

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: 89313

Luminaire Tested: **VB-SB-2T5-DL-7**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: 89313
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: CORELITE
Catalog Number: VB-SB-2T5-DL-7
Description: CORELITE VERTECHS SUSPENDED LUMINAIRE
WHITE INTERIOR WITH SPECULAR REFLECTORS AND 19 CELL SEMI-SPECULAR LOUVER
BLADE
WITH DOWNLIGHT ISOLATORS
Light Source: 54 WATT T5 LAMPS
FP54T5/841HO. LUMEN RATING = 4500 LMS.
Ballast/Driver: -

Summary

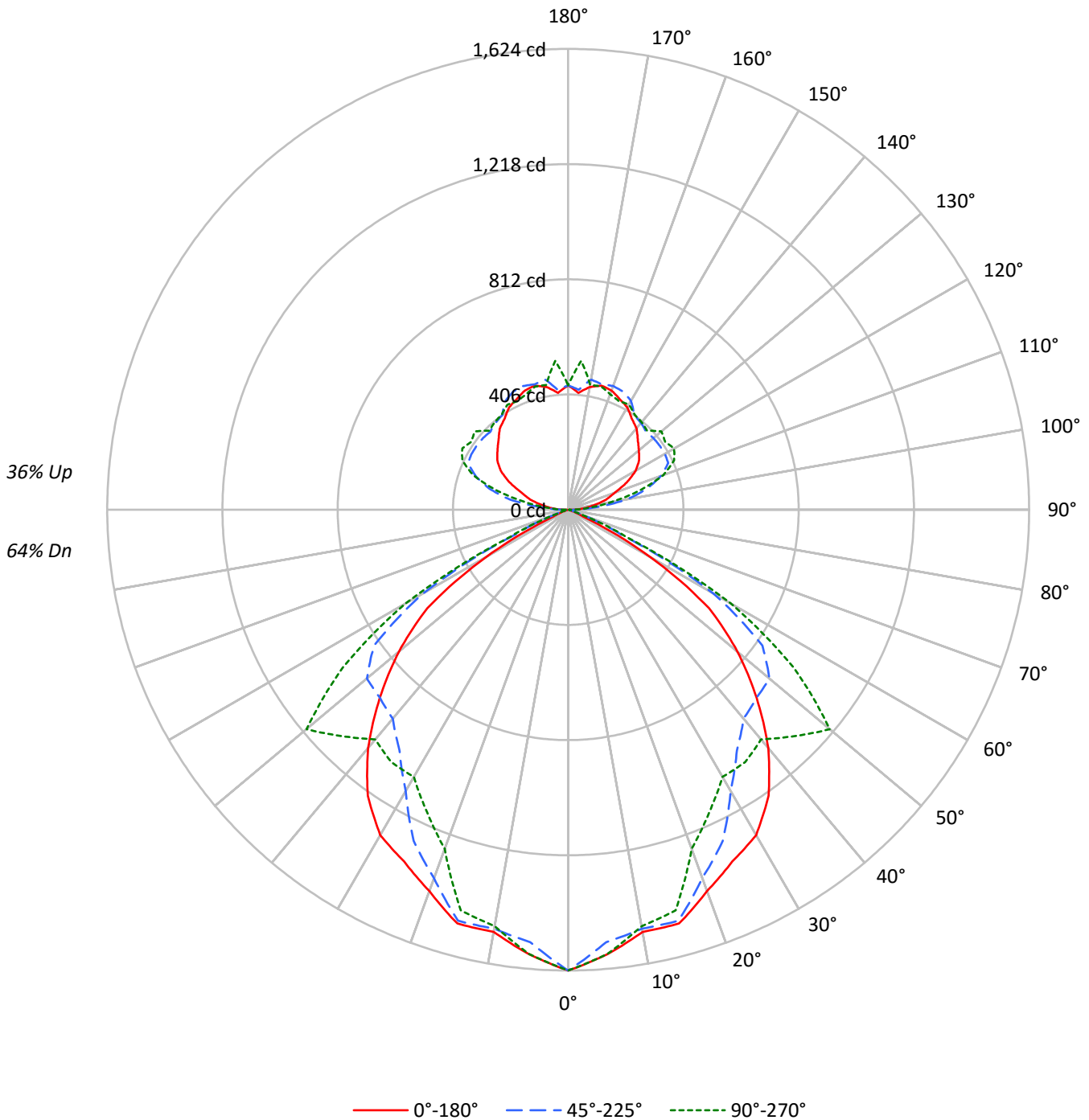
Lumens per Lamp: 4500 (2 lamps)
Luminaire Lumens: 5536.4 lumens
Efficiency: 61.5%
Efficacy: 46.9 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.01 / 1.25
Luminous Opening: Rectangular w/ Sides (W: 0.57' x L: 4.02' x H: 0.33')
CIE Type: Semi-Direct

