

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: P584258

Luminaire Tested: **HC830D010-HM82555830-81PSMDW**

Issue Date: 10/21/2021

Test Information

Test Method: LM-41-14
Report Number: P584258
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2109-368-12)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 10/21/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC830D010-HM82555830-81PSMDW
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" PLASTIC TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3226.1 lumens
Efficiency: N/A
Efficacy: 115.2 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 1.06 / 0.97
Luminous Opening: Circular (Dia: 0.67' x H: 0')
CIE Type: Direct

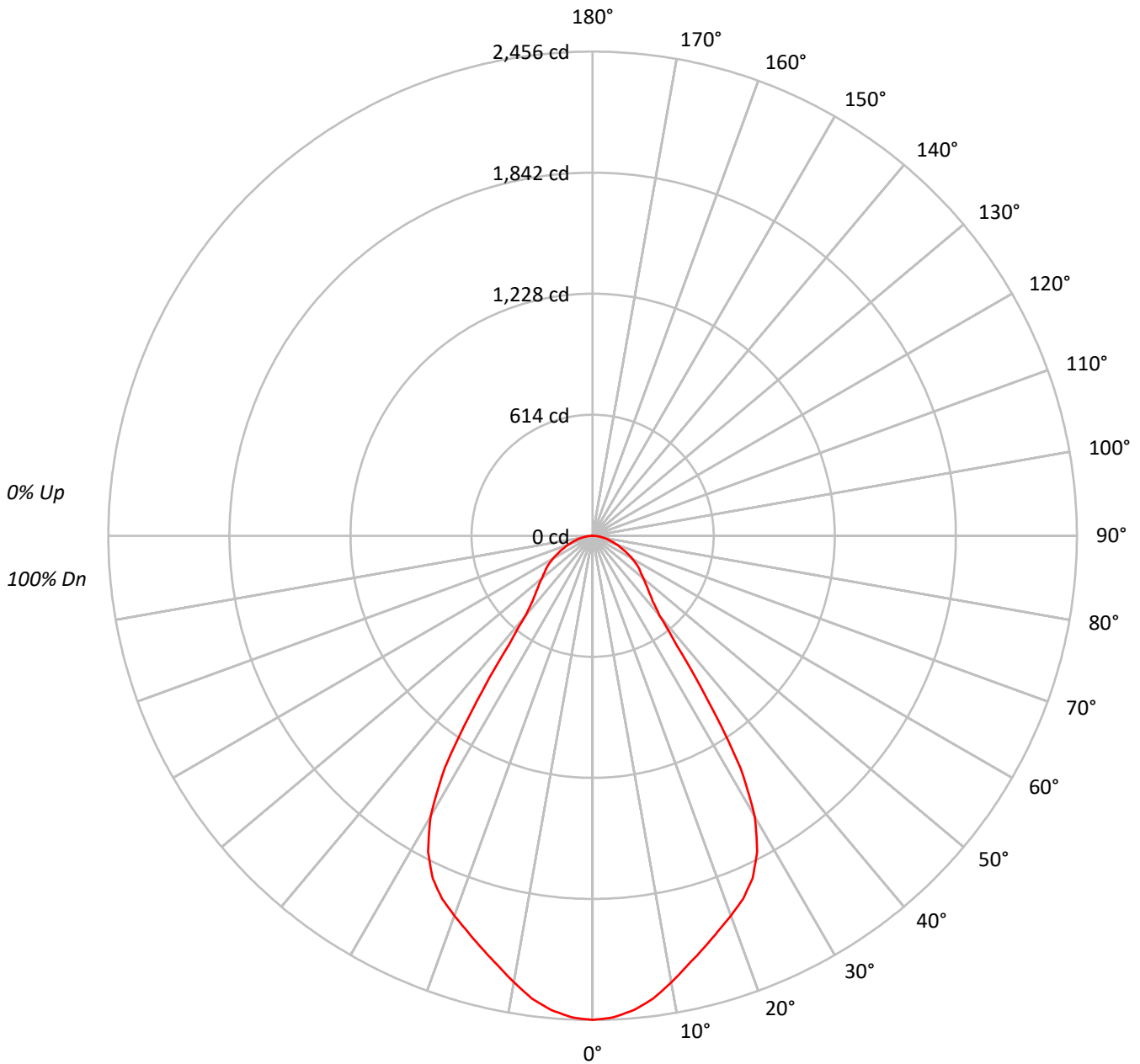
Input Watts (W): 28
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | | | 100 |
| 1 | 111 | 108 | 105 | 102 | 109 | 106 | 103 | 100 | 101 | 99 | 97 | 98 | 96 | 94 | 94 | 93 | 91 | 89 | | | 89 |
| 2 | 104 | 98 | 92 | 88 | 102 | 96 | 91 | 87 | 92 | 88 | 85 | 89 | 86 | 83 | 86 | 84 | 81 | 79 | | | 79 |
| 3 | 97 | 89 | 83 | 77 | 95 | 87 | 82 | 77 | 85 | 80 | 76 | 82 | 78 | 74 | 80 | 76 | 73 | 71 | | | 71 |
| 4 | 91 | 81 | 74 | 69 | 89 | 80 | 74 | 69 | 78 | 72 | 68 | 76 | 71 | 67 | 74 | 70 | 66 | 64 | | | 64 |
| 5 | 85 | 75 | 68 | 62 | 83 | 74 | 67 | 62 | 72 | 66 | 61 | 70 | 65 | 61 | 68 | 64 | 60 | 58 | | | 58 |
| 6 | 80 | 69 | 62 | 57 | 78 | 68 | 61 | 56 | 67 | 61 | 56 | 65 | 60 | 56 | 64 | 59 | 55 | 53 | | | 53 |
| 7 | 75 | 64 | 57 | 52 | 74 | 63 | 57 | 52 | 62 | 56 | 51 | 61 | 55 | 51 | 60 | 55 | 51 | 49 | | | 49 |
| 8 | 71 | 60 | 53 | 48 | 70 | 59 | 52 | 48 | 58 | 52 | 47 | 57 | 51 | 47 | 56 | 51 | 47 | 45 | | | 45 |
| 9 | 67 | 56 | 49 | 44 | 66 | 55 | 49 | 44 | 54 | 48 | 44 | 53 | 48 | 44 | 52 | 47 | 44 | 42 | | | 42 |
| 10 | 64 | 52 | 46 | 41 | 62 | 52 | 45 | 41 | 51 | 45 | 41 | 50 | 45 | 41 | 49 | 44 | 41 | 39 | | | 39 |

