

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: 89088

Luminaire Tested: **E2-SB-2T5-DL-4**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: 89088  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: CORELITE  
Catalog Number: E2-SB-2T5-DL-4  
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 LAMPS  
FP54T5/841HO. LUMEN RATING = 4500 LMS.  
Ballast/Driver: -

**Summary**

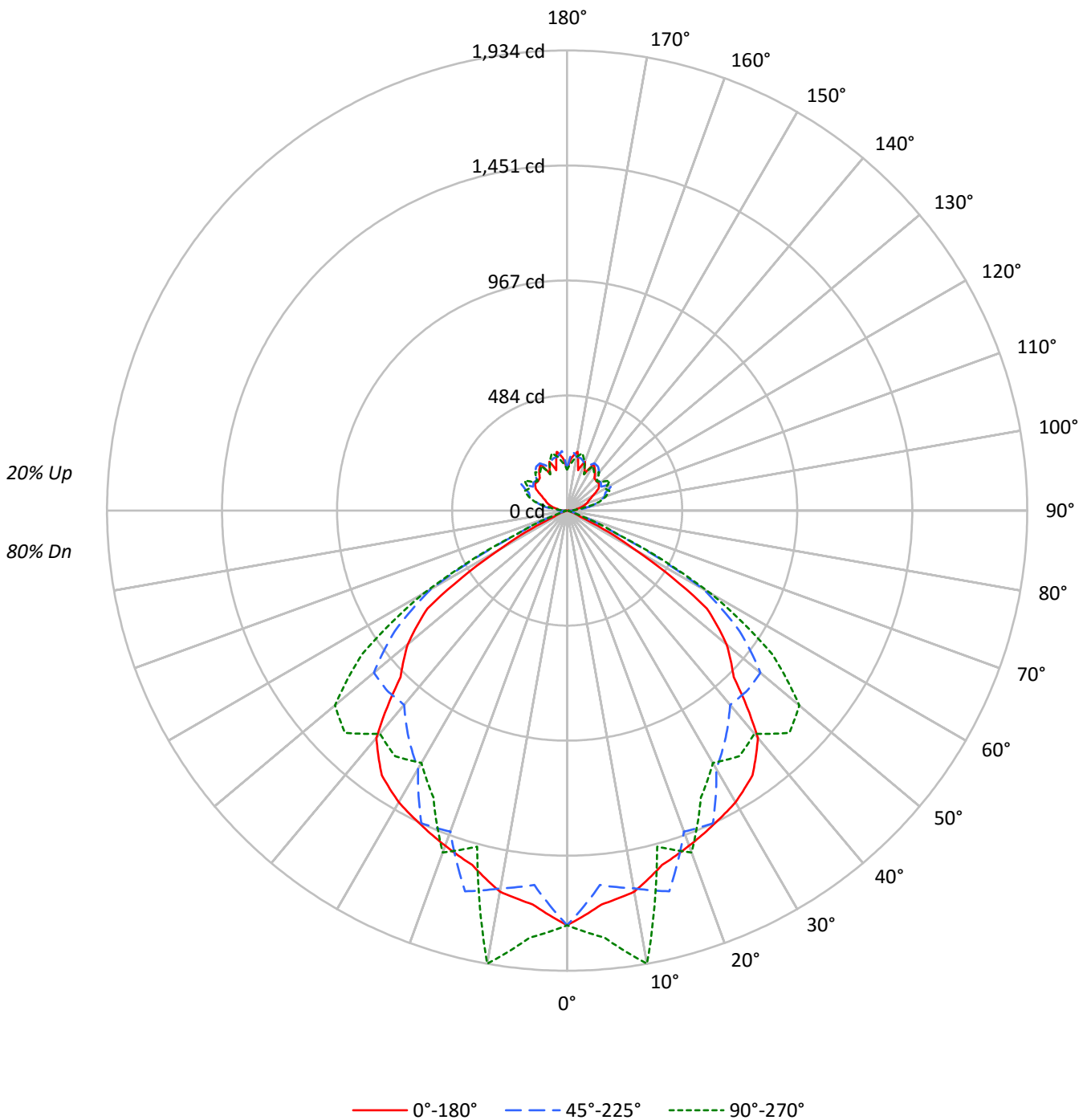
Lumens per Lamp: 4500 (2 lamps)  
Luminaire Lumens: 4881.2 lumens  
Efficiency: 54.2%  
Efficacy: 41.4 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.06 / 1.29  
Luminous Opening: Rectangular w/ Sides (W: 0.57' x L: 4.02' x H: 0.33')  
CIE Type: Semi-Direct

Input Watts (W): 118  
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: 89088  
CATALOG NUMBER: E2-SB-2T5-DL-4

