

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: HALO COMMERCIAL

Report Number: P581537

Luminaire Tested: **HC407D010-HM40525940-41WDH**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P581537
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-8)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/9/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC407D010-HM40525940-41WDH
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WIDE DISTRIBUTION, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 876.0 lumens
Efficiency: N/A
Efficacy: 109.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.19 / 1.11
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

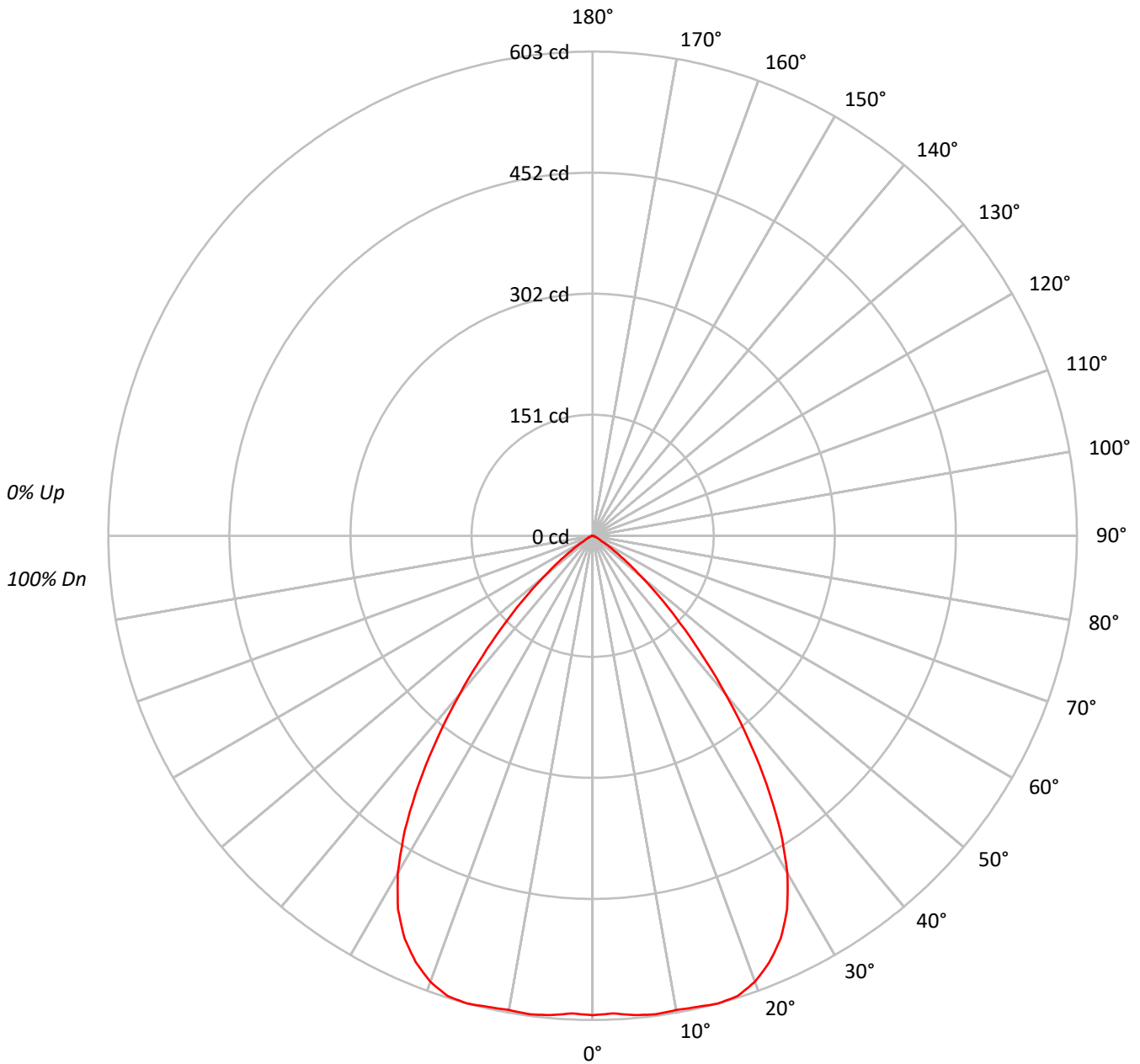
Input Watts (W): 8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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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 | 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 | 104 | 110 | 108 | 105 | 103 | 103 | 101 | 100 | 100 | 98 | 97 | 96 | 95 | 94 | 92 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 106 | 101 | 96 | 92 | 104 | 99 | 95 | 91 | 96 | 92 | 89 | 93 | 90 | 87 | 90 | 88 | 86 | 84 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | 100 | 93 | 87 | 82 | 98 | 91 | 86 | 82 | 88 | 84 | 80 | 86 | 82 | 79 | 84 | 81 | 78 | 76 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | 94 | 85 | 79 | 74 | 92 | 84 | 78 | 74 | 82 | 77 | 73 | 80 | 75 | 72 | 78 | 74 | 71 | 69 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | 88 | 79 | 72 | 67 | 86 | 78 | 72 | 67 | 76 | 70 | 66 | 74 | 69 | 66 | 72 | 68 | 65 | 63 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | 83 | 73 | 66 | 61 | 81 | 72 | 66 | 61 | 70 | 65 | 61 | 69 | 64 | 60 | 68 | 63 | 60 | 58 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | 78 | 68 | 61 | 56 | 77 | 67 | 60 | 56 | 65 | 60 | 55 | 64 | 59 | 55 | 63 | 58 | 55 | 53 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | 74 | 63 | 56 | 51 | 72 | 62 | 56 | 51 | 61 | 55 | 51 | 60 | 55 | 51 | 59 | 54 | 51 | 49 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | 69 | 59 | 