

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: P299736

Luminaire Tested: **GLNA-AF-07-LED-E1-5MQ-7060-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299736
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24142)
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-E1-5MQ-7060-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(7) 70 CRI, 5700K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III
w/Spill Control OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 29037.5 lumens
Efficiency: N/A
Efficacy: 128.5 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B5 - U0 - G3

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

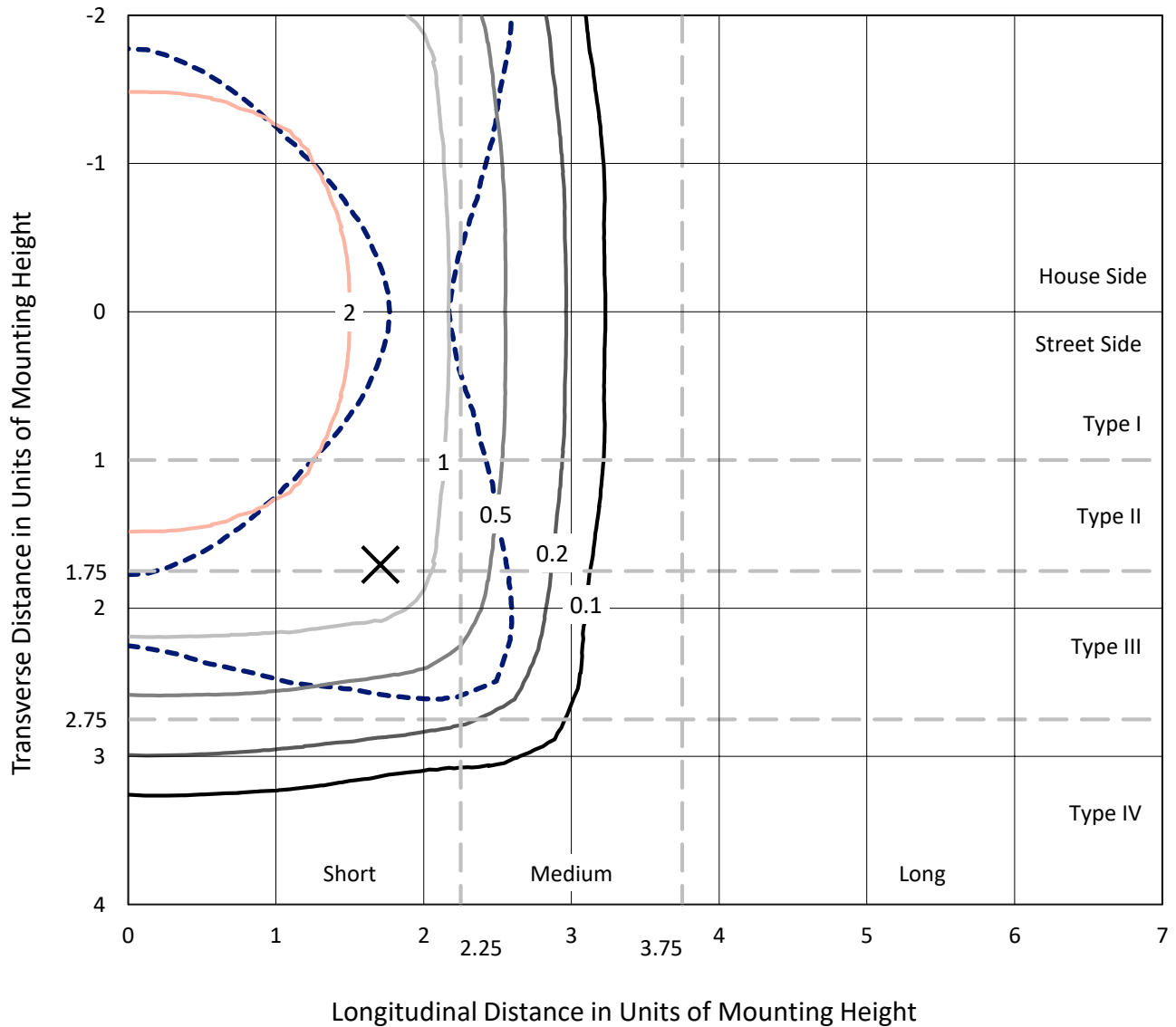


REPORT NUMBER: P299736

CATALOG NUMBER: GLNA-AF-07-LED-E1-5MQ-7060-600

Iso-Footcandle Lines of Horizontal Illumination

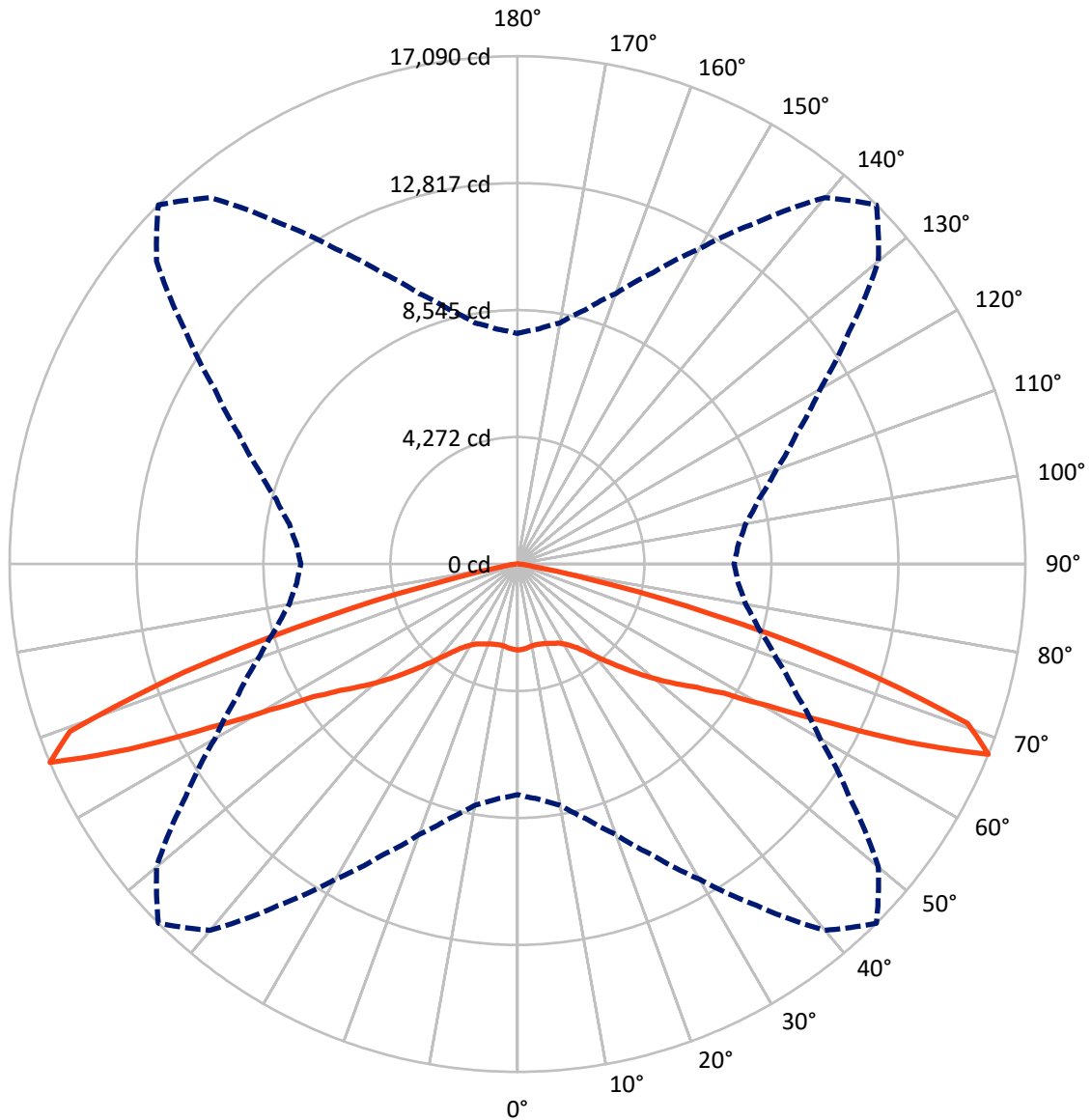
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.6 fc
 Type V - Short - Full Cutoff

