

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: P300305

Luminaire Tested: **GLNA-AF-02-LED-E1-AFL-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P300305
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24165)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-02-LED-E1-AFL-7050
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(2) 70 CRI, 5000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Automotive Frontline OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12451.4 lumens
Efficiency: N/A
Efficacy: 110.2 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B2 - U0 - G2

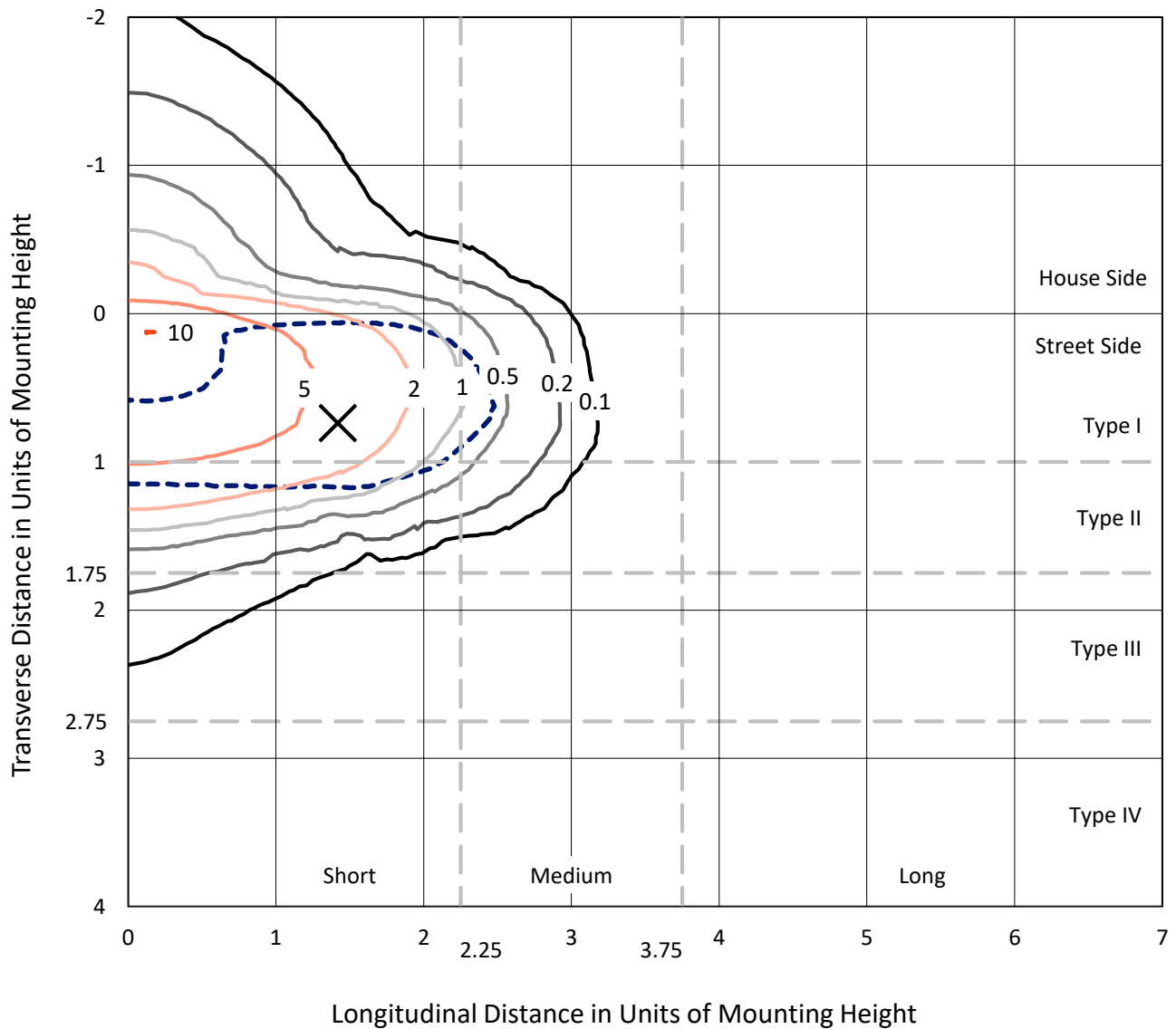
Input Watts (W): 113
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

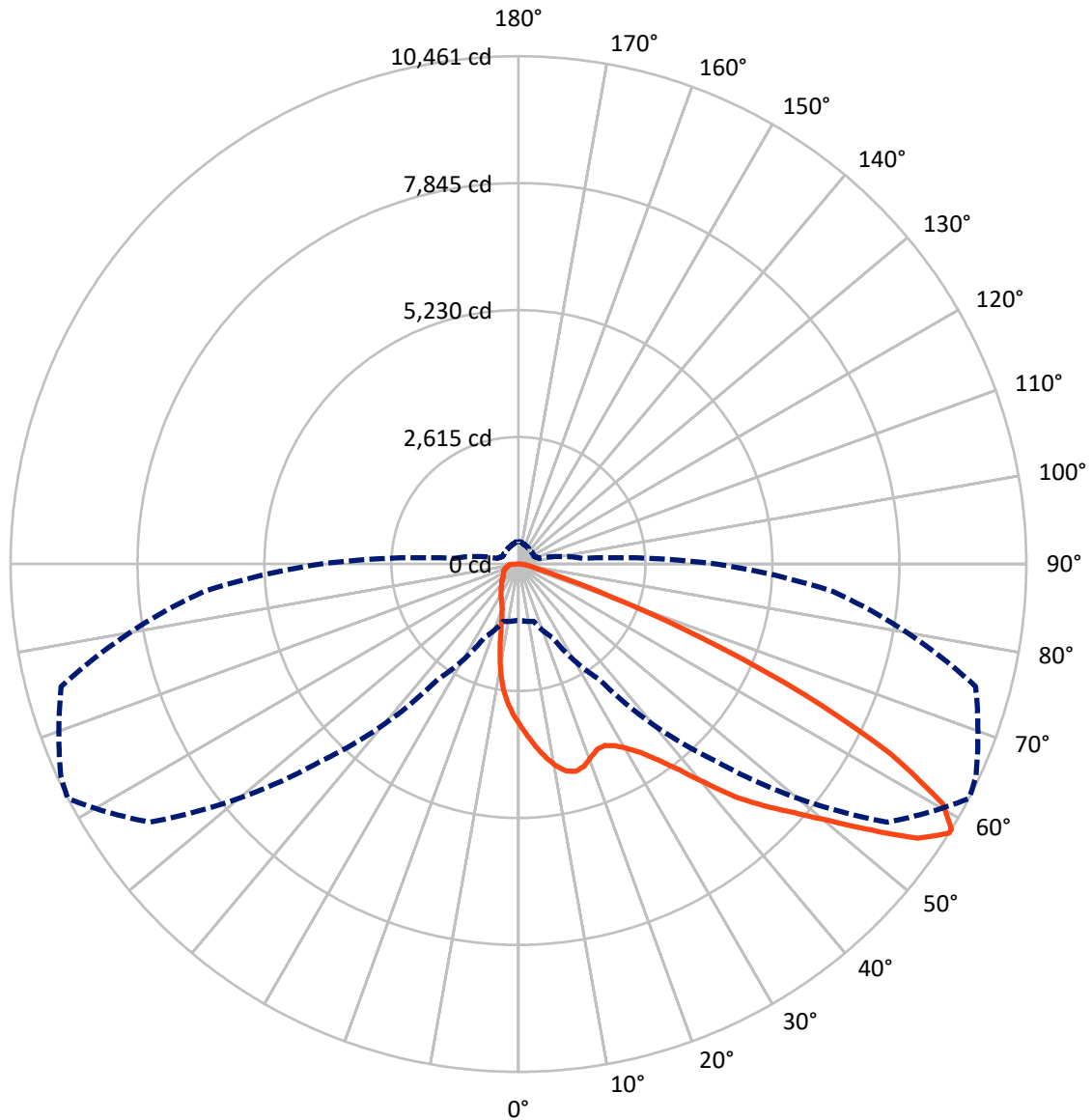
✕ Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 10.1 fc
 Type II - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 62.5-Deg Lateral - - - Horizontal Cone Through 58-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 1898.9 | 0.0 | 1898.9 |
| | % Fixture | 15.3 | 0.0 | 15.3 |
| Street Side | Lumens | 10552.5 | 0.0 | 10552.5 |
| | % Fixture | 84.7 | 0.0 | 84.7 |
| Total | Lumens | 12451.4 | 0.0 | 12451.4 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 295.8 | 2.4 |
| 10°-20° | 756.1 | 6.1 |
| 20°-30° | 1222.3 | 9.8 |
| 30°-40° | 1940.4 | 15.6 |
| 40°-50° | 2839.2 | 22.8 |
| 50°-60° | 2969.5 | 23.8 |
| 60°-70° | 1754.4 | 14.1 |
| 70°-80° | 494.2 | 4.0 |
