

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: 89343

Luminaire Tested: **VB-SH-2T5-DL-1**

Issue Date: 3/3/2020

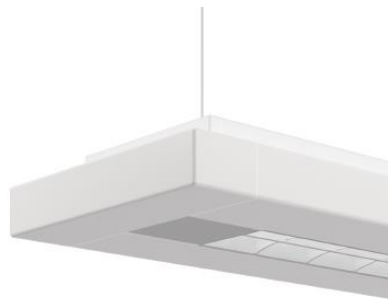
Test Information

Test Method: LM-41-14
Report Number: 89343
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: CORELITE
Catalog Number: VB-SH-2T5-DL-1
Description: CORELITE VERTECHS SUSPENDED LUMINAIRE
WHITE INTERIOR WITH SPECULAR REFLECTORS AND 38 CELL HI PERFORMANCE LOUVER
BLADE
WITH DOWNLIGHT ISOLATORS
Light Source: 54 WATT T5 LAMPS
FP54T5/841HO. LUMEN RATING = 4500 LMS.
Ballast/Driver: -

Summary

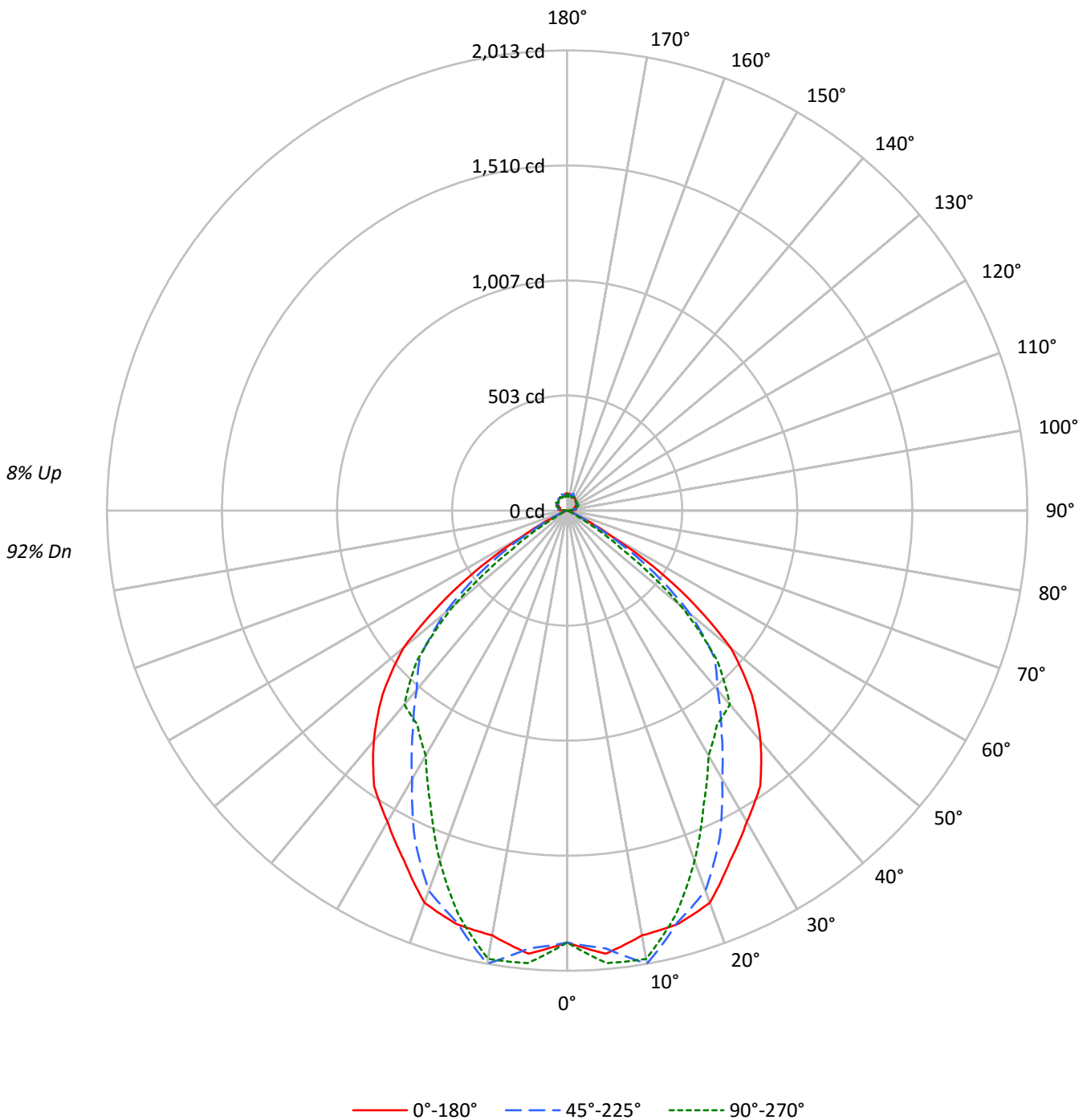
Lumens per Lamp: 4500 (2 lamps)
Luminaire Lumens: 3725.0 lumens
Efficiency: 41.4%
Efficacy: 31.6 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.02 / 1.18
Luminous Opening: Rectangular w/ Sides (W: 0.57' x L: 3.98' x H: 0.33')
CIE Type: Direct

