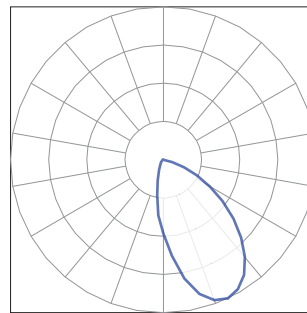


# BoxRail® | 107

107-BX-X-4-48-X-X-X-X-X-Z-HO-35-A1-X-AL / WH-X

The performance data in black text is confirmed through third party testing (see the following Light Laboratory report for details). The performance data in grey text is calculated by Vode, for reference only.

Technical Support: (707) 996-9898



## Details

Rail Type / Length	BoxRail, 48"
LED Type	Zipper Board
Lumen Output	High Output
Color Temperature	3500K, 80+ CRI
Optics	85° Asymmetric Lens

## Performance Summary

	2700K	3000K	3500K	4000K
Color Temperature	2700K	3000K	3500K	4000K
Efficacy - Lumens per Watt	76	78	80	81
Total Lumens, 4' rail (1219mm)	3706	3823	3901	3979
Lumens per foot (305mm)	927	956	975	995
Input Power (W), 4' rail (1219mm)	49.2	49.2	49.2	49.2
Watts per foot (305mm)	12.4	12.4	12.4	12.4
CRI	-	-	85	-

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**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : VODE\_107\_BX\_HO\_35\_A1.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
 [TEST] L071704225 (SOURCE REPORT FOR REFERENCE)  
 [TESTLAB] REPORT BASED ON DATA PRODUCED BY NVLAP ACCREDITED LAB  
 [ISSUEDATE] 11/1/2017  
 [MANUFAC] Vode Lighting  
 [LUMCAT] 707-Z2-48-Z-HO-35-A1-AL  
 [LUMINAIRE] ZipTwo LED, 48", 3500K, 80 CRI, zipper board,  
 [MORE] 85° white asymmetric lens, high output  
 [TEST PROCEDURE] IESNA:LM-79-08

**CHARACTERISTICS**

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	3905
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	79
Total Luminaire Watts	49.22
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.94
Spacing Criterion (90-270)	1.20
Spacing Criterion (Diagonal)	1.36
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	0.06 ft
Luminous Width (90-270)	4.02 ft
Luminous Height	0.00 ft

**LUMINANCE DATA (cd/sq.m)**

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	123740	108237	48817
55	112870	93817	37237
65	95948	76693	29229
75	78014	60635	23077
85	67863	48365	15009

