

IES Report

BoxRail® | 107 | 60° Symmetric | 90 CRI | HO

107-BX-XX-4-48-XX-XX-XX-XX-X-X-Z-HO-359-S2-X-BL-X

| | 2700K | 3000K | 3500K | 4000K |
|--|-------|-------|-------|-------|
| Efficacy - Lumens per Watt | 36 | 37 | 38 | 38 |
| Total Lumens, 4' rail length (1219mm) | 1745 | 1801 | 1837 | 1856 |
| Lumens per foot (305mm) | 436 | 450 | 459 | 464 |
| Input Power (W), 4' rail length (1219mm) | 49.1 | 49.1 | 49.1 | 49.1 |
| Watts per foot (305mm) | 12.3 | 12.3 | 12.3 | 12.3 |
| CRI | 94 | 94 | 94 | 94 |

Due to the large number of options in Vode's product offering, most Vode IES reports are factored reports prepared from source reports. Source reports are the IES test reports prepared for Vode by an NVLAP accredited photometric test laboratory. Factored reports are based on data from the Vode source reports.

If the data above is in black, it is directly from a Vode source report. If it is in grey, it is factored from Vode source reports. Reference details on Vode source reports can be found on the [IES File Finder](#) page on [vode.com](#).



IES INDOOR REPORT

PHOTOMETRIC FILENAME : VODE_107_BX_HO_359_S2_BL.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] L121911513 (SOURCE REPORT FOR REFERENCE)

[TESTLAB] REPORT BASED ON DATA FROM NVLAP ACCREDITED LAB

[ISSUE DATE] 12/23/2019

[MANUFAC] Vode Lighting

[LUMCAT] 107-BX-48-Z-HO-359-S2-BL

[LUMINAIRE] BoxRail LED, 48", 3500K, 90 CRI, zipper board, 60° black symmetric lens,

[MORE] high output, black anodized finish

[TEST PROCEDURE] IESNA:LM-79-08

CHARACTERISTICS

| | |
|---------------------------------|-----------------|
| Lumens Per Lamp | N.A. (absolute) |
| Total Lamp Lumens | N.A. (absolute) |
| Luminaire Lumens | 1837 |
| Total Luminaire Efficiency | N.A. |
| Luminaire Efficacy Rating (LER) | 37 |
| Total Luminaire Watts | 49.06 |
| Ballast Factor | 1.00 |
| CIE Type | Direct |
| Spacing Criterion (0-180) | 0.74 |
| Spacing Criterion (90-270) | 1.08 |
| Spacing Criterion (Diagonal) | 0.88 |
| Basic Luminous Shape | Rectangular |
| Luminous Length (0-180) | 0.02 ft |
| Luminous Width (90-270) | 3.84 ft |
| Luminous Height | 0.00 ft |

LUMINANCE DATA (cd/sq.m)

| Angle In Degrees | Average 0-Deg | Average 45-Deg | Average 90-Deg |
|---------------------|------------------|-------------------|-------------------|
| 45 | 28008 | 46423 | 104882 |
| 55 | 13103 | 22728 | 60693 |
| 65 | 7491 | 12981 | 35675 |
| 75 | 4821 | 8182 | 21977 |
| 85 | 244 | 2808 | 11783 |

