

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: ITL63572

Luminaire Tested: **NB-SM-2T5-1C-120**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: ITL63572  
Test Lab: INDEPENDENT TESTING LABORATORIES, INC.  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: CORELITE  
Catalog Number: NB-SM-2T5-1C-120  
Description: EXTRUDED METAL HOUSING WITH UNFINISHED METAL END PLATES,  
FORMED WHITE PAINTED METAL REFLECTORS, ONE FORMED  
SEMI-SPECULAR METAL REFLECTOR INSERT ON EACH SIDE, CLEAR FLAT  
MICRO-LINEAR PRISMATIC PLASTIC LENS, LENS PRISMS DOWN AND  
PARALLEL WITH LAMPS, OPEN TOP.  
Light Source: TWO 54-WATT T-5 SYLVANIA FP54/841/HO/ECO LINEAR FLUORESCENTS.  
Ballast/Driver: UNIVERSAL B254PUNV-D

**Summary**

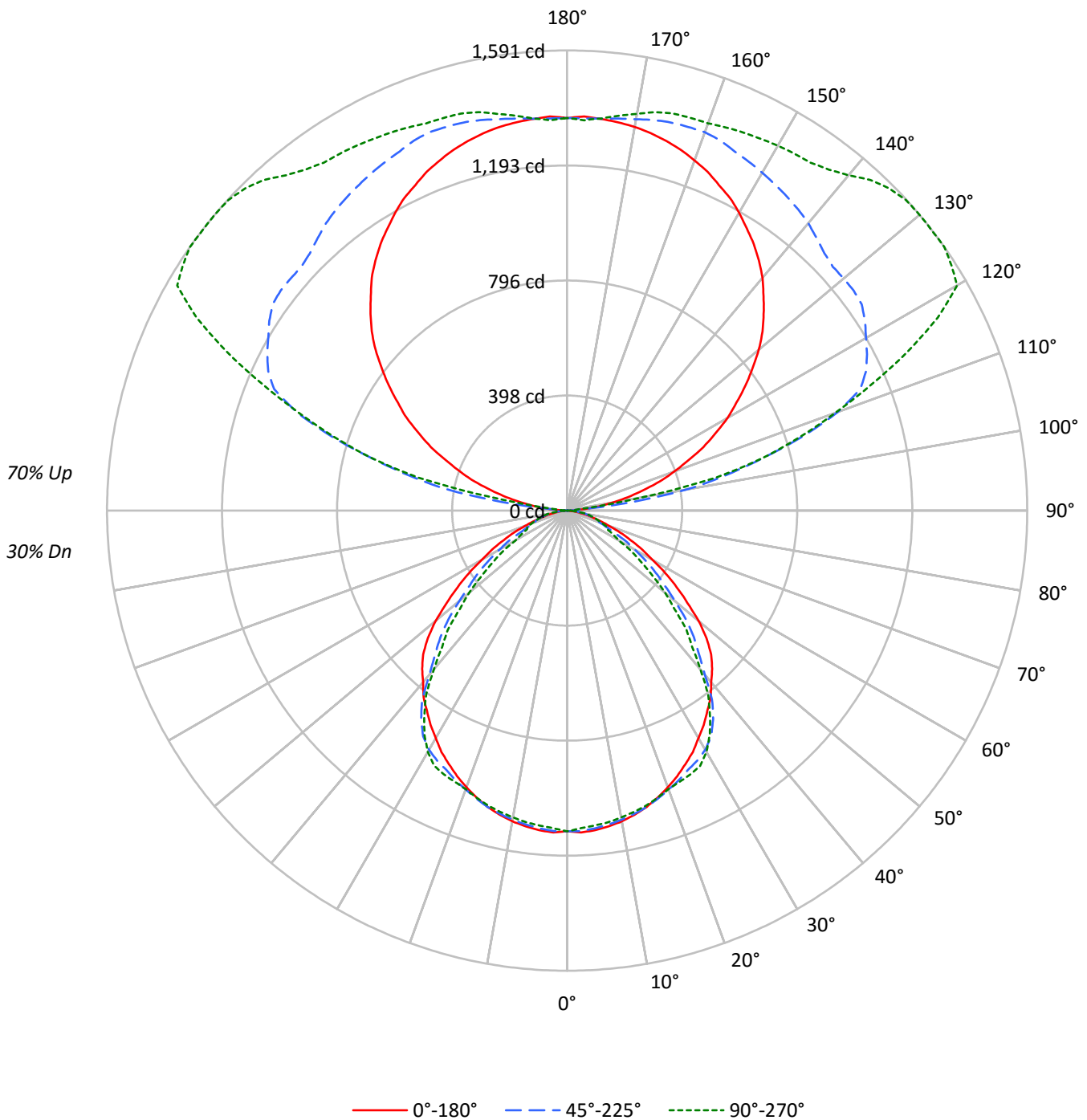
Lumens per Lamp: 4450 (2 lamps)  
Luminaire Lumens: 8365.3 lumens  
Efficiency: 94.0%  
Efficacy: 68.0 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.27 / 1.28  
Luminous Opening: Rectangular (W 0.61' x L: 3.99' x H: 0')  
CIE Type: Semi-Indirect