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>
<b>0</b>	1504.598	1504.598	1504.598	1504.598	1504.598	1504.598	1504.598	1504.598	1504.598	1504.598
<b>5</b>	1793.227	1792.102	1788.547	1783.507	1776.037	1766.318	1755.293	1741.658	1726.335	1709.707
<b>10</b>	2075.715	2073.465	2067.480	2058.525	2044.688	2027.318	2006.955	1981.350	1951.830	1919.902
<b>15</b>	2269.642	2267.213	2260.665	2249.843	2233.395	2212.470	2186.325	2154.173	2117.003	2075.153
<b>20</b>	2379.128	2376.878	2370.150	2358.765	2342.318	2320.088	2293.380	2259.180	2218.073	2171.363
<b>25</b>	2418.367	2416.117	2409.570	2398.927	2382.120	2359.890	2332.238	2297.475	2255.063	2205.923
<b>30</b>	2392.943	2390.512	2384.550	2373.885	2357.820	2335.230	2307.577	2271.128	2226.847	2175.480
<b>35</b>	2307.015	2304.765	2299.725	2289.622	2274.120	2251.710	2222.550	2183.895	2136.060	2081.318
<b>40</b>	2161.642	2160.157	2155.477	2146.140	2131.200	2108.588	2077.582	2036.655	1985.108	1925.865
<b>45</b>	1962.495	1961.932	1957.995	1949.783	1935.765	1912.050	1880.280	1836.743	1780.898	1716.615
<b>50</b>	1720.350	1719.608	1716.615	1708.402	1694.565	1671.773	1638.338	1592.753	1534.275	1468.125
<b>55</b>	1452.060	1451.700	1448.505	1441.598	1428.345	1406.295	1373.220	1327.253	1272.150	1206.945
<b>60</b>	1175.557	1175.175	1172.565	1166.760	1154.993	1133.707	1103.243	1062.517	1012.815	956.205
<b>65</b>	909.495	909.315	907.447	902.205	892.305	874.372	848.970	813.668	774.788	726.975
<b>70</b>	669.240	668.857	667.170	663.255	655.222	641.025	621.023	593.933	561.442	526.500
<b>75</b>	452.880	452.700	451.012	447.840	441.855	431.392	417.015	398.137	375.728	351.990
<b>80</b>	270.900	270.720	269.415	266.985	262.507	255.398	246.240	234.113	220.095	205.695
<b>85</b>	132.660	132.278	131.153	129.105	125.933	121.815	116.213	109.485	102.015	94.545
<b>90</b>	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>	<u>95</u>
<b>0</b>	1504.598	1504.598	1504.598	1504.598	1504.598	1504.598	1504.598	1504.598	1504.598	1504.598
<b>5</b>	1690.830	1670.108	1648.800	1626.188	1603.035	1577.047	1551.825	1526.602	1500.638	1473.930
<b>10</b>	1883.092	1841.985	1799.010	1752.480	1703.362	1648.418	1594.620	1540.057	1482.525	1425.150
<b>15</b>	2025.832	1970.707	1911.105	1846.102	1775.475	1694.947	1615.365	1533.150	1446.457	1360.507
<b>20</b>	2115.315	2050.852	1980.045	1901.205	1814.513	1713.263	1611.068	1504.372	1391.535	1279.440
<b>25</b>	2146.343	2077.020	1999.305	1911.307	1813.027	1696.072	1576.485	1449.832	1314.360	1181.340
<b>30</b>	2113.267	2040.210	1959.120	1865.700	1759.973	1633.297	1501.943	1361.632	1211.040	1065.510
<b>35</b>	2015.370	1938.960	1854.878	1759.027	1649.925	1524.172	1384.807	1238.332	1082.700	932.288
<b>40</b>	1854.878	1774.912	1688.040	1591.807	1480.658	1361.070	1225.237	1083.060	932.288	789.367
<b>45</b>	1643.760	1558.935	1471.297	1377.338	1271.767	1156.860	1035.608	907.065	774.225	644.940
<b>50</b>	1394.527	1312.493	1226.745	1135.935	1043.640	942.008	824.310	731.070	618.232	515.655
<b>55</b>	1136.880	1061.775	984.240	904.837	820.935	742.837	654.840	567.607	479.048	402.075
<b>60</b>	891.563	820.372	766.395	701.370	637.110	569.475	500.895	433.642	369.000	309.960
<b>65</b>	676.890	627.390	576.563	526.298	477.360	427.658	374.423	324.900	277.065	232.988
<b>70</b>	489.127	452.880	415.890	379.642	344.137	308.452	271.283	235.597	200.475	172.822
<b>75</b>	326.767	302.288	278.392	253.170	229.613	205.898	180.855	157.118	133.965	113.603
<b>80</b>	190.373	175.613	160.493	146.295	132.278	118.080	103.500	89.302	75.847	64.642
<b>85</b>	86.310	78.660	70.808	63.517	56.227	48.960	41.850	34.943	29.340	25.043
<b>90</b>	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>100</u>	<u>105</u>	<u>110</u>	<u>115</u>	<u>120</u>	<u>125</u>	<u>130</u>	<u>135</u>	<u>140</u>	<u>145</u>
<b>0</b>	1504.598	1504.598	1504.598	1504.598	1504.598	1504.598	1504.598	1504.598	1504.598	1504.598
<b>5</b>	1448.325	1421.977	1396.575	1373.220	1348.560	1327.072	1306.710	1287.652	1270.463	1254.217
<b>10</b>	1367.977	1313.797	1259.618	1209.375	1158.727	1115.955	1075.027	1036.912	1004.040	973.957
<b>15</b>	1274.580	1194.412	1116.315	1044.765	975.082	915.862	862.605	814.207	773.303	738.000
<b>20</b>	1172.745	1068.120	971.347	885.960	805.433	740.227	683.055	632.992	591.885	555.457
<b>25</b>	1052.055	936.023	828.967	738.923	656.707	591.705	537.705	491.940	455.873	425.970
<b>30</b>	925.560	803.745	695.947	607.590	530.595	472.320	425.970	388.238	360.022	337.230
<b>35</b>	791.798	673.898	572.445	493.043	428.220	378.900	342.652	313.875	292.950	276.502

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : VODE\_107\_BX\_HO\_35\_A1.IES**

