

## IES Report

# BoxRail® | 107 | 40° Symmetric | 90 CRI | LO

107-BX-XX-4-48-XX-XX-XX-XX-X-X-Z-LO-359-S1-X-BL-X

	2700K	3000K	3500K	4000K
Efficacy - Lumens per Watt	29	30	31	31
Total Lumens, 4' rail length (1219mm)	395	407	416	420
Lumens per foot (305mm)	99	102	104	105
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\_S1\_BL.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] L121911512 (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-S1-BL

[LUMINAIRE] BoxRail LED, 48", 3500K, 90 CRI, zipper board, 40° black symmetric lens,

[MORE] low output, clear anodized finish

[TEST PROCEDURE] IESNA:LM-79-08

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	416
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	30
Total Luminaire Watts	13.82
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.74
Spacing Criterion (90-270)	1.06
Spacing Criterion (Diagonal)	0.84
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	0.01 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	12549	20143	47846
55	6079	9628	26480
65	3055	5430	15221
75	2175	3490	9251
85	0	1205	4980

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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>0.0</b>	412.100	412.100	412.100	412.100	412.100	412.100	412.100	412.100	412.100	412.100
<b>1.0</b>	381.485	389.510	396.255	402.965	406.400	407.215	408.390	408.955	409.815	421.530
<b>3.0</b>	391.335	392.990	398.520	403.990	408.285	410.150	410.740	411.075	411.535	421.470
<b>5.0</b>	384.210	387.645	395.040	400.470	403.380	405.270	406.315	407.215	408.100	409.335
<b>7.0</b>	373.980	379.095	385.005	390.850	394.035	395.860	396.530	397.765	399.505	401.435
<b>9.0</b>	366.395	369.415	376.455	382.005	385.150	383.975	384.585	386.345	391.815	395.230
<b>11.0</b>	364.130	362.185	364.930	368.220	368.680	366.900	368.365	371.360	375.405	380.895
<b>13.0</b>	343.050	341.225	342.755	346.300	347.115	345.355	347.240	349.650	356.045	362.705
<b>15.0</b>	292.255	294.535	301.265	305.330	309.750	317.485	322.385	329.030	336.450	343.660
<b>17.0</b>	279.300	278.275	281.395	285.525	288.940	293.950	298.080	305.705	314.550	323.645
<b>19.5</b>	261.445	258.870	258.155	259.920	259.035	261.155	258.200	267.230	278.150	289.905
<b>22.5</b>	195.270	196.860	198.370	200.655	208.595	214.885	223.645	224.230	236.865	250.300
<b>25.5</b>	173.055	170.560	170.475	171.230	173.515	178.505	185.585	184.560	197.635	211.720
<b>29.0</b>	133.490	130.495	129.720	132.235	134.285	136.905	141.475	151.430	163.205	176.615
<b>33.0</b>	88.435	89.585	88.685	89.565	92.375	96.900	103.920	113.100	114.985	127.725
<b>37.5</b>	56.835	57.525	57.315	58.720	61.525	65.465	70.665	77.640	78.835	89.000
<b>42.5</b>	38.935	37.825	37.615	38.475	40.070	41.260	44.865	49.645	55.720	63.435
<b>47.5</b>	24.435	24.245	23.955	24.395	25.085	26.340	25.775	29.065	33.195	38.285