Input Watts (W): 123.1  
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 | 0  |
| RCR |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 0   | 96 | 96 | 96 | 96 | 86 | 86 | 86 | 86 | 68 | 68 | 68 | 51 | 51 | 51 | 36 | 36 | 36 | 29 |
| 1   | 88 | 84 | 81 | 78 | 79 | 76 | 73 | 70 | 60 | 58 | 56 | 46 | 44 | 43 | 32 | 32 | 31 | 25 |
| 2   | 80 | 74 | 69 | 64 | 72 | 67 | 62 | 58 | 53 | 50 | 47 | 40 | 38 | 37 | 29 | 28 | 27 | 21 |
| 3   | 74 | 65 | 59 | 54 | 66 | 59 | 53 | 49 | 47 | 43 | 40 | 36 | 33 | 31 | 26 | 24 | 23 | 18 |
| 4   | 67 | 58 | 51 | 46 | 60 | 52 | 46 | 42 | 42 | 38 | 34 | 32 | 29 | 27 | 23 | 21 | 20 | 16 |
| 5   | 62 | 52 | 44 | 39 | 55 | 47 | 40 | 36 | 38 | 33 | 30 | 29 | 26 | 24 | 21 | 19 | 18 | 14 |
| 6   | 57 | 46 | 39 | 34 | 51 | 42 | 36 | 31 | 34 | 29 | 26 | 26 | 23 | 21 | 19 | 17 | 16 | 13 |
| 7   | 53 | 42 | 35 | 30 | 47 | 38 | 32 | 27 | 31 | 26 | 23 | 24 | 21 | 18 | 17 | 15 | 14 | 11 |
| 8   | 49 | 38 | 31 | 26 | 44 | 34 | 28 | 24 | 28 | 23 | 20 | 22 | 19 | 16 | 16 | 14 | 12 | 10 |
| 9   | 45 | 34 | 28 | 23 | 41 | 31 | 25 | 21 | 25 | 21 | 18 | 20 | 17 | 15 | 15 | 13 | 11 | 9  |
| 10  | 42 | 31 | 25 | 21 | 38 | 29 | 23 | 19 | 23 | 19 | 16 | 18 | 15 | 13 | 14 | 12 | 10 | 8  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 4868 | 4868 | 4868 |
| 5°  | 4887 | 4861 | 4817 |
| 10° | 4863 | 4837 | 4801 |
| 15° | 4822 | 4822 | 4799 |
| 20° | 4756 | 4793 | 4789 |
| 25° | 4684 | 4791 | 4878 |
| 30° | 4603 | 4841 | 4882 |
| 35° | 4529 | 4716 | 4614 |
| 40° | 4441 | 4241 | 4103 |
| 45° | 4371 | 3849 | 3619 |
| 50° | 4050 | 3319 | 3019 |
| 55° | 3544 | 2855 | 2419 |
| 60° | 2994 | 2362 | 1809 |
| 65° | 2514 | 1839 | 1589 |
| 70° | 1989 | 1527 | 1669 |
| 75° | 1527 | 1628 | 1662 |
| 80° | 1087 | 1618 | 1719 |
| 85° | 655  | 1360 | 1310 |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture | % Lamp |
|-----------|--------|-----------|--------|
| 0°-10°    | 104.6  | 1.3       | 1.2    |
| 10°-20°   | 298.7  | 3.6       | 3.4    |
| 20°-30°   | 456.0  | 5.5       | 5.1    |
| 30°-40°   | 539.1  | 6.4       | 6.1    |
| 40°-50°   | 483.6  | 5.8       | 5.4    |
