

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: P302922

Luminaire Tested: **GLNA-AF-07-LED-E1-T4W-7050-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P302922  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P191569)  
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-T4W-7050-600  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(7) 70 CRI, 5000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV  
Wide OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 27448.7 lumens  
Efficiency: N/A  
Efficacy: 121.5 lumens/watt  
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')  
IES Classification: Type IV - Short - Semi-Cutoff  
BUG Rating: B3 - U0 - G4

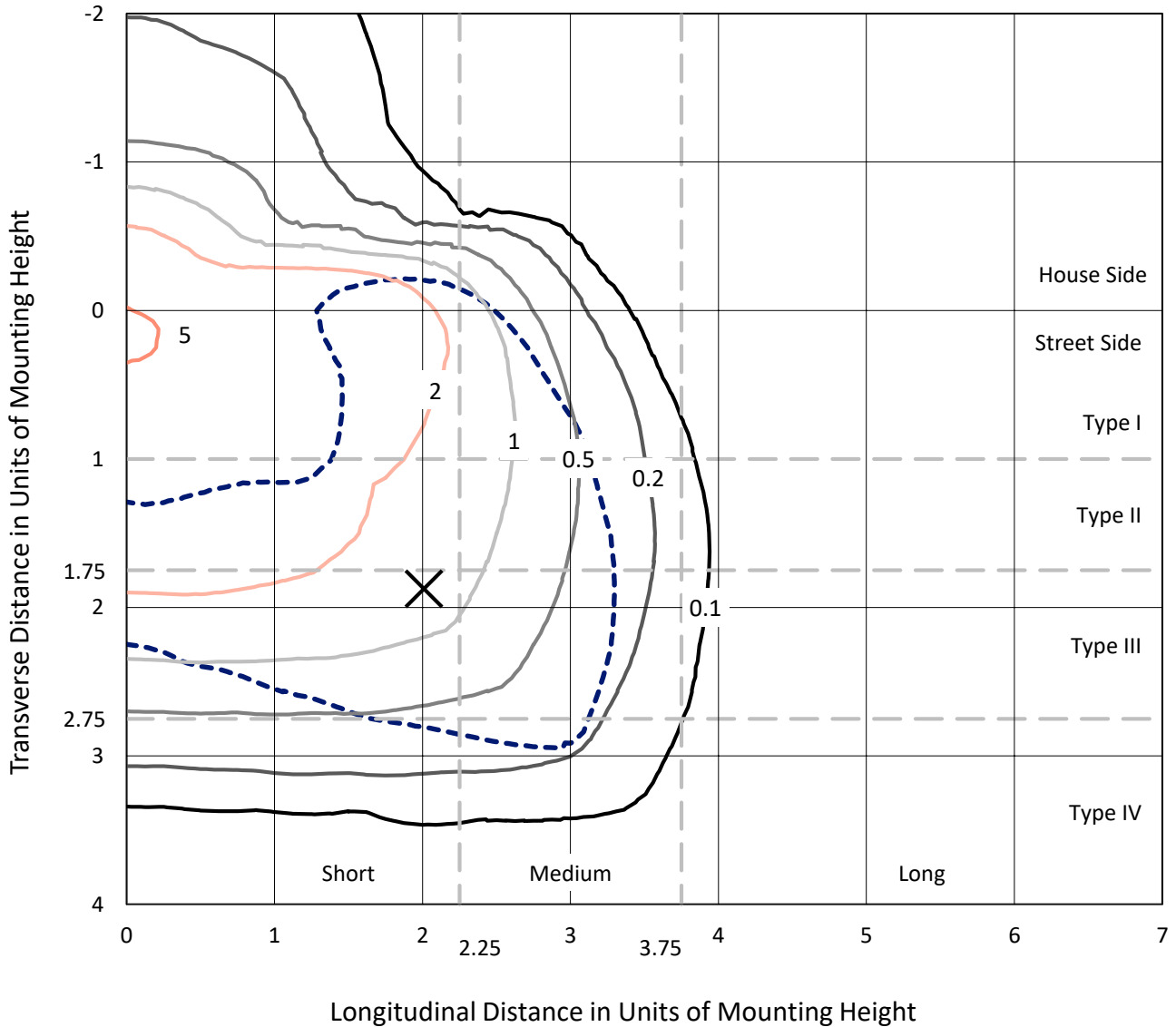
Input Watts (W): 226  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

