

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: PORTFOLIO

Report Number: P#

Luminaire Tested: **LD4C45D010 EX4C459030 4LCSQWH**

Issue Date: 2/18/2022

Test Information

Test Method: LM-79-08
Report Number: P#
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2105-247-14)
Test Lab: INNOVATION CENTER
Issue Date: 2/18/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LD4C45D010 EX4C459030 4LCSQWH
Description: 4 INCH 4500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3000K, 90CRI LEDS
AND 4LCSQW TRIM WITH H FINISH
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3081.0 lumens
Efficiency: N/A
Efficacy: 62.1 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 0.93 / 0.94
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 49.6
Input Voltage (V):
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: P#

CATALOG NUMBER: LD4C45D010 EX4C459030 4LCSQWH

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|---|--|--|--|--|--|--|----|--|--|--|--|--|--|--|--|---|
| RF | 20 | | | | | | | | | 20 | | | | | | | | | 20 | | | | | | | | | 20 | | | | | | | | | |
| RC | 80 | | | | | | | | | 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 | 113 | 110 | 107 | 105 | 110 | 108 | 105 | 103 | 104 | 102 | 100 | 100 | 98 | 97 | 96 | 95 | 94 | 92 | | | | | | | | | | | | | | | | | | | |
| 2 | 107 | 101 | 97 | 93 | 104 | 99 | 95 | 92 | 96 | 93 | 90 | 93 | 90 | 88 | 90 | 88 | 86 | 84 | | | | | | | | | | | | | | | | | | | |
| 3 | 101 | 93 | 88 | 84 | 98 | 92 | 87 | 83 | 89 | 85 | 82 | 87 | 83 | 80 | 85 | 82 | 79 | 77 | | | | | | | | | | | | | | | | | | | |
| 4 | 95 | 87 | 80 | 76 | 93 | 85 | 80 | 75 | 83 | 78 | 74 | 81 | 77 | 74 | 79 | 76 | 73 | 71 | | | | | | | | | | | | | | | | | | | |
| 5 | 89 | 80 | 74 | 69 | 88 | 79 | 73 | 69 | 78 | 72 | 68 | 76 | 71 | 68 | 74 | 70 | 67 | 66 | | | | | | | | | | | | | | | | | | | |
| 6 | 85 | 75 | 68 | 64 | 83 | 74 | 68 | 63 | 72 | 67 | 63 | 71 | 66 | 63 | 70 | 65 | 62 | 61 | | | | | | | | | | | | | | | | | | | |
| 7 | 80 | 70 | 63 | 59 | 79 | 69 | 63 | 59 | 68 | 62 | 58 | 67 | 62 | 58 | 65 | 61 | 58 | 56 | | | | | | | | | | | | | | | | | | | |
| 8 | 76 | 65 | 59 | 55 | 74 | 65 | 59 | 54 | 64 | 58 | 54 | 63 | 58 | 54 | 62 | 57 | 54 | 52 | | | | | | | | | | | | | | | | | | | |
| 9 | 72 | 61 | 55 | 51 | 71 | 61 | 55 | 51 | 60 | 54 | 51 | 59 | 54 | 50 | 58 | 54 | 50 | 49 | | | | | | | | | | | | | | | | | | | |
| 10 | 68 | 58 | 52 | 48 | 67 | 57 | 51 | 47 | 57 | 51 | 47 | 56 | 51 | 47 | 55 | 50 | 47 | 46 | | | | | | | | | | | | | | | | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|--------|--------|--------|
| 0° | 280879 | 280879 | 280879 |
| 5° | 278301 | 278126 | 278213 |
| 10° | 271182 | 270094 | 271182 |
| 15° | 264646 | 259881 | 264925 |
| 20° | 250922 | 249978 | 251395 |
| 25° | 205826 | 234848 | 206902 |
| 30° | 146768 | 194019 | 146980 |
| 35° | 105859 | 128569 | 106189 |
| 40° | 84870 | 74693 | 84870 |
| 45° | 64762 | 43598 | 64257 |
| 50° | 42721 | 27830 | 42586 |
| 55° | 28716 | 18690 | 28413 |
| 60° | 19317 | 12756 | 19491 |
| 65° | 13196 | 9018 | 12991 |
| 70° | 8802 | 6460 | 8802 |
| 75° | 5816 | 4809 | 5816 |
| 80° | 4056 | 3556 | 4056 |
| 85° | 3100 | 3100 | 3100 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 270.6 | 8.8 |
| 10°-20° | 737.9 | 23.9 |
| 20°-30° | 922.4 | 29.9 |
| 30°-40° | 620.5 | 20.1 |
| 40°-50° | 327.6 | 10.6 |
| 50°-60° | 133.2 | 4.3 |
| 60°-70° | 49.4 | 1.6 |
| 70°-80° | 15.9 | 0.5 |
| 80°-90° | 3.4 | 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° | 1930.9 | 62.7 |
| 0°-40° | 2551.4 | 82.8 |
| 0°-60° | 3012.2 | 97.8 |
| 0°-90° | 3081.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3081.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 2911 | 2911 | 2911 | 2911 | 2911 | |
| 5° | 2873 | 2871 | 2872 | 2872 | 2872 | 271 |
| 15° | 2649 | 2627 | 2602 | 2626 | 2652 | 742 |
| 25° | 1933 | 2042 | 2206 | 2045 | 1943 | 870 |
| 35° | 899 | 944 | 1092 | 946 | 902 | 578 |
| 45° | 475 | 451 | 320 | 449 | 471 | 364 |
| 55° | 171 | 143 | 111 | 143 | 169 | 158 |
| 65° | 58 | 47 | 40 | 47 | 57 | 60 |
| 75° | 16 | 14 | 13 | 14 | 16 | 18 |
| 85° | 3 | 3 | 3 | 3 | 3 | 3 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P#