AVERAGE LUMINANCE (cd/sqm):

| | |
|-----|-------|
| | 0° |
| 0° | 75731 |
| 5° | 74742 |
| 10° | 72005 |
| 15° | 69189 |
| 20° | 67278 |
| 25° | 65255 |
| 30° | 58555 |
| 35° | 38386 |
| 40° | 21222 |
| 45° | 17692 |
| 50° | 16128 |
| 55° | 15397 |
| 60° | 14314 |
| 65° | 12980 |
| 70° | 11739 |
| 75° | 10592 |
| 80° | 9625 |
| 85° | 9199 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 226.9 | 7.0 |
| 10°-20° | 611.5 | 19.0 |
| 20°-30° | 870.2 | 27.0 |
| 30°-40° | 644.1 | 20.0 |
| 40°-50° | 319.0 | 9.9 |
| 50°-60° | 254.6 | 7.9 |
| 60°-70° | 176.7 | 5.5 |
| 70°-80° | 95.2 | 3.0 |
| 80°-90° | 28.0 | 0.9 |
| 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° | 1708.6 | 53.0 |
| 0°-40° | 2352.6 | 72.9 |
| 0°-60° | 2926.2 | 90.7 |
| 0°-90° | 3226.1 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3226.1 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | Flux |
|-----|------|------|
| 0° | 2456 | |
| 5° | 2415 | 227 |
| 15° | 2167 | 611 |
| 25° | 1918 | 870 |
| 35° | 1020 | 644 |
| 45° | 406 | 319 |
| 55° | 286 | 255 |
| 65° | 178 | 177 |
| 75° | 89 | 95 |
| 85° | 26 | 28 |
| 90° | 0 | |



TEST NUMBER: P584258

CATALOG NUMBER: HC830D010-HM82555830-81PSMDW

CANDELA DISTRIBUTION (FULL):

| 0° | |
|-------|--------|
| 0° | 2455.9 |
| 2.5° | 2445.1 |
| 5° | 2414.6 |
| 7.5° | 2366.9 |
| 10° | 2299.6 |
| 12.5° | 2230.2 |
| 15° | 2167.3 |
| 17.5° | 2106.6 |
| 20° | 2050.2 |
| 22.5° | 1993.8 |
| 25° | 1917.9 |
| 27.5° | 1807.2 |
| 30° | 1644.5 |
| 32.5° | 1394.9 |
| 35° | 1019.7 |
| 37.5° | 696.4 |
| 40° | 527.2 |
| 42.5° | 451.2 |
| 45° | 405.7 |
| 47.5° | 368.8 |
| 50° | 336.2 |
| 52.5° | 308.1 |
| 55° | 286.4 |
| 57.5° | 260.4 |
| 60° | 232.1 |
| 62.5° | 203.9 |
| 65° | 177.9 |
| 67.5° | 151.8 |
| 70° | 130.2 |
| 72.5° | 108.4 |
| 75° | 88.9 |
| 77.5° | 71.6 |
| 80° | 54.2 |
| 82.5° | 39.0 |
| 85° | 26.0 |
| 87.5° | 10.8 |
| 90° | 0.0 |



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— 0°-180°







(END OF REPORT)