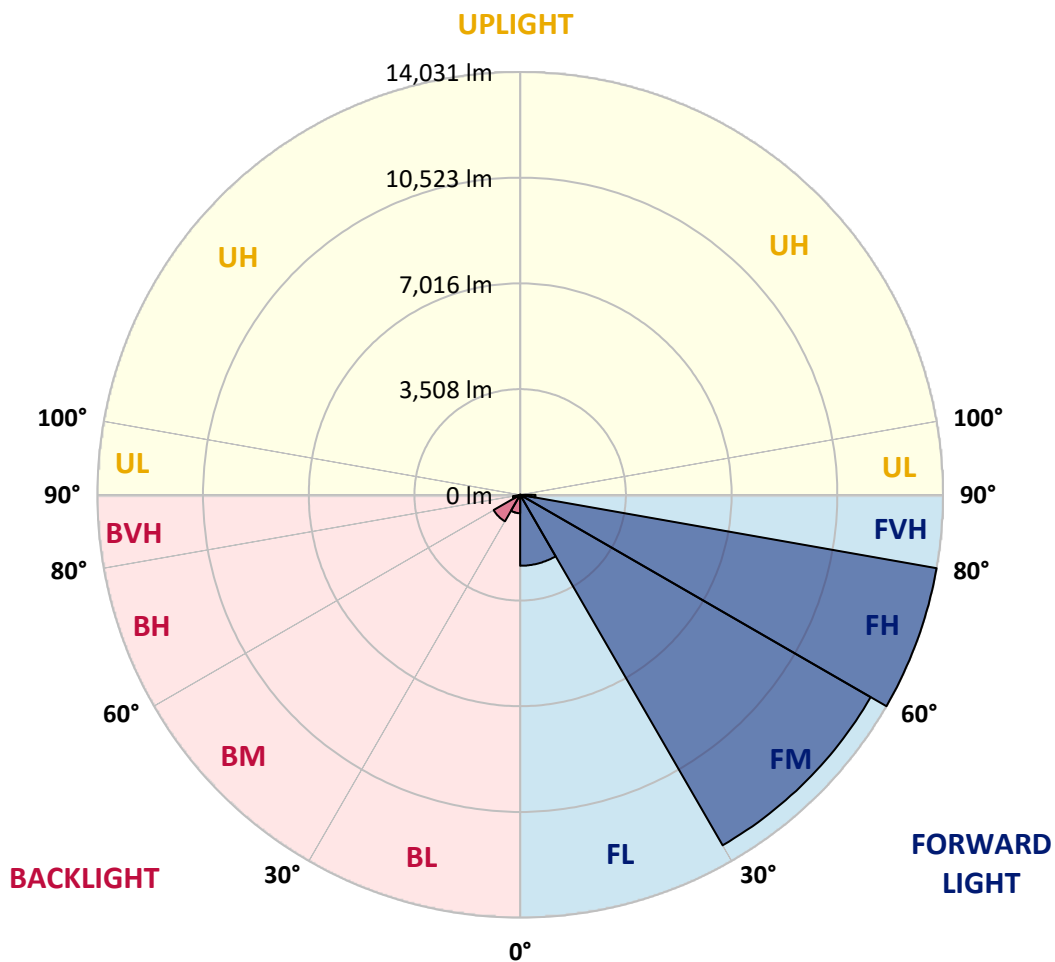
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |        |
|------|-------------|---------|-----------|-------------------------|------|--------|
|      |             |         |           | B                       | U    | G      |
| FL   | (0°-30°)    | 2355.3  | 7.3       |                         |      |        |
| FM   | (30°-60°)   | 13428.6 | 41.7      |                         |      |        |
| FH   | (60°-80°)   | 14031.1 | 43.6      |                         |      | G5     |
| FVH  | (80°-90°)   | 508.5   | 1.6       |                         |      | G4/750 |
| BL   | (0°-30°)    | 610.4   | 1.9       | B2/1000                 |      |        |
| BM   | (30°-60°)   | 1012.8  | 3.1       | B2/2500                 |      |        |
| BH   | (60°-80°)   | 244.7   | 0.8       | B1/500                  |      | G1/500 |
| BVH  | (80°-90°)   | 16.5    | 0.1       |                         |      | G1/100 |
| UL   | (90°-100°)  | 0.0     | 0.0       |                         | U0/0 |        |
| UH   | (100°-180°) | 0.0     | 0.0       |                         | U0/0 |        |

**BUG Rating: B2-U0-G5**

Type IV Short





REPORT NUMBER: P300940

CATALOG NUMBER: GLNA-AF-07-LED-E1-SL4-7050-800

**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 40°     | 45°     | 55°     | 65°     | 75°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 4812.0  | 4812.0  | 4812.0  | 4812.0  | 4812.0  | 4812.0  | 4812.0  | 4812.0  | 4812.0  | 4812.0  | 4812.0  |
| 2.5°  | 5283.6  | 5254.9  | 5237.6  | 5214.6  | 5185.9  | 5160.9  | 5151.3  | 5080.4  | 5013.3  | 4921.3  | 4815.8  |
| 5°    | 5381.4  | 5371.8  | 5341.1  | 5310.5  | 5276.0  | 5237.6  | 5216.5  | 5132.2  | 5036.3  | 4902.1  | 4718.1  |
| 7.5°  | 5391.0  | 5379.5  | 5341.1  | 5299.0  | 5251.0  | 5205.0  | 5168.6  | 5084.2  | 4996.1  | 4859.9  | 4635.6  |
| 10°   | 5375.7  | 5362.2  | 5333.5  | 5287.5  | 5228.0  | 5183.9  | 5147.5  | 5067.0  | 4992.2  | 4869.5  | 4620.3  |