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CANDELA TABULATION

| | <u>0</u> | <u>5</u> | <u>10</u> | <u>15</u> | <u>20</u> | <u>25</u> | <u>30</u> | <u>35</u> | <u>40</u> | <u>45</u> |
|-------------|----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0.0 | 1715.586 | 1715.586 | 1715.586 | 1715.586 | 1715.586 | 1715.586 | 1715.586 | 1715.586 | 1715.586 | 1715.586 |
| 1.0 | 1639.472 | 1651.271 | 1650.074 | 1661.930 | 1698.163 | 1719.272 | 1733.446 | 1742.376 | 1749.216 | 1761.471 |
| 3.0 | 1646.483 | 1655.964 | 1655.337 | 1671.810 | 1703.673 | 1721.495 | 1732.648 | 1744.523 | 1759.894 | 1773.422 |
| 5.0 | 1641.714 | 1647.452 | 1648.725 | 1661.379 | 1692.045 | 1709.240 | 1719.348 | 1735.669 | 1755.752 | 1768.558 |
| 7.0 | 1596.000 | 1599.021 | 1603.011 | 1613.594 | 1651.024 | 1667.592 | 1675.401 | 1689.651 | 1708.214 | 1734.719 |
| 9.0 | 1540.577 | 1542.401 | 1546.866 | 1558.342 | 1597.045 | 1611.694 | 1625.469 | 1645.286 | 1679.543 | 1699.930 |
| 11.0 | 1469.707 | 1468.035 | 1473.526 | 1481.487 | 1518.290 | 1536.682 | 1545.840 | 1569.248 | 1614.962 | 1644.982 |
| 13.0 | 1381.471 | 1377.652 | 1382.668 | 1390.629 | 1424.316 | 1444.532 | 1458.630 | 1491.120 | 1539.152 | 1576.259 |
| 15.0 | 1292.133 | 1287.820 | 1294.907 | 1301.120 | 1331.311 | 1353.921 | 1373.586 | 1424.240 | 1470.980 | 1512.077 |
| 17.0 | 1193.694 | 1186.132 | 1195.043 | 1202.453 | 1228.806 | 1248.319 | 1267.680 | 1311.950 | 1364.352 | 1414.512 |
| 19.5 | 1062.309 | 1053.379 | 1063.810 | 1067.002 | 1092.158 | 1110.322 | 1142.166 | 1199.584 | 1256.451 | 1308.682 |
| 22.5 | 898.890 | 887.984 | 896.515 | 893.646 | 913.938 | 938.068 | 967.613 | 1019.388 | 1084.596 | 1143.363 |
| 25.5 | 749.512 | 737.086 | 748.144 | 755.402 | 767.429 | 790.286 | 824.353 | 876.926 | 937.992 | 1000.977 |
| 29.0 | 581.001 | 570.019 | 578.854 | 571.691 | 582.521 | 603.459 | 637.070 | 682.613 | 743.926 | 807.006 |
| 33.0 | 418.703 | 408.747 | 418.475 | 427.310 | 431.129 | 439.964 | 466.963 | 507.262 | 559.987 | 615.239 |
| 37.5 | 278.711 | 272.023 | 279.680 | 274.569 | 280.459 | 294.082 | 317.661 | 351.348 | 392.274 | 439.964 |
| 42.5 | 174.724 | 169.689 | 174.401 | 179.246 | 180.614 | 184.756 | 199.956 | 221.540 | 250.135 | 285.000 |
| 47.5 | 108.148 | 105.279 | 108.148 | 110.295 | 111.416 | 115.235 | 125.495 | 140.239 | 160.626 | 183.863 |
| 55.0 | 53.675 | 52.326 | 53.751 | 53.827 | 54.948 | 57.494 | 62.662 | 70.072 | 80.978 | 93.100 |
| 65.0 | 22.610 | 22.135 | 22.781 | 22.933 | 23.332 | 24.453 | 26.600 | 29.868 | 34.086 | 39.178 |
| 75.0 | 8.911 | 8.835 | 9.082 | 9.006 | 9.234 | 9.880 | 10.678 | 11.628 | 13.300 | 15.124 |
| 85.0 | 0.152 | 0.152 | 0.152 | 0.152 | 0.152 | 0.323 | 0.475 | 0.722 | 1.197 | 1.748 |
| 90.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

