

IES Report

RaceRail® | 107 | Diffuse, round | 90 CRI | HO

107-RR-XX-4-48-XX-XX-XX-XX-X-X-Z-HO-359-2-X-XX-X

	2700K	3000K	3500K	4000K
Efficacy - Lumens per Watt	116	120	122	123
Total Lumens, 4' rail length (1219mm)	5666	5845	5964	6024
Lumens per foot (305mm)	1416	1461	1491	1506
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\_2.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
 [TEST] L121911517 (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-359-2-AL  
 [LUMINAIRE] RaceRail LED, 48", 3500K, 90 CRI, zipper board, round diffuse 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	5965
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	122
Total Luminaire Watts	49.06
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.26
Spacing Criterion (90-270)	1.22
Spacing Criterion (Diagonal)	1.36
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	0.07 ft
Luminous Width (90-270)	3.84 ft
Luminous Height	0.02 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	59781	64372	72079
55	47813	53879	61958
65	34908	42808	50517
75	25300	32730	38604
85	20446	27325	28810

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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>	2177.4	2177.4	2177.4	2177.4	2177.4	2177.4	2177.4	2177.4	2177.4	2177.4
<b>5</b>	2171.7	2171.7	2171.7	2171.7	2171.7	2171.7	2171.7	2171.7	2171.7	2171.7
<b>10</b>	2145.1	2145.1	2145.1	2145.1	2145.1	2145.1	2143.2	2143.2	2143.2	2143.2
<b>15</b>	2097.6	2099.5	2097.6	2097.6	2097.6	2095.7	2095.7	2095.7	2095.7	2093.8
<b>20</b>	2033.0	2033.0	2033.0	2033.0	2031.1	2029.2	2027.3	2027.3	2025.4	2023.5
<b>25</b>	1947.5	1947.5	1947.5	1945.6	1943.7	1941.8	1939.9	1938.0	1936.1	1932.3
<b>30</b>	1841.1	1841.1	1841.1	1839.2	1837.3	1835.4	1831.6	1827.8	1824.0	1820.2
<b>35</b>	1710.0	1710.0	1710.0	1710.0	1708.1	1708.1	1704.3	1700.5	1694.8	1689.1
<b>40</b>	1546.6	1546.6	1548.5	1550.4	1550.4	1552.3	1552.3	1550.4	1546.6	1540.9
<b>45</b>	1358.5	1360.4	1362.3	1364.2	1368.0	1371.8	1375.6	1377.5	1375.6	1371.8
<b>50</b>	1164.7	1164.7	1166.6	1170.4	1176.1	1179.9	1185.6	1187.5	1189.4	1187.5
<b>55</b>	965.2	965.2	969.0	974.7	980.4	988.0	995.6	999.4	1001.3	999.4
<b>60</b>	769.5	771.4	775.2	782.8	790.4	799.9	809.4	817.0	820.8	820.8
<b>65</b>	594.7	596.6	600.4	606.1	615.6	625.1	634.6	644.1	649.8	651.7
<b>70</b>	452.2	452.2	456.0	461.7	469.3	476.9	486.4	494.0	497.8	499.7
<b>75</b>	338.2	338.2	342.0	345.8	351.5	359.1	364.8	370.5	374.3	374.3
<b>80</b>	254.6	254.6	256.5	260.3	264.1	269.8	273.6	277.4	279.3	277.4
<b>85</b>	190.0	190.0	191.9	193.8	197.6	199.5	203.3	203.3	203.3	199.5
<b>90</b>	144.4	144.4	144.4	146.3	148.2	148.2	150.1	150.1	148.2	142.5
<b>95</b>	110.2	110.2	110.2	110.2	110.2	112.1	110.2	110.2	106.4	100.7
<b>100</b>	83.6	83.6	83.6	83.6	83.6	83.6	81.7	79.8	76.0	70.3
<b>105</b>	64.6	64.6	64.6	64.6	62.7	62.7	60.8	58.9	55.1	49.4
<b>110</b>	49.4	49.4	49.4	49.4	47.5	47.5	45.6	41.8	38.0	34.2
<b>115</b>	38.0	38.0	38.0	38.0	36.1	34.2	32.3	30.4	26.6	22.8
<b>120</b>	28.5	28.5	28.5	28.5	26.6	24.7	24.7	20.9	19.0	17.1
<b>125</b>	20.9	20.9	20.9	20.9	19.0	19.0	17.1	15.2	13.3	11.4
<b>130</b>	15.2	15.2	15.2	15.2	15.2	15.2	13.3	13.3	11.4	9.5
<b>135</b>	13.3	13.3	13.3	13.3	11.4	11.4	11.4	9.5	9.5	7.6
<b>140</b>	11.4	11.4	11.4	11.4	9.5	9.5	9.5	7.6	7.6	7.6
<b>145</b>	9.5	9.5	9.5	9.5	9.5	7.6	7.6	0.0	0.0	0.0
<b>150</b>	7.6	7.6	7.6	7.6	7.6	7.6	0.0	0.0	0.0	0.0
<b>155</b>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>160</b>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>165</b>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>170</b>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>175</b>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>180</b>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

