

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: 20539

Luminaire Tested: **IQ-WO-3T5**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: 20539
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: CORELITE
Catalog Number: IQ-WO-3T5
Description: DIRECT/INDIRECT SUSPENDED LUMINAIRE WITH WHITE INTERIOR WITH WHITE PLASTIC LENS
Light Source: THREE SYLVANIA 54 WATT T5 LAMPS

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

Ballast/Driver: -

Summary

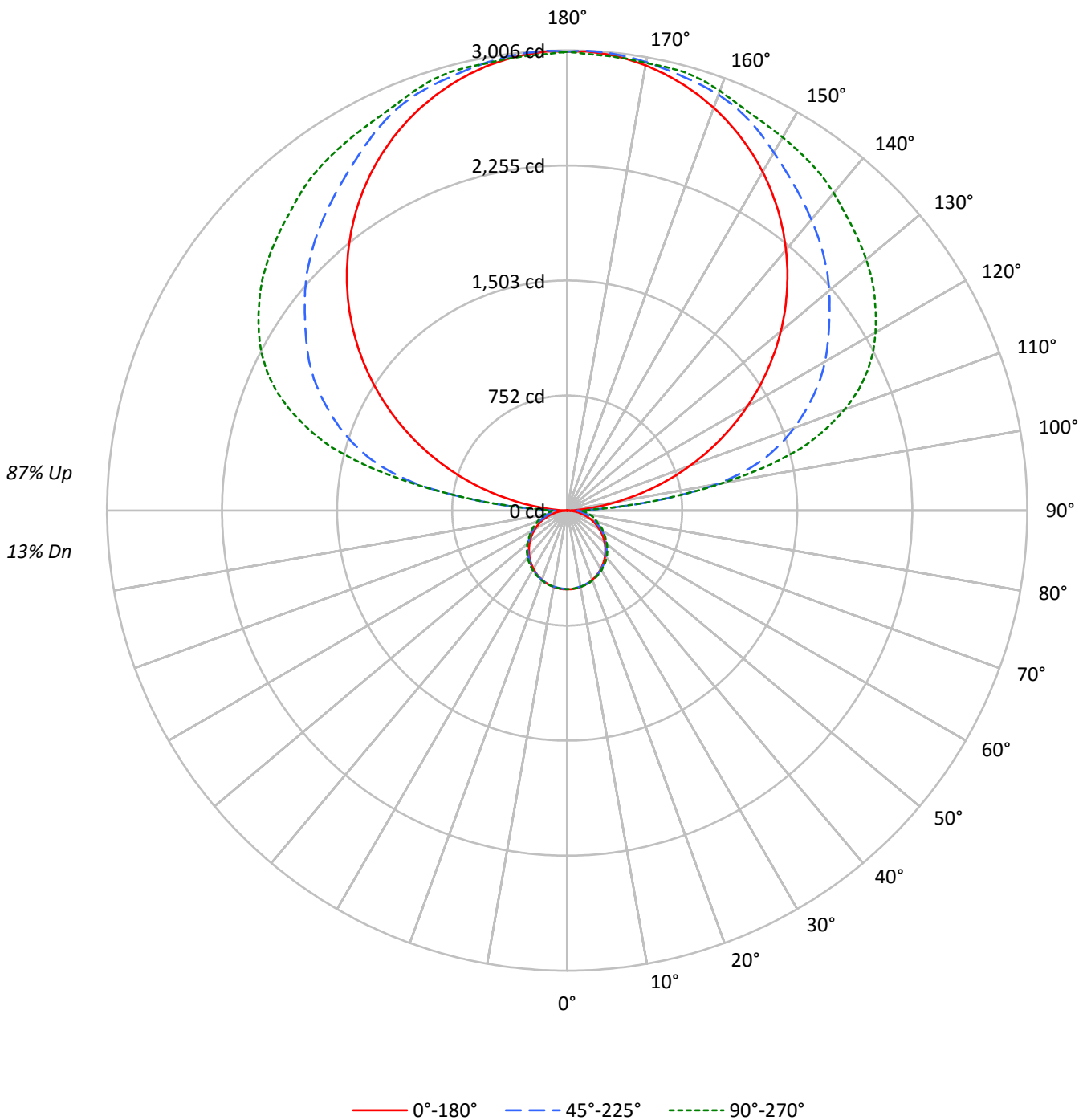
Lumens per Lamp: 4500 (3 lamps)
Luminaire Lumens: 12754.4 lumens
Efficiency: 94.5%
Efficacy: 71.7 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.3 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.32' x L: 3.67' x H: 0.06')
CIE Type: Semi-Indirect

