

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: 267p134

Luminaire Tested: **H248ICAT-498P**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: 267p134  
Test Lab: METALUX LABORATORIES  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO  
Catalog Number: H248ICAT-498P  
Description: 6" OPEN RECESSED DOWNLIGHT, SLOPED HOUSING WITH BLACK BAFFLE,  
SPECULAR CONE REFLECTOR  
Light Source: ONE - CF26TTT/E/841 - 1800 LUMENS - 26 WATTS  
Ballast/Driver: RCF-2S26-M1-LS-QS

**Summary**

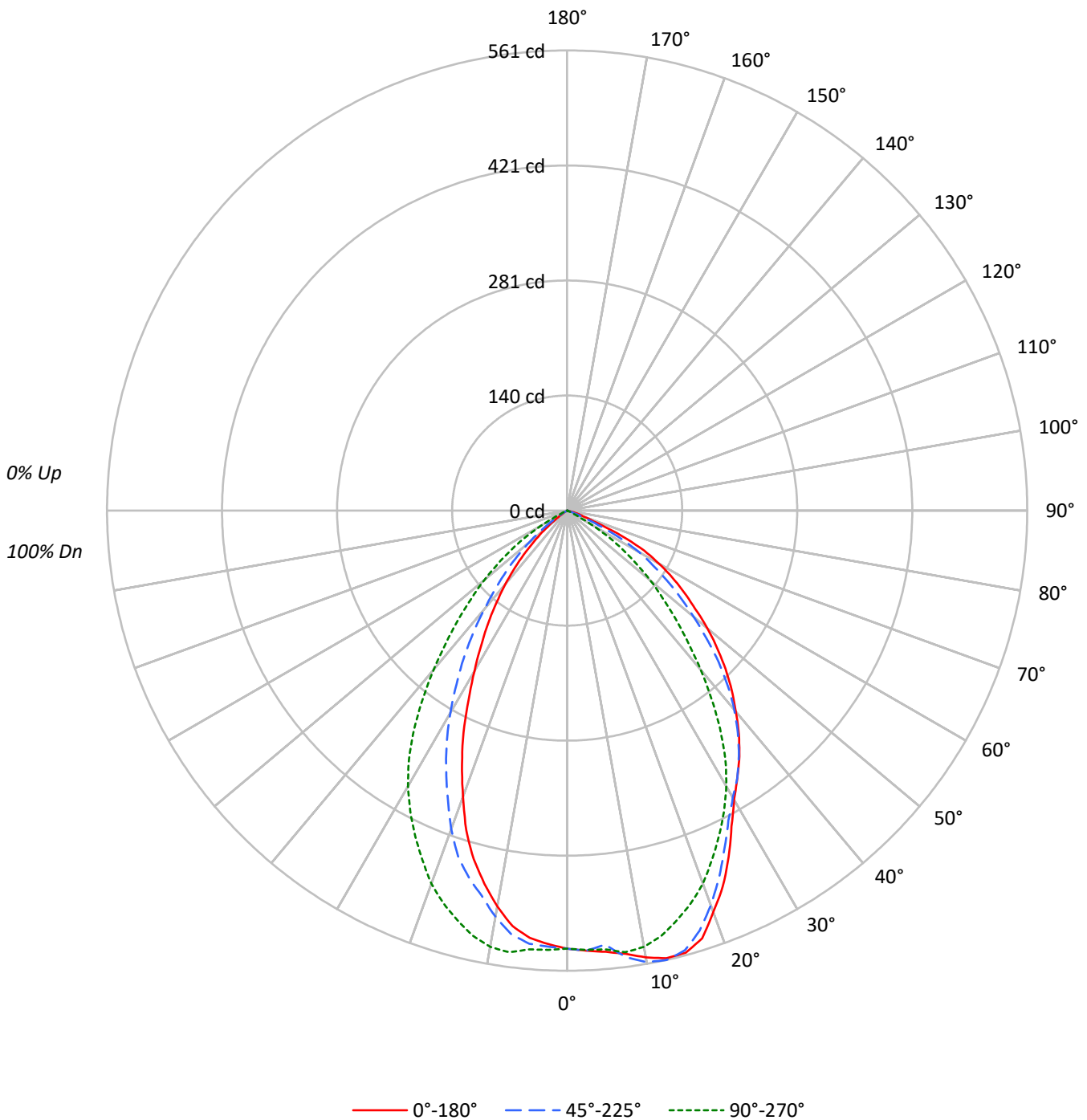
Lumens per Lamp: 1800 (1 lamp)  
Luminaire Lumens: 804.9 lumens  
Efficiency: 44.7%  
Efficacy: 33.5 lumens/watt  
Spacing Criteria (0/90/45): 0.98 / 1.11 / 1.09  
Luminous Opening: Circular (Dia: 0.42' x H: 0')  
CIE Type: Direct

