

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: CORELITE

Report Number: P621903

Luminaire Tested: VLT-FB-150U-100D-840-UNV-STD-W-4

Issue Date: 9/2/2020

Test Information

Test Method: LM-79-2019
Report Number: P621903
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2203-563-26, G2-2203-563-19)
Test Lab: INNOVATION CENTER
Issue Date: 9/2/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: VLT-FB-150U-100D-840-UNV-STD-W-4
Description: CORELITE VAULT SUSPENDED LED LUMINAIRE
LIGHT SHAPING LENS - BATWING
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 1500 LUMENS PER FOOT
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

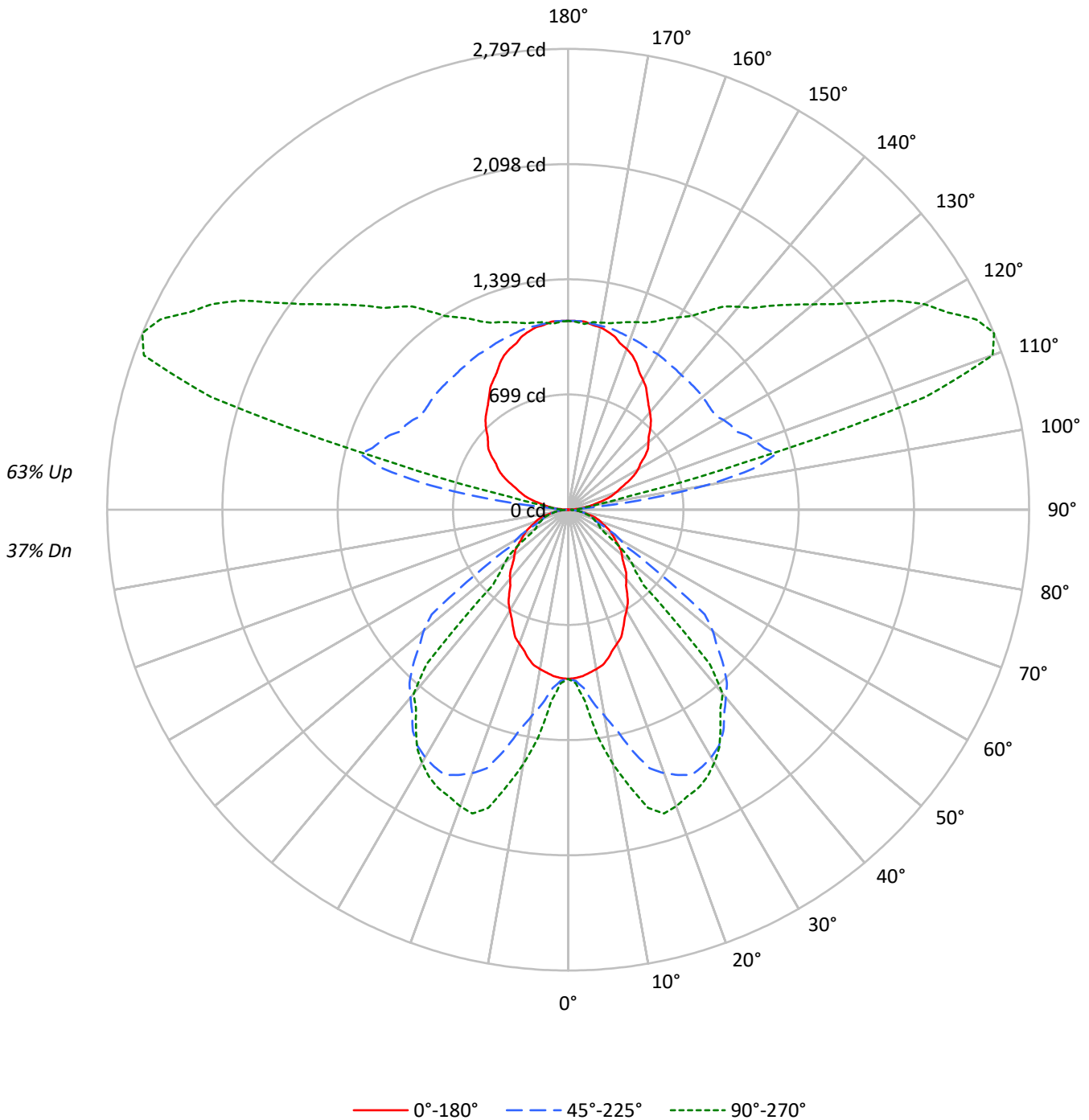
Lumens per Lamp: N/A
Luminaire Lumens: 9838.1 lumens
Efficiency: N/A
Efficacy: 126.5 lumens/watt
Spacing Criteria (0/90/45): 1.05 / 1.83 / 1.75
Luminous Opening: Rectangular (W 0.38' x L: 4' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 77.8
Input Voltage (V): 120
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: 24 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 | 104 | 104 | 104 | 104 | 94 | 94 | 94 | 94 | 76 | 76 | 76 | 60 | 60 | 60 | 45 | 45 | 45 | 37 |
| 1 | 95 | 91 | 88 | 84 | 86 | 83 | 80 | 77 | 67 | 65 | 63 | 53 | 52 | 51 | 40 | 39 | 38 | 32 |
| 2 | 87 | 80 | 75 | 70 | 79 | 73 | 68 | 64 | 60 | 56 | 53 | 47 | 45 | 43 | 36 | 34 | 33 | 28 |
| 3 | 80 | 71 | 64 | 58 | 72 | 65 | 59 | 54 | 53 | 49 | 45 | 42 | 39 | 37 | 32 | 30 | 29 | 24 |
| 4 | 73 | 63 | 55 | 50 | 66 | 58 | 51 | 46 | 47 | 43 | 39 | 38 | 34 | 32 | 29 | 27 | 25 | 21 |
| 5 | 67 | 56 | 48 | 43 | 61 | 51 | 45 | 40 | 42 | 37 | 34 | 34 | 30 | 28 | 26 | 24 | 22 | 18 |
| 6 | 62 | 50 | 43 | 37 | 56 | 46 | 39 | 34 | 38 | 33 | 29 | 31 | 27 | 24 | 24 | 21 | 19 | 16 |
| 7 | 57 | 45 | 38 | 32 | 52 | 42 | 35 | 30 | 35 | 30 | 26 | 28 | 24 | 22 | 22 | 19 | 17 | 15 |
| 8 | 53 | 41 | 34 | 29 | 48 | 38 | 31 | 27 | 31 | 26 | 23 | 26 | 22 | 19 | 20 | 17 | 15 | 13 |
| 9 | 49 | 37 | 30 | 25 | 45 | 35 | 28 | 24 | 29 | 24 | 20 | 23 | 20 | 17 | 18 | 16 | 14 | 12 |
| 10 | 46 | 34 | 27 | 23 | 42 | 32 | 25 | 21 | 26 | 22 | 18 | 22 | 18 | 15 | 17 | 14 | 13 | 11 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|-------|-------|
| 0° | 7365 | 7365 | 7365 |
| 5° | 7303 | 7829 | 8385 |
| 10° | 7159 | 9257 | 11431 |