| 80°-90° | 179.4 | 1.4 |
| 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° | 12451.4 | 100.0 |
| 0°-180° | 12451.4 | 100.0 |



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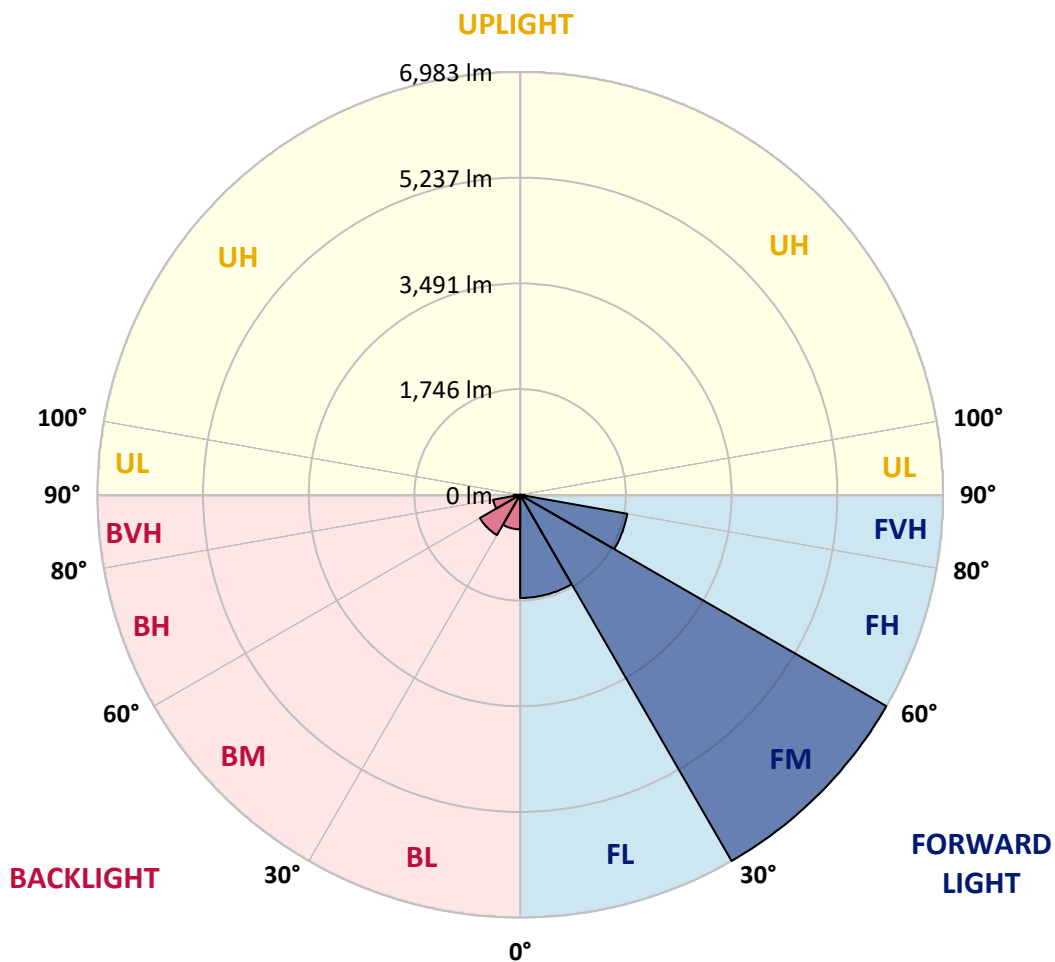
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 1703.5 | 13.7 | | | |
| FM | (30°-60°) | 6982.6 | 56.1 | | | |
| FH | (60°-80°) | 1795.5 | 14.4 | | | G1/1800 |
| FVH | (80°-90°) | 70.8 | 0.6 | | | G1/100 |
| BL | (0°-30°) | 570.7 | 4.6 | B2/1000 | | |
| BM | (30°-60°) | 766.4 | 6.2 | B1/1000 | | |
| BH | (60°-80°) | 453.1 | 3.6 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 108.6 | 0.9 | | | G2/225 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B2-U0-G2

Type II Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 62.5° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|---------|---------|--------|--------|
| 0° | 3307.4 | 3307.4 | 3307.4 | 3307.4 | 3307.4 | 3307.4 | 3307.4 | 3307.4 | 3307.4 | 3307.4 | 3307.4 |
| 2.5° | 3779.4 | 3748.9 | 3729.6 | 3712.6 | 3690.3 | 3642.8 | 3578.9 | 3538.5 | 3517.9 | 3448.2 | 3365.5 |
| 5° | 4150.0 | 4123.0 | 4103.1 | 4080.2 | 4040.4 | 3965.9 | 3862.7 | 3780.6 | 3740.2 | 3600.6 | 3435.3 |
| 7.5° | 4063.2 | 4074.4 | 4109.0 | 4169.3 | 4220.9 | 4211.0 | 4118.9 | 4014.6 | 3961.2 | 3767.1 | 3516.2 |
| 10° | 3540.2 | 3559.6 | 3619.4 | 3760.7 | 3989.3 | 4223.9 | 4295.4 | 4223.3 | 4169.3 | 3931.9 | 3599.4 |
