

Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: io LED

Report Number: P1191635

Luminaire Tested: **LDA4A20935D010TE LAR15SP 4LA1 30° Tilt**

Issue Date: 3/3/2020

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269

**Test Information**

Test Method: LM-41-14  
Report Number: P1191635  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25648)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LDA4A20935D010TE LAR15SP 4LA1 30° Tilt  
Description: PORTFOLIO 4" Adjustable Reflector, Self-flanged Trim Ring, 15° Spot  
Optic, at 30° tilt  
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

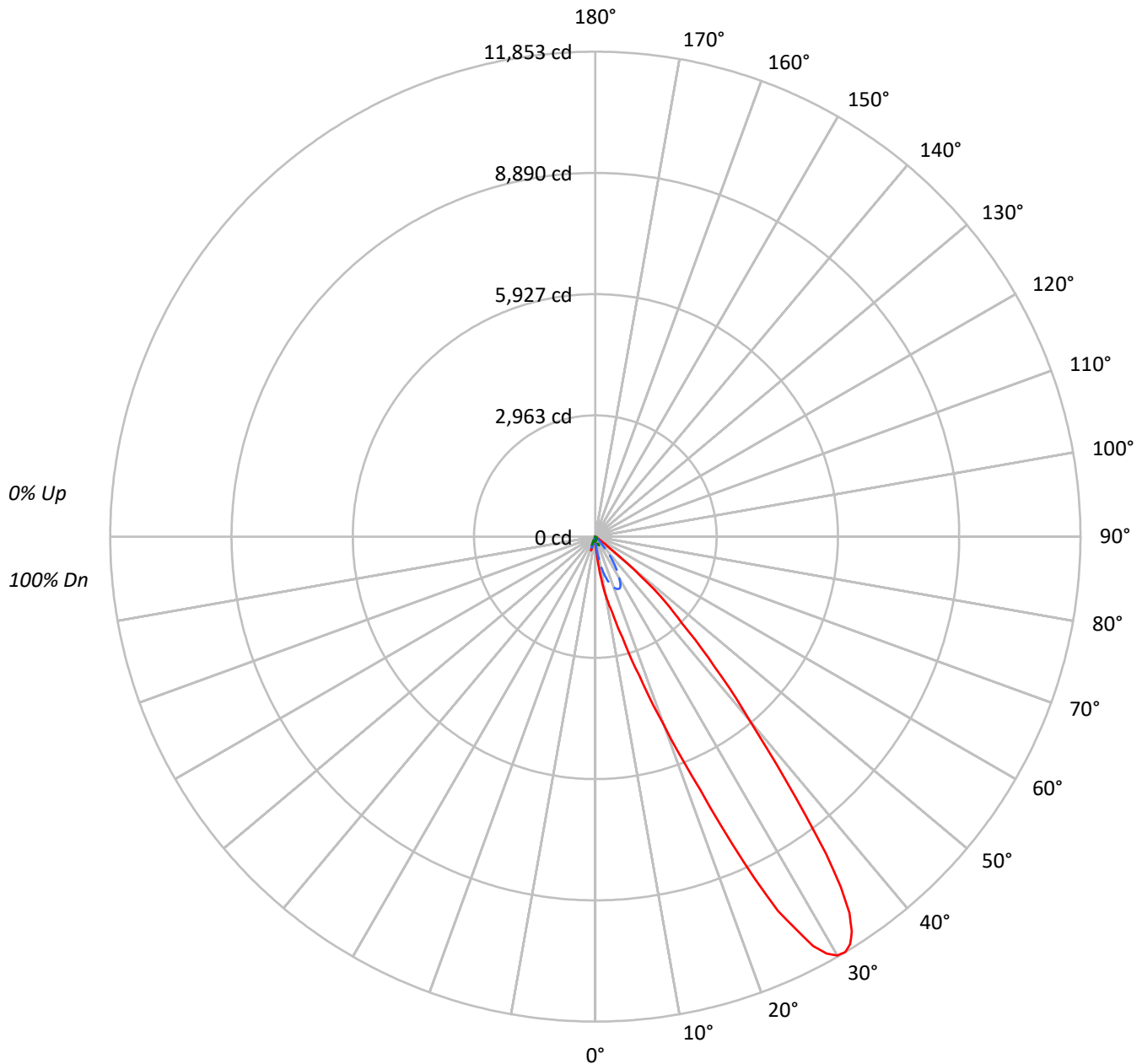
Lumens per Lamp: N/A  
Luminaire Lumens: 1912.2 lumens  
Efficiency: N/A  
Efficacy: 66.4 lumens/watt  
Spacing Criteria (0/90/45): 2.52 / 1.04 / 1.28  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 28.8  
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