Vert. Angles **Horizontal Angles**

| | <u>50</u> | <u>55</u> | <u>60</u> | <u>65</u> | <u>70</u> | <u>75</u> | <u>80</u> | <u>85</u> | <u>90</u> |
|-------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0.0 | 1715.586 | 1715.586 | 1715.586 | 1715.586 | 1715.586 | 1715.586 | 1715.586 | 1715.586 | 1715.586 |
| 1.0 | 1772.301 | 1778.761 | 1786.570 | 1795.158 | 1800.098 | 1804.164 | 1806.387 | 1807.584 | 1809.902 |
| 3.0 | 1780.908 | 1791.187 | 1796.925 | 1801.447 | 1802.967 | 1806.634 | 1808.629 | 1809.427 | 1810.377 |
| 5.0 | 1778.685 | 1783.853 | 1788.394 | 1788.546 | 1792.384 | 1796.355 | 1799.775 | 1802.017 | 1801.941 |
| 7.0 | 1751.534 | 1758.298 | 1762.440 | 1766.411 | 1772.149 | 1776.937 | 1782.105 | 1783.853 | 1784.575 |
| 9.0 | 1716.650 | 1727.404 | 1735.042 | 1740.932 | 1747.867 | 1755.657 | 1760.844 | 1764.910 | 1766.411 |
| 11.0 | 1668.238 | 1682.488 | 1691.570 | 1702.552 | 1714.655 | 1724.535 | 1732.173 | 1736.562 | 1738.538 |
| 13.0 | 1602.612 | 1629.212 | 1643.861 | 1660.106 | 1675.078 | 1687.181 | 1696.491 | 1703.179 | 1706.048 |
| 15.0 | 1541.299 | 1569.077 | 1590.262 | 1611.770 | 1630.808 | 1646.806 | 1659.707 | 1667.991 | 1669.416 |
| 17.0 | 1455.134 | 1485.781 | 1515.250 | 1542.971 | 1567.101 | 1586.367 | 1601.738 | 1612.321 | 1615.912 |
| 19.5 | 1351.850 | 1387.836 | 1424.639 | 1459.751 | 1490.721 | 1517.397 | 1536.758 | 1549.659 | 1554.903 |
| 22.5 | 1208.438 | 1255.007 | 1300.094 | 1343.813 | 1383.067 | 1414.683 | 1438.965 | 1455.134 | 1461.898 |
| 25.5 | 1055.621 | 1110.721 | 1164.225 | 1216.304 | 1262.094 | 1299.448 | 1327.473 | 1346.188 | 1353.123 |
| 29.0 | 871.663 | 932.824 | 991.914 | 1054.101 | 1106.826 | 1150.925 | 1184.384 | 1205.645 | 1213.131 |
| 33.0 | 676.400 | 740.430 | 802.864 | 864.975 | 920.151 | 966.587 | 1001.870 | 1025.107 | 1033.638 |
| 37.5 | 491.739 | 546.288 | 604.409 | 663.024 | 713.184 | 764.085 | 800.470 | 824.277 | 833.112 |
| 42.5 | 327.123 | 372.362 | 418.950 | 466.640 | 513.152 | 555.750 | 587.689 | 608.798 | 616.683 |
| 47.5 | 213.332 | 244.872 | 280.630 | 318.687 | 355.490 | 390.526 | 417.354 | 434.796 | 442.605 |
| 55.0 | 108.946 | 126.464 | 146.680 | 169.784 | 192.318 | 213.655 | 231.895 | 243.998 | 248.615 |
| 65.0 | 45.467 | 52.725 | 61.237 | 70.870 | 80.978 | 91.105 | 99.617 | 105.355 | 107.673 |
| 75.0 | 17.518 | 20.235 | 23.256 | 26.999 | 30.666 | 34.409 | 37.506 | 39.824 | 40.622 |
| 85.0 | 2.869 | 3.819 | 4.541 | 5.263 | 5.738 | 6.365 | 6.935 | 7.163 | 7.334 |
| 90.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

