

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: ITL67622

Luminaire Tested: **Z2-WB-2N5-1C-UNV-24-T1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: ITL67622
Test Lab: INDEPENDENT TESTING LABORATORIES, INC.
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: CORELITE
Catalog Number: Z2-WB-2N5-1C-UNV-24-T1
Description: FORMED WHITE PAINTED METAL REFLECTOR, FORMED WHITE PAINTED METAL BALLAST COVER, FABRICATED WHITE PAINTED METAL END PLATES, EXTRUDED CLEAR LINEAR PRISMATIC PLASTIC LENS WITH FROSTED MICRO-LINEAR SIDES AND MOLDED WHITE PLASTIC 83-CELL INTERIOR LOUVER, BOTTOM LENS PRISMS UP AND PARALLEL WITH LAMPS, SIDE PRISMS OUT AND PARALLEL WITH LAMPS.
Light Source: TWO 28-WATT T-5 SYLVANIA FP28/835 LINEAR FLUORESCENTS.
Ballast/Driver: GE GE228MVPS-A

Summary

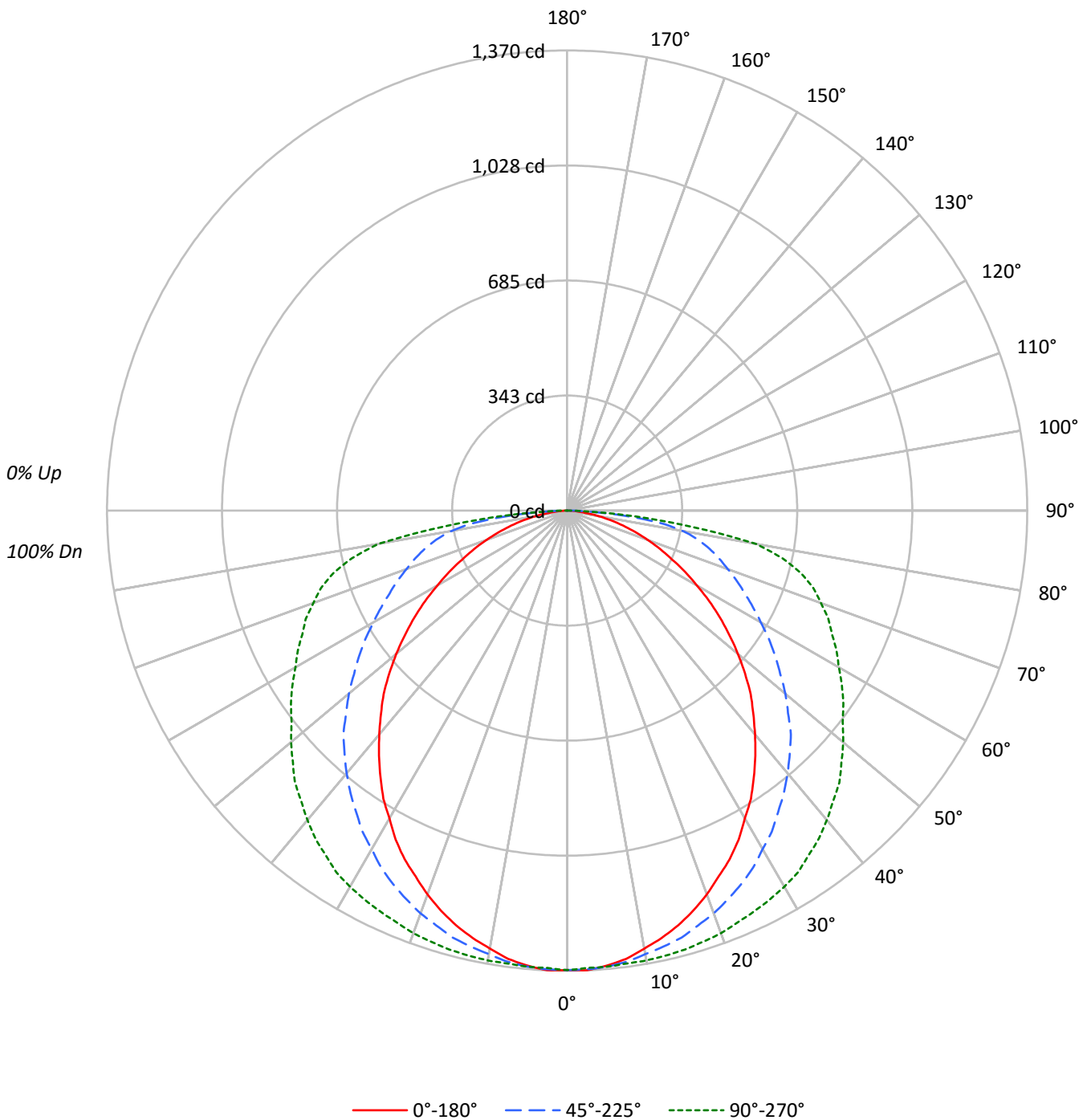
Lumens per Lamp: 2600 (2 lamps)
Luminaire Lumens: 4412.6 lumens
Efficiency: 84.9%
Efficacy: 69.7 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.41 / 1.41
Luminous Opening: Rectangular (W 1.93' x L: 3.91' x H: 0')
CIE Type: Direct

