

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: 89373

Luminaire Tested: **VB-SB-3T5-XDX-2**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: 89373  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: CORELITE  
Catalog Number: VB-SB-3T5-XDX-2  
Description: CORELITE VERTECHS SUSPENDED LUMINAIRE  
WHITE INTERIOR WITH SPECULAR REFLECTORS AND 19 CELL SEMI-SPECULAR LOUVER  
BLADE  
WITH LAMP ISOLATORS  
Light Source: 54 WATT T5 LAMPS  
FP54T5/841HO. LUMEN RATING = 4500 LMS.  
Ballast/Driver: -

**Summary**

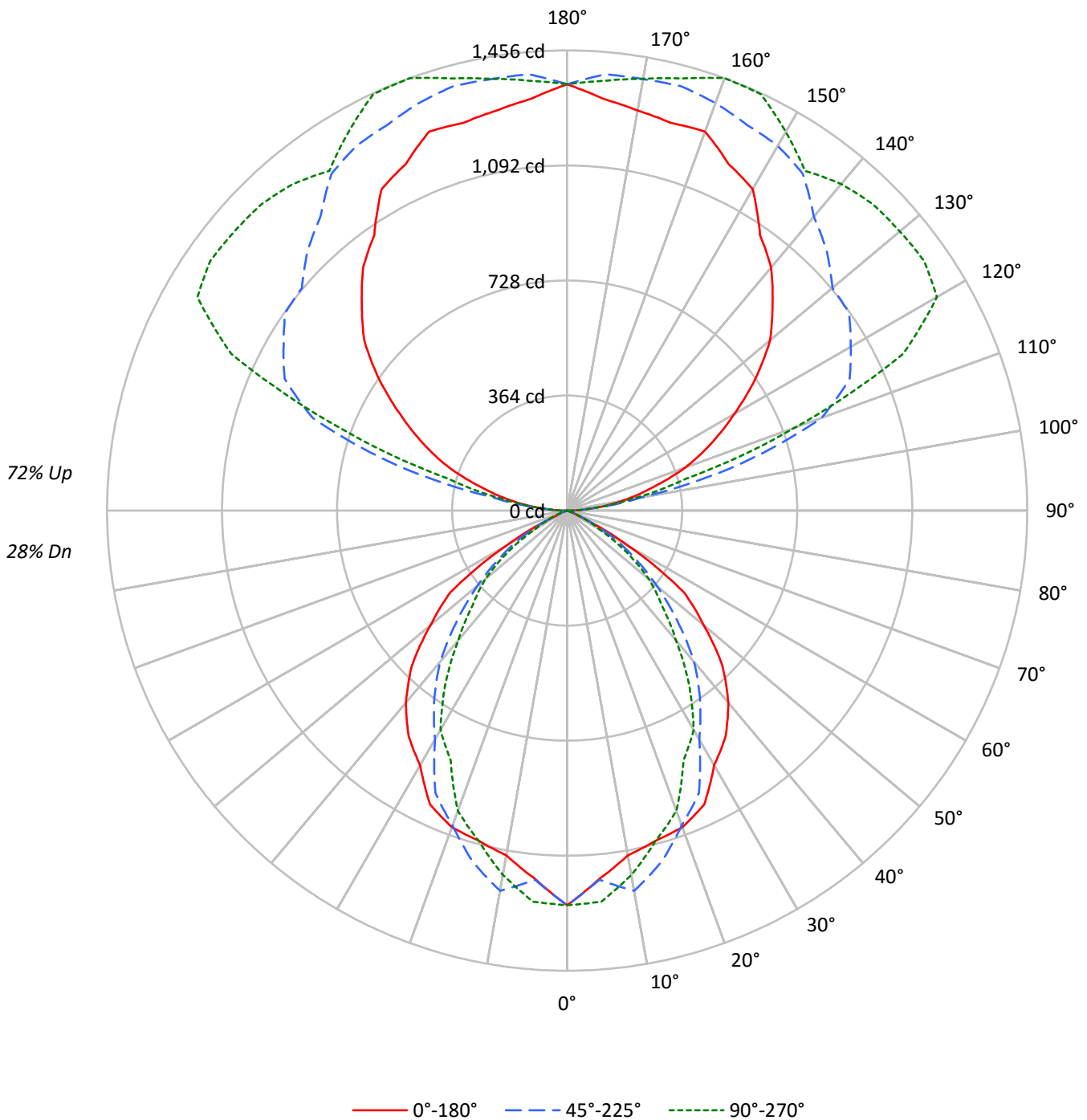
Lumens per Lamp: 4500 (2 lamps)  
Luminaire Lumens: 7368.9 lumens  
Efficiency: 81.9%  
Efficacy: 62.4 lumens/watt  
Spacing Criteria (0/90/45): 1.12 / 0.97 / 1.12  
Luminous Opening: Rectangular w/ Sides (W: 0.57' x L: 4.02' x H: 0.33')  
CIE Type: Semi-Indirect

