

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: P584187

Luminaire Tested: **HC825D010-HM82555930-81NDC**

Issue Date: 10/21/2021

Test Information

Test Method: LM-41-14
Report Number: P584187
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2109-368-1)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 10/21/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC825D010-HM82555930-81NDC
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" NARROW DISTRIBUTION, SPECULAR TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2354.4 lumens
Efficiency: N/A
Efficacy: 87.9 lumens/watt
Spacing Criteria (0/90/45): 0.22 / 0.22 / 0.27
Luminous Opening: Circular (Dia: 0.67' x H: 0')
CIE Type: Direct

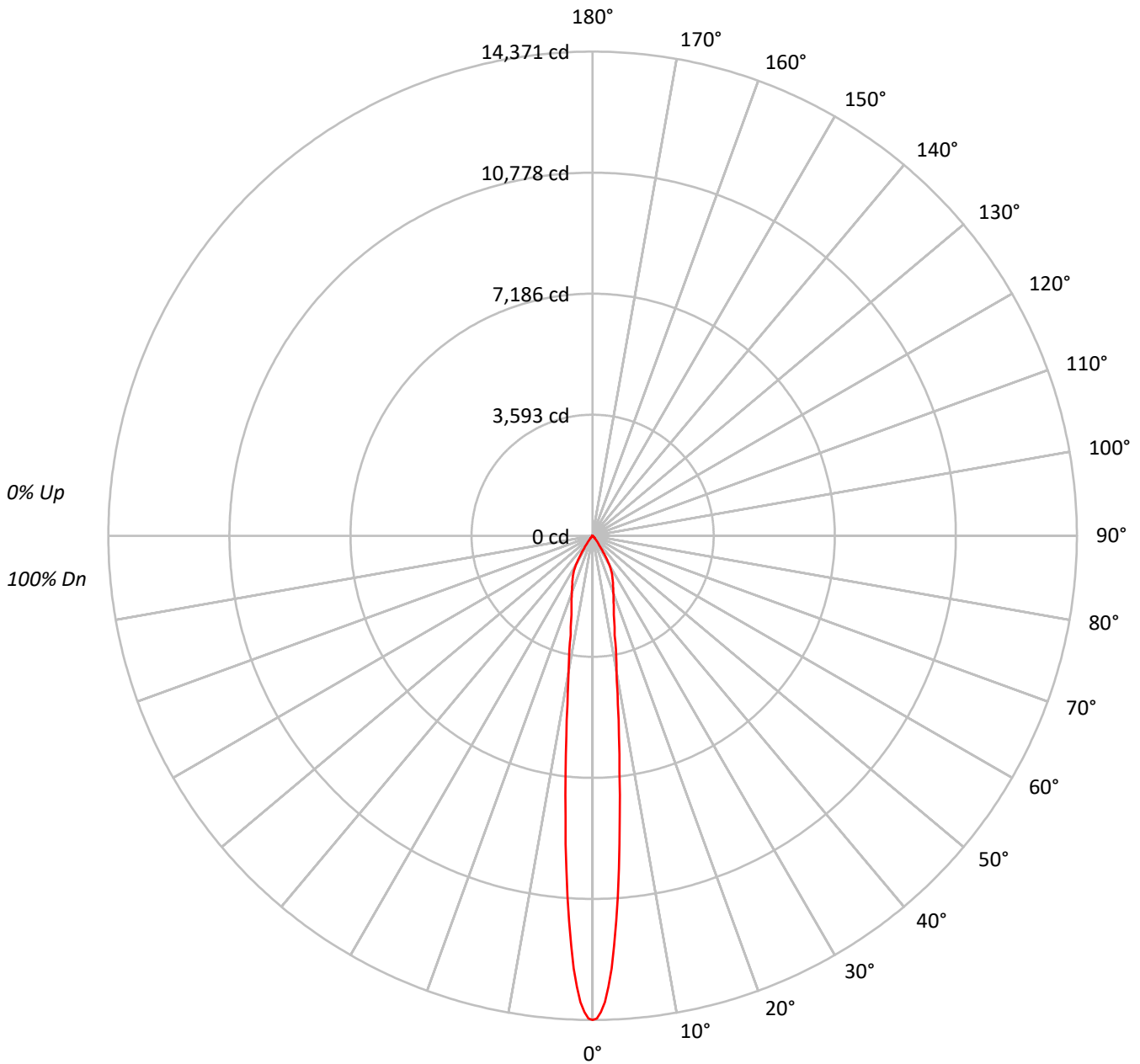
Input Watts (W): 26.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 100 | 100 |
| 1 | 115 | 112 | 110 | 108 | 112 | 110 | 108 | 106 | 106 | 105 | 103 | 102 | 101 | 100 | 99 | 98 | 97 | 96 | 96 | 96 | 96 |
| 2 | 110 | 106 | 103 | 100 | 108 | 104 | 101 | 99 | 101 | 99 | 97 | 98 | 96 | 95 | 96 | 94 | 93 | 91 | 91 | 91 | 91 |
| 3 | 106 | 101 | 97 | 93 | 104 | 99 | 96 | 93 | 97 | 94 | 91 | 95 | 92 | 90 | 92 | 90 | 89 | 87 | 87 | 87 | 87 |
| 4 | 102 | 96 | 91 | 88 | 100 | 95 | 91 | 88 | 93 | 89 | 87 | 91 | 88 | 86 | 89 | 87 | 85 | 83 | 83 | 83 | 83 |
| 5 | 98 | 92 | 87 | 83 | 97 | 91 | 86 | 83 | 89 | 85 | 82 | 87 | 84 | 82 | 86 | 83 | 81 | 80 | 80 | 80 | 80 |
| 6 | 95 | 88 | 83 | 79 | 93 | 87 | 82 | 79 | 86 | 82 | 79 | 84 | 81 | 78 | 83 | 80 | 78 | 76 | 76 | 76 | 76 |
| 7 | 91 | 84 | 79 | 76 | 90 | 83 | 79 | 76 | 82 | 78 | 75 | 81 | 78 | 75 | 80 | 77 | 75 | 73 | 73 | 73 | 73 |
| 8 | 88 | 81 | 76 | 73 | 87 | 80 | 76 | 73 | 79 | 75 | 72 | 78 | 75 | 72 | 77 | 74 | 72 | 71 | 71 | 71 | 71 |
| 9 | 85 | 78 | 73 | 70 | 84 | 77 | 73 | 70 | 76 | 72 | 70 | 76 | 72 | 69 | 75 | 72 | 69 | 68 | 68 | 68 | 68 |
| 10 | 83 | 75 | 70 | 67 | 82 | 75 | 70 | 67 | 74 | 70 | 67 | 73 | 69 | 67 | 73 | 69 | 67 | 66 | 66 | 66 | 66 |