| 12.5° | 3435.3 | 3434.7 | 3439.4 | 3476.9 | 3612.9 | 3943.0 | 4301.3 | 4374.0 | 4341.7 | 4089.0 | 3684.5 |
| 15° | 3478.1 | 3479.2 | 3475.7 | 3491.6 | 3533.8 | 3664.5 | 4121.9 | 4432.0 | 4454.9 | 4247.3 | 3772.4 |
| 17.5° | 3590.6 | 3587.7 | 3574.2 | 3574.2 | 3589.5 | 3640.5 | 3910.8 | 4378.1 | 4483.6 | 4387.5 | 3849.8 |
| 20° | 3779.4 | 3766.0 | 3730.2 | 3697.4 | 3680.9 | 3708.5 | 3824.0 | 4253.8 | 4433.8 | 4510.0 | 3913.7 |
| 22.5° | 4008.1 | 3997.6 | 3939.5 | 3869.1 | 3812.3 | 3811.7 | 3868.6 | 4145.3 | 4347.6 | 4625.5 | 3967.6 |
| 25° | 4303.6 | 4286.6 | 4200.4 | 4087.8 | 3988.2 | 3950.1 | 3965.9 | 4140.0 | 4300.7 | 4751.0 | 4015.7 |
| 27.5° | 4650.7 | 4619.6 | 4517.6 | 4355.2 | 4208.6 | 4131.8 | 4109.0 | 4235.6 | 4343.5 | 4906.4 | 4082.6 |
| 30° | 5071.7 | 5035.9 | 4905.2 | 4693.5 | 4486.5 | 4360.5 | 4311.8 | 4405.0 | 4485.4 | 5095.7 | 4189.9 |
| 32.5° | 5550.7 | 5499.1 | 5347.9 | 5114.5 | 4842.4 | 4650.1 | 4571.0 | 4629.0 | 4692.9 | 5323.8 | 4324.1 |
| 35° | 6212.7 | 6151.1 | 5932.4 | 5610.5 | 5303.3 | 5038.9 | 4912.2 | 4954.4 | 5016.6 | 5663.9 | 4518.2 |
| 37.5° | 6664.1 | 6636.6 | 6491.2 | 6188.6 | 5854.4 | 5550.1 | 5354.3 | 5378.9 | 5414.1 | 6089.0 | 4766.8 |
| 40° | 6660.0 | 6671.2 | 6674.1 | 6677.0 | 6449.6 | 6158.2 | 5947.7 | 5921.9 | 5914.8 | 6555.7 | 5049.4 |
| 42.5° | 6326.4 | 6372.2 | 6519.9 | 6819.5 | 6957.9 | 6824.2 | 6631.3 | 6556.8 | 6519.9 | 7105.6 | 5349.0 |
| 45° | 5815.7 | 5840.4 | 6117.1 | 6702.3 | 7218.2 | 7483.8 | 7337.8 | 7103.3 | 7036.5 | 7611.1 | 5597.6 |
