

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: P300991

Luminaire Tested: **GLNA-AF-06-LED-E1-SL4-7030-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P300991
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-06-LED-E1-SL4-7030-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(6) 70 CRI, 3000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V
Square Wide OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21480.9 lumens
Efficiency: N/A
Efficacy: 111.3 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G4

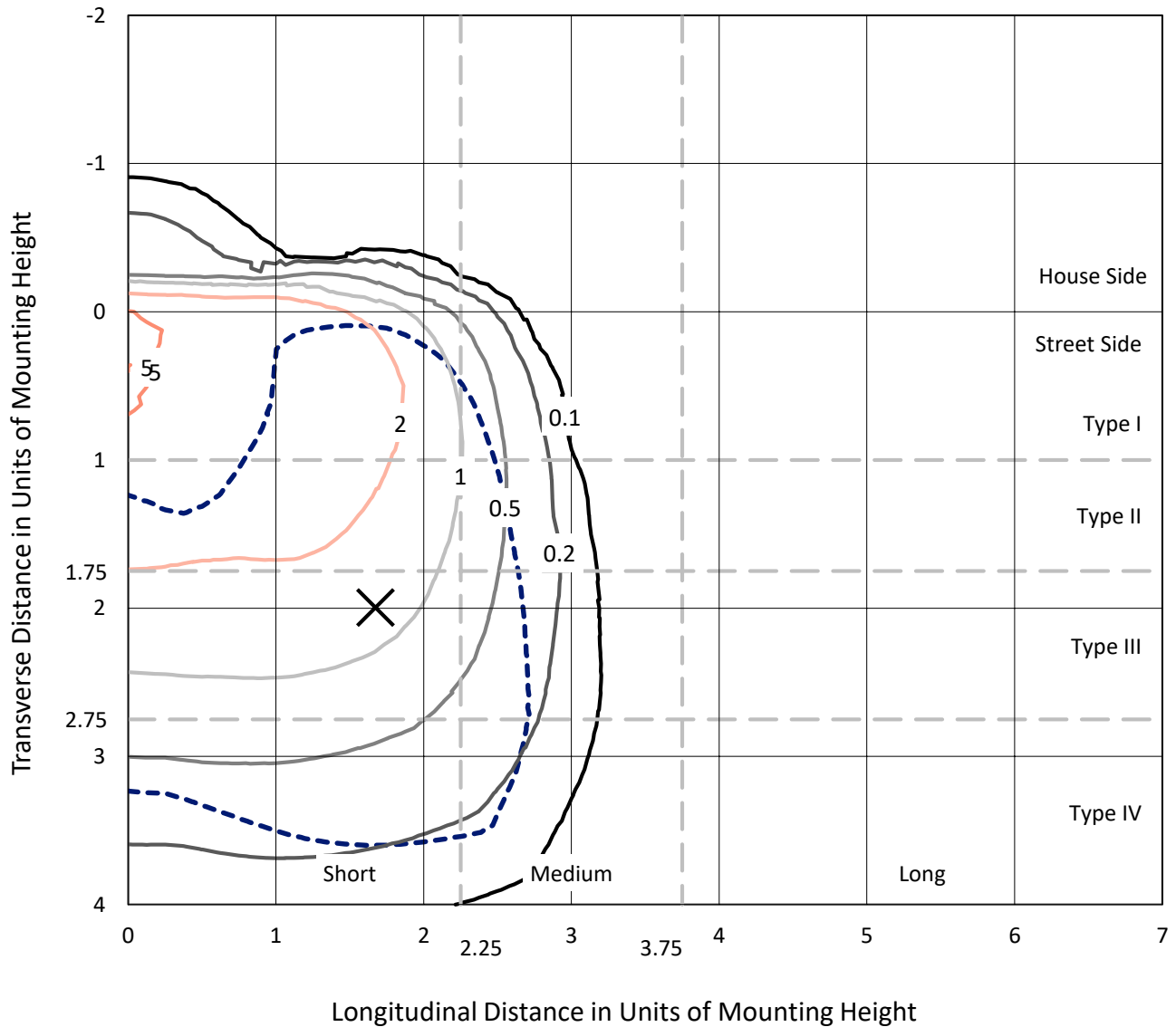
Input Watts (W): 193
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P300991
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Iso-Footcandle Lines of Horizontal Illumination

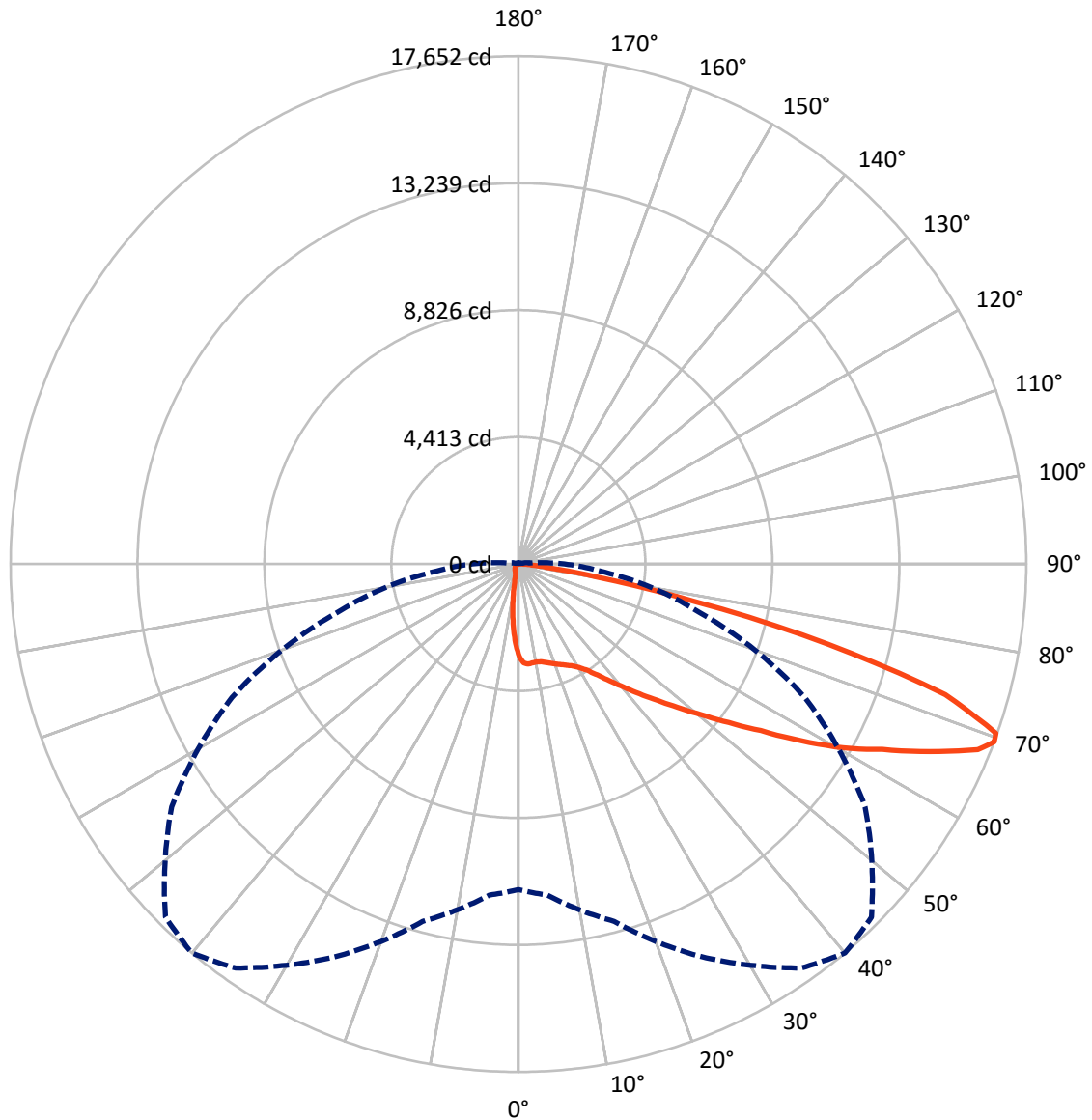
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.6 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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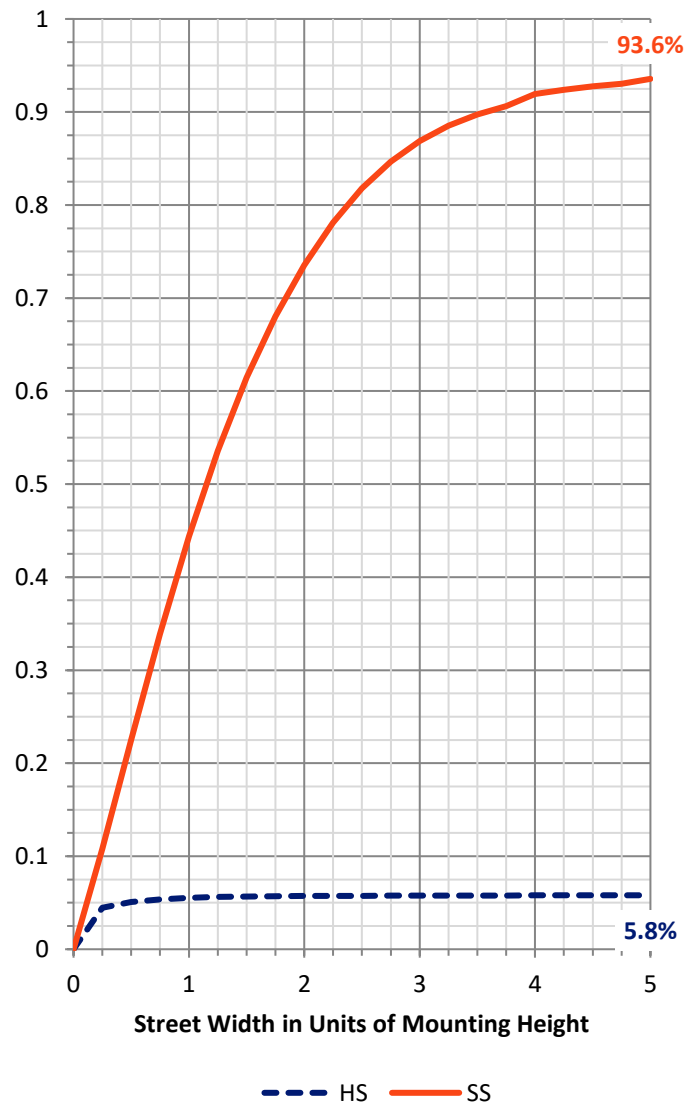
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 1256.8 | 0.0 | 1256.8 |
| | % Fixture | 5.9 | 0.0 | 5.9 |
| Street Side | Lumens | 20224.2 | 0.0 | 20224.2 |
| | % Fixture | 94.1 | 0.0 | 94.1 |
| Total | Lumens | 21480.9 | 0.0 | 21480.9 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 260.2 | 1.2 |
| 10°-20° | 639.9 | 3.0 |
| 20°-30° | 1077.8 | 5.0 |
| 30°-40° | 1764.5 | 8.2 |
| 40°-50° | 3055.1 | 14.2 |
| 50°-60° | 4812.1 | 22.4 |
