

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

Report Number: P210260

Luminaire Tested: **SMD4R6935WH**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P210260
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P28194-R2)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: SMD4R6935WH
Description: 4" Round Surface Mount, 600 lm, 90CRI, 3500K
Light Source: (28) 3500K CCT, 90 CRI LEDS
L130-3590003000W21
Ballast/Driver: Leedarson
LD120-210

Summary

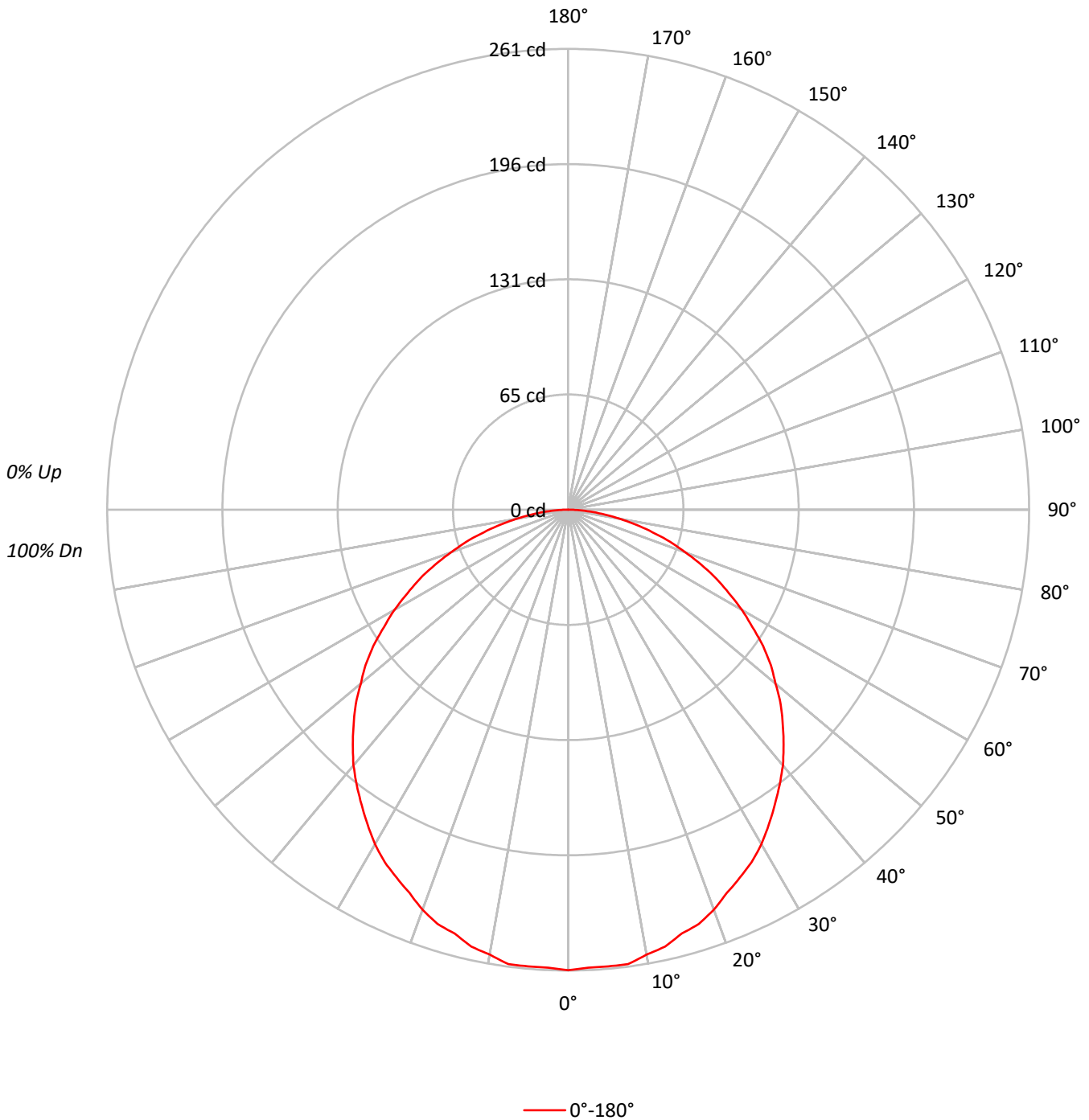
Lumens per Lamp: N/A
Luminaire Lumens: 740.0 lumens
Efficiency: N/A
Efficacy: 76.3 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.25 / 1.37
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 9.7
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 | 0 |
| RCR | | | | | | | | | | | | | | | | | | | | |
| 0 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | | 106 | 106 | 106 | | 102 | 102 | 102 | 100 |
| 1 | 109 | 104 | 99 | 96 | 106 | 102 | 98 | 94 | 97 | 94 | 91 | | 93 | 91 | 88 | | 90 | 88 | 86 | 84 |
| 2 | 99 | 90 | 83 | 78 | 96 | 88 | 82 | 77 | 85 | 80 | 75 | | 82 | 77 | 73 | | 79 | 75 | 72 | 69 |
| 3 | 90 | 79 | 71 | 64 | 87 | 78 | 70 | 64 | 75 | 68 | 63 | | 72 | 66 | 62 | | 69 | 65 | 61 | 58 |
| 4 | 82 | 70 | 61 | 55 | 80 | 69 | 61 | 54 | 66 | 59 | 53 | | 64 | 58 | 53 | | 62 | 56 | 52 | 50 |
| 5 | 76 | 63 | 54 | 47 | 74 | 62 | 53 | 47 | 59 | 52 | 46 | | 57 | 51 | 46 | | 56 | 50 | 45 | 43 |
| 6 | 70 | 56 | 47 | 41 | 68 | 55 | 47 | 41 | 54 | 46 | 40 | | 52 | 45 | 40 | | 50 | 44 | 40 | 38 |
| 7 | 65 | 51 | 42 | 36 | 63 | 50 | 42 | 36 | 49 | 41 | 36 | | 47 | 40 | 35 | | 46 | 40 | 35 | 33 |
| 8 | 60 | 47 | 38 | 32 | 59 | 46 | 38 | 32 | 45 | 37 | 32 | | 43 | 37 | 32 | | 42 | 36 | 31 | 30 |
| 9 | 56 | 43 | 35 | 29 | 55 | 42 | 34 | 29 | 41 | 34 | 29 | | 40 | 33 | 29 | | 39 | 33 | 28 | 27 |
| 10 | 53 | 39 | 32 | 26 | 51 | 39 | 31 | 26 | 38 | 31 | 26 | | 37 | 31 | 26 | | 36 | 30 | 26 | 24 |

