

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: P1219521

Luminaire Tested: **LDSQA4A15950D010TE LAR25NF 4LSQAL1H 30°**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-41-14  
Report Number: P1219521  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P26803)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LDSQA4A15950D010TE LAR25NF 4LSQAL1H 30°  
Description: PORTFOLIO 4" SQUARE LENSED ADJUSTABLE, SELF-FLANGED, 25° NARROW FLOOD, 30° Tilt  
Light Source: (1) HIGH LUMEN LED 90CRI / 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

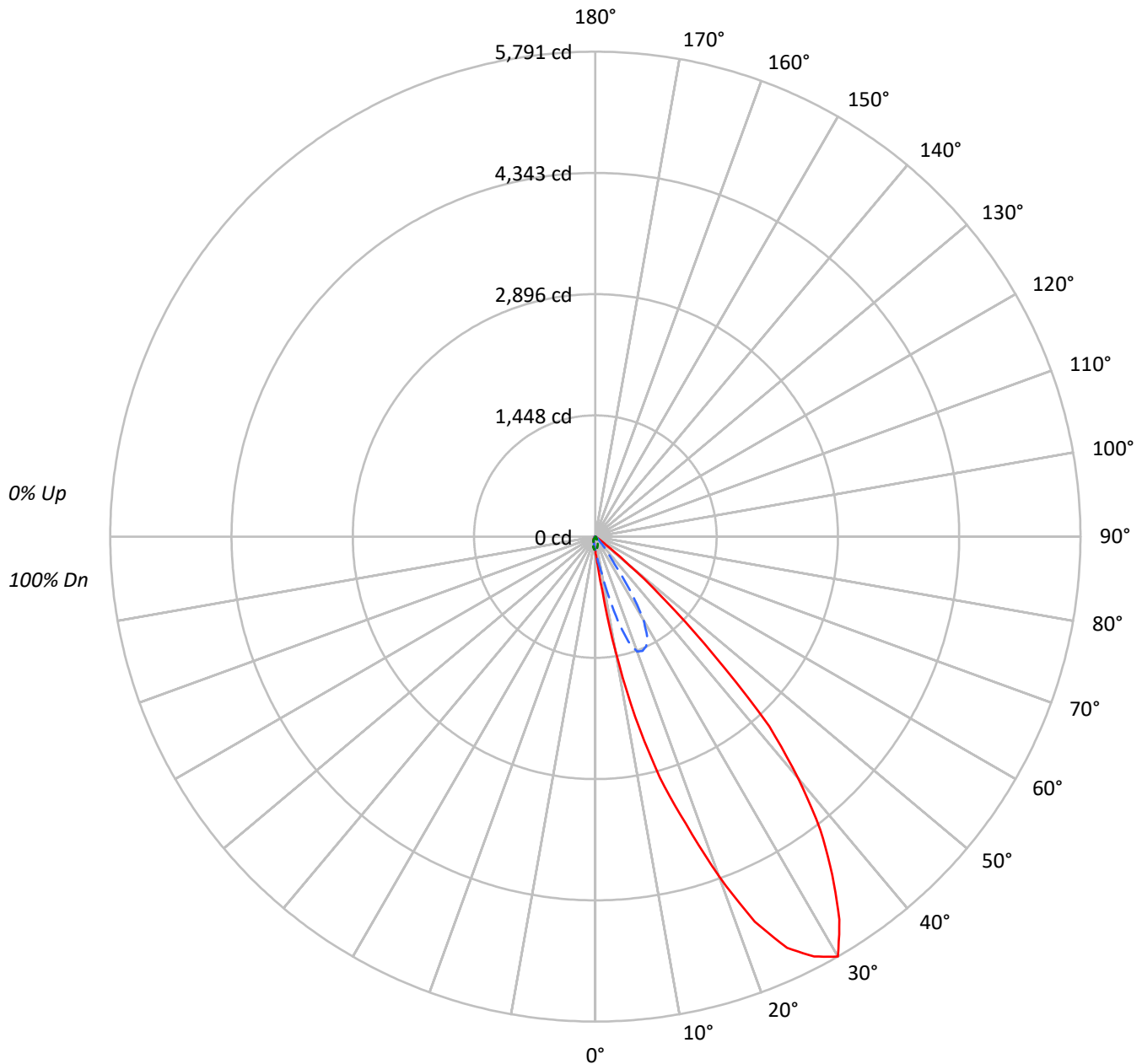
Lumens per Lamp: N/A  
Luminaire Lumens: 1450.5 lumens  
Efficiency: N/A  
Efficacy: 71.1 lumens/watt  
Spacing Criteria (0/90/45): 2.37 / 0.61 / 1.19  
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 20.4  
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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### Luminous Intensity Polar Plot



Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



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**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   | 113 | 109 | 106 | 104 | 110 | 107 | 105 | 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  | 86  | 81  | 97  | 90  | 85  | 80  | 87  | 83  | 79  |  | 85  | 81  | 78  |  | 82  |
| 4   | 93  | 84  | 77  | 72  | 91  | 83  | 76  | 72  | 80  | 75  | 71  |  | 78  | 74  | 70  |  | 76  |
| 5   | 87  | 77  | 70  | 65  | 85  | 76  | 69  | 64  | 74  | 68  | 64  |  | 72  | 67  | 63  |  | 70  |
| 6   | 81  | 70  | 63  | 58  | 79  | 69  | 63  | 58  | 68  | 62  | 57  |  | 66  | 61  | 57  |  | 65  |
| 7   | 76  | 65  | 57  | 52  | 74  | 64  | 57  | 52  | 62  | 56  | 52  |  | 61  | 56  | 52  |  | 60  |
| 8   | 71  | 59  | 52  | 47  | 69  | 59  | 52  | 47  | 58  | 51  | 47  |  | 57  | 51  | 47  |  | 55  |
| 9   | 66  | 55  | 48  | 43  | 65  | 54  | 48  | 43  | 53  | 47  | 43  |  | 52  | 47  | 43  |  | 51  |
| 10  | 62  | 51  | 44  | 39  | 61  | 50  | 44  | 39  | 49  | 43  | 39  |  | 48  | 43  | 39  |  | 48  |

