

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: P300675

Luminaire Tested: **GLNA-AF-03-LED-E1-AFL-800-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P300675
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24297)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-03-LED-E1-AFL-800-HSS
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(3) 70 CRI, 4000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Automotive Frontline WITH HOUSESIDE SHIELD OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10918.2 lumens
Efficiency: N/A
Efficacy: 88.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B1 - U0 - G1

Input Watts (W): 124
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

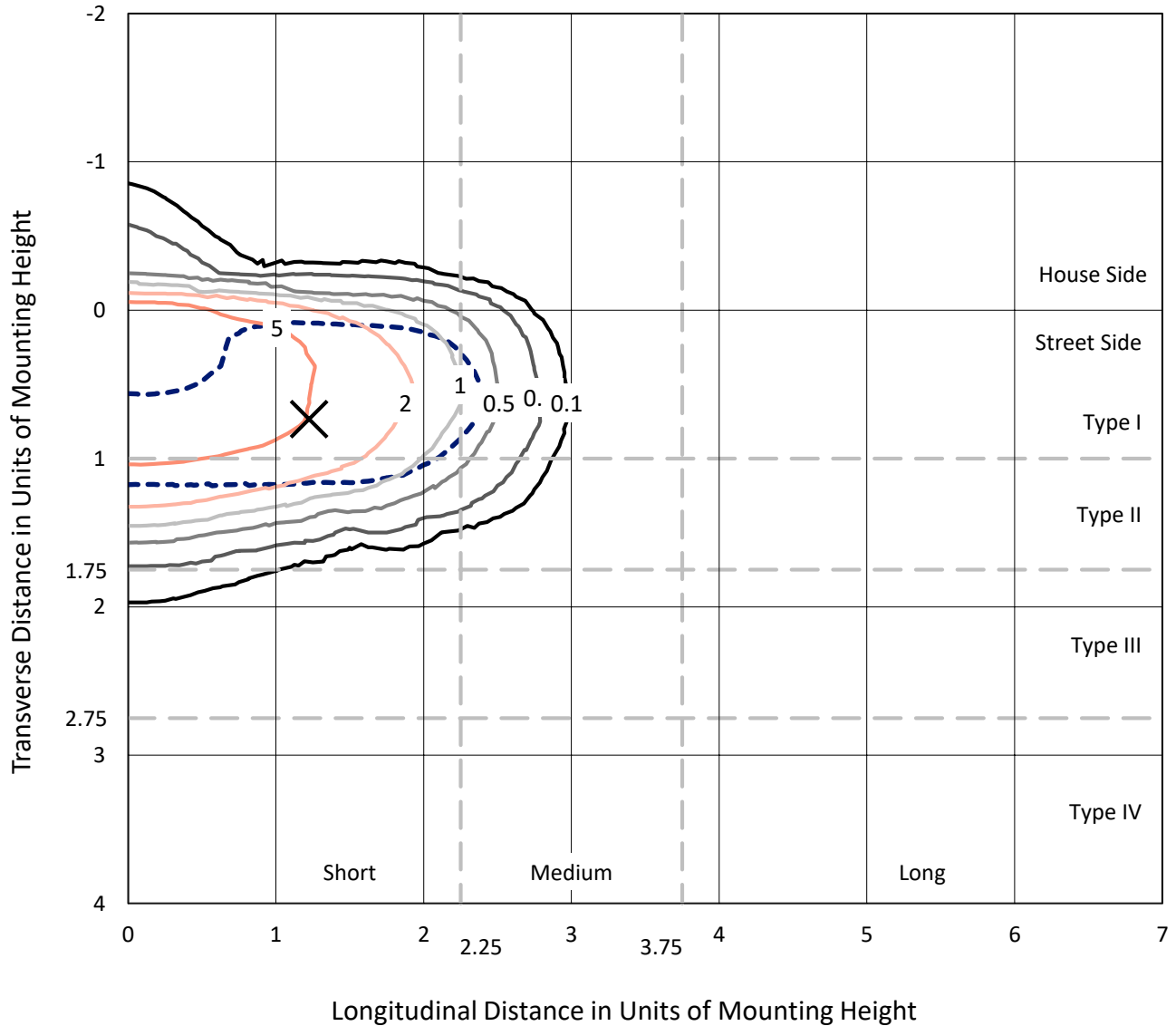


REPORT NUMBER: P300675

CATALOG NUMBER: GLNA-AF-03-LED-E1-AFL-800-HSS

Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

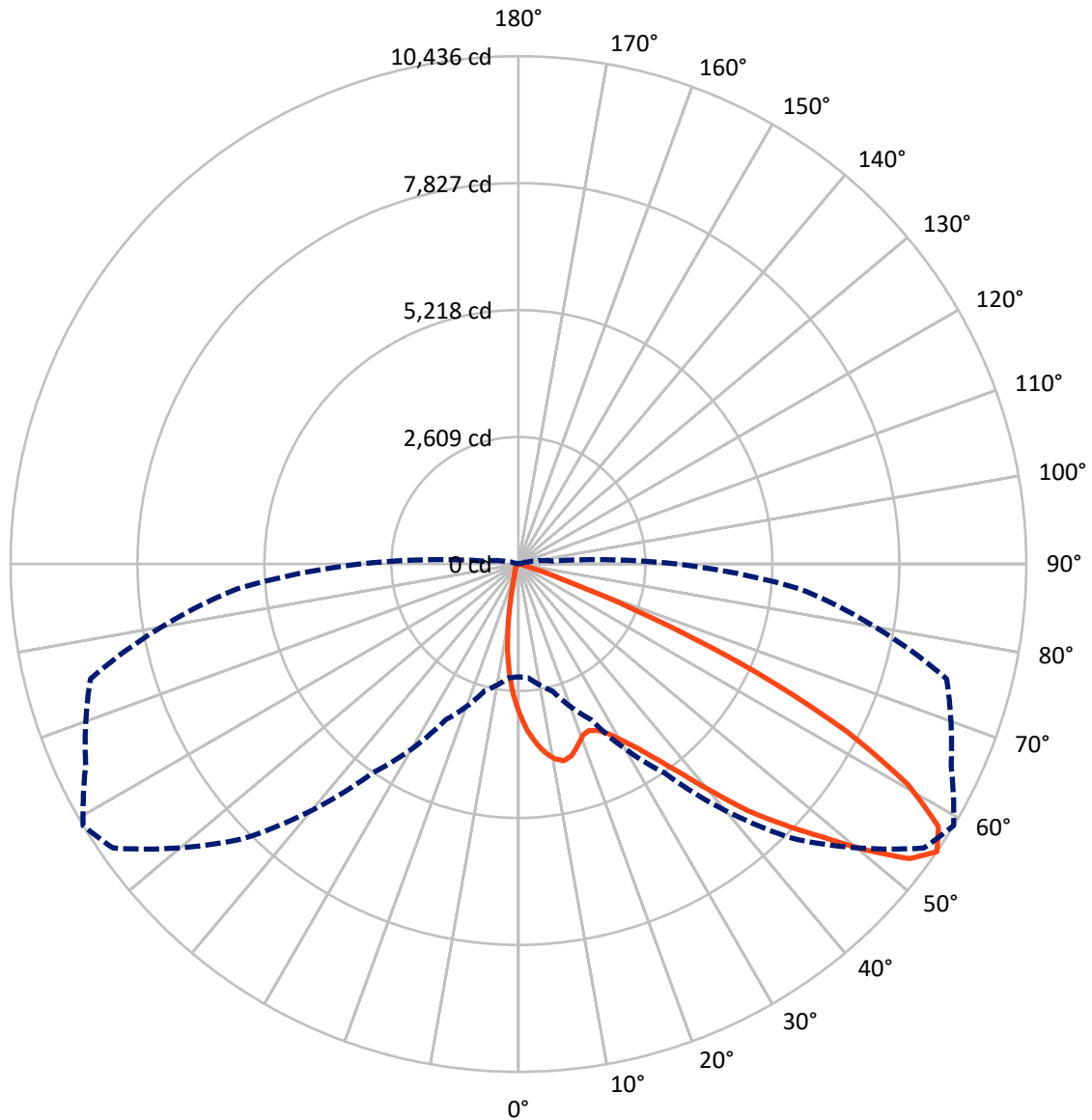


Based on 20 foot mounting height. Maximum calculated value = 9.6 fc
 Type II - Short - Full Cutoff

