

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: P584077

Luminaire Tested: **HC820D010-HM80520935-81WDW**

Issue Date: 10/21/2021

Test Information

Test Method: LM-41-14
Report Number: P584077
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2109-368-9)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 10/21/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC820D010-HM80520935-81WDW
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WIDE DISTRIBUTION, WHITE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2123.3 lumens
Efficiency: N/A
Efficacy: 106.2 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.17 / 1.06
Luminous Opening: Circular (Dia: 0.67' x H: 0')
CIE Type: Direct

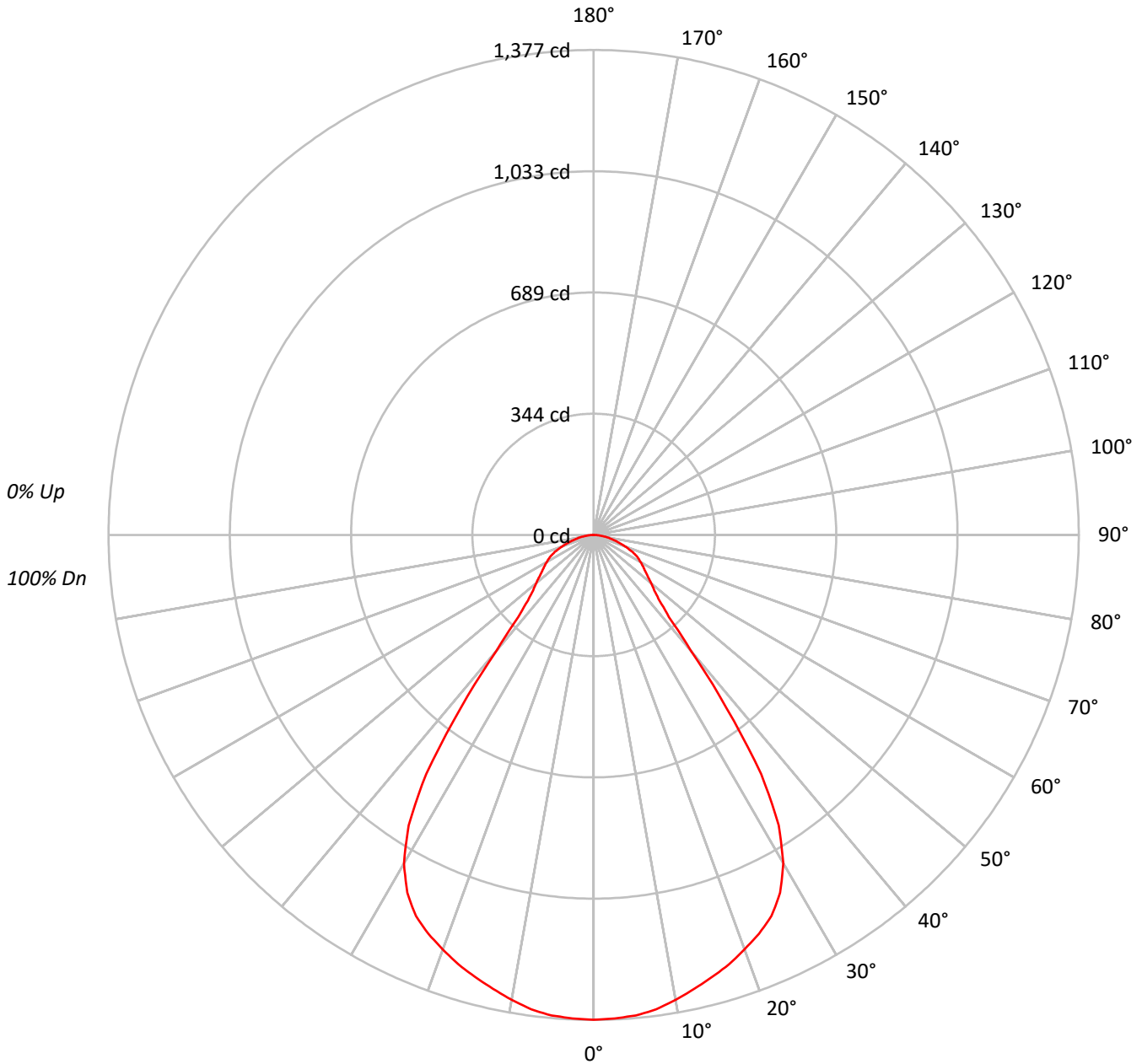
Input Watts (W): 20
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | | | |
| 1 | 111 | 108 | 104 | 101 | 109 | 105 | 102 | 100 | 101 | 99 | 96 | 97 | 95 | 94 | 94 | 92 | 91 | 89 | | | |
| 2 | 104 | 97 | 92 | 87 | 101 | 95 | 90 | 86 | 92 | 88 | 84 | 89 | 85 | 82 | 86 | 83 | 81 | 79 | | | |
| 3 | 97 | 88 | 82 | 76 | 94 | 87 | 81 | 76 | 84 | 79 | 75 | 81 | 77 | 73 | 79 | 75 | 72 | 70 | | | |
| 4 | 90 | 80 | 73 | 68 | 88 | 79 | 73 | 67 | 77 | 71 | 67 | 75 | 70 | 66 | 73 | 68 | 65 | 63 | | | |
| 5 | 84 | 74 | 66 | 61 | 82 | 73 | 66 | 61 | 71 | 65 | 60 | 69 | 64 | 59 | 67 | 63 | 59 | 57 | | | |
| 6 | 79 | 68 | 61 | 55 | 77 | 67 | 60 | 55 | 65 | 59 | 55 | 64 | 58 | 54 | 62 | 58 | 54 | 52 | | | |
| 7 | 74 | 63 | 56 | 50 | 73 | 62 | 55 | 50 | 61 | 54 | 50 | 59 | 54 | 50 | 58 | 53 | 49 | 48 | | | |
| 8 | 70 | 58 | 51 | 46 | 69 | 58 | 51 | 46 | 57 | 50 | 46 | 55 | 50 | 46 | 54 | 49 | 45 | 44 | | | |
| 9 | 66 | 54 | 47 | 43 | 65 | 54 | 47 | 42 | 53 | 47 | 42 | 52 | 46 | 42 | 51 | 46 | 42 | 40 | | | |
| 10 | 62 | 51 | 44 | 39 | 61 | 50 | 44 | 39 | 49 | 43 | 39 | 49 | 43 | 39 | 48 | 43 | 39 | 37 | | | |

