

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: P580060

Luminaire Tested: **HC420D010-HM40525930-41NDH**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P580060
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-2)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/9/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC420D010-HM40525930-41NDH
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" NARROW DISTRIBUTION, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1597.7 lumens
Efficiency: N/A
Efficacy: 79.9 lumens/watt
Spacing Criteria (0/90/45): 0.89 / 0.89 / 0.91
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

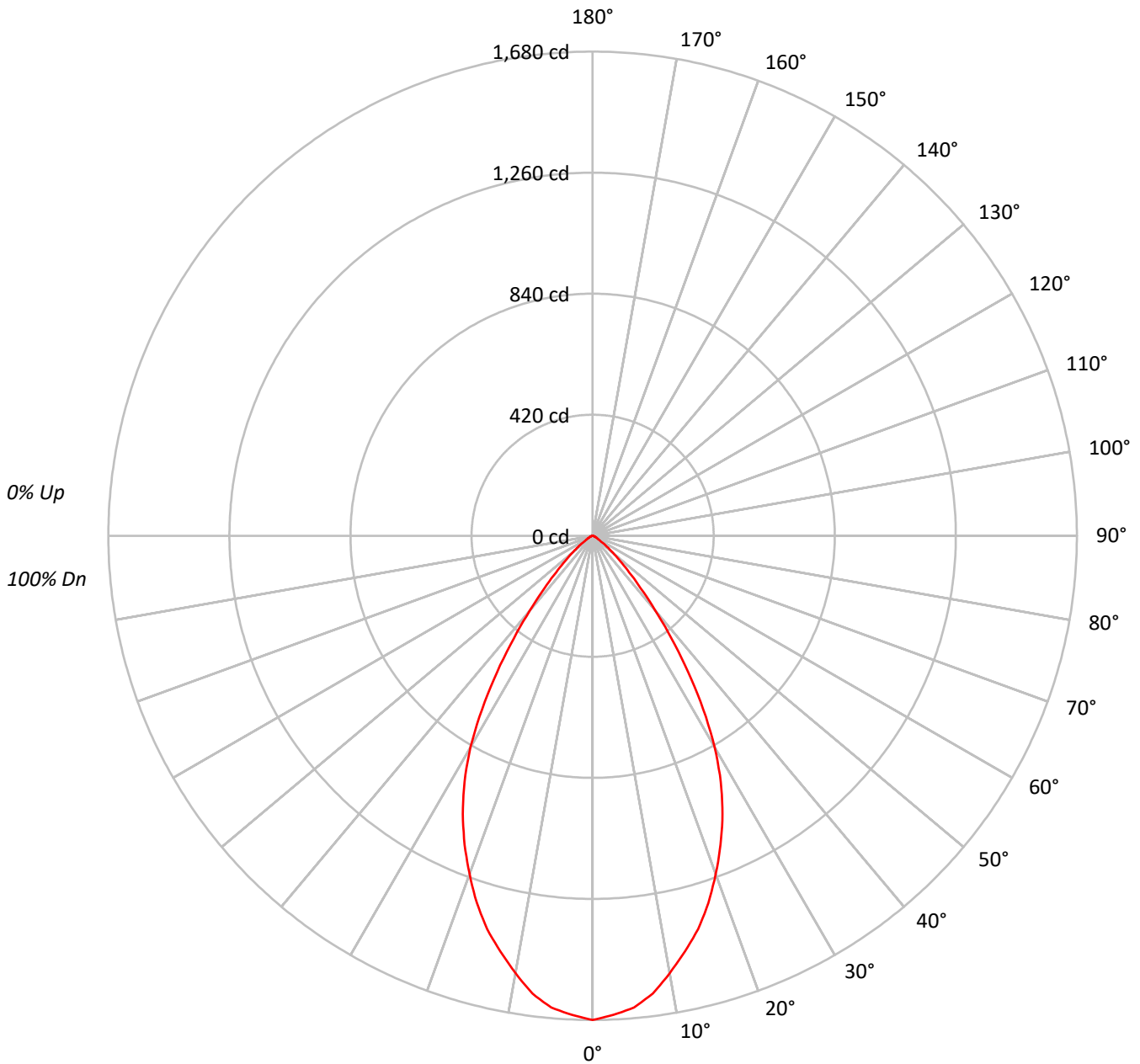
Input Watts (W): 20
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P580060

