

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: P580355

Luminaire Tested: **HC430D010-HM43040930-41NDW**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P580355
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-3)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/9/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC430D010-HM43040930-41NDW
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" NARROW DISTRIBUTION, WHITE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2314.4 lumens
Efficiency: N/A
Efficacy: 82.7 lumens/watt
Spacing Criteria (0/90/45): 1.03 / 1.03 / 1.01
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

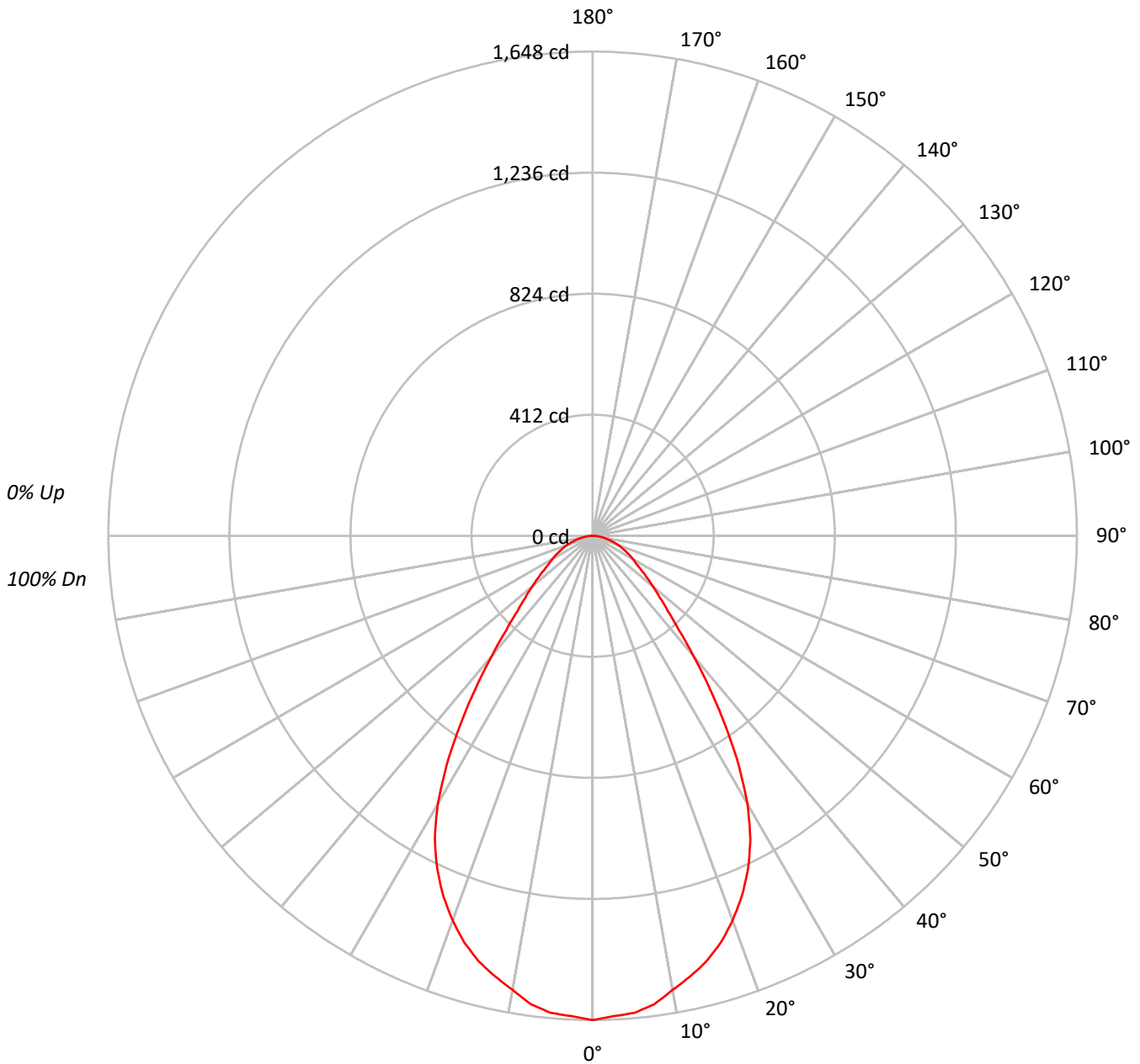
Input Watts (W): 28
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

| | | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|-----|
| RF | 20 | | | | 20 | | | | 20 | | | | 20 | | | | 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 | | | 100 |
| 1 | 111 | 108 | 104 | 101 | 109 | 105 | 102 | 100 | 101 | 99 | 97 | 98 | 96 | 94 | 94 | 92 | 91 | 89 | | | 89 |
| 2 | 104 | 97 | 92 | 88 | 101 | 96 | 91 | 87 | 92 | 88 | 85 | 89 | 86 | 83 | 86 | 83 | 81 | 79 | | | 79 |
| 3 | 97 | 88 | 82 | 77 | 95 | 87 | 81 | 76 | 84 | 79 | 75 | 82 | 77 | 74 | 79 | 76 | 73 | 71 | | | 71 |
| 4 | 90 | 81 | 74 | 68 | 88 | 80 | 73 | 68 | 77 | 72 | 67 | 75 | 70 | 66 | 73 | 69 | 65 | 64 | | | 64 |
| 5 | 85 | 74 | 67 | 61 | 83 | 73 | 66 | 61 | 71 | 65 | 60 | 69 | 64 | 60 | 68 | 63 | 59 | 58 | | | 58 |
| 6 | 79 | 68 | 61 | 56 | 78 | 67 | 60 | 55 | 66 | 60 | 55 | 64 | 59 | 55 | 63 | 58 | 54 | 52 | | | 52 |
| 7 | 75 | 63 | 56 | 51 | 73 | 62 | 56 | 51 | 61 | 55 | 50 | 60 | 54 | 50 | 59 | 53 | 50 | 48 | | | 48 |
| 8 | 70 | 59 | 52 | 47 | 69 | 58 | 51 | 46 | 57 | 51 | 46 | 56 | 50 | 46 | 55 | 50 | 46 | 44 | | | 44 |
| 9 | 66 | 55 | 48 | 43 | 65 | 54 | 47 | 43 | 53 | 47 | 43 | 52 | 47 | 43 | 51 | 46 | 42 | 41 | | | 41 |
| 10 | 63 | 51 | 44 | 40 | 62 | 51 | 44 | 40 | 50 | 44 | 40 | 49 | 43 | 39 | 48 | 43 | 39 | 38 | | | 38 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° |
|-----|--------|
| 0° | 203335 |
| 5° | 201821 |
| 10° | 196565 |
| 15° | 191392 |
| 20° | 182834 |
| 25° | 170325 |
| 30° | 149976 |
| 35° | 118278 |
| 40° | 85854 |
| 45° | 63076 |
| 50° | 51312 |
| 55° | 43052 |
| 60° | 39002 |
| 65° | 35840 |
| 70° | 33359 |
| 75° | 30501 |
| 80° | 27489 |
| 85° | 23776 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 153.7 | 6.6 |
| 10°-20° | 420.4 | 18.2 |
| 20°-30° | 569.9 | 24.6 |
| 30°-40° | 489.0 | 21.1 |
| 40°-50° | 288.7 | 12.5 |
| 50°-60° | 183.0 | 7.9 |
| 60°-70° | 122.9 | 5.3 |
| 70°-80° | 67.9 | 2.9 |
| 80°-90° | 19.0 | 0.8 |
| 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° | 1143.9 | 49.4 |
| 0°-40° | 1632.9 | 70.6 |
| 0°-60° | 2104.6 | 90.9 |
| 0°-90° | 2314.4 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2314.4 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | Flux |
|-----|------|------|
| 0° | 1648 | |
| 5° | 1630 | 154 |
| 15° | 1499 | 420 |
| 25° | 1252 | 570 |
| 35° | 786 | 489 |
| 45° | 362 | 289 |
| 55° | 200 | 183 |
| 65° | 123 | 123 |
| 75° | 64 | 68 |
| 85° | 17 | 19 |
| 90° | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° |
|-------|--------|
| 0° | 1648.5 |
| 2.5° | 1636.7 |
| 5° | 1630.0 |
| 7.5° | 1608.1 |
| 10° | 1569.4 |
| 12.5° | 1535.8 |
| 15° | 1498.8 |
| 17.5° | 1451.6 |
| 20° | 1392.9 |
| 22.5° | 1327.2 |
| 25° | 1251.5 |
| 27.5° | 1162.4 |
| 30° | 1053.0 |
| 32.5° | 923.5 |
| 35° | 785.5 |
| 37.5° | 652.7 |
| 40° | 533.2 |
| 42.5° | 433.9 |
| 45° | 361.6 |
| 47.5° | 309.5 |
| 50° | 267.4 |
| 52.5° | 232.1 |
| 55° | 200.2 |
| 57.5° | 175.0 |
| 60° | 158.1 |
| 62.5° | 141.3 |
| 65° | 122.8 |
| 67.5° | 107.6 |
| 70° | 92.5 |
| 72.5° | 77.4 |
| 75° | 64.0 |
| 77.5° | 50.4 |
| 80° | 38.7 |
| 82.5° | 27.0 |
| 85° | 16.8 |
| 87.5° | 6.8 |
| 90° | 0.0 |



Report Generated By 670245859 / DESKTOP-HRDQ47P





— 0°-180°







(END OF REPORT)