

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: 89082

Luminaire Tested: **E2-SB-1T5-DL-2**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: 89082
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: CORELITE
Catalog Number: E2-SB-1T5-DL-2
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

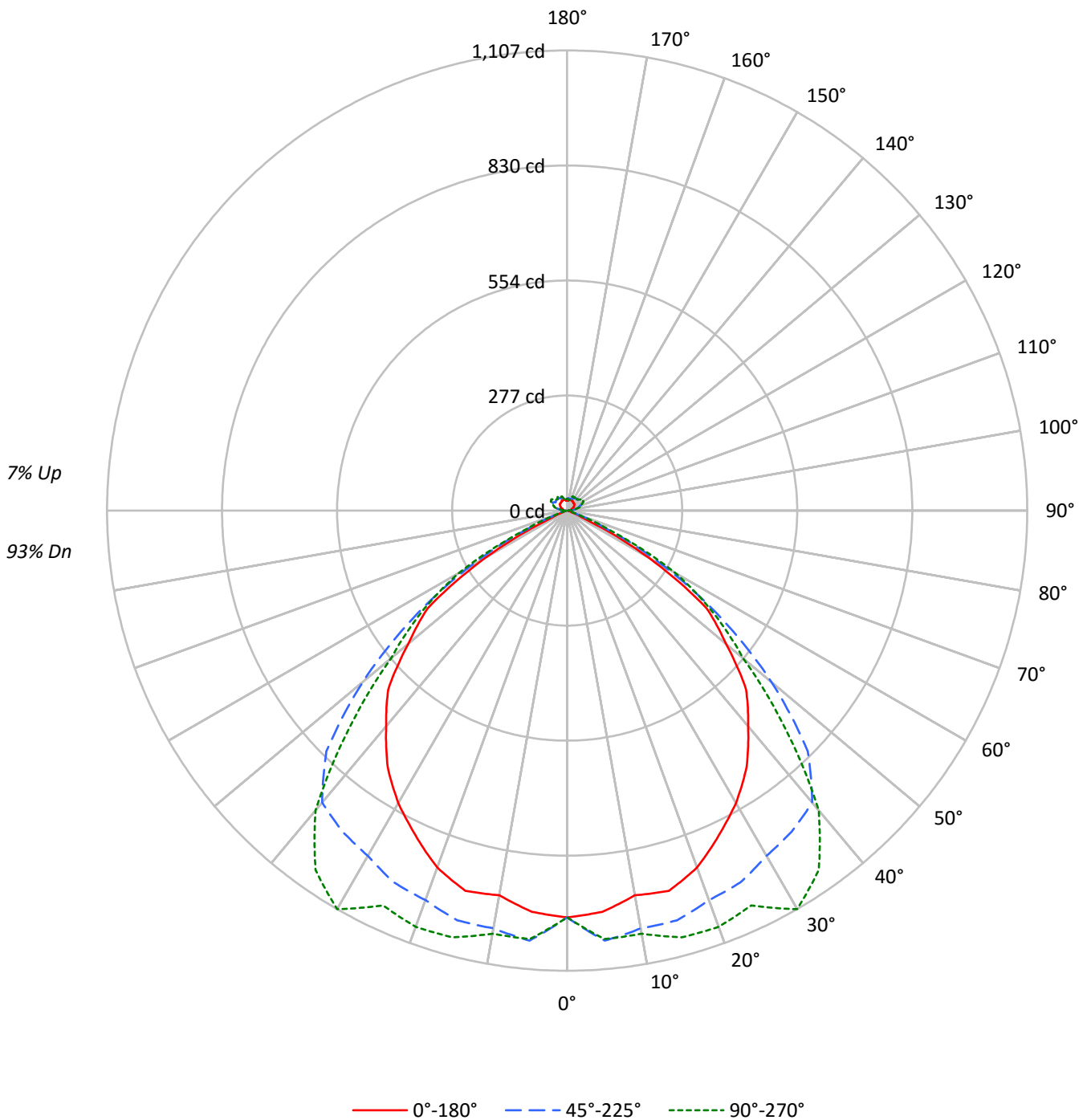
Lumens per Lamp: 4500 (1 lamp)
Luminaire Lumens: 2688.8 lumens
Efficiency: 59.8%
Efficacy: 45.6 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.55 / 1.5
Luminous Opening: Rectangular w/ Sides (W: 0.57' x L: 4.02' x H: 0.33')
CIE Type: Direct