52 | 47 | 68 | 58 | 52 | 47 | 57 | 51 | 47 | 56 | 51 | 47 | 55 | 50 | 47 | 45 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | 66 | 55 | 48 | 44 | 65 | 54 | 48 | 44 | 53 | 48 | 44 | 53 | 47 | 44 | 52 | 47 | 43 | 42 | | | | | | | | | | | | | | | | | | | | | | | | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | |
|-----|-------|
| | 0° |
| 0° | 73650 |
| 5° | 74203 |
| 10° | 75124 |
| 15° | 77014 |
| 20° | 77589 |
| 25° | 75370 |
| 30° | 69091 |
| 35° | 56858 |
| 40° | 41446 |
| 45° | 26898 |
| 50° | 15159 |
| 55° | 7204 |
| 60° | 2837 |
| 65° | 1751 |
| 70° | 1190 |
| 75° | 763 |
| 80° | 426 |
| 85° | 849 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 57.2 | 6.5 |
| 10°-20° | 170.0 | 19.4 |
| 20°-30° | 252.2 | 28.8 |
| 30°-40° | 232.9 | 26.6 |
| 40°-50° | 121.6 | 13.9 |
| 50°-60° | 33.3 | 3.8 |
| 60°-70° | 6.4 | 0.7 |
| 70°-80° | 1.8 | 0.2 |
| 80°-90° | 0.4 | 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° | 479.5 | 54.7 |
| 0°-40° | 712.4 | 81.3 |
| 0°-60° | 867.4 | 99.0 |
| 0°-90° | 876.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 876.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | Flux |
|-----|-----|------|
| 0° | 597 | |
| 5° | 599 | 57 |
| 15° | 603 | 170 |
| 25° | 554 | 252 |
| 35° | 378 | 233 |
| 45° | 154 | 122 |
| 55° | 34 | 33 |
| 65° | 6 | 6 |
| 75° | 2 | 2 |
| 85° | 1 | 0 |
| 90° | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° |
|-------|-------|
| 0° | 597.1 |
| 2.5° | 595.4 |
| 5° | 599.3 |
| 7.5° | 601.0 |
| 10° | 599.8 |
| 12.5° | 601.0 |
| 15° | 603.1 |
| 17.5° | 601.0 |
| 20° | 591.1 |
| 22.5° | 575.1 |
| 25° | 553.8 |
| 27.5° | 524.6 |
| 30° | 485.1 |
| 32.5° | 435.2 |
| 35° | 377.6 |
| 37.5° | 317.2 |
| 40° | 257.4 |
| 42.5° | 202.5 |
| 45° | 154.2 |
| 47.5° | 113.0 |
| 50° | 79.0 |
| 52.5° | 52.7 |
| 55° | 33.5 |
| 57.5° | 19.8 |
| 60° | 11.5 |
| 62.5° | 8.2 |
| 65° | 6.0 |
| 67.5° | 4.4 |
| 70° | 3.3 |
| 72.5° | 2.2 |
| 75° | 1.6 |
| 77.5° | 1.1 |
| 80° | 0.6 |
| 82.5° | 0.6 |
| 85° | 0.6 |
| 87.5° | 0.0 |
| 90° | 0.0 |



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— 0°-180°







(END OF REPORT)