REPORT NUMBER: P299736
CATALOG NUMBER: GLNA-AF-07-LED-E1-5MQ-7060-600

Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

REPORT NUMBER: P299736

CATALOG NUMBER: GLNA-AF-07-LED-E1-5MQ-7060-600

FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 14518.7 | 0.0 | 14518.7 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Street Side | Lumens | 14518.7 | 0.0 | 14518.7 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Total | Lumens | 29037.5 | 0.0 | 29037.5 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 270.8 | 0.9 |
| 10°-20° | 785.9 | 2.7 |
| 20°-30° | 1336.0 | 4.6 |
| 30°-40° | 2184.0 | 7.5 |
| 40°-50° | 3898.9 | 13.4 |
| 50°-60° | 6573.6 | 22.6 |
| 60°-70° | 10201.3 | 35.1 |
| 70°-80° | 3584.3 | 12.3 |
| 80°-90° | 202.6 | 0.7 |
| 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° | 29037.5 | 100.0 |
| 0°-180° | 29037.5 | 100.0 |



REPORT NUMBER: P299736

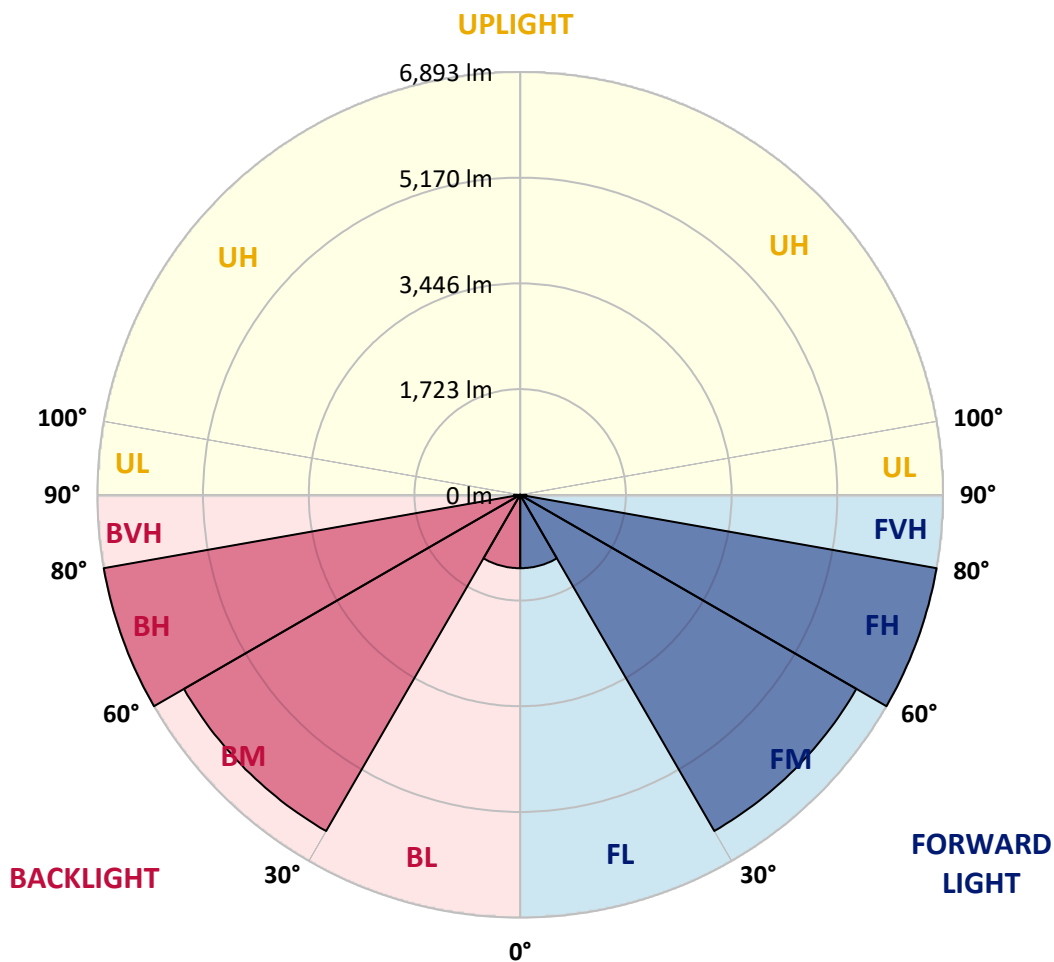
CATALOG NUMBER: GLNA-AF-07-LED-E1-5MQ-7060-600

