

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: 258p110

Luminaire Tested: **H571RICAT-18WCF-5054PS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: 258p110  
Test Lab: METALUX LABORATORIES  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO  
Catalog Number: H571RICAT-18WCF-5054PS  
Description: 5" RECESSED DOWNLIGHT, 18W CF, CONE WITH DROP GLASS FROSTED  
LENS, WHITE SPLAY  
Light Source: ONE - GE - F18TBX/SPX27/4P - 1200 LUMENS - 18 WATTS  
Ballast/Driver: ADVANCE 2518-M1-LS-QS

**Summary**

Lumens per Lamp: 1200 (1 lamp)  
Luminaire Lumens: 639.5 lumens  
Efficiency: 53.3%  
Efficacy: 32.0 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.26 / 1.4  
Luminous Opening: Vertical Cylinder (Dia: 0.34' x H: 0.17')  
CIE Type: Direct

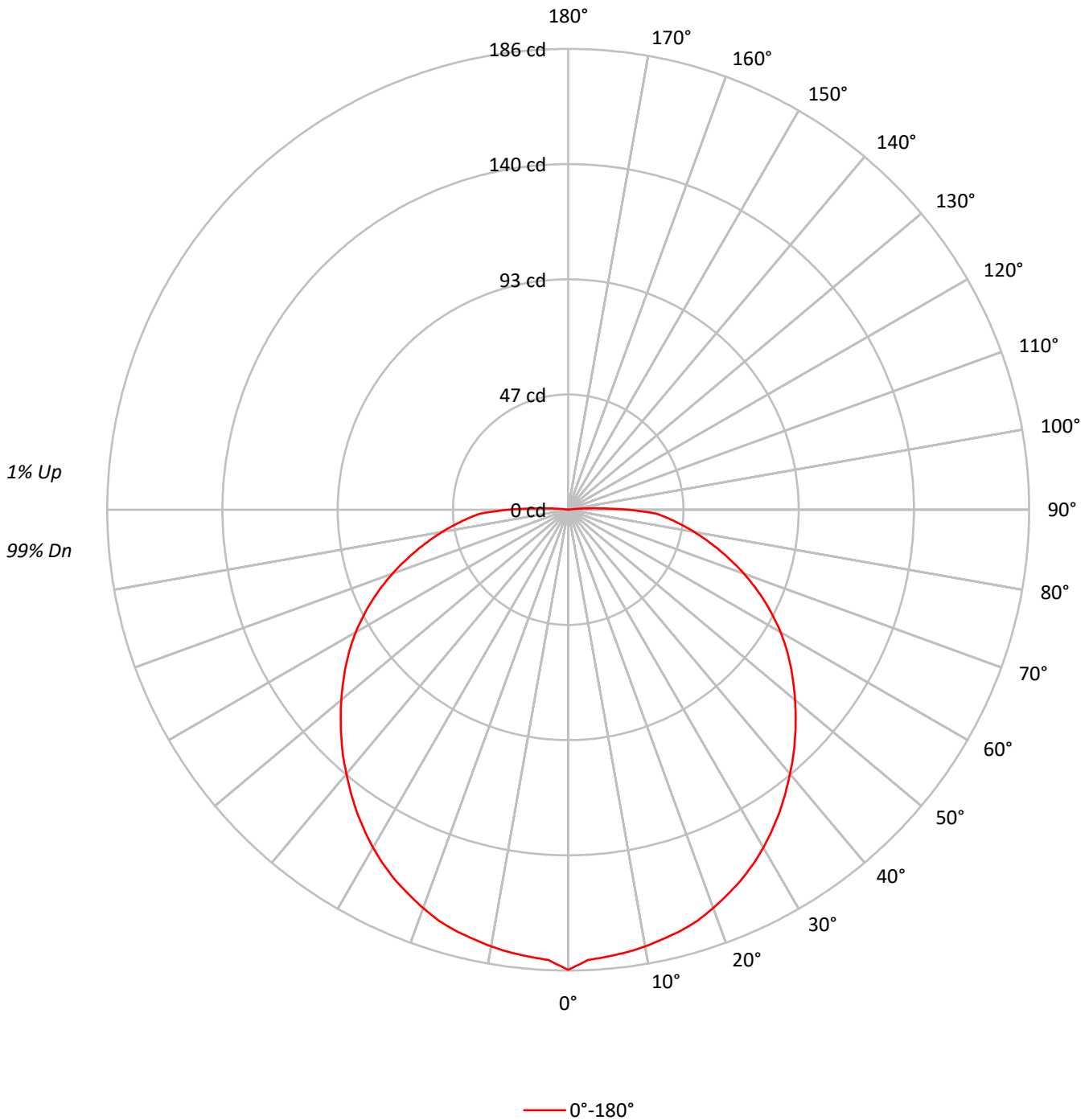
Input Watts (W): 20  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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   | 63 | 63 | 63 | 63 | 62 | 62 | 62 | 62 | 59 | 59 | 59 | 56 | 56 | 56 | 54 | 54 | 54 | 53 |
| 1   | 56 | 53 | 50 | 48 | 55 | 52 | 49 | 47 | 49 | 47 | 45 | 47 | 45 | 44 | 45 | 44 | 42 | 41 |
| 2   | 51 | 46 | 41 | 38 | 49 | 44 | 41 | 37 | 42 | 39 | 36 | 40 | 38 | 35 | 39 | 36 | 34 | 33 |
| 3   | 46 | 40 | 35 | 31 | 44 | 39 | 34 | 30 | 37 | 33 | 30 | 35 | 32 | 29 | 34 | 31 | 29 | 27 |
| 4   | 42 | 35 | 30 | 26 | 40 | 34 | 29 | 25 | 33 | 28 | 25 | 31 | 28 | 25 | 30 | 27 | 24 | 23 |
| 5   | 38 | 31 | 26 | 22 | 37 | 30 | 25 | 22 | 29 | 25 | 21 | 28 | 24 | 21 | 27 | 23 | 21 | 20 |
| 6   | 35 | 28 | 23 | 19 | 34 | 27 | 22 | 19 | 26 | 22 | 19 | 25 | 21 | 18 | 24 | 21 | 18 | 17 |
| 7   | 33 | 25 | 20 | 17 | 32 | 25 | 20 | 17 | 24 | 19 | 16 | 23 | 19 | 16 | 22 | 19 | 16 | 15 |
| 8   | 30 | 23 | 18 | 15 | 30 | 22 | 18 | 15 | 22 | 18 | 15 | 21 | 17 | 14 | 20 | 17 | 14 | 13 |
| 9   | 28 | 21 | 16 | 13 | 28 | 21 | 16 | 13 | 20 | 16 | 13 | 19 | 16 | 13 | 19 | 15 | 13 | 12 |
| 10  | 27 | 19 | 15 | 12 | 26 | 19 | 15 | 12 | 18 | 15 | 12 | 18 | 14 | 12 | 17 | 14 | 12 | 11 |