TEST NUMBER: P1191635

CATALOG NUMBER: LDA4A20935D010TE LAR15SP 4LA1 30° Tilt

### Luminous Intensity Polar Plot



Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P1191635

CATALOG NUMBER: LDA4A20935D010TE LAR15SP 4LA1 30° Tilt

**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

|     |     |     |     |     |     |     |     |     |  |     |     |     |  |  |     |     |     |  |  |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|-----|-----|-----|--|--|-----|-----|-----|--|--|-----|
| RF  | 20  |     |     |     | 20  |     |     |     |  | 20  |     |     |  |  | 20  |     |     |  |  | 20  |
| RC  | 80  |     |     |     | 70  |     |     |     |  | 50  |     |     |  |  | 30  |     |     |  |  | 10  |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  |  | 50  | 30  | 10  |  |  | 50  | 30  | 10  |  |  | 50  |
| RCR |     |     |     |     |     |     |     |     |  |     |     |     |  |  |     |     |     |  |  |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 |  | 111 | 111 | 111 |  |  | 106 | 106 | 106 |  |  | 102 |
| 1   | 112 | 109 | 106 | 104 | 110 | 107 | 104 | 102 |  | 103 | 101 | 99  |  |  | 99  | 98  | 96  |  |  | 96  |
| 2   | 106 | 100 | 95  | 91  | 103 | 98  | 94  | 90  |  | 95  | 91  | 88  |  |  | 92  | 89  | 86  |  |  | 89  |
| 3   | 99  | 91  | 85  | 80  | 97  | 90  | 84  | 80  |  | 87  | 82  | 78  |  |  | 84  | 80  | 77  |  |  | 82  |
| 4   | 92  | 83  | 77  | 71  | 90  | 82  | 76  | 71  |  | 80  | 74  | 70  |  |  | 78  | 73  | 69  |  |  | 76  |
| 5   | 86  | 76  | 69  | 64  | 84  | 75  | 68  | 63  |  | 73  | 67  | 63  |  |  | 71  | 66  | 62  |  |  | 70  |
| 6   | 80  | 69  | 62  | 57  | 79  | 69  | 62  | 57  |  | 67  | 61  | 56  |  |  | 65  | 60  | 56  |  |  | 64  |
| 7   | 75  | 64  | 56  | 51  | 73  | 63  | 56  | 51  |  | 62  | 55  | 51  |  |  | 60  | 55  | 50  |  |  | 59  |
| 8   | 70  | 58  | 51  | 46  | 69  | 58  | 51  | 46  |  | 57  | 50  | 46  |  |  | 55  | 50  | 46  |  |  | 54  |
| 9   | 65  | 54  | 47  | 42  | 64  | 53  | 46  | 42  |  | 52  | 46  | 41  |  |  | 51  | 45  | 41  |  |  | 50  |
| 10  | 61  | 49  | 42  | 38  | 60  | 49  | 42  | 38  |  | 48  | 42  | 38  |  |  | 47  | 41  | 37  |  |  | 46  |

**AVERAGE LUMINANCE (cd/sqm):**

|     | 0°      | 90°   | 180°  |
|-----|---------|-------|-------|
| 0°  | 13753   | 13753 | 13753 |
| 5°  | 61710   | 12926 | 8370  |
| 10° | 182687  | 11899 | 10696 |
| 15° | 326112  | 14085 | 30162 |
| 20° | 645991  | 27736 | 32409 |
| 25° | 1257031 | 18087 | 9200  |
| 30° | 1683818 | 6765  | 3219  |
| 35° | 1575565 | 2861  | 1250  |
| 40° | 944135  | 1336  | 370   |
| 45° | 523939  | 837   | 0     |
| 50° | 192199  | 691   | 0     |
| 55° | 29354   | 495   | 0     |
| 60° | 6439    | 567   | 0     |
| 65° | 2072    | 671   | 0     |
| 70° | 433     | 829   | 0     |
| 75° | 0       | 1716  | 0     |
| 80° | 0       | 2557  | 0     |
| 85° | 0       | 5095  | 0     |



