

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: CORELITE

Report Number: 89180

Luminaire Tested: **E2-SH-2T8-DL-7**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: 89180  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: CORELITE  
Catalog Number: E2-SH-2T8-DL-7  
Description: CORELITE ELEMENT SUSPENDED LUMINAIRE  
WHITE INTERIOR WITH SPECULAR REFLECTORS AND 38 CELL HI PERFORMANCE LOUVER  
BLADE  
Light Source: 32 WATT T8 LAMPS  
F32T8/TL841. LUMEN RATING = 3000 LMS.  
Ballast/Driver: -

**Summary**

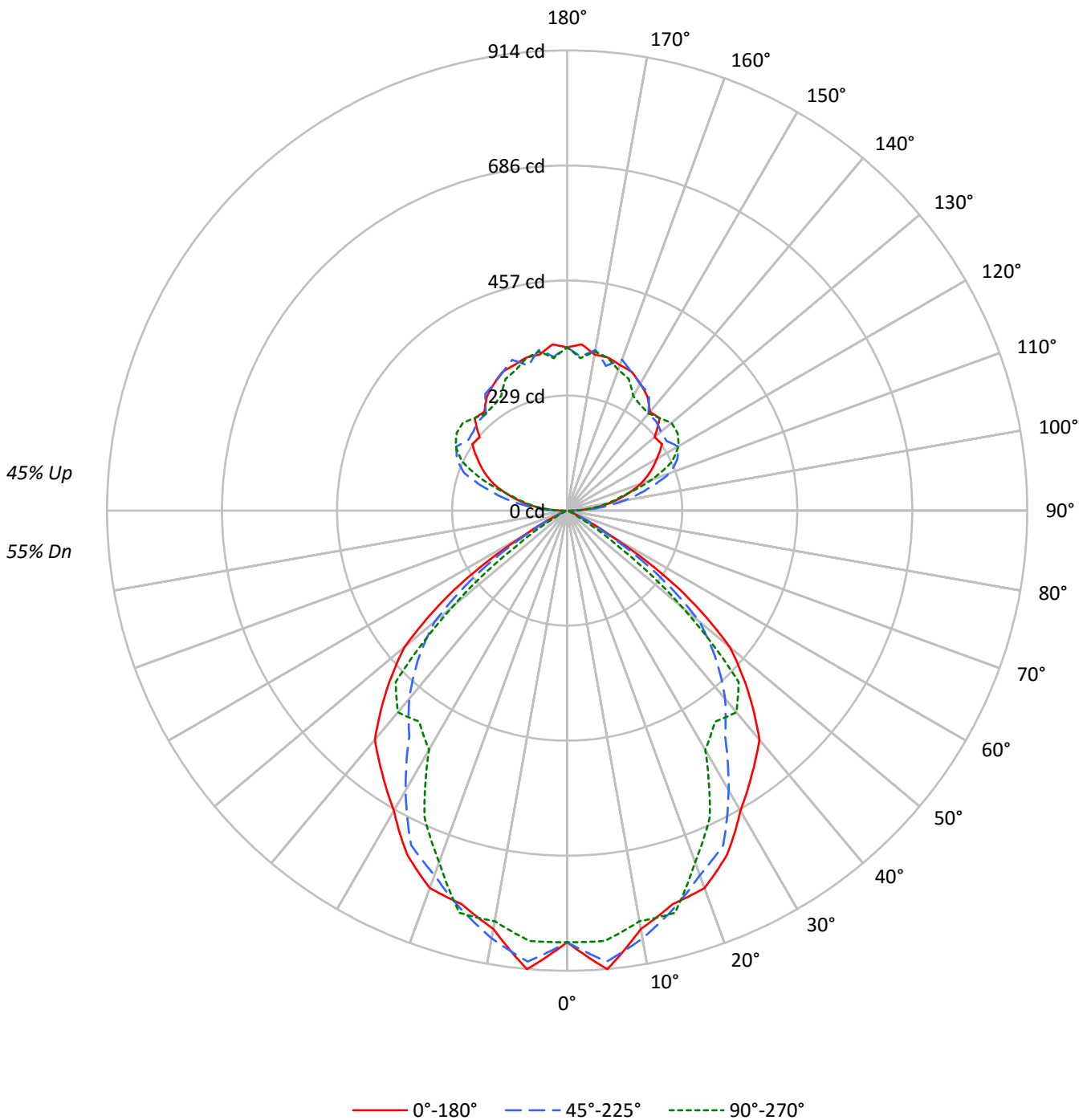
Lumens per Lamp: 2900 (2 lamps)  
Luminaire Lumens: 2849.7 lumens  
Efficiency: 49.1%  
Efficacy: 36.5 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.04 / 1.2  
Luminous Opening: Rectangular w/ Sides (W: 0.57' x L: 3.98' x H: 0.33')  
CIE Type: General Diffuse