Input Watts (W): 118
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 | | | | | | | | | | |
| 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 | 50 | 30 | 10 | 0 | | | | | | | | | | | | | | |
| RCR | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0 | 48 | 48 | 48 | 48 | 47 | 47 | 47 | 47 | 44 | 44 | 44 | 42 | 42 | 42 | 39 | 39 | 39 | 38 | 38 | 38 | 37 | 36 | 36 | 35 | 34 | | | | | | | | | | | | | |
| 1 | 45 | 44 | 43 | 42 | 44 | 43 | 42 | 41 | 40 | 40 | 39 | 38 | 38 | 37 | 36 | 36 | 35 | 34 | 34 | 33 | 33 | 32 | 32 | 31 | 31 | | | | | | | | | | | | | |
| 2 | 42 | 40 | 38 | 36 | 41 | 39 | 37 | 35 | 37 | 35 | 34 | 35 | 34 | 33 | 33 | 32 | 32 | 31 | 31 | 30 | 32 | 30 | 29 | 31 | 29 | 28 | | | | | | | | | | | | |
| 3 | 39 | 36 | 33 | 31 | 38 | 35 | 33 | 31 | 33 | 31 | 30 | 32 | 30 | 29 | 31 | 29 | 28 | 27 | 27 | 26 | 29 | 27 | 26 | 28 | 26 | 25 | | | | | | | | | | | | |
| 4 | 37 | 33 | 30 | 27 | 35 | 32 | 29 | 27 | 30 | 28 | 26 | 29 | 27 | 26 | 28 | 26 | 25 | 24 | 24 | 23 | 27 | 25 | 23 | 26 | 24 | 22 | | | | | | | | | | | | |
| 5 | 34 | 30 | 27 | 24 | 33 | 29 | 26 | 24 | 28 | 25 | 23 | 27 | 25 | 23 | 26 | 24 | 22 | 22 | 21 | 25 | 22 | 21 | 24 | 22 | 20 | 19 | | | | | | | | | | | | |
| 6 | 32 | 27 | 24 | 22 | 31 | 27 | 24 | 21 | 25 | 23 | 21 | 25 | 22 | 21 | 24 | 22 | 20 | 19 | 19 | 23 | 20 | 19 | 22 | 20 | 18 | 18 | | | | | | | | | | | | |
| 7 | 30 | 25 | 22 | 19 | 29 | 24 | 21 | 19 | 23 | 21 | 19 | 23 | 20 | 19 | 22 | 20 | 18 | 17 | 17 | 22 | 19 | 17 | 20 | 18 | 17 | 16 | | | | | | | | | | | | |
| 8 | 28 | 23 | 20 | 18 | 27 | 22 | 20 | 17 | 22 | 19 | 17 | 21 | 19 | 17 | 20 | 18 | 17 | 16 | 16 | 20 | 17 | 15 | 19 | 17 | 15 | 15 | | | | | | | | | | | | |
| 9 | 26 | 21 | 18 | 16 | 25 | 21 | 18 | 16 | 20 | 17 | 16 | 19 | 17 | 15 | 19 | 17 | 15 | 14 | 14 | 19 | 17 | 15 | 19 | 17 | 15 | 15 | | | | | | | | | | | | |
| 10 | 24 | 20 | 17 | 15 | 24 | 19 | 16 | 15 | 19 | 16 | 14 | 18 | 16 | 14 | 17 | 15 | 14 | 13 | 13 | 18 | 16 | 14 | 17 | 15 | 14 | 13 | | | | | | | | | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 8888 | 8888 | 8888 |
| 5° | 9122 | 8720 | 8934 |
| 10° | 8883 | 8884 | 8636 |
| 15° | 8921 | 8072 | 7731 |
| 20° | 8869 | 7571 | 6744 |
| 25° | 8436 | 6730 | 5788 |
| 30° | 8148 | 5804 | 5043 |
| 35° | 7989 | 5093 | 4676 |
| 40° | 7556 | 4521 | 4584 |
| 45° | 7022 | 4135 | 3921 |
| 50° | 6220 | 3290 | 2816 |
| 55° | 4351 | 2153 | 1301 |
| 60° | 1858 | 919 | 301 |
| 65° | 423 | 263 | 72 |
| 70° | 169 | 133 | 32 |
| 75° | 128 | 90 | 15 |
| 80° | 90 | 63 | 6 |
| 85° | 111 | 39 | 9 |