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

|     | 0°     | 90°   | 180°  |
|-----|--------|-------|-------|
| 0°  | 15655  | 15655 | 15655 |
| 5°  | 35057  | 14723 | 10551 |
| 10° | 137482 | 12886 | 8322  |
| 15° | 298431 | 10440 | 7231  |
| 20° | 445226 | 7742  | 6526  |
| 25° | 579088 | 5451  | 5676  |
| 30° | 647816 | 3669  | 4967  |
| 35° | 582990 | 2152  | 4234  |
| 40° | 475788 | 1467  | 3680  |
| 45° | 273183 | 1000  | 2987  |
| 50° | 79907  | 784   | 2517  |
| 55° | 9222   | 608   | 2094  |
| 60° | 1976   | 698   | 1686  |
| 65° | 665    | 665   | 1192  |
| 70° | 623    | 821   | 821   |
| 75° | 561    | 1085  | 823   |
| 80° | 0      | 1618  | 837   |
| 85° | 0      | 3223  | 778   |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 23.2   | 1.6       |
| 10°-20°   | 198.6  | 13.7      |
| 20°-30°   | 473.7  | 32.7      |
| 30°-40°   | 499.9  | 34.5      |
| 40°-50°   | 226.7  | 15.6      |
| 50°-60°   | 19.9   | 1.4       |
| 60°-70°   | 4.2    | 0.3       |
| 70°-80°   | 2.7    | 0.2       |
| 80°-90°   | 1.7    | 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°    | 695.4  | 47.9      |
| 0°-40°    | 1195.3 | 82.4      |
| 0°-60°    | 1441.9 | 99.4      |
| 0°-90°    | 1450.5 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1450.5 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 45°  | 90° | 135° | 180° | Flux |
|-----|------|------|-----|------|------|------|
| 0°  | 162  | 162  | 162 | 162  | 162  |      |
| 5°  | 360  | 264  | 151 | 117  | 108  | 65   |
| 15° | 2976 | 1046 | 104 | 71   | 72   | 866  |
| 25° | 5418 | 1440 | 51  | 44   | 53   | 2461 |
| 35° | 4930 | 398  | 18  | 25   | 36   | 3044 |
| 45° | 1994 | 56   | 7   | 14   | 22   | 1581 |
| 55° | 55   | 9    | 4   | 8    | 12   | 109  |
| 65° | 3    | 3    | 3   | 6    | 5    | 4    |
| 75° | 2    | 2    | 3   | 4    | 2    | 1    |
| 85° | 0    | 2    | 3   | 2    | 1    | 0    |
| 90° | 0    | 0    | 0   | 0    | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 10°    | 15°    | 20°    | 22.5°  | 25°    | 30°    | 35°    | 40°    | 45°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 161.6  | 161.6  | 161.6  | 161.6  | 161.6  | 161.6  | 161.6  | 161.6  | 161.6  | 161.6  | 161.6  |
| 2.5°  | 240.3  | 241.8  | 235.2  | 236.0  | 229.4  | 232.2  | 230.2  | 224.3  | 220.0  | 212.6  | 209.8  |
| 5°    | 360.5  | 362.8  | 348.1  | 343.8  | 328.4  | 328.4  | 321.9  | 306.6  | 292.8  | 276.0  | 264.4  |
| 7.5°  | 659.0  | 667.8  | 624.1  | 591.4  | 543.3  | 531.6  | 509.1  | 456.7  | 413.7  | 369.9  | 337.2  |
| 10°   | 1397.6 | 1381.5 | 1291.3 | 1216.9 | 1093.1 | 1047.2 | 986.0  | 835.3  | 696.9  | 559.3  | 451.5  |
| 12.5° | 2203.8 | 2255.4 | 2081.4 | 2020.9 | 1825.1 | 1783.6 | 1653.1 | 1407.0 | 1173.2 | 930.1  | 714.5  |
| 15°   | 2975.6 | 2991.0 | 2838.8 | 2740.5 | 2501.6 | 2447.6 | 2287.5 | 1998.4 | 1683.7 | 1344.3 | 1046.4 |
| 17.5° | 3595.5 | 3656.6 | 3433.1 | 3327.5 | 3017.2 | 2930.5 | 2742.0 | 2390.2 | 2039.9 | 1669.2 | 1315.9 |
| 20°   | 4318.7 | 4334.6 | 4069.6 | 3866.3 | 3460.7 | 3328.9 | 3103.2 | 2666.9 | 2249.6 | 1826.6 | 1461.6 |
