

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: 89077

Luminaire Tested: **E2-SB-1T5-DL-7**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: 89077
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: CORELITE
Catalog Number: E2-SB-1T5-DL-7
Description: CORELITE ELEMENT SUSPENDED LUMINAIRE
WHITE INTERIOR WITH SPECULAR REFLECTORS AND 19 CELL SEMI-SPECULAR LOUVER
BLADE
WITH DOWNLIGHT ISOLATORS
Light Source: 54 WATT T5 LAMP
FP54T5/841HO. LUMEN RATING = 4500 LMS.
Ballast/Driver: -

Summary

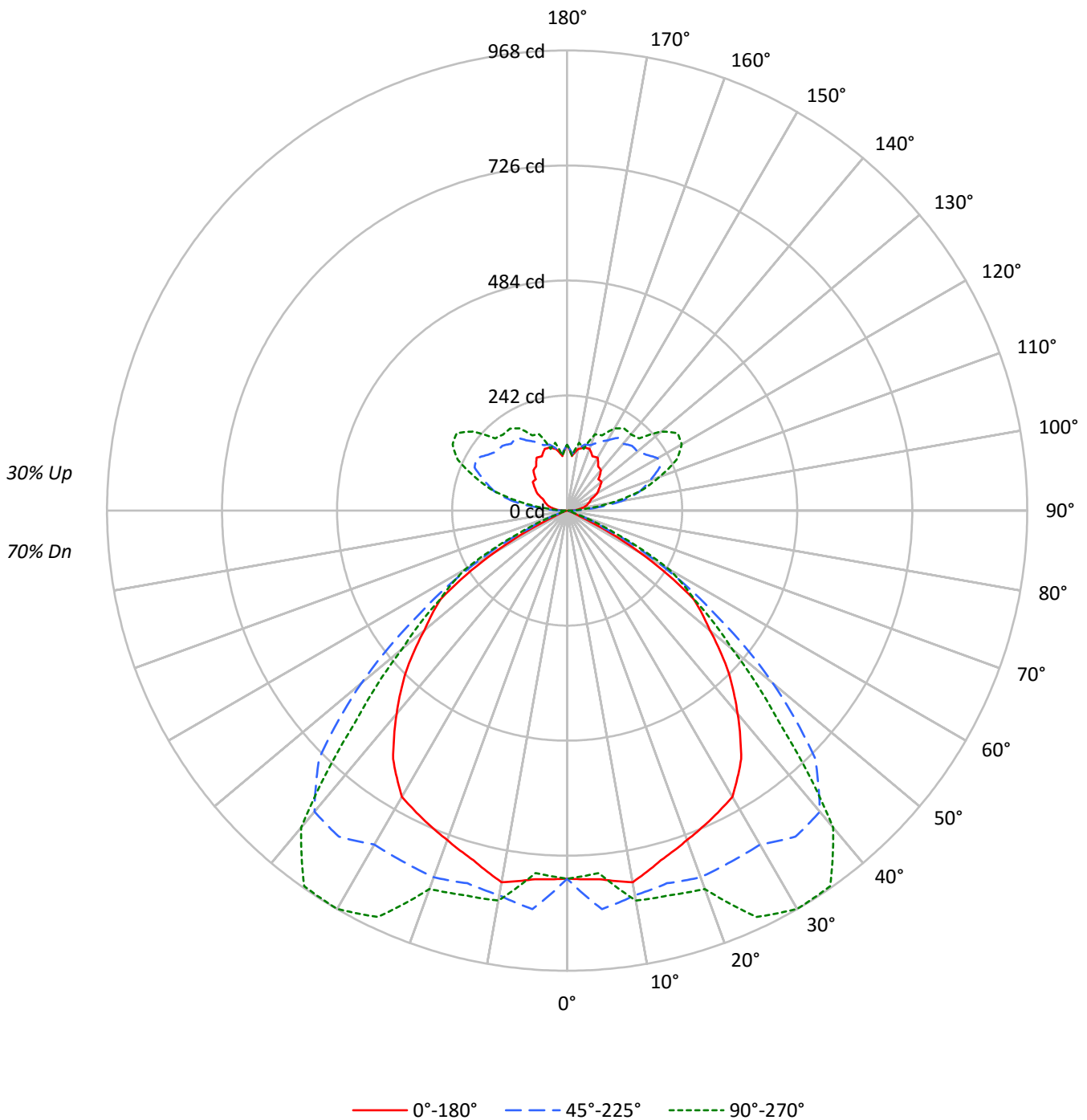
Lumens per Lamp: 4500 (1 lamp)
Luminaire Lumens: 3054.8 lumens
Efficiency: 67.9%
Efficacy: 51.8 lumens/watt
Spacing Criteria (0/90/45): 1.31 / 1.68 / 1.56
Luminous Opening: Rectangular w/ Sides (W: 0.57' x L: 4.02' x H: 0.33')
CIE Type: Semi-Direct