| 47.5° | 5552.5 | 5579.4 | 5753.6 | 6391.5 | 7215.3 | 8016.8 | 8101.2 | 7654.4 | 7534.8 | 8050.8 | 5812.2 |
| 50° | 4925.7 | 4982.0 | 5201.3 | 5850.9 | 6952.0 | 8261.9 | 8899.2 | 8311.1 | 8063.7 | 8478.8 | 6027.4 |
| 52.5° | 3774.7 | 3861.5 | 4107.2 | 4962.1 | 6284.2 | 8140.5 | 9537.7 | 9107.4 | 8757.9 | 8922.1 | 6212.1 |
| 55° | 2381.1 | 2445.6 | 2651.9 | 3504.5 | 5027.1 | 7509.0 | 9779.9 | 9968.7 | 9657.9 | 9341.9 | 6372.2 |
| 57.5° | 1294.6 | 1323.3 | 1400.7 | 1934.9 | 3269.9 | 6113.0 | 9426.9 | 10458.8 | 10329.8 | 9698.4 | 6492.9 |
| 58° | 1158.6 | 1177.9 | 1226.0 | 1676.9 | 2900.0 | 5731.3 | 9270.4 | 10460.6 | 10396.1 | 9750.6 | 6502.3 |
| 60° | 859.5 | 849.6 | 806.8 | 956.9 | 1614.1 | 3959.4 | 8324.0 | 10042.0 | 10231.3 | 9814.5 | 6456.6 |
| 62.5° | 755.2 | 731.1 | 643.8 | 633.8 | 785.1 | 1824.1 | 6369.2 | 8601.9 | 9049.3 | 9449.8 | 6178.7 |
| 65° | 709.5 | 683.7 | 571.1 | 534.7 | 566.4 | 771.6 | 3751.9 | 6451.3 | 7012.4 | 8344.0 | 5468.0 |
| 67.5° | 675.4 | 642.0 | 524.8 | 474.9 | 477.3 | 510.1 | 1503.9 | 4063.2 | 4694.7 | 6335.2 | 4253.2 |
| 70° | 642.6 | 606.3 | 485.5 | 428.0 | 414.5 | 403.4 | 598.0 | 2034.0 | 2606.8 | 4001.7 | 2711.7 |
| 72.5° | 607.4 | 571.7 | 450.9 | 391.1 | 364.7 | 327.8 | 390.5 | 832.0 | 1162.1 | 1893.2 | 1230.1 |
| 75° | 556.4 | 524.2 | 416.3 | 358.2 | 320.7 | 271.5 | 294.9 | 434.5 | 521.2 | 754.0 | 592.8 |