| 15° | 6943 | 11283 | 13917 |
| 20° | 6611 | 12999 | 14624 |
| 25° | 6260 | 14056 | 14766 |
| 30° | 5860 | 14381 | 14693 |
| 35° | 5464 | 14382 | 14107 |
| 40° | 5139 | 13933 | 13660 |
| 45° | 4890 | 13506 | 6542 |
| 50° | 4751 | 12786 | 5635 |
| 55° | 4619 | 8560 | 4463 |
| 60° | 4491 | 5210 | 3233 |
| 65° | 4393 | 3966 | 3365 |
| 70° | 4333 | 3458 | 3458 |
| 75° | 4223 | 3585 | 3471 |
| 80° | 3707 | 3620 | 3446 |
| 85° | 2750 | 3779 | 3260 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 13506 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 110.7 | 1.1 |
| 10°-20° | 408.1 | 4.1 |
| 20°-30° | 691.2 | 7.0 |
| 30°-40° | 838.5 | 8.5 |
| 40°-50° | 738.0 | 7.5 |
| 50°-60° | 456.7 | 4.6 |
| 60°-70° | 247.6 | 2.5 |
| 70°-80° | 141.1 | 1.4 |
| 80°-90° | 48.7 | 0.5 |
| 90°-100° | 140.9 | 1.4 |
| 100°-110° | 1004.3 | 10.2 |
| 110°-120° | 1363.4 | 13.9 |
| 120°-130° | 1109.7 | 11.3 |
| 130°-140° | 892.5 | 9.1 |
| 140°-150° | 703.6 | 7.2 |
| 150°-160° | 514.5 | 5.2 |
| 160°-170° | 319.6 | 3.2 |
| 170°-180° | 109.0 | 1.1 |
| 0°-30° | 1210.0 | 12.3 |
| 0°-40° | 2048.5 | 20.8 |
| 0°-60° | 3243.2 | 33.0 |
| 0°-90° | 3680.6 | 37.4 |
| 90°-120° | 2508.7 | 25.5 |
| 90°-150° | 5214.5 | 53.0 |
| 90°-180° | 6158.0 | 62.6 |
| 0°-180° | 9838.1 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 1026 | 1026 | 1026 | 1026 | 1026 | |
| 5° | 1014 | 1046 | 1087 | 1133 | 1164 | 96 |
| 15° | 935 | 1077 | 1519 | 1796 | 1873 | 262 |
| 25° | 791 | 1082 | 1775 | 1828 | 1865 | 363 |
| 35° | 624 | 1003 | 1642 | 1619 | 1610 | 391 |
| 45° | 482 | 825 | 1331 | 1128 | 645 | 374 |
| 55° | 369 | 575 | 684 | 396 | 357 | 331 |
| 65° | 259 | 324 | 234 | 200 | 198 | 257 |
| 75° | 152 | 134 | 129 | 127 | 125 | 159 |
| 85° | 33 | 46 | 46 | 42 | 40 | 41 |
| 90° | 0 | 7 | 14 | 22 | 22 | 4 |
| 95° | 58 | 107 | 58 | 65 | 79 | 65 |
| 105° | 224 | 343 | 1305 | 1667 | 1103 | 236 |
| 115° | 396 | 481 | 1125 | 2338 | 2732 | 394 |
| 125° | 570 | 647 | 1060 | 1853 | 2192 | 506 |
| 135° | 706 | 784 | 1067 | 1526 | 1752 | 544 |
| 145° | 836 | 907 | 1074 | 1330 | 1471 | 525 |
| 155° | 980 | 1016 | 1096 | 1205 | 1262 | 450 |
| 165° | 1089 | 1103 | 1125 | 1154 | 1175 | 306 |
| 175° | 1146 | 1153 | 1146 | 1139 | 1132 | 108 |
| 180° | 1146 | 1146 | 1146 | 1146 | 1146 | |