| 12.5° | 5358.4  | 5345.0  | 5331.6  | 5308.6  | 5256.8  | 5226.1  | 5195.4  | 5118.8  | 5051.7  | 4948.1  | 4675.9  |
| 15°   | 5375.7  | 5368.0  | 5383.3  | 5373.7  | 5345.0  | 5318.1  | 5287.5  | 5218.4  | 5157.1  | 5070.8  | 4777.5  |
| 17.5° | 5448.5  | 5448.5  | 5496.4  | 5502.2  | 5475.3  | 5437.0  | 5392.9  | 5323.9  | 5272.1  | 5199.3  | 4898.3  |
| 20°   | 5619.1  | 5613.4  | 5674.7  | 5686.2  | 5621.0  | 5561.6  | 5496.4  | 5412.1  | 5371.8  | 5325.8  | 5017.1  |
| 22.5° | 5912.5  | 5885.6  | 5922.0  | 5910.5  | 5782.1  | 5690.1  | 5609.5  | 5506.0  | 5484.9  | 5463.8  | 5149.4  |
| 25°   | 6294.0  | 6278.6  | 6303.5  | 6190.4  | 5964.2  | 5839.6  | 5743.7  | 5626.8  | 5626.8  | 5647.9  | 5299.0  |
| 27.5° | 6848.0  | 6790.5  | 6706.1  | 6506.8  | 6167.4  | 6008.3  | 5904.8  | 5780.2  | 5812.8  | 5891.4  | 5496.4  |
| 30°   | 7415.5  | 7352.2  | 7158.6  | 6851.8  | 6414.7  | 6248.0  | 6127.2  | 5996.8  | 6073.5  | 6217.3  | 5761.0  |
| 32.5° | 7975.3  | 7904.4  | 7630.2  | 7242.9  | 6769.4  | 6602.6  | 6485.7  | 6341.9  | 6470.3  | 6711.9  | 6148.3  |
| 35°   | 8517.8  | 8454.6  | 8138.2  | 7682.0  | 7241.0  | 7103.0  | 6995.6  | 6871.0  | 7035.9  | 7373.3  | 6694.6  |
| 37.5° | 9127.5  | 9058.5  | 8673.1  | 8178.5  | 7814.3  | 7714.6  | 7636.0  | 7511.3  | 7798.9  | 8293.5  | 7455.7  |
| 40°   | 9877.1  | 9760.1  | 9240.6  | 8747.9  | 8477.6  | 8429.7  | 8376.0  | 8358.7  | 8805.4  | 9489.8  | 8469.9  |
| 42.5° | 10736.0 | 10544.3 | 9834.9  | 9348.0  | 9206.1  | 9240.6  | 9227.2  | 9303.9  | 10065.0 | 10977.5 | 9704.6  |
| 45°   | 11594.8 | 11347.5 | 10496.3 | 9988.3  | 10007.5 | 10128.2 | 10203.0 | 10509.7 | 11642.8 | 12683.8 | 11033.1 |
| 47.5° | 12323.4 | 12079.9 | 11130.9 | 10680.4 | 10910.4 | 11148.2 | 11351.4 | 11932.3 | 13264.7 | 14363.2 | 12066.5 |
| 50°   | 12946.4 | 12716.4 | 11803.8 | 11441.5 | 11959.1 | 12342.5 | 12672.3 | 13533.1 | 15009.3 | 15641.9 | 12791.1 |
| 52.5° | 13456.4 | 13303.0 | 12501.7 | 12313.8 | 13157.3 | 13719.0 | 14202.2 | 15233.6 | 16554.5 | 16681.0 | 13354.8 |
