

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: P584238

Luminaire Tested: **HC830D010-HM82555827-81NDC**

Issue Date: 10/21/2021

Test Information

Test Method: LM-41-14
Report Number: P584238
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: HC830D010-HM82555827-81NDC
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" NARROW DISTRIBUTION, SPECULAR TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3299.6 lumens
Efficiency: N/A
Efficacy: 117.8 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

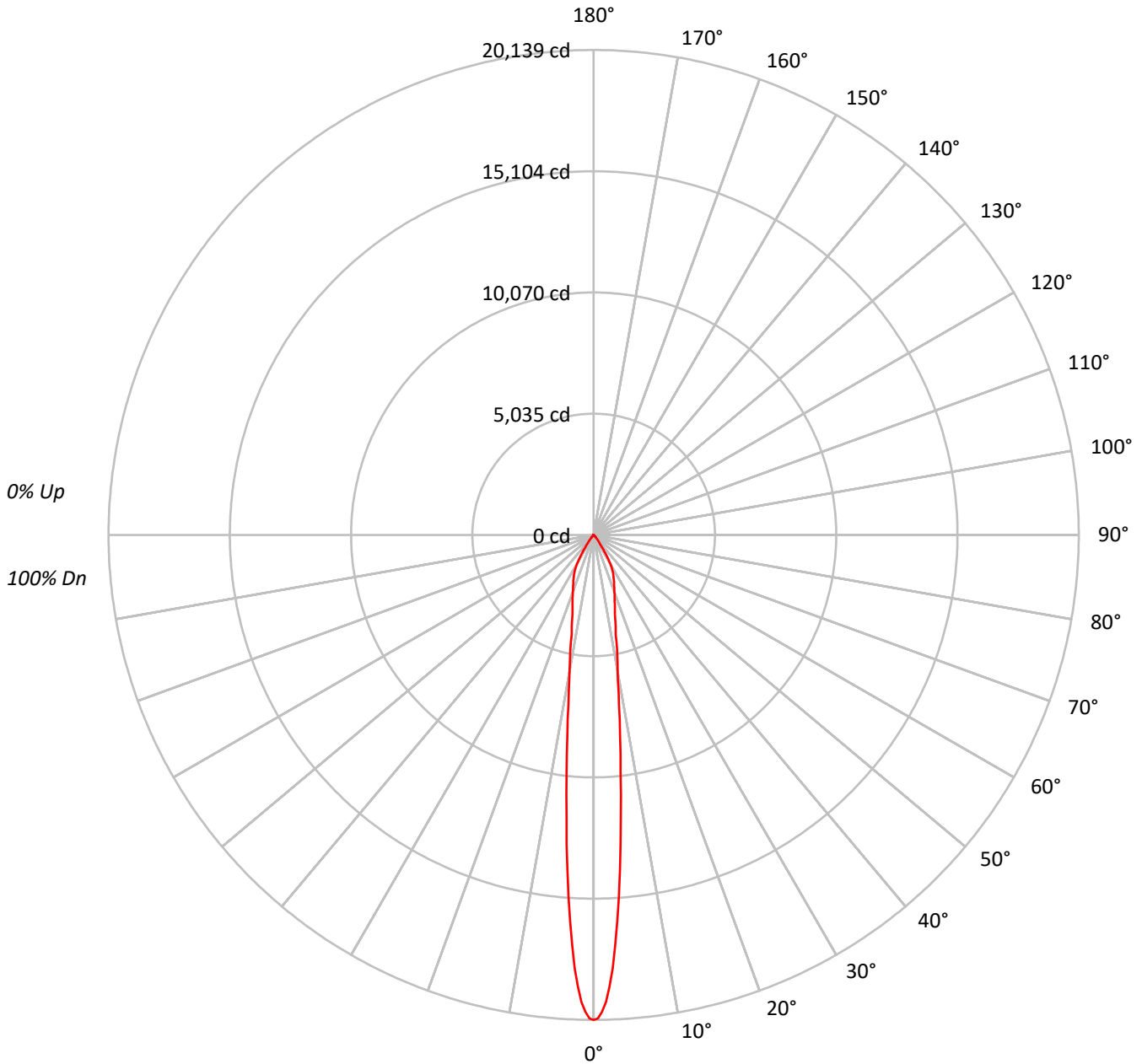
Input Watts (W): 28
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 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° | 621013 |
| 5° | 398330 |
| 10° | 179941 |
| 15° | 108571 |
| 20° | 82737 |
| 25° | 66817 |
| 30° | 48963 |
| 35° | 17730 |
| 40° | 6618 |
| 45° | 3000 |
| 50° | 959 |
| 55° | 237 |
| 60° | 142 |
| 65° | 168 |
| 70° | 0 |
| 75° | 0 |
| 80° | 408 |
| 85° | 814 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 981.5 | 29.7 |
| 10°-20° | 996.9 | 30.2 |
| 20°-30° | 892.4 | 27.0 |
| 30°-40° | 359.5 | 10.9 |
| 40°-50° | 58.9 | 1.8 |
| 50°-60° | 5.4 | 0.2 |
| 60°-70° | 2.0 | 0.1 |
| 70°-80° | 1.5 | 0.0 |
| 80°-90° | 2.2 | 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° | 2870.7 | 87.0 |
| 0°-40° | 3230.2 | 97.9 |
| 0°-60° | 3294.5 | 99.8 |
| 0°-90° | 3300.2 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3299.6 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | Flux |