Input Watts (W): 178
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 | 93 | 93 | 93 | 93 | 81 | 81 | 81 | 81 | 59 | 59 | 59 | 39 | 39 | 39 | 21 | 21 | 21 | 12 |
| 1 | 84 | 80 | 77 | 74 | 74 | 70 | 67 | 65 | 51 | 50 | 48 | 34 | 33 | 32 | 18 | 18 | 17 | 10 |
| 2 | 77 | 70 | 64 | 60 | 67 | 61 | 57 | 53 | 45 | 42 | 39 | 30 | 28 | 26 | 16 | 15 | 14 | 8 |
| 3 | 70 | 61 | 55 | 49 | 61 | 54 | 48 | 44 | 39 | 36 | 33 | 26 | 24 | 22 | 14 | 13 | 12 | 7 |
| 4 | 64 | 54 | 47 | 41 | 55 | 47 | 41 | 37 | 35 | 31 | 28 | 23 | 21 | 19 | 12 | 11 | 10 | 6 |
| 5 | 58 | 48 | 41 | 35 | 51 | 42 | 36 | 31 | 31 | 27 | 24 | 21 | 18 | 16 | 11 | 10 | 9 | 5 |
| 6 | 53 | 43 | 35 | 30 | 46 | 37 | 31 | 27 | 28 | 23 | 20 | 18 | 16 | 14 | 10 | 9 | 8 | 4 |
| 7 | 49 | 38 | 31 | 26 | 43 | 34 | 28 | 23 | 25 | 21 | 18 | 17 | 14 | 12 | 9 | 8 | 7 | 4 |
| 8 | 45 | 34 | 28 | 23 | 40 | 30 | 24 | 20 | 22 | 18 | 15 | 15 | 13 | 11 | 8 | 7 | 6 | 3 |
| 9 | 42 | 31 | 25 | 20 | 37 | 27 | 22 | 18 | 20 | 16 | 14 | 14 | 11 | 9 | 7 | 6 | 5 | 3 |
| 10 | 39 | 28 | 22 | 18 | 34 | 25 | 20 | 16 | 19 | 15 | 12 | 13 | 10 | 8 | 7 | 6 | 5 | 3 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 4701 | 4701 | 4701 |
| 5° | 4710 | 4634 | 4627 |
| 10° | 4698 | 4575 | 4562 |
| 15° | 4682 | 4522 | 4500 |
| 20° | 4663 | 4463 | 4432 |
| 25° | 4641 | 4403 | 4364 |
| 30° | 4613 | 4328 | 4293 |
| 35° | 4578 | 4262 | 4203 |
| 40° | 4544 | 4193 | 4141 |
| 45° | 4502 | 4116 | 4053 |
| 50° | 4453 | 4038 | 3949 |
| 55° | 4394 | 3952 | 3824 |
| 60° | 4330 | 3842 | 3750 |
| 65° | 4247 | 3699 | 3683 |
| 70° | 4129 | 3588 | 3603 |
| 75° | 3975 | 3445 | 3729 |
| 80° | 3715 | 3534 | 3875 |
| 85° | 2906 | 3686 | 4072 |



TEST NUMBER: 20539
 CATALOG NUMBER: IQ-WO-3T5

ZONAL LUMENS:

| Zone | Lumens | % Fixture | % Lamp |
|-----------|---------|-----------|--------|
| 0°-10° | 48.6 | 0.4 | 0.4 |
| 10°-20° | 139.9 | 1.1 | 1.0 |
| 20°-30° | 214.3 | 1.7 | 1.6 |
| 30°-40° | 262.5 | 2.1 | 1.9 |
| 40°-50° | 279.7 | 2.2 | 2.1 |
| 50°-60° | 263.7 | 2.1 | 2.0 |
| 60°-70° | 219.6 | 1.7 | 1.6 |
| 70°-80° | 158.5 | 1.2 | 1.2 |
| 80°-90° | 94.4 | 0.7 | 0.7 |
| 90°-100° | 437.2 | 3.4 | 3.2 |
| 100°-110° | 1274.0 | 10.0 | 9.4 |
| 110°-120° | 1687.5 | 13.2 | 12.5 |
| 120°-130° | 1838.2 | 14.4 | 13.6 |
| 130°-140° | 1813.4 | 14.2 | 13.4 |
| 140°-150° | 1624.8 | 12.7 | 12.0 |
| 150°-160° | 1286.0 | 10.1 | 9.5 |
| 160°-170° | 827.5 | 6.5 | 6.1 |
| 170°-180° | 284.7 | 2.2 | 2.1 |
| 0°-30° | 402.9 | 3.2 | 3.0 |
| 0°-40° | 665.4 | 5.2 | 4.9 |
| 0°-60° | 1208.8 | 9.5 | 9.0 |
| 0°-90° | 1681.2 | 13.2 | 12.5 |
| 90°-120° | 3398.7 | 26.6 | 25.2 |
| 90°-150° | 8675.0 | 68.0 | 64.3 |
| 90°-180° | 11073.0 | 86.8 | 82.0 |
| 0°-180° | 12754.4 | 100.0 | 94.5 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 513 | 513 | 513 | 513 | 513 | |
| 5° | 513 | 510 | 510 | 511 | 511 | 49 |
| 15° | 496 | 494 | 495 | 497 | 498 | 140 |
| 25° | 462 | 462 | 465 | 468 | 469 | 213 |
| 35° | 414 | 415 | 419 | 424 | 425 | 259 |
| 45° | 353 | 355 | 363 | 370 | 371 | 272 |
| 55° | 281 | 286 | 298 | 302 | 303 | 252 |
| 65° | 203 | 210 | 223 | 235 | 238 | 200 |
| 75° | 119 | 128 | 150 | 171 | 179 | 126 |
| 85° | 33 | 58 | 93 | 114 | 122 | 36 |
| 90° | 0 | 36 | 68 | 89 | 96 | 5 |
| 95° | 102 | 399 | 429 | 426 | 416 | 133 |
| 105° | 590 | 936 | 1346 | 1544 | 1592 | 622 |
| 115° | 1108 | 1356 | 1775 | 2068 | 2166 | 1095 |
| 125° | 1597 | 1744 | 2088 | 2359 | 2452 | 1427 |
| 135° | 2031 | 2132 | 2368 | 2556 | 2630 | 1566 |
| 145° | 2400 | 2476 | 2589 | 2721 | 2772 | 1501 |
| 155° | 2689 | 2713 | 2813 | 2840 | 2855 | 1239 |
| 165° | 2889 | 2893 | 2933 | 2959 | 2964 | 815 |
| 175° | 2992 | 2984 | 3002 | 2989 | 2981 | 284 |
| 180° | 2997 | 2997 | 2997 | 2997 | 2997 | |



TEST NUMBER: 20539
 CATALOG NUMBER: IQ-WO-3T5

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|--------|--------|--------|--------|
| 0° | 512.9 | 512.9 | 512.9 | 512.9 | 512.9 |
| 2.5° | 514.3 | 511.5 | 511.5 | 511.8 | 512.9 |
| 5° | 512.7 | 510.4 | 510.0 | 510.8 | 511.2 |
| 7.5° | 509.8 | 507.6 | 507.4 | 508.5 | 509.4 |
| 10° | 506.2 | 504.1 | 504.1 | 505.5 | 506.4 |
| 12.5° | 501.5 | 499.5 | 500.1 | 501.7 | 502.8 |
| 15° | 495.6 | 494.0 | 495.0 | 496.8 | 498.1 |
| 17.5° | 488.7 | 487.3 | 488.8 | 490.8 | 492.1 |
| 20° | 480.9 | 479.8 | 481.6 | 483.7 | 485.4 |
| 22.5° | 472.3 | 471.5 | 473.4 | 476.0 | 477.8 |
| 25° | 462.4 | 461.9 | 464.6 | 467.5 | 469.3 |
| 27.5° | 451.7 | 451.4 | 454.2 | 458.1 | 460.3 |
| 30° | 440.0 | 440.2 | 443.0 | 447.2 | 449.6 |
| 32.5° | 427.2 | 427.9 | 431.6 | 434.6 | 437.7 |
| 35° | 413.8 | 414.6 | 419.4 | 424.0 | 425.0 |
| 37.5° | 399.9 | 400.9 | 406.3 | 412.0 | 414.1 |
| 40° | 385.0 | 386.0 | 392.8 | 398.6 | 400.6 |
| 42.5° | 369.3 | 370.9 | 378.6 | 384.6 | 386.3 |
| 45° | 353.0 | 354.9 | 363.3 | 369.5 | 371.3 |
| 47.5° | 336.1 | 338.3 | 347.8 | 354.4 | 355.4 |
| 50° | 318.4 | 321.3 | 331.8 | 337.9 | 338.8 |
| 52.5° | 300.2 | 304.0 | 315.1 | 320.5 | 321.1 |
| 55° | 281.4 | 285.8 | 298.2 | 302.4 | 303.4 |
| 57.5° | 262.3 | 267.4 | 280.6 | 284.4 | 286.8 |
| 60° | 242.9 | 248.7 | 261.9 | 267.3 | 271.0 |
| 62.5° | 222.9 | 229.5 | 242.2 | 251.1 | 255.7 |
| 65° | 202.7 | 210.2 | 223.3 | 234.8 | 238.1 |
| 67.5° | 181.8 | 190.4 | 204.9 | 215.4 | 217.8 |
| 70° | 161.0 | 170.5 | 186.9 | 197.4 | 203.7 |
| 72.5° | 140.1 | 149.2 | 167.6 | 184.1 | 192.1 |
| 75° | 119.1 | 128.1 | 149.6 | 171.2 | 179.0 |
| 77.5° | 97.7 | 108.5 | 135.0 | 157.5 | 165.6 |
| 80° | 76.9 | 89.8 | 121.7 | 143.8 | 151.5 |
| 82.5° | 55.6 | 72.6 | 107.3 | 129.3 | 136.9 |
| 85° | 32.8 | 58.0 | 92.8 | 114.5 | 121.7 |
| 87.5° | 11.1 | 44.4 | 78.4 | 99.9 | 106.4 |
| 90° | 0.0 | 36.2 | 68.1 | 88.9 | 96.4 |
| 92.5° | 27.6 | 166.1 | 168.7 | 172.5 | 172.5 |
| 95° | 101.7 | 398.9 | 428.9 | 426.3 | 415.6 |
| 97.5° | 209.3 | 579.7 | 716.7 | 727.7 | 715.8 |
| 100° | 331.6 | 695.0 | 994.0 | 1032.7 | 1025.3 |
| 102.5° | 459.3 | 815.6 | 1190.9 | 1328.7 | 1334.9 |
| 105° | 589.7 | 935.8 | 1345.6 | 1544.3 | 1592.1 |
| 107.5° | 720.4 | 1046.9 | 1468.2 | 1710.9 | 1771.6 |
| 110° | 851.3 | 1145.5 | 1579.3 | 1853.1 | 1928.8 |