Input Watts (W): 118  
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   | 84 | 84 | 84 | 84 | 75 | 75 | 75 | 75 | 58 | 58 | 58 | 43 | 43 | 43 | 30 | 30 | 30 | 23 |
| 1   | 77 | 74 | 71 | 68 | 69 | 66 | 64 | 62 | 52 | 51 | 49 | 39 | 38 | 37 | 27 | 27 | 26 | 21 |
| 2   | 70 | 65 | 61 | 57 | 63 | 59 | 55 | 52 | 46 | 44 | 42 | 35 | 34 | 32 | 25 | 24 | 23 | 19 |
| 3   | 65 | 58 | 52 | 48 | 58 | 52 | 47 | 44 | 41 | 38 | 36 | 32 | 30 | 28 | 22 | 21 | 20 | 16 |
| 4   | 59 | 51 | 45 | 41 | 53 | 46 | 41 | 37 | 37 | 34 | 31 | 28 | 26 | 24 | 20 | 19 | 18 | 15 |
| 5   | 55 | 46 | 40 | 35 | 49 | 42 | 36 | 32 | 33 | 30 | 27 | 26 | 23 | 21 | 19 | 17 | 16 | 13 |
| 6   | 50 | 41 | 35 | 31 | 45 | 37 | 32 | 28 | 30 | 26 | 24 | 23 | 21 | 19 | 17 | 16 | 14 | 12 |
| 7   | 47 | 37 | 31 | 27 | 42 | 34 | 29 | 25 | 27 | 24 | 21 | 21 | 19 | 17 | 16 | 14 | 13 | 11 |
| 8   | 43 | 34 | 28 | 24 | 39 | 31 | 26 | 22 | 25 | 21 | 19 | 20 | 17 | 15 | 14 | 13 | 12 | 10 |
| 9   | 40 | 31 | 25 | 21 | 36 | 28 | 23 | 20 | 23 | 19 | 17 | 18 | 15 | 14 | 13 | 12 | 11 | 9  |
| 10  | 37 | 28 | 23 | 19 | 34 | 26 | 21 | 18 | 21 | 17 | 15 | 17 | 14 | 12 | 12 | 11 | 10 | 8  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 5820 | 5820 | 5820 |
| 5°  | 5435 | 5272 | 5533 |
| 10° | 5169 | 5344 | 5029 |
| 15° | 5106 | 4940 | 4523 |
| 20° | 5135 | 4497 | 4146 |
| 25° | 5083 | 4169 | 3534 |
| 30° | 4779 | 3547 | 3235 |
| 35° | 4701 | 3148 | 2726 |
| 40° | 4516 | 2734 | 2198 |
| 45° | 4236 | 2215 | 1769 |
| 50° | 3726 | 1724 | 1454 |
| 55° | 3281 | 1258 | 1022 |
| 60° | 1851 | 834  | 536  |
| 65° | 358  | 329  | 279  |
| 70° | 94   | 88   | 46   |
| 75° | 47   | 45   | 13   |
| 80° | 27   | 29   | 6    |
| 85° | 8    | 13   | 3    |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture | % Lamp |
|-----------|--------|-----------|--------|
| 0°-10°    | 112.6  | 1.5       | 1.3    |
| 10°-20°   | 316.4  | 4.3       | 3.5    |
| 20°-30°   | 443.9  | 6.0       | 4.9    |
| 30°-40°   | 476.2  | 6.5       | 5.3    |
| 40°-50°   | 410.5  | 5.6       | 4.6    |
| 50°-60°   | 259.4  | 3.5       | 2.9    |
| 60°-70°   | 67.7   | 0.9       | 0.8    |
| 70°-80°   | 6.7    | 0.1       | 0.1    |
| 80°-90°   | 3.3    | 0.0       | 0.0    |
| 90°-100°  | 112.7  | 1.5       | 1.3    |
| 100°-110° | 491.2  | 6.7       | 5.5    |
| 110°-120° | 881.4  | 12.0      | 9.8    |
| 120°-130° | 959.3  | 13.0      | 10.7   |
| 130°-140° | 899.3  | 12.2      | 10.0   |
| 140°-150° | 786.7  | 10.7      | 8.7    |
| 150°-160° | 624.1  | 8.5       | 6.9    |
| 160°-170° | 388.4  | 5.3       | 4.3    |
| 170°-180° | 129.2  | 1.8       | 1.4    |
| 0°-30°    | 872.9  | 11.8      | 9.7    |
| 0°-40°    | 1349.1 | 18.3      | 15.0   |
| 0°-60°    | 2019.1 | 27.4      | 22.4   |
| 0°-90°    | 2096.8 | 28.5      | 23.3   |
| 90°-120°  | 1485.2 | 20.2      | 16.5   |
| 90°-150°  | 4130.6 | 56.1      | 45.9   |
| 90°-180°  | 5272.0 | 71.5      | 58.6   |
| 0°-180°   | 7368.9 | 100.0     | 81.9   |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1248 | 1248  | 1248 | 1248  | 1248 |      |
| 5°   | 1170 | 1166  | 1172 | 1160  | 1242 | 110  |
| 15°  | 1081 | 1146  | 1151 | 1144  | 1082 | 307  |
| 25°  | 1026 | 1017  | 986  | 913   | 872  | 467  |
| 35°  | 874  | 864   | 733  | 694   | 672  | 544  |
| 45°  | 695  | 630   | 492  | 448   | 423  | 530  |
| 55°  | 451  | 346   | 258  | 234   | 229  | 378  |
| 65°  | 38   | 41    | 60   | 61    | 56   | 76   |
| 75°  | 3    | 7     | 7    | 4     | 2    | 4    |
| 85°  | 0    | 1     | 2    | 1     | 0    | 1    |
| 90°  | 6    | 8     | 8    | 7     | 7    | 13   |
| 95°  | 81   | 114   | 75   | 71    | 69   | 90   |
| 105° | 276  | 491   | 563  | 434   | 389  | 297  |
| 115° | 503  | 696   | 986  | 1144  | 1172 | 498  |
| 125° | 727  | 863   | 1089 | 1293  | 1378 | 649  |
| 135° | 919  | 1057  | 1162 | 1298  | 1370 | 711  |
| 145° | 1064 | 1204  | 1300 | 1311  | 1312 | 675  |
| 155° | 1210 | 1301  | 1346 | 1448  | 1453 | 562  |
| 165° | 1270 | 1334  | 1390 | 1411  | 1416 | 361  |
| 175° | 1308 | 1289  | 1386 | 1345  | 1365 | 125  |
| 180° | 1349 | 1349  | 1349 | 1349  | 1349 |      |



