

## IES Report

# BoxRail® | 107 | 85° Asymmetric | 90 CRI | LO

107-BX-XX-4-48-XX-XX-XX-XX-X-X-Z-LO-359-A1-X-BL-X

	2700K	3000K	3500K	4000K
Efficacy - Lumens per Watt	44	46	47	47
Total Lumens, 4' rail length (1219mm)	608	627	640	646
Lumens per foot (305mm)	152	157	160	162
Input Power (W), 4' rail length (1219mm)	13.8	13.8	13.8	13.8
Watts per foot (305mm)	3.5	3.5	3.5	3.5
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\_LO\_359\_A1\_BL.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] L121911514 (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-LO-359-A1-BL

[LUMINAIRE] BoxRail LED, 48", 3500K, 90 CRI, zipper board, 85° black asymmetric lens,

[MORE] low 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	640
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	46
Total Luminaire Watts	13.82
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.52
Spacing Criterion (90-270)	1.06
Spacing Criterion (Diagonal)	1.08
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	0.04 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	31181	24376	12358
55	24812	17640	7572
65	16650	11832	4923
75	6145	7018	3402
85	0	68	2020

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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>
<b>0</b>	393.060	393.060	393.060	393.060	393.060	393.060	393.060	393.060	393.060	393.060
<b>5</b>	428.510	428.845	428.845	427.880	425.995	424.275	421.885	419.540	416.985	414.005
<b>10</b>	466.230	466.270	466.270	464.175	461.620	458.685	455.290	451.350	446.700	441.755
<b>15</b>	481.990	481.655	481.235	479.015	476.415	473.145	468.995	464.425	458.645	452.400
<b>20</b>	480.230	479.975	479.265	477.255	474.360	470.800	466.440	461.160	454.915	447.745
<b>25</b>	466.480	465.895	464.680	462.665	459.440	455.290	450.640	444.520	437.185	429.010
<b>30</b>	440.580	440.245	438.905	436.390	432.575	427.920	421.805	414.425	405.665	396.155
<b>35</b>	407.135	406.630	404.785	401.725	397.245	391.290	384.040	374.945	364.385	353.065
<b>40</b>	364.215	363.545	361.410	358.015	352.690	345.480	336.720	326.285	314.550	301.685
<b>45</b>	314.925	314.215	311.910	308.265	302.730	294.850	284.750	273.140	260.485	246.190
<b>50</b>	259.605	258.975	257.130	253.735	248.285	240.490	230.810	218.990	205.705	192.250
<b>55</b>	203.275	202.855	201.220	198.540	193.760	186.930	178.295	168.360	156.500	144.515
<b>60</b>	149.880	149.585	148.580	146.650	143.340	138.100	131.395	123.055	113.625	104.150
<b>65</b>	100.505	100.380	100.000	99.205	97.445	94.345	90.070	84.455	78.000	71.420
<b>70</b>	57.925	58.005	58.260	58.595	58.470	57.630	55.870	53.145	49.665	45.895
<b>75</b>	22.715	22.885	23.595	24.730	26.030	27.115	27.830	27.870	27.160	25.945
<b>80</b>	1.845	1.885	2.095	2.515	3.185	4.190	5.535	7.210	8.800	9.975
<b>85</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.085
<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>	393.060	393.060	393.060	393.060	393.060	393.060	393.060	393.060	393.060	393.060
<b>5</b>	411.075	407.425	403.655	400.975	395.985	390.870	386.430	403.865	399.005	394.185
<b>10</b>	436.010	429.555	422.555	415.895	407.010	397.785	388.355	399.590	389.575	378.885
<b>15</b>	444.980	436.555	427.125	417.320	405.835	392.630	379.515	385.170	371.090	356.045
<b>20</b>	439.365	429.765	419.080	407.760	393.850	378.550	362.455	362.705	345.105	325.155
<b>25</b>	419.540	408.645	396.570	384.040	369.205	351.600	333.495	329.050	308.935	287.560
<b>30</b>	385.550	373.480	360.065	345.860	330.350	312.750	294.095	286.385	264.840	243.260
<b>35</b>	340.830	327.205	312.830	297.575	281.985	264.635	245.730	236.215	216.310	195.605
<b>40</b>	287.390	272.680	257.845	242.840	227.750	211.780	195.015	185.585	168.530	150.130
<b>45</b>	231.440	217.145	202.645	188.520	174.310	161.865	147.740	138.730	124.815	109.515
<b>50</b>	178.250	165.635	152.560	140.320	129.045	118.190	107.170	99.375	88.810	77.620
<b>55</b>	132.400	121.295	110.440	100.965	91.915	83.655	77.200	69.785	62.030	53.900
<b>60</b>	94.720	85.880	78.040	71.000	64.630	58.550	52.895	48.700	43.295	37.765
<b>65</b>	65.050	58.675	53.270	48.450	43.965	39.860	36.800	33.280	29.715	26.110
<b>70</b>	42.080	38.180	34.785	31.730	28.960	26.445	24.560	22.295	19.990	17.645
<b>75</b>	24.310	22.505	20.830	19.195	17.685	16.260	15.255	13.955	12.575	11.190
<b>80</b>	10.520	10.480	10.100	9.640	9.010	8.425	8.045	7.505	6.830	6.120
<b>85</b>	0.295	0.840	1.720	2.515	2.765	2.810	2.765	2.685	2.515	2.345
<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>	393.060	393.060	393.060	393.060	393.060	393.060	393.060	393.060	393.060	393.060
<b>5</b>	389.655	385.045	380.685	376.245	372.180	368.535	364.720	361.535	358.305	354.995
<b>10</b>	368.950	358.850	348.625	338.900	328.970	319.955	311.575	303.320	295.815	288.775
<b>15</b>	341.250	325.865	310.485	295.940	280.980	267.440	254.615	242.335	231.520	221.465
<b>20</b>	306.375	286.680	267.020	248.580	229.595	213.165	197.785	183.405	170.920	159.725
<b>25</b>	266.185	243.805	221.505	201.180	180.430	162.745	146.945	132.400	120.245	109.180
<b>30</b>	220.750	199.000	176.785	156.330	136.715	120.080	105.575	92.670	81.940	72.925
<b>35</b>	175.485	153.860	133.530	115.385	98.115	84.120	72.255	61.905	53.855	47.360