TEST NUMBER: P621903

CATALOG NUMBER: VLT-FB-150U-100D-840-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 1026.3 | 1026.3 | 1026.3 | 1026.3 | 1026.3 |
| 2.5° | 1023.0 | 1034.4 | 1039.7 | 1049.8 | 1054.7 |
| 5° | 1013.8 | 1046.5 | 1086.8 | 1133.4 | 1164.0 |
| 7.5° | 997.6 | 1055.9 | 1183.6 | 1330.7 | 1393.5 |
| 10° | 982.5 | 1062.1 | 1270.4 | 1483.1 | 1568.7 |
| 12.5° | 965.9 | 1068.2 | 1372.2 | 1630.0 | 1717.3 |
| 15° | 934.6 | 1077.3 | 1518.7 | 1795.8 | 1873.3 |
| 17.5° | 894.1 | 1083.0 | 1645.5 | 1883.6 | 1933.4 |
| 20° | 865.7 | 1084.0 | 1702.2 | 1894.6 | 1915.0 |
| 22.5° | 839.0 | 1085.0 | 1742.3 | 1867.8 | 1885.0 |
| 25° | 790.6 | 1082.3 | 1775.2 | 1828.2 | 1864.9 |
| 27.5° | 742.2 | 1070.2 | 1759.0 | 1801.7 | 1828.2 |
| 30° | 707.2 | 1058.0 | 1735.6 | 1771.1 | 1773.2 |
| 32.5° | 673.8 | 1037.7 | 1700.6 | 1710.9 | 1708.1 |
| 35° | 623.7 | 1003.1 | 1641.7 | 1618.6 | 1610.4 |
| 37.5° | 577.0 | 957.2 | 1555.8 | 1518.6 | 1516.6 |
| 40° | 548.6 | 923.9 | 1487.4 | 1452.0 | 1458.2 |
| 42.5° | 521.9 | 885.8 | 1425.6 | 1384.2 | 1269.6 |
| 45° | 481.9 | 824.6 | 1330.9 | 1128.0 | 644.6 |
| 47.5° | 447.3 | 754.8 | 1223.7 | 604.3 | 554.9 |
| 50° | 425.6 | 707.0 | 1145.3 | 531.3 | 504.8 |
| 52.5° | 403.9 | 662.5 | 1043.5 | 477.8 | 443.1 |
| 55° | 369.2 | 575.2 | 684.2 | 395.5 | 356.7 |
| 57.5° | 336.3 | 483.5 | 418.0 | 307.4 | 265.3 |
| 60° | 312.9 | 429.2 | 363.0 | 247.7 | 225.3 |
| 62.5° | 291.2 | 384.6 | 309.6 | 219.8 | 215.3 |
| 65° | 258.7 | 323.9 | 233.6 | 200.2 | 198.2 |
| 67.5° | 228.2 | 266.2 | 178.2 | 180.2 | 178.2 |
| 70° | 206.5 | 224.9 | 164.8 | 166.8 | 164.8 |
| 72.5° | 186.5 | 185.3 | 151.4 | 150.2 | 148.1 |
| 75° | 152.3 | 133.9 | 129.3 | 127.2 | 125.2 |
| 77.5° | 116.4 | 98.9 | 104.3 | 102.2 | 100.1 |
| 80° | 89.7 | 83.6 | 87.6 | 85.5 | 83.4 |
| 82.5° | 66.3 | 68.4 | 70.9 | 67.1 | 65.1 |
| 85° | 33.4 | 45.6 | 45.9 | 41.7 | 39.6 |
| 87.5° | 10.0 | 21.2 | 21.2 | 19.3 | 17.7 |
| 90° | 0.0 | 7.0 | 14.4 | 21.6 | 21.6 |
| 92.5° | 17.3 | 24.4 | 31.7 | 44.8 | 50.5 |
| 95° | 57.7 | 107.0 | 57.7 | 65.2 | 79.3 |
| 97.5° | 102.4 | 205.3 | 423.9 | 125.1 | 108.1 |
| 100° | 137.0 | 256.8 | 850.7 | 250.4 | 165.8 |
| 102.5° | 171.6 | 297.1 | 1150.6 | 660.8 | 361.9 |
| 105° | 223.5 | 343.3 | 1304.9 | 1667.0 | 1103.0 |
| 107.5° | 275.4 | 365.6 | 1245.8 | 2426.1 | 2272.4 |
| 110° | 310.0 | 394.6 | 1211.2 | 2549.2 | 2739.5 |