Input Watts (W): 63.3
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 | 50 | 30 | 10 | 0 | |
| RCR | | | | | | | | | | | | | | | | | | | | | | |
| 0 | 101 | 101 | 101 | 101 | 99 | 99 | 99 | 99 | 94 | 94 | 94 | 90 | 90 | 90 | 87 | 87 | 87 | 85 | | | | 85 |
| 1 | 91 | 86 | 82 | 78 | 89 | 84 | 81 | 77 | 81 | 78 | 75 | 77 | 75 | 72 | 74 | 72 | 70 | 68 | | | | 68 |
| 2 | 82 | 74 | 68 | 62 | 80 | 73 | 67 | 62 | 69 | 65 | 60 | 67 | 62 | 59 | 64 | 61 | 57 | 55 | | | | 55 |
| 3 | 74 | 65 | 57 | 51 | 72 | 63 | 56 | 51 | 61 | 55 | 50 | 58 | 53 | 49 | 56 | 52 | 48 | 46 | | | | 46 |
| 4 | 68 | 57 | 49 | 43 | 66 | 56 | 48 | 43 | 54 | 47 | 42 | 52 | 46 | 41 | 50 | 45 | 41 | 39 | | | | 39 |
| 5 | 62 | 51 | 43 | 37 | 60 | 50 | 42 | 36 | 48 | 41 | 36 | 46 | 40 | 36 | 44 | 39 | 35 | 33 | | | | 33 |
| 6 | 57 | 45 | 38 | 32 | 56 | 45 | 37 | 32 | 43 | 36 | 31 | 42 | 36 | 31 | 40 | 35 | 31 | 29 | | | | 29 |
| 7 | 53 | 41 | 33 | 28 | 52 | 40 | 33 | 28 | 39 | 32 | 28 | 38 | 32 | 27 | 37 | 31 | 27 | 25 | | | | 25 |
| 8 | 49 | 38 | 30 | 25 | 48 | 37 | 30 | 25 | 36 | 29 | 25 | 35 | 29 | 24 | 34 | 28 | 24 | 23 | | | | 23 |
| 9 | 46 | 34 | 27 | 22 | 45 | 34 | 27 | 22 | 33 | 27 | 22 | 32 | 26 | 22 | 31 | 26 | 22 | 20 | | | | 20 |
| 10 | 43 | 32 | 25 | 20 | 42 | 31 | 25 | 20 | 30 | 24 | 20 | 30 | 24 | 20 | 29 | 24 | 20 | 18 | | | | 18 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 1948 | 1948 | 1948 |
| 5° | 1944 | 1949 | 1949 |
| 10° | 1915 | 1939 | 1967 |
| 15° | 1884 | 1940 | 1995 |
| 20° | 1843 | 1934 | 2029 |
| 25° | 1799 | 1928 | 2070 |
| 30° | 1740 | 1914 | 2126 |
| 35° | 1685 | 1904 | 2178 |
| 40° | 1617 | 1898 | 2237 |
| 45° | 1557 | 1897 | 2308 |
| 50° | 1471 | 1879 | 2377 |
| 55° | 1378 | 1880 | 2493 |
| 60° | 1270 | 1897 | 2660 |
| 65° | 1163 | 1965 | 2932 |
| 70° | 1062 | 2119 | 3348 |
| 75° | 946 | 2416 | 3967 |
| 80° | 779 | 2879 | 4675 |
| 85° | 539 | 2647 | 3366 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture | % Lamp |
|-----------|--------|-----------|--------|
| 0°-10° | 129.4 | 2.9 | 2.5 |
| 10°-20° | 371.3 | 8.4 | 7.1 |
| 20°-30° | 566.4 | 12.8 | 10.9 |
| 30°-40° | 692.3 | 15.7 | 13.3 |
| 40°-50° | 731.8 | 16.6 | 14.1 |
| 50°-60° | 689.4 | 15.6 | 13.3 |
| 60°-70° | 595.1 | 13.5 | 11.4 |
| 70°-80° | 466.7 | 10.6 | 9.0 |
| 80°-90° | 170.1 | 3.9 | 3.3 |
| 90°-100° | 0.0 | 0.0 | 0.0 |
| 100°-110° | 0.0 | 0.0 | 0.0 |
| 110°-120° | 0.0 | 0.0 | 0.0 |
| 120°-130° | 0.0 | 0.0 | 0.0 |
| 130°-140° | 0.0 | 0.0 | 0.0 |
| 140°-150° | 0.0 | 0.0 | 0.0 |
