

IES Report

**BoxRail® | 107 | 85° Asymmetric | 80 CRI | SO**

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

	2700K	3000K	3500K	4000K
Efficacy - Lumens per Watt	73	76	77	77
Total Lumens, 4' rail length (1219mm)	1739	1794	1830	1830
Lumens per foot (305mm)	435	448	458	458
Input Power (W), 4' rail length (1219mm)	23.9	23.9	23.9	23.9
Watts per foot (305mm)	6.0	6.0	6.0	6.0
CRI	82	82	82	82

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\_SO\_35\_A1.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
[TEST] L121911511 (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-SO-35-A1-AL  
[LUMINAIRE] BoxRail LED, 48", 3500K, 80 CRI, zipper board, 85° white asymmetric lens,  
[MORE] standard 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	1831
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	77
Total Luminaire Watts	23.92
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.78
Spacing Criterion (90-270)	1.10
Spacing Criterion (Diagonal)	1.24
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	90903	74392	34554
55	75201	59617	27370
65	52675	44748	22084
75	22884	28802	17309
85	316	466	10939

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>	836.232	836.232	836.232	836.232	836.232	836.232	836.232	836.232	836.232	836.232
<b>5</b>	982.474	980.525	979.550	976.836	973.623	969.737	964.586	959.912	952.430	944.936
<b>10</b>	1143.493	1141.069	1138.540	1132.891	1125.989	1116.175	1104.598	1091.862	1075.726	1058.604
<b>15</b>	1244.228	1242.000	1238.880	1232.082	1222.454	1211.168	1196.586	1179.569	1158.562	1135.037
<b>20</b>	1283.714	1283.227	1279.039	1272.427	1262.904	1250.260	1235.191	1215.935	1192.990	1166.740
<b>25</b>	1272.230	1270.676	1266.697	1260.468	1250.840	1238.590	1222.454	1202.618	1177.818	1150.685
<b>30</b>	1223.614	1222.060	1218.070	1211.272	1200.867	1187.248	1170.046	1149.038	1122.393	1092.442
<b>35</b>	1146.996	1145.245	1140.872	1133.285	1121.418	1106.060	1086.514	1061.818	1033.038	1000.465
<b>40</b>	1044.116	1042.666	1037.794	1029.338	1016.311	999.491	977.022	949.309	918.291	883.096
<b>45</b>	918.105	916.249	911.980	903.617	890.196	872.308	849.062	820.282	787.907	751.344
<b>50</b>	772.247	770.982	767.479	760.090	748.815	730.533	708.366	681.628	650.795	618.419
<b>55</b>	616.088	615.113	612.492	607.434	598.386	584.292	565.628	542.091	515.736	488.418
<b>60</b>	459.928	459.638	458.757	456.042	450.300	440.962	427.738	410.628	391.082	371.246
<b>65</b>	317.968	318.153	318.640	318.443	316.402	312.133	304.929	294.721	282.564	270.118
<b>70</b>	191.168	191.748	193.302	195.251	197.003	197.293	195.936	192.432	187.468	181.447