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 1196.4 | 4.1 | | | |
| FM | (30°-60°) | 6328.3 | 21.8 | | | |
| FH | (60°-80°) | 6892.8 | 23.7 | | | G3/7500 |
| FVH | (80°-90°) | 101.3 | 0.3 | | | G2/225 |
| BL | (0°-30°) | 1196.4 | 4.1 | B3/2500 | | |
| BM | (30°-60°) | 6328.3 | 21.8 | B4/8500 | | |
| BH | (60°-80°) | 6892.8 | 23.7 | B5 | | G3/7500 |
| BVH | (80°-90°) | 101.3 | 0.3 | | | G2/225 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B5-U0-G3

Type V Short





REPORT NUMBER: P299736

CATALOG NUMBER: GLNA-AF-07-LED-E1-5MQ-7060-600

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° |
|-------|--------|--------|--------|--------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 2893.7 | 2893.7 | 2893.7 | 2893.7 | 2893.7 | 2893.7 | 2893.7 | 2893.7 | 2893.7 | 2893.7 | 2893.7 |
| 2.5° | 2883.0 | 2885.7 | 2885.7 | 2885.7 | 2884.4 | 2884.4 | 2881.7 | 2884.4 | 2883.0 | 2879.0 | 2880.4 |
| 5° | 2859.0 | 2861.7 | 2861.7 | 2860.3 | 2864.3 | 2863.0 | 2859.0 | 2861.7 | 2860.3 | 2857.7 | 2859.0 |
| 7.5° | 2824.3 | 2828.3 | 2828.3 | 2826.9 | 2830.9 | 2829.6 | 2826.9 | 2828.3 | 2828.3 | 2824.3 | 2824.3 |
| 10° | 2785.5 | 2788.2 | 2788.2 | 2786.9 | 2793.6 | 2793.6 | 2792.2 | 2796.2 | 2797.6 | 2793.6 | 2790.9 |
| 12.5° | 2749.5 | 2753.5 | 2753.5 | 2758.8 | 2765.5 | 2768.2 | 2774.9 | 2780.2 | 2785.5 | 2784.2 | 2778.9 |
| 15° | 2728.1 | 2730.8 | 2736.1 | 2742.8 | 2753.5 | 2762.8 | 2773.5 | 2785.5 | 2796.2 | 2798.9 | 2790.9 |
| 17.5° | 2714.8 | 2718.8 | 2726.8 | 2736.1 | 2750.8 | 2766.8 | 2782.9 | 2798.9 | 2813.6 | 2818.9 | 2809.6 |
| 20° | 2710.8 | 2713.4 | 2721.4 | 2737.5 | 2757.5 | 2781.5 | 2804.2 | 2822.9 | 2843.0 | 2849.6 | 2843.0 |
| 22.5° | 2718.8 | 2724.1 | 2733.5 | 2752.2 | 2778.9 | 2809.6 | 2836.3 | 2861.7 | 2887.0 | 2899.0 | 2889.7 |
| 25° | 2754.8 | 2760.2 | 2772.2 | 2796.2 | 2825.6 | 2857.7 | 2888.4 | 2917.7 | 2940.4 | 2952.5 | 2945.8 |
| 27.5° | 2821.6 | 2828.3 | 2843.0 | 2867.0 | 2899.0 | 2933.8 | 2967.2 | 2991.2 | 3009.9 | 3013.9 | 3005.9 |
| 30° | 2921.7 | 2936.4 | 2953.8 | 2980.5 | 3017.9 | 3047.3 | 3080.7 | 3102.0 | 3124.7 | 3124.7 | 3118.0 |
| 32.5° | 3078.0 | 3092.7 | 3111.4 | 3136.7 | 3166.1 | 3198.2 | 3227.5 | 3246.2 | 3270.3 | 3271.6 | 3255.6 |
| 35° | 3311.7 | 3318.3 | 3334.4 | 3350.4 | 3377.1 | 3405.1 | 3430.5 | 3442.5 | 3462.6 | 3463.9 | 3449.2 |