Input Watts (W): 59
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 | 76 | 76 | 76 | 76 | 72 | 72 | 72 | 72 | 64 | 64 | 64 | 57 | 57 | 57 | 51 | 51 | 51 | 47 |
| 1 | 70 | 68 | 66 | 63 | 67 | 64 | 62 | 61 | 58 | 56 | 55 | 52 | 51 | 50 | 46 | 46 | 45 | 42 |
| 2 | 65 | 60 | 56 | 53 | 61 | 57 | 54 | 51 | 52 | 49 | 47 | 47 | 45 | 43 | 42 | 40 | 39 | 37 |
| 3 | 60 | 54 | 49 | 45 | 56 | 51 | 47 | 44 | 46 | 43 | 40 | 42 | 39 | 37 | 38 | 36 | 34 | 32 |
| 4 | 55 | 48 | 43 | 39 | 52 | 46 | 41 | 37 | 41 | 38 | 35 | 38 | 35 | 32 | 34 | 32 | 30 | 28 |
| 5 | 51 | 43 | 38 | 34 | 48 | 41 | 36 | 33 | 37 | 33 | 30 | 34 | 31 | 28 | 31 | 28 | 26 | 24 |
| 6 | 47 | 39 | 33 | 29 | 44 | 37 | 32 | 28 | 34 | 30 | 27 | 31 | 27 | 25 | 28 | 25 | 23 | 21 |
| 7 | 43 | 35 | 30 | 26 | 41 | 33 | 29 | 25 | 31 | 27 | 24 | 28 | 25 | 22 | 26 | 23 | 21 | 19 |
| 8 | 40 | 32 | 27 | 23 | 38 | 30 | 26 | 22 | 28 | 24 | 21 | 26 | 22 | 20 | 23 | 21 | 18 | 17 |
| 9 | 37 | 29 | 24 | 21 | 35 | 28 | 23 | 20 | 26 | 22 | 19 | 24 | 20 | 18 | 22 | 19 | 17 | 15 |
| 10 | 35 | 27 | 22 | 18 | 33 | 26 | 21 | 18 | 24 | 20 | 17 | 22 | 18 | 16 | 20 | 17 | 15 | 14 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 3610 | 3610 | 3610 |
| 5° | 3617 | 3785 | 3410 |
| 10° | 3705 | 3595 | 3580 |
| 15° | 3597 | 3483 | 3501 |
| 20° | 3552 | 3482 | 3474 |
| 25° | 3548 | 3445 | 3824 |
| 30° | 3572 | 3441 | 3909 |
| 35° | 3434 | 3593 | 3911 |
| 40° | 3176 | 3618 | 3571 |
| 45° | 2922 | 3319 | 2641 |
| 50° | 2590 | 2638 | 1948 |
| 55° | 2364 | 1853 | 1462 |
| 60° | 1455 | 1174 | 1165 |
| 65° | 304 | 477 | 535 |
| 70° | 102 | 139 | 88 |
| 75° | 61 | 75 | 30 |
| 80° | 42 | 49 | 13 |
| 85° | 50 | 37 | 12 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture | % Lamp |
|-----------|--------|-----------|--------|
| 0°-10° | 76.6 | 2.5 | 1.7 |
| 10°-20° | 229.0 | 7.5 | 5.1 |
| 20°-30° | 380.0 | 12.4 | 8.4 |
| 30°-40° | 508.7 | 16.7 | 11.3 |
| 40°-50° | 494.2 | 16.2 | 11.0 |
| 50°-60° | 330.0 | 10.8 | 7.3 |
| 60°-70° | 101.3 | 3.3 | 2.3 |
| 70°-80° | 10.8 | 0.4 | 0.2 |
| 80°-90° | 5.2 | 0.2 | 0.1 |
| 90°-100° | 53.9 | 1.8 | 1.2 |
| 100°-110° | 140.9 | 4.6 | 3.1 |
| 110°-120° | 178.6 | 5.8 | 4.0 |
| 120°-130° | 175.8 | 5.8 | 3.9 |
| 130°-140° | 136.5 | 4.5 | 3.0 |
| 140°-150° | 107.2 | 3.5 | 2.4 |
| 150°-160° | 72.9 | 2.4 | 1.6 |
| 160°-170° | 40.4 | 1.3 | 0.9 |
| 170°-180° | 12.8 | 0.4 | 0.3 |
| 0°-30° | 685.5 | 22.4 | 15.2 |
| 0°-40° | 1194.2 | 39.1 | 26.5 |
| 0°-60° | 2018.5 | 66.1 | 44.9 |
| 0°-90° | 2135.8 | 69.9 | 47.5 |
| 90°-120° | 373.4 | 12.2 | 8.3 |
| 90°-150° | 792.9 | 26.0 | 17.6 |
| 90°-180° | 919.0 | 30.1 | 20.4 |
| 0°-180° | 3054.8 | 100.0 | 67.9 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|-----|-------|-----|-------|-----|------|
