

## IES Report

# RaceRail® | 107 | 120° FlyWing™ | 90 CRI | HO

107-RR-XX-4-48-XX-XX-XX-XX-X-X-Z-HO-359-G2-X-XX-X

	2700K	3000K	3500K	4000K
Efficacy - Lumens per Watt	99	103	105	106
Total Lumens, 4' rail length (1219mm)	4854	5007	5109	5160
Lumens per foot (305mm)	1213	1252	1277	1290
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\_RR\_HO\_359\_G2.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] L121911516 (SOURCE REPORT FOR REFERENCE)

[TESTLAB] REPORT BASED ON DATA FROM NVLAP ACCREDITED LAB

[ISSUE DATE] 12/23/2019

[MANUFAC] Vode Lighting

[LUMCAT] 107-RR-48-Z-HO-359-G2-AL

[LUMINAIRE] RaceRail LED, 48", 3500K, 90 CRI, zipper board, 120° flywing lens,

[MORE] high 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	5110
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	104
Total Luminaire Watts	49.06
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.64
Spacing Criterion (90-270)	1.20
Spacing Criterion (Diagonal)	1.56
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	0.07 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	86046	77139	54678
55	79706	74151	52766
65	64784	64272	49030
75	31710	44277	39020
85	4169	6070	17696

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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>	1573.067	1573.067	1573.067	1573.067	1573.067	1573.067	1573.067	1573.067	1573.067	1573.067
<b>5</b>	1587.716	1588.115	1587.564	1587.089	1585.968	1584.619	1583.175	1581.598	1579.603	1577.456
<b>10</b>	1639.643	1639.643	1637.249	1633.829	1628.490	1622.353	1615.038	1606.754	1597.843	1588.913
<b>15</b>	1712.907	1711.862	1707.416	1699.683	1688.530	1675.078	1659.232	1642.189	1623.075	1603.334
<b>20</b>	1781.383	1779.388	1772.700	1761.965	1745.720	1726.207	1702.875	1675.401	1645.685	1614.639
<b>25</b>	1819.288	1817.616	1810.301	1797.628	1779.559	1756.227	1727.708	1694.040	1655.489	1613.442
<b>30</b>	1813.398	1811.004	1804.316	1791.985	1774.467	1750.964	1720.868	1684.635	1641.790	1593.530
<b>35</b>	1759.096	1757.728	1751.762	1741.654	1725.561	1704.699	1676.351	1641.315	1598.223	1547.816
<b>40</b>	1659.384	1658.681	1654.292	1646.407	1634.456	1617.033	1593.131	1561.116	1519.962	1470.828
<b>45</b>	1520.836	1519.639	1516.846	1512.077	1503.394	1490.170	1471.303	1444.627	1408.793	1363.402
<b>50</b>	1345.314	1344.839	1343.889	1341.096	1337.353	1328.746	1315.218	1294.755	1265.609	1226.507
<b>55</b>	1142.736	1142.888	1143.534	1143.534	1142.565	1138.746	1130.861	1116.535	1094.552	1063.107
<b>60</b>	919.923	920.322	922.393	924.464	926.611	926.839	924.217	916.104	901.360	877.952
<b>65</b>	684.361	685.083	687.952	692.322	697.433	701.176	702.848	700.929	693.367	678.946
<b>70</b>	444.676	445.550	450.243	456.931	465.367	473.499	479.940	483.854	483.208	477.166
<b>75</b>	205.143	206.492	212.458	222.186	235.315	249.736	263.435	275.443	283.328	286.444
<b>80</b>	40.128	40.375	42.294	45.543	51.129	59.090	70.319	84.892	100.966	115.710
<b>85</b>	9.082	9.082	9.158	9.405	9.709	9.956	10.355	11.077	11.780	13.224
<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>
<b>0</b>	1573.067	1573.067	1573.067	1573.067	1573.067	1573.067	1573.067	1573.067	1573.067
<b>5</b>	1575.062	1573.143	1570.996	1569.172	1567.329	1566.379	1565.733	1564.783	1563.681
<b>10</b>	1579.432	1570.198	1562.484	1555.473	1548.215	1542.648	1539.627	1537.480	1535.162
<b>15</b>	1583.175	1564.061	1545.042	1528.227	1514.376	1503.147	1494.464	1489.771	1487.548
<b>20</b>	1581.427	1548.785	1518.119	1489.695	1466.515	1447.724	1433.873	1425.741	1422.872
<b>25</b>	1569.248	1523.382	1480.290	1439.611	1406.152	1379.077	1359.735	1348.430	1344.516
<b>30</b>	1540.178	1483.881	1429.579	1377.652	1334.883	1300.398	1276.192	1261.866	1256.280
<b>35</b>	1488.897	1427.185	1363.706	1303.343	1254.304	1213.682	1184.707	1167.968	1162.477
<b>40</b>	1411.263	1347.233	1280.733	1216.152	1162.952	1119.803	1088.909	1071.543	1065.178
<b>45</b>	1307.884	1244.500	1176.727	1114.616	1060.542	1018.020	988.399	971.679	966.416
<b>50</b>	1175.948	1118.283	1056.970	997.405	949.392	910.841	884.165	869.117	864.025
<b>55</b>	1020.585	971.128	918.878	868.243	827.222	794.580	772.844	760.817	756.504
<b>60</b>	845.709	807.234	766.308	726.579	694.640	670.111	653.790	645.031	642.314
<b>65</b>	657.609	630.610	602.984	575.833	554.078	537.282	526.224	519.916	517.940
<b>70</b>	466.412	451.516	435.746	420.223	407.474	397.537	390.830	387.182	385.909
<b>75</b>	285.323	280.953	275.139	268.755	263.112	258.324	255.151	253.080	252.434
<b>80</b>	126.464	132.278	134.501	134.748	134.026	132.753	131.708	130.834	130.283
<b>85</b>	15.694	20.235	26.353	33.440	37.753	39.349	39.501	39.102	38.551
<b>90</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	604.65	N.A.	11.80
0-30	1340.44	N.A.	26.20
0-40	2277.34	N.A.	44.60
0-60	4166.53	N.A.	81.50
0-80	5072.12	N.A.	99.30
0-90	5109.77	N.A.	100.00
10-90	4958.87	N.A.	97.00
20-40	1672.69	N.A.	32.70
20-50	2670.81	N.A.	52.30
40-70	2517.46	N.A.	49.30
60-80	905.59	N.A.	17.70
70-80	277.33	N.A.	5.40
80-90	37.64	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	5109.77	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	150.89
10-20	453.76
20-30	735.79
30-40	936.90
40-50	998.12
50-60	891.08
60-70	628.26
70-80	277.33
80-90	37.64
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