| 60°-70° | 6284.4 | 29.3 |
| 70°-80° | 3236.8 | 15.1 |
| 80°-90° | 350.1 | 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° | 21480.9 | 100.0 |
| 0°-180° | 21480.9 | 100.0 |

Coefficient of Utilization



REPORT NUMBER: P300991

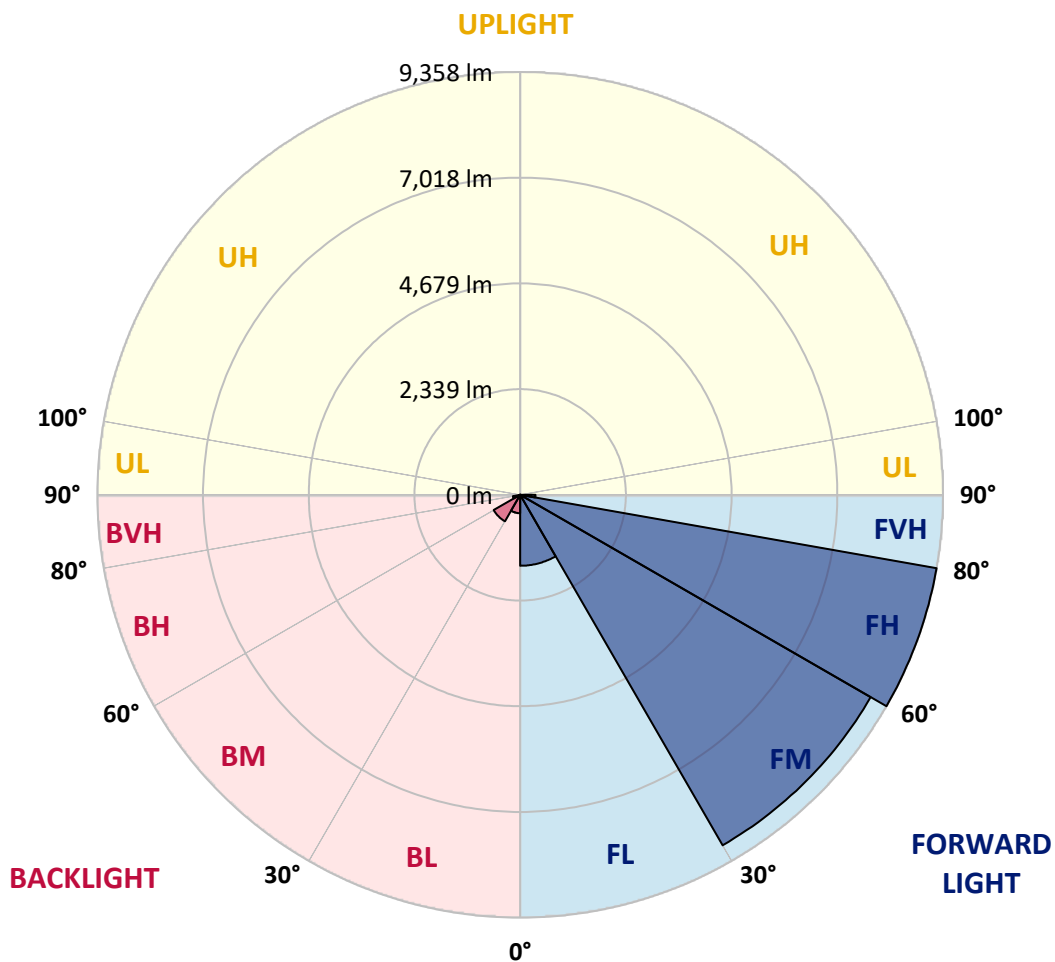
CATALOG NUMBER: GLNA-AF-06-LED-E1-SL4-7030-600

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|----------|
| | | | | B | U | G |
| FL | (0°-30°) | 1570.9 | 7.3 | | | |
| FM | (30°-60°) | 8956.2 | 41.7 | | | |
| FH | (60°-80°) | 9358.0 | 43.6 | | | G4/12000 |
| FVH | (80°-90°) | 339.1 | 1.6 | | | G3/500 |
| BL | (0°-30°) | 407.1 | 1.9 | B1/500 | | |
| BM | (30°-60°) | 675.5 | 3.1 | B1/1000 | | |
| BH | (60°-80°) | 163.2 | 0.8 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 11.0 | 0.1 | | | G1/100 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B1-U0-G4

Type IV Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 40° | 45° | 55° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|--------|
| 0° | 3209.4 | 3209.4 | 3209.4 | 3209.4 | 3209.4 | 3209.4 | 3209.4 | 3209.4 | 3209.4 | 3209.4 | 3209.4 |
| 2.5° | 3523.9 | 3504.7 | 3493.2 | 3477.9 | 3458.7 | 3442.1 | 3435.7 | 3388.4 | 3343.6 | 3282.2 | 3211.9 |
| 5° | 3589.1 | 3582.7 | 3562.3 | 3541.8 | 3518.8 | 3493.2 | 3479.1 | 3422.9 | 3359.0 | 3269.5 | 3146.7 |
| 7.5° | 3595.5 | 3587.8 | 3562.3 | 3534.1 | 3502.2 | 3471.5 | 3447.2 | 3390.9 | 3332.1 | 3241.3 | 3091.7 |