| 0° | 774 | 774 | 774 | 774 | 774 | |
| 5° | 778 | 794 | 842 | 825 | 765 | 75 |
| 15° | 762 | 782 | 812 | 838 | 837 | 216 |
| 25° | 716 | 762 | 815 | 884 | 943 | 331 |
| 35° | 638 | 710 | 837 | 944 | 964 | 396 |
| 45° | 480 | 618 | 738 | 670 | 631 | 368 |
| 55° | 325 | 434 | 380 | 351 | 328 | 272 |
| 65° | 32 | 52 | 86 | 117 | 108 | 62 |
| 75° | 4 | 8 | 11 | 9 | 5 | 5 |
| 85° | 2 | 2 | 4 | 4 | 2 | 2 |
| 90° | 4 | 7 | 8 | 13 | 6 | 4 |
| 95° | 21 | 52 | 52 | 53 | 33 | 19 |
| 105° | 42 | 111 | 159 | 178 | 160 | 44 |
| 115° | 55 | 129 | 215 | 221 | 254 | 58 |
| 125° | 83 | 138 | 204 | 271 | 284 | 74 |
| 135° | 93 | 136 | 193 | 212 | 214 | 76 |
| 145° | 114 | 136 | 187 | 204 | 210 | 73 |
| 155° | 126 | 148 | 159 | 173 | 175 | 60 |
| 165° | 137 | 139 | 144 | 145 | 134 | 39 |
| 175° | 115 | 143 | 120 | 142 | 116 | 12 |
| 180° | 138 | 138 | 138 | 138 | 138 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|------|-------|-------|-------|-------|-------|
| 0° | 774.3 | 774.3 | 774.3 | 774.3 | 774.3 |
| 5° | 778.4 | 793.8 | 841.7 | 824.7 | 765.3 |
| 10° | 793.9 | 780.3 | 821.7 | 799.2 | 833.1 |
| 15° | 761.6 | 781.8 | 811.6 | 838.5 | 837.4 |
| 20° | 737.5 | 777.5 | 820.8 | 851.8 | 847.0 |
| 25° | 716.3 | 761.7 | 815.1 | 883.6 | 943.2 |
| 30° | 695.2 | 736.3 | 811.1 | 927.8 | 967.6 |
| 35° | 638.3 | 710.4 | 837.3 | 944.5 | 964.5 |
| 40° | 557.9 | 671.4 | 826.8 | 864.7 | 870.5 |
| 45° | 479.8 | 617.8 | 737.9 | 670.4 | 631.4 |
| 50° | 392.2 | 545.4 | 565.6 | 483.2 | 453.0 |
| 55° | 325.1 | 433.7 | 379.6 | 350.7 | 327.8 |
| 60° | 178.4 | 235.3 | 227.4 | 243.8 | 249.6 |
| 65° | 32.4 | 51.9 | 86.4 | 117.1 | 108.5 |
| 70° | 9.2 | 14.1 | 23.3 | 28.1 | 16.6 |
| 75° | 4.4 | 8.3 | 11.4 | 9.2 | 5.3 |
| 80° | 2.3 | 4.5 | 6.7 | 4.5 | 2.0 |
| 85° | 1.8 | 2.4 | 4.4 | 4.0 | 1.7 |
| 90° | 4.4 | 7.3 | 7.8 | 12.9 | 6.5 |
| 95° | 21.3 | 51.9 | 51.6 | 52.7 | 32.6 |
| 100° | 32.8 | 88.8 | 117.6 | 122.1 | 94.2 |
| 105° | 42.4 | 111.4 | 159.4 | 178.4 | 159.9 |
| 110° | 49.2 | 131.5 | 185.2 | 196.6 | 206.9 |
| 115° | 55.4 | 128.9 | 215.0 | 220.6 | 254.4 |
| 120° | 72.7 | 138.2 | 220.2 | 267.3 | 278.3 |
| 125° | 82.6 | 137.7 | 204.1 | 271.3 | 283.8 |
| 130° | 94.4 | 138.8 | 193.0 | 231.1 | 258.7 |
| 135° | 93.1 | 136.0 | 192.9 | 211.5 | 214.4 |
| 140° | 110.6 | 136.8 | 183.2 | 210.9 | 209.0 |
| 145° | 113.5 | 136.3 | 186.8 | 203.6 | 210.2 |
| 150° | 128.5 | 138.0 | 170.5 | 187.8 | 199.4 |
| 155° | 125.9 | 147.8 | 159.2 | 172.9 | 174.7 |
| 160° | 138.1 | 137.2 | 146.4 | 155.9 | 170.7 |
| 165° | 137.3 | 138.8 | 143.5 | 145.1 | 134.5 |
| 170° | 131.1 | 143.4 | 132.5 | 140.4 | 144.7 |
| 175° | 115.2 | 142.9 | 120.0 | 141.6 | 115.9 |
| 180° | 138.2 | 138.2 | 138.2 | 138.2 | 138.2 |

(END OF REPORT)