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ZONAL LUMEN SUMMARY

| Zone | Lumens | %Lamp | %Fixt |
|---------|---------|-------|--------|
| 0-20 | 551.39 | N.A. | 30.00 |
| 0-30 | 1003.79 | N.A. | 54.60 |
| 0-40 | 1339.31 | N.A. | 72.90 |
| 0-60 | 1706.71 | N.A. | 92.90 |
| 0-80 | 1824.21 | N.A. | 99.30 |
| 0-90 | 1837.08 | N.A. | 100.00 |
| 10-90 | 1704.06 | N.A. | 92.80 |
| 20-40 | 787.92 | N.A. | 42.90 |
| 20-50 | 1043.94 | N.A. | 56.80 |
| 40-70 | 448.60 | N.A. | 24.40 |
| 60-80 | 117.50 | N.A. | 6.40 |
| 70-80 | 36.30 | N.A. | 2.00 |
| 80-90 | 12.87 | N.A. | 0.70 |
| 90-110 | 0.00 | N.A. | 0.00 |
| 90-120 | 0.00 | N.A. | 0.00 |
| 90-130 | 0.00 | N.A. | 0.00 |
| 90-150 | 0.00 | N.A. | 0.00 |
| 90-180 | 0.00 | N.A. | 0.00 |
| 110-180 | 0.00 | N.A. | 0.00 |
| 0-180 | 1837.08 | N.A. | 100.00 |

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

| Zone | Lumens |
|---------|--------|
| 0-10 | 133.02 |
| 10-20 | 418.37 |
| 20-30 | 452.40 |
| 30-40 | 335.52 |
| 40-50 | 256.02 |
| 50-60 | 111.38 |
| 60-70 | 81.20 |
| 70-80 | 36.30 |
| 80-90 | 12.87 |
| 90-100 | 0.00 |
| 100-110 | 0.00 |
| 110-120 | 0.00 |
| 120-130 | 0.00 |
| 130-140 | 0.00 |
| 140-150 | 0.00 |
| 150-160 | 0.00 |
| 160-170 | 0.00 |
| 170-180 | 0.00 |

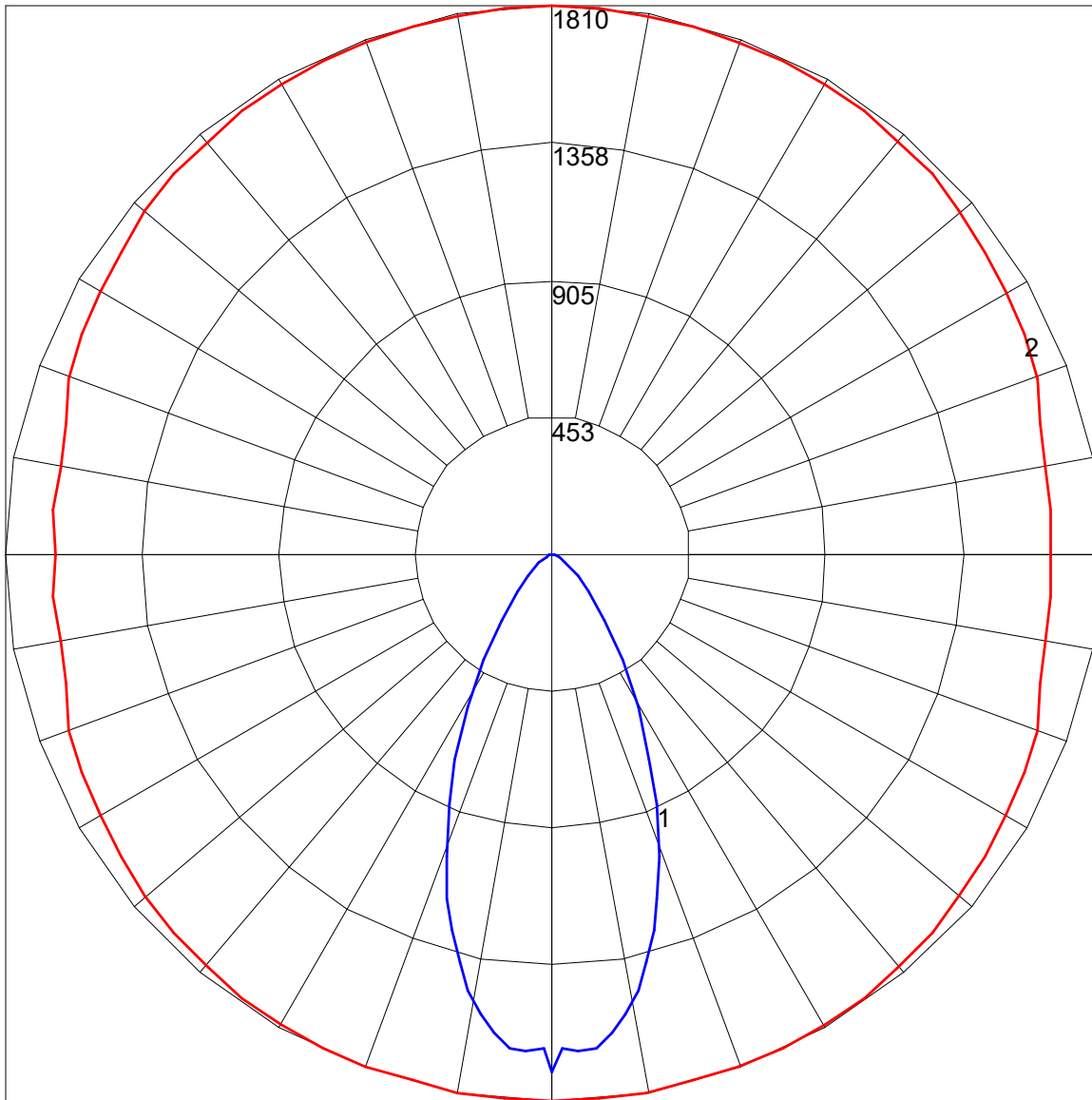
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