| 10° | 3585.3 | 3576.3 | 3557.1 | 3526.5 | 3486.8 | 3457.4 | 3433.1 | 3379.4 | 3329.5 | 3247.7 | 3081.5 |
| 12.5° | 3573.8 | 3564.8 | 3555.9 | 3540.5 | 3506.0 | 3485.5 | 3465.1 | 3413.9 | 3369.2 | 3300.1 | 3118.6 |
| 15° | 3585.3 | 3580.2 | 3590.4 | 3584.0 | 3564.8 | 3546.9 | 3526.5 | 3480.4 | 3439.5 | 3382.0 | 3186.3 |
| 17.5° | 3633.9 | 3633.9 | 3665.8 | 3669.7 | 3651.8 | 3626.2 | 3596.8 | 3550.8 | 3516.2 | 3467.6 | 3266.9 |
| 20° | 3747.7 | 3743.8 | 3784.7 | 3792.4 | 3748.9 | 3709.3 | 3665.8 | 3609.6 | 3582.7 | 3552.0 | 3346.2 |
| 22.5° | 3943.3 | 3925.4 | 3949.7 | 3942.0 | 3856.3 | 3795.0 | 3741.3 | 3672.2 | 3658.2 | 3644.1 | 3434.4 |
| 25° | 4197.7 | 4187.5 | 4204.1 | 4128.7 | 3977.8 | 3894.7 | 3830.8 | 3752.8 | 3752.8 | 3766.8 | 3534.1 |
| 27.5° | 4567.3 | 4528.9 | 4472.6 | 4339.7 | 4113.3 | 4007.2 | 3938.2 | 3855.1 | 3876.8 | 3929.2 | 3665.8 |
| 30° | 4945.7 | 4903.5 | 4774.4 | 4569.8 | 4278.3 | 4167.1 | 4086.5 | 3999.6 | 4050.7 | 4146.6 | 3842.3 |
| 32.5° | 5319.1 | 5271.8 | 5088.9 | 4830.7 | 4514.8 | 4403.6 | 4325.6 | 4229.7 | 4315.4 | 4476.5 | 4100.6 |
| 35° | 5680.9 | 5638.8 | 5427.8 | 5123.5 | 4829.4 | 4737.3 | 4665.7 | 4582.6 | 4692.6 | 4917.6 | 4465.0 |
| 37.5° | 6087.6 | 6041.5 | 5784.5 | 5454.6 | 5211.7 | 5145.2 | 5092.8 | 5009.7 | 5201.5 | 5531.3 | 4972.6 |
| 40° | 6587.5 | 6509.5 | 6163.0 | 5834.4 | 5654.1 | 5622.1 | 5586.3 | 5574.8 | 5872.7 | 6329.2 | 5649.0 |
| 42.5° | 7160.3 | 7032.5 | 6559.4 | 6234.6 | 6140.0 | 6163.0 | 6154.0 | 6205.2 | 6712.8 | 7321.4 | 6472.4 |
