

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: 15720

Luminaire Tested: **IP-WP-1T5**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: 15720
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: CORELITE
Catalog Number: IP-WP-1T5
Description: CORELITE 1 LAMP T5 DIRECT/INDIRECT LUMINAIRE - IRIIDIUM PERF

WITH WHITE INTERIOR AND WHITE LENS OVER PERFORATIONS

Light Source: ONE SYLVANIA 54 WATT T5 LAMP

FP54/841/HO. LUMEN RATING = 4500 LMS.

Ballast/Driver: ONE SYLVANIA QT1X54/120PHO BALLAST OPERATING AT 120 VAC AND 58 WATTS

Summary

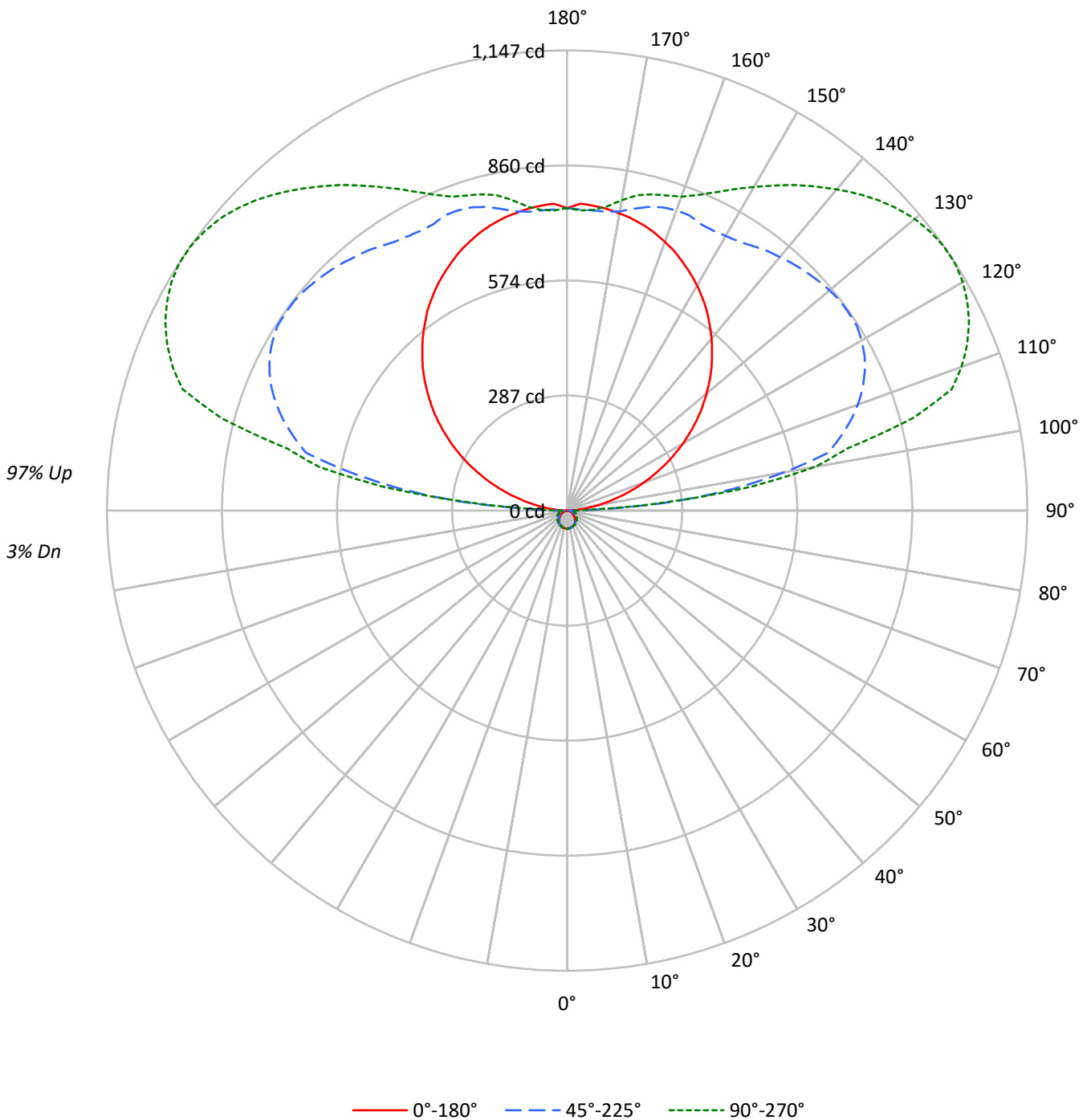
Lumens per Lamp: 4500 (1 lamp)
Luminaire Lumens: 4302.0 lumens
Efficiency: 95.6%
Efficacy: 74.2 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.29 / 1.36
Luminous Opening: Rectangular w/ Sides (W: 4' x L: 0.75' x H: 0.25')
CIE Type: Indirect