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**CANDELA DISTRIBUTION (FULL):**

|      | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|------|--------|--------|--------|--------|--------|
| 0°   | 1248.4 | 1248.4 | 1248.4 | 1248.4 | 1248.4 |
| 5°   | 1169.6 | 1166.4 | 1172.3 | 1160.0 | 1241.8 |
| 10°  | 1107.7 | 1125.9 | 1221.5 | 1163.4 | 1170.3 |
| 15°  | 1081.3 | 1145.9 | 1151.3 | 1144.5 | 1081.8 |
| 20°  | 1066.0 | 1089.6 | 1060.1 | 1042.3 | 1010.9 |
| 25°  | 1026.2 | 1017.3 | 986.4  | 913.0  | 871.5  |
| 30°  | 930.0  | 962.3  | 836.0  | 791.9  | 800.9  |
| 35°  | 873.7  | 864.4  | 733.4  | 693.8  | 672.1  |
| 40°  | 793.4  | 748.3  | 624.8  | 559.3  | 535.8  |
| 45°  | 695.4  | 630.3  | 492.4  | 448.1  | 422.9  |
| 50°  | 564.2  | 508.0  | 369.6  | 336.7  | 338.1  |
| 55°  | 451.2  | 346.2  | 257.8  | 233.6  | 229.3  |
| 60°  | 226.9  | 175.4  | 161.7  | 129.2  | 114.8  |
| 65°  | 38.2   | 40.8   | 59.6   | 60.8   | 56.5   |
| 70°  | 8.5    | 12.5   | 14.7   | 13.7   | 8.8    |
| 75°  | 3.4    | 6.8    | 6.8    | 4.0    | 2.2    |
| 80°  | 1.5    | 3.7    | 4.0    | 2.1    | 0.9    |
| 85°  | 0.3    | 1.0    | 1.5    | 1.0    | 0.4    |
| 90°  | 6.1    | 7.5    | 7.6    | 7.4    | 7.4    |
| 95°  | 81.0   | 114.2  | 74.8   | 71.1   | 68.8   |
| 100° | 176.6  | 323.5  | 237.5  | 205.4  | 204.4  |
| 105° | 276.1  | 490.9  | 562.9  | 434.2  | 388.9  |
| 110° | 396.8  | 588.1  | 856.0  | 826.9  | 767.3  |
| 115° | 502.9  | 696.4  | 986.5  | 1143.8 | 1172.1 |
| 120° | 610.1  | 775.1  | 1036.2 | 1257.6 | 1351.1 |
| 125° | 727.1  | 863.3  | 1089.2 | 1293.2 | 1378.4 |
| 130° | 838.2  | 954.0  | 1095.7 | 1319.5 | 1374.2 |
| 135° | 919.0  | 1056.8 | 1161.5 | 1297.9 | 1369.6 |
| 140° | 1004.2 | 1137.1 | 1214.2 | 1269.1 | 1349.0 |
| 145° | 1064.2 | 1203.7 | 1300.3 | 1310.7 | 1312.3 |
| 150° | 1174.4 | 1265.9 | 1332.7 | 1385.8 | 1383.4 |
| 155° | 1209.5 | 1301.1 | 1346.5 | 1448.3 | 1452.9 |
| 160° | 1276.4 | 1322.2 | 1372.1 | 1413.7 | 1456.0 |
| 165° | 1269.9 | 1334.3 | 1390.1 | 1411.4 | 1415.5 |
| 170° | 1285.3 | 1370.3 | 1386.1 | 1400.6 | 1387.2 |
| 175° | 1307.7 | 1289.1 | 1385.6 | 1345.3 | 1365.2 |
| 180° | 1348.7 | 1348.7 | 1348.7 | 1348.7 | 1348.7 |

(END OF REPORT)