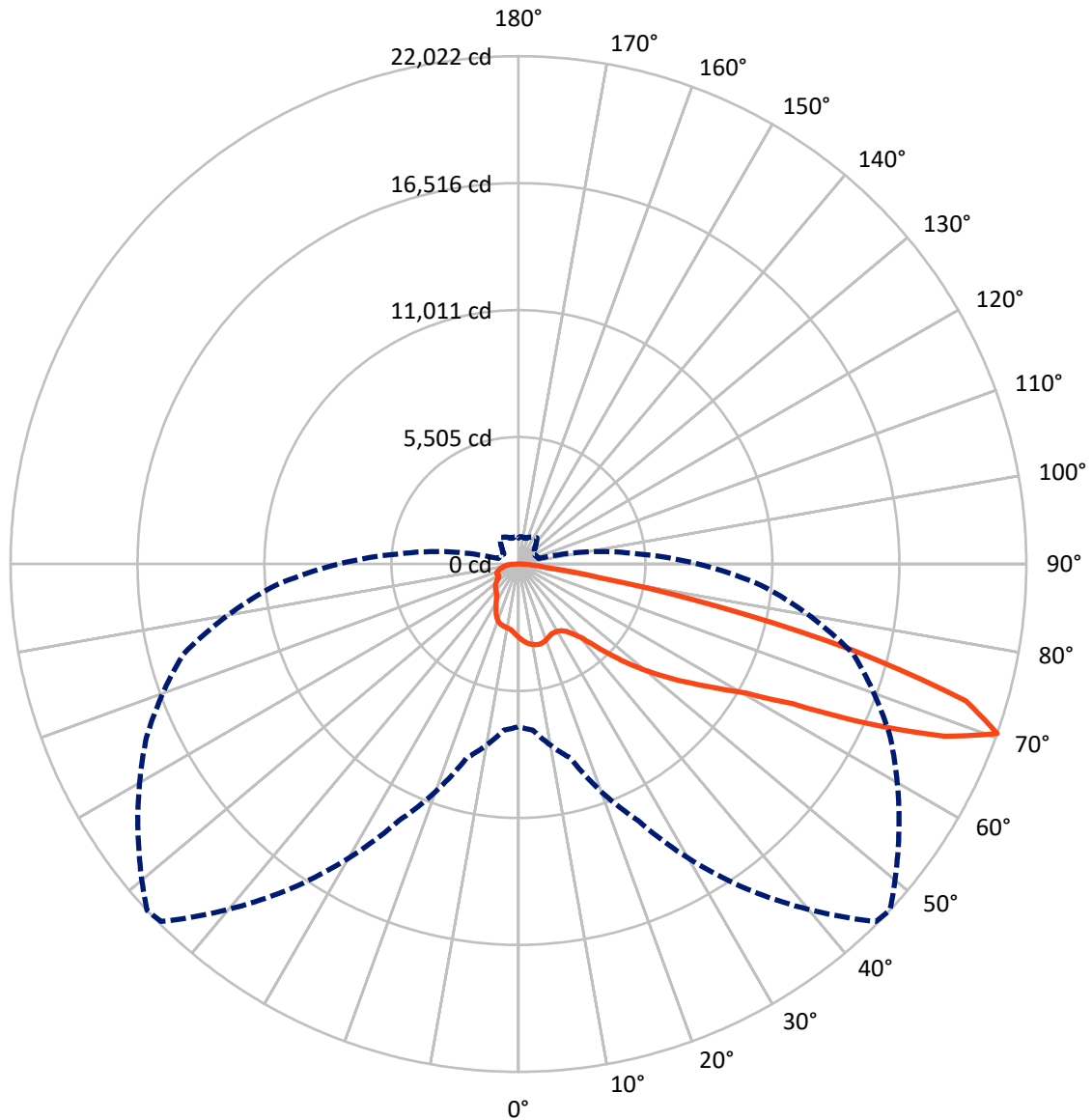
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 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 47-Deg Lateral      - - - Horizontal Cone Through 70-Deg Vertical