Input Watts (W): 58
Input Voltage (V): NR
Input Current (A_{in}): 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 | 92 | 92 | 92 | 92 | 79 | 79 | 79 | 79 | 55 | 55 | 55 | 33 | 33 | 33 | 13 | 13 | 13 | 3 |
| 1 | 83 | 80 | 76 | 73 | 72 | 68 | 66 | 63 | 48 | 46 | 44 | 29 | 28 | 27 | 11 | 11 | 10 | 3 |
| 2 | 76 | 69 | 64 | 59 | 65 | 60 | 55 | 52 | 42 | 39 | 37 | 25 | 24 | 22 | 10 | 9 | 9 | 2 |
| 3 | 69 | 61 | 54 | 49 | 59 | 52 | 47 | 43 | 37 | 33 | 31 | 22 | 20 | 19 | 8 | 8 | 7 | 2 |
| 4 | 63 | 54 | 47 | 41 | 54 | 46 | 40 | 36 | 32 | 29 | 26 | 19 | 17 | 16 | 7 | 7 | 6 | 1 |
| 5 | 58 | 47 | 40 | 35 | 49 | 41 | 35 | 31 | 29 | 25 | 22 | 17 | 15 | 14 | 7 | 6 | 5 | 1 |
| 6 | 53 | 42 | 35 | 30 | 45 | 36 | 31 | 26 | 26 | 22 | 19 | 15 | 13 | 12 | 6 | 5 | 5 | 1 |
| 7 | 49 | 38 | 31 | 26 | 42 | 33 | 27 | 23 | 23 | 19 | 16 | 14 | 12 | 10 | 5 | 5 | 4 | 1 |
| 8 | 45 | 34 | 27 | 22 | 38 | 29 | 24 | 20 | 21 | 17 | 14 | 13 | 10 | 9 | 5 | 4 | 4 | 1 |
| 9 | 42 | 31 | 24 | 20 | 36 | 27 | 21 | 17 | 19 | 15 | 13 | 11 | 9 | 8 | 4 | 4 | 3 | 1 |
| 10 | 39 | 28 | 22 | 17 | 33 | 24 | 19 | 15 | 17 | 14 | 11 | 10 | 8 | 7 | 4 | 3 | 3 | 1 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-----|-----|-----|
| 0° | 162 | 162 | 162 |
| 5° | 158 | 160 | 157 |
| 10° | 152 | 155 | 161 |
| 15° | 144 | 146 | 159 |
| 20° | 141 | 146 | 158 |
| 25° | 136 | 139 | 157 |
| 30° | 131 | 137 | 158 |
| 35° | 124 | 129 | 159 |
| 40° | 115 | 123 | 160 |
| 45° | 105 | 117 | 158 |
| 50° | 95 | 113 | 163 |
| 55° | 88 | 110 | 171 |
| 60° | 79 | 106 | 183 |
| 65° | 68 | 102 | 191 |
| 70° | 60 | 98 | 207 |
| 75° | 53 | 101 | 234 |
| 80° | 39 | 94 | 270 |
| 85° | 20 | 84 | 329 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture | % Lamp |
|-----------|--------|-----------|--------|
| 0°-10° | 4.2 | 0.1 | 0.1 |
| 10°-20° | 12.2 | 0.3 | 0.3 |
| 20°-30° | 18.3 | 0.4 | 0.4 |
| 30°-40° | 22.1 | 0.5 | 0.5 |
| 40°-50° | 22.9 | 0.5 | 0.5 |
| 50°-60° | 21.6 | 0.5 | 0.5 |
| 60°-70° | 19.1 | 0.4 | 0.4 |
| 70°-80° | 14.9 | 0.3 | 0.3 |
| 80°-90° | 9.3 | 0.2 | 0.2 |
| 90°-100° | 243.7 | 5.7 | 5.4 |
| 100°-110° | 636.2 | 14.8 | 14.1 |
| 110°-120° | 749.3 | 17.4 | 16.7 |
| 120°-130° | 728.6 | 16.9 | 16.2 |
| 130°-140° | 635.9 | 14.8 | 14.1 |
| 140°-150° | 507.7 | 11.8 | 11.3 |
| 150°-160° | 364.4 | 8.5 | 8.1 |
| 160°-170° | 219.4 | 5.1 | 4.9 |
| 170°-180° | 72.2 | 1.7 | 1.6 |
| 0°-30° | 34.7 | 0.8 | 0.8 |
| 0°-40° | 56.8 | 1.3 | 1.3 |
| 0°-60° | 101.4 | 2.4 | 2.3 |
| 0°-90° | 144.6 | 3.4 | 3.2 |
| 90°-120° | 1629.2 | 37.9 | 36.2 |
| 90°-150° | 3501.4 | 81.4 | 77.8 |
| 90°-180° | 4157.0 | 96.6 | 92.4 |
| 0°-180° | 4302.0 | 100.0 | 95.6 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|-----|-------|-----|-------|------|------|
| 0° | 45 | 45 | 45 | 45 | 45 | |
| 5° | 45 | 44 | 45 | 44 | 44 | 4 |
| 15° | 42 | 44 | 42 | 43 | 44 | 12 |