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**CANDELA TABULATION - (Cont.)**

<b>40</b>	132.315	113.625	97.195	82.400	68.735	57.965	49.080	41.660	35.665	31.350
<b>45</b>	95.310	81.140	68.610	57.505	47.445	39.565	33.950	28.290	24.395	21.290
<b>50</b>	67.185	56.960	47.905	39.775	34.115	27.870	23.555	20.035	17.435	15.380
<b>55</b>	46.480	39.565	34.620	27.745	23.345	19.740	16.850	14.545	12.865	11.525
<b>60</b>	32.610	27.955	23.640	20.075	16.935	14.585	12.660	11.150	10.015	9.135
<b>65</b>	22.760	19.615	16.805	14.460	12.405	10.855	9.640	8.635	7.880	7.250
<b>70</b>	15.550	13.540	11.780	10.270	9.055	8.045	7.210	6.580	6.035	5.615
<b>75</b>	10.015	8.845	7.795	6.960	6.205	5.615	5.115	4.735	4.400	4.110
<b>80</b>	5.535	4.990	4.485	4.110	3.730	3.480	3.185	2.975	2.810	2.685
<b>85</b>	2.180	2.010	1.885	1.800	1.675	1.595	1.510	1.300	1.215	1.090
<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><b>150</b></u>	<u><b>155</b></u>	<u><b>160</b></u>	<u><b>165</b></u>	<u><b>170</b></u>	<u><b>175</b></u>	<u><b>180</b></u>
<b>0</b>	393.060	393.060	393.060	393.060	393.060	393.060	393.060
<b>5</b>	352.315	349.465	347.660	346.950	345.940	384.210	384.835
<b>10</b>	282.530	276.870	272.260	269.620	267.565	304.240	304.785
<b>15</b>	212.705	204.990	198.790	195.185	191.875	222.510	222.970
<b>20</b>	149.920	141.705	135.165	130.935	127.540	149.920	150.130
<b>25</b>	100.630	93.340	87.595	83.865	81.015	95.140	95.310
<b>30</b>	65.970	60.230	55.700	52.850	50.630	59.220	59.180
<b>35</b>	42.205	37.930	34.785	33.025	31.475	36.420	36.465
<b>40</b>	27.745	25.105	22.970	21.710	20.790	23.680	23.720
<b>45</b>	18.945	17.225	15.885	15.045	14.500	16.220	16.180
<b>50</b>	13.875	12.740	11.820	11.275	10.895	11.945	11.905
<b>55</b>	10.520	9.765	9.180	8.800	8.550	9.220	9.220
<b>60</b>	8.425	7.880	7.505	7.210	7.000	7.420	7.460
<b>65</b>	6.790	6.370	6.075	5.870	5.700	5.995	5.950
<b>70</b>	5.280	4.990	4.780	4.610	4.485	4.695	4.695
<b>75</b>	3.900	3.690	3.565	3.435	3.355	3.480	3.435
<b>80</b>	2.555	2.430	2.305	2.305	2.220	2.265	2.265
<b>85</b>	0.965	0.920	0.880	0.840	0.795	0.840	0.840
<b>90</b>	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	134.90	N.A.	21.10
0-30	265.89	N.A.	41.50
0-40	398.37	N.A.	62.20
0-60	581.27	N.A.	90.80
0-80	638.17	N.A.	99.70
0-90	640.23	N.A.	100.00
10-90	603.49	N.A.	94.30
20-40	263.47	N.A.	41.20
20-50	372.28	N.A.	58.10
40-70	224.19	N.A.	35.00
60-80	56.89	N.A.	8.90
70-80	15.60	N.A.	2.40
80-90	2.06	N.A.	0.30
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	640.23	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	36.74
10-20	98.16
20-30	130.99
30-40	132.48
40-50	108.81
50-60	74.09
60-70	41.29
70-80	15.60
80-90	2.06
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