REPORT NUMBER: P300675

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Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral - - - Horizontal Cone Through 55-Deg Vertical

REPORT NUMBER: P300675

CATALOG NUMBER: GLNA-AF-03-LED-E1-AFL-800-HSS

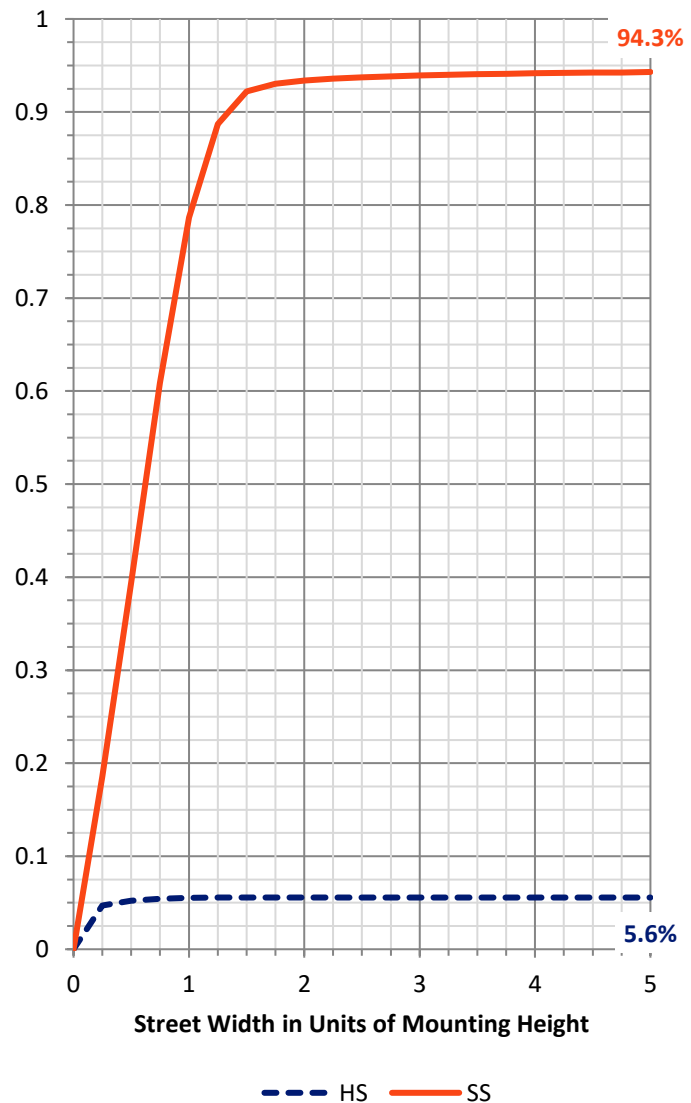
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 609.8 | 0.0 | 609.8 |
| | % Fixture | 5.6 | 0.0 | 5.6 |
| Street Side | Lumens | 10308.3 | 0.0 | 10308.3 |
| | % Fixture | 94.4 | 0.0 | 94.4 |
| Total | Lumens | 10918.2 | 0.0 | 10918.2 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 257.4 | 2.4 |
| 10°-20° | 616.4 | 5.6 |
| 20°-30° | 1048.8 | 9.6 |
| 30°-40° | 1803.7 | 16.5 |
| 40°-50° | 2784.8 | 25.5 |
| 50°-60° | 2799.6 | 25.6 |
| 60°-70° | 1435.6 | 13.1 |
| 70°-80° | 155.6 | 1.4 |
| 80°-90° | 16.3 | 0.1 |
| 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° | 10918.2 | 100.0 |
| 0°-180° | 10918.2 | 100.0 |