**CANDELA TABULATION - (Cont.)**

<b>40</b>	658.957	552.645	464.467	398.137	345.262	308.092	280.800	259.515	244.575	232.988
<b>45</b>	536.018	446.715	374.985	322.853	281.745	253.912	233.730	218.227	207.382	198.607
<b>50</b>	428.220	355.928	300.623	261.000	230.355	209.813	194.670	183.465	175.252	169.268
<b>55</b>	336.308	281.565	240.458	210.555	187.965	172.822	161.415	152.640	146.475	141.615
<b>60</b>	259.695	219.713	190.192	168.907	151.718	140.130	131.355	124.627	119.948	116.032
<b>65</b>	197.482	174.870	147.982	131.715	119.385	110.610	103.882	98.640	94.905	91.912
<b>70</b>	144.787	125.190	109.305	97.897	89.505	82.957	77.918	74.183	71.370	69.120
<b>75</b>	97.718	85.005	75.105	67.252	61.470	57.172	54.000	51.188	49.320	47.835
<b>80</b>	56.047	49.140	43.718	39.420	36.248	33.818	31.950	30.465	29.340	28.395
<b>85</b>	22.050	19.800	17.933	16.448	15.322	14.377	13.838	13.275	13.072	12.893
<b>90</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

**Vert. Horizontal Angles**

	<u>150</u>	<u>155</u>	<u>160</u>	<u>165</u>	<u>170</u>	<u>175</u>	<u>180</u>
<b>0</b>	1504.598	1504.598	1504.598	1504.598	1504.598	1504.598	1504.598
<b>5</b>	1240.380	1229.175	1219.635	1211.985	1206.563	1203.007	1201.703
<b>10</b>	948.352	926.685	909.495	895.500	885.960	879.975	877.747
<b>15</b>	707.715	683.258	663.817	648.315	637.650	631.305	629.258
<b>20</b>	527.625	505.192	487.440	473.445	464.467	458.483	456.998
<b>25</b>	402.075	384.120	370.868	360.405	353.498	349.200	347.873
<b>30</b>	319.680	306.788	297.067	289.598	284.738	282.127	281.002
<b>35</b>	264.375	255.398	248.670	243.810	240.278	238.410	238.028
<b>40</b>	224.393	218.227	213.368	209.813	207.765	206.257	205.515
<b>45</b>	192.262	187.762	185.153	182.722	181.035	179.910	179.730
<b>50</b>	164.610	161.055	158.445	156.375	155.452	154.507	154.327
<b>55</b>	138.060	135.450	133.403	131.895	130.972	130.410	130.410
<b>60</b>	113.040	111.172	109.485	108.360	107.438	107.055	106.875
<b>65</b>	89.505	87.998	86.692	85.748	85.207	84.825	84.442
<b>70</b>	67.455	66.150	65.025	64.282	63.720	63.517	63.517
<b>75</b>	46.530	45.585	45.023	44.460	44.100	43.718	43.718
<b>80</b>	27.832	27.270	26.910	26.707	26.527	26.348	26.168
<b>85</b>	12.893	12.713	12.713	12.713	12.510	12.510	12.713
<b>90</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : VODE\_107\_BX\_HO\_35\_A1.IES**

**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	550.77	N.A.	14.10
0-30	1171.7	N.A.	30.00
0-40	1912.3	N.A.	49.00
0-60	3230.86	N.A.	82.70
0-80	3844.16	N.A.	98.50
0-90	3904.57	N.A.	100.00
10-90	3762.15	N.A.	96.40
20-40	1361.53	N.A.	34.90
20-50	2088.8	N.A.	53.50
40-70	1719.58	N.A.	44.00
60-80	613.30	N.A.	15.70
70-80	212.28	N.A.	5.40
80-90	60.40	N.A.	1.50
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	3904.57	N.A.	100.00

Total Luminaire Efficiency = N.A.%

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	142.42
10-20	408.36
20-30	620.92
30-40	740.60
40-50	727.27
50-60	591.29
60-70	401.02
70-80	212.28
80-90	60.40
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