| 25° | 40 | 39 | 40 | 40 | 41 | 18 |
| 35° | 35 | 34 | 35 | 37 | 38 | 22 |
| 45° | 28 | 27 | 29 | 32 | 33 | 21 |
| 55° | 21 | 19 | 25 | 28 | 30 | 18 |
| 65° | 14 | 14 | 19 | 24 | 26 | 14 |
| 75° | 9 | 8 | 15 | 19 | 21 | 9 |
| 85° | 2 | 3 | 9 | 13 | 14 | 2 |
| 90° | 11 | 4 | 13 | 12 | 14 | 5 |
| 95° | 30 | 211 | 274 | 257 | 262 | 35 |
| 105° | 138 | 403 | 705 | 855 | 893 | 147 |
| 115° | 268 | 492 | 818 | 1037 | 1105 | 265 |
| 125° | 395 | 551 | 858 | 1076 | 1147 | 352 |
| 135° | 509 | 617 | 842 | 1028 | 1095 | 392 |
| 145° | 607 | 693 | 805 | 933 | 991 | 379 |
| 155° | 682 | 727 | 788 | 847 | 875 | 315 |
| 165° | 736 | 738 | 784 | 803 | 816 | 208 |
| 175° | 763 | 754 | 751 | 752 | 752 | 72 |
| 180° | 754 | 754 | 754 | 754 | 754 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|-------|--------|
| 0° | 45.2 | 45.2 | 45.2 | 45.2 | 45.2 |
| 2.5° | 44.7 | 44.3 | 44.3 | 44.7 | 45.0 |
| 5° | 45.1 | 44.3 | 45.4 | 44.3 | 43.8 |
| 7.5° | 44.3 | 43.8 | 45.0 | 43.9 | 45.0 |
| 10° | 44.3 | 43.5 | 44.7 | 43.5 | 44.7 |
| 12.5° | 43.5 | 43.1 | 43.5 | 43.9 | 44.3 |
| 15° | 42.2 | 43.9 | 42.2 | 42.7 | 43.5 |
| 17.5° | 42.7 | 41.5 | 42.3 | 42.8 | 43.1 |
| 20° | 41.5 | 41.2 | 42.2 | 42.8 | 42.3 |
| 22.5° | 40.7 | 40.7 | 39.6 | 40.7 | 41.5 |
| 25° | 39.6 | 38.8 | 39.6 | 40.0 | 40.7 |
| 27.5° | 38.8 | 38.0 | 38.8 | 38.4 | 40.4 |
| 30° | 37.6 | 36.0 | 38.4 | 38.0 | 39.6 |
| 32.5° | 36.5 | 35.3 | 37.2 | 37.2 | 38.0 |
| 35° | 34.9 | 33.7 | 35.3 | 36.8 | 38.0 |
| 37.5° | 32.5 | 32.2 | 33.4 | 35.3 | 36.8 |
| 40° | 31.4 | 30.5 | 32.5 | 33.7 | 36.0 |
| 42.5° | 29.0 | 28.6 | 30.9 | 32.8 | 34.9 |
| 45° | 27.5 | 27.4 | 29.4 | 31.8 | 33.0 |
| 47.5° | 25.5 | 25.5 | 27.8 | 30.6 | 33.0 |
| 50° | 23.9 | 23.1 | 27.0 | 29.7 | 31.4 |
| 52.5° | 20.8 | 21.5 | 25.5 | 29.0 | 29.7 |
| 55° | 20.8 | 19.2 | 24.7 | 28.3 | 29.7 |
| 57.5° | 17.7 | 18.1 | 22.4 | 26.7 | 29.3 |
| 60° | 17.3 | 16.5 | 22.0 | 25.5 | 28.3 |
| 62.5° | 15.7 | 14.9 | 20.0 | 24.7 | 27.4 |
| 65° | 13.7 | 13.7 | 19.2 | 24.3 | 25.5 |
| 67.5° | 12.1 | 12.6 | 19.3 | 23.1 | 24.7 |
| 70° | 11.0 | 10.6 | 16.5 | 22.0 | 23.1 |
| 72.5° | 9.4 | 9.0 | 16.8 | 20.5 | 22.3 |
| 75° | 8.6 | 8.3 | 14.9 | 19.3 | 20.8 |
| 77.5° | 6.7 | 7.1 | 13.7 | 17.3 | 18.4 |
| 80° | 5.5 | 5.5 | 11.8 | 15.3 | 17.7 |
| 82.5° | 3.2 | 3.5 | 10.2 | 14.1 | 15.3 |
| 85° | 2.3 | 3.2 | 8.6 | 12.6 | 13.7 |
| 87.5° | 0.8 | 1.2 | 5.1 | 10.6 | 12.6 |
| 90° | 10.7 | 4.0 | 13.3 | 11.8 | 14.1 |
| 92.5° | 11.7 | 94.3 | 94.7 | 74.1 | 71.6 |
| 95° | 29.7 | 210.8 | 274.5 | 256.9 | 262.0 |
| 97.5° | 53.7 | 298.3 | 421.2 | 457.6 | 467.7 |
| 100° | 79.1 | 346.5 | 549.1 | 616.3 | 628.0 |
| 102.5° | 107.6 | 363.7 | 667.2 | 669.1 | 714.0 |
| 105° | 138.1 | 403.2 | 704.7 | 855.3 | 893.3 |
| 107.5° | 169.8 | 431.3 | 739.9 | 942.5 | 1004.6 |
| 110° | 203.3 | 453.7 | 771.1 | 977.6 | 1046.1 |