### Luminous Intensity Polar Plot





TEST NUMBER: 89088

CATALOG NUMBER: E2-SB-2T5-DL-4

**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   | 62 | 62 | 62 | 62 | 59 | 59 | 59 | 59 | 54 | 54 | 54 | 50 | 50 | 50 | 46 | 46 | 46 | 44 |
| 1   | 58 | 55 | 54 | 52 | 55 | 53 | 52 | 50 | 49 | 48 | 47 | 45 | 44 | 43 | 42 | 41 | 40 | 39 |
| 2   | 53 | 49 | 46 | 44 | 51 | 47 | 45 | 42 | 44 | 42 | 40 | 41 | 39 | 37 | 37 | 36 | 35 | 33 |
| 3   | 49 | 44 | 40 | 37 | 47 | 42 | 39 | 36 | 39 | 36 | 34 | 36 | 34 | 32 | 34 | 32 | 30 | 29 |
| 4   | 45 | 39 | 35 | 32 | 43 | 38 | 34 | 31 | 35 | 32 | 29 | 33 | 30 | 28 | 30 | 28 | 26 | 25 |
| 5   | 41 | 35 | 31 | 27 | 39 | 34 | 30 | 27 | 31 | 28 | 25 | 29 | 27 | 24 | 27 | 25 | 23 | 22 |
| 6   | 38 | 31 | 27 | 24 | 36 | 30 | 26 | 23 | 28 | 25 | 22 | 27 | 24 | 21 | 25 | 22 | 20 | 19 |
| 7   | 35 | 29 | 24 | 21 | 34 | 28 | 24 | 21 | 26 | 22 | 20 | 24 | 21 | 19 | 23 | 20 | 18 | 17 |
| 8   | 33 | 26 | 22 | 19 | 31 | 25 | 21 | 18 | 24 | 20 | 18 | 22 | 19 | 17 | 21 | 18 | 16 | 15 |
| 9   | 31 | 24 | 20 | 17 | 29 | 23 | 19 | 17 | 22 | 18 | 16 | 20 | 17 | 15 | 19 | 17 | 15 | 14 |
| 10  | 29 | 22 | 18 | 15 | 27 | 21 | 18 | 15 | 20 | 17 | 14 | 19 | 16 | 14 | 18 | 15 | 13 | 12 |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 8126 | 8126 | 8126 |
| 5°  | 7719 | 7104 | 8028 |
| 10° | 7589 | 7054 | 8311 |
| 15° | 7281 | 7109 | 6112 |
| 20° | 7220 | 6091 | 6272 |
| 25° | 7213 | 6129 | 5393 |
| 30° | 7274 | 5319 | 4947 |
| 35° | 7306 | 4989 | 5112 |
| 40° | 7100 | 4662 | 5022 |
| 45° | 6028 | 4814 | 5526 |
| 50° | 5777 | 4945 | 5476 |
| 55° | 5211 | 4320 | 4687 |
| 60° | 2705 | 3411 | 3255 |
| 65° | 596  | 1192 | 1156 |
| 70° | 180  | 271  | 221  |
| 75° | 110  | 142  | 75   |
| 80° | 69   | 102  | 39   |
| 85° | 77   | 69   | 32   |



TEST NUMBER: 89088

CATALOG NUMBER: E2-SB-2T5-DL-4

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture | % Lamp |
|-----------|--------|-----------|--------|
| 0°-10°    | 163.3  | 3.3       | 1.8    |
| 10°-20°   | 451.1  | 9.2       | 5.0    |
| 20°-30°   | 648.5  | 13.3      | 7.2    |
| 30°-40°   | 778.0  | 15.9      | 8.6    |
| 40°-50°   | 855.1  | 17.5      | 9.5    |
| 50°-60°   | 754.5  | 15.5      | 8.4    |
| 60°-70°   | 245.1  | 5.0       | 2.7    |
| 70°-80°   | 22.4   | 0.5       | 0.2    |
| 80°-90°   | 10.0   | 0.2       | 0.1    |
| 90°-100°  | 53.7   | 1.1       | 0.6    |
| 100°-110° | 120.9  | 2.5       | 1.3    |
| 110°-120° | 161.9  | 3.3       | 1.8    |
| 120°-130° | 164.8  | 3.4       | 1.8    |
| 130°-140° | 143.2  | 2.9       | 1.6    |
| 140°-150° | 128.2  | 2.6       | 1.4    |
| 150°-160° | 97.5   | 2.0       | 1.1    |
| 160°-170° | 62.3   | 1.3       | 0.7    |
| 170°-180° | 20.7   | 0.4       | 0.2    |
| 0°-30°    | 1262.9 | 25.9      | 14.0   |
| 0°-40°    | 2040.9 | 41.8      | 22.7   |
| 0°-60°    | 3650.4 | 74.8      | 40.6   |
| 0°-90°    | 3927.9 | 80.5      | 43.6   |
| 90°-120°  | 336.5  | 6.9       | 3.7    |
| 90°-150°  | 772.8  | 15.8      | 8.6    |
| 90°-180°  | 953.0  | 19.5      | 10.6   |
| 0°-180°   | 4881.2 | 100.0     | 54.2   |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1743 | 1743  | 1743 | 1743  | 1743 |      |
| 5°   | 1661 | 1789  | 1580 | 1950  | 1802 | 158  |
| 15°  | 1542 | 1690  | 1657 | 1651  | 1462 | 439  |
| 25°  | 1456 | 1454  | 1450 | 1272  | 1330 | 673  |
| 35°  | 1358 | 1264  | 1163 | 1222  | 1260 | 843  |
| 45°  | 990  | 980   | 1070 | 1227  | 1321 | 791  |
| 55°  | 717  | 735   | 885  | 997   | 1051 | 588  |
| 65°  | 64   | 121   | 216  | 274   | 234  | 116  |
| 75°  | 8    | 15    | 22   | 25    | 13   | 9    |
| 85°  | 3    | 5     | 8    | 8     | 5    | 3    |
| 90°  | 11   | 15    | 14   | 16    | 17   | 9    |
| 95°  | 41   | 62    | 52   | 56    | 31   | 27   |
| 105° | 70   | 97    | 133  | 127   | 138  | 70   |
| 115° | 101  | 120   | 177  | 204   | 196  | 102  |
| 125° | 161  | 167   | 174  | 209   | 219  | 139  |
| 135° | 174  | 183   | 180  | 192   | 175  | 136  |
| 145° | 205  | 223   | 226  | 204   | 197  | 127  |
| 155° | 169  | 259   | 208  | 240   | 168  | 90   |
| 165° | 176  | 241   | 227  | 217   | 250  | 58   |
| 175° | 224  | 213   | 251  | 204   | 202  | 22   |
| 180° | 172  | 172   | 172  | 172   | 172  |      |