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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 5726.3   | 0.0    | 5726.3  |
|                    | % Fixture | 20.9     | 0.0    | 20.9    |
| <b>Street Side</b> | Lumens    | 21722.3  | 0.0    | 21722.3 |
|                    | % Fixture | 79.1     | 0.0    | 79.1    |
| <b>Total</b>       | Lumens    | 27448.7  | 0.0    | 27448.7 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 305.2   | 1.1       |
| 10°-20°   | 895.3   | 3.3       |
| 20°-30°   | 1322.1  | 4.8       |
| 30°-40°   | 1921.6  | 7.0       |
| 40°-50°   | 3458.2  | 12.6      |
| 50°-60°   | 5991.1  | 21.8      |
| 60°-70°   | 8551.0  | 31.2      |
| 70°-80°   | 4389.6  | 16.0      |
| 80°-90°   | 614.6   | 2.2       |
| 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°    | 27448.7 | 100.0     |
| 0°-180°   | 27448.7 | 100.0     |

**Coefficient of Utilization**



REPORT NUMBER: P302922

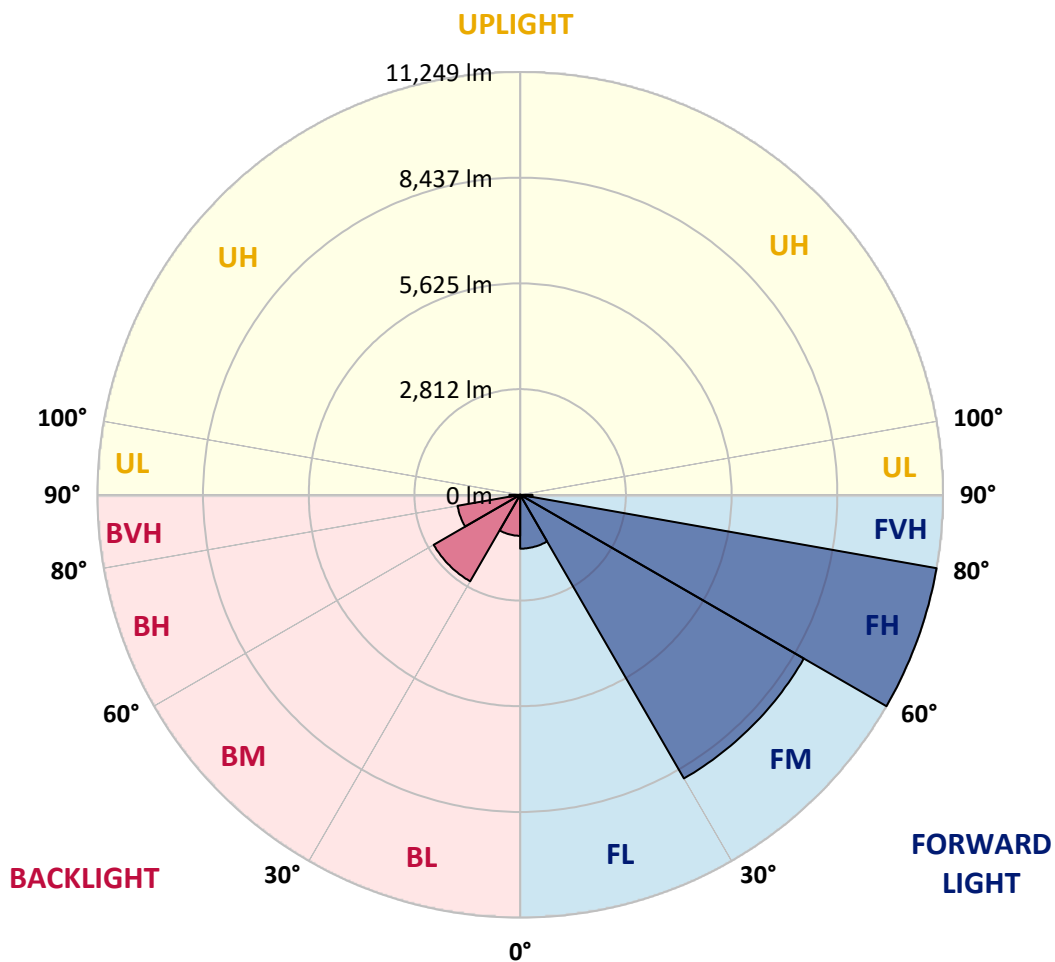
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |          |
|------|-------------|---------|-----------|-------------------------|------|----------|
|      |             |         |           | B                       | U    | G        |
| FL   | (0°-30°)    | 1432.2  | 5.2       |                         |      |          |
| FM   | (30°-60°)   | 8713.0  | 31.7      |                         |      |          |
| FH   | (60°-80°)   | 11249.2 | 41.0      |                         |      | G4/12000 |
| FVH  | (80°-90°)   | 327.9   | 1.2       |                         |      | G3/500   |
| BL   | (0°-30°)    | 1090.3  | 4.0       | B3/2500                 |      |          |
| BM   | (30°-60°)   | 2658.0  | 9.7       | B3/5000                 |      |          |
| BH   | (60°-80°)   | 1691.4  | 6.2       | B3/2500                 |      | G3/2500  |
| BVH  | (80°-90°)   | 286.6   | 1.0       |                         |      | G3/500   |
| UL   | (90°-100°)  | 0.0     | 0.0       |                         | U0/0 |          |
| UH   | (100°-180°) | 0.0     | 0.0       |                         | U0/0 |          |