Input Watts (W): 118
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 | 68 | 68 | 68 | 68 | 64 | 64 | 64 | 64 | 56 | 56 | 56 | 49 | 49 | 49 | 43 | 43 | 43 | 39 |
| 1 | 63 | 60 | 58 | 56 | 59 | 57 | 55 | 53 | 50 | 49 | 48 | 44 | 43 | 42 | 39 | 38 | 37 | 35 |
| 2 | 58 | 53 | 50 | 47 | 54 | 50 | 47 | 45 | 45 | 42 | 40 | 40 | 38 | 36 | 35 | 34 | 32 | 30 |
| 3 | 53 | 47 | 43 | 40 | 50 | 45 | 41 | 38 | 40 | 37 | 35 | 35 | 33 | 31 | 31 | 30 | 28 | 26 |
| 4 | 49 | 42 | 37 | 34 | 46 | 40 | 36 | 32 | 36 | 32 | 30 | 32 | 29 | 27 | 28 | 26 | 24 | 23 |
| 5 | 45 | 38 | 33 | 29 | 42 | 36 | 31 | 28 | 32 | 29 | 26 | 29 | 26 | 24 | 25 | 23 | 21 | 20 |
| 6 | 41 | 34 | 29 | 25 | 39 | 32 | 28 | 25 | 29 | 25 | 23 | 26 | 23 | 21 | 23 | 21 | 19 | 17 |
| 7 | 38 | 31 | 26 | 22 | 36 | 29 | 25 | 22 | 26 | 23 | 20 | 24 | 21 | 18 | 21 | 19 | 17 | 15 |
| 8 | 35 | 28 | 23 | 20 | 33 | 27 | 22 | 19 | 24 | 20 | 18 | 22 | 19 | 16 | 19 | 17 | 15 | 14 |
| 9 | 33 | 26 | 21 | 18 | 31 | 24 | 20 | 17 | 22 | 18 | 16 | 20 | 17 | 15 | 18 | 15 | 14 | 12 |
| 10 | 31 | 23 | 19 | 16 | 29 | 22 | 18 | 16 | 20 | 17 | 14 | 18 | 15 | 13 | 17 | 14 | 12 | 11 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 7572 | 7572 | 7572 |
| 5° | 7309 | 6880 | 7003 |
| 10° | 7049 | 6560 | 6405 |
| 15° | 7129 | 6435 | 6111 |
| 20° | 6889 | 5861 | 5215 |
| 25° | 6776 | 5442 | 4768 |
| 30° | 6804 | 4856 | 4392 |
| 35° | 6620 | 4444 | 4405 |
| 40° | 6240 | 4207 | 4335 |
| 45° | 5719 | 4218 | 4718 |
| 50° | 5143 | 4316 | 5174 |
| 55° | 4408 | 4074 | 4321 |
| 60° | 2749 | 3057 | 3084 |
| 65° | 571 | 1131 | 1099 |
| 70° | 166 | 261 | 207 |
| 75° | 107 | 129 | 74 |
| 80° | 73 | 86 | 30 |
| 85° | 83 | 74 | 25 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture | % Lamp |
|-----------|--------|-----------|--------|
| 0°-10° | 148.5 | 2.7 | 1.6 |
| 10°-20° | 414.2 | 7.5 | 4.6 |
| 20°-30° | 588.0 | 10.6 | 6.5 |
| 30°-40° | 690.5 | 12.5 | 7.7 |
| 40°-50° | 756.9 | 13.7 | 8.4 |
| 50°-60° | 693.1 | 12.5 | 7.7 |
| 60°-70° | 228.7 | 4.1 | 2.5 |
| 70°-80° | 20.7 | 0.4 | 0.2 |
| 80°-90° | 11.5 | 0.2 | 0.1 |
| 90°-100° | 103.2 | 1.9 | 1.1 |
| 100°-110° | 259.4 | 4.7 | 2.9 |
| 110°-120° | 340.8 | 6.2 | 3.8 |
| 120°-130° | 344.0 | 6.2 | 3.8 |
| 130°-140° | 301.6 | 5.4 | 3.4 |
| 140°-150° | 260.1 | 4.7 | 2.9 |
| 150°-160° | 204.2 | 3.7 | 2.3 |
| 160°-170° | 128.1 | 2.3 | 1.4 |
| 170°-180° | 43.1 | 0.8 | 0.5 |
| 0°-30° | 1150.7 | 20.8 | 12.8 |
| 0°-40° | 1841.1 | 33.3 | 20.5 |
| 0°-60° | 3291.2 | 59.4 | 36.6 |
| 0°-90° | 3552.0 | 64.2 | 39.5 |
| 90°-120° | 703.3 | 12.7 | 7.8 |
| 90°-150° | 1609.0 | 29.1 | 17.9 |
| 90°-180° | 1984.0 | 35.8 | 22.0 |
| 0°-180° | 5536.4 | 100.0 | 61.5 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 1624 | 1624 | 1624 | 1624 | 1624 | |
| 5° | 1573 | 1557 | 1530 | 1620 | 1572 | 149 |
| 15° | 1510 | 1517 | 1500 | 1450 | 1462 | 421 |
| 25° | 1368 | 1333 | 1288 | 1189 | 1176 | 634 |
| 35° | 1230 | 1159 | 1036 | 1064 | 1086 | 764 |
| 45° | 939 | 854 | 938 | 1076 | 1128 | 724 |
| 55° | 606 | 639 | 835 | 974 | 969 | 519 |
| 65° | 61 | 104 | 205 | 257 | 223 | 116 |
| 75° | 8 | 14 | 20 | 21 | 13 | 9 |
| 85° | 3 | 5 | 9 | 8 | 4 | 3 |
| 90° | 12 | 18 | 19 | 33 | 16 | 12 |
| 95° | 58 | 104 | 95 | 103 | 68 | 51 |
| 105° | 138 | 229 | 287 | 289 | 259 | 143 |
| 115° | 227 | 295 | 389 | 394 | 411 | 223 |
| 125° | 305 | 350 | 393 | 443 | 417 | 271 |
| 135° | 347 | 380 | 388 | 403 | 394 | 269 |
| 145° | 391 | 430 | 406 | 420 | 408 | 246 |
| 155° | 430 | 441 | 459 | 433 | 422 | 199 |
| 165° | 452 | 454 | 457 | 441 | 449 | 127 |
| 175° | 413 | 462 | 424 | 474 | 526 | 41 |
| 180° | 438 | 438 | 438 | 438 | 438 | |