Coefficient of Utilization



REPORT NUMBER: P300675

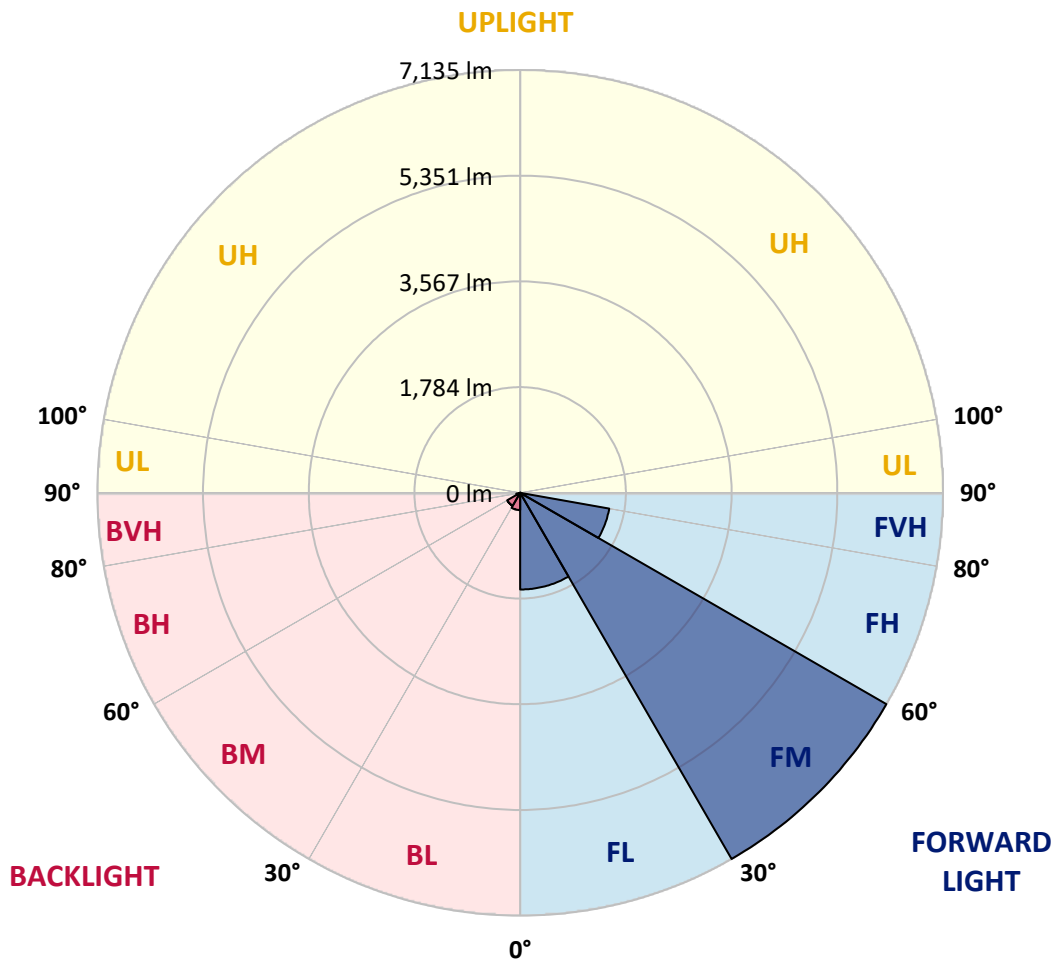
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 1631.5 | 14.9 | | | |
| FM | (30°-60°) | 7135.0 | 65.3 | | | |
| FH | (60°-80°) | 1525.9 | 14.0 | | | G1/1800 |
| FVH | (80°-90°) | 15.9 | 0.1 | | | G1/100 |
| BL | (0°-30°) | 291.1 | 2.7 | B1/500 | | |
| BM | (30°-60°) | 253.1 | 2.3 | B1/1000 | | |
| BH | (60°-80°) | 65.3 | 0.6 | B0/110 | | G0/110 |
| BVH | (80°-90°) | 0.3 | 0.0 | | | G0/10 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B1-U0-G1

