

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: P274289

Luminaire Tested: **LD4B10DE010W2N2765 EU4B1020W2N902765 4LBW0MW**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P274289
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P35172)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LD4B10DE010W2N2765 EU4B1020W2N902765 4LBW0MW
Description: PORTFOLIO 4" W2N RN DOWNLIGHT, WIDE DISTRIBUTION WITH MATTE WHITE FINISH
Light Source: W2N 2700K-6500K CCT TUNING RANGE
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 938.6 lumens
Efficiency: N/A
Efficacy: 67.0 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1.1 / 1.09
Luminous Opening: Circular (Dia: 0.35' x H: 0')
CIE Type: Direct

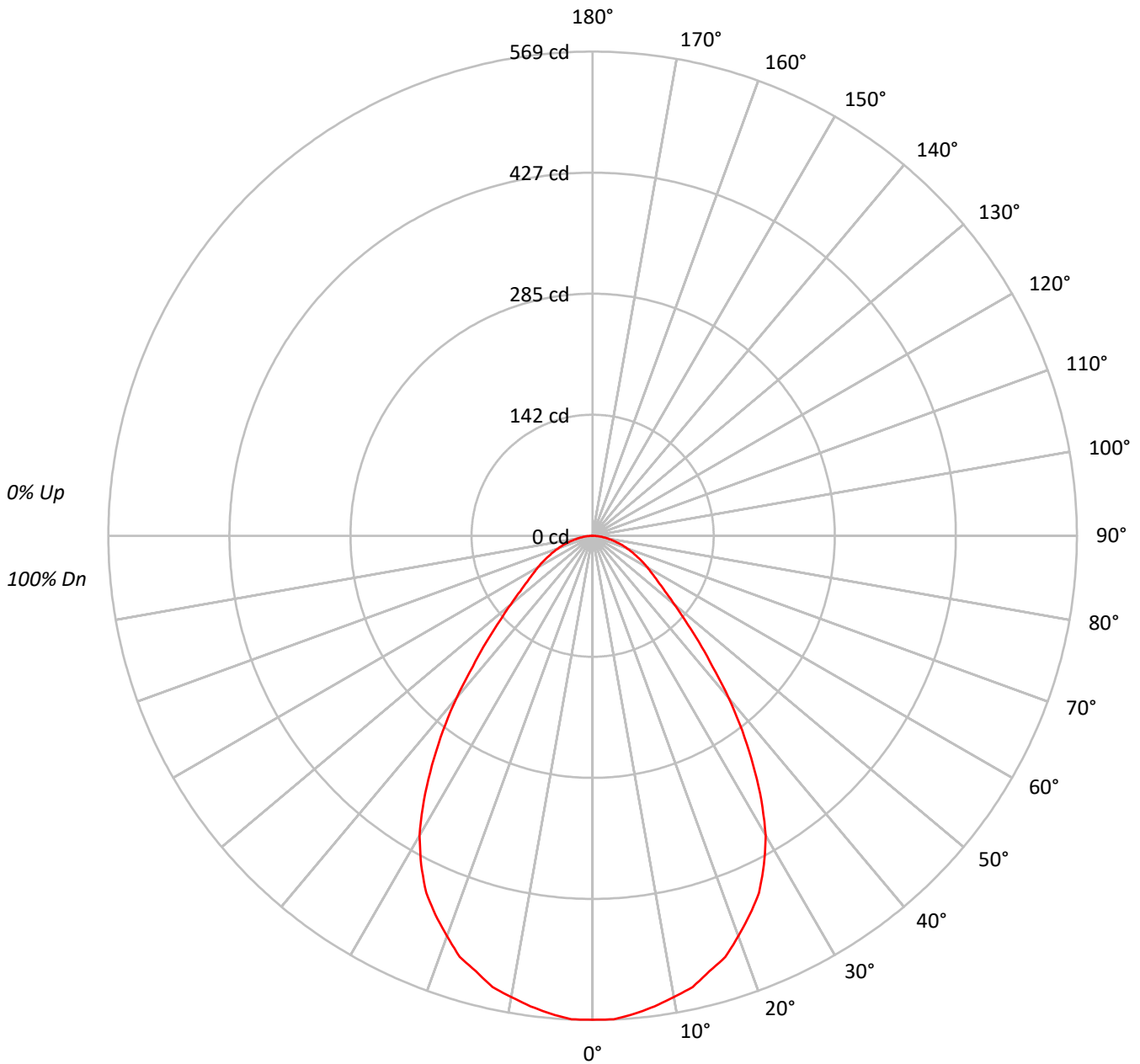
Input Watts (W): 14
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P274289