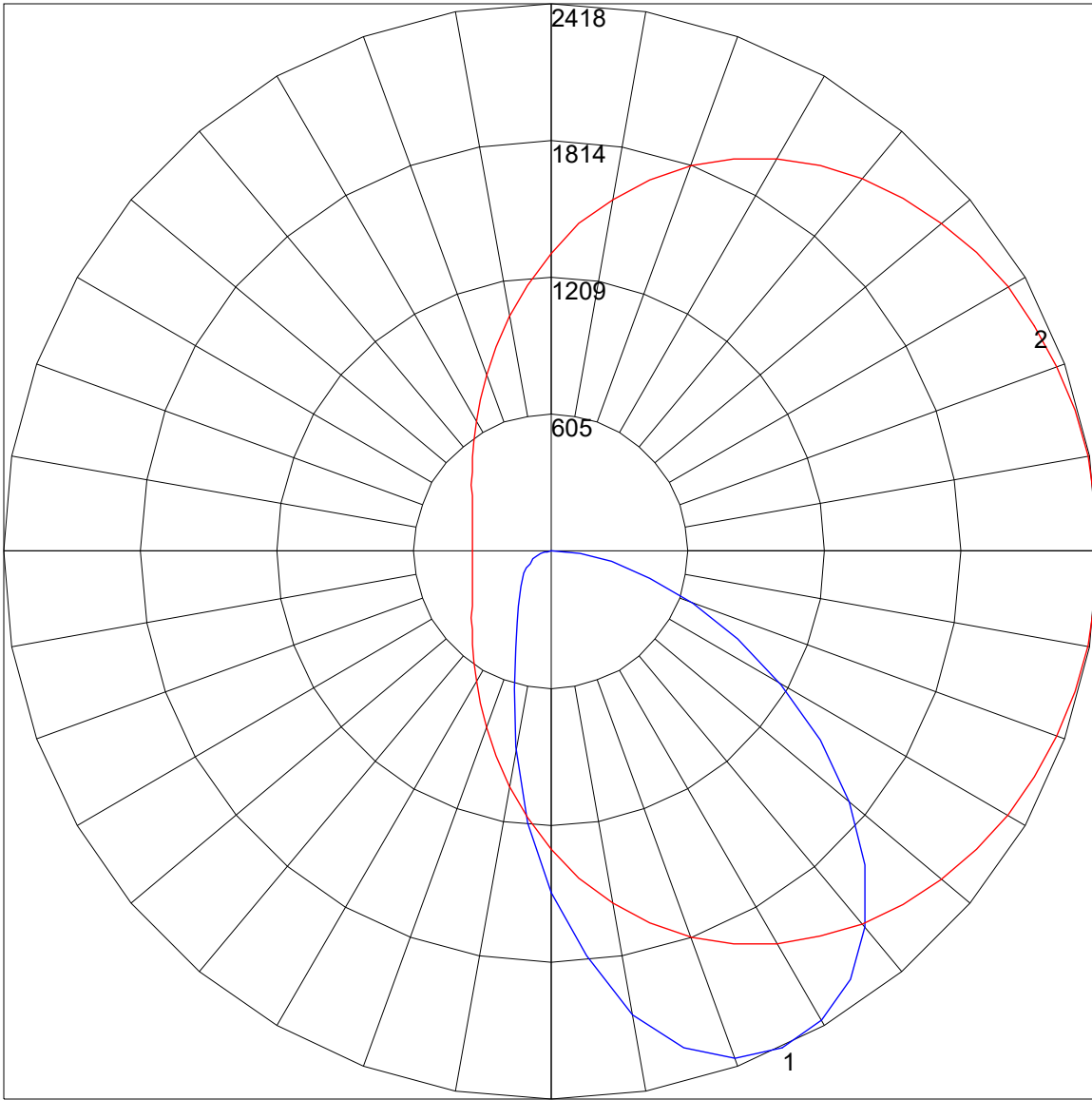
**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : VODE\_107\_BX\_HO\_35\_A1.IES**

**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	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	105	101	97	96	107	103	99	96	98	95	93	94	92	90	91	89	87	85
2	100	92	86	80	79	97	90	84	79	87	82	77	83	79	76	80	77	74	72
3	91	81	74	67	67	89	80	73	67	77	71	65	74	69	64	72	67	63	61
4	84	72	64	57	57	82	71	63	57	69	62	56	66	60	56	64	59	55	53
5	77	65	56	50	50	75	64	56	50	62	54	49	60	53	48	58	52	48	46
6	72	59	50	44	43	70	58	49	43	56	49	43	54	48	43	53	47	42	40
7	66	53	45	39	39	65	52	44	39	51	44	38	49	43	38	48	42	38	36
8	62	49	40	35	35	60	48	40	35	47	39	34	45	39	34	44	38	34	32
9	58	45	37	31	31	56	44	36	31	43	36	31	42	35	31	41	35	31	29
10	54	41	34	28	28	53	41	33	28	40	33	28	39	33	28	38	32	28	26

POLAR GRAPH



Maximum Candela = 2418.367 Located At Horizontal Angle = 0, Vertical Angle = 25  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (25) (Through Max. Cd.)