

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: P212431

Luminaire Tested: **LSR4B40D010BZ EC4B30509035 4LBMH1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P212431
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P35319)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LSR4B40D010BZ EC4B30509035 4LBMH1
Description: PORTFOLIO 4 INCH CYLINDER
MEDIUM DISTRIBUTION WITH SEMI-SPECULAR CLEAR TRIM
WATTAGE D010TR-43.02W DE010-42.54W D5LT-42.539W DMX-41.87W DL2-41.57W
DL3-44.71W DLE-39.33W
Light Source: HIGH LUMEN LED
Ballast/Driver: ELECTRONIC DRIVER

Summary

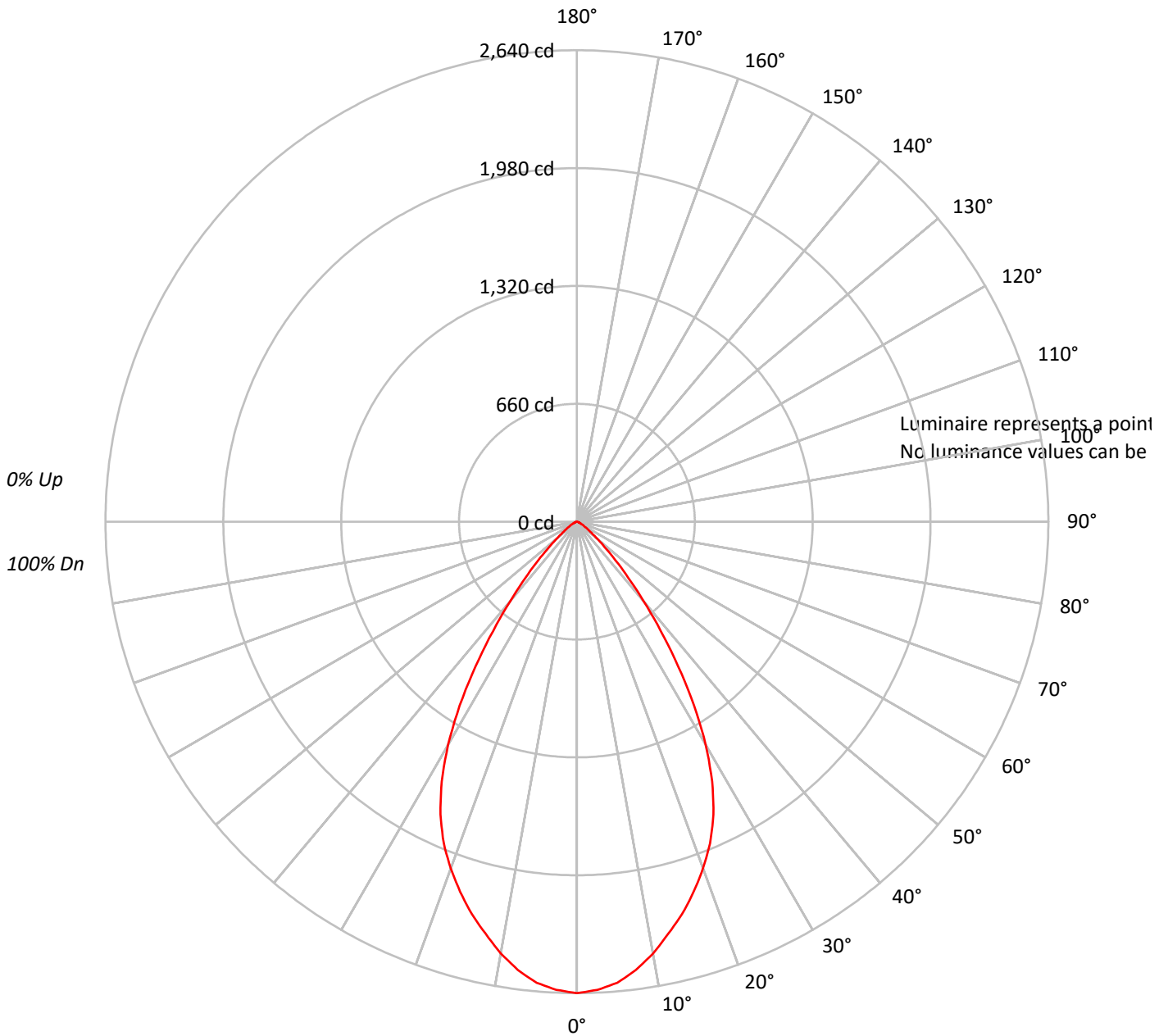
Lumens per Lamp: N/A
Luminaire Lumens: 2662.7 lumens
Efficiency: N/A
Efficacy: 63.7 lumens/watt
Spacing Criteria (0/90/45): 0.95 / 0.95 / 0.93
Luminous Opening: Point Source (0' x 0' x 0')
CIE Type: Direct

Input Watts (W): 41.8
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: P212431
CATALOG NUMBER: LSR4B40D010BZ EC4B30509035 4LBMH1