CATALOG NUMBER: LD4C45D010 EX4C459030 4LCSQWH

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 2911.0 | 2911.0 | 2911.0 | 2911.0 | 2911.0 |
| 2.5° | 2903.6 | 2901.8 | 2900.9 | 2900.9 | 2901.8 |
| 5° | 2873.3 | 2870.6 | 2871.5 | 2871.5 | 2872.4 |
| 7.5° | 2824.7 | 2823.8 | 2821.0 | 2824.7 | 2824.7 |
| 10° | 2767.8 | 2763.2 | 2756.7 | 2764.1 | 2767.8 |
| 12.5° | 2709.0 | 2695.2 | 2684.2 | 2695.2 | 2709.0 |
| 15° | 2649.3 | 2627.3 | 2601.6 | 2626.4 | 2652.1 |
| 17.5° | 2571.3 | 2549.3 | 2520.8 | 2553.9 | 2578.7 |
| 20° | 2443.7 | 2445.5 | 2434.5 | 2443.7 | 2448.3 |
| 22.5° | 2239.0 | 2280.3 | 2338.1 | 2281.2 | 2232.6 |
| 25° | 1933.3 | 2041.6 | 2205.9 | 2045.3 | 1943.4 |
| 27.5° | 1605.6 | 1743.3 | 2012.2 | 1751.5 | 1615.7 |
| 30° | 1317.3 | 1439.4 | 1741.4 | 1447.7 | 1319.2 |
| 32.5° | 1066.7 | 1157.6 | 1415.6 | 1168.6 | 1078.6 |
| 35° | 898.7 | 943.7 | 1091.5 | 945.5 | 901.5 |
| 37.5° | 770.2 | 770.2 | 810.6 | 773.9 | 766.5 |
| 40° | 673.8 | 644.4 | 593.0 | 643.5 | 673.8 |
| 42.5° | 583.8 | 539.8 | 430.5 | 537.9 | 585.7 |
| 45° | 474.6 | 450.7 | 319.5 | 448.9 | 470.9 |
| 47.5° | 364.4 | 347.9 | 240.5 | 346.1 | 367.2 |
| 50° | 284.6 | 258.9 | 185.4 | 257.0 | 283.7 |
| 52.5° | 218.5 | 190.9 | 143.2 | 190.9 | 216.6 |
| 55° | 170.7 | 143.2 | 111.1 | 143.2 | 168.9 |
| 57.5° | 131.3 | 109.2 | 84.5 | 107.4 | 130.4 |
| 60° | 100.1 | 81.7 | 66.1 | 81.7 | 101.0 |
| 62.5° | 76.2 | 62.4 | 50.5 | 61.5 | 75.3 |
| 65° | 57.8 | 46.8 | 39.5 | 46.8 | 56.9 |
| 67.5° | 42.2 | 34.9 | 30.3 | 34.9 | 43.1 |
| 70° | 31.2 | 26.6 | 22.9 | 25.7 | 31.2 |
| 72.5° | 22.9 | 19.3 | 17.4 | 19.3 | 22.9 |
| 75° | 15.6 | 13.8 | 12.9 | 13.8 | 15.6 |
| 77.5° | 11.0 | 10.1 | 9.2 | 10.1 | 11.0 |
| 80° | 7.3 | 6.4 | 6.4 | 7.3 | 7.3 |
| 82.5° | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 |
| 85° | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 |
| 87.5° | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



Report Generated By 670246072 / DESKTOP-50001EG





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







(END OF REPORT)