AVERAGE LUMINANCE (cd/sqm):

| | |
|-----|-------|
| | 0° |
| 0° | 25778 |
| 5° | 25757 |
| 10° | 25684 |
| 15° | 25429 |
| 20° | 25360 |
| 25° | 25073 |
| 30° | 24972 |
| 35° | 24615 |
| 40° | 24399 |
| 45° | 24015 |
| 50° | 23573 |
| 55° | 23212 |
| 60° | 22477 |
| 65° | 21681 |
| 70° | 20374 |
| 75° | 18866 |
| 80° | 16906 |
| 85° | 14063 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 24.7 | 3.3 |
| 10°-20° | 70.4 | 9.5 |
| 20°-30° | 106.1 | 14.3 |
| 30°-40° | 127.8 | 17.3 |
| 40°-50° | 132.6 | 17.9 |
| 50°-60° | 120.0 | 16.2 |
| 60°-70° | 91.3 | 12.3 |
| 70°-80° | 52.7 | 7.1 |
| 80°-90° | 14.5 | 2.0 |
| 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° | 201.2 | 27.2 |
| 0°-40° | 329.0 | 44.5 |
| 0°-60° | 581.6 | 78.6 |
| 0°-90° | 740.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 740.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | Flux |
|-----|-----|------|
| 0° | 261 | |
| 5° | 260 | 25 |
| 15° | 248 | 70 |
| 25° | 230 | 106 |
| 35° | 204 | 128 |
| 45° | 172 | 133 |
| 55° | 135 | 120 |
| 65° | 93 | 91 |
| 75° | 49 | 53 |
| 85° | 12 | 14 |
| 90° | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° |
|-------|-------|
| 0° | 260.8 |
| 2.5° | 259.6 |
| 5° | 259.6 |
| 7.5° | 259.6 |
| 10° | 255.9 |
| 12.5° | 253.4 |
| 15° | 248.5 |
| 17.5° | 246.0 |
| 20° | 241.1 |
| 22.5° | 234.9 |
| 25° | 229.9 |
| 27.5° | 225.0 |
| 30° | 218.8 |
| 32.5° | 211.4 |
| 35° | 204.0 |
| 37.5° | 196.6 |
| 40° | 189.1 |
| 42.5° | 180.5 |
| 45° | 171.8 |
| 47.5° | 163.2 |
| 50° | 153.3 |
| 52.5° | 144.6 |
| 55° | 134.7 |
| 57.5° | 123.6 |
| 60° | 113.7 |
| 62.5° | 102.6 |
| 65° | 92.7 |
| 67.5° | 81.6 |
| 70° | 70.5 |
| 72.5° | 60.6 |
| 75° | 49.4 |
| 77.5° | 39.6 |
| 80° | 29.7 |
| 82.5° | 21.0 |
| 85° | 12.4 |
| 87.5° | 4.9 |
| 90° | 0.0 |

(END OF REPORT)