TEST NUMBER: P1191635

CATALOG NUMBER: LDA4A20935D010TE LAR15SP 4LA1 30° Tilt

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 24.5   | 1.3       |
| 10°-20°   | 206.5  | 10.8      |
| 20°-30°   | 616.5  | 32.2      |
| 30°-40°   | 730.2  | 38.2      |
| 40°-50°   | 302.9  | 15.8      |
| 50°-60°   | 23.5   | 1.2       |
| 60°-70°   | 3.2    | 0.2       |
| 70°-80°   | 2.5    | 0.1       |
| 80°-90°   | 2.3    | 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°-30°    | 847.6  | 44.3      |
| 0°-40°    | 1577.8 | 82.5      |
| 0°-60°    | 1904.2 | 99.6      |
| 0°-90°    | 1912.2 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1912.2 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°    | 45°  | 90° | 135° | 180° | Flux |
|-----|-------|------|-----|------|------|------|
| 0°  | 112   | 112  | 112 | 112  | 112  |      |
| 5°  | 498   | 252  | 104 | 72   | 68   | 79   |
| 15° | 2554  | 1079 | 110 | 165  | 236  | 843  |
| 25° | 9236  | 1402 | 133 | 77   | 68   | 4219 |
| 35° | 10464 | 781  | 19  | 11   | 8    | 6064 |
| 45° | 3004  | 69   | 5   | 4    | 0    | 2449 |
| 55° | 136   | 10   | 2   | 1    | 0    | 200  |
| 65° | 7     | 2    | 2   | 2    | 0    | 9    |
| 75° | 0     | 2    | 4   | 2    | 0    | 0    |
| 85° | 0     | 2    | 4   | 2    | 0    | 0    |
| 90° | 0     | 0    | 0   | 0    | 0    |      |

