

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: P584095

Luminaire Tested: **HC820D010-HM80520940-81WDWB**

Issue Date: 10/21/2021

Test Information

Test Method: LM-41-14
Report Number: P584095
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2109-368-10)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 10/21/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC820D010-HM80520940-81WDWB
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WIDE DISTRIBUTION, WHITE BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2344.4 lumens
Efficiency: N/A
Efficacy: 117.2 lumens/watt
Spacing Criteria (0/90/45): 1.32 / 1.32 / 1.14
Luminous Opening: Circular (Dia: 0.67' x H: 0')
CIE Type: Direct

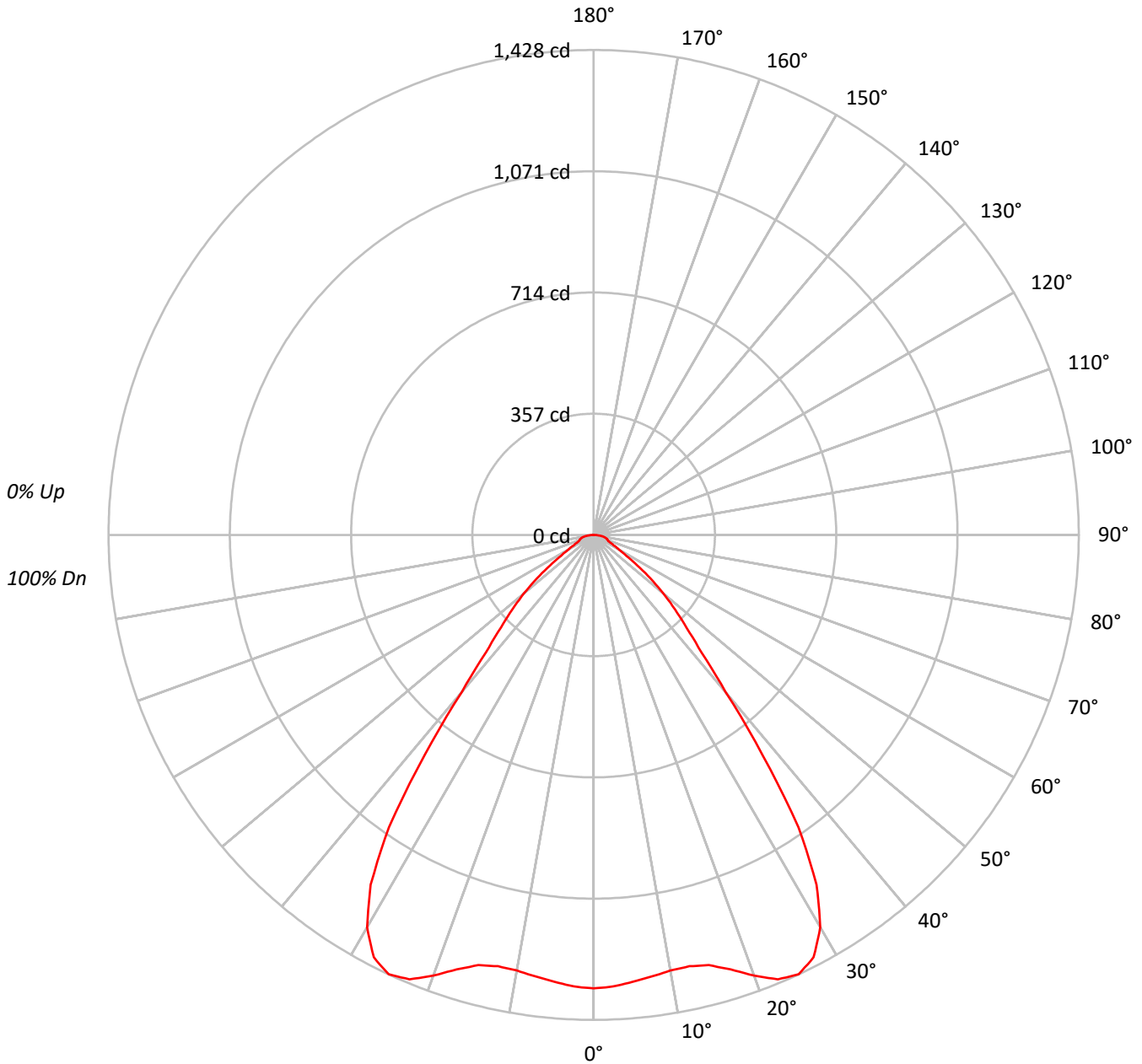
Input Watts (W): 20
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | | | |
| 1 | 112 | 108 | 105 | 103 | 109 | 106 | 103 | 101 | 102 | 100 | 98 | 98 | 97 | 95 | 95 | 93 | 92 | 90 | | | |
| 2 | 105 | 99 | 94 | 89 | 102 | 97 | 92 | 88 | 93 | 90 | 86 | 90 | 87 | 84 | 88 | 85 | 83 | 81 | | | |
| 3 | 98 | 90 | 84 | 79 | 96 | 88 | 83 | 78 | 86 | 81 | 77 | 83 | 79 | 76 | 81 | 77 | 74 | 73 | | | |
| 4 | 92 | 82 | 75 | 70 | 90 | 81 | 75 | 70 | 79 | 73 | 69 | 77 | 72 | 68 | 75 | 71 | 67 | 65 | | | |
| 5 | 86 | 75 | 68 | 63 | 84 | 74 | 68 | 63 | 73 | 67 | 62 | 71 | 66 | 62 | 69 | 65 | 61 | 59 | | | |
| 6 | 80 | 69 | 62 | 57 | 79 | 69 | 62 | 57 | 67 | 61 | 56 | 65 | 60 | 56 | 64 | 59 | 56 | 54 | | | |
| 7 | 75 | 64 | 57 | 52 | 74 | 63 | 57 | 52 | 62 | 56 | 51 | 61 | 55 | 51 | 59 | 55 | 51 | 49 | | | |
| 8 | 71 | 59 | 52 | 47 | 69 | 59 | 52 | 47 | 58 | 51 | 47 | 56 | 51 | 47 | 55 | 50 | 47 | 45 | | | |
| 9 | 67 | 55 | 48 | 43 | 65 | 55 | 48 | 43 | 54 | 47 | 43 | 53 | 47 | 43 | 52 | 47 | 43 | 41 | | | |
| 10 | 63 | 51 | 45 | 40 | 62 | 51 | 44 | 40 | 50 | 44 | 40 | 49 | 44 | 40 | 48 | 43 | 40 | 38 | | | |