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

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 4562 | 4562 | 4562 |
| 5° | 4502 | 4670 | 4610 |
| 10° | 4385 | 4465 | 4441 |
| 15° | 4471 | 4379 | 4445 |
| 20° | 4402 | 4230 | 4370 |
| 25° | 4273 | 4171 | 4249 |
| 30° | 4174 | 4069 | 4472 |
| 35° | 4052 | 4044 | 4280 |
| 40° | 3856 | 4012 | 3863 |
| 45° | 3710 | 3684 | 3105 |
| 50° | 3295 | 2994 | 2377 |
| 55° | 2977 | 2220 | 1916 |
| 60° | 1846 | 1412 | 1407 |
| 65° | 388 | 589 | 602 |
| 70° | 114 | 160 | 108 |
| 75° | 74 | 87 | 38 |
| 80° | 49 | 56 | 16 |
| 85° | 58 | 30 | 9 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture | % Lamp |
|-----------|--------|-----------|--------|
| 0°-10° | 95.1 | 3.5 | 2.1 |
| 10°-20° | 283.7 | 10.6 | 6.3 |
| 20°-30° | 452.2 | 16.8 | 10.0 |
| 30°-40° | 578.2 | 21.5 | 12.8 |
| 40°-50° | 568.1 | 21.1 | 12.6 |
| 50°-60° | 396.2 | 14.7 | 8.8 |
| 60°-70° | 121.1 | 4.5 | 2.7 |
| 70°-80° | 12.6 | 0.5 | 0.3 |
| 80°-90° | 4.1 | 0.2 | 0.1 |
| 90°-100° | 13.5 | 0.5 | 0.3 |
| 100°-110° | 26.3 | 1.0 | 0.6 |
| 110°-120° | 32.7 | 1.2 | 0.7 |
| 120°-130° | 31.8 | 1.2 | 0.7 |
| 130°-140° | 25.9 | 1.0 | 0.6 |
| 140°-150° | 21.4 | 0.8 | 0.5 |
| 150°-160° | 14.8 | 0.6 | 0.3 |
| 160°-170° | 8.5 | 0.3 | 0.2 |
| 170°-180° | 2.7 | 0.1 | 0.1 |
| 0°-30° | 831.0 | 30.9 | 18.5 |
| 0°-40° | 1409.2 | 52.4 | 31.3 |
| 0°-60° | 2373.5 | 88.3 | 52.7 |
| 0°-90° | 2511.2 | 93.4 | 55.8 |
| 90°-120° | 72.5 | 2.7 | 1.6 |
| 90°-150° | 151.6 | 5.6 | 3.4 |
| 90°-180° | 178.0 | 6.6 | 4.0 |
| 0°-180° | 2688.8 | 100.0 | 59.8 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|-----|-------|------|-------|------|------|
| 0° | 978 | 978 | 978 | 978 | 978 | |
| 5° | 969 | 978 | 1039 | 987 | 1035 | 92 |
| 15° | 947 | 959 | 1020 | 1042 | 1063 | 265 |
| 25° | 863 | 936 | 987 | 1031 | 1048 | 398 |
| 35° | 753 | 826 | 942 | 1056 | 1055 | 469 |
| 45° | 609 | 717 | 819 | 767 | 742 | 462 |
| 55° | 409 | 505 | 455 | 426 | 430 | 344 |
| 65° | 41 | 60 | 107 | 135 | 122 | 78 |
| 75° | 5 | 10 | 13 | 11 | 7 | 6 |
| 85° | 2 | 3 | 4 | 3 | 1 | 2 |
| 90° | 6 | 5 | 4 | 4 | 2 | 4 |
| 95° | 13 | 18 | 13 | 10 | 8 | 8 |