<b>75</b>	84.599	85.272	87.708	91.106	95.387	99.957	103.553	105.885	106.859	106.476
<b>80</b>	12.841	13.131	14.001	15.846	18.479	22.272	27.225	33.153	38.988	43.755
<b>85</b>	0.394	0.394	0.394	0.394	0.394	0.394	0.394	0.394	0.394	0.580
<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>	836.232	836.232	836.232	836.232	836.232	836.232	836.232	836.232	836.232	836.232
<b>5</b>	937.257	927.629	915.379	902.445	889.326	875.417	860.824	845.663	830.003	810.654
<b>10</b>	1039.847	1017.181	991.904	964.876	937.164	907.306	876.484	844.109	811.629	780.610
<b>15</b>	1109.076	1078.058	1042.759	1004.548	964.482	921.307	876.287	828.843	781.480	734.326
<b>20</b>	1136.788	1101.002	1059.973	1014.072	965.456	911.493	854.607	795.192	735.881	675.596
<b>25</b>	1117.927	1079.519	1035.080	985.002	931.526	869.965	806.188	738.804	671.512	608.304
<b>30</b>	1058.222	1018.155	972.266	920.634	865.105	801.711	735.394	664.808	594.987	529.157
<b>35</b>	964.285	922.966	876.774	826.117	771.667	710.117	645.644	577.970	510.783	447.284
<b>40</b>	845.373	804.147	759.313	711.672	661.792	605.682	548.019	488.615	426.474	370.666
<b>45</b>	714.490	674.726	634.369	591.194	547.833	499.983	448.642	393.414	348.986	302.598
<b>50</b>	582.448	548.993	514.089	478.303	442.331	403.529	363.660	322.724	282.182	242.602
<b>55</b>	460.021	432.993	405.571	377.476	350.923	321.274	288.109	256.024	224.228	192.722
<b>60</b>	351.898	332.154	311.831	291.415	270.802	248.437	224.135	199.914	175.021	151.009
<b>65</b>	256.998	243.670	230.643	217.222	202.733	186.598	169.093	151.299	133.307	115.327
<b>70</b>	174.928	167.736	160.242	151.983	142.552	132.147	120.860	108.715	96.454	84.796
<b>75</b>	105.212	102.880	99.864	96.071	91.211	85.272	78.764	71.468	63.986	57.084
<b>80</b>	47.166	49.103	49.683	49.300	48.036	45.704	42.885	39.579	35.879	32.573
<b>85</b>	1.844	4.860	9.535	13.027	14.778	15.266	15.068	14.488	13.618	13.027
<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>	836.232	836.232	836.232	836.232	836.232	836.232	836.232	836.232	836.232	836.232
<b>5</b>	796.073	779.056	764.475	751.146	737.238	724.606	713.029	701.266	666.122	759.510
<b>10</b>	750.369	719.838	689.991	662.662	635.239	621.528	600.428	578.364	560.756	543.843
<b>15</b>	690.084	645.934	604.221	566.010	528.577	496.004	466.633	498.916	475.391	456.425
<b>20</b>	620.855	567.078	517.395	473.152	431.044	440.475	407.810	377.661	354.914	335.855
<b>25</b>	547.833	489.195	436.299	390.502	347.907	313.490	284.420	263.900	243.577	226.850
<b>30</b>	467.410	409.271	358.022	314.754	275.952	245.618	222.871	201.573	185.240	172.492
<b>35</b>	389.435	336.052	289.571	252.033	219.078	194.277	175.415	158.688	146.346	137.008