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P1191635

CATALOG NUMBER: LDA4A20935D010TE LAR15SP 4LA1 30° Tilt

**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 2.5°    | 5°      | 7.5°    | 10°    | 12.5°  | 15°    | 17.5°  | 20°    | 22.5°  | 25°    |
|-------|---------|---------|---------|---------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 111.5   | 111.5   | 111.5   | 111.5   | 111.5  | 111.5  | 111.5  | 111.5  | 111.5  | 111.5  | 111.5  |
| 2.5°  | 193.5   | 183.9   | 188.7   | 180.4   | 185.2  | 176.8  | 170.9  | 176.8  | 176.8  | 172.0  | 164.9  |
| 5°    | 498.4   | 496.1   | 505.5   | 483.0   | 489.0  | 464.1  | 442.7  | 448.6  | 443.8  | 428.5  | 401.1  |
| 7.5°  | 949.4   | 939.9   | 950.6   | 918.5   | 919.8  | 878.2  | 846.2  | 853.3  | 831.9  | 805.8  | 758.3  |
| 10°   | 1458.6  | 1445.4  | 1457.3  | 1419.3  | 1412.2 | 1354.0 | 1309.0 | 1316.1 | 1267.4 | 1224.7 | 1152.3 |
| 12.5° | 1899.9  | 1898.7  | 1860.8  | 1867.9  | 1853.7 | 1764.7 | 1736.1 | 1738.6 | 1672.1 | 1624.6 | 1538.1 |
| 15°   | 2553.8  | 2578.7  | 2585.8  | 2537.2  | 2449.4 | 2288.0 | 2216.9 | 2189.5 | 2081.5 | 2002.0 | 1877.5 |
| 17.5° | 3559.0  | 3593.5  | 3475.9  | 3504.4  | 3359.6 | 3106.8 | 2965.6 | 2881.4 | 2678.5 | 2528.9 | 2303.5 |
| 20°   | 4921.4  | 4891.7  | 4722.0  | 4700.6  | 4453.7 | 4128.7 | 3832.0 | 3673.0 | 3360.8 | 3142.4 | 2813.7 |
| 22.5° | 6680.2  | 6657.6  | 6366.8  | 6237.5  | 5721.3 | 5263.2 | 4878.7 | 4479.9 | 4015.9 | 3723.9 | 3277.8 |
| 25°   | 9236.3  | 9133.1  | 8573.0  | 8205.0  | 7297.1 | 6518.7 | 5877.8 | 5258.4 | 4547.6 | 4230.7 | 3663.4 |
| 26°   | 10177.3 | 10152.4 | 9568.6  | 9084.4  | 7990.3 | 7024.2 | 6160.3 | 5539.7 | 4756.4 | 4386.1 | 3772.6 |
| 27°   | 10742.3 | 10940.4 | 10397.0 | 9848.6  | 8652.5 | 7495.4 | 6493.8 | 5766.3 | 4919.0 | 4495.3 | 3842.7 |
| 28°   | 11328.5 | 11456.6 | 10970.1 | 10281.9 | 9182.9 | 7870.4 | 6746.6 | 5919.4 | 5018.7 | 4548.7 | 3866.4 |
| 29°   | 11651.3 | 11774.8 | 11322.6 | 10677.0 | 9530.7 | 8113.7 | 6896.1 | 5987.0 | 5055.5 | 4547.6 | 3845.0 |
| 30°   | 11822.3 | 11937.4 | 11495.9 | 10869.3 | 9674.2 | 8189.7 | 6928.2 | 5959.8 | 5019.9 | 4493.0 | 3784.5 |
| 31°   | 11853.1 | 11949.2 | 11513.7 | 10863.4 | 9619.6 | 8095.9 | 6838.0 | 5847.0 | 4924.9 | 4392.0 | 3693.1 |
| 32°   | 11748.7 | 11823.4 | 11380.8 | 10687.8 | 9374.0 | 7858.5 | 6650.5 | 5672.5 | 4780.1 | 4266.4 | 3575.7 |
| 33°   | 11504.1 | 11638.2 | 11098.3 | 10332.9 | 8946.7 | 7507.2 | 6384.6 | 5444.7 | 4599.8 | 4102.6 | 3432.0 |
| 34°   | 11099.4 | 11185.0 | 10625.9 | 9777.4  | 8377.2 | 7080.1 | 6058.2 | 5180.0 | 4393.3 | 3909.1 | 3269.4 |
| 35°   | 10463.5 | 10539.3 | 9921.0  | 9027.5  | 7727.9 | 6598.2 | 5685.7 | 4888.1 | 4161.8 | 3691.9 | 3089.0 |
| 36°   | 9582.8  | 9655.2  | 9008.5  | 8194.3  | 7072.9 | 6096.2 | 5292.8 | 4570.1 | 3911.5 | 3459.2 | 2898.0 |
| 37°   | 8554.0  | 8616.8  | 8041.3  | 7376.8  | 6429.7 | 5588.4 | 4895.2 | 4247.2 | 3646.8 | 3221.9 | 2716.4 |
| 38°   | 7559.5  | 7616.4  | 7151.2  | 6610.1  | 5809.0 | 5092.3 | 4498.9 | 3912.6 | 3373.8 | 2983.4 | 2525.3 |
| 39°   | 6662.3  | 6712.2  | 6337.1  | 5891.0  | 5218.1 | 4616.3 | 4103.7 | 3580.3 | 3099.7 | 2745.0 | 2328.4 |
| 40°   | 5863.6  | 5906.4  | 5597.8  | 5231.2  | 4681.6 | 4171.4 | 3719.2 | 3258.7 | 2831.5 | 2513.6 | 2144.5 |
| 42.5° | 4304.3  | 4313.7  | 4129.8  | 3913.8  | 3486.6 | 3193.5 | 2871.9 | 2539.6 | 2227.4 | 2009.1 | 1774.2 |
| 45°   | 3003.6  | 3121.1  | 3001.2  | 2857.6  | 2551.5 | 2367.5 | 2162.3 | 1961.7 | 1781.3 | 1571.2 | 1338.7 |
| 47.5° | 2159.8  | 2164.6  | 2093.4  | 2003.1  | 1761.0 | 1635.4 | 1466.8 | 1223.6 | 1044.3 | 746.4  | 554.1  |
| 50°   | 1001.6  | 945.8   | 949.4   | 887.6   | 791.6  | 629.0  | 525.8  | 375.0  | 299.0  | 213.6  | 172.0  |
| 51°   | 595.7   | 554.1   | 560.1   | 516.2   | 452.2  | 352.4  | 299.0  | 239.8  | 207.6  | 161.5  | 132.9  |
| 52°   | 347.7   | 333.5   | 332.3   | 312.0   | 265.9  | 244.4  | 216.0  | 180.4  | 157.8  | 124.7  | 103.2  |
| 53°   | 252.8   | 243.3   | 243.3   | 230.2   | 198.2  | 183.9  | 163.8  | 138.9  | 121.1  | 95.0   | 78.3   |
| 54°   | 188.7   | 181.6   | 181.6   | 173.3   | 160.1  | 137.7  | 123.4  | 103.2  | 90.2   | 73.6   | 58.2   |
| 55°   | 136.5   | 131.8   | 131.8   | 125.8   | 116.3  | 99.6   | 89.1   | 74.7   | 66.5   | 53.4   | 42.7   |
| 57.5° | 56.9    | 54.6    | 54.6    | 52.3    | 49.8   | 42.7   | 40.4   | 34.5   | 29.7   | 26.1   | 21.4   |
| 60°   | 26.1    | 24.9    | 26.1    | 24.9    | 22.6   | 23.7   | 20.1   | 17.8   | 16.7   | 14.2   | 11.9   |
| 61°   | 20.1    | 19.0    | 19.0    | 19.0    | 16.7   | 16.7   | 15.5   | 14.2   | 13.0   | 10.7   | 9.6    |
| 62°   | 15.5    | 14.2    | 14.2    | 14.2    | 13.0   | 13.0   | 11.9   | 10.7   | 10.7   | 8.3    | 7.1    |
| 63°   | 11.9    | 10.7    | 10.7    | 10.7    | 9.6    | 9.6    | 9.6    | 8.3    | 8.3    | 7.1    | 5.9    |
| 64°   | 8.3     | 8.3     | 8.3     | 8.3     | 8.3    | 7.1    | 7.1    | 7.1    | 5.9    | 4.8    | 4.8    |
| 65°   | 7.1     | 5.9     | 7.1     | 5.9     | 5.9    | 5.9    | 5.9    | 5.9    | 4.8    | 3.6    | 3.6    |
| 66°   | 4.8     | 4.8     | 4.8     | 4.8     | 4.8    | 4.8    | 4.8    | 4.8    | 4.8    | 3.6    | 2.3    |

