

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: 89351

Luminaire Tested: **VB-SH-3T5-DL-1**

Issue Date: 3/3/2020

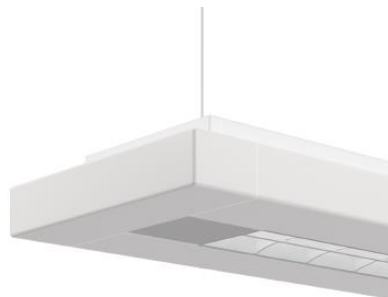
Test Information

Test Method: LM-41-14
Report Number: 89351
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: CORELITE
Catalog Number: VB-SH-3T5-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

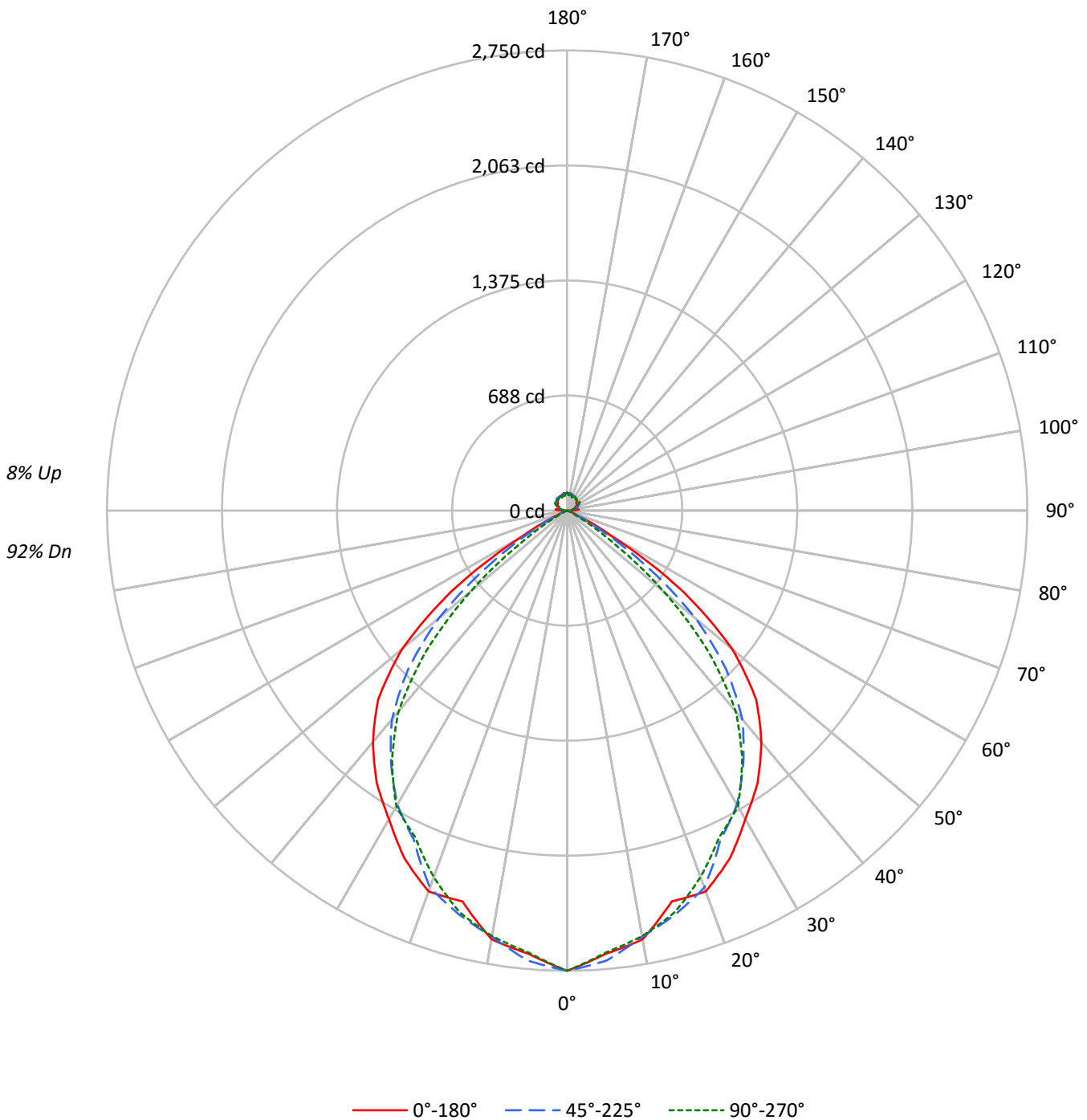
Lumens per Lamp: 4500 (3 lamps)
Luminaire Lumens: 5260.1 lumens
Efficiency: 39.0%
Efficacy: 29.7 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.11 / 1.22
Luminous Opening: Rectangular w/ Sides (W: 0.57' x L: 3.98' x H: 0.33')
CIE Type: Direct

