

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	86	89	90	92
Total Lumens, 4' rail length (1219mm)	4199	4331	4420	4508
Lumens per foot (305mm)	1050	1083	1105	1127
Input Power (W), 4' rail length (1219mm)	49.2	49.2	49.2	49.2
Watts per foot (305mm)	12.4	12.4	12.4	12.4
CRI	96	96	96	96

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] L071704215 (SOURCE REPORT FOR REFERENCE)  
[TESTLAB] REPORT BASED ON DATA PRODUCED BY NVLAP ACCREDITED LAB  
[ISSUEDATE] 11/1/2017  
[MANUFAC] Vode Lighting  
[LUMCAT] 107-RR-48-Z-HO-359-G2  
[LUMINAIRE] RaceRail LED, 48", 3500K, 90 CRI, zipper board,  
[MORE] 120° flywing lens, high output  
[TEST PROCEDURE] IESNA:LM-79-08

**CHARACTERISTICS**

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	4424
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	90
Total Luminaire Watts	49.22
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.54
Spacing Criterion (90-270)	1.14
Spacing Criterion (Diagonal)	1.52
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	0.06 ft
Luminous Width (90-270)	3.83 ft
Luminous Height	0.00 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	88241	78012	51184
55	82590	74646	48313
65	62486	61611	46521
75	36087	42029	40601
85	15656	20156	21020

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>	1460.684	1460.684	1460.684	1460.684	1460.684	1460.684	1460.684	1460.684	1460.684	1460.684
<b>5</b>	1468.832	1468.832	1468.347	1467.785	1466.815	1465.767	1464.642	1463.361	1461.829	1460.374
<b>10</b>	1496.206	1495.643	1493.800	1491.472	1487.922	1483.169	1478.164	1472.053	1465.767	1458.996
<b>15</b>	1528.119	1526.819	1523.676	1518.768	1511.687	1503.384	1492.908	1480.996	1467.707	1453.758
<b>20</b>	1552.116	1550.739	1546.393	1539.797	1529.554	1517.235	1502.006	1484.216	1463.827	1442.080
<b>25</b>	1558.557	1557.180	1552.601	1544.550	1532.949	1517.643	1499.271	1476.728	1450.635	1421.710
<b>30</b>	1543.580	1541.893	1536.732	1528.119	1515.218	1498.708	1478.338	1452.808	1422.427	1387.876
<b>35</b>	1503.791	1502.103	1497.020	1488.640	1475.680	1458.686	1437.171	1410.108	1377.167	1338.348
<b>40</b>	1434.843	1433.718	1428.965	1421.302	1409.468	1393.599	1372.181	1344.866	1311.285	1270.196
<b>45</b>	1333.343	1332.062	1328.357	1322.401	1312.488	1298.966	1279.702	1253.938	1220.260	1178.783
<b>50</b>	1194.497	1193.682	1191.587	1187.804	1181.285	1171.062	1155.192	1132.300	1101.454	1061.432
<b>55</b>	1012.292	1012.292	1012.292	1012.137	1010.119	1004.881	994.328	976.848	950.930	914.923
<b>60</b>	793.848	794.663	796.603	799.416	801.744	802.229	798.291	788.067	769.288	741.992
<b>65</b>	564.307	565.432	568.730	573.328	578.877	583.552	585.647	582.757	572.843	556.411
<b>70</b>	360.530	361.480	364.623	369.376	375.177	381.307	386.467	388.543	386.545	380.337
<b>75</b>	199.587	200.324	202.982	206.920	212.314	218.366	223.992	228.668	231.170	232.451
<b>80</b>	90.850	91.102	91.898	93.275	95.370	97.776	100.919	104.624	109.144	113.568
<b>85</b>	29.158	29.313	29.643	30.361	31.331	32.708	33.911	35.289	36.491	37.539
<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>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>	1460.684	1460.684	1460.684	1460.684	1460.684	1460.684	1460.684	1460.684	1460.684
<b>5</b>	1458.919	1457.386	1455.951	1454.496	1453.603	1452.711	1452.071	1451.838	1451.586
<b>10</b>	1452.148	1445.145	1438.626	1432.593	1427.665	1423.242	1420.099	1418.237	1417.597
<b>15</b>	1438.956	1423.650	1409.313	1395.287	1383.375	1373.132	1365.566	1361.065	1359.610
<b>20</b>	1418.334	1393.599	1369.427	1345.351	1324.807	1306.765	1293.476	1285.269	1282.282
<b>25</b>	1388.691	1354.702	1319.821	1284.707	1254.094	1227.108	1206.816	1194.167	1189.007
<b>30</b>	1347.369	1304.359	1259.564	1213.509	1172.982	1136.821	1109.835	1092.996	1086.400
<b>35</b>	1292.273	1241.852	1188.056	1132.882	1083.742	1040.403	1007.791	987.809	980.398
<b>40</b>	1219.465	1163.961	1104.190	1042.420	988.061	940.454	904.603	882.622	874.727
<b>45</b>	1126.752	1068.436	1006.181	942.859	887.298	838.720	803.121	781.374	773.400
<b>50</b>	1010.449	953.413	894.146	833.890	782.577	738.442	705.985	686.256	679.155
<b>55</b>	869.411	818.020	766.630	715.976	673.607	638.570	613.118	597.559	592.166
<b>60</b>	705.908	667.088	629.375	593.465	562.697	537.555	520.483	510.977	507.601
<b>65</b>	534.101	510.492	488.259	467.734	450.662	435.181	425.520	421.659	420.126
<b>70</b>	371.083	361.732	352.789	344.408	337.657	331.119	326.056	325.978	325.726
<b>75</b>	231.403	230.685	229.483	228.183	227.465	225.680	222.712	222.945	224.555
<b>80</b>	117.758	121.056	122.996	124.121	124.684	124.354	122.996	120.649	122.744
<b>85</b>	38.412	38.587	38.587	40.119	41.555	41.807	40.915	38.897	39.149
<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	548.90	N.A.	12.40
0-30	1193.23	N.A.	27.00
0-40	1998.95	N.A.	45.20
0-60	3615.16	N.A.	81.70
0-80	4374.73	N.A.	98.90
0-90	4424.36	N.A.	100.00
10-90	4285.04	N.A.	96.90
20-40	1450.05	N.A.	32.80
20-50	2306.29	N.A.	52.10
40-70	2134.9	N.A.	48.30
60-80	759.57	N.A.	17.20
70-80	240.88	N.A.	5.40
80-90	49.62	N.A.	1.10
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	4424.36	N.A.	100.00