| 77.5° | 493.7 | 467.3 | 377.6 | 331.3 | 284.4 | 220.5 | 226.9 | 301.4 | 334.2 | 431.5 | 352.4 |
| 80° | 354.7 | 364.1 | 336.0 | 297.9 | 253.3 | 178.8 | 174.1 | 219.9 | 237.5 | 277.3 | 229.3 |
| 82.5° | 249.2 | 254.5 | 277.9 | 243.3 | 209.3 | 140.7 | 128.4 | 154.8 | 165.3 | 182.3 | 123.7 |
| 85° | 171.8 | 165.9 | 190.6 | 169.4 | 151.3 | 93.8 | 87.9 | 105.0 | 111.4 | 113.2 | 63.9 |
| 87.5° | 103.2 | 103.2 | 110.2 | 90.9 | 81.5 | 48.7 | 47.5 | 59.8 | 63.9 | 61.0 | 35.2 |
| 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-02-LED-E1-AFL-7050

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 3307.4 | 3307.4 | 3307.4 | 3307.4 | 3307.4 | 3307.4 | 3307.4 | 3307.4 | 3307.4 | 3307.4 | 3307.4 |
| 2.5° | 3316.2 | 3274.6 | 3186.1 | 3115.1 | 3025.4 | 2932.2 | 2880.0 | 2824.3 | 2786.2 | 2758.6 | 2802.6 |
| 5° | 3341.5 | 3256.4 | 3073.5 | 2900.0 | 2708.2 | 2508.9 | 2357.6 | 2216.9 | 2119.0 | 2058.0 | 2115.5 |
| 7.5° | 3381.3 | 3250.6 | 2959.2 | 2662.5 | 2318.3 | 1986.5 | 1689.8 | 1503.9 | 1395.4 | 1342.1 | 1375.5 |
| 10° | 3427.1 | 3241.2 | 2824.9 | 2340.6 | 1848.1 | 1430.0 | 1208.4 | 1133.4 | 1108.7 | 1098.8 | 1103.5 |
| 12.5° | 3465.2 | 3221.3 | 2660.1 | 1951.3 | 1387.8 | 1129.3 | 1065.3 | 1063.6 | 1068.9 | 1070.0 | 1071.8 |
| 15° | 3492.1 | 3191.9 | 2415.7 | 1545.5 | 1109.9 | 1029.0 | 1025.5 | 1036.0 | 1046.0 | 1050.1 | 1052.4 |
| 17.5° | 3510.3 | 3131.6 | 2139.5 | 1221.9 | 994.4 | 980.3 | 988.5 | 1002.0 | 1012.6 | 1015.5 | 1017.9 |