Classified

Scaled Data Report

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P1191635

CATALOG NUMBER: LDA4A20935D010TE LAR15SP 4LA1 30° Tilt

**CANDELA DISTRIBUTION (continued):**

|       | 0°  | 2.5° | 5°  | 7.5° | 10° | 12.5° | 15° | 17.5° | 20° | 22.5° | 25° |
|-------|-----|------|-----|------|-----|-------|-----|-------|-----|-------|-----|
| 72.5° | 0.0 | 0.0  | 0.0 | 0.0  | 1.2 | 1.2   | 1.2 | 1.2   | 1.2 | 1.2   | 1.2 |
| 75°   | 0.0 | 0.0  | 0.0 | 0.0  | 0.0 | 1.2   | 1.2 | 1.2   | 1.2 | 1.2   | 1.2 |
| 77.5° | 0.0 | 0.0  | 0.0 | 0.0  | 0.0 | 0.0   | 1.2 | 1.2   | 1.2 | 1.2   | 1.2 |
| 80°   | 0.0 | 0.0  | 0.0 | 0.0  | 0.0 | 0.0   | 1.2 | 1.2   | 1.2 | 1.2   | 1.2 |
| 82.5° | 0.0 | 0.0  | 0.0 | 0.0  | 0.0 | 0.0   | 1.2 | 1.2   | 1.2 | 1.2   | 1.2 |
| 85°   | 0.0 | 0.0  | 0.0 | 0.0  | 0.0 | 1.2   | 1.2 | 1.2   | 1.2 | 1.2   | 1.2 |
| 87.5° | 0.0 | 0.0  | 0.0 | 0.0  | 0.0 | 0.0   | 1.2 | 1.2   | 1.2 | 1.2   | 1.2 |
| 90°   | 0.0 | 0.0  | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |

TEST NUMBER: P1191635

CATALOG NUMBER: LDA4A20935D010TE LAR15SP 4LA1 30° Tilt

**CANDELA DISTRIBUTION (continued):**

|       | 27.5°  | 30°    | 32.5°  | 35°    | 37.5°  | 40°    | 42.5°  | 45°    | 67.5° | 90°   | 112.5° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|-------|-------|--------|
| 0°    | 111.5  | 111.5  | 111.5  | 111.5  | 111.5  | 111.5  | 111.5  | 111.5  | 111.5 | 111.5 | 111.5  |
| 2.5°  | 161.5  | 166.1  | 162.6  | 153.1  | 157.8  | 155.5  | 150.7  | 147.1  | 125.8 | 109.2 | 92.5   |
| 5°    | 381.0  | 384.4  | 364.3  | 328.7  | 316.8  | 297.9  | 270.6  | 251.5  | 142.3 | 104.4 | 82.0   |
| 7.5°  | 720.4  | 696.6  | 677.7  | 611.2  | 582.7  | 538.8  | 486.5  | 449.7  | 162.6 | 98.5  | 76.0   |
| 10°   | 1090.6 | 1052.7 | 1013.4 | 916.1  | 865.2  | 797.6  | 722.7  | 680.0  | 183.9 | 95.0  | 76.0   |
| 12.5° | 1457.3 | 1406.3 | 1335.0 | 1228.3 | 1155.9 | 1064.6 | 962.5  | 886.5  | 199.4 | 97.3  | 87.7   |
| 15°   | 1775.4 | 1713.7 | 1635.4 | 1514.3 | 1430.0 | 1316.1 | 1183.2 | 1078.8 | 206.5 | 110.3 | 122.2  |
| 17.5° | 2121.9 | 2010.4 | 1880.9 | 1726.7 | 1634.1 | 1502.4 | 1352.9 | 1225.9 | 206.5 | 140.0 | 195.8  |
| 20°   | 2520.7 | 2316.5 | 2108.9 | 1892.8 | 1762.3 | 1624.6 | 1464.5 | 1328.0 | 214.7 | 211.3 | 269.3  |
| 22.5° | 2892.1 | 2610.9 | 2317.7 | 2036.5 | 1854.9 | 1705.3 | 1542.7 | 1386.2 | 249.2 | 232.5 | 179.3  |
| 25°   | 3180.5 | 2823.3 | 2477.9 | 2136.1 | 1930.7 | 1764.7 | 1590.2 | 1401.5 | 227.9 | 132.9 | 97.3   |
| 26°   | 3255.2 | 2869.5 | 2509.9 | 2147.9 | 1934.4 | 1763.5 | 1585.4 | 1384.9 | 191.1 | 105.6 | 78.3   |
| 27°   | 3294.3 | 2885.0 | 2512.3 | 2137.2 | 1920.2 | 1743.2 | 1559.3 | 1350.5 | 153.1 | 85.4  | 64.1   |
| 28°   | 3294.3 | 2867.2 | 2487.4 | 2107.7 | 1883.4 | 1705.3 | 1514.3 | 1296.0 | 124.7 | 70.1  | 51.0   |
| 29°   | 3261.2 | 2820.8 | 2437.5 | 2062.5 | 1833.4 | 1651.9 | 1452.6 | 1231.8 | 105.6 | 58.2  | 41.6   |
| 30°   | 3197.0 | 2753.2 | 2371.1 | 2004.5 | 1769.4 | 1591.3 | 1384.9 | 1165.3 | 91.4  | 47.5  | 33.2   |
| 31°   | 3106.8 | 2677.3 | 2289.3 | 1941.5 | 1710.1 | 1535.6 | 1323.2 | 1097.7 | 79.5  | 37.9  | 27.4   |
| 32°   | 2998.9 | 2582.3 | 2205.0 | 1876.2 | 1661.4 | 1483.5 | 1259.2 | 1026.5 | 68.8  | 32.0  | 23.7   |
| 33°   | 2874.3 | 2475.5 | 2117.1 | 1812.2 | 1613.9 | 1424.1 | 1189.1 | 949.4  | 59.4  | 26.1  | 20.1   |
| 34°   | 2736.6 | 2358.1 | 2026.9 | 1743.2 | 1555.9 | 1349.4 | 1107.3 | 867.5  | 51.0  | 22.6  | 16.7   |
| 35°   | 2587.1 | 2226.3 | 1934.4 | 1673.3 | 1490.6 | 1266.3 | 1019.4 | 780.9  | 43.9  | 19.0  | 14.2   |
| 36°   | 2425.7 | 2102.9 | 1844.2 | 1603.2 | 1409.9 | 1176.1 | 923.2  | 691.8  | 37.9  | 15.5  | 13.0   |
| 37°   | 2264.2 | 1986.6 | 1755.1 | 1528.5 | 1316.1 | 1074.0 | 822.5  | 599.3  | 33.2  | 13.0  | 10.7   |
| 38°   | 2111.2 | 1873.8 | 1667.4 | 1441.9 | 1206.9 | 961.3  | 717.9  | 506.8  | 28.5  | 11.9  | 9.6    |
| 39°   | 1967.5 | 1764.7 | 1577.2 | 1338.7 | 1094.1 | 852.1  | 617.1  | 410.6  | 24.9  | 10.7  | 8.3    |
| 40°   | 1838.2 | 1661.4 | 1478.7 | 1223.6 | 977.8  | 740.5  | 515.1  | 306.1  | 21.4  | 8.3   | 7.1    |
| 42.5° | 1565.3 | 1377.8 | 1136.8 | 853.3  | 661.0  | 429.6  | 239.8  | 114.0  | 15.5  | 5.9   | 5.9    |
| 45°   | 1033.6 | 795.1  | 540.0  | 321.6  | 217.2  | 130.6  | 97.3   | 68.8   | 11.9  | 4.8   | 4.8    |
| 47.5° | 345.3  | 219.5  | 160.1  | 115.1  | 98.5   | 78.3   | 62.8   | 42.7   | 8.3   | 3.6   | 3.6    |
| 50°   | 131.8  | 106.9  | 87.7   | 66.5   | 59.4   | 47.5   | 37.9   | 24.9   | 5.9   | 3.6   | 3.6    |
| 51°   | 103.2  | 84.3   | 68.8   | 52.3   | 47.5   | 37.9   | 30.8   | 21.4   | 4.8   | 3.6   | 3.6    |
| 52°   | 79.5   | 65.3   | 53.4   | 40.4   | 37.9   | 30.8   | 26.1   | 17.8   | 4.8   | 2.3   | 3.6    |
| 53°   | 60.5   | 49.8   | 40.4   | 30.8   | 29.7   | 24.9   | 21.4   | 14.2   | 3.6   | 2.3   | 3.6    |
| 54°   | 45.0   | 37.9   | 32.0   | 24.9   | 24.9   | 21.4   | 17.8   | 11.9   | 3.6   | 2.3   | 3.6    |
| 55°   | 34.5   | 28.5   | 24.9   | 19.0   | 20.1   | 17.8   | 15.5   | 9.6    | 3.6   | 2.3   | 3.6    |
| 57.5° | 17.8   | 16.7   | 14.2   | 11.9   | 13.0   | 11.9   | 10.7   | 5.9    | 3.6   | 2.3   | 3.6    |
| 60°   | 10.7   | 9.6    | 8.3    | 7.1    | 8.3    | 8.3    | 8.3    | 3.6    | 3.6   | 2.3   | 3.6    |
| 61°   | 8.3    | 7.1    | 5.9    | 5.9    | 7.1    | 7.1    | 7.1    | 3.6    | 3.6   | 2.3   | 3.6    |
| 62°   | 5.9    | 5.9    | 4.8    | 4.8    | 7.1    | 5.9    | 5.9    | 3.6    | 3.6   | 2.3   | 3.6    |
| 63°   | 4.8    | 4.8    | 4.8    | 3.6    | 5.9    | 5.9    | 5.9    | 3.6    | 3.6   | 2.3   | 3.6    |
| 64°   | 3.6    | 3.6    | 3.6    | 3.6    | 4.8    | 5.9    | 5.9    | 2.3    | 3.6   | 2.3   | 3.6    |
| 65°   | 3.6    | 3.6    | 2.3    | 2.3    | 4.8    | 4.8    | 4.8    | 2.3    | 3.6   | 2.3   | 3.6    |
| 66°   | 2.3    | 2.3    | 2.3    | 2.3    | 4.8    | 4.8    | 4.8    | 2.3    | 3.6   | 2.3   | 3.6    |