AVERAGE LUMINANCE (cd/sqm):

| | |
|-----|-------|
| | 0° |
| 0° | 42452 |
| 5° | 42398 |
| 10° | 41980 |
| 15° | 41479 |
| 20° | 41091 |
| 25° | 40632 |
| 30° | 38338 |
| 35° | 31218 |
| 40° | 17249 |
| 45° | 11508 |
| 50° | 10213 |
| 55° | 9580 |
| 60° | 9461 |
| 65° | 9383 |
| 70° | 8475 |
| 75° | 7577 |
| 80° | 6641 |
| 85° | 5838 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 129.8 | 6.1 |
| 10°-20° | 366.9 | 17.3 |
| 20°-30° | 545.1 | 25.7 |
| 30°-40° | 490.9 | 23.1 |
| 40°-50° | 217.6 | 10.2 |
| 50°-60° | 161.1 | 7.6 |
| 60°-70° | 125.3 | 5.9 |
| 70°-80° | 68.0 | 3.2 |
| 80°-90° | 18.6 | 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° | 1041.8 | 49.1 |
| 0°-40° | 1532.7 | 72.2 |
| 0°-60° | 1911.4 | 90.0 |
| 0°-90° | 2123.3 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2123.3 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | Flux |
|-----|------|------|
| 0° | 1377 | |
| 5° | 1370 | 130 |
| 15° | 1299 | 367 |
| 25° | 1194 | 545 |
| 35° | 829 | 491 |
| 45° | 264 | 218 |
| 55° | 178 | 161 |
| 65° | 129 | 125 |
| 75° | 64 | 68 |
| 85° | 16 | 19 |
| 90° | 0 | |



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CANDELA DISTRIBUTION (FULL):

| 0° | |
|-------|--------|
| 0° | 1376.7 |
| 2.5° | 1374.0 |
| 5° | 1369.7 |
| 7.5° | 1358.7 |
| 10° | 1340.7 |
| 12.5° | 1319.9 |
| 15° | 1299.3 |
| 17.5° | 1278.6 |
| 20° | 1252.2 |
| 22.5° | 1226.0 |
| 25° | 1194.2 |
| 27.5° | 1145.8 |
| 30° | 1076.7 |
| 32.5° | 977.2 |
| 35° | 829.3 |
| 37.5° | 619.2 |
| 40° | 428.5 |
| 42.5° | 316.5 |
| 45° | 263.9 |
| 47.5° | 233.6 |
| 50° | 212.9 |
| 52.5° | 193.5 |
| 55° | 178.2 |
| 57.5° | 165.8 |
| 60° | 153.4 |
| 62.5° | 142.3 |
| 65° | 128.6 |
| 67.5° | 111.9 |
| 70° | 94.0 |
| 72.5° | 78.8 |
| 75° | 63.6 |
| 77.5° | 49.8 |
| 80° | 37.4 |
| 82.5° | 26.2 |
| 85° | 16.5 |
| 87.5° | 6.9 |
| 90° | 0.0 |



Report Generated By 670245859 / DESKTOP-HRDQ47P





— 0°-180°







(END OF REPORT)