<b>55.0</b>	12.450	12.260	12.070	12.300	12.680	13.370	13.140	14.860	17.060	19.720
<b>65.0</b>	4.610	4.735	4.755	4.905	5.220	5.595	6.140	6.830	7.105	8.195
<b>75.0</b>	2.010	2.010	1.990	2.095	2.140	2.240	2.450	2.705	2.810	3.225
<b>85.0</b>	0.000	0.000	0.000	0.000	0.040	0.040	0.085	0.125	0.210	0.375
<b>90.0</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>
<b>0.0</b>	412.100	412.100	412.100	412.100	412.100	412.100	412.100	412.100	412.100
<b>1.0</b>	421.865	422.245	422.535	422.995	423.520	423.775	423.980	424.130	424.400
<b>3.0</b>	421.845	422.350	422.745	423.205	423.565	423.940	424.275	424.360	424.525
<b>5.0</b>	418.175	419.350	420.250	421.175	422.140	422.600	423.060	423.230	423.520
<b>7.0</b>	409.480	411.535	413.565	415.580	417.045	418.200	419.015	419.560	420.085
<b>9.0</b>	398.875	402.270	405.520	408.265	410.780	412.560	414.005	414.950	415.430
<b>11.0</b>	386.010	390.975	395.545	399.905	403.070	405.875	408.140	409.565	410.195
<b>13.0</b>	369.540	376.225	382.490	388.505	393.430	396.970	400.175	402.000	402.565
<b>15.0</b>	351.515	358.975	366.020	374.465	380.580	386.260	390.580	393.345	395.900
<b>17.0</b>	333.285	342.630	350.615	360.610	368.950	375.680	380.350	383.955	385.340
<b>19.5</b>	302.645	315.260	327.395	339.360	349.315	357.005	363.545	367.360	367.735
<b>22.5</b>	265.095	279.700	294.095	308.535	320.230	330.455	338.670	343.890	345.440
<b>25.5</b>	227.080	243.300	259.500	275.885	289.970	301.285	310.800	316.645	318.320
<b>29.0</b>	184.035	200.760	218.130	235.190	249.860	263.650	274.840	281.755	285.085
<b>33.0</b>	142.500	158.530	174.795	192.125	207.885	221.190	232.150	239.400	241.495
<b>37.5</b>	101.220	114.840	129.530	144.995	158.740	171.900	182.570	189.465	191.580
<b>42.5</b>	72.760	82.420	93.465	105.365	112.470	124.020	133.595	139.695	142.625
<b>47.5</b>	44.635	51.990	60.330	69.425	78.290	86.215	93.295	97.865	98.995
<b>55.0</b>	23.075	27.035	31.600	36.590	41.365	46.270	50.400	53.185	54.235
<b>65.0</b>	9.555	11.150	13.015	15.130	17.245	19.425	21.230	22.485	22.970
<b>75.0</b>	3.690	4.275	4.945	5.740	6.495	7.250	7.940	8.405	8.550
<b>85.0</b>	0.585	0.840	1.050	1.155	1.235	1.320	1.405	1.510	1.550
<b>90.0</b>	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	129.62	N.A.	31.20
0-30	232.32	N.A.	55.90
0-40	306.62	N.A.	73.80
0-60	387.50	N.A.	93.20
0-80	412.85	N.A.	99.30
0-90	415.60	N.A.	100.00
10-90	384.20	N.A.	92.40
20-40	177.01	N.A.	42.60
20-50	233.59	N.A.	56.20
40-70	98.44	N.A.	23.70
60-80	25.35	N.A.	6.10
70-80	7.78	N.A.	1.90
80-90	2.75	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	415.60	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	31.40
10-20	98.22
20-30	102.70
30-40	74.31
40-50	56.58
50-60	24.29
60-70	17.57
70-80	7.78
80-90	2.75
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