| 50°-60°   | 341.8  | 4.1       | 3.8    |
| 60°-70°   | 194.6  | 2.3       | 2.2    |
| 70°-80°   | 102.3  | 1.2       | 1.1    |
| 80°-90°   | 28.6   | 0.3       | 0.3    |
| 90°-100°  | 115.1  | 1.4       | 1.3    |
| 100°-110° | 644.5  | 7.7       | 7.2    |
| 110°-120° | 1008.8 | 12.1      | 11.3   |
| 120°-130° | 1082.8 | 12.9      | 12.2   |
| 130°-140° | 986.7  | 11.8      | 11.1   |
| 140°-150° | 828.1  | 9.9       | 9.3    |
| 150°-160° | 629.1  | 7.5       | 7.1    |
| 160°-170° | 390.7  | 4.7       | 4.4    |
| 170°-180° | 130.3  | 1.6       | 1.5    |
| 0°-30°    | 859.3  | 10.3      | 9.7    |
| 0°-40°    | 1398.4 | 16.7      | 15.7   |
| 0°-60°    | 2223.7 | 26.6      | 25.0   |
| 0°-90°    | 2549.2 | 30.5      | 28.6   |
| 90°-120°  | 1768.4 | 21.1      | 19.9   |
| 90°-150°  | 4666.0 | 55.8      | 52.4   |
| 90°-180°  | 5816.0 | 69.5      | 65.3   |
| 0°-180°   | 8365.3 | 100.0     | 94.0   |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1109 | 1109  | 1109 | 1109  | 1109 |      |
| 5°   | 1109 | 1106  | 1103 | 1097  | 1093 | 105  |
| 15°  | 1061 | 1059  | 1061 | 1057  | 1056 | 299  |
| 25°  | 967  | 975   | 989  | 999   | 1007 | 446  |
| 35°  | 845  | 876   | 880  | 868   | 861  | 529  |
| 45°  | 704  | 672   | 620  | 582   | 583  | 537  |
| 55°  | 463  | 423   | 373  | 339   | 316  | 414  |
| 65°  | 242  | 228   | 177  | 162   | 153  | 243  |
| 75°  | 90   | 94    | 96   | 103   | 98   | 98   |
| 85°  | 13   | 24    | 27   | 27    | 26   | 16   |
| 90°  | 0    | 0     | 0    | 0     | 0    | 3    |
| 95°  | 62   | 157   | 35   | 25    | 22   | 72   |
| 105° | 272  | 575   | 699  | 688   | 697  | 290  |
| 115° | 520  | 763   | 1140 | 1302  | 1298 | 511  |
| 125° | 752  | 942   | 1243 | 1495  | 1591 | 673  |
| 135° | 961  | 1089  | 1258 | 1485  | 1575 | 742  |
| 145° | 1125 | 1230  | 1325 | 1425  | 1468 | 703  |
| 155° | 1242 | 1312  | 1370 | 1419  | 1442 | 573  |
| 165° | 1323 | 1351  | 1389 | 1413  | 1421 | 374  |
| 175° | 1359 | 1356  | 1360 | 1360  | 1361 | 129  |
| 180° | 1357 | 1357  | 1357 | 1357  | 1357 |      |