Luminous Intensity Polar Plot





TEST NUMBER: P212431

CATALOG NUMBER: LSR4B40D010BZ EC4B30509035 4LBMH1

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 | 0 |
| RCR | | | | | | | | | | | | | | | | | | |
| 0 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |
| 1 | 113 | 110 | 108 | 105 | 111 | 108 | 106 | 104 | 104 | 102 | 100 | 100 | 99 | 97 | 97 | 96 | 95 | 93 |
| 2 | 107 | 102 | 98 | 94 | 105 | 100 | 96 | 93 | 97 | 94 | 91 | 94 | 91 | 89 | 91 | 89 | 87 | 85 |
| 3 | 101 | 94 | 89 | 85 | 99 | 93 | 88 | 84 | 90 | 86 | 83 | 88 | 84 | 82 | 86 | 83 | 80 | 79 |
| 4 | 96 | 88 | 82 | 77 | 94 | 86 | 81 | 77 | 84 | 80 | 76 | 82 | 78 | 75 | 80 | 77 | 74 | 73 |
| 5 | 90 | 82 | 75 | 71 | 89 | 81 | 75 | 70 | 79 | 74 | 70 | 77 | 73 | 69 | 75 | 72 | 69 | 67 |
| 6 | 86 | 76 | 70 | 65 | 84 | 75 | 69 | 65 | 74 | 68 | 64 | 72 | 68 | 64 | 71 | 67 | 64 | 62 |
| 7 | 81 | 71 | 65 | 60 | 80 | 70 | 64 | 60 | 69 | 64 | 60 | 68 | 63 | 59 | 67 | 62 | 59 | 58 |
| 8 | 77 | 67 | 60 | 56 | 75 | 66 | 60 | 56 | 65 | 59 | 56 | 64 | 59 | 55 | 63 | 58 | 55 | 54 |
| 9 | 73 | 63 | 56 | 52 | 72 | 62 | 56 | 52 | 61 | 56 | 52 | 60 | 55 | 52 | 59 | 55 | 52 | 50 |
| 10 | 69 | 59 | 53 | 49 | 68 | 59 | 53 | 49 | 58 | 52 | 49 | 57 | 52 | 48 | 56 | 52 | 48 | 47 |

AVERAGE LUMINANCE (cd/sqm):





TEST NUMBER: P212431

CATALOG NUMBER: LSR4B40D010BZ EC4B30509035 4LBMH1

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 243.0 | 9.1 |
| 10°-20° | 637.4 | 23.9 |
| 20°-30° | 819.1 | 30.8 |
| 30°-40° | 616.3 | 23.1 |
| 40°-50° | 247.5 | 9.3 |
| 50°-60° | 70.3 | 2.6 |
| 60°-70° | 22.3 | 0.8 |
| 70°-80° | 6.3 | 0.2 |
| 80°-90° | 0.5 | 0.0 |
| 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° | 1699.4 | 63.8 |
| 0°-40° | 2315.7 | 87.0 |
| 0°-60° | 2633.5 | 98.9 |
| 0°-90° | 2662.7 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2662.7 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | Flux |
|-----|------|------|
| 0° | 2640 | |
| 5° | 2592 | 243 |
| 15° | 2275 | 637 |
| 25° | 1808 | 819 |
| 35° | 989 | 616 |
| 45° | 305 | 248 |
| 55° | 72 | 70 |
| 65° | 20 | 22 |
| 75° | 4 | 6 |
| 85° | 0 | 1 |
| 90° | 0 | |



TEST NUMBER: P212431

CATALOG NUMBER: LSR4B40D010BZ EC4B30509035 4LBMH1

CANDELA DISTRIBUTION (FULL):

| | 0° |
|-------|--------|
| 0° | 2640.3 |
| 2.5° | 2624.2 |
| 5° | 2592.1 |
| 7.5° | 2531.8 |
| 10° | 2455.4 |
| 12.5° | 2363.0 |
| 15° | 2274.6 |
| 17.5° | 2174.1 |
| 20° | 2065.6 |
| 22.5° | 1949.1 |
| 25° | 1808.4 |
| 27.5° | 1639.6 |
| 30° | 1442.7 |
| 32.5° | 1221.7 |
| 35° | 988.6 |
| 37.5° | 771.6 |
| 40° | 578.7 |
| 42.5° | 426.0 |
| 45° | 305.4 |
| 47.5° | 209.0 |
| 50° | 144.7 |
| 52.5° | 100.5 |
| 55° | 72.3 |
| 57.5° | 52.2 |
| 60° | 40.2 |
| 62.5° | 28.1 |
| 65° | 20.1 |
| 67.5° | 16.1 |
| 70° | 12.1 |
| 72.5° | 8.0 |
| 75° | 4.0 |
| 77.5° | 4.0 |
| 80° | 4.0 |
| 82.5° | 0.0 |
| 85° | 0.0 |
| 87.5° | 0.0 |
| 90° | 0.0 |



Report Generated By E9808895 / USPTCWHP6082093





— 0°-180°







(END OF REPORT)