| 22.5° | 4976.3 | 4972.6 | 4631.7 | 4344.8 | 3831.5 | 3674.1 | 3395.2 | 2878.1 | 2393.1 | 1896.4 | 1475.4 |
| 25°   | 5417.6 | 5429.2 | 5064.4 | 4725.0 | 4095.0 | 3882.4 | 3567.7 | 2988.1 | 2441.9 | 1894.3 | 1440.5 |
| 27.5° | 5652.8 | 5641.2 | 5250.0 | 4887.4 | 4191.9 | 3953.8 | 3612.2 | 2991.7 | 2397.4 | 1819.9 | 1335.6 |
| 30°   | 5791.2 | 5635.3 | 5218.0 | 4841.5 | 4126.3 | 3881.7 | 3534.3 | 2876.7 | 2249.6 | 1653.8 | 1148.5 |
| 32.5° | 5421.2 | 5360.8 | 4997.4 | 4597.5 | 3900.6 | 3658.1 | 3315.1 | 2631.9 | 2015.1 | 1399.7 | 823.0  |
| 35°   | 4929.6 | 4931.8 | 4577.1 | 4203.6 | 3546.7 | 3335.5 | 2981.5 | 2334.1 | 1728.9 | 973.0  | 397.6  |
| 37.5° | 4414.0 | 4421.4 | 4084.1 | 3736.7 | 3151.9 | 2929.8 | 2598.5 | 1994.7 | 1243.8 | 495.2  | 239.6  |
| 40°   | 3762.3 | 3777.5 | 3486.9 | 3208.0 | 2668.4 | 2454.3 | 2158.5 | 1509.7 | 695.4  | 276.7  | 162.3  |
| 42.5° | 3073.9 | 3093.0 | 2835.1 | 2587.5 | 2128.7 | 1952.5 | 1690.3 | 935.1  | 345.2  | 179.2  | 95.5   |
| 45°   | 1994.0 | 2048.6 | 1857.1 | 1752.9 | 1487.2 | 1382.3 | 1103.3 | 477.0  | 208.3  | 104.9  | 56.2   |
| 47.5° | 1141.2 | 1141.9 | 980.3  | 785.1  | 643.8  | 560.0  | 437.6  | 217.0  | 121.6  | 59.0   | 34.2   |
| 50°   | 530.2  | 543.3  | 430.4  | 358.3  | 256.4  | 217.0  | 178.5  | 117.3  | 64.1   | 34.2   | 21.1   |
| 52.5° | 154.4  | 163.1  | 147.9  | 134.0  | 113.6  | 101.2  | 86.7   | 57.5   | 33.5   | 20.4   | 13.1   |
| 55°   | 54.6   | 58.2   | 54.6   | 51.0   | 46.0   | 41.5   | 37.1   | 27.7   | 18.9   | 12.4   | 8.7    |
| 57.5° | 22.6   | 23.3   | 22.6   | 21.8   | 20.4   | 20.4   | 18.2   | 15.4   | 11.6   | 8.0    | 5.8    |
| 60°   | 10.2   | 10.9   | 10.2   | 10.9   | 10.2   | 10.2   | 10.2   | 10.9   | 7.3    | 5.2    | 4.4    |
| 62.5° | 4.4    | 5.2    | 5.2    | 5.2    | 5.2    | 5.8    | 5.8    | 5.2    | 4.4    | 3.6    | 2.9    |
| 65°   | 2.9    | 2.9    | 2.9    | 2.9    | 2.9    | 2.9    | 2.9    | 2.9    | 2.9    | 2.9    | 2.9    |
| 67.5° | 2.2    | 2.2    | 2.2    | 2.2    | 2.2    | 2.2    | 2.2    | 2.2    | 2.2    | 2.2    | 2.2    |
| 70°   | 2.2    | 2.2    | 2.2    | 2.2    | 2.2    | 2.2    | 1.5    | 1.5    | 2.2    | 2.2    | 2.2    |
| 72.5° | 2.2    | 2.2    | 2.2    | 2.2    | 1.5    | 1.5    | 1.5    | 1.5    | 1.5    | 2.2    | 2.2    |
| 75°   | 1.5    | 1.5    | 1.5    | 1.5    | 1.5    | 1.5    | 1.5    | 1.5    | 1.5    | 1.5    | 1.5    |
| 77.5° | 0.0    | 0.0    | 0.0    | 0.7    | 0.7    | 0.7    | 0.7    | 0.7    | 1.5    | 1.5    | 1.5    |
| 80°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.7    | 0.7    | 0.7    | 0.7    | 1.5    | 1.5    | 1.5    |
| 82.5° | 0.0    | 0.0    | 0.0    | 0.7    | 0.7    | 0.7    | 0.7    | 0.7    | 1.5    | 1.5    | 1.5    |
| 85°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.7    | 0.7    | 0.7    | 0.7    | 1.5    | 1.5    | 1.5    |
| 87.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.7    | 0.7    | 0.7    | 0.7    | 1.5    | 1.5    | 1.5    |
| 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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**CANDELA DISTRIBUTION (continued):**