Type II Short





REPORT NUMBER: P300675

CATALOG NUMBER: GLNA-AF-03-LED-E1-AFL-800-HSS

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 59° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|---------|---------|---------|--------|--------|
| 0° | 3073.4 | 3073.4 | 3073.4 | 3073.4 | 3073.4 | 3073.4 | 3073.4 | 3073.4 | 3073.4 | 3073.4 | 3073.4 |
| 2.5° | 3636.6 | 3597.9 | 3586.3 | 3578.6 | 3543.1 | 3498.7 | 3438.1 | 3409.8 | 3351.8 | 3258.3 | 3143.7 |
| 5° | 3969.7 | 3962.6 | 3936.8 | 3922.6 | 3884.6 | 3821.5 | 3724.8 | 3678.4 | 3586.3 | 3429.1 | 3223.5 |
| 7.5° | 3824.1 | 3868.5 | 3904.0 | 3963.2 | 4038.0 | 4035.4 | 3954.2 | 3905.9 | 3802.8 | 3595.3 | 3312.5 |
| 10° | 3261.6 | 3297.6 | 3355.6 | 3490.3 | 3764.8 | 4007.0 | 4102.4 | 4067.6 | 3985.1 | 3748.0 | 3398.2 |
| 12.5° | 3151.4 | 3147.5 | 3157.8 | 3197.1 | 3340.8 | 3686.2 | 4077.3 | 4147.5 | 4130.8 | 3887.8 | 3479.3 |
| 15° | 3210.0 | 3205.5 | 3204.2 | 3217.8 | 3252.5 | 3398.2 | 3888.5 | 4090.2 | 4219.7 | 4017.4 | 3548.3 |
| 17.5° | 3374.3 | 3355.0 | 3344.7 | 3333.7 | 3323.4 | 3359.5 | 3661.7 | 3929.7 | 4233.2 | 4130.8 | 3605.6 |
| 20° | 3655.9 | 3623.7 | 3585.7 | 3523.8 | 3465.8 | 3447.8 | 3566.3 | 3764.8 | 4184.9 | 4217.1 | 3643.0 |
| 22.5° | 4009.6 | 3968.4 | 3902.7 | 3789.9 | 3672.0 | 3603.7 | 3613.4 | 3712.6 | 4112.7 | 4311.2 | 3660.4 |
| 25° | 4407.2 | 4354.3 | 4266.7 | 4110.1 | 3936.8 | 3815.7 | 3752.5 | 3787.3 | 4079.9 | 4421.3 | 3680.4 |
| 27.5° | 4833.1 | 4774.4 | 4659.7 | 4446.5 | 4250.0 | 4086.3 | 3957.4 | 3952.9 | 4135.9 | 4565.7 | 3712.6 |
| 30° | 5255.1 | 5246.1 | 5096.6 | 4871.1 | 4610.8 | 4411.7 | 4226.1 | 4202.3 | 4292.5 | 4765.4 | 3776.4 |
| 32.5° | 5818.2 | 5750.6 | 5567.6 | 5335.6 | 5035.4 | 4796.3 | 4576.6 | 4521.2 | 4532.8 | 4998.0 | 3875.0 |
| 35° | 6528.3 | 6454.2 | 6196.5 | 5876.2 | 5540.5 | 5258.3 | 5015.4 | 4940.0 | 4911.7 | 5378.8 | 4041.2 |
| 37.5° | 6987.0 | 6985.8 | 6824.0 | 6498.0 | 6137.8 | 5826.6 | 5562.4 | 5474.2 | 5416.8 | 5838.9 | 4298.9 |