**BUG Rating: B3-U0-G4**

Type IV Short





REPORT NUMBER: P302922

CATALOG NUMBER: GLNA-AF-07-LED-E1-T4W-7050-600

**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 45°     | 47°     | 55°     | 65°     | 75°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 3184.8  | 3184.8  | 3184.8  | 3184.8  | 3184.8  | 3184.8  | 3184.8  | 3184.8  | 3184.8  | 3184.8  | 3184.8  |
| 2.5°  | 3372.0  | 3365.3  | 3362.7  | 3357.4  | 3350.7  | 3317.0  | 3310.3  | 3286.4  | 3253.1  | 3218.1  | 3182.2  |
| 5°    | 3593.7  | 3592.4  | 3577.3  | 3550.7  | 3508.1  | 3434.5  | 3417.2  | 3358.7  | 3279.7  | 3203.5  | 3127.6  |
| 7.5°  | 3788.4  | 3776.5  | 3748.5  | 3694.9  | 3620.4  | 3520.1  | 3496.2  | 3414.6  | 3306.3  | 3202.1  | 3099.2  |
| 10°   | 3931.3  | 3924.6  | 3863.4  | 3789.8  | 3692.2  | 3581.3  | 3553.4  | 3462.5  | 3343.6  | 3211.4  | 3083.3  |
| 12.5° | 4012.9  | 3999.6  | 3928.6  | 3840.8  | 3724.6  | 3616.4  | 3588.0  | 3496.2  | 3362.7  | 3211.4  | 3060.6  |
| 15°   | 4007.5  | 3998.2  | 3927.3  | 3831.0  | 3713.9  | 3619.0  | 3593.7  | 3501.5  | 3358.7  | 3198.1  | 3031.4  |
| 17.5° | 3900.6  | 3904.6  | 3844.8  | 3749.9  | 3653.6  | 3581.3  | 3558.7  | 3473.6  | 3331.6  | 3171.5  | 2996.8  |
| 20°   | 3713.9  | 3732.6  | 3692.2  | 3608.4  | 3554.7  | 3505.5  | 3490.8  | 3418.6  | 3290.4  | 3132.9  | 2959.1  |
| 22.5° | 3526.8  | 3544.1  | 3528.1  | 3457.1  | 3449.2  | 3419.9  | 3411.9  | 3360.0  | 3254.5  | 3109.0  | 2936.5  |
| 25°   | 3389.3  | 3405.3  | 3402.6  | 3340.9  | 3365.3  | 3364.0  | 3357.4  | 3331.6  | 3246.5  | 3109.0  | 2940.5  |
| 27.5° | 3352.0  | 3357.4  | 3352.0  | 3295.7  | 3329.0  | 3356.0  | 3350.7  | 3346.3  | 3270.4  | 3147.6  | 2991.5  |
| 30°   | 3480.2  | 3472.2  | 3430.5  | 3317.0  | 3348.0  | 3385.3  | 3380.0  | 3382.6  | 3342.3  | 3249.1  | 3105.0  |
| 32.5° | 3991.6  | 3955.2  | 3824.4  | 3505.5  | 3423.9  | 3443.8  | 3446.5  | 3490.8  | 3497.5  | 3405.3  | 3281.1  |
| 35°   | 4756.6  | 4716.7  | 4546.8  | 4010.2  | 3660.3  | 3591.1  | 3591.1  | 3657.6  | 3697.5  | 3629.7  | 3554.7  |
| 37.5° | 5567.3  | 5523.0  | 5432.5  | 4710.0  | 4157.0  | 3846.1  | 3839.4  | 3886.0  | 3943.2  | 3959.6  | 3978.3  |
| 40°   | 6488.5  | 6441.9  | 6467.2  | 5495.1  | 4850.2  | 4287.8  | 4192.9  | 4159.7  | 4314.4  | 4417.3  | 4567.2  |