| 55°   | 13952.9 | 13843.7 | 13251.3 | 13350.9 | 14564.5 | 15329.4 | 15941.0 | 17037.6 | 17885.0 | 17547.6 | 13895.4 |
| 57.5° | 14524.2 | 14424.5 | 14106.3 | 14666.1 | 16414.5 | 17376.9 | 18044.1 | 18636.5 | 19056.3 | 18433.3 | 14405.4 |
| 60°   | 15107.0 | 15049.5 | 15057.2 | 16127.0 | 18538.7 | 19462.8 | 19830.9 | 19984.2 | 20206.6 | 19267.2 | 14434.1 |
| 62.5° | 15663.0 | 15772.3 | 16144.2 | 17752.7 | 20572.8 | 21282.1 | 21468.1 | 21619.6 | 21358.8 | 19399.5 | 13335.6 |
| 65°   | 16604.3 | 16782.6 | 17670.3 | 19928.6 | 22810.1 | 23569.3 | 23761.0 | 23241.5 | 21541.0 | 17689.4 | 10847.2 |
| 67.5° | 17064.4 | 17390.4 | 18973.9 | 21957.0 | 24980.3 | 25823.8 | 25752.9 | 23346.9 | 19330.5 | 13489.0 | 6961.1  |
| 69°   | 16968.6 | 17315.6 | 19274.9 | 22578.1 | 25701.1 | 26466.1 | 26015.6 | 22056.7 | 16468.2 | 9771.7  | 4273.3  |
| 70°   | 16589.0 | 16939.8 | 19119.6 | 22555.1 | 25793.2 | 26399.0 | 25528.6 | 20463.5 | 13924.2 | 7145.2  | 2672.5  |
| 72.5° | 13853.2 | 14156.1 | 16974.3 | 20386.8 | 23761.0 | 23268.3 | 21356.9 | 14177.2 | 6784.8  | 1945.9  | 602.0   |
| 75°   | 8527.4  | 8696.1  | 12179.6 | 15358.2 | 17946.3 | 16681.0 | 14229.0 | 7053.1  | 2022.6  | 550.2   | 333.6   |
| 77.5° | 4505.3  | 4582.0  | 6667.8  | 9052.7  | 11376.3 | 9413.1  | 7292.8  | 2751.1  | 931.7   | 345.1   | 241.6   |
| 80°   | 2662.9  | 2720.4  | 3590.8  | 4139.1  | 4923.2  | 4112.3  | 2916.0  | 1689.0  | 667.2   | 216.6   | 214.7   |
| 82.5° | 1524.1  | 1560.6  | 2603.5  | 2300.6  | 1940.1  | 1656.4  | 1451.3  | 1600.8  | 400.7   | 145.7   | 222.4   |
| 85°   | 559.8   | 567.5   | 1464.7  | 1750.3  | 1154.1  | 686.3   | 720.8   | 1326.7  | 107.4   | 92.0    | 174.5   |
| 87.5° | 260.7   | 255.0   | 753.4   | 1071.7  | 674.8   | 435.2   | 561.7   | 291.4   | 42.2    | 59.4    | 47.9    |
| 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: GLNA-AF-07-LED-E1-SL4-7050-800

**CANDELA DISTRIBUTION (continued):**

|       | 90°     | 95°    | 105°   | 115°   | 125°   | 135°   | 145°   | 155°   | 165°   | 175°   | 180°   |