TEST NUMBER: 20539
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CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 112.5° | 980.0 | 1248.2 | 1680.1 | 1968.9 | 2061.0 |
| 115° | 1108.0 | 1356.3 | 1774.8 | 2067.7 | 2166.1 |
| 117.5° | 1234.4 | 1458.8 | 1865.7 | 2151.0 | 2253.8 |
| 120° | 1358.4 | 1555.3 | 1945.8 | 2225.3 | 2325.9 |
| 122.5° | 1479.5 | 1650.4 | 2017.4 | 2294.9 | 2390.5 |
| 125° | 1597.4 | 1744.5 | 2088.5 | 2359.0 | 2451.6 |
| 127.5° | 1711.9 | 1838.9 | 2160.3 | 2414.1 | 2505.9 |
| 130° | 1822.3 | 1935.6 | 2235.0 | 2462.4 | 2551.3 |
| 132.5° | 1928.6 | 2033.7 | 2304.5 | 2509.4 | 2591.4 |
| 135° | 2031.3 | 2132.4 | 2367.5 | 2556.1 | 2629.9 |
| 137.5° | 2129.6 | 2228.7 | 2426.6 | 2606.5 | 2667.6 |
| 140° | 2223.6 | 2319.1 | 2482.7 | 2651.2 | 2708.4 |
| 142.5° | 2314.0 | 2402.1 | 2536.1 | 2688.4 | 2744.6 |
| 145° | 2399.8 | 2476.1 | 2588.7 | 2721.4 | 2772.0 |
| 147.5° | 2480.1 | 2544.0 | 2643.5 | 2751.0 | 2795.2 |
| 150° | 2554.9 | 2605.0 | 2701.2 | 2779.0 | 2815.7 |
| 152.5° | 2624.5 | 2660.4 | 2759.2 | 2808.0 | 2834.1 |
| 155° | 2688.7 | 2713.4 | 2813.2 | 2839.7 | 2855.2 |
| 157.5° | 2747.4 | 2765.1 | 2858.0 | 2877.8 | 2883.2 |
| 160° | 2800.0 | 2811.9 | 2891.2 | 2916.0 | 2917.6 |
| 162.5° | 2847.3 | 2855.1 | 2914.9 | 2944.8 | 2947.1 |
| 165° | 2888.6 | 2892.9 | 2933.4 | 2958.7 | 2964.4 |
| 167.5° | 2923.5 | 2925.0 | 2954.5 | 2964.7 | 2968.5 |
| 170° | 2953.0 | 2951.1 | 2975.3 | 2972.4 | 2968.9 |
| 172.5° | 2975.9 | 2971.3 | 2991.6 | 2982.5 | 2976.9 |
| 175° | 2991.8 | 2984.5 | 3001.5 | 2989.2 | 2981.3 |
| 177.5° | 3001.2 | 2992.4 | 3006.4 | 2992.7 | 2984.9 |
| 180° | 2997.3 | 2997.3 | 2997.3 | 2997.3 | 2997.3 |

(END OF REPORT)