Input Watts (W): 78  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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 | 50 | 30 | 10 | 0  |   |
| RCR |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |
| 0   | 53 | 53 | 53 | 53 | 49 | 49 | 49 | 49 | 42 | 42 | 42 | 36 | 36 | 36 | 30 | 30 | 30 | 30 | 30 | 30 | 27 |   |
| 1   | 49 | 48 | 46 | 44 | 46 | 44 | 43 | 42 | 38 | 37 | 36 | 33 | 32 | 31 | 28 | 27 | 27 | 28 | 27 | 27 | 24 |   |
| 2   | 46 | 42 | 40 | 38 | 42 | 40 | 37 | 35 | 34 | 33 | 31 | 30 | 28 | 27 | 25 | 24 | 24 | 25 | 24 | 24 | 22 |   |
| 3   | 42 | 38 | 35 | 32 | 39 | 36 | 33 | 30 | 31 | 29 | 27 | 27 | 25 | 24 | 23 | 22 | 21 | 23 | 22 | 21 | 19 |   |
| 4   | 39 | 34 | 31 | 28 | 36 | 32 | 29 | 26 | 28 | 26 | 24 | 24 | 23 | 21 | 21 | 20 | 19 | 21 | 20 | 19 | 17 |   |
| 5   | 36 | 31 | 27 | 24 | 33 | 29 | 26 | 23 | 25 | 23 | 21 | 22 | 20 | 19 | 19 | 18 | 17 | 19 | 18 | 17 | 15 |   |
| 6   | 33 | 28 | 24 | 21 | 31 | 26 | 23 | 20 | 23 | 21 | 19 | 20 | 18 | 17 | 18 | 16 | 15 | 18 | 16 | 15 | 14 |   |
| 7   | 31 | 25 | 22 | 19 | 29 | 24 | 21 | 18 | 21 | 18 | 17 | 19 | 17 | 15 | 16 | 15 | 13 | 16 | 15 | 13 | 12 |   |
| 8   | 29 | 23 | 19 | 17 | 27 | 22 | 19 | 16 | 19 | 17 | 15 | 17 | 15 | 14 | 15 | 13 | 12 | 15 | 13 | 12 | 11 |   |
| 9   | 27 | 21 | 18 | 15 | 25 | 20 | 17 | 15 | 18 | 15 | 13 | 16 | 14 | 12 | 14 | 12 | 11 | 14 | 12 | 11 | 10 |   |
| 10  | 25 | 19 | 16 | 14 | 23 | 18 | 15 | 13 | 17 | 14 | 12 | 15 | 13 | 11 | 13 | 11 | 10 | 13 | 11 | 10 | 9  |   |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 4032 | 4032 | 4032 |
| 5°  | 4287 | 4080 | 3857 |
| 10° | 3972 | 3808 | 3592 |
| 15° | 3855 | 3542 | 3490 |
| 20° | 3876 | 3298 | 3075 |
| 25° | 3763 | 3126 | 2745 |
| 30° | 3567 | 2746 | 2236 |
| 35° | 3471 | 2367 | 2094 |
| 40° | 3410 | 2153 | 2164 |
| 45° | 3121 | 1899 | 2033 |
| 50° | 2810 | 1615 | 1291 |
| 55° | 2001 | 1045 | 556  |
| 60° | 816  | 432  | 136  |
| 65° | 187  | 123  | 35   |
| 70° | 83   | 60   | 17   |
| 75° | 57   | 44   | 7    |
| 80° | 59   | 32   | 3    |
| 85° | 86   | 41   | 9    |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture | % Lamp |
|-----------|--------|-----------|--------|
| 0°-10°    | 82.6   | 2.9       | 1.4    |
| 10°-20°   | 231.1  | 8.1       | 4.0    |
| 20°-30°   | 328.5  | 11.5      | 5.7    |
| 30°-40°   | 358.3  | 12.6      | 6.2    |
| 40°-50°   | 346.2  | 12.1      | 6.0    |
| 50°-60°   | 182.5  | 6.4       | 3.1    |
| 60°-70°   | 27.8   | 1.0       | 0.5    |
| 70°-80°   | 5.3    | 0.2       | 0.1    |
| 80°-90°   | 7.3    | 0.3       | 0.1    |
| 90°-100°  | 66.8   | 2.3       | 1.2    |
| 100°-110° | 155.1  | 5.4       | 2.7    |
| 110°-120° | 214.2  | 7.5       | 3.7    |
| 120°-130° | 220.1  | 7.7       | 3.8    |
| 130°-140° | 198.1  | 7.0       | 3.4    |
| 140°-150° | 170.5  | 6.0       | 2.9    |
| 150°-160° | 138.1  | 4.8       | 2.4    |
| 160°-170° | 87.7   | 3.1       | 1.5    |
| 170°-180° | 29.6   | 1.0       | 0.5    |
| 0°-30°    | 642.2  | 22.5      | 11.1   |
| 0°-40°    | 1000.5 | 35.1      | 17.3   |
| 0°-60°    | 1529.2 | 53.7      | 26.4   |
| 0°-90°    | 1569.5 | 55.1      | 27.1   |
| 90°-120°  | 436.2  | 15.3      | 7.5    |
| 90°-150°  | 1024.9 | 36.0      | 17.7   |
| 90°-180°  | 1280.0 | 44.9      | 22.1   |
| 0°-180°   | 2849.7 | 100.0     | 49.1   |