| 20° | 3508.6 | 3043.0 | 1810.6 | 1019.0 | 931.7 | 931.7 | 945.7 | 956.3 | 956.9 | 953.4 | 955.1 |
| 22.5° | 3490.4 | 2921.6 | 1491.6 | 911.1 | 876.0 | 885.9 | 900.0 | 890.0 | 849.0 | 822.0 | 823.8 |
| 25° | 3459.9 | 2776.8 | 1218.4 | 842.5 | 824.4 | 842.0 | 837.9 | 762.8 | 704.2 | 677.8 | 677.8 |
| 27.5° | 3432.9 | 2605.6 | 1008.5 | 782.7 | 772.8 | 794.5 | 721.8 | 653.8 | 629.1 | 616.8 | 612.7 |
| 30° | 3413.6 | 2420.9 | 868.3 | 725.3 | 724.1 | 708.3 | 626.2 | 607.4 | 603.3 | 593.4 | 589.8 |
| 32.5° | 3418.3 | 2233.9 | 778.6 | 674.9 | 679.0 | 606.3 | 580.5 | 584.6 | 581.0 | 570.5 | 565.8 |
| 35° | 3457.0 | 2056.2 | 720.0 | 629.1 | 616.8 | 547.6 | 553.5 | 561.1 | 559.9 | 545.3 | 540.6 |
| 37.5° | 3526.1 | 1888.0 | 681.3 | 591.0 | 538.2 | 518.3 | 527.7 | 539.4 | 536.5 | 526.5 | 523.0 |
| 40° | 3598.9 | 1729.7 | 649.6 | 561.1 | 491.9 | 498.4 | 506.6 | 513.0 | 516.0 | 518.9 | 516.6 |
| 42.5° | 3669.8 | 1564.3 | 610.9 | 530.6 | 472.6 | 479.6 | 483.1 | 489.6 | 505.4 | 516.6 | 516.0 |
| 45° | 3712.0 | 1408.9 | 571.1 | 487.2 | 457.3 | 461.4 | 459.1 | 472.0 | 491.3 | 509.5 | 510.1 |
| 47.5° | 3758.9 | 1288.2 | 539.4 | 447.4 | 442.7 | 445.6 | 438.6 | 451.5 | 469.1 | 491.3 | 493.7 |
| 50° | 3815.8 | 1216.0 | 514.2 | 415.7 | 422.7 | 422.7 | 421.0 | 432.7 | 457.3 | 483.1 | 487.8 |
| 52.5° | 3880.3 | 1202.0 | 493.1 | 392.8 | 402.8 | 402.2 | 404.0 | 421.6 | 448.5 | 473.7 | 477.9 |
| 55° | 3958.9 | 1240.1 | 470.2 | 375.8 | 383.5 | 385.8 | 391.7 | 411.6 | 434.5 | 463.2 | 465.0 |