TEST NUMBER: 89313

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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|------|--------|--------|--------|--------|--------|
| 0° | 1624.1 | 1624.1 | 1624.1 | 1624.1 | 1624.1 |
| 5° | 1573.1 | 1557.4 | 1530.0 | 1619.9 | 1571.9 |
| 10° | 1510.6 | 1512.8 | 1499.4 | 1537.5 | 1490.4 |
| 15° | 1509.6 | 1517.2 | 1499.6 | 1450.2 | 1461.5 |
| 20° | 1430.2 | 1461.4 | 1381.6 | 1318.8 | 1271.6 |
| 25° | 1367.8 | 1332.9 | 1287.7 | 1188.7 | 1176.0 |
| 30° | 1324.1 | 1274.4 | 1144.7 | 1099.6 | 1087.2 |
| 35° | 1230.4 | 1159.2 | 1035.6 | 1063.9 | 1086.2 |
| 40° | 1096.2 | 1008.9 | 961.5 | 1021.4 | 1056.6 |
| 45° | 938.9 | 853.7 | 937.8 | 1075.7 | 1127.9 |
| 50° | 778.8 | 724.9 | 925.3 | 1140.0 | 1203.2 |
| 55° | 606.2 | 638.9 | 834.7 | 973.9 | 969.1 |
| 60° | 337.0 | 439.9 | 592.4 | 627.8 | 660.8 |
| 65° | 60.9 | 104.5 | 205.0 | 257.2 | 222.8 |
| 70° | 14.9 | 24.6 | 43.6 | 55.6 | 39.3 |
| 75° | 7.8 | 13.6 | 19.6 | 21.0 | 12.9 |
| 80° | 4.0 | 7.6 | 11.7 | 11.1 | 4.8 |
| 85° | 3.0 | 4.8 | 8.8 | 7.7 | 3.6 |
| 90° | 11.7 | 17.7 | 19.0 | 33.3 | 16.3 |
| 95° | 58.2 | 103.6 | 94.8 | 103.0 | 67.7 |
| 100° | 90.7 | 178.7 | 209.2 | 193.4 | 152.4 |
| 105° | 138.2 | 228.7 | 287.4 | 288.9 | 259.2 |
| 110° | 173.0 | 265.0 | 346.6 | 342.1 | 356.2 |
| 115° | 227.4 | 295.0 | 388.6 | 394.0 | 411.4 |
| 120° | 273.7 | 318.9 | 393.4 | 421.8 | 431.1 |
| 125° | 305.3 | 350.5 | 393.2 | 443.3 | 416.7 |
| 130° | 324.8 | 367.3 | 392.1 | 417.4 | 428.8 |
| 135° | 346.7 | 379.6 | 388.1 | 403.3 | 393.7 |
| 140° | 374.2 | 395.5 | 399.1 | 413.7 | 402.5 |
| 145° | 390.7 | 429.8 | 406.0 | 420.0 | 408.3 |
| 150° | 416.2 | 430.1 | 442.4 | 432.0 | 427.6 |
| 155° | 429.5 | 440.6 | 458.7 | 432.9 | 422.3 |
| 160° | 446.9 | 483.0 | 463.7 | 438.6 | 432.7 |
| 165° | 452.5 | 453.9 | 457.4 | 441.4 | 449.2 |
| 170° | 438.9 | 436.2 | 465.2 | 448.2 | 446.4 |
| 175° | 413.2 | 461.7 | 424.2 | 474.4 | 526.4 |
| 180° | 437.9 | 437.9 | 437.9 | 437.9 | 437.9 |

(END OF REPORT)