CATALOG NUMBER: LD4B10DE010W2N2765 EU4B1020W2N902765 4LBW0MW

Luminous Intensity Polar Plot





TEST NUMBER: P274289

CATALOG NUMBER: LD4B10DE010W2N2765 EU4B1020W2N902765 4LBW0MW

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

| | | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|---|
| RF | 20 | | | | 20 | | | | 20 | | | | 20 | | | | 20 | | | | |
| RC | 80 | | | | 70 | | | | 50 | | | | 30 | | | | 10 | | | 0 | |
| RW | 70 | 50 | 30 | 10 | 70 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 0 |
| RCR | | | | | | | | | | | | | | | | | | | | | |
| 0 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 | | | |
| 1 | 111 | 107 | 104 | 101 | 108 | 105 | 102 | 99 | 101 | 98 | 96 | 97 | 95 | 93 | 93 | 92 | 90 | 88 | | | |
| 2 | 103 | 96 | 91 | 86 | 101 | 94 | 89 | 85 | 91 | 87 | 83 | 88 | 84 | 81 | 85 | 82 | 80 | 78 | | | |
| 3 | 96 | 87 | 80 | 75 | 93 | 85 | 79 | 74 | 83 | 77 | 73 | 80 | 76 | 72 | 78 | 74 | 71 | 69 | | | |
| 4 | 89 | 79 | 72 | 66 | 87 | 78 | 71 | 66 | 75 | 69 | 65 | 73 | 68 | 64 | 71 | 67 | 63 | 61 | | | |
| 5 | 83 | 72 | 64 | 59 | 81 | 71 | 64 | 58 | 69 | 63 | 58 | 67 | 62 | 57 | 65 | 61 | 57 | 55 | | | |
| 6 | 78 | 66 | 58 | 53 | 76 | 65 | 58 | 53 | 64 | 57 | 52 | 62 | 56 | 52 | 60 | 55 | 51 | 50 | | | |
| 7 | 73 | 61 | 53 | 48 | 71 | 60 | 53 | 48 | 59 | 52 | 47 | 57 | 51 | 47 | 56 | 51 | 47 | 45 | | | |
| 8 | 68 | 56 | 49 | 44 | 67 | 56 | 49 | 44 | 54 | 48 | 43 | 53 | 47 | 43 | 52 | 47 | 43 | 41 | | | |
| 9 | 64 | 52 | 45 | 40 | 63 | 52 | 45 | 40 | 51 | 44 | 40 | 50 | 44 | 40 | 49 | 43 | 39 | 38 | | | |
| 10 | 61 | 49 | 42 | 37 | 59 | 48 | 41 | 37 | 47 | 41 | 37 | 46 | 41 | 37 | 46 | 40 | 36 | 35 | | | |

AVERAGE LUMINANCE (cd/sqm):

| | |
|-----|-------|
| | 0° |
| 0° | 62148 |
| 5° | 61847 |
| 10° | 61076 |
| 15° | 59928 |
| 20° | 58206 |
| 25° | 55793 |
| 30° | 51323 |
| 35° | 43870 |
| 40° | 35444 |
| 45° | 27288 |
| 50° | 21332 |
| 55° | 17868 |
| 60° | 16236 |
| 65° | 14788 |
| 70° | 13609 |
| 75° | 12327 |
| 80° | 10759 |
| 85° | 9151 |



TEST NUMBER: P274289

CATALOG NUMBER: LD4B10DE010W2N2765 EU4B1020W2N902765 4LBW0MW

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 53.4 | 5.7 |
| 10°-20° | 149.3 | 15.9 |
| 20°-30° | 211.1 | 22.5 |
| 30°-40° | 204.5 | 21.8 |
| 40°-50° | 138.0 | 14.7 |
| 50°-60° | 85.6 | 9.1 |
| 60°-70° | 57.2 | 6.1 |
| 70°-80° | 31.3 | 3.3 |
| 80°-90° | 8.3 | 0.9 |
| 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° | 413.8 | 44.1 |
| 0°-40° | 618.3 | 65.9 |
| 0°-60° | 841.9 | 89.7 |
| 0°-90° | 938.6 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 938.6 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | Flux |
|-----|-----|------|
| 0° | 569 | |
| 5° | 564 | 53 |
| 15° | 530 | 149 |
| 25° | 463 | 211 |
| 35° | 329 | 204 |
| 45° | 177 | 138 |
| 55° | 94 | 86 |
| 65° | 57 | 57 |
| 75° | 29 | 31 |
| 85° | 7 | 8 |
| 90° | 0 | |



TEST NUMBER: P274289

CATALOG NUMBER: LD4B10DE010W2N2765 EU4B1020W2N902765 4LBW0MW

CANDELA DISTRIBUTION (FULL):

| | 0° |
|-------|-------|
| 0° | 568.8 |
| 2.5° | 568.8 |
| 5° | 563.9 |
| 7.5° | 557.8 |
| 10° | 550.5 |
| 12.5° | 543.2 |
| 15° | 529.8 |
| 17.5° | 518.9 |
| 20° | 500.6 |
| 22.5° | 482.3 |
| 25° | 462.8 |
| 27.5° | 436.0 |
| 30° | 406.8 |
| 32.5° | 369.1 |
| 35° | 328.9 |
| 37.5° | 288.7 |
| 40° | 248.5 |
| 42.5° | 208.3 |
| 45° | 176.6 |
| 47.5° | 147.4 |
| 50° | 125.5 |
| 52.5° | 107.2 |
| 55° | 93.8 |
| 57.5° | 82.8 |
| 60° | 74.3 |
| 62.5° | 65.8 |
| 65° | 57.2 |
| 67.5° | 49.9 |
| 70° | 42.6 |
| 72.5° | 36.5 |
| 75° | 29.2 |
| 77.5° | 23.1 |
| 80° | 17.1 |
| 82.5° | 12.2 |
| 85° | 7.3 |
| 87.5° | 2.4 |
| 90° | 0.0 |



Report Generated By E9808895 / USPTCWHP6082093





— 0°-180°







(END OF REPORT)