| 37.5° | 3620.1 | 3621.5 | 3632.2 | 3637.5 | 3661.5 | 3692.2 | 3716.3 | 3724.3 | 3743.0 | 3740.3 | 3725.6 |
| 40° | 3979.3 | 3986.0 | 3990.0 | 3998.0 | 4023.4 | 4052.8 | 4078.2 | 4082.2 | 4102.2 | 4098.2 | 4079.5 |
| 42.5° | 4394.6 | 4397.3 | 4420.0 | 4432.0 | 4456.1 | 4470.8 | 4502.8 | 4506.8 | 4530.8 | 4520.2 | 4498.8 |
| 45° | 4860.7 | 4884.7 | 4906.1 | 4930.1 | 4955.5 | 4972.9 | 4998.2 | 4992.9 | 5008.9 | 4992.9 | 4980.9 |
| 47.5° | 5350.8 | 5368.1 | 5416.2 | 5453.6 | 5495.0 | 5509.7 | 5545.7 | 5529.7 | 5545.7 | 5523.0 | 5519.0 |
| 50° | 5890.2 | 5921.0 | 5962.3 | 6005.1 | 6049.1 | 6073.2 | 6119.9 | 6099.9 | 6121.3 | 6099.9 | 6087.9 |
| 52.5° | 6421.7 | 6429.7 | 6520.5 | 6583.3 | 6644.7 | 6672.8 | 6700.8 | 6691.4 | 6692.8 | 6691.4 | 6679.4 |
| 55° | 6926.5 | 6945.2 | 7036.0 | 7121.4 | 7228.3 | 7307.0 | 7355.1 | 7349.8 | 7337.8 | 7325.7 | 7305.7 |
| 57.5° | 7495.3 | 7514.0 | 7618.2 | 7723.7 | 7845.2 | 7957.4 | 8054.8 | 8155.0 | 8193.7 | 8204.4 | 8160.3 |
| 60° | 8264.5 | 8263.2 | 8402.0 | 8530.2 | 8703.8 | 8870.7 | 9084.4 | 9302.1 | 9551.8 | 9667.9 | 9514.4 |
| 62.5° | 9047.0 | 9079.1 | 9279.4 | 9506.4 | 9864.2 | 10212.8 | 10606.7 | 10994.0 | 11389.2 | 11711.0 | 11369.2 |
| 65° | 8953.5 | 9076.4 | 9374.2 | 9888.3 | 10549.3 | 11334.5 | 12183.8 | 13082.4 | 13894.3 | 14452.5 | 13826.2 |
| 67.5° | 7759.7 | 7934.7 | 8237.8 | 8862.7 | 9689.3 | 10821.7 | 12247.8 | 14025.2 | 16091.0 | 17089.8 | 15852.0 |
| 70° | 5624.5 | 5822.1 | 6139.9 | 6750.2 | 7568.8 | 8645.1 | 10194.1 | 12328.0 | 15062.8 | 16069.6 | 14706.2 |
| 72.5° | 2798.9 | 2905.7 | 3102.0 | 3490.6 | 4110.2 | 4983.5 | 6388.3 | 8439.4 | 10859.1 | 11783.1 | 10537.3 |
| 75° | 950.8 | 1000.2 | 1033.6 | 1160.4 | 1356.7 | 1699.9 | 2398.3 | 3689.6 | 5628.5 | 6747.5 | 5548.4 |
| 77.5° | 548.8 | 550.2 | 572.9 | 595.6 | 629.0 | 666.3 | 759.8 | 997.5 | 1725.3 | 2450.4 | 1785.4 |
| 80° | 355.2 | 353.9 | 372.6 | 389.9 | 412.6 | 431.3 | 436.7 | 462.0 | 532.8 | 631.6 | 564.9 |
| 82.5° | 184.3 | 207.0 | 248.4 | 271.1 | 313.8 | 321.8 | 311.1 | 301.8 | 319.1 | 331.2 | 339.2 |
| 85° | 101.5 | 88.1 | 132.2 | 170.9 | 189.6 | 192.3 | 192.3 | 181.6 | 188.3 | 184.3 | 200.3 |
| 87.5° | 46.7 | 42.7 | 52.1 | 84.1 | 89.5 | 76.1 | 80.1 | 70.8 | 50.7 | 49.4 | 56.1 |
| 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: P299736