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**CANDELA TABULATION - (Cont.)**

<b>40</b>	319.522	273.134	233.949	202.838	176.482	156.739	141.381	129.816	120.965	114.156
<b>45</b>	259.712	221.212	189.416	164.616	143.712	129.131	117.752	108.808	102.486	97.823
<b>50</b>	207.118	176.877	152.656	133.412	117.949	106.859	98.797	93.635	89.065	85.863
<b>55</b>	165.787	142.065	123.679	109.191	97.916	90.619	84.692	80.411	77.500	75.551
<b>60</b>	130.593	112.798	98.797	88.775	81.293	75.655	71.665	71.468	69.426	68.069
<b>65</b>	100.642	88.682	78.660	71.375	65.830	61.944	59.508	57.861	56.782	56.202
<b>70</b>	74.878	66.317	59.798	55.030	51.539	49.207	47.746	46.771	46.284	45.994
<b>75</b>	51.144	46.191	42.398	39.765	37.828	36.760	36.169	35.786	35.682	35.786
<b>80</b>	29.951	27.910	26.355	25.381	24.894	24.604	24.696	24.801	25.184	25.578
<b>85</b>	12.841	12.841	13.027	13.224	13.618	14.198	14.581	14.778	14.686	14.581
<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>150</u>	<u>155</u>	<u>160</u>	<u>165</u>	<u>170</u>	<u>175</u>	<u>180</u>
<b>0</b>	836.232	836.232	836.232	836.232	836.232	836.232	836.232
<b>5</b>	755.914	754.940	756.401	760.287	762.132	758.733	844.399
<b>10</b>	530.329	582.935	578.167	576.126	574.571	569.316	645.064
<b>15</b>	439.988	428.806	420.256	414.909	410.918	405.374	463.432
<b>20</b>	320.879	310.474	301.043	294.721	290.441	285.383	324.765
<b>25</b>	213.428	203.220	220.040	214.403	210.517	206.724	231.814
<b>30</b>	162.191	168.803	166.077	161.797	158.688	156.159	171.529
<b>35</b>	129.514	136.520	131.857	128.841	126.985	125.141	134.572
<b>40</b>	109.191	105.502	110.072	108.124	107.056	105.989	112.021
<b>45</b>	95.190	97.916	96.268	95.190	94.714	94.227	98.403
<b>50</b>	83.717	85.376	85.086	84.692	84.494	84.309	87.128
<b>55</b>	74.286	76.235	75.841	75.655	75.458	75.354	77.395
<b>60</b>	67.292	66.897	66.804	66.700	66.700	66.607	68.254
<b>65</b>	55.819	57.466	57.466	57.664	57.861	57.664	58.928
<b>70</b>	45.994	47.456	47.641	47.838	48.036	48.036	49.207
<b>75</b>	35.983	37.248	37.538	37.828	38.025	38.118	38.895
<b>80</b>	25.961	27.028	27.422	27.712	28.107	28.292	28.977
<b>85</b>	14.581	14.686	15.173	15.266	15.463	15.556	15.950
<b>90</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000

**IES INDOOR REPORT**  
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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	306.22	N.A.	16.70
0-30	631.82	N.A.	34.50
0-40	992.64	N.A.	54.20
0-60	1581.16	N.A.	86.40
0-80	1817.12	N.A.	99.20
0-90	1830.91	N.A.	100.00
10-90	1750.91	N.A.	95.60
20-40	686.42	N.A.	37.50
20-50	1018.27	N.A.	55.60
40-70	751.49	N.A.	41.00
60-80	235.96	N.A.	12.90
70-80	72.99	N.A.	4.00
80-90	13.79	N.A.	0.80
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	1830.91	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	80.01
10-20	226.21
20-30	325.60
30-40	360.82
40-50	331.85
50-60	256.67
60-70	162.98
70-80	72.99
80-90	13.79
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