|-------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 4812.0  | 4812.0 | 4812.0 | 4812.0 | 4812.0 | 4812.0 | 4812.0 | 4812.0 | 4812.0 | 4812.0 | 4812.0 |
| 2.5°  | 4754.5  | 4683.6 | 4555.1 | 4422.8 | 4288.6 | 4185.1 | 4083.5 | 4003.0 | 3976.1 | 3926.3 | 3930.1 |
| 5°    | 4608.8  | 4478.4 | 4210.0 | 3937.8 | 3654.1 | 3420.2 | 3199.7 | 3021.4 | 2935.1 | 2846.9 | 2846.9 |
| 7.5°  | 4482.3  | 4292.5 | 3872.6 | 3429.8 | 2971.6 | 2586.2 | 2239.2 | 1978.5 | 1834.7 | 1719.7 | 1717.8 |
| 10°   | 4434.3  | 4177.4 | 3590.8 | 2956.2 | 2317.8 | 1792.5 | 1380.3 | 1115.8 | 979.7  | 891.5  | 887.6  |
| 12.5° | 4455.4  | 4137.2 | 3374.2 | 2519.1 | 1717.8 | 1152.2 | 799.4  | 628.8  | 571.3  | 544.5  | 544.5  |
| 15°   | 4516.8  | 4125.7 | 3157.5 | 2091.6 | 1213.5 | 720.8  | 531.0  | 485.0  | 481.2  | 481.2  | 481.2  |
| 17.5° | 4591.5  | 4129.5 | 2935.1 | 1675.6 | 826.3  | 515.7  | 458.2  | 452.4  | 456.3  | 456.3  | 456.3  |
| 20°   | 4668.2  | 4131.4 | 2695.5 | 1290.2 | 582.8  | 448.6  | 431.4  | 429.4  | 433.3  | 433.3  | 435.2  |
| 22.5° | 4762.2  | 4141.0 | 2455.9 | 964.3  | 481.2  | 423.7  | 410.3  | 410.3  | 412.2  | 412.2  | 410.3  |
| 25°   | 4869.5  | 4160.2 | 2206.6 | 715.1  | 439.0  | 406.4  | 394.9  | 393.0  | 394.9  | 393.0  | 391.1  |
| 27.5° | 5003.7  | 4187.0 | 1928.6 | 559.8  | 419.9  | 389.2  | 379.6  | 379.6  | 377.7  | 375.8  | 373.8  |
| 30°   | 5172.4  | 4217.7 | 1616.1 | 475.5  | 400.7  | 373.8  | 364.3  | 362.3  | 360.4  | 356.6  | 356.6  |
| 32.5° | 5429.3  | 4284.8 | 1307.5 | 431.4  | 379.6  | 352.8  | 345.1  | 345.1  | 341.3  | 337.4  | 335.5  |
| 35°   | 5824.3  | 4417.1 | 1031.4 | 404.5  | 356.6  | 329.7  | 320.2  | 320.2  | 316.3  | 314.4  | 312.5  |
| 37.5° | 6370.6  | 4618.4 | 801.4  | 379.6  | 333.6  | 304.8  | 295.2  | 293.3  | 289.5  | 285.7  | 283.7  |
| 40°   | 7097.2  | 4867.6 | 630.7  | 356.6  | 310.6  | 279.9  | 272.2  | 268.4  | 260.7  | 255.0  | 255.0  |
| 42.5° | 8009.8  | 5151.3 | 511.9  | 331.7  | 283.7  | 256.9  | 251.1  | 245.4  | 232.0  | 226.2  | 224.3  |
| 45°   | 8964.5  | 5406.3 | 433.3  | 302.9  | 256.9  | 233.9  | 230.1  | 220.5  | 203.2  | 197.5  | 197.5  |