Input Watts (W): 24  
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: 267p134  
CATALOG NUMBER: H248ICAT-498P

### Luminous Intensity Polar Plot





TEST NUMBER: 267p134

CATALOG NUMBER: H248ICAT-498P

**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   | 53 | 53 | 53 | 53 | 52 | 52 | 52 | 52 | 50 | 50 | 50 | 48 | 48 | 48 | 46 | 46 | 46 | 45 |
| 1   | 50 | 49 | 47 | 46 | 49 | 48 | 46 | 45 | 46 | 45 | 44 | 44 | 43 | 43 | 43 | 42 | 41 | 41 |
| 2   | 47 | 44 | 42 | 40 | 46 | 43 | 41 | 40 | 42 | 40 | 39 | 41 | 39 | 38 | 39 | 38 | 37 | 36 |
| 3   | 44 | 40 | 37 | 35 | 43 | 40 | 37 | 35 | 38 | 36 | 34 | 37 | 35 | 34 | 36 | 35 | 33 | 33 |
| 4   | 41 | 37 | 34 | 31 | 40 | 36 | 33 | 31 | 35 | 33 | 31 | 34 | 32 | 30 | 33 | 31 | 30 | 29 |
| 5   | 38 | 34 | 30 | 28 | 37 | 33 | 30 | 28 | 32 | 30 | 28 | 31 | 29 | 27 | 31 | 29 | 27 | 26 |
| 6   | 36 | 31 | 28 | 25 | 35 | 30 | 27 | 25 | 30 | 27 | 25 | 29 | 27 | 25 | 28 | 26 | 25 | 24 |
| 7   | 33 | 28 | 25 | 23 | 33 | 28 | 25 | 23 | 28 | 25 | 23 | 27 | 24 | 23 | 26 | 24 | 22 | 22 |
| 8   | 31 | 26 | 23 | 21 | 31 | 26 | 23 | 21 | 26 | 23 | 21 | 25 | 23 | 21 | 25 | 22 | 21 | 20 |
| 9   | 30 | 24 | 21 | 19 | 29 | 24 | 21 | 19 | 24 | 21 | 19 | 23 | 21 | 19 | 23 | 21 | 19 | 18 |
| 10  | 28 | 23 | 20 | 18 | 27 | 23 | 20 | 18 | 22 | 20 | 18 | 22 | 19 | 18 | 21 | 19 | 18 | 17 |

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

|     | 0°    | 90°   | 180°  |
|-----|-------|-------|-------|
| 0°  | 42154 | 42154 | 42154 |
| 5°  | 42791 | 42553 | 41444 |
| 10° | 44328 | 43286 | 39278 |
| 15° | 45603 | 42252 | 35959 |
| 20° | 43768 | 40659 | 31167 |
| 25° | 40589 | 38151 | 26043 |
| 30° | 37099 | 35367 | 20601 |
| 35° | 35271 | 31320 | 16190 |
| 40° | 32976 | 26072 | 12057 |
| 45° | 30478 | 20877 | 7926  |
| 50° | 27387 | 16211 | 4176  |
| 55° | 23947 | 11286 | 963   |
| 60° | 20367 | 5368  | 0     |
| 65° | 13822 | 747   | 0     |
| 70° | 5078  | 231   | 0     |
| 75° | 2745  | 0     | 0     |
| 80° | 909   | 0     | 0     |
| 85° | 906   | 0     | 0     |



TEST NUMBER: 267p134

CATALOG NUMBER: H248ICAT-498P

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture | % Lamp |
|-----------|--------|-----------|--------|
| 0°-10°    | 50.9   | 6.3       | 2.8    |
| 10°-20°   | 142.1  | 17.7      | 7.9    |
| 20°-30°   | 186.5  | 23.2      | 10.4   |
| 30°-40°   | 182.5  | 22.7      | 10.1   |
| 40°-50°   | 139.5  | 17.3      | 7.7    |
| 50°-60°   | 78.2   | 9.7       | 4.3    |
| 60°-70°   | 22.8   | 2.8       | 1.3    |
| 70°-80°   | 2.1    | 0.3       | 0.1    |
| 80°-90°   | 0.3    | 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°    | 379.5  | 47.1      | 21.1   |
| 0°-40°    | 562.0  | 69.8      | 31.2   |
| 0°-60°    | 779.7  | 96.9      | 43.3   |
| 0°-90°    | 804.9  | 100.0     | 44.7   |
| 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°   | 804.9  | 100.0     | 44.7   |

