

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: P579983

Luminaire Tested: **HC420D010-HM40525827-41PSMDW**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P579983
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-12)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/9/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC420D010-HM40525827-41PSMDW
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" PLASTIC TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1710.1 lumens
Efficiency: N/A
Efficacy: 85.5 lumens/watt
Spacing Criteria (0/90/45): 1.03 / 1.03 / 0.99
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

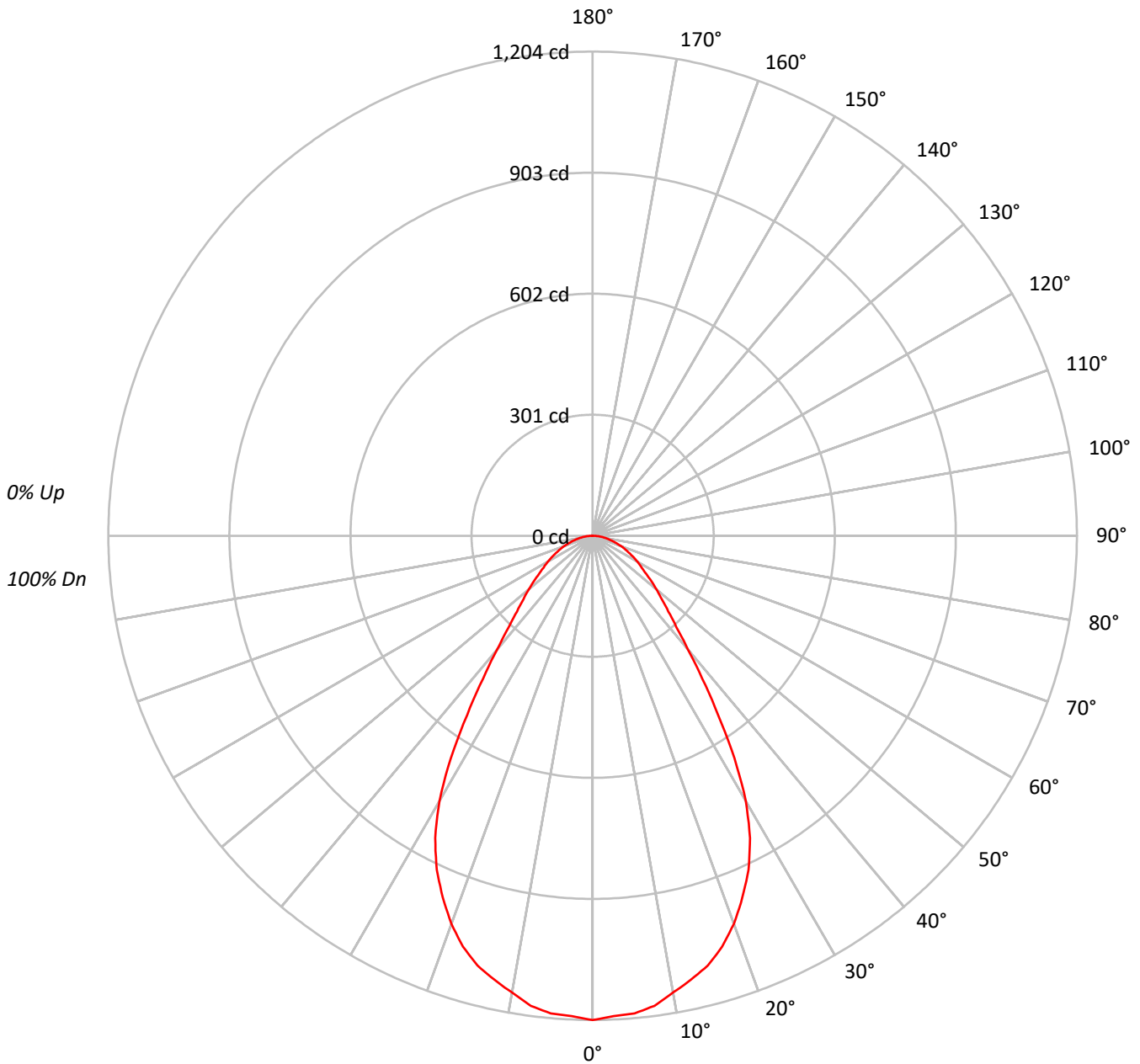
Input Watts (W): 20
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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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 | 109 | 105 | 102 | 99 | 101 | 99 | 96 | 97 | 95 | 93 | 94 | 92 | 91 | 89 | | | |
| 2 | 103 | 97 | 91 | 87 | 101 | 95 | 90 | 86 | 92 | 88 | 84 | 89 | 85 | 82 | 86 | 83 | 80 | 78 | | | |
| 3 | 96 | 88 | 81 | 76 | 94 | 86 | 80 | 75 | 84 | 78 | 74 | 81 | 77 | 73 | 79 | 75 | 72 | 70 | | | |
| 4 | 90 | 80 | 73 | 68 | 88 | 79 | 72 | 67 | 77 | 71 | 66 | 74 | 69 | 65 | 72 | 68 | 65 | 63 | | | |
| 5 | 84 | 74 | 66 | 61 | 82 | 72 | 66 | 60 | 71 | 64 | 60 | 69 | 63 | 59 | 67 | 62 | 59 | 57 | | | |
| 6 | 79 | 68 | 60 | 55 | 77 | 67 | 60 | 55 | 65 | 59 | 54 | 64 | 58 | 54 | 62 | 57 | 53 | 52 | | | |
| 7 | 74 | 63 | 55 | 50 | 73 | 62 | 55 | 50 | 61 | 54 | 50 | 59 | 54 | 49 | 58 | 53 | 49 | 47 | | | |
| 8 | 70 | 58 | 51 | 46 | 68 | 58 | 51 | 46 | 56 | 50 | 46 | 55 | 50 | 45 | 54 | 49 | 45 | 44 | | | |
| 9 | 66 | 54 | 47 | 42 | 65 | 54 | 47 | 42 | 53 | 47 | 42 | 52 | 46 | 42 | 51 | 46 | 42 | 40 | | | |
| 10 | 62 | 51 | 44 | 39 | 61 | 50 | 44 | 39 | 49 | 43 | 39 | 49 | 43 | 39 | 48 | 43 | 39 | 37 | | | |