Input Watts (W): 177
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 | 46 | 46 | 46 | 46 | 44 | 44 | 44 | 44 | 41 | 41 | 41 | 39 | 39 | 39 | 37 | 37 | 37 | 36 | | | | | | | | | | | | | | | | | | | | |
| 1 | 43 | 41 | 40 | 39 | 41 | 40 | 39 | 38 | 38 | 37 | 36 | 36 | 35 | 35 | 34 | 34 | 33 | 32 | | | | | | | | | | | | | | | | | | | | |
| 2 | 40 | 37 | 35 | 34 | 39 | 36 | 35 | 33 | 35 | 33 | 32 | 33 | 32 | 31 | 31 | 30 | 30 | 29 | | | | | | | | | | | | | | | | | | | | |
| 3 | 37 | 34 | 31 | 29 | 36 | 33 | 31 | 29 | 31 | 30 | 28 | 30 | 28 | 27 | 29 | 27 | 26 | 25 | | | | | | | | | | | | | | | | | | | | |
| 4 | 34 | 31 | 28 | 26 | 33 | 30 | 27 | 25 | 29 | 26 | 25 | 27 | 26 | 24 | 26 | 25 | 23 | 23 | | | | | | | | | | | | | | | | | | | | |
| 5 | 32 | 28 | 25 | 23 | 31 | 27 | 25 | 23 | 26 | 24 | 22 | 25 | 23 | 22 | 24 | 22 | 21 | 20 | | | | | | | | | | | | | | | | | | | | |
| 6 | 30 | 25 | 22 | 20 | 29 | 25 | 22 | 20 | 24 | 22 | 20 | 23 | 21 | 19 | 22 | 20 | 19 | 18 | | | | | | | | | | | | | | | | | | | | |
| 7 | 28 | 23 | 20 | 18 | 27 | 23 | 20 | 18 | 22 | 20 | 18 | 21 | 19 | 17 | 20 | 19 | 17 | 16 | | | | | | | | | | | | | | | | | | | | |
| 8 | 26 | 21 | 18 | 16 | 25 | 21 | 18 | 16 | 20 | 18 | 16 | 20 | 17 | 16 | 19 | 17 | 16 | 15 | | | | | | | | | | | | | | | | | | | | |
| 9 | 24 | 20 | 17 | 15 | 24 | 19 | 17 | 15 | 19 | 16 | 15 | 18 | 16 | 14 | 18 | 16 | 14 | 14 | | | | | | | | | | | | | | | | | | | | |
| 10 | 23 | 18 | 16 | 14 | 22 | 18 | 15 | 14 | 17 | 15 | 13 | 17 | 15 | 13 | 16 | 14 | 13 | 12 | | | | | | | | | | | | | | | | | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 12937 | 12937 | 12937 |
| 5° | 12465 | 12247 | 11917 |
| 10° | 12246 | 11411 | 11196 |
| 15° | 11521 | 10814 | 10484 |
| 20° | 11767 | 10260 | 9643 |
| 25° | 11473 | 9247 | 8802 |
| 30° | 11034 | 8684 | 8317 |
| 35° | 10768 | 7945 | 7462 |
| 40° | 10361 | 7185 | 6493 |
| 45° | 9805 | 6102 | 5049 |
| 50° | 8579 | 4702 | 3269 |
| 55° | 6227 | 2811 | 1485 |
| 60° | 2636 | 1138 | 351 |
| 65° | 607 | 336 | 99 |
| 70° | 270 | 170 | 46 |
| 75° | 155 | 123 | 21 |
| 80° | 140 | 88 | 7 |
| 85° | 158 | 55 | 14 |