**CANDELA DISTRIBUTION:**

|     | 0°  | 45° | 90° | 135° | 180° | Flux |
|-----|-----|-----|-----|------|------|------|
| 0°  | 534 | 534 | 534 | 534  | 534  |      |
| 5°  | 540 | 531 | 537 | 530  | 523  | 52   |
| 15° | 558 | 555 | 517 | 463  | 440  | 156  |
| 25° | 466 | 454 | 438 | 349  | 299  | 214  |
| 35° | 366 | 365 | 325 | 220  | 168  | 228  |
| 45° | 273 | 261 | 187 | 105  | 71   | 210  |
| 55° | 174 | 148 | 82  | 24   | 7    | 156  |
| 65° | 74  | 42  | 4   | 0    | 0    | 72   |
| 75° | 9   | 2   | 0   | 0    | 0    | 10   |
| 85° | 1   | 1   | 0   | 0    | 0    | 1    |
| 90° | 0   | 0   | 0   | 0    | 0    |      |



TEST NUMBER: 267p134

CATALOG NUMBER: H248ICAT-498P

**CANDELA DISTRIBUTION (FULL):**

|       | 0°  | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° |
|-------|-----|-------|-----|-------|-----|--------|------|--------|------|
| 0°    | 534 | 534   | 534 | 534   | 534 | 534    | 534  | 534    | 534  |
| 2.5°  | 537 | 537   | 537 | 537   | 536 | 534    | 532  | 530    | 529  |
| 5°    | 540 | 533   | 531 | 538   | 537 | 534    | 530  | 525    | 523  |
| 7.5°  | 545 | 550   | 549 | 544   | 543 | 527    | 521  | 516    | 511  |
| 10°   | 553 | 555   | 559 | 548   | 540 | 519    | 503  | 499    | 490  |
| 12.5° | 559 | 558   | 561 | 551   | 531 | 499    | 481  | 479    | 466  |
| 15°   | 558 | 561   | 555 | 540   | 517 | 476    | 463  | 460    | 440  |
| 17.5° | 547 | 557   | 537 | 519   | 502 | 454    | 442  | 435    | 409  |
| 20°   | 521 | 541   | 512 | 494   | 484 | 429    | 413  | 401    | 371  |
| 22.5° | 496 | 521   | 484 | 464   | 461 | 397    | 380  | 365    | 335  |
| 25°   | 466 | 495   | 454 | 436   | 438 | 367    | 349  | 329    | 299  |
| 27.5° | 434 | 465   | 426 | 410   | 414 | 337    | 318  | 293    | 260  |
| 30°   | 407 | 443   | 404 | 385   | 388 | 307    | 285  | 257    | 226  |
| 32.5° | 386 | 423   | 386 | 360   | 359 | 275    | 251  | 222    | 195  |
| 35°   | 366 | 403   | 365 | 335   | 325 | 244    | 220  | 189    | 168  |
| 37.5° | 344 | 379   | 342 | 307   | 289 | 213    | 188  | 157    | 141  |
| 40°   | 320 | 350   | 317 | 278   | 253 | 184    | 157  | 129    | 117  |
| 42.5° | 297 | 321   | 290 | 248   | 218 | 157    | 129  | 104    | 94   |
| 45°   | 273 | 291   | 261 | 218   | 187 | 131    | 105  | 81     | 71   |
| 47.5° | 248 | 261   | 230 | 189   | 158 | 108    | 82   | 60     | 51   |
| 50°   | 223 | 230   | 201 | 162   | 132 | 87     | 60   | 41     | 34   |
| 52.5° | 197 | 201   | 174 | 138   | 106 | 67     | 41   | 23     | 18   |
| 55°   | 174 | 173   | 148 | 115   | 82  | 47     | 24   | 10     | 7    |
| 57.5° | 152 | 148   | 124 | 94    | 60  | 27     | 11   | 2      | 0    |
| 60°   | 129 | 124   | 101 | 71    | 34  | 11     | 3    | 0      | 0    |
| 62.5° | 106 | 97    | 74  | 43    | 11  | 4      | 0    | 0      | 0    |
| 65°   | 74  | 63    | 42  | 16    | 4   | 1      | 0    | 0      | 0    |
| 67.5° | 38  | 33    | 18  | 4     | 1   | 0      | 0    | 0      | 0    |
| 70°   | 22  | 18    | 8   | 2     | 1   | 0      | 0    | 0      | 0    |
| 72.5° | 15  | 11    | 3   | 1     | 1   | 0      | 0    | 0      | 0    |
| 75°   | 9   | 5     | 2   | 1     | 0   | 0      | 0    | 0      | 0    |
| 77.5° | 3   | 2     | 1   | 1     | 0   | 0      | 0    | 0      | 0    |
| 80°   | 2   | 1     | 1   | 1     | 0   | 0      | 0    | 0      | 0    |
| 82.5° | 1   | 1     | 1   | 0     | 0   | 0      | 0    | 0      | 0    |
| 85°   | 1   | 1     | 1   | 0     | 0   | 0      | 0    | 0      | 0    |
| 87.5° | 1   | 1     | 1   | 0     | 0   | 0      | 0    | 0      | 0    |
| 90°   | 0   | 0     | 0   | 0     | 0   | 0      | 0    | 0      | 0    |

(END OF REPORT)