AVERAGE LUMINANCE (cd/sqm):

| | |
|-----|--------|
| | 0° |
| 0° | 148533 |
| 5° | 147614 |
| 10° | 144462 |
| 15° | 141271 |
| 20° | 134753 |
| 25° | 124733 |
| 30° | 108487 |
| 35° | 81929 |
| 40° | 59383 |
| 45° | 46400 |
| 50° | 39683 |
| 55° | 34300 |
| 60° | 31601 |
| 65° | 28923 |
| 70° | 27048 |
| 75° | 24782 |
| 80° | 23227 |
| 85° | 22219 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 112.6 | 6.6 |
| 10°-20° | 309.9 | 18.1 |
| 20°-30° | 416.7 | 24.4 |
| 30°-40° | 342.6 | 20.0 |
| 40°-50° | 210.4 | 12.3 |
| 50°-60° | 145.6 | 8.5 |
| 60°-70° | 99.3 | 5.8 |
| 70°-80° | 55.3 | 3.2 |
| 80°-90° | 17.6 | 1.0 |
| 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° | 839.2 | 49.1 |
| 0°-40° | 1181.8 | 69.1 |
| 0°-60° | 1537.9 | 89.9 |
| 0°-90° | 1710.1 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1710.1 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | Flux |
|-----|------|------|
| 0° | 1204 | |
| 5° | 1192 | 113 |
| 15° | 1106 | 310 |
| 25° | 916 | 417 |
| 35° | 544 | 343 |
| 45° | 266 | 210 |
| 55° | 160 | 146 |
| 65° | 99 | 99 |
| 75° | 52 | 55 |
| 85° | 16 | 18 |
| 90° | 0 | |



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CANDELA DISTRIBUTION (FULL):

| 0° | |
|-------|--------|
| 0° | 1204.2 |
| 2.5° | 1195.7 |
| 5° | 1192.2 |
| 7.5° | 1178.9 |
| 10° | 1153.4 |
| 12.5° | 1130.5 |
| 15° | 1106.3 |
| 17.5° | 1071.3 |
| 20° | 1026.6 |
| 22.5° | 973.3 |
| 25° | 916.5 |
| 27.5° | 847.5 |
| 30° | 761.7 |
| 32.5° | 656.5 |
| 35° | 544.1 |
| 37.5° | 447.3 |
| 40° | 368.8 |
| 42.5° | 308.3 |
| 45° | 266.0 |
| 47.5° | 233.3 |
| 50° | 206.8 |
| 52.5° | 182.6 |
| 55° | 159.5 |
| 57.5° | 142.7 |
| 60° | 128.1 |
| 62.5° | 113.7 |
| 65° | 99.1 |
| 67.5° | 87.1 |
| 70° | 75.0 |
| 72.5° | 62.9 |
| 75° | 52.0 |
| 77.5° | 41.1 |
| 80° | 32.7 |
| 82.5° | 24.2 |
| 85° | 15.7 |
| 87.5° | 8.5 |
| 90° | 0.0 |



Report Generated By 670245859 / DESKTOP-HRDQ47P





— 0°-180°







(END OF REPORT)