| 57.5° | 4050.3 | 1317.5 | 452.1 | 362.3 | 365.9 | 373.5 | 382.9 | 401.0 | 425.7 | 457.3 | 459.1 |
| 58° | 4065.6 | 1333.9 | 449.1 | 361.2 | 362.3 | 371.1 | 381.7 | 399.3 | 423.9 | 458.5 | 460.3 |
| 60° | 4066.1 | 1388.4 | 442.7 | 355.9 | 348.9 | 363.5 | 375.2 | 392.8 | 421.0 | 462.6 | 466.7 |
| 62.5° | 3921.9 | 1387.8 | 438.0 | 348.3 | 334.8 | 353.0 | 366.5 | 387.0 | 418.0 | 472.6 | 480.8 |
| 65° | 3453.4 | 1261.2 | 415.7 | 336.5 | 323.7 | 343.6 | 358.8 | 382.9 | 426.3 | 516.0 | 521.2 |
| 67.5° | 2701.2 | 1033.7 | 374.1 | 320.1 | 309.0 | 334.2 | 354.1 | 382.3 | 435.1 | 525.9 | 529.4 |
| 70° | 1785.9 | 773.4 | 328.3 | 301.4 | 293.7 | 323.1 | 356.5 | 402.2 | 425.1 | 504.8 | 495.4 |
| 72.5° | 927.0 | 542.9 | 291.4 | 277.9 | 276.2 | 313.1 | 390.5 | 399.9 | 415.1 | 474.9 | 463.2 |
| 75° | 486.6 | 377.0 | 259.2 | 252.1 | 255.1 | 310.8 | 460.8 | 389.3 | 402.2 | 454.4 | 476.7 |
| 77.5° | 297.9 | 304.3 | 231.6 | 228.7 | 234.5 | 303.7 | 460.3 | 375.8 | 383.5 | 418.0 | 442.7 |
| 80° | 199.3 | 246.8 | 210.5 | 211.1 | 215.2 | 277.9 | 413.4 | 354.7 | 360.6 | 395.2 | 420.4 |
| 82.5° | 126.1 | 146.0 | 191.1 | 201.1 | 195.8 | 229.3 | 351.2 | 323.1 | 331.3 | 452.1 | 477.9 |
| 85° | 63.9 | 91.5 | 165.9 | 193.5 | 176.5 | 160.7 | 285.0 | 283.2 | 287.3 | 326.0 | 340.7 |
| 87.5° | 29.3 | 50.4 | 129.6 | 168.9 | 133.1 | 100.3 | 207.0 | 209.9 | 226.3 | 231.6 | 231.6 |
| 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)