TEST NUMBER: 89351

CATALOG NUMBER: VB-SH-3T5-DL-1

ZONAL LUMENS:

| Zone | Lumens | % Fixture | % Lamp |
|-----------|--------|-----------|--------|
| 0°-10° | 253.2 | 4.8 | 1.9 |
| 10°-20° | 703.2 | 13.4 | 5.2 |
| 20°-30° | 1019.6 | 19.4 | 7.6 |
| 30°-40° | 1170.8 | 22.3 | 8.7 |
| 40°-50° | 1042.3 | 19.8 | 7.7 |
| 50°-60° | 528.4 | 10.0 | 3.9 |
| 60°-70° | 81.4 | 1.5 | 0.6 |
| 70°-80° | 14.8 | 0.3 | 0.1 |
| 80°-90° | 9.0 | 0.2 | 0.1 |
| 90°-100° | 36.7 | 0.7 | 0.3 |
| 100°-110° | 55.7 | 1.1 | 0.4 |
| 110°-120° | 67.8 | 1.3 | 0.5 |
| 120°-130° | 71.7 | 1.4 | 0.5 |
| 130°-140° | 66.1 | 1.3 | 0.5 |
| 140°-150° | 58.4 | 1.1 | 0.4 |
| 150°-160° | 44.4 | 0.8 | 0.3 |
| 160°-170° | 27.1 | 0.5 | 0.2 |
| 170°-180° | 9.5 | 0.2 | 0.1 |
| 0°-30° | 1976.0 | 37.6 | 14.6 |
| 0°-40° | 3146.8 | 59.8 | 23.3 |
| 0°-60° | 4717.5 | 89.7 | 34.9 |
| 0°-90° | 4822.7 | 91.7 | 35.7 |
| 90°-120° | 160.2 | 3.0 | 1.2 |
| 90°-150° | 356.4 | 6.8 | 2.6 |
| 90°-180° | 437.0 | 8.3 | 3.2 |
| 0°-180° | 5260.1 | 100.0 | 39.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 2750 | 2750 | 2750 | 2750 | 2750 | |
| 5° | 2659 | 2620 | 2699 | 2667 | 2651 | 253 |
| 15° | 2418 | 2514 | 2498 | 2466 | 2485 | 697 |
| 25° | 2296 | 2258 | 2169 | 2104 | 2152 | 1055 |
| 35° | 1984 | 1949 | 1835 | 1815 | 1824 | 1238 |
| 45° | 1597 | 1499 | 1345 | 1257 | 1196 | 1213 |
| 55° | 850 | 762 | 571 | 397 | 330 | 735 |
| 65° | 64 | 68 | 60 | 31 | 20 | 116 |
| 75° | 11 | 17 | 18 | 8 | 4 | 14 |
| 85° | 6 | 6 | 6 | 4 | 2 | 7 |
| 90° | 29 | 19 | 13 | 10 | 6 | 18 |
| 95° | 70 | 56 | 29 | 22 | 15 | 43 |
| 105° | 51 | 64 | 51 | 50 | 43 | 55 |
| 115° | 56 | 62 | 73 | 73 | 69 | 58 |
| 125° | 69 | 70 | 79 | 88 | 92 | 63 |
| 135° | 82 | 81 | 86 | 88 | 85 | 63 |
| 145° | 88 | 97 | 93 | 96 | 88 | 56 |
| 155° | 95 | 95 | 94 | 103 | 93 | 44 |
| 165° | 101 | 92 | 92 | 96 | 98 | 29 |
| 175° | 101 | 100 | 91 | 103 | 103 | 10 |