**AVERAGE LUMINANCE (cd/sqm):**

|     |       |
|-----|-------|
|     | 0°    |
| 0°  | 21538 |
| 5°  | 20004 |
| 10° | 19012 |
| 15° | 18123 |
| 20° | 17244 |
| 25° | 16396 |
| 30° | 15551 |
| 35° | 14710 |
| 40° | 13884 |
| 45° | 13134 |
| 50° | 12423 |
| 55° | 11767 |
| 60° | 11098 |
| 65° | 10333 |
| 70° | 9496  |
| 75° | 8572  |
| 80° | 7657  |
| 85° | 6723  |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture | % Lamp |
|-----------|--------|-----------|--------|
| 0°-10°    | 17.2   | 2.7       | 1.4    |
| 10°-20°   | 49.7   | 7.8       | 4.1    |
| 20°-30°   | 76.1   | 11.9      | 6.3    |
| 30°-40°   | 93.1   | 14.6      | 7.8    |
| 40°-50°   | 100.1  | 15.6      | 8.3    |
| 50°-60°   | 98.0   | 15.3      | 8.2    |
| 60°-70°   | 86.6   | 13.5      | 7.2    |
| 70°-80°   | 66.9   | 10.5      | 5.6    |
| 80°-90°   | 43.6   | 6.8       | 3.6    |
| 90°-100°  | 8.3    | 1.3       | 0.7    |
| 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°    | 142.9  | 22.4      | 11.9   |
| 0°-40°    | 236.1  | 36.9      | 19.7   |
| 0°-60°    | 434.1  | 67.9      | 36.2   |
| 0°-90°    | 631.2  | 98.7      | 52.6   |
| 90°-120°  | 8.3    | 1.3       | 0.7    |
| 90°-150°  | 8.3    | 1.3       | 0.7    |
| 90°-180°  | 8.0    | 1.3       | 0.7    |
| 0°-180°   | 639.5  | 100.0     | 53.3   |