| 42.5° | 7497.1  | 7475.3  | 7484.6  | 6369.7  | 5639.2  | 4949.1  | 4814.3  | 4641.7  | 4828.9  | 5011.6  | 5325.6  |
| 45°   | 8430.2  | 8448.8  | 8439.5  | 7305.9  | 6518.2  | 5755.4  | 5612.6  | 5278.6  | 5461.8  | 5775.4  | 6287.2  |
| 47.5° | 9247.6  | 9170.0  | 9290.2  | 8328.6  | 7502.4  | 6658.4  | 6481.9  | 6034.8  | 6220.2  | 6607.4  | 7472.7  |
| 50°   | 10239.7 | 10229.1 | 10053.0 | 9693.7  | 8691.9  | 7564.9  | 7333.8  | 6815.8  | 7104.1  | 7642.5  | 8967.3  |
| 52.5° | 11282.8 | 11089.0 | 10927.6 | 10755.1 | 9954.1  | 8494.5  | 8211.1  | 7594.2  | 8143.2  | 8820.0  | 10788.8 |
| 55°   | 11496.2 | 11409.7 | 11609.7 | 11899.7 | 11170.6 | 9460.0  | 9130.0  | 8570.3  | 9313.2  | 10166.5 | 12889.2 |
| 57.5° | 11953.0 | 11951.6 | 12365.9 | 12882.6 | 12423.1 | 10484.1 | 10151.4 | 9749.6  | 10628.2 | 11708.6 | 15119.2 |
| 60°   | 12261.7 | 12348.1 | 13117.6 | 14120.4 | 13652.9 | 11667.4 | 11361.3 | 11110.3 | 12124.2 | 13432.5 | 17197.0 |
| 62.5° | 12423.1 | 12540.6 | 13590.4 | 14622.4 | 15391.5 | 13637.0 | 13331.4 | 12969.5 | 14103.1 | 15323.6 | 18412.2 |
| 65°   | 11751.6 | 11982.2 | 13516.8 | 15056.6 | 16914.0 | 16829.8 | 16692.3 | 16056.7 | 16577.4 | 16817.8 | 17973.1 |
| 67.5° | 9892.4  | 10128.8 | 11915.7 | 14651.7 | 18001.1 | 19909.5 | 19938.8 | 18853.1 | 18100.0 | 16946.0 | 15111.2 |
| 70°   | 7048.2  | 7233.6  | 8712.3  | 12284.3 | 17173.1 | 21921.7 | 22021.9 | 20141.4 | 17796.6 | 15028.3 | 10557.7 |
| 72.5° | 3346.3  | 3459.8  | 4859.5  | 7995.1  | 13627.7 | 20085.6 | 20279.4 | 18496.5 | 15132.5 | 11126.3 | 5759.4  |
| 75°   | 1229.8  | 1264.4  | 1642.3  | 3401.3  | 7904.2  | 14812.3 | 15040.7 | 13259.1 | 10031.3 | 5539.4  | 2194.0  |
| 77.5° | 737.1   | 759.7   | 921.6   | 1435.6  | 3109.0  | 8466.6  | 8804.1  | 7211.0  | 4384.1  | 2061.9  | 1079.1  |
| 80°   | 515.4   | 531.3   | 660.8   | 893.2   | 1468.9  | 3226.5  | 3526.8  | 2943.1  | 1746.5  | 1304.8  | 785.0   |
| 82.5° | 348.6   | 356.6   | 464.8   | 603.6   | 976.2   | 1152.2  | 1243.2  | 1308.8  | 1178.0  | 970.8   | 498.1   |
| 85°   | 228.4   | 236.4   | 315.3   | 397.8   | 620.9   | 595.6   | 608.9   | 770.4   | 860.0   | 659.5   | 276.3   |
| 87.5° | 130.8   | 136.2   | 189.8   | 212.4   | 304.7   | 252.4   | 255.0   | 405.8   | 550.4   | 444.8   | 168.1   |
| 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-T4W-7050-600