TEST NUMBER: P1191635

CATALOG NUMBER: LDA4A20935D010TE LAR15SP 4LA1 30° Tilt

**CANDELA DISTRIBUTION (continued):**

|       | 27.5° | 30° | 32.5° | 35° | 37.5° | 40° | 42.5° | 45° | 67.5° | 90° | 112.5° |
|-------|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|--------|
| 72.5° | 1.2   | 1.2 | 1.2   | 1.2 | 3.6   | 3.6 | 4.8   | 2.3 | 3.6   | 3.6 | 3.6    |
| 75°   | 1.2   | 1.2 | 1.2   | 1.2 | 3.6   | 3.6 | 4.8   | 2.3 | 3.6   | 3.6 | 3.6    |
| 77.5° | 1.2   | 1.2 | 1.2   | 1.2 | 3.6   | 3.6 | 4.8   | 2.3 | 3.6   | 3.6 | 4.8    |
| 80°   | 1.2   | 1.2 | 1.2   | 1.2 | 3.6   | 3.6 | 4.8   | 2.3 | 3.6   | 3.6 | 4.8    |
| 82.5° | 1.2   | 1.2 | 1.2   | 1.2 | 3.6   | 3.6 | 4.8   | 2.3 | 3.6   | 3.6 | 4.8    |
| 85°   | 1.2   | 1.2 | 1.2   | 1.2 | 3.6   | 3.6 | 4.8   | 2.3 | 3.6   | 3.6 | 4.8    |
| 87.5° | 1.2   | 1.2 | 1.2   | 1.2 | 3.6   | 3.6 | 4.8   | 2.3 | 3.6   | 3.6 | 3.6    |
| 90°   | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0    |