| 40° | 6999.3 | 7029.6 | 7050.8 | 7047.6 | 6791.2 | 6504.4 | 6269.9 | 6161.0 | 6027.6 | 6453.5 | 4632.0 |
| 42.5° | 6623.6 | 6701.6 | 6889.1 | 7207.4 | 7359.5 | 7245.4 | 7047.6 | 6940.7 | 6742.2 | 7111.4 | 5038.0 |
| 45° | 6115.9 | 6170.0 | 6498.0 | 7084.3 | 7667.4 | 7979.9 | 7829.2 | 7637.8 | 7376.2 | 7797.6 | 5402.0 |
| 47.5° | 5888.5 | 5898.1 | 6110.1 | 6753.8 | 7690.6 | 8581.7 | 8673.2 | 8362.0 | 7952.2 | 8350.4 | 5686.8 |
| 50° | 5208.7 | 5226.1 | 5518.6 | 6181.0 | 7418.7 | 8865.9 | 9521.2 | 9226.1 | 8580.5 | 8776.3 | 5790.5 |
| 52.5° | 3925.9 | 3950.3 | 4321.5 | 5239.6 | 6671.3 | 8744.8 | 10128.1 | 10056.6 | 9268.6 | 8984.4 | 5796.3 |
| 55° | 2316.3 | 2348.6 | 2702.9 | 3527.0 | 5247.4 | 7974.1 | 10173.2 | 10436.1 | 9811.8 | 9107.5 | 5787.3 |
| 57.5° | 1081.8 | 1104.4 | 1307.3 | 1817.0 | 3263.5 | 6302.1 | 9494.1 | 10175.8 | 10111.4 | 9172.6 | 5851.1 |
| 60° | 574.7 | 581.2 | 630.1 | 786.7 | 1474.9 | 3996.1 | 8168.7 | 9188.7 | 9838.2 | 9262.8 | 5929.1 |
| 62.5° | 439.4 | 441.4 | 438.8 | 457.5 | 619.8 | 1773.8 | 6174.6 | 7554.0 | 8738.3 | 9195.1 | 5842.7 |
| 65° | 380.8 | 384.0 | 366.0 | 361.5 | 397.5 | 632.7 | 3668.1 | 5384.6 | 6866.6 | 8282.1 | 5254.5 |
| 67.5° | 341.5 | 342.8 | 320.9 | 302.2 | 308.6 | 342.1 | 1447.2 | 2947.8 | 4545.1 | 6070.8 | 3808.6 |
| 70° | 314.4 | 313.1 | 289.3 | 259.7 | 251.3 | 233.9 | 460.0 | 1080.5 | 2172.0 | 3078.6 | 1771.2 |
| 72.5° | 278.3 | 279.0 | 267.4 | 228.7 | 208.8 | 163.7 | 213.3 | 315.1 | 648.2 | 838.9 | 414.9 |
| 75° | 246.8 | 243.6 | 229.4 | 204.9 | 172.0 | 107.6 | 105.7 | 140.5 | 199.7 | 198.5 | 89.6 |
| 77.5° | 178.5 | 175.3 | 179.8 | 168.2 | 132.1 | 69.6 | 52.8 | 67.7 | 81.2 | 78.6 | 25.1 |
| 80° | 130.8 | 128.9 | 116.0 | 139.8 | 116.6 | 47.7 | 32.9 | 36.1 | 41.9 | 35.4 | 7.7 |
| 82.5° | 89.6 | 88.9 | 81.8 | 77.3 | 66.4 | 29.0 | 20.6 | 22.6 | 27.1 | 20.0 | 3.9 |
| 85° | 14.2 | 16.1 | 59.3 | 47.0 | 39.3 | 12.9 | 14.2 | 15.5 | 18.0 | 11.0 | 1.3 |
| 87.5° | 0.0 | 0.0 | 27.7 | 24.5 | 7.7 | 5.2 | 8.4 | 9.0 | 9.0 | 5.8 | 0.0 |
| 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: P300675