**CANDELA DISTRIBUTION (continued):**

|       | 90°     | 95°     | 105°   | 115°   | 125°   | 135°   | 145°   | 155°   | 165°   | 175°   | 180°   |
|-------|---------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 3184.8  | 3184.8  | 3184.8 | 3184.8 | 3184.8 | 3184.8 | 3184.8 | 3184.8 | 3184.8 | 3184.8 | 3184.8 |
| 2.5°  | 3172.9  | 3155.6  | 3117.0 | 3092.6 | 3070.0 | 3064.6 | 3055.3 | 3054.0 | 3052.7 | 3052.7 | 3048.7 |
| 5°    | 3101.9  | 3072.6  | 3012.7 | 2979.0 | 2951.1 | 2948.4 | 2947.1 | 2953.8 | 2956.4 | 2959.1 | 2955.1 |
| 7.5°  | 3056.7  | 3016.7  | 2941.8 | 2893.9 | 2860.6 | 2852.2 | 2865.9 | 2896.5 | 2916.5 | 2924.5 | 2920.5 |
| 10°   | 3028.7  | 2979.0  | 2892.6 | 2840.2 | 2812.3 | 2808.3 | 2825.6 | 2862.0 | 2903.2 | 2919.2 | 2917.8 |
| 12.5° | 2996.8  | 2940.5  | 2848.2 | 2793.7 | 2777.7 | 2785.7 | 2808.3 | 2841.6 | 2884.6 | 2909.9 | 2911.2 |
| 15°   | 2964.4  | 2899.2  | 2804.3 | 2756.4 | 2749.7 | 2760.4 | 2781.7 | 2807.0 | 2840.2 | 2865.9 | 2868.6 |
| 17.5° | 2925.8  | 2857.5  | 2763.1 | 2713.4 | 2708.1 | 2713.4 | 2714.7 | 2728.0 | 2749.7 | 2773.7 | 2780.3 |
| 20°   | 2884.6  | 2814.9  | 2716.0 | 2666.8 | 2642.9 | 2621.6 | 2597.2 | 2599.8 | 2606.5 | 2630.9 | 2636.2 |
| 22.5° | 2854.9  | 2785.7  | 2680.1 | 2611.8 | 2548.0 | 2483.6 | 2435.7 | 2429.1 | 2431.8 | 2451.7 | 2458.4 |
| 25°   | 2857.5  | 2784.3  | 2670.8 | 2553.3 | 2413.1 | 2310.2 | 2245.9 | 2235.3 | 2233.9 | 2248.6 | 2258.3 |
| 27.5° | 2909.9  | 2836.2  | 2705.4 | 2493.0 | 2266.3 | 2113.8 | 2045.9 | 2037.9 | 2027.3 | 2031.3 | 2041.9 |
| 30°   | 3026.1  | 2957.8  | 2789.7 | 2431.8 | 2107.1 | 1921.7 | 1850.8 | 1842.8 | 1828.1 | 1821.5 | 1829.5 |
| 32.5° | 3215.4  | 3159.5  | 2912.5 | 2372.8 | 1948.3 | 1757.2 | 1685.3 | 1668.0 | 1658.7 | 1650.7 | 1657.4 |
| 35°   | 3530.8  | 3506.8  | 3076.6 | 2308.9 | 1808.2 | 1630.3 | 1565.1 | 1538.5 | 1525.2 | 1539.9 | 1550.5 |
| 37.5° | 4024.8  | 4038.1  | 3291.7 | 2208.7 | 1700.0 | 1546.5 | 1491.5 | 1460.9 | 1441.0 | 1452.9 | 1464.9 |
| 40°   | 4724.7  | 4734.0  | 3529.4 | 2067.2 | 1606.4 | 1496.8 | 1438.3 | 1410.4 | 1382.0 | 1360.7 | 1359.4 |