CATALOG NUMBER: GLNA-AF-07-LED-E1-5MQ-7060-600

CANDELA DISTRIBUTION (continued):

| | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° |
|-------|---------|---------|---------|---------|--------|--------|--------|--------|
| 0° | 2893.7 | 2893.7 | 2893.7 | 2893.7 | 2893.7 | 2893.7 | 2893.7 | 2893.7 |
| 2.5° | 2880.4 | 2881.7 | 2881.7 | 2885.7 | 2887.0 | 2889.7 | 2892.4 | 2893.7 |
| 5° | 2857.7 | 2861.7 | 2859.0 | 2863.0 | 2863.0 | 2865.7 | 2865.7 | 2867.0 |
| 7.5° | 2824.3 | 2828.3 | 2828.3 | 2828.3 | 2826.9 | 2830.9 | 2830.9 | 2830.9 |
| 10° | 2789.6 | 2792.2 | 2790.9 | 2788.2 | 2785.5 | 2789.6 | 2788.2 | 2786.9 |
| 12.5° | 2778.9 | 2772.2 | 2766.8 | 2764.2 | 2758.8 | 2760.2 | 2756.2 | 2756.2 |
| 15° | 2785.5 | 2773.5 | 2764.2 | 2760.2 | 2754.8 | 2752.2 | 2749.5 | 2750.8 |
| 17.5° | 2802.9 | 2788.2 | 2776.2 | 2769.5 | 2762.8 | 2758.8 | 2753.5 | 2754.8 |
| 20° | 2833.6 | 2816.3 | 2798.9 | 2785.5 | 2773.5 | 2766.8 | 2762.8 | 2761.5 |
| 22.5° | 2879.0 | 2853.6 | 2828.3 | 2808.2 | 2792.2 | 2782.9 | 2778.9 | 2776.2 |
| 25° | 2931.1 | 2903.1 | 2873.7 | 2851.0 | 2835.0 | 2822.9 | 2814.9 | 2814.9 |
| 27.5° | 2996.5 | 2973.8 | 2947.1 | 2920.4 | 2905.7 | 2893.7 | 2888.4 | 2885.7 |
| 30° | 3106.0 | 3084.7 | 3063.3 | 3037.9 | 3019.2 | 3007.2 | 2997.9 | 2989.9 |
| 32.5° | 3246.2 | 3228.9 | 3211.5 | 3192.8 | 3175.5 | 3159.4 | 3144.8 | 3138.1 |
| 35° | 3443.9 | 3430.5 | 3418.5 | 3397.1 | 3390.5 | 3381.1 | 3373.1 | 3366.4 |
| 37.5° | 3716.3 | 3710.9 | 3710.9 | 3688.2 | 3682.9 | 3678.9 | 3670.9 | 3672.2 |
| 40° | 4074.2 | 4079.5 | 4072.8 | 4064.8 | 4060.8 | 4050.1 | 4050.1 | 4059.5 |