| 45° | 7733.1 | 7568.2 | 7000.5 | 6661.7 | 6674.4 | 6755.0 | 6804.9 | 7009.4 | 7765.1 | 8459.4 | 7358.5 |
| 47.5° | 8219.0 | 8056.6 | 7423.7 | 7123.2 | 7276.7 | 7435.2 | 7570.8 | 7958.2 | 8846.8 | 9579.5 | 8047.7 |
| 50° | 8634.6 | 8481.1 | 7872.5 | 7630.9 | 7976.1 | 8231.8 | 8451.7 | 9025.8 | 10010.4 | 10432.3 | 8531.0 |
| 52.5° | 8974.7 | 8872.4 | 8337.9 | 8212.6 | 8775.2 | 9149.9 | 9472.1 | 10160.0 | 11041.0 | 11125.3 | 8906.9 |
| 55° | 9305.9 | 9233.0 | 8837.9 | 8904.4 | 9713.7 | 10223.9 | 10631.8 | 11363.2 | 11928.3 | 11703.3 | 9267.5 |
| 57.5° | 9686.9 | 9620.4 | 9408.1 | 9781.5 | 10947.6 | 11589.5 | 12034.5 | 12429.5 | 12709.6 | 12294.0 | 9607.6 |
| 60° | 10075.6 | 10037.2 | 10042.3 | 10755.8 | 12364.3 | 12980.6 | 13226.1 | 13328.4 | 13476.7 | 12850.2 | 9626.8 |
| 62.5° | 10446.4 | 10519.3 | 10767.3 | 11840.1 | 13721.0 | 14194.1 | 14318.1 | 14419.1 | 14245.2 | 12938.4 | 8894.1 |
| 65° | 11074.2 | 11193.1 | 11785.1 | 13291.3 | 15213.1 | 15719.5 | 15847.3 | 15500.8 | 14366.7 | 11797.9 | 7234.5 |
| 67.5° | 11381.1 | 11598.4 | 12654.6 | 14644.1 | 16660.5 | 17223.1 | 17175.8 | 15571.1 | 12892.4 | 8996.4 | 4642.7 |
| 69° | 11317.1 | 11548.6 | 12855.3 | 15058.4 | 17141.3 | 17651.5 | 17351.0 | 14710.6 | 10983.4 | 6517.2 | 2850.1 |
| 70° | 11064.0 | 11298.0 | 12751.8 | 15043.1 | 17202.7 | 17606.7 | 17026.2 | 13648.1 | 9286.7 | 4765.4 | 1782.4 |
| 72.5° | 9239.4 | 9441.4 | 11321.0 | 13596.9 | 15847.3 | 15518.7 | 14243.9 | 9455.5 | 4525.1 | 1297.8 | 401.5 |