**CANDELA DISTRIBUTION:**

|      | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|------|-----|-------|-----|-------|-----|------|
| 0°   | 857 | 857   | 857 | 857   | 857 |      |
| 5°   | 914 | 848   | 899 | 875   | 858 | 84   |
| 15°  | 809 | 831   | 818 | 820   | 827 | 231  |
| 25°  | 753 | 760   | 733 | 676   | 671 | 345  |
| 35°  | 640 | 635   | 547 | 505   | 512 | 401  |
| 45°  | 508 | 467   | 419 | 460   | 482 | 392  |
| 55°  | 273 | 239   | 212 | 149   | 124 | 237  |
| 65°  | 20  | 22    | 22  | 12    | 7   | 36   |
| 75°  | 4   | 6     | 7   | 3     | 1   | 5    |
| 85°  | 3   | 3     | 5   | 4     | 1   | 3    |
| 90°  | 10  | 15    | 17  | 23    | 14  | 10   |
| 95°  | 51  | 66    | 64  | 64    | 47  | 48   |
| 105° | 121 | 166   | 165 | 135   | 115 | 128  |
| 115° | 182 | 200   | 241 | 227   | 230 | 180  |
| 125° | 230 | 230   | 241 | 267   | 268 | 200  |
| 135° | 260 | 268   | 250 | 258   | 260 | 194  |
| 145° | 277 | 289   | 283 | 248   | 254 | 173  |
| 155° | 304 | 303   | 303 | 296   | 289 | 139  |
| 165° | 314 | 320   | 298 | 302   | 313 | 89   |
| 175° | 331 | 296   | 306 | 296   | 304 | 31   |
| 180° | 324 | 324   | 324 | 324   | 324 |      |