AVERAGE LUMINANCE (cd/sqm):

| | |
|-----|--------|
| | 0° |
| 0° | 443152 |
| 5° | 284245 |
| 10° | 128404 |
| 15° | 77477 |
| 20° | 59041 |
| 25° | 47678 |
| 30° | 34937 |
| 35° | 12652 |
| 40° | 4722 |
| 45° | 2141 |
| 50° | 681 |
| 55° | 172 |
| 60° | 99 |
| 65° | 117 |
| 70° | 0 |
| 75° | 0 |
| 80° | 284 |
| 85° | 566 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 700.4 | 29.7 |
| 10°-20° | 711.4 | 30.2 |
| 20°-30° | 636.8 | 27.0 |
| 30°-40° | 256.5 | 10.9 |
| 40°-50° | 42.0 | 1.8 |
| 50°-60° | 3.8 | 0.2 |
| 60°-70° | 1.4 | 0.1 |
| 70°-80° | 1.1 | 0.0 |
| 80°-90° | 1.5 | 0.1 |
| 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° | 2048.5 | 87.0 |
| 0°-40° | 2305.0 | 97.9 |
| 0°-60° | 2350.9 | 99.8 |
| 0°-90° | 2354.9 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2354.4 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | Flux |
|-----|-------|------|
| 0° | 14371 | |
| 5° | 9183 | 700 |
| 15° | 2427 | 711 |
| 25° | 1401 | 637 |
| 35° | 336 | 257 |
| 45° | 49 | 42 |
| 55° | 3 | 4 |
| 65° | 2 | 1 |
| 75° | 0 | 1 |
| 85° | 2 | 2 |
| 90° | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° |
|-------|---------|
| 0° | 14371.1 |
| 0.5° | 14326.7 |
| 1° | 14141.2 |
| 1.5° | 13843.2 |
| 2° | 13391.5 |
| 2.5° | 12857.2 |
| 3° | 12188.3 |
| 3.5° | 11454.4 |
| 4° | 10728.4 |
| 4.5° | 9915.2 |
| 5° | 9182.8 |
| 5.5° | 8385.5 |
| 6° | 7738.8 |
| 6.5° | 7065.1 |
| 7° | 6535.7 |
| 7.5° | 5976.1 |
| 8° | 5525.9 |
| 8.5° | 5074.0 |
| 9° | 4734.9 |
| 9.5° | 4360.8 |
| 10° | 4100.8 |
| 12.5° | 3024.5 |
| 15° | 2426.9 |
| 17.5° | 2073.3 |
| 20° | 1799.2 |
| 22.5° | 1580.4 |
| 25° | 1401.3 |
| 27.5° | 1222.2 |
| 30° | 981.2 |
| 32.5° | 630.9 |
| 35° | 336.1 |
| 37.5° | 185.4 |
| 40° | 117.3 |
| 42.5° | 77.7 |
| 45° | 49.1 |
| 47.5° | 30.1 |
| 50° | 14.2 |
| 52.5° | 4.7 |
| 55° | 3.2 |
| 57.5° | 1.6 |
| 60° | 1.6 |
| 62.5° | 1.6 |
| 65° | 1.6 |



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CANDELA DISTRIBUTION (continued):

| | 0° |
|-------|-----|
| 72.5° | 0.0 |
| 75° | 0.0 |
| 77.5° | 1.6 |
| 80° | 1.6 |
| 82.5° | 1.6 |
| 85° | 1.6 |
| 87.5° | 1.6 |
| 90° | 0.0 |



Report Generated By 670245859 / DESKTOP-HRDQ47P





— 0°-180°







| | | |
|-------|--|-----|
| 67.5° | | 1.6 |
| 70° | | 0.0 |



(END OF REPORT)