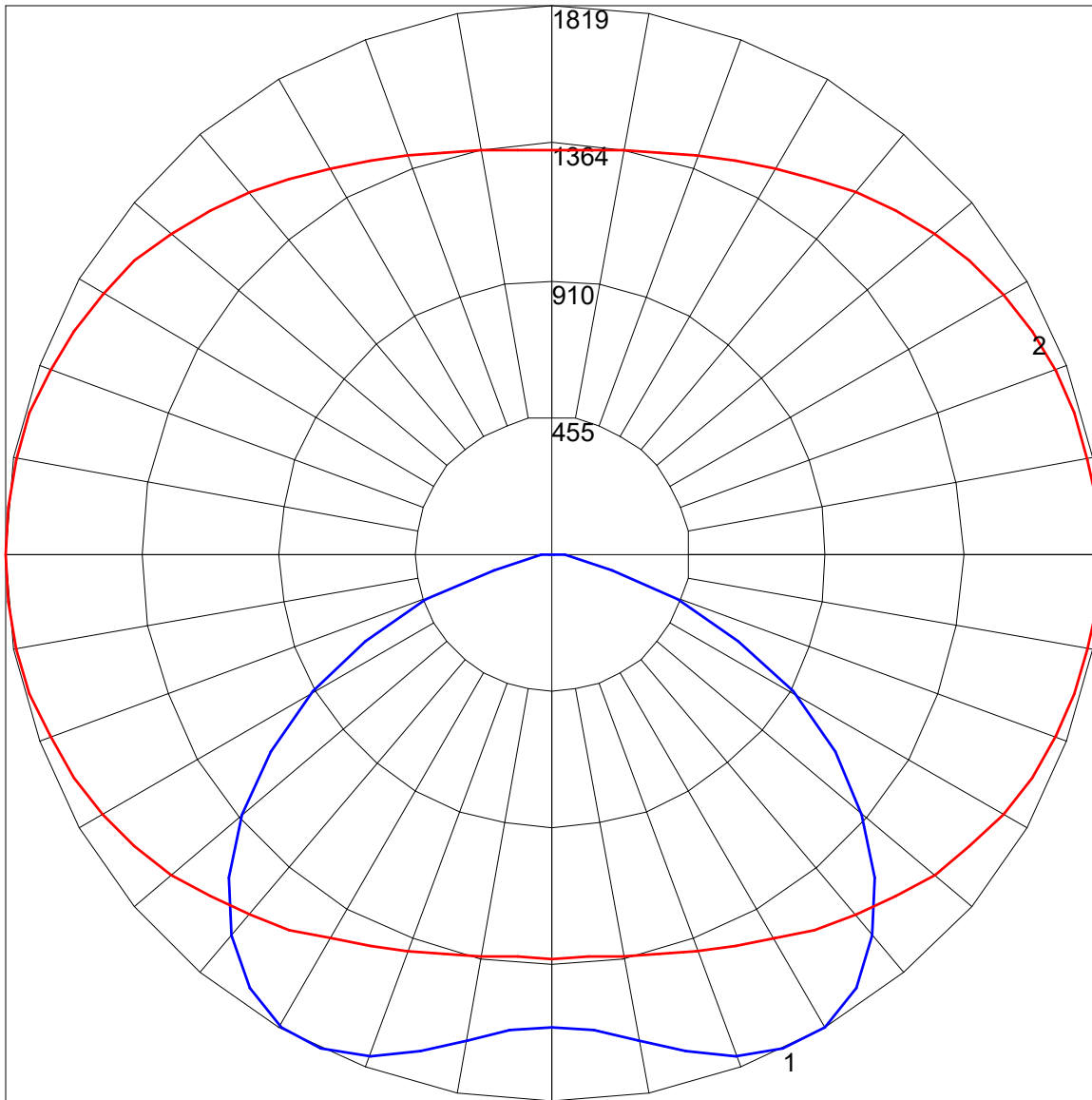
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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	109	105	101	97	107	102	99	95	98	95	92	94	92	90	91	89	87	85
2	99	91	85	79	97	90	83	78	86	81	76	83	78	75	80	76	73	71
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	60
4	83	71	62	55	81	70	61	55	67	60	54	65	59	54	63	57	53	51
5	76	63	54	48	74	62	54	47	60	52	47	58	51	46	56	50	46	44
6	70	57	48	41	68	56	47	41	54	46	41	52	46	40	51	45	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	36	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	30
9	56	43	34	29	55	42	34	29	41	34	29	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

POLAR GRAPH



Maximum Candela = 1819.288 Located At Horizontal Angle = 0, Vertical Angle = 25  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180)  
# 2 - Horizontal Cone Through Vertical Angle (25) (Through Max. Cd.)