TEST NUMBER: P621903

CATALOG NUMBER: VLT-FB-150U-100D-840-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 112.5° | 344.6 | 429.2 | 1176.6 | 2477.2 | 2797.2 |
| 115° | 396.5 | 481.1 | 1124.7 | 2337.6 | 2732.3 |
| 117.5° | 449.9 | 533.0 | 1111.7 | 2186.4 | 2592.5 |
| 120° | 490.2 | 567.8 | 1088.6 | 2071.5 | 2494.4 |
| 122.5° | 519.1 | 602.3 | 1059.8 | 1972.7 | 2361.8 |
| 125° | 569.5 | 647.1 | 1059.8 | 1853.3 | 2191.6 |
| 127.5° | 611.4 | 690.3 | 1061.2 | 1714.8 | 2048.9 |
| 130° | 634.4 | 719.0 | 1067.0 | 1622.1 | 1939.3 |
| 132.5° | 663.3 | 747.8 | 1067.0 | 1580.4 | 1841.3 |
| 135° | 706.5 | 784.1 | 1067.0 | 1526.3 | 1751.9 |
| 137.5° | 742.6 | 825.7 | 1067.0 | 1466.4 | 1659.6 |
| 140° | 771.4 | 848.9 | 1067.0 | 1431.5 | 1607.7 |
| 142.5° | 800.2 | 872.1 | 1072.7 | 1390.8 | 1555.8 |
| 145° | 836.3 | 906.8 | 1074.2 | 1329.7 | 1470.7 |
| 147.5° | 879.5 | 941.6 | 1082.8 | 1285.7 | 1394.3 |
| 150° | 908.4 | 964.8 | 1088.6 | 1256.5 | 1348.1 |
| 152.5° | 937.2 | 988.0 | 1088.6 | 1233.1 | 1307.8 |
| 155° | 980.5 | 1015.7 | 1095.8 | 1205.2 | 1261.6 |
| 157.5° | 1015.1 | 1048.9 | 1104.5 | 1187.6 | 1228.5 |
| 160° | 1038.1 | 1066.3 | 1110.2 | 1175.9 | 1211.2 |
| 162.5° | 1055.4 | 1083.6 | 1116.0 | 1169.9 | 1193.9 |
| 165° | 1088.6 | 1102.7 | 1124.7 | 1154.0 | 1175.1 |
| 167.5° | 1107.4 | 1120.0 | 1131.9 | 1146.6 | 1159.3 |
| 170° | 1124.7 | 1131.7 | 1131.9 | 1146.4 | 1153.5 |
| 172.5° | 1130.4 | 1143.1 | 1137.6 | 1140.7 | 1147.7 |
| 175° | 1146.3 | 1153.3 | 1146.3 | 1138.9 | 1131.9 |
| 177.5° | 1146.3 | 1151.9 | 1146.3 | 1146.2 | 1140.5 |
| 180° | 1146.3 | 1146.3 | 1146.3 | 1146.3 | 1146.3 |

(END OF REPORT)