|       | 50°    | 55°   | 60°   | 65°   | 67.5° | 70°   | 75°   | 80°   | 85°   | 90°   | 95°   |
|-------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0°    | 161.6  | 161.6 | 161.6 | 161.6 | 161.6 | 161.6 | 161.6 | 161.6 | 161.6 | 161.6 | 161.6 |
| 2.5°  | 206.1  | 199.6 | 189.4 | 182.7 | 179.9 | 175.6 | 172.5 | 165.4 | 162.3 | 156.6 | 154.4 |
| 5°    | 253.4  | 240.3 | 225.1 | 212.6 | 204.7 | 195.9 | 182.7 | 168.3 | 160.9 | 151.4 | 146.4 |
| 7.5°  | 307.3  | 278.9 | 252.0 | 230.2 | 220.0 | 208.3 | 191.5 | 169.0 | 155.2 | 142.7 | 135.5 |
| 10°   | 375.9  | 317.5 | 275.3 | 240.3 | 225.1 | 209.8 | 189.4 | 163.1 | 145.7 | 131.0 | 123.0 |
| 12.5° | 536.0  | 383.1 | 296.4 | 246.2 | 226.5 | 207.6 | 182.0 | 155.2 | 134.8 | 118.0 | 109.2 |
| 15°   | 771.3  | 535.3 | 353.3 | 251.3 | 221.3 | 198.1 | 169.0 | 142.0 | 120.8 | 104.1 | 95.5  |
| 17.5° | 979.6  | 682.4 | 431.8 | 270.2 | 220.0 | 187.2 | 152.9 | 125.3 | 104.9 | 88.8  | 81.5  |
| 20°   | 1093.1 | 759.5 | 484.3 | 281.8 | 213.3 | 170.4 | 134.8 | 108.5 | 88.8  | 75.1  | 68.4  |
| 22.5° | 1095.3 | 755.2 | 465.4 | 256.4 | 187.9 | 147.9 | 116.6 | 91.7  | 74.3  | 61.9  | 56.8  |
| 25°   | 1029.8 | 673.7 | 388.1 | 201.7 | 153.6 | 125.3 | 97.7  | 76.5  | 60.4  | 51.0  | 46.6  |
| 27.5° | 907.4  | 547.7 | 285.5 | 145.7 | 120.1 | 101.2 | 78.6  | 61.2  | 47.3  | 41.5  | 37.9  |
| 30°   | 713.8  | 356.8 | 166.8 | 108.5 | 93.2  | 77.9  | 59.7  | 43.0  | 37.1  | 32.8  | 29.8  |
| 32.5° | 383.1  | 173.3 | 116.6 | 80.1  | 66.4  | 54.6  | 39.3  | 31.3  | 26.9  | 24.0  | 23.3  |
| 35°   | 200.3  | 126.8 | 77.9  | 51.0  | 42.2  | 35.8  | 26.9  | 21.8  | 19.7  | 18.2  | 18.2  |
| 37.5° | 143.4  | 79.4  | 49.5  | 32.8  | 27.7  | 22.6  | 18.9  | 16.0  | 14.6  | 14.6  | 14.6  |
| 40°   | 85.3   | 48.8  | 29.8  | 21.1  | 18.2  | 16.0  | 13.8  | 11.6  | 11.6  | 11.6  | 11.6  |
| 42.5° | 51.7   | 30.6  | 21.1  | 14.6  | 13.1  | 11.6  | 10.2  | 9.5   | 8.7   | 8.7   | 9.5   |
| 45°   | 32.0   | 21.1  | 13.8  | 10.9  | 10.2  | 8.7   | 8.0   | 7.3   | 7.3   | 7.3   | 8.0   |
| 47.5° | 20.4   | 15.4  | 10.2  | 7.3   | 6.6   | 5.8   | 5.2   | 5.2   | 5.8   | 5.8   | 6.6   |
| 50°   | 15.4   | 9.5   | 6.6   | 5.2   | 4.4   | 4.4   | 3.6   | 4.4   | 4.4   | 5.2   | 5.8   |
| 52.5° | 8.7    | 5.8   | 4.4   | 3.6   | 3.6   | 2.9   | 2.9   | 3.6   | 3.6   | 4.4   | 5.2   |
| 55°   | 5.8    | 4.4   | 3.6   | 2.9   | 2.9   | 2.9   | 2.9   | 2.9   | 3.6   | 3.6   | 4.4   |
| 57.5° | 4.4    | 3.6   | 2.9   | 2.9   | 2.9   | 2.2   | 2.9   | 2.9   | 2.9   | 3.6   | 4.4   |
| 60°   | 3.6    | 2.9   | 2.9   | 2.9   | 2.9   | 2.2   | 2.2   | 2.9   | 2.9   | 3.6   | 3.6   |
| 62.5° | 2.9    | 2.9   | 2.9   | 2.9   | 2.9   | 2.2   | 2.9   | 2.9   | 2.9   | 2.9   | 3.6   |
| 65°   | 2.2    | 2.9   | 2.9   | 2.9   | 2.9   | 2.9   | 2.9   | 2.9   | 2.9   | 2.9   | 3.6   |
| 67.5° | 2.2    | 2.2   | 2.9   | 2.9   | 2.9   | 2.2   | 2.9   | 2.9   | 2.9   | 2.9   | 3.6   |
| 70°   | 2.2    | 2.2   | 2.2   | 2.9   | 2.9   | 2.2   | 2.9   | 2.9   | 2.9   | 2.9   | 2.9   |
| 72.5° | 2.2    | 2.2   | 2.2   | 2.9   | 2.9   | 2.2   | 2.9   | 2.9   | 2.9   | 2.9   | 2.9   |
| 75°   | 2.2    | 2.2   | 2.2   | 2.2   | 2.2   | 2.2   | 2.2   | 2.2   | 2.9   | 2.9   | 2.9   |
| 77.5° | 2.2    | 2.2   | 2.2   | 2.2   | 2.9   | 2.2   | 2.9   | 2.9   | 2.9   | 2.9   | 2.9   |
| 80°   | 2.2    | 2.2   | 2.2   | 2.2   | 2.2   | 2.2   | 2.9   | 2.9   | 2.9   | 2.9   | 2.9   |
| 82.5° | 2.2    | 2.2   | 2.2   | 2.2   | 2.2   | 2.2   | 2.2   | 2.9   | 2.9   | 2.9   | 2.9   |
| 85°   | 2.2    | 2.2   | 2.2   | 2.2   | 2.2   | 2.2   | 2.2   | 2.9   | 2.9   | 2.9   | 2.9   |
| 87.5° | 2.2    | 2.2   | 2.2   | 2.2   | 2.2   | 2.2   | 2.2   | 2.2   | 2.9   | 2.9   | 2.9   |
| 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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**CANDELA DISTRIBUTION (continued):**