TEST NUMBER: 89088

CATALOG NUMBER: E2-SB-2T5-DL-4

**CANDELA DISTRIBUTION (FULL):**

|      | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|------|--------|--------|--------|--------|--------|
| 0°   | 1743.0 | 1743.0 | 1743.0 | 1743.0 | 1743.0 |
| 5°   | 1661.3 | 1789.4 | 1579.8 | 1950.5 | 1801.8 |
| 10°  | 1626.3 | 1568.0 | 1612.4 | 1560.3 | 1934.0 |
| 15°  | 1541.8 | 1689.5 | 1656.8 | 1651.3 | 1461.9 |
| 20°  | 1499.0 | 1640.9 | 1435.8 | 1434.1 | 1529.2 |
| 25°  | 1456.1 | 1454.3 | 1450.3 | 1271.5 | 1330.1 |
| 30°  | 1415.6 | 1392.4 | 1253.8 | 1352.1 | 1224.7 |
| 35°  | 1357.8 | 1264.4 | 1162.6 | 1221.7 | 1260.5 |
| 40°  | 1247.4 | 1113.7 | 1065.4 | 1209.9 | 1224.1 |
| 45°  | 989.7  | 979.6  | 1070.2 | 1226.6 | 1321.1 |
| 50°  | 874.8  | 773.9  | 1060.2 | 1288.2 | 1273.6 |
| 55°  | 716.6  | 735.0  | 885.0  | 996.8  | 1051.1 |
| 60°  | 331.5  | 479.4  | 660.9  | 659.9  | 697.5  |
| 65°  | 63.6   | 121.3  | 216.0  | 274.0  | 234.2  |
| 70°  | 16.2   | 24.6   | 45.3   | 60.5   | 41.8   |
| 75°  | 8.0    | 15.4   | 21.6   | 24.7   | 13.2   |
| 80°  | 3.8    | 6.4    | 13.8   | 11.3   | 6.2    |
| 85°  | 2.8    | 5.3    | 8.1    | 8.2    | 4.6    |
| 90°  | 11.3   | 14.7   | 14.5   | 15.8   | 16.7   |
| 95°  | 40.8   | 62.4   | 51.7   | 56.5   | 30.7   |
| 100° | 41.2   | 71.7   | 97.8   | 90.6   | 73.4   |
| 105° | 69.6   | 97.3   | 132.6  | 127.3  | 138.2  |
| 110° | 86.2   | 132.1  | 165.7  | 164.1  | 172.8  |
| 115° | 101.0  | 120.3  | 177.4  | 203.6  | 195.8  |
| 120° | 124.3  | 139.2  | 222.1  | 206.6  | 184.1  |
| 125° | 161.1  | 166.8  | 174.1  | 208.8  | 219.0  |
| 130° | 175.8  | 184.7  | 184.3  | 188.1  | 186.1  |
| 135° | 173.8  | 183.1  | 180.0  | 191.7  | 175.2  |
| 140° | 178.3  | 181.4  | 208.8  | 179.2  | 209.3  |
| 145° | 204.8  | 222.9  | 225.9  | 203.6  | 196.9  |
| 150° | 223.6  | 182.4  | 229.0  | 167.3  | 216.3  |
| 155° | 169.1  | 259.1  | 207.8  | 240.5  | 168.2  |
| 160° | 218.5  | 195.3  | 211.8  | 197.7  | 212.6  |
| 165° | 175.6  | 241.0  | 227.1  | 216.7  | 250.0  |
| 170° | 250.7  | 193.9  | 230.2  | 250.7  | 228.7  |
| 175° | 224.3  | 213.0  | 251.1  | 203.7  | 201.7  |
| 180° | 172.3  | 172.3  | 172.3  | 172.3  | 172.3  |

(END OF REPORT)