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CATALOG NUMBER: VB-SH-2T5-DL-1

ZONAL LUMENS:

| Zone | Lumens | % Fixture | % Lamp |
|-----------|--------|-----------|--------|
| 0°-10° | 187.2 | 5.0 | 2.1 |
| 10°-20° | 525.4 | 14.1 | 5.8 |
| 20°-30° | 720.5 | 19.3 | 8.0 |
| 30°-40° | 787.0 | 21.1 | 8.7 |
| 40°-50° | 737.1 | 19.8 | 8.2 |
| 50°-60° | 389.0 | 10.4 | 4.3 |
| 60°-70° | 59.5 | 1.6 | 0.7 |
| 70°-80° | 10.9 | 0.3 | 0.1 |
| 80°-90° | 6.3 | 0.2 | 0.1 |
| 90°-100° | 26.6 | 0.7 | 0.3 |
| 100°-110° | 39.6 | 1.1 | 0.4 |
| 110°-120° | 47.4 | 1.3 | 0.5 |
| 120°-130° | 47.8 | 1.3 | 0.5 |
| 130°-140° | 43.9 | 1.2 | 0.5 |
| 140°-150° | 39.7 | 1.1 | 0.4 |
| 150°-160° | 31.0 | 0.8 | 0.3 |
| 160°-170° | 19.4 | 0.5 | 0.2 |
| 170°-180° | 6.6 | 0.2 | 0.1 |
| 0°-30° | 1433.0 | 38.5 | 15.9 |
| 0°-40° | 2220.0 | 59.6 | 24.7 |
| 0°-60° | 3346.1 | 89.8 | 37.2 |
| 0°-90° | 3422.8 | 91.9 | 38.0 |
| 90°-120° | 113.6 | 3.1 | 1.3 |
| 90°-150° | 245.0 | 6.6 | 2.7 |
| 90°-180° | 302.0 | 8.1 | 3.4 |
| 0°-180° | 3725.0 | 100.0 | 41.4 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 1889 | 1889 | 1889 | 1889 | 1889 | |
| 5° | 1946 | 1891 | 1922 | 2091 | 1987 | 183 |
| 15° | 1873 | 1889 | 1864 | 1868 | 1833 | 528 |
| 25° | 1688 | 1710 | 1578 | 1403 | 1415 | 781 |
| 35° | 1472 | 1392 | 1177 | 1133 | 1143 | 914 |
| 45° | 1143 | 1027 | 912 | 930 | 929 | 875 |
| 55° | 594 | 486 | 437 | 344 | 289 | 522 |
| 65° | 45 | 45 | 47 | 26 | 14 | 81 |
| 75° | 9 | 13 | 14 | 7 | 3 | 10 |
| 85° | 4 | 4 | 5 | 3 | 1 | 4 |
| 90° | 15 | 14 | 10 | 7 | 4 | 10 |
| 95° | 39 | 41 | 25 | 16 | 13 | 25 |
| 105° | 31 | 41 | 40 | 36 | 33 | 34 |
| 115° | 40 | 43 | 53 | 53 | 54 | 39 |
| 125° | 52 | 50 | 51 | 58 | 60 | 45 |
| 135° | 51 | 58 | 54 | 60 | 57 | 42 |
| 145° | 62 | 64 | 66 | 67 | 60 | 39 |
| 155° | 62 | 69 | 66 | 67 | 65 | 29 |
| 165° | 66 | 66 | 68 | 68 | 69 | 19 |
| 175° | 74 | 75 | 63 | 71 | 60 | 7 |
| 180° | 74 | 74 | 74 | 74 | 74 | |