|       | 100°  | 105°  | 110°  | 112.5° | 115°  | 120°  | 125°  | 130°  | 135°  | 140°  | 145°  |
|-------|-------|-------|-------|--------|-------|-------|-------|-------|-------|-------|-------|
| 0°    | 161.6 | 161.6 | 161.6 | 161.6  | 161.6 | 161.6 | 161.6 | 161.6 | 161.6 | 161.6 | 161.6 |
| 2.5°  | 148.6 | 146.4 | 142.0 | 141.2  | 140.5 | 137.7 | 135.5 | 133.2 | 133.2 | 131.0 | 129.6 |
| 5°    | 137.7 | 134.0 | 128.9 | 126.8  | 126.0 | 122.3 | 119.4 | 117.3 | 116.6 | 114.4 | 112.1 |
| 7.5°  | 126.0 | 121.6 | 115.9 | 113.6  | 112.8 | 109.2 | 106.4 | 104.1 | 102.6 | 100.5 | 99.0  |
| 10°   | 113.6 | 108.5 | 103.4 | 101.2  | 100.5 | 96.9  | 94.7  | 92.5  | 91.0  | 89.5  | 88.1  |
| 12.5° | 100.5 | 96.2  | 91.0  | 88.8   | 88.1  | 85.3  | 83.0  | 81.5  | 80.8  | 79.4  | 78.6  |
| 15°   | 87.5  | 83.0  | 78.6  | 77.2   | 76.5  | 74.3  | 72.8  | 72.1  | 71.3  | 71.3  | 70.6  |
| 17.5° | 74.3  | 70.6  | 67.0  | 66.4   | 65.6  | 64.1  | 63.3  | 62.6  | 63.3  | 63.3  | 64.1  |
| 20°   | 61.9  | 59.0  | 56.2  | 56.2   | 55.4  | 54.6  | 54.6  | 54.6  | 56.2  | 56.8  | 58.2  |
| 22.5° | 51.0  | 48.8  | 46.6  | 46.6   | 46.6  | 46.6  | 46.6  | 48.0  | 49.5  | 51.0  | 51.7  |
| 25°   | 42.2  | 40.0  | 39.3  | 39.3   | 39.3  | 40.0  | 40.8  | 42.2  | 43.7  | 45.2  | 46.6  |
| 27.5° | 34.2  | 32.8  | 32.8  | 32.8   | 33.5  | 34.2  | 35.0  | 36.4  | 38.6  | 40.0  | 41.5  |
| 30°   | 27.7  | 26.9  | 26.9  | 27.7   | 28.4  | 29.1  | 30.6  | 32.0  | 33.5  | 35.0  | 36.4  |
| 32.5° | 21.8  | 22.6  | 22.6  | 23.3   | 24.0  | 24.8  | 26.2  | 27.7  | 29.1  | 30.6  | 31.3  |
| 35°   | 18.2  | 18.2  | 18.9  | 19.7   | 20.4  | 21.1  | 22.6  | 24.0  | 24.8  | 26.2  | 27.7  |
| 37.5° | 14.6  | 15.4  | 16.0  | 16.7   | 17.5  | 18.2  | 18.9  | 20.4  | 21.1  | 22.6  | 24.0  |
| 40°   | 12.4  | 13.1  | 13.8  | 14.6   | 14.6  | 16.0  | 16.0  | 17.5  | 18.2  | 19.7  | 21.1  |