| 180° | 107 | 107 | 107 | 107 | 107 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|------|--------|--------|--------|--------|--------|
| 0° | 2750.1 | 2750.1 | 2750.1 | 2750.1 | 2750.1 |
| 5° | 2659.0 | 2619.8 | 2699.3 | 2667.1 | 2651.0 |
| 10° | 2601.3 | 2642.6 | 2585.4 | 2623.3 | 2582.1 |
| 15° | 2418.4 | 2514.5 | 2498.1 | 2466.0 | 2485.1 |
| 20° | 2421.8 | 2432.5 | 2397.5 | 2329.9 | 2330.3 |
| 25° | 2296.3 | 2257.8 | 2169.0 | 2104.2 | 2151.6 |
| 30° | 2129.0 | 2150.3 | 2029.1 | 2048.8 | 2040.7 |
| 35° | 1984.4 | 1948.9 | 1835.2 | 1815.0 | 1823.8 |
| 40° | 1805.2 | 1733.1 | 1628.0 | 1558.5 | 1568.6 |
| 45° | 1596.6 | 1498.9 | 1345.0 | 1257.3 | 1196.4 |
| 50° | 1288.6 | 1197.7 | 999.5 | 826.2 | 753.5 |
| 55° | 849.6 | 761.9 | 571.1 | 397.4 | 330.0 |
| 60° | 320.6 | 298.7 | 218.7 | 121.3 | 74.5 |
| 65° | 64.3 | 67.5 | 60.3 | 31.2 | 19.8 |
| 70° | 24.1 | 29.3 | 28.2 | 15.4 | 8.7 |
| 75° | 11.2 | 17.2 | 18.5 | 8.2 | 3.6 |
| 80° | 7.6 | 11.3 | 11.8 | 4.6 | 1.1 |
| 85° | 5.7 | 6.5 | 6.5 | 3.8 | 2.0 |
| 90° | 28.7 | 18.7 | 13.1 | 9.5 | 5.9 |
| 95° | 70.5 | 55.6 | 29.4 | 22.5 | 15.1 |
| 100° | 56.3 | 62.1 | 38.4 | 35.9 | 30.6 |
| 105° | 50.8 | 64.4 | 51.2 | 49.5 | 43.4 |
| 110° | 50.1 | 56.9 | 66.5 | 60.5 | 60.9 |
| 115° | 56.0 | 62.5 | 72.6 | 72.7 | 69.3 |
| 120° | 72.6 | 71.5 | 79.7 | 84.4 | 83.1 |
| 125° | 69.0 | 70.3 | 78.9 | 88.4 | 92.0 |
| 130° | 70.5 | 76.6 | 86.4 | 87.6 | 86.1 |
| 135° | 82.2 | 81.4 | 86.2 | 87.7 | 85.4 |
| 140° | 90.5 | 88.9 | 95.9 | 87.6 | 82.9 |
| 145° | 87.6 | 97.2 | 92.8 | 95.7 | 88.5 |
| 150° | 93.4 | 88.1 | 95.6 | 101.5 | 100.8 |
| 155° | 95.2 | 95.4 | 93.8 | 103.3 | 93.4 |
| 160° | 97.0 | 96.8 | 97.7 | 93.2 | 83.7 |
| 165° | 101.3 | 92.0 | 92.0 | 96.1 | 98.0 |
| 170° | 106.0 | 90.6 | 108.1 | 98.3 | 87.3 |
| 175° | 101.0 | 100.1 | 91.4 | 102.8 | 102.8 |
| 180° | 106.6 | 106.6 | 106.6 | 106.6 | 106.6 |

(END OF REPORT)