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CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|--------|--------|
| 112.5° | 234.0 | 473.2 | 797.4 | 1010.9 | 1078.9 |
| 115° | 267.9 | 492.4 | 818.5 | 1036.7 | 1105.2 |
| 117.5° | 299.9 | 509.6 | 836.0 | 1054.7 | 1124.7 |
| 120° | 332.9 | 525.2 | 847.5 | 1067.6 | 1138.8 |
| 122.5° | 363.3 | 543.6 | 856.4 | 1075.5 | 1146.6 |
| 125° | 395.0 | 550.6 | 857.6 | 1076.5 | 1147.0 |
| 127.5° | 424.7 | 567.5 | 857.9 | 1070.8 | 1141.1 |
| 130° | 453.2 | 581.5 | 854.1 | 1061.7 | 1131.0 |
| 132.5° | 482.2 | 598.7 | 848.2 | 1046.8 | 1114.9 |
| 135° | 509.2 | 616.8 | 841.6 | 1028.1 | 1095.0 |
| 137.5° | 534.1 | 633.9 | 834.1 | 1008.1 | 1071.1 |
| 140° | 560.1 | 652.6 | 824.7 | 985.5 | 1045.3 |
| 142.5° | 583.5 | 676.6 | 816.9 | 963.5 | 1017.9 |
| 145° | 607.4 | 693.4 | 805.2 | 933.1 | 990.6 |
| 147.5° | 628.0 | 698.8 | 795.4 | 920.6 | 960.5 |
| 150° | 648.0 | 714.8 | 790.2 | 891.2 | 931.0 |
| 152.5° | 665.6 | 723.0 | 787.1 | 867.3 | 903.0 |
| 155° | 682.4 | 726.9 | 787.6 | 847.4 | 875.2 |
| 157.5° | 699.2 | 730.6 | 796.6 | 831.3 | 851.0 |
| 160° | 712.5 | 732.8 | 796.2 | 816.5 | 832.5 |
| 162.5° | 725.8 | 735.2 | 792.3 | 811.8 | 823.5 |
| 165° | 736.3 | 737.9 | 783.6 | 802.8 | 816.1 |
| 167.5° | 745.4 | 743.4 | 770.5 | 783.2 | 804.8 |
| 170° | 752.0 | 746.2 | 757.1 | 778.6 | 785.6 |
| 172.5° | 758.2 | 750.5 | 751.3 | 762.3 | 764.5 |
| 175° | 762.6 | 754.4 | 750.8 | 751.7 | 752.4 |
| 177.5° | 765.7 | 756.4 | 751.3 | 748.9 | 748.8 |
| 180° | 753.9 | 753.9 | 753.9 | 753.9 | 753.9 |

(END OF REPORT)