| 42.5° | 10.2  | 10.9  | 11.6  | 12.4   | 12.4  | 13.1  | 13.8  | 14.6  | 16.0  | 16.7  | 18.2  |
| 45°   | 8.0   | 8.7   | 9.5   | 10.2   | 10.9  | 11.6  | 11.6  | 13.1  | 13.8  | 14.6  | 16.0  |
| 47.5° | 7.3   | 8.0   | 8.7   | 8.7    | 9.5   | 10.2  | 10.2  | 11.6  | 12.4  | 13.1  | 13.8  |
| 50°   | 5.8   | 6.6   | 7.3   | 8.0    | 8.0   | 8.7   | 9.5   | 10.2  | 10.9  | 11.6  | 11.6  |
| 52.5° | 5.2   | 5.8   | 6.6   | 6.6    | 7.3   | 8.0   | 8.0   | 8.7   | 9.5   | 9.5   | 10.2  |
| 55°   | 5.2   | 5.8   | 5.8   | 6.6    | 6.6   | 7.3   | 7.3   | 8.0   | 8.0   | 8.7   | 8.7   |
| 57.5° | 4.4   | 5.2   | 5.2   | 5.8    | 5.8   | 6.6   | 6.6   | 7.3   | 7.3   | 7.3   | 8.0   |
| 60°   | 4.4   | 4.4   | 5.2   | 5.2    | 5.8   | 5.8   | 5.8   | 6.6   | 6.6   | 6.6   | 7.3   |
| 62.5° | 3.6   | 4.4   | 4.4   | 5.2    | 5.2   | 5.2   | 5.8   | 5.8   | 5.8   | 6.6   | 6.6   |
| 65°   | 3.6   | 4.4   | 4.4   | 5.2    | 5.2   | 5.2   | 5.2   | 5.2   | 5.8   | 5.8   | 5.8   |
| 67.5° | 3.6   | 3.6   | 4.4   | 4.4    | 4.4   | 4.4   | 5.2   | 5.2   | 5.2   | 5.2   | 5.2   |
| 70°   | 3.6   | 3.6   | 3.6   | 4.4    | 4.4   | 4.4   | 4.4   | 4.4   | 4.4   | 4.4   | 4.4   |
| 72.5° | 2.9   | 3.6   | 3.6   | 3.6    | 3.6   | 4.4   | 4.4   | 4.4   | 4.4   | 4.4   | 3.6   |
| 75°   | 2.9   | 2.9   | 3.6   | 3.6    | 3.6   | 3.6   | 3.6   | 3.6   | 3.6   | 3.6   | 3.6   |
| 77.5° | 2.9   | 2.9   | 2.9   | 3.6    | 3.6   | 3.6   | 3.6   | 3.6   | 3.6   | 2.9   | 2.9   |
| 80°   | 2.9   | 2.9   | 2.9   | 2.9    | 2.9   | 2.9   | 2.9   | 2.9   | 2.9   | 2.9   | 2.2   |
| 82.5° | 2.9   | 2.9   | 2.9   | 2.9    | 2.9   | 2.9   | 2.9   | 2.9   | 2.2   | 2.2   | 2.2   |
| 85°   | 2.9   | 2.2   | 2.9   | 2.9    | 2.9   | 2.2   | 2.2   | 2.2   | 2.2   | 2.2   | 1.5   |
| 87.5° | 2.2   | 2.2   | 2.2   | 2.2    | 2.2   | 2.2   | 2.2   | 2.2   | 2.2   | 1.5   | 1.5   |
| 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: P1219521

