

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: H36044

Luminaire Tested: **H5ICAT 5010**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: H36044
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: H5ICAT 5010
Description: HALO 5" DIA RECESSED DOWNLIGHT
BLACK BAFFLE
LOW SOCKET SETTING
Light Source: 50PAR30/FL/H 50 WATTS 670 LUMENS
PAR30 HALOGEN FLOOD
Ballast/Driver: -

Summary

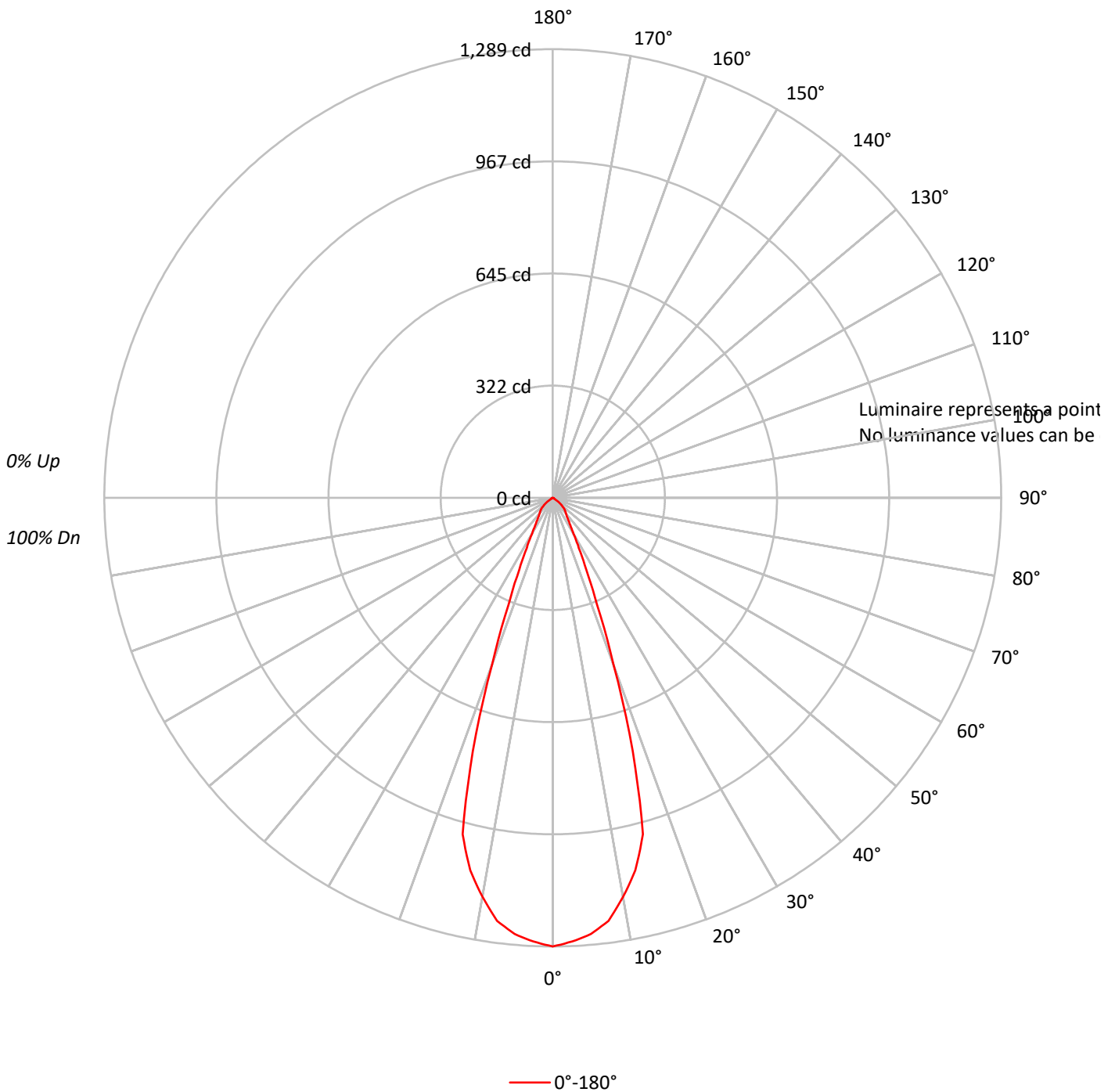
Lumens per Lamp: 670 (1 lamp)
Luminaire Lumens: 590.3 lumens
Efficiency: 88.1%
Efficacy: 11.8 lumens/watt
Spacing Criteria (0/90/45): 0.64 / 0.64 / 0.56
Luminous Opening: Point Source (0' x 0' x 0')
CIE Type: Direct