TEST NUMBER: 89343

CATALOG NUMBER: VB-SH-2T5-DL-1

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|------|--------|--------|--------|--------|--------|
| 0° | 1889.4 | 1889.4 | 1889.4 | 1889.4 | 1889.4 |
| 5° | 1945.8 | 1890.7 | 1922.0 | 2090.7 | 1987.4 |
| 10° | 1887.0 | 1986.8 | 2012.9 | 1962.9 | 1991.6 |
| 15° | 1872.6 | 1888.9 | 1864.5 | 1868.3 | 1832.7 |
| 20° | 1825.3 | 1834.1 | 1769.2 | 1627.4 | 1629.8 |
| 25° | 1688.5 | 1709.6 | 1578.5 | 1403.2 | 1414.9 |
| 30° | 1572.2 | 1587.0 | 1356.2 | 1241.5 | 1237.2 |
| 35° | 1472.2 | 1392.3 | 1176.6 | 1132.6 | 1142.9 |
| 40° | 1316.5 | 1189.3 | 1024.4 | 1078.9 | 1107.4 |
| 45° | 1143.4 | 1027.0 | 911.5 | 930.3 | 929.0 |
| 50° | 934.2 | 786.6 | 699.4 | 703.1 | 649.1 |
| 55° | 593.6 | 486.3 | 437.4 | 343.9 | 289.2 |
| 60° | 226.0 | 189.3 | 176.6 | 99.9 | 63.9 |
| 65° | 44.8 | 44.9 | 47.2 | 25.9 | 14.4 |
| 70° | 15.1 | 19.8 | 22.0 | 11.9 | 6.1 |
| 75° | 9.2 | 12.7 | 13.5 | 6.8 | 2.6 |
| 80° | 4.9 | 8.0 | 8.5 | 3.5 | 0.9 |
| 85° | 4.0 | 4.4 | 4.6 | 2.6 | 1.2 |
| 90° | 15.1 | 14.5 | 10.3 | 7.0 | 4.5 |
| 95° | 38.9 | 41.1 | 25.1 | 16.4 | 12.9 |
| 100° | 34.3 | 42.8 | 33.3 | 26.5 | 25.0 |
| 105° | 30.6 | 40.8 | 40.4 | 36.1 | 32.8 |
| 110° | 32.5 | 40.0 | 46.8 | 45.8 | 41.0 |
| 115° | 39.6 | 43.4 | 52.6 | 52.8 | 53.9 |
| 120° | 44.9 | 46.8 | 53.4 | 55.7 | 51.9 |
| 125° | 51.5 | 49.5 | 50.9 | 58.3 | 60.1 |
| 130° | 54.4 | 53.3 | 50.2 | 62.2 | 51.9 |
| 135° | 51.4 | 58.2 | 54.4 | 59.5 | 56.8 |
| 140° | 58.3 | 61.3 | 57.3 | 60.6 | 56.3 |
| 145° | 61.8 | 63.5 | 66.0 | 67.1 | 59.9 |
| 150° | 65.8 | 64.8 | 70.3 | 62.7 | 63.0 |
| 155° | 62.2 | 69.0 | 66.2 | 66.7 | 65.0 |
| 160° | 62.2 | 69.3 | 78.5 | 71.2 | 60.3 |
| 165° | 65.5 | 66.4 | 68.5 | 68.4 | 68.7 |
| 170° | 71.5 | 69.3 | 68.6 | 70.8 | 61.8 |
| 175° | 74.2 | 74.8 | 63.2 | 70.9 | 59.6 |
| 180° | 74.3 | 74.3 | 74.3 | 74.3 | 74.3 |

(END OF REPORT)