| 75° | 5687.3 | 5799.9 | 8123.1 | 10243.1 | 11969.2 | 11125.3 | 9490.0 | 4704.1 | 1349.0 | 367.0 | 222.5 |
| 77.5° | 3004.8 | 3055.9 | 4447.1 | 6037.7 | 7587.4 | 6278.1 | 4863.9 | 1834.8 | 621.4 | 230.2 | 161.1 |
| 80° | 1776.0 | 1814.4 | 2394.9 | 2760.6 | 3283.5 | 2742.7 | 1944.8 | 1126.5 | 445.0 | 144.5 | 143.2 |
| 82.5° | 1016.5 | 1040.8 | 1736.4 | 1534.4 | 1294.0 | 1104.7 | 967.9 | 1067.7 | 267.2 | 97.2 | 148.3 |
| 85° | 373.4 | 378.5 | 976.9 | 1167.4 | 769.7 | 457.7 | 480.8 | 884.8 | 71.6 | 61.4 | 116.4 |
| 87.5° | 173.9 | 170.1 | 502.5 | 714.8 | 450.1 | 290.2 | 374.6 | 194.4 | 28.1 | 39.6 | 32.0 |
| 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: P300991

CATALOG NUMBER: GLNA-AF-06-LED-E1-SL4-7030-600

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 3209.4 | 3209.4 | 3209.4 | 3209.4 | 3209.4 | 3209.4 | 3209.4 | 3209.4 | 3209.4 | 3209.4 | 3209.4 |
| 2.5° | 3171.0 | 3123.7 | 3038.0 | 2949.8 | 2860.3 | 2791.2 | 2723.5 | 2669.8 | 2651.9 | 2618.6 | 2621.2 |
| 5° | 3073.8 | 2986.9 | 2807.9 | 2626.3 | 2437.1 | 2281.1 | 2134.0 | 2015.1 | 1957.6 | 1898.8 | 1898.8 |
| 7.5° | 2989.4 | 2862.8 | 2582.8 | 2287.5 | 1981.9 | 1724.9 | 1493.4 | 1319.5 | 1223.6 | 1146.9 | 1145.7 |
| 10° | 2957.5 | 2786.1 | 2394.9 | 1971.6 | 1545.9 | 1195.5 | 920.6 | 744.2 | 653.4 | 594.6 | 592.0 |
| 12.5° | 2971.5 | 2759.3 | 2250.4 | 1680.1 | 1145.7 | 768.5 | 533.2 | 419.4 | 381.0 | 363.1 | 363.1 |