Input Watts (W): 50
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



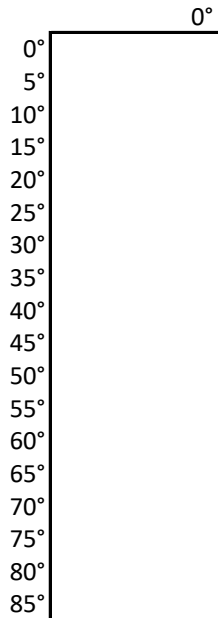


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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

| | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|--|----|----|----|--|----|----|----|----|
| 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 | 0 |
| RCR | | | | | | | | | | | | | | | | | | | | |
| 0 | 105 | 105 | 105 | 105 | 102 | 102 | 102 | 102 | 98 | 98 | 98 | | 94 | 94 | 94 | | 90 | 90 | 90 | 88 |
| 1 | 101 | 98 | 96 | 95 | 98 | 96 | 95 | 93 | 93 | 91 | 90 | | 90 | 89 | 88 | | 87 | 86 | 85 | 83 |
| 2 | 96 | 92 | 89 | 86 | 94 | 91 | 88 | 86 | 88 | 86 | 84 | | 85 | 84 | 82 | | 83 | 82 | 80 | 79 |
| 3 | 92 | 87 | 83 | 80 | 90 | 86 | 82 | 79 | 84 | 81 | 78 | | 82 | 79 | 77 | | 80 | 78 | 76 | 75 |
| 4 | 88 | 82 | 78 | 75 | 87 | 81 | 77 | 74 | 80 | 76 | 74 | | 78 | 75 | 73 | | 76 | 74 | 72 | 71 |
| 5 | 85 | 78 | 74 | 70 | 83 | 77 | 73 | 70 | 76 | 72 | 69 | | 74 | 71 | 69 | | 73 | 70 | 68 | 67 |
| 6 | 81 | 74 | 70 | 67 | 80 | 74 | 69 | 66 | 72 | 69 | 66 | | 71 | 68 | 65 | | 70 | 67 | 65 | 64 |
| 7 | 78 | 71 | 66 | 63 | 77 | 70 | 66 | 63 | 69 | 65 | 63 | | 68 | 65 | 62 | | 67 | 64 | 62 | 61 |
| 8 | 75 | 68 | 63 | 60 | 74 | 67 | 63 | 60 | 67 | 63 | 60 | | 66 | 62 | 60 | | 65 | 62 | 59 | 58 |
| 9 | 72 | 65 | 61 | 58 | 71 | 65 | 60 | 57 | 64 | 60 | 57 | | 63 | 60 | 57 | | 62 | 59 | 57 | 56 |
| 10 | 70 | 62 | 58 | 55 | 69 | 62 | 58 | 55 | 61 | 58 | 55 | | 61 | 57 | 55 | | 60 | 57 | 55 | 54 |

AVERAGE LUMINANCE (cd/sqm):





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ZONAL LUMENS:

| Zone | Lumens | % Fixture | % Lamp |
|-----------|--------|-----------|--------|
| 0°-10° | 117.3 | 19.9 | 17.5 |
| 10°-20° | 252.6 | 42.8 | 37.7 |
| 20°-30° | 114.8 | 19.4 | 17.1 |
| 30°-40° | 50.5 | 8.6 | 7.5 |
| 40°-50° | 36.3 | 6.2 | 5.4 |
| 50°-60° | 15.0 | 2.5 | 2.2 |
| 60°-70° | 3.1 | 0.5 | 0.5 |
| 70°-80° | 0.8 | 0.1 | 0.1 |
| 80°-90° | 0.0 | 0.0 | 0.0 |
| 90°-100° | 0.0 | 0.0 | 0.0 |
| 100°-110° | 0.0 | 0.0 | 0.0 |
| 110°-120° | 0.0 | 0.0 | 0.0 |
| 120°-130° | 0.0 | 0.0 | 0.0 |
| 130°-140° | 0.0 | 0.0 | 0.0 |
| 140°-150° | 0.0 | 0.0 | 0.0 |
| 150°-160° | 0.0 | 0.0 | 0.0 |
| 160°-170° | 0.0 | 0.0 | 0.0 |
| 170°-180° | 0.0 | 0.0 | 0.0 |
| 0°-30° | 484.7 | 82.1 | 72.3 |
| 0°-40° | 535.1 | 90.7 | 79.9 |
| 0°-60° | 586.5 | 99.3 | 87.5 |
| 0°-90° | 590.3 | 100.0 | 88.1 |
| 90°-120° | 0.0 | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 | 0.0 |
| 0°-180° | 590.3 | 100.0 | 88.1 |

CANDELA DISTRIBUTION:

| | 0° | Flux |
|------|------|------|
| 0° | 1289 | |
| 5° | 1258 | 117 |
| 15° | 1001 | 253 |
| 25° | 227 | 115 |
| 35° | 77 | 50 |
| 45° | 48 | 36 |
| 55° | 15 | 15 |
| 65° | 3 | 3 |
| 75° | 1 | 1 |
| 85° | 0 | 0 |
| 90° | 0 | 0 |
| 95° | 0 | 0 |
| 105° | 0 | 0 |
| 115° | 0 | 0 |
| 125° | 0 | 0 |
| 135° | 0 | 0 |
| 145° | 0 | 0 |
| 155° | 0 | 0 |
| 165° | 0 | 0 |
| 175° | 0 | 0 |
| 180° | 0 | 0 |



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CANDELA DISTRIBUTION (FULL):

| 0° | |
|--------|------|
| 0° | 1289 |
| 2.5° | 1276 |
| 5° | 1258 |
| 7.5° | 1226 |
| 10° | 1164 |
| 12.5° | 1096 |
| 15° | 1001 |
| 17.5° | 764 |
| 20° | 510 |
| 22.5° | 332 |
| 25° | 227 |
| 27.5° | 162 |
| 30° | 119 |
| 32.5° | 94 |
| 35° | 77 |
| 37.5° | 66 |
| 40° | 59 |
| 42.5° | 54 |
| 45° | 48 |
| 47.5° | 41 |
| 50° | 33 |
| 52.5° | 25 |
| 55° | 15 |
| 57.5° | 9 |
| 60° | 5 |
| 62.5° | 4 |
| 65° | 3 |
| 67.5° | 2 |
| 70° | 2 |
| 72.5° | 1 |
| 75° | 1 |
| 77.5° | 0 |
| 80° | 0 |
| 82.5° | 0 |
| 85° | 0 |
| 87.5° | 0 |
| 90° | 0 |
| 92.5° | 0 |
| 95° | 0 |
| 97.5° | 0 |
| 100° | 0 |
| 102.5° | 0 |
| 105° | 0 |
| 107.5° | 0 |
| 110° | 0 |



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CANDELA DISTRIBUTION (continued):

| | 0° |
|--------|----|
| 112.5° | 0 |
| 115° | 0 |
| 117.5° | 0 |
| 120° | 0 |
| 122.5° | 0 |
| 125° | 0 |
| 127.5° | 0 |
| 130° | 0 |
| 132.5° | 0 |
| 135° | 0 |
| 137.5° | 0 |
| 140° | 0 |
| 142.5° | 0 |
| 145° | 0 |
| 147.5° | 0 |
| 150° | 0 |
| 152.5° | 0 |
| 155° | 0 |
| 157.5° | 0 |
| 160° | 0 |
| 162.5° | 0 |
| 165° | 0 |
| 167.5° | 0 |
| 170° | 0 |
| 172.5° | 0 |
| 175° | 0 |
| 177.5° | 0 |
| 180° | 0 |

(END OF REPORT)