Effective Floor Cavity Reflectance 0.20

| 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 |
| 0 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |
| 1 | 112 | 108 | 105 | 102 | 109 | 106 | 103 | 101 | 102 | 100 | 98 | 98 | 96 | 95 | 95 | 93 | 92 | 90 |
| 2 | 105 | 99 | 94 | 89 | 102 | 97 | 92 | 88 | 94 | 90 | 86 | 90 | 87 | 85 | 88 | 85 | 83 | 81 |
| 3 | 98 | 90 | 84 | 79 | 96 | 89 | 83 | 79 | 86 | 81 | 77 | 83 | 79 | 76 | 81 | 78 | 75 | 73 |
| 4 | 92 | 83 | 76 | 71 | 90 | 82 | 75 | 71 | 79 | 74 | 70 | 77 | 73 | 69 | 75 | 71 | 68 | 66 |
| 5 | 86 | 76 | 69 | 64 | 85 | 75 | 69 | 64 | 73 | 68 | 63 | 72 | 67 | 63 | 70 | 66 | 62 | 60 |
| 6 | 81 | 71 | 64 | 59 | 80 | 70 | 63 | 58 | 68 | 62 | 58 | 67 | 61 | 57 | 65 | 61 | 57 | 55 |
| 7 | 77 | 66 | 59 | 54 | 75 | 65 | 58 | 54 | 64 | 58 | 53 | 62 | 57 | 53 | 61 | 56 | 53 | 51 |
| 8 | 72 | 61 | 54 | 50 | 71 | 61 | 54 | 50 | 60 | 54 | 49 | 58 | 53 | 49 | 57 | 52 | 49 | 47 |
| 9 | 68 | 57 | 51 | 46 | 67 | 57 | 50 | 46 | 56 | 50 | 46 | 55 | 49 | 46 | 54 | 49 | 45 | 44 |
| 10 | 65 | 54 | 47 | 43 | 64 | 53 | 47 | 43 | 53 | 47 | 43 | 52 | 46 | 43 | 51 | 46 | 42 | 41 |

POLAR GRAPH



Maximum Candela = 1810.377 Located At Horizontal Angle = 90, Vertical Angle = 3
1 - Vertical Plane Through Horizontal Angles (0 - 180)
2 - Horizontal Cone Through Vertical Angle (3) (Through Max. Cd.)