| 15° | 3012.4 | 2751.6 | 2105.9 | 1395.0 | 809.4 | 480.8 | 354.2 | 323.5 | 320.9 | 320.9 | 320.9 |
| 17.5° | 3062.3 | 2754.2 | 1957.6 | 1117.5 | 551.1 | 344.0 | 305.6 | 301.8 | 304.3 | 304.3 | 304.3 |
| 20° | 3113.5 | 2755.4 | 1797.8 | 860.5 | 388.7 | 299.2 | 287.7 | 286.4 | 289.0 | 289.0 | 290.2 |
| 22.5° | 3176.1 | 2761.8 | 1637.9 | 643.2 | 320.9 | 282.6 | 273.6 | 273.6 | 274.9 | 274.9 | 273.6 |
| 25° | 3247.7 | 2774.6 | 1471.7 | 476.9 | 292.8 | 271.1 | 263.4 | 262.1 | 263.4 | 262.1 | 260.8 |
| 27.5° | 3337.2 | 2792.5 | 1286.3 | 373.4 | 280.0 | 259.6 | 253.2 | 253.2 | 251.9 | 250.6 | 249.3 |
| 30° | 3449.7 | 2813.0 | 1077.9 | 317.1 | 267.2 | 249.3 | 242.9 | 241.7 | 240.4 | 237.8 | 237.8 |
| 32.5° | 3621.1 | 2857.7 | 872.0 | 287.7 | 253.2 | 235.3 | 230.2 | 230.2 | 227.6 | 225.0 | 223.8 |
| 35° | 3884.5 | 2946.0 | 687.9 | 269.8 | 237.8 | 219.9 | 213.5 | 213.5 | 211.0 | 209.7 | 208.4 |
| 37.5° | 4248.9 | 3080.2 | 534.5 | 253.2 | 222.5 | 203.3 | 196.9 | 195.6 | 193.1 | 190.5 | 189.2 |
| 40° | 4733.5 | 3246.4 | 420.7 | 237.8 | 207.1 | 186.7 | 181.6 | 179.0 | 173.9 | 170.1 | 170.1 |
| 42.5° | 5342.1 | 3435.7 | 341.4 | 221.2 | 189.2 | 171.3 | 167.5 | 163.7 | 154.7 | 150.9 | 149.6 |
| 45° | 5978.9 | 3605.7 | 289.0 | 202.0 | 171.3 | 156.0 | 153.4 | 147.0 | 135.5 | 131.7 | 131.7 |
| 47.5° | 6437.9 | 3645.4 | 254.4 | 184.1 | 154.7 | 139.4 | 138.1 | 126.6 | 116.4 | 113.8 | 112.5 |
| 50° | 6724.3 | 3567.4 | 226.3 | 166.2 | 139.4 | 124.0 | 120.2 | 106.1 | 99.7 | 97.2 | 95.9 |