Total Luminaire Efficiency = N.A.%

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	139.31
10-20	409.59
20-30	644.32
30-40	805.72
40-50	856.25
50-60	759.96
60-70	518.69
70-80	240.88
80-90	49.62
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

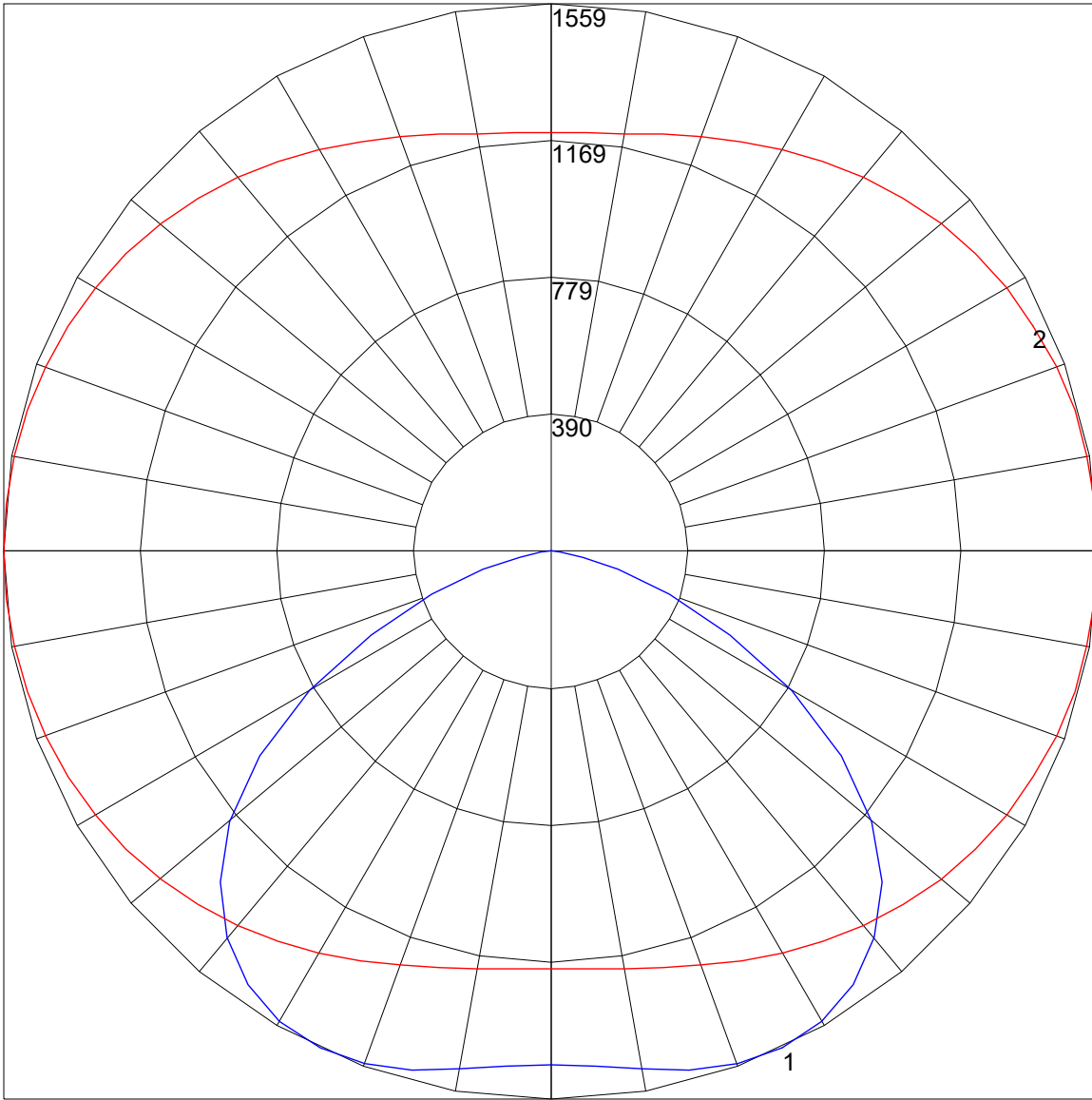
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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	89	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	68	63	71	66	62	60
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	58	53	51
5	76	63	55	48	74	62	54	48	60	53	47	58	52	47	56	51	46	44
6	70	57	48	42	68	56	48	42	54	47	41	53	46	41	51	45	40	38
7	65	52	43	37	63	51	42	37	49	42	36	48	41	36	46	40	36	34
8	61	47	38	33	59	46	38	33	45	38	32	44	37	32	43	36	32	30
9	57	43	35	29	55	42	35	29	41	34	29	40	34	29	39	33	29	27
10	53	40	32	26	52	39	32	26	38	31	26	37	31	26	36	30	26	24

POLAR GRAPH



Maximum Candela = 1558.557 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.)