| 150°-160° | 0.0 | 0.0 | 0.0 |
| 160°-170° | 0.0 | 0.0 | 0.0 |
| 170°-180° | 0.0 | 0.0 | 0.0 |
| 0°-30° | 1067.1 | 24.2 | 20.5 |
| 0°-40° | 1759.4 | 39.9 | 33.8 |
| 0°-60° | 3180.7 | 72.1 | 61.2 |
| 0°-90° | 4412.6 | 100.0 | 84.9 |
| 90°-120° | 0.0 | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 | 0.0 |
| 0°-180° | 4412.6 | 100.0 | 84.9 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1368 | 1368 | 1368 | 1368 | 1368 | |
| 5° | 1360 | 1362 | 1363 | 1363 | 1363 | 129 |
| 15° | 1278 | 1290 | 1316 | 1341 | 1353 | 360 |
| 25° | 1145 | 1170 | 1227 | 1287 | 1317 | 526 |
| 35° | 969 | 1013 | 1095 | 1207 | 1253 | 606 |
| 45° | 773 | 825 | 942 | 1075 | 1146 | 594 |
| 55° | 555 | 619 | 757 | 924 | 1004 | 496 |
| 65° | 345 | 419 | 583 | 786 | 870 | 344 |
| 75° | 172 | 255 | 439 | 641 | 721 | 182 |
| 85° | 33 | 107 | 162 | 196 | 206 | 41 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|------|-------|------|-------|------|
| 0° | 1368 | 1368 | 1368 | 1368 | 1368 |
| 2.5° | 1370 | 1369 | 1367 | 1363 | 1363 |
| 5° | 1360 | 1362 | 1363 | 1363 | 1363 |
| 7.5° | 1346 | 1349 | 1355 | 1357 | 1360 |
| 10° | 1324 | 1333 | 1341 | 1355 | 1360 |
| 12.5° | 1303 | 1312 | 1329 | 1350 | 1357 |
| 15° | 1278 | 1290 | 1316 | 1341 | 1353 |
| 17.5° | 1249 | 1265 | 1295 | 1331 | 1346 |
| 20° | 1216 | 1235 | 1276 | 1318 | 1339 |
| 22.5° | 1179 | 1204 | 1252 | 1304 | 1327 |
| 25° | 1145 | 1170 | 1227 | 1287 | 1317 |
| 27.5° | 1105 | 1134 | 1199 | 1267 | 1306 |
| 30° | 1058 | 1094 | 1164 | 1250 | 1293 |
| 32.5° | 1018 | 1056 | 1134 | 1232 | 1278 |
| 35° | 969 | 1013 | 1095 | 1207 | 1253 |
| 37.5° | 920 | 968 | 1060 | 1174 | 1231 |
| 40° | 870 | 922 | 1021 | 1145 | 1203 |
| 42.5° | 820 | 871 | 981 | 1108 | 1172 |
| 45° | 773 | 825 | 942 | 1075 | 1146 |
| 47.5° | 718 | 775 | 892 | 1039 | 1108 |
| 50° | 664 | 721 | 848 | 999 | 1073 |
| 52.5° | 609 | 672 | 800 | 964 | 1034 |
| 55° | 555 | 619 | 757 | 924 | 1004 |
| 57.5° | 501 | 569 | 712 | 890 | 970 |
| 60° | 446 | 515 | 666 | 851 | 934 |
| 62.5° | 396 | 467 | 624 | 817 | 904 |
| 65° | 345 | 419 | 583 | 786 | 870 |
| 67.5° | 300 | 374 | 547 | 754 | 842 |
| 70° | 255 | 333 | 509 | 723 | 804 |
| 72.5° | 212 | 292 | 474 | 684 | 769 |
| 75° | 172 | 255 | 439 | 641 | 721 |
| 77.5° | 132 | 223 | 399 | 590 | 657 |
| 80° | 95 | 186 | 351 | 516 | 570 |
| 82.5° | 59 | 153 | 279 | 381 | 380 |
| 85° | 33 | 107 | 162 | 196 | 206 |
| 87.5° | 11 | 46 | 53 | 61 | 54 |
| 90° | 0 | 0 | 0 | 0 | 0 |

(END OF REPORT)