| 105° | 10 | 23 | 27 | 32 | 31 | 11 |
| 115° | 17 | 25 | 40 | 40 | 40 | 16 |
| 125° | 21 | 26 | 34 | 50 | 47 | 19 |
| 135° | 24 | 28 | 37 | 38 | 38 | 18 |
| 145° | 25 | 29 | 36 | 42 | 40 | 16 |
| 155° | 27 | 31 | 35 | 34 | 36 | 12 |
| 165° | 29 | 32 | 29 | 32 | 28 | 8 |
| 175° | 23 | 29 | 30 | 27 | 27 | 2 |
| 180° | 28 | 28 | 28 | 28 | 28 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|------|-------|-------|--------|--------|--------|
| 0° | 978.5 | 978.5 | 978.5 | 978.5 | 978.5 |
| 5° | 969.0 | 978.5 | 1038.6 | 986.7 | 1034.6 |
| 10° | 939.8 | 966.4 | 1020.5 | 1005.4 | 1033.4 |
| 15° | 946.8 | 959.3 | 1020.4 | 1042.0 | 1063.0 |
| 20° | 913.9 | 949.7 | 997.2 | 1044.4 | 1065.6 |
| 25° | 862.7 | 936.2 | 986.9 | 1030.7 | 1047.9 |
| 30° | 812.2 | 877.3 | 959.0 | 1049.4 | 1107.1 |
| 35° | 753.0 | 826.3 | 942.2 | 1055.8 | 1055.4 |
| 40° | 677.4 | 783.9 | 916.9 | 937.7 | 941.7 |
| 45° | 609.1 | 717.2 | 819.0 | 767.4 | 742.3 |
| 50° | 498.9 | 644.5 | 641.9 | 565.2 | 552.7 |
| 55° | 409.4 | 505.4 | 454.9 | 426.2 | 429.8 |
| 60° | 226.3 | 283.0 | 273.6 | 293.9 | 301.4 |
| 65° | 41.4 | 60.1 | 106.8 | 135.1 | 122.0 |
| 70° | 10.3 | 17.3 | 26.7 | 31.5 | 20.5 |
| 75° | 5.4 | 9.6 | 13.3 | 11.2 | 6.7 |
| 80° | 2.7 | 5.2 | 7.6 | 5.1 | 2.5 |
| 85° | 2.1 | 2.7 | 3.6 | 2.8 | 1.3 |
| 90° | 5.9 | 5.3 | 4.4 | 3.7 | 2.4 |
| 95° | 13.4 | 17.9 | 12.7 | 10.3 | 8.3 |
| 100° | 10.7 | 21.0 | 22.3 | 19.7 | 19.0 |
| 105° | 10.5 | 22.9 | 27.3 | 31.5 | 31.4 |
| 110° | 10.9 | 23.5 | 33.2 | 34.8 | 34.7 |
| 115° | 16.8 | 25.1 | 39.7 | 40.5 | 40.4 |
| 120° | 18.5 | 26.0 | 38.9 | 49.4 | 45.0 |
| 125° | 20.8 | 25.7 | 34.4 | 50.0 | 46.8 |
| 130° | 22.9 | 26.6 | 35.4 | 39.6 | 41.4 |
| 135° | 23.7 | 27.6 | 36.7 | 37.5 | 38.0 |
| 140° | 23.8 | 30.2 | 35.8 | 40.3 | 35.4 |
| 145° | 24.9 | 29.1 | 36.3 | 41.5 | 40.0 |
| 150° | 25.9 | 29.5 | 33.3 | 35.9 | 35.5 |
| 155° | 27.3 | 30.9 | 34.8 | 33.8 | 36.1 |
| 160° | 26.6 | 28.4 | 30.1 | 30.5 | 36.0 |
| 165° | 28.7 | 32.0 | 29.3 | 32.5 | 28.2 |
| 170° | 27.0 | 28.8 | 28.7 | 27.1 | 25.1 |
| 175° | 23.4 | 29.3 | 30.0 | 26.6 | 27.0 |
| 180° | 28.4 | 28.4 | 28.4 | 28.4 | 28.4 |

(END OF REPORT)