**CANDELA DISTRIBUTION:**

|      | 0°  | Flux |
|------|-----|------|
| 0°   | 186 |      |
| 5°   | 181 | 17   |
| 15°  | 176 | 50   |
| 25°  | 165 | 76   |
| 35°  | 149 | 93   |
| 45°  | 130 | 100  |
| 55°  | 110 | 98   |
| 65°  | 88  | 87   |
| 75°  | 63  | 67   |
| 85°  | 41  | 35   |
| 90°  | 24  | 13   |
| 95°  | 5   | 3    |
| 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°     | 185.7 |
| 2.5°   | 181.9 |
| 5°     | 181.1 |
| 7.5°   | 180.2 |
| 10°    | 179.0 |
| 12.5°  | 177.4 |
| 15°    | 175.9 |
| 17.5°  | 173.9 |
| 20°    | 171.1 |
| 22.5°  | 168.1 |
| 25°    | 165.0 |
| 27.5°  | 161.4 |
| 30°    | 157.5 |
| 32.5°  | 153.2 |
| 35°    | 148.8 |
| 37.5°  | 144.0 |
| 40°    | 139.2 |
| 42.5°  | 134.5 |
| 45°    | 129.5 |
| 47.5°  | 124.5 |
| 50°    | 119.5 |
| 52.5°  | 114.5 |
| 55°    | 109.5 |
| 57.5°  | 104.4 |
| 60°    | 99.0  |
| 62.5°  | 93.3  |
| 65°    | 87.5  |
| 67.5°  | 81.5  |
| 70°    | 75.5  |
| 72.5°  | 69.3  |
| 75°    | 63.2  |
| 77.5°  | 57.3  |
| 80°    | 51.6  |
| 82.5°  | 46.0  |
| 85°    | 40.7  |
| 87.5°  | 35.4  |
| 90°    | 24.0  |
| 92.5°  | 12.5  |
| 95°    | 4.9   |
| 97.5°  | 0.9   |
| 100°   | 0.0   |
| 102.5° | 0.0   |
| 105°   | 0.0   |
| 107.5° | 0.0   |
| 110°   | 0.0   |



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**CANDELA DISTRIBUTION (continued):**

|        | 0°  |
|--------|-----|
| 112.5° | 0.0 |
| 115°   | 0.0 |
| 117.5° | 0.0 |
| 120°   | 0.0 |
| 122.5° | 0.0 |
| 125°   | 0.0 |
| 127.5° | 0.0 |
| 130°   | 0.0 |
| 132.5° | 0.0 |
| 135°   | 0.0 |
| 137.5° | 0.0 |
| 140°   | 0.0 |
| 142.5° | 0.0 |
| 145°   | 0.0 |
| 147.5° | 0.0 |
| 150°   | 0.0 |
| 152.5° | 0.0 |
| 155°   | 0.0 |
| 157.5° | 0.0 |
| 160°   | 0.0 |
| 162.5° | 0.0 |
| 165°   | 0.0 |
| 167.5° | 0.0 |
| 170°   | 0.0 |
| 172.5° | 0.0 |
| 175°   | 0.0 |
| 177.5° | 0.0 |
| 180°   | 0.0 |

(END OF REPORT)