| 52.5° | 6917.4 | 3428.0 | 203.3 | 150.9 | 125.3 | 110.0 | 101.0 | 90.8 | 85.7 | 83.1 | 83.1 |
| 55° | 7072.1 | 3231.1 | 180.3 | 136.8 | 113.8 | 98.5 | 85.7 | 78.0 | 72.9 | 70.3 | 70.3 |
| 57.5° | 7115.6 | 2963.9 | 157.3 | 125.3 | 102.3 | 86.9 | 72.9 | 67.8 | 61.4 | 60.1 | 60.1 |
| 60° | 6799.7 | 2481.8 | 139.4 | 111.2 | 92.1 | 75.4 | 63.9 | 57.5 | 51.1 | 49.9 | 48.6 |
| 62.5° | 5967.4 | 1920.5 | 122.7 | 98.5 | 80.6 | 65.2 | 55.0 | 47.3 | 42.2 | 42.2 | 42.2 |
| 65° | 4551.9 | 1287.6 | 107.4 | 85.7 | 70.3 | 55.0 | 47.3 | 38.4 | 35.8 | 35.8 | 37.1 |
| 67.5° | 2724.8 | 700.7 | 92.1 | 72.9 | 60.1 | 46.0 | 39.6 | 33.2 | 32.0 | 33.2 | 33.2 |
| 69° | 1597.0 | 411.7 | 83.1 | 65.2 | 52.4 | 40.9 | 34.5 | 29.4 | 32.0 | 33.2 | 33.2 |
| 70° | 985.8 | 277.5 | 76.7 | 58.8 | 47.3 | 37.1 | 32.0 | 28.1 | 30.7 | 32.0 | 32.0 |
| 72.5° | 274.9 | 143.2 | 61.4 | 46.0 | 38.4 | 30.7 | 25.6 | 25.6 | 29.4 | 30.7 | 30.7 |
| 75° | 179.0 | 106.1 | 47.3 | 34.5 | 29.4 | 24.3 | 21.7 | 24.3 | 28.1 | 29.4 | 29.4 |
| 77.5° | 148.3 | 86.9 | 38.4 | 28.1 | 24.3 | 23.0 | 20.5 | 21.7 | 25.6 | 26.9 | 26.9 |
| 80° | 135.5 | 61.4 | 30.7 | 25.6 | 21.7 | 20.5 | 19.2 | 17.9 | 23.0 | 24.3 | 24.3 |
| 82.5° | 129.1 | 48.6 | 26.9 | 23.0 | 20.5 | 17.9 | 16.6 | 17.9 | 20.5 | 21.7 | 23.0 |
| 85° | 80.6 | 32.0 | 24.3 | 21.7 | 17.9 | 16.6 | 16.6 | 16.6 | 19.2 | 20.5 | 20.5 |
| 87.5° | 29.4 | 25.6 | 21.7 | 17.9 | 15.3 | 15.3 | 15.3 | 15.3 | 16.6 | 19.2 | 19.2 |
| 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)