| 42.5° | 4497.5 | 4501.5 | 4516.2 | 4502.8 | 4517.5 | 4504.1 | 4496.1 | 4502.8 |
| 45° | 4988.9 | 5003.6 | 5032.9 | 5019.6 | 5028.9 | 5006.2 | 4978.2 | 4979.5 |
| 47.5° | 5540.4 | 5553.7 | 5565.7 | 5556.4 | 5557.7 | 5520.3 | 5483.0 | 5473.6 |
| 50° | 6113.2 | 6118.6 | 6125.3 | 6111.9 | 6114.6 | 6073.2 | 6030.4 | 6031.8 |
| 52.5° | 6679.4 | 6704.8 | 6731.5 | 6695.5 | 6687.4 | 6640.7 | 6580.6 | 6556.6 |
| 55° | 7327.1 | 7363.1 | 7332.4 | 7269.7 | 7206.9 | 7144.1 | 7065.3 | 7052.0 |
| 57.5° | 8125.6 | 8064.2 | 7968.0 | 7849.2 | 7762.4 | 7674.3 | 7594.1 | 7560.8 |
| 60° | 9236.6 | 9005.6 | 8832.0 | 8655.8 | 8544.9 | 8436.8 | 8331.3 | 8315.2 |
| 62.5° | 10807.0 | 10407.7 | 10061.9 | 9697.3 | 9399.5 | 9167.2 | 8981.6 | 8929.5 |
| 65° | 12775.3 | 11831.2 | 11012.6 | 10248.8 | 9585.2 | 9084.4 | 8769.3 | 8630.4 |
| 67.5° | 13621.9 | 11757.8 | 10354.3 | 9270.0 | 8402.0 | 7795.8 | 7455.3 | 7285.7 |
| 70° | 11970.1 | 9750.7 | 8224.4 | 7138.8 | 6348.3 | 5702.0 | 5393.5 | 5211.9 |
| 72.5° | 8235.1 | 6202.7 | 4904.7 | 4003.4 | 3371.8 | 2830.9 | 2617.3 | 2601.3 |
| 75° | 3697.6 | 2449.0 | 1687.9 | 1300.6 | 1095.0 | 952.1 | 908.0 | 874.7 |
| 77.5° | 1034.9 | 765.2 | 682.4 | 638.3 | 595.6 | 546.2 | 527.5 | 531.5 |
| 80° | 503.4 | 475.4 | 456.7 | 428.6 | 389.9 | 348.5 | 329.8 | 337.8 |
| 82.5° | 333.8 | 329.8 | 341.9 | 321.8 | 265.7 | 225.7 | 189.6 | 173.6 |
| 85° | 203.0 | 205.6 | 209.7 | 211.0 | 178.9 | 125.5 | 85.5 | 96.1 |
| 87.5° | 80.1 | 92.1 | 100.2 | 104.2 | 97.5 | 60.1 | 48.1 | 49.4 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)