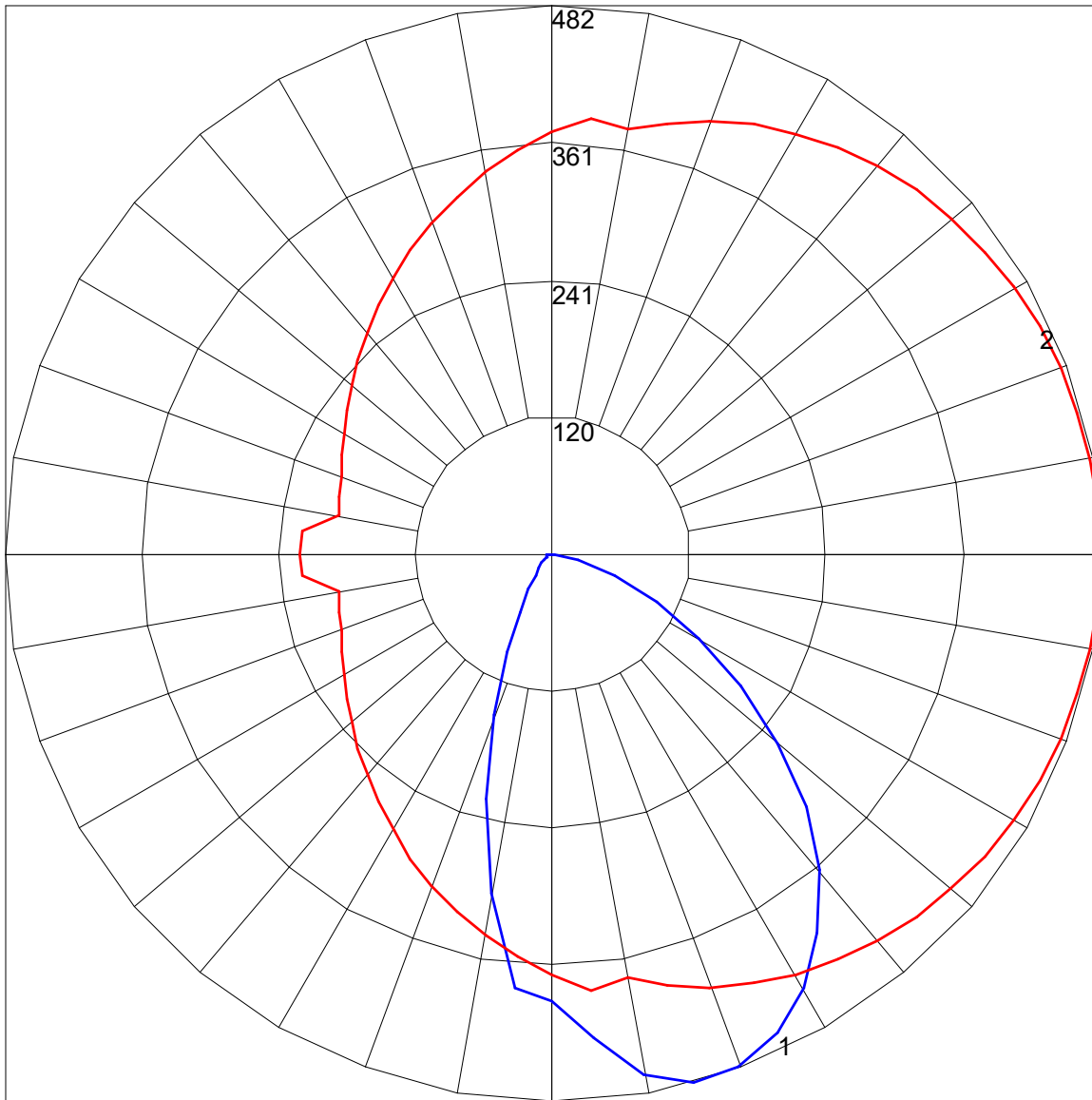
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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	111	107	104	101	109	105	102	99	101	99	96	97	95	93	94	92	91	89
2	103	96	91	86	101	95	90	85	91	87	83	88	85	81	85	82	80	78
3	96	87	80	75	93	85	79	74	82	77	73	80	75	71	77	74	70	68
4	89	79	71	65	87	77	70	65	75	69	64	73	68	63	71	66	63	61
5	82	71	64	58	81	70	63	58	68	62	57	67	61	57	65	60	56	54
6	77	65	57	52	75	64	57	52	63	56	51	61	55	51	60	54	50	49
7	72	60	52	47	70	59	52	47	58	51	46	56	50	46	55	50	46	44
8	67	55	48	43	66	55	47	42	53	47	42	52	46	42	51	46	42	40
9	63	51	44	39	62	51	44	39	50	43	39	49	43	39	48	42	38	37
10	60	48	41	36	59	47	40	36	46	40	36	45	40	36	45	39	35	34

POLAR GRAPH



Maximum Candela = 481.99 Located At Horizontal Angle = 0, Vertical Angle = 15  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180)  
# 2 - Horizontal Cone Through Vertical Angle (15) (Through Max. Cd.)