CATALOG NUMBER: LDSQA4A15950D010TE LAR25NF 4LSQAL1H 30°

**CANDELA DISTRIBUTION (continued):**

|       | 150°  | 155°  | 157.5° | 160°  | 165°  | 170°  | 175°  | 180°  |
|-------|-------|-------|--------|-------|-------|-------|-------|-------|
| 0°    | 161.6 | 161.6 | 161.6  | 161.6 | 161.6 | 161.6 | 161.6 | 161.6 |
| 2.5°  | 128.2 | 126.8 | 127.5  | 127.5 | 126.0 | 125.3 | 125.3 | 126.0 |
| 5°    | 110.7 | 109.2 | 109.9  | 109.9 | 108.5 | 107.8 | 107.8 | 108.5 |
| 7.5°  | 97.7  | 96.2  | 96.9   | 96.9  | 95.5  | 95.5  | 95.5  | 95.5  |
| 10°   | 87.5  | 86.7  | 86.7   | 86.7  | 85.3  | 86.0  | 85.3  | 84.6  |
| 12.5° | 77.9  | 77.9  | 77.9   | 77.9  | 77.2  | 77.9  | 77.2  | 77.2  |
| 15°   | 70.6  | 70.6  | 71.3   | 71.3  | 71.3  | 72.1  | 72.1  | 72.1  |
| 17.5° | 64.9  | 65.6  | 66.4   | 67.0  | 67.0  | 67.7  | 67.7  | 67.7  |
| 20°   | 59.0  | 60.4  | 61.2   | 61.9  | 61.9  | 63.3  | 62.6  | 63.3  |
| 22.5° | 53.1  | 54.6  | 55.4   | 56.2  | 56.8  | 57.5  | 57.5  | 58.2  |
| 25°   | 48.0  | 49.5  | 50.2   | 51.0  | 51.7  | 53.1  | 53.1  | 53.1  |
| 27.5° | 43.0  | 44.4  | 45.2   | 46.6  | 47.3  | 48.8  | 48.8  | 48.8  |
| 30°   | 37.9  | 39.3  | 40.0   | 40.8  | 42.2  | 43.7  | 43.7  | 44.4  |
| 32.5° | 32.8  | 35.0  | 35.8   | 36.4  | 37.9  | 39.3  | 40.0  | 40.0  |
| 35°   | 29.1  | 30.6  | 31.3   | 32.8  | 33.5  | 35.8  | 35.8  | 35.8  |
| 37.5° | 25.6  | 26.9  | 28.4   | 29.1  | 29.8  | 31.3  | 32.0  | 32.8  |
| 40°   | 22.6  | 24.0  | 24.8   | 25.6  | 26.9  | 28.4  | 29.1  | 29.1  |
| 42.5° | 19.7  | 21.1  | 21.8   | 22.6  | 23.3  | 24.8  | 24.8  | 24.8  |
| 45°   | 17.5  | 18.2  | 18.9   | 19.7  | 20.4  | 21.1  | 21.8  | 21.8  |
| 47.5° | 14.6  | 16.0  | 16.0   | 16.7  | 17.5  | 18.9  | 18.9  | 19.7  |
| 50°   | 12.4  | 13.8  | 13.8   | 14.6  | 15.4  | 16.0  | 16.7  | 16.7  |
| 52.5° | 10.9  | 11.6  | 12.4   | 12.4  | 13.1  | 13.8  | 14.6  | 14.6  |
| 55°   | 9.5   | 10.2  | 10.2   | 10.9  | 10.9  | 11.6  | 12.4  | 12.4  |
| 57.5° | 8.0   | 8.7   | 9.5    | 9.5   | 9.5   | 10.2  | 10.2  | 10.9  |
| 60°   | 7.3   | 8.0   | 8.0    | 8.0   | 8.0   | 8.7   | 8.7   | 8.7   |
| 62.5° | 6.6   | 6.6   | 6.6    | 6.6   | 6.6   | 6.6   | 6.6   | 6.6   |
| 65°   | 5.8   | 5.8   | 5.8    | 5.8   | 5.2   | 5.2   | 5.2   | 5.2   |
| 67.5° | 5.2   | 5.2   | 5.2    | 5.2   | 4.4   | 4.4   | 4.4   | 4.4   |
| 70°   | 4.4   | 4.4   | 4.4    | 4.4   | 3.6   | 3.6   | 3.6   | 2.9   |
| 72.5° | 3.6   | 3.6   | 3.6    | 3.6   | 3.6   | 2.9   | 2.9   | 2.9   |
| 75°   | 3.6   | 2.9   | 2.9    | 2.9   | 2.9   | 2.9   | 2.2   | 2.2   |
| 77.5° | 2.9   | 2.9   | 2.9    | 2.2   | 2.2   | 2.2   | 2.2   | 2.2   |
| 80°   | 2.2   | 2.2   | 2.2    | 2.2   | 2.2   | 1.5   | 1.5   | 1.5   |
| 82.5° | 2.2   | 1.5   | 1.5    | 1.5   | 1.5   | 1.5   | 1.5   | 1.5   |
| 85°   | 1.5   | 1.5   | 1.5    | 1.5   | 0.7   | 0.7   | 0.7   | 0.7   |
| 87.5° | 1.5   | 0.7   | 0.7    | 0.7   | 0.7   | 0.7   | 0.7   | 0.7   |
| 90°   | 0.0   | 0.0   | 0.0    | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |

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Scaled Data Report

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



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1121 Highway 74 South

Peachtree City, GA 30269

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Peachtree City, GA 30269

## Scaled Data Report



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

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(END OF REPORT)