AVERAGE LUMINANCE (cd/sqm):

| | |
|-----|-------|
| | 0° |
| 0° | 41173 |
| 5° | 40890 |
| 10° | 40781 |
| 15° | 41856 |
| 20° | 45311 |
| 25° | 48576 |
| 30° | 47492 |
| 35° | 39549 |
| 40° | 24293 |
| 45° | 16824 |
| 50° | 12838 |
| 55° | 8419 |
| 60° | 5273 |
| 65° | 3947 |
| 70° | 3976 |
| 75° | 4575 |
| 80° | 5061 |
| 85° | 4529 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 125.5 | 5.4 |
| 10°-20° | 376.4 | 16.1 |
| 20°-30° | 647.9 | 27.6 |
| 30°-40° | 627.7 | 26.8 |
| 40°-50° | 309.2 | 13.2 |
| 50°-60° | 145.9 | 6.2 |
| 60°-70° | 57.5 | 2.5 |
| 70°-80° | 39.7 | 1.7 |
| 80°-90° | 14.7 | 0.6 |
| 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° | 1149.8 | 49.0 |
| 0°-40° | 1777.5 | 75.8 |
| 0°-60° | 2232.5 | 95.2 |
| 0°-90° | 2344.4 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2344.4 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | Flux |
|-----|------|------|
| 0° | 1335 | |
| 5° | 1321 | 126 |
| 15° | 1311 | 376 |
| 25° | 1428 | 648 |
| 35° | 1051 | 628 |
| 45° | 386 | 309 |
| 55° | 157 | 146 |
| 65° | 54 | 57 |
| 75° | 38 | 40 |
| 85° | 13 | 15 |
| 90° | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° |
|-------|--------|
| 0° | 1335.2 |
| 2.5° | 1330.9 |
| 5° | 1321.0 |
| 7.5° | 1311.1 |
| 10° | 1302.4 |
| 12.5° | 1301.0 |
| 15° | 1311.1 |
| 17.5° | 1341.0 |
| 20° | 1380.8 |
| 22.5° | 1416.4 |
| 25° | 1427.7 |
| 27.5° | 1402.1 |
| 30° | 1333.8 |
| 32.5° | 1221.4 |
| 35° | 1050.6 |
| 37.5° | 815.7 |
| 40° | 603.5 |
| 42.5° | 468.3 |
| 45° | 385.8 |
| 47.5° | 324.6 |
| 50° | 267.6 |
| 52.5° | 210.6 |
| 55° | 156.6 |
| 57.5° | 113.8 |
| 60° | 85.5 |
| 62.5° | 66.9 |
| 65° | 54.1 |
| 67.5° | 46.9 |
| 70° | 44.1 |
| 72.5° | 41.3 |
| 75° | 38.4 |
| 77.5° | 34.2 |
| 80° | 28.5 |
| 82.5° | 21.4 |
| 85° | 12.8 |
| 87.5° | 5.7 |
| 90° | 0.0 |



Report Generated By 670245859 / DESKTOP-HRDQ47P





— 0°-180°







(END OF REPORT)