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**CANDELA DISTRIBUTION (FULL):**

|      | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|------|-------|-------|-------|-------|-------|
| 0°   | 857.2 | 857.2 | 857.2 | 857.2 | 857.2 |
| 5°   | 914.4 | 847.5 | 899.2 | 874.8 | 857.9 |
| 10°  | 843.8 | 874.0 | 862.7 | 837.9 | 828.3 |
| 15°  | 809.3 | 831.3 | 818.2 | 819.9 | 827.2 |
| 20°  | 797.8 | 812.1 | 770.6 | 754.9 | 743.2 |
| 25°  | 753.1 | 759.8 | 733.3 | 675.9 | 670.9 |
| 30°  | 688.3 | 687.9 | 641.7 | 590.5 | 548.6 |
| 35°  | 639.6 | 635.1 | 546.7 | 504.7 | 511.9 |
| 40°  | 594.1 | 554.2 | 487.9 | 490.1 | 522.8 |
| 45°  | 508.2 | 467.3 | 418.6 | 460.2 | 481.6 |
| 50°  | 422.0 | 374.7 | 343.3 | 331.4 | 297.5 |
| 55°  | 273.0 | 238.6 | 212.2 | 148.8 | 123.7 |
| 60°  | 99.2  | 92.0  | 83.0  | 44.6  | 28.8  |
| 65°  | 19.8  | 22.2  | 22.1  | 11.5  | 7.1   |
| 70°  | 7.4   | 9.5   | 10.0  | 5.7   | 3.2   |
| 75°  | 4.1   | 6.3   | 6.6   | 3.1   | 1.2   |
| 80°  | 3.2   | 4.6   | 4.3   | 1.8   | 0.4   |
| 85°  | 3.1   | 3.3   | 4.8   | 3.6   | 1.3   |
| 90°  | 10.2  | 14.6  | 16.7  | 23.2  | 13.7  |
| 95°  | 51.3  | 66.5  | 63.5  | 64.3  | 46.7  |
| 100° | 86.0  | 126.8 | 115.5 | 102.7 | 80.7  |
| 105° | 120.9 | 166.3 | 164.7 | 134.8 | 114.8 |
| 110° | 155.8 | 187.9 | 217.3 | 181.9 | 177.9 |
| 115° | 182.1 | 199.8 | 241.4 | 226.6 | 230.0 |
| 120° | 205.8 | 209.2 | 254.2 | 261.6 | 255.4 |
| 125° | 230.0 | 229.7 | 241.1 | 267.2 | 268.0 |
| 130° | 226.6 | 243.5 | 243.4 | 262.2 | 270.7 |
| 135° | 259.5 | 267.7 | 250.0 | 258.2 | 259.5 |
| 140° | 255.8 | 270.6 | 250.6 | 250.3 | 251.7 |
| 145° | 277.4 | 288.6 | 283.2 | 247.8 | 254.5 |
| 150° | 290.8 | 312.0 | 290.0 | 274.7 | 262.4 |
| 155° | 303.8 | 302.8 | 302.8 | 296.4 | 288.7 |
| 160° | 307.4 | 311.0 | 318.5 | 298.6 | 297.2 |
| 165° | 314.4 | 319.6 | 297.5 | 301.5 | 313.1 |
| 170° | 314.5 | 310.8 | 324.0 | 304.7 | 320.5 |
| 175° | 331.2 | 296.5 | 306.4 | 295.5 | 303.9 |
| 180° | 323.9 | 323.9 | 323.9 | 323.9 | 323.9 |

(END OF REPORT)