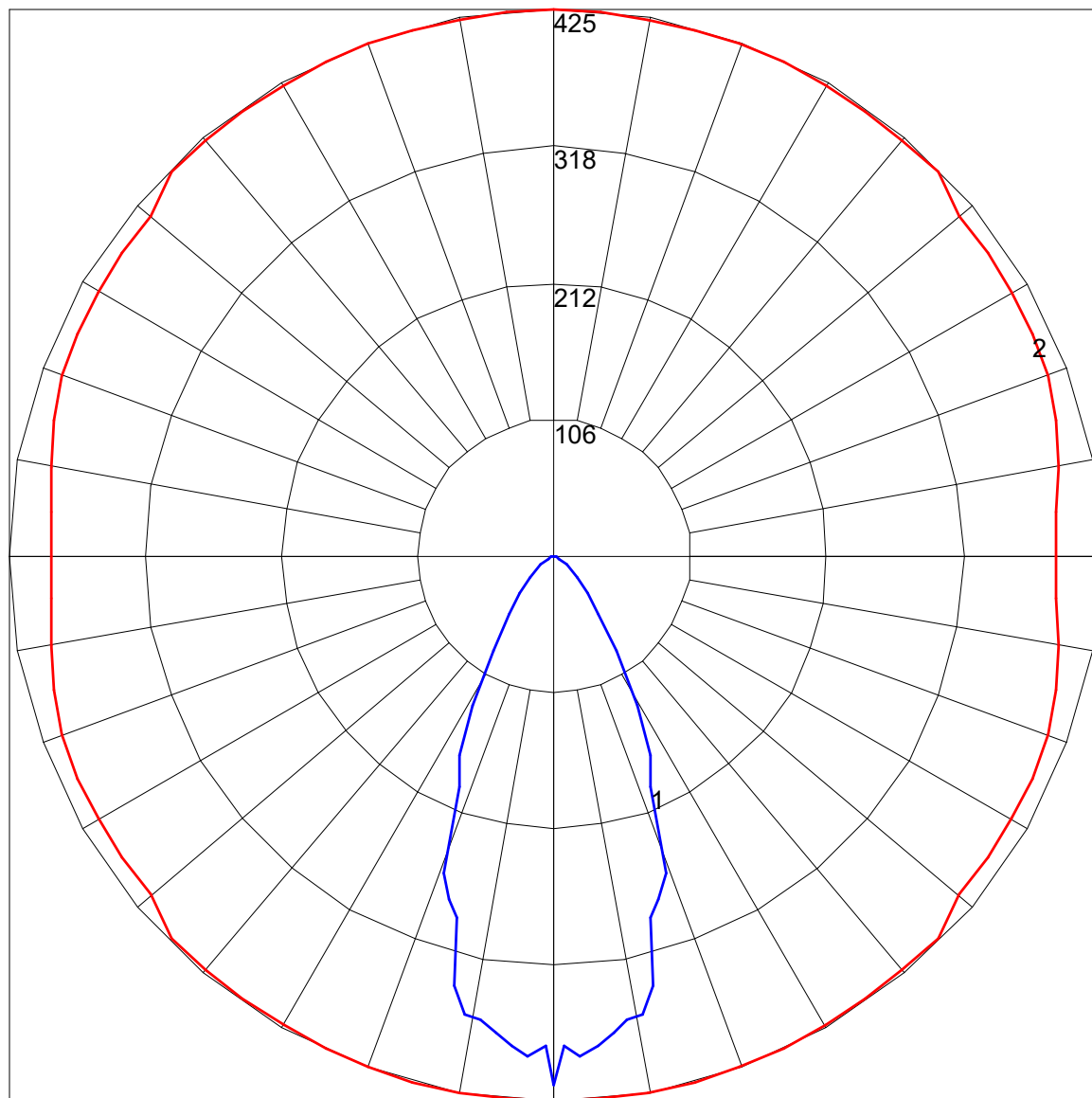
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	103	109	106	103	101	102	100	98	98	97	95	95	93	92	90
2	105	99	94	90	102	97	93	89	94	90	87	91	88	85	88	85	83	81
3	98	90	84	80	96	89	83	79	86	82	78	84	80	76	81	78	75	73
4	92	83	77	72	90	82	76	71	80	74	70	78	73	69	76	72	68	67
5	87	77	70	65	85	76	69	65	74	68	64	72	67	63	70	66	63	61
6	82	71	64	59	80	70	64	59	69	63	59	67	62	58	66	61	58	56
7	77	66	59	54	76	66	59	54	64	58	54	63	58	54	62	57	53	52
8	73	62	55	50	71	61	55	50	60	54	50	59	54	50	58	53	49	48
9	69	58	51	47	68	57	51	47	56	51	46	55	50	46	55	50	46	45
10	65	54	48	44	64	54	48	44	53	47	43	52	47	43	52	47	43	42

POLAR GRAPH



Maximum Candela = 424.525 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.)