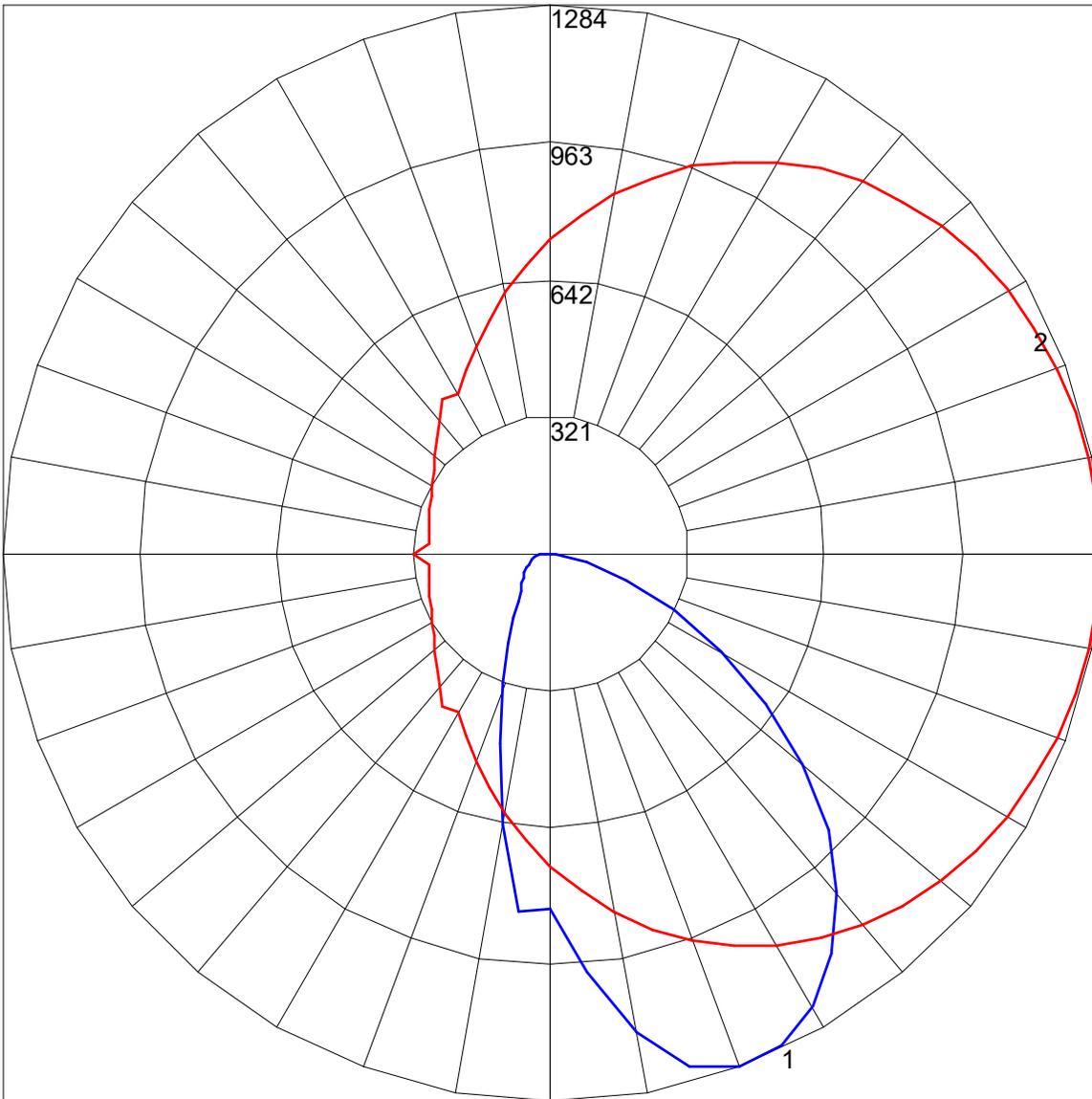
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87	
2	101	94	88	83	99	92	87	82	89	84	80	85	82	78	82	79	76	74	
3	93	84	76	70	91	82	75	70	79	73	69	77	72	67	74	70	66	64	
4	86	75	67	61	84	74	66	60	71	65	60	69	63	59	67	62	58	56	
5	79	68	59	53	77	66	59	53	64	58	52	62	56	52	61	55	51	49	
6	74	61	53	47	72	60	52	47	59	52	46	57	51	46	55	50	46	44	
7	69	56	48	42	67	55	47	42	54	47	41	52	46	41	51	45	41	39	
8	64	51	43	38	63	51	43	38	49	42	37	48	42	37	47	41	37	35	
9	60	47	40	34	59	47	39	34	46	39	34	45	38	34	44	38	34	32	
10	56	44	36	31	55	43	36	31	42	36	31	41	35	31	41	35	31	29	

POLAR GRAPH



Maximum Candela = 1283.714 Located At Horizontal Angle = 0, Vertical Angle = 20  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180)  
# 2 - Horizontal Cone Through Vertical Angle (20) (Through Max. Cd.)