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**CANDELA DISTRIBUTION (FULL):**

|        | 0°   | 22.5° | 45°  | 67.5° | 90°  |
|--------|------|-------|------|-------|------|
| 0°     | 1109 | 1109  | 1109 | 1109  | 1109 |
| 2.5°   | 1114 | 1112  | 1109 | 1103  | 1099 |
| 5°     | 1109 | 1106  | 1103 | 1097  | 1093 |
| 7.5°   | 1101 | 1099  | 1095 | 1089  | 1087 |
| 10°    | 1091 | 1088  | 1085 | 1082  | 1077 |
| 12.5°  | 1077 | 1074  | 1074 | 1069  | 1067 |
| 15°    | 1061 | 1059  | 1061 | 1057  | 1056 |
| 17.5°  | 1040 | 1042  | 1044 | 1042  | 1041 |
| 20°    | 1018 | 1020  | 1026 | 1024  | 1025 |
| 22.5°  | 994  | 1002  | 1009 | 1011  | 1015 |
| 25°    | 967  | 975   | 989  | 999   | 1007 |
| 27.5°  | 941  | 954   | 974  | 989   | 995  |
| 30°    | 908  | 927   | 955  | 961   | 963  |
| 32.5°  | 879  | 902   | 926  | 919   | 918  |
| 35°    | 845  | 876   | 880  | 868   | 861  |
| 37.5°  | 815  | 840   | 823  | 802   | 800  |
| 40°    | 775  | 791   | 740  | 735   | 716  |
| 42.5°  | 742  | 729   | 675  | 653   | 640  |
| 45°    | 704  | 672   | 620  | 582   | 583  |
| 47.5°  | 654  | 607   | 557  | 530   | 503  |
| 50°    | 593  | 543   | 486  | 455   | 442  |
| 52.5°  | 524  | 480   | 424  | 394   | 376  |
| 55°    | 463  | 423   | 373  | 339   | 316  |
| 57.5°  | 402  | 374   | 322  | 282   | 266  |
| 60°    | 341  | 318   | 269  | 228   | 206  |
| 62.5°  | 293  | 271   | 229  | 185   | 178  |
| 65°    | 242  | 228   | 177  | 162   | 153  |
| 67.5°  | 199  | 188   | 144  | 141   | 149  |
| 70°    | 155  | 155   | 119  | 131   | 130  |
| 72.5°  | 119  | 120   | 112  | 116   | 112  |
| 75°    | 90   | 94    | 96   | 103   | 98   |
| 77.5°  | 63   | 70    | 78   | 85    | 82   |
| 80°    | 43   | 57    | 64   | 68    | 68   |
| 82.5°  | 24   | 41    | 45   | 49    | 46   |
| 85°    | 13   | 24    | 27   | 27    | 26   |
| 87.5°  | 2    | 8     | 9    | 9     | 8    |
| 90°    | 0    | 0     | 0    | 0     | 0    |
| 92.5°  | 21   | 18    | 12   | 11    | 12   |
| 95°    | 62   | 157   | 35   | 25    | 22   |
| 97.5°  | 111  | 273   | 226  | 100   | 64   |
| 100°   | 159  | 413   | 422  | 337   | 265  |
| 102.5° | 215  | 516   | 558  | 569   | 526  |
| 105°   | 272  | 575   | 699  | 688   | 697  |
| 107.5° | 337  | 634   | 855  | 856   | 842  |
| 110°   | 394  | 697   | 995  | 996   | 985  |



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**CANDELA DISTRIBUTION (continued):**

|        | 0°   | 22.5° | 45°  | 67.5° | 90°  |
|--------|------|-------|------|-------|------|
| 112.5° | 451  | 738   | 1097 | 1155  | 1139 |
| 115°   | 520  | 763   | 1140 | 1302  | 1298 |
| 117.5° | 577  | 798   | 1169 | 1422  | 1445 |
| 120°   | 641  | 848   | 1193 | 1468  | 1557 |
| 122.5° | 694  | 895   | 1221 | 1488  | 1576 |
| 125°   | 752  | 942   | 1243 | 1495  | 1591 |
| 127.5° | 808  | 980   | 1249 | 1500  | 1590 |
| 130°   | 865  | 1023  | 1248 | 1508  | 1591 |
| 132.5° | 916  | 1056  | 1247 | 1503  | 1589 |
| 135°   | 961  | 1089  | 1258 | 1485  | 1575 |
| 137.5° | 1005 | 1129  | 1277 | 1458  | 1551 |
| 140°   | 1051 | 1165  | 1297 | 1436  | 1513 |
| 142.5° | 1089 | 1201  | 1312 | 1425  | 1486 |
| 145°   | 1125 | 1230  | 1325 | 1425  | 1468 |
| 147.5° | 1156 | 1255  | 1337 | 1428  | 1463 |
| 150°   | 1189 | 1276  | 1349 | 1423  | 1457 |
| 152.5° | 1219 | 1295  | 1360 | 1422  | 1449 |
| 155°   | 1242 | 1312  | 1370 | 1419  | 1442 |
| 157.5° | 1268 | 1325  | 1385 | 1413  | 1434 |
| 160°   | 1288 | 1337  | 1392 | 1413  | 1425 |
| 162.5° | 1308 | 1344  | 1391 | 1416  | 1423 |
| 165°   | 1323 | 1351  | 1389 | 1413  | 1421 |
| 167.5° | 1337 | 1358  | 1383 | 1402  | 1411 |
| 170°   | 1347 | 1360  | 1374 | 1386  | 1393 |
| 172.5° | 1354 | 1362  | 1367 | 1371  | 1377 |
| 175°   | 1359 | 1356  | 1360 | 1360  | 1361 |
| 177.5° | 1364 | 1365  | 1357 | 1353  | 1351 |
| 180°   | 1357 | 1357  | 1357 | 1357  | 1357 |

(END OF REPORT)