CATALOG NUMBER: HC420D010-HM40525930-41NDH

Luminous Intensity Polar Plot





TEST NUMBER: P580060

CATALOG NUMBER: HC420D010-HM40525930-41NDH

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 | 113 | 110 | 108 | 105 | 111 | 108 | 106 | 104 | 104 | 102 | 100 | 100 | 99 | 97 | 97 | 96 | 95 | 93 | 93 | 93 | 93 |
| 2 | 107 | 102 | 98 | 94 | 105 | 100 | 96 | 93 | 97 | 94 | 91 | 94 | 91 | 89 | 91 | 89 | 87 | 86 | 86 | 86 | 86 |
| 3 | 101 | 95 | 89 | 85 | 99 | 93 | 88 | 84 | 91 | 86 | 83 | 88 | 85 | 82 | 86 | 83 | 81 | 79 | 79 | 79 | 79 |
| 4 | 96 | 88 | 82 | 78 | 94 | 87 | 81 | 77 | 85 | 80 | 76 | 83 | 79 | 75 | 81 | 77 | 74 | 73 | 73 | 73 | 73 |
| 5 | 91 | 82 | 76 | 71 | 89 | 81 | 75 | 71 | 79 | 74 | 70 | 77 | 73 | 70 | 76 | 72 | 69 | 67 | 67 | 67 | 67 |
| 6 | 86 | 76 | 70 | 66 | 84 | 76 | 70 | 65 | 74 | 69 | 65 | 73 | 68 | 64 | 71 | 67 | 64 | 63 | 63 | 63 | 63 |
| 7 | 81 | 72 | 65 | 61 | 80 | 71 | 65 | 61 | 70 | 64 | 60 | 68 | 64 | 60 | 67 | 63 | 60 | 58 | 58 | 58 | 58 |
| 8 | 77 | 67 | 61 | 57 | 76 | 67 | 61 | 56 | 65 | 60 | 56 | 64 | 59 | 56 | 63 | 59 | 56 | 54 | 54 | 54 | 54 |
| 9 | 73 | 63 | 57 | 53 | 72 | 63 | 57 | 53 | 62 | 56 | 52 | 61 | 56 | 52 | 60 | 55 | 52 | 51 | 51 | 51 | 51 |
| 10 | 70 | 59 | 53 | 49 | 69 | 59 | 53 | 49 | 58 | 53 | 49 | 57 | 52 | 49 | 57 | 52 | 49 | 48 | 48 | 48 | 48 |

AVERAGE LUMINANCE (cd/sqm):

| | |
|-----|--------|
| | 0° |
| 0° | 207233 |
| 5° | 203468 |
| 10° | 192995 |
| 15° | 180461 |
| 20° | 163893 |
| 25° | 145038 |
| 30° | 120622 |
| 35° | 86988 |
| 40° | 54295 |
| 45° | 31311 |
| 50° | 17673 |
| 55° | 8408 |
| 60° | 4835 |
| 65° | 3677 |
| 70° | 2488 |
| 75° | 1620 |
| 80° | 1634 |
| 85° | 1557 |



TEST NUMBER: P580060

CATALOG NUMBER: HC420D010-HM40525930-41NDH

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 153.6 | 9.6 |
| 10°-20° | 394.2 | 24.7 |
| 20°-30° | 484.9 | 30.3 |
| 30°-40° | 360.1 | 22.5 |
| 40°-50° | 146.4 | 9.2 |
| 50°-60° | 40.5 | 2.5 |
| 60°-70° | 12.6 | 0.8 |
| 70°-80° | 4.2 | 0.3 |
| 80°-90° | 1.2 | 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° | 1032.7 | 64.6 |
| 0°-40° | 1392.8 | 87.2 |
| 0°-60° | 1579.7 | 98.9 |
| 0°-90° | 1597.7 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1597.7 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | Flux |
|-----|------|------|
| 0° | 1680 | |
| 5° | 1643 | 154 |
| 15° | 1413 | 394 |
| 25° | 1066 | 485 |
| 35° | 578 | 360 |
| 45° | 180 | 146 |
| 55° | 39 | 41 |
| 65° | 13 | 13 |
| 75° | 3 | 4 |
| 85° | 1 | 1 |
| 90° | 0 | |



TEST NUMBER: P580060

CATALOG NUMBER: HC420D010-HM40525930-41NDH

CANDELA DISTRIBUTION (FULL):

| | 0° |
|-------|--------|
| 0° | 1680.1 |
| 2.5° | 1664.1 |
| 5° | 1643.3 |
| 7.5° | 1601.9 |
| 10° | 1540.9 |
| 12.5° | 1477.6 |
| 15° | 1413.2 |
| 17.5° | 1336.0 |
| 20° | 1248.6 |
| 22.5° | 1160.0 |
| 25° | 1065.7 |
| 27.5° | 963.3 |
| 30° | 846.9 |
| 32.5° | 714.7 |
| 35° | 577.7 |
| 37.5° | 448.8 |
| 40° | 337.2 |
| 42.5° | 246.3 |
| 45° | 179.5 |
| 47.5° | 128.9 |
| 50° | 92.1 |
| 52.5° | 63.3 |
| 55° | 39.1 |
| 57.5° | 25.3 |
| 60° | 19.6 |
| 62.5° | 16.1 |
| 65° | 12.6 |
| 67.5° | 9.2 |
| 70° | 6.9 |
| 72.5° | 5.7 |
| 75° | 3.4 |
| 77.5° | 2.3 |
| 80° | 2.3 |
| 82.5° | 1.1 |
| 85° | 1.1 |
| 87.5° | 1.1 |
| 90° | 0.0 |



Report Generated By 670245859 / DESKTOP-HRDQ47P





— 0°-180°







(END OF REPORT)