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P1191635

CATALOG NUMBER: LDA4A20935D010TE LAR15SP 4LA1 30° Tilt

**CANDELA DISTRIBUTION (continued):**

|       | 135°  | 157.5° | 180°  |
|-------|-------|--------|-------|
| 0°    | 111.5 | 111.5  | 111.5 |
| 2.5°  | 84.3  | 80.7   | 78.3  |
| 5°    | 72.4  | 68.8   | 67.6  |
| 7.5°  | 67.6  | 66.5   | 67.6  |
| 10°   | 74.7  | 79.5   | 85.4  |
| 12.5° | 99.6  | 117.4  | 127.0 |
| 15°   | 164.9 | 214.7  | 236.2 |
| 17.5° | 290.8 | 331.2  | 354.9 |
| 20°   | 256.3 | 233.9  | 246.9 |
| 22.5° | 138.9 | 121.1  | 124.7 |
| 25°   | 77.2  | 66.5   | 67.6  |
| 26°   | 61.7  | 53.4   | 53.4  |
| 27°   | 49.8  | 42.7   | 42.7  |
| 28°   | 40.4  | 34.5   | 34.5  |
| 29°   | 32.0  | 27.4   | 27.4  |
| 30°   | 26.1  | 22.6   | 22.6  |
| 31°   | 21.4  | 17.8   | 17.8  |
| 32°   | 17.8  | 15.5   | 14.2  |
| 33°   | 15.5  | 13.0   | 11.9  |
| 34°   | 13.0  | 10.7   | 9.6   |
| 35°   | 10.7  | 8.3    | 8.3   |
| 36°   | 9.6   | 7.1    | 7.1   |
| 37°   | 8.3   | 5.9    | 5.9   |
| 38°   | 7.1   | 4.8    | 4.8   |
| 39°   | 5.9   | 4.8    | 3.6   |
| 40°   | 4.8   | 3.6    | 2.3   |
| 42.5° | 3.6   | 2.3    | 1.2   |
| 45°   | 3.6   | 1.2    | 0.0   |
| 47.5° | 2.3   | 1.2    | 0.0   |
| 50°   | 2.3   | 0.0    | 0.0   |
| 51°   | 2.3   | 0.0    | 0.0   |
| 52°   | 2.3   | 0.0    | 0.0   |
| 53°   | 1.2   | 0.0    | 0.0   |
| 54°   | 2.3   | 0.0    | 0.0   |
| 55°   | 1.2   | 0.0    | 0.0   |
| 57.5° | 2.3   | 0.0    | 0.0   |
| 60°   | 2.3   | 0.0    | 0.0   |
| 61°   | 2.3   | 0.0    | 0.0   |
| 62°   | 2.3   | 0.0    | 0.0   |
| 63°   | 2.3   | 0.0    | 0.0   |
| 64°   | 2.3   | 1.2    | 0.0   |
| 65°   | 2.3   | 1.2    | 0.0   |
| 66°   | 2.3   | 1.2    | 0.0   |



TEST NUMBER: P1191635

CATALOG NUMBER: LDA4A20935D010TE LAR15SP 4LA1 30° Tilt

**CANDELA DISTRIBUTION (continued):**

|       | 135° | 157.5° | 180° |
|-------|------|--------|------|
| 72.5° | 2.3  | 1.2    | 0.0  |
| 75°   | 2.3  | 1.2    | 0.0  |
| 77.5° | 2.3  | 1.2    | 0.0  |
| 80°   | 2.3  | 1.2    | 0.0  |
| 82.5° | 2.3  | 1.2    | 0.0  |
| 85°   | 2.3  | 1.2    | 0.0  |
| 87.5° | 2.3  | 1.2    | 0.0  |
| 90°   | 0.0  | 0.0    | 0.0  |

Classified

Scaled Data Report

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



Report Generated By 670245859 / DESKTOP-T8S5UU9

Classified

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269

Scaled Data Report



Classified

Scaled Data Report

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



— 0°-180°    - - 45°-225°    - - - 90°-270°

Classified

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269

Scaled Data Report



Classified

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269

Scaled Data Report





|       |     |     |     |     |     |     |     |     |     |     |     |
|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 67.5° | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 2.3 | 2.3 |
| 70°   | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 2.3 | 2.3 | 1.2 | 1.2 |

Classified

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269

Scaled Data Report



Classified  
Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269

Scaled Data Report



|       |     |     |     |     |     |     |     |     |     |     |     |
|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 67.5° | 2.3 | 1.2 | 2.3 | 2.3 | 3.6 | 4.8 | 4.8 | 2.3 | 3.6 | 2.3 | 3.6 |
| 70°   | 1.2 | 1.2 | 1.2 | 1.2 | 3.6 | 3.6 | 4.8 | 2.3 | 3.6 | 2.3 | 3.6 |

Classified

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269

Scaled Data Report



Classified  
Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269

Scaled Data Report



|       |     |     |     |
|-------|-----|-----|-----|
| 67.5° | 2.3 | 1.2 | 0.0 |
| 70°   | 2.3 | 1.2 | 0.0 |

Classified

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269

Scaled Data Report



(END OF REPORT)