| 47.5° | 9652.8  | 5465.8 | 381.5  | 276.1  | 232.0  | 209.0  | 207.1  | 189.8  | 174.5  | 170.6  | 168.7  |
| 50°   | 10082.2 | 5348.8 | 339.3  | 249.2  | 209.0  | 186.0  | 180.2  | 159.1  | 149.5  | 145.7  | 143.8  |
| 52.5° | 10371.7 | 5139.8 | 304.8  | 226.2  | 187.9  | 164.9  | 151.5  | 136.1  | 128.4  | 124.6  | 124.6  |
| 55°   | 10603.7 | 4844.6 | 270.3  | 205.1  | 170.6  | 147.6  | 128.4  | 116.9  | 109.3  | 105.4  | 105.4  |
| 57.5° | 10668.9 | 4443.9 | 235.8  | 187.9  | 153.4  | 130.4  | 109.3  | 101.6  | 92.0   | 90.1   | 90.1   |
| 60°   | 10195.3 | 3721.2 | 209.0  | 166.8  | 138.0  | 113.1  | 95.9   | 86.3   | 76.7   | 74.8   | 72.9   |
| 62.5° | 8947.3  | 2879.5 | 184.0  | 147.6  | 120.8  | 97.8   | 82.4   | 70.9   | 63.3   | 63.3   | 63.3   |
| 65°   | 6825.0  | 1930.6 | 161.0  | 128.4  | 105.4  | 82.4   | 70.9   | 57.5   | 53.7   | 53.7   | 55.6   |
| 67.5° | 4085.4  | 1050.6 | 138.0  | 109.3  | 90.1   | 69.0   | 59.4   | 49.8   | 47.9   | 49.8   | 49.8   |
| 69°   | 2394.5  | 617.3  | 124.6  | 97.8   | 78.6   | 61.3   | 51.8   | 44.1   | 47.9   | 49.8   | 49.8   |
| 70°   | 1478.1  | 416.0  | 115.0  | 88.2   | 70.9   | 55.6   | 47.9   | 42.2   | 46.0   | 47.9   | 47.9   |
| 72.5° | 412.2   | 214.7  | 92.0   | 69.0   | 57.5   | 46.0   | 38.3   | 38.3   | 44.1   | 46.0   | 46.0   |
| 75°   | 268.4   | 159.1  | 70.9   | 51.8   | 44.1   | 36.4   | 32.6   | 36.4   | 42.2   | 44.1   | 44.1   |
| 77.5° | 222.4   | 130.4  | 57.5   | 42.2   | 36.4   | 34.5   | 30.7   | 32.6   | 38.3   | 40.3   | 40.3   |
| 80°   | 203.2   | 92.0   | 46.0   | 38.3   | 32.6   | 30.7   | 28.8   | 26.8   | 34.5   | 36.4   | 36.4   |
| 82.5° | 193.6   | 72.9   | 40.3   | 34.5   | 30.7   | 26.8   | 24.9   | 26.8   | 30.7   | 32.6   | 34.5   |
| 85°   | 120.8   | 47.9   | 36.4   | 32.6   | 26.8   | 24.9   | 24.9   | 24.9   | 28.8   | 30.7   | 30.7   |
| 87.5° | 44.1    | 38.3   | 32.6   | 26.8   | 23.0   | 23.0   | 23.0   | 23.0   | 24.9   | 28.8   | 28.8   |
| 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)