|-----|-------|------|
| 0° | 20139 | |
| 5° | 12868 | 981 |
| 15° | 3401 | 997 |
| 25° | 1964 | 892 |
| 35° | 471 | 359 |
| 45° | 69 | 59 |
| 55° | 4 | 5 |
| 65° | 2 | 2 |
| 75° | 0 | 2 |
| 85° | 2 | 2 |
| 90° | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° |
|-------|---------|
| 0° | 20139.0 |
| 0.5° | 20076.9 |
| 1° | 19816.9 |
| 1.5° | 19399.4 |
| 2° | 18766.2 |
| 2.5° | 18017.6 |
| 3° | 17080.2 |
| 3.5° | 16051.7 |
| 4° | 15034.3 |
| 4.5° | 13894.8 |
| 5° | 12868.4 |
| 5.5° | 11751.1 |
| 6° | 10844.8 |
| 6.5° | 9900.7 |
| 7° | 9158.7 |
| 7.5° | 8374.6 |
| 8° | 7743.7 |
| 8.5° | 7110.7 |
| 9° | 6635.2 |
| 9.5° | 6111.0 |
| 10° | 5746.7 |
| 12.5° | 4238.4 |
| 15° | 3400.9 |
| 17.5° | 2905.6 |
| 20° | 2521.3 |
| 22.5° | 2214.8 |
| 25° | 1963.8 |
| 27.5° | 1712.6 |
| 30° | 1375.1 |
| 32.5° | 884.1 |
| 35° | 471.0 |
| 37.5° | 259.9 |
| 40° | 164.4 |
| 42.5° | 108.8 |
| 45° | 68.8 |
| 47.5° | 42.2 |
| 50° | 20.0 |
| 52.5° | 6.7 |
| 55° | 4.4 |
| 57.5° | 2.3 |
| 60° | 2.3 |
| 62.5° | 2.3 |
| 65° | 2.3 |



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CANDELA DISTRIBUTION (continued):

| | 0° |
|-------|-----|
| 72.5° | 0.0 |
| 75° | 0.0 |
| 77.5° | 2.3 |
| 80° | 2.3 |
| 82.5° | 2.3 |
| 85° | 2.3 |
| 87.5° | 2.3 |
| 90° | 0.0 |



Report Generated By 670245859 / DESKTOP-HRDQ47P





— 0°-180°







| | | |
|-------|--|-----|
| 67.5° | | 2.3 |
| 70° | | 0.0 |



(END OF REPORT)