| 42.5° | 5643.2  | 5548.7  | 3763.2 | 1913.7 | 1498.2 | 1466.2 | 1401.0 | 1366.0 | 1323.4 | 1264.4 | 1252.5 |
| 45°   | 6732.9  | 6400.7  | 3940.6 | 1737.2 | 1376.6 | 1429.0 | 1359.4 | 1311.5 | 1244.5 | 1180.6 | 1174.0 |
| 47.5° | 7988.5  | 7315.2  | 4027.5 | 1554.5 | 1263.1 | 1374.0 | 1308.8 | 1232.5 | 1148.2 | 1116.3 | 1112.3 |
| 50°   | 9521.2  | 8400.9  | 4068.7 | 1376.6 | 1164.7 | 1302.1 | 1235.2 | 1145.6 | 1075.1 | 1068.4 | 1064.4 |
| 52.5° | 11266.9 | 9707.0  | 4082.5 | 1231.2 | 1083.0 | 1208.6 | 1175.3 | 1088.4 | 1032.0 | 1037.8 | 1037.8 |
| 55°   | 13093.7 | 11055.8 | 3900.6 | 1125.6 | 1008.1 | 1112.3 | 1134.9 | 1065.7 | 1018.7 | 1040.5 | 1048.5 |
| 57.5° | 14770.6 | 12251.0 | 3329.0 | 1044.5 | 937.6  | 1039.1 | 1120.3 | 1087.0 | 1055.1 | 1141.6 | 1146.9 |
| 60°   | 16058.1 | 12957.1 | 2486.3 | 970.8  | 885.2  | 1013.4 | 1159.3 | 1168.6 | 1176.6 | 1383.3 | 1411.7 |
| 62.5° | 16327.7 | 12722.5 | 1709.3 | 913.6  | 861.3  | 1035.1 | 1229.8 | 1231.2 | 1221.9 | 1366.0 | 1383.3 |
| 65°   | 15089.9 | 11235.8 | 1243.2 | 881.2  | 841.3  | 1073.7 | 1290.2 | 1261.8 | 1200.6 | 1310.1 | 1277.7 |
| 67.5° | 11983.6 | 8465.2  | 1035.1 | 857.3  | 812.1  | 1071.1 | 1354.0 | 1290.2 | 1188.6 | 1283.5 | 1231.2 |
| 70°   | 7778.7  | 5118.5  | 921.6  | 837.3  | 777.0  | 1020.1 | 1391.3 | 1287.5 | 1153.6 | 1193.9 | 1132.3 |
| 72.5° | 3795.1  | 2288.9  | 845.3  | 808.1  | 741.1  | 949.5  | 1390.0 | 1263.1 | 1117.6 | 1115.0 | 1081.7 |
| 75°   | 1484.9  | 1048.5  | 775.7  | 763.7  | 679.9  | 869.3  | 1352.7 | 1228.5 | 1075.1 | 1032.0 | 1020.1 |
| 77.5° | 869.3   | 747.8   | 687.9  | 698.5  | 606.3  | 789.0  | 1298.1 | 1168.6 | 1016.1 | 965.5  | 952.2  |
| 80°   | 632.9   | 559.7   | 586.3  | 603.6  | 518.0  | 709.2  | 1224.5 | 1095.0 | 950.9  | 976.2  | 957.5  |
| 82.5° | 405.8   | 360.6   | 475.4  | 492.7  | 431.5  | 627.6  | 1144.2 | 1017.4 | 858.6  | 779.7  | 761.1  |
| 85°   | 207.1   | 228.4   | 353.9  | 375.2  | 332.6  | 515.4  | 1047.1 | 915.0  | 754.4  | 648.9  | 659.5  |
| 87.5° | 116.2   | 156.1   | 225.7  | 252.4  | 235.1  | 396.5  | 849.3  | 754.4  | 615.6  | 500.7  | 440.8  |
| 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)