CATALOG NUMBER: GLNA-AF-03-LED-E1-AFL-800-HSS

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 3073.4 | 3073.4 | 3073.4 | 3073.4 | 3073.4 | 3073.4 | 3073.4 | 3073.4 | 3073.4 | 3073.4 | 3073.4 |
| 2.5° | 3085.0 | 3020.6 | 2901.4 | 2778.3 | 2664.3 | 2528.3 | 2434.9 | 2364.7 | 2283.5 | 2261.6 | 2309.3 |
| 5° | 3106.3 | 2984.5 | 2728.1 | 2449.1 | 2186.8 | 1896.2 | 1674.0 | 1498.1 | 1338.9 | 1284.8 | 1333.7 |
| 7.5° | 3139.8 | 2958.7 | 2540.6 | 2081.2 | 1625.0 | 1171.4 | 860.8 | 656.6 | 526.4 | 487.8 | 508.4 |
| 10° | 3173.3 | 2921.4 | 2323.4 | 1645.6 | 1021.9 | 570.2 | 371.1 | 296.4 | 268.7 | 262.9 | 266.1 |
| 12.5° | 3201.0 | 2871.1 | 2058.6 | 1170.1 | 546.4 | 305.4 | 242.9 | 230.7 | 226.8 | 226.8 | 228.1 |
| 15° | 3217.8 | 2795.1 | 1744.8 | 744.2 | 314.4 | 230.7 | 212.0 | 208.1 | 208.1 | 208.8 | 210.0 |
| 17.5° | 3215.8 | 2698.4 | 1401.4 | 450.4 | 235.2 | 204.3 | 193.3 | 190.1 | 189.4 | 190.7 | 191.4 |
| 20° | 3192.0 | 2572.1 | 1056.7 | 297.0 | 204.9 | 186.2 | 175.3 | 169.5 | 168.8 | 170.1 | 171.4 |
| 22.5° | 3146.9 | 2416.2 | 755.8 | 228.7 | 184.9 | 168.8 | 155.3 | 150.1 | 150.1 | 151.4 | 152.7 |
| 25° | 3092.1 | 2225.5 | 516.7 | 193.9 | 166.9 | 150.1 | 137.2 | 132.7 | 134.0 | 137.2 | 137.9 |
| 27.5° | 3023.8 | 2010.9 | 351.2 | 166.2 | 145.0 | 131.4 | 121.8 | 118.6 | 121.8 | 126.3 | 127.6 |
| 30° | 2965.2 | 1787.4 | 250.6 | 143.7 | 123.1 | 113.4 | 107.6 | 107.6 | 112.1 | 120.5 | 122.4 |
| 32.5° | 2920.1 | 1570.9 | 193.3 | 126.9 | 107.0 | 98.6 | 95.4 | 98.6 | 105.7 | 114.0 | 116.0 |
| 35° | 2914.3 | 1392.4 | 163.7 | 113.4 | 95.4 | 87.0 | 85.7 | 91.5 | 98.6 | 105.0 | 106.3 |
| 37.5° | 2958.7 | 1227.4 | 147.6 | 102.4 | 85.1 | 77.3 | 76.0 | 83.1 | 90.2 | 97.9 | 99.9 |
| 40° | 3043.1 | 1097.9 | 136.0 | 92.1 | 76.7 | 68.3 | 65.7 | 70.9 | 80.5 | 90.8 | 93.4 |
| 42.5° | 3152.7 | 991.0 | 123.1 | 81.8 | 68.3 | 56.7 | 53.5 | 59.3 | 69.6 | 80.5 | 83.8 |
| 45° | 3257.1 | 898.8 | 108.9 | 70.2 | 57.3 | 43.8 | 42.5 | 50.3 | 55.4 | 66.4 | 68.9 |
| 47.5° | 3314.4 | 817.6 | 96.6 | 57.3 | 44.5 | 35.4 | 35.4 | 37.4 | 42.5 | 55.4 | 58.0 |
| 50° | 3295.1 | 752.6 | 83.8 | 42.5 | 30.9 | 27.1 | 27.1 | 26.4 | 34.1 | 44.5 | 46.4 |
| 52.5° | 3256.4 | 715.2 | 72.2 | 32.9 | 21.3 | 19.3 | 17.4 | 19.3 | 23.8 | 28.4 | 29.0 |
| 55° | 3250.6 | 708.8 | 60.6 | 26.4 | 14.8 | 12.9 | 9.7 | 9.7 | 9.7 | 9.0 | 7.7 |
| 57.5° | 3295.7 | 719.1 | 50.9 | 21.3 | 11.0 | 8.4 | 5.2 | 0.0 | 0.0 | 0.0 | 0.0 |
| 60° | 3342.1 | 730.0 | 43.8 | 14.8 | 7.7 | 4.5 | 0.6 | 0.0 | 0.0 | 0.0 | 0.0 |
| 62.5° | 3264.8 | 705.5 | 36.7 | 9.0 | 5.8 | 1.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 65° | 2867.9 | 600.5 | 29.0 | 6.4 | 3.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 67.5° | 2039.9 | 402.1 | 19.3 | 3.9 | 0.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 70° | 931.0 | 168.2 | 12.2 | 1.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 72.5° | 199.1 | 52.2 | 8.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 75° | 40.6 | 38.0 | 3.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 77.5° | 12.9 | 59.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80° | 7.7 | 43.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 1.3 | 6.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 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)