**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>	2177.4	2177.4	2177.4	2177.4	2177.4	2177.4	2177.4	2177.4	2177.4
<b>5</b>	2171.7	2171.7	2171.7	2171.7	2171.7	2171.7	2171.7	2171.7	2173.6
<b>10</b>	2143.2	2143.2	2143.2	2143.2	2143.2	2143.2	2143.2	2143.2	2143.2
<b>15</b>	2091.9	2091.9	2090.0	2090.0	2088.1	2090.0	2088.1	2088.1	2090.0
<b>20</b>	2021.6	2019.7	2015.9	2015.9	2014.0	2012.1	2012.1	2010.2	2012.1
<b>25</b>	1928.5	1924.7	1920.9	1917.1	1915.2	1911.4	1911.4	1911.4	1911.4
<b>30</b>	1814.5	1808.8	1803.1	1797.4	1793.6	1787.9	1786.0	1784.1	1784.1
<b>35</b>	1683.4	1673.9	1666.3	1656.8	1649.2	1643.5	1637.8	1635.9	1635.9
<b>40</b>	1531.4	1520.0	1508.6	1497.2	1485.8	1478.2	1470.6	1466.8	1464.9
<b>45</b>	1362.3	1350.9	1335.7	1322.4	1309.1	1295.8	1286.3	1280.6	1280.6
<b>50</b>	1179.9	1170.4	1155.2	1138.1	1121.0	1105.8	1094.4	1086.8	1086.8
<b>55</b>	993.7	984.2	970.9	951.9	934.8	917.7	904.4	896.8	894.9
<b>60</b>	815.1	803.7	788.5	773.3	754.3	735.3	720.1	712.5	708.7

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**CANDELA TABULATION - (Cont.)**

<b>65</b>	647.9	636.5	623.2	604.2	585.2	566.2	551.0	541.5	539.6
<b>70</b>	497.8	488.3	475.0	456.0	435.1	416.1	399.0	389.5	385.7
<b>75</b>	370.5	361.0	347.7	330.6	309.7	288.8	271.7	260.3	254.6
<b>80</b>	271.7	262.2	247.0	228.0	207.1	186.2	167.2	153.9	150.1
<b>85</b>	193.8	182.4	167.2	150.1	129.2	106.4	87.4	72.2	66.5
<b>90</b>	134.9	125.4	110.2	93.1	74.1	55.1	36.1	19.0	7.6
<b>95</b>	93.1	83.6	70.3	55.1	39.9	24.7	11.4	3.8	1.9
<b>100</b>	62.7	55.1	43.7	32.3	22.8	11.4	3.8	1.9	0.0
<b>105</b>	43.7	36.1	28.5	19.0	11.4	5.7	1.9	0.0	0.0
<b>110</b>	28.5	22.8	17.1	11.4	7.6	3.8	0.0	0.0	0.0
<b>115</b>	19.0	15.2	11.4	7.6	5.7	0.0	0.0	0.0	0.0
<b>120</b>	13.3	11.4	7.6	5.7	3.8	0.0	0.0	0.0	0.0
<b>125</b>	11.4	9.5	7.6	5.7	0.0	0.0	0.0	0.0	0.0
<b>130</b>	7.6	7.6	5.7	5.7	0.0	0.0	0.0	0.0	0.0
<b>135</b>	7.6	5.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>140</b>	5.7	5.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>145</b>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>150</b>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>155</b>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>160</b>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>165</b>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>170</b>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>175</b>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>180</b>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	796.93	N.A.	13.40
0-30	1685.56	N.A.	28.30
0-40	2734.9	N.A.	45.90
0-60	4634.3	N.A.	77.70
0-80	5604.52	N.A.	94.00
0-90	5792.04	N.A.	97.10
10-90	5585.67	N.A.	93.60
20-40	1937.97	N.A.	32.50
20-50	2973.56	N.A.	49.90
40-70	2507.04	N.A.	42.00
60-80	970.23	N.A.	16.30
70-80	362.58	N.A.	6.10
80-90	187.52	N.A.	3.10
90-110	132.86	N.A.	2.20
90-120	154.19	N.A.	2.60
90-130	164.66	N.A.	2.80
90-150	172.39	N.A.	2.90
90-180	172.68	N.A.	2.90
110-180	39.82	N.A.	0.70
0-180	5964.72	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	206.37
10-20	590.56
20-30	888.63
30-40	1049.34
40-50	1035.59
50-60	863.80
60-70	607.64
70-80	362.58
80-90	187.52
90-100	89.23
100-110	43.63
110-120	21.33
120-130	10.47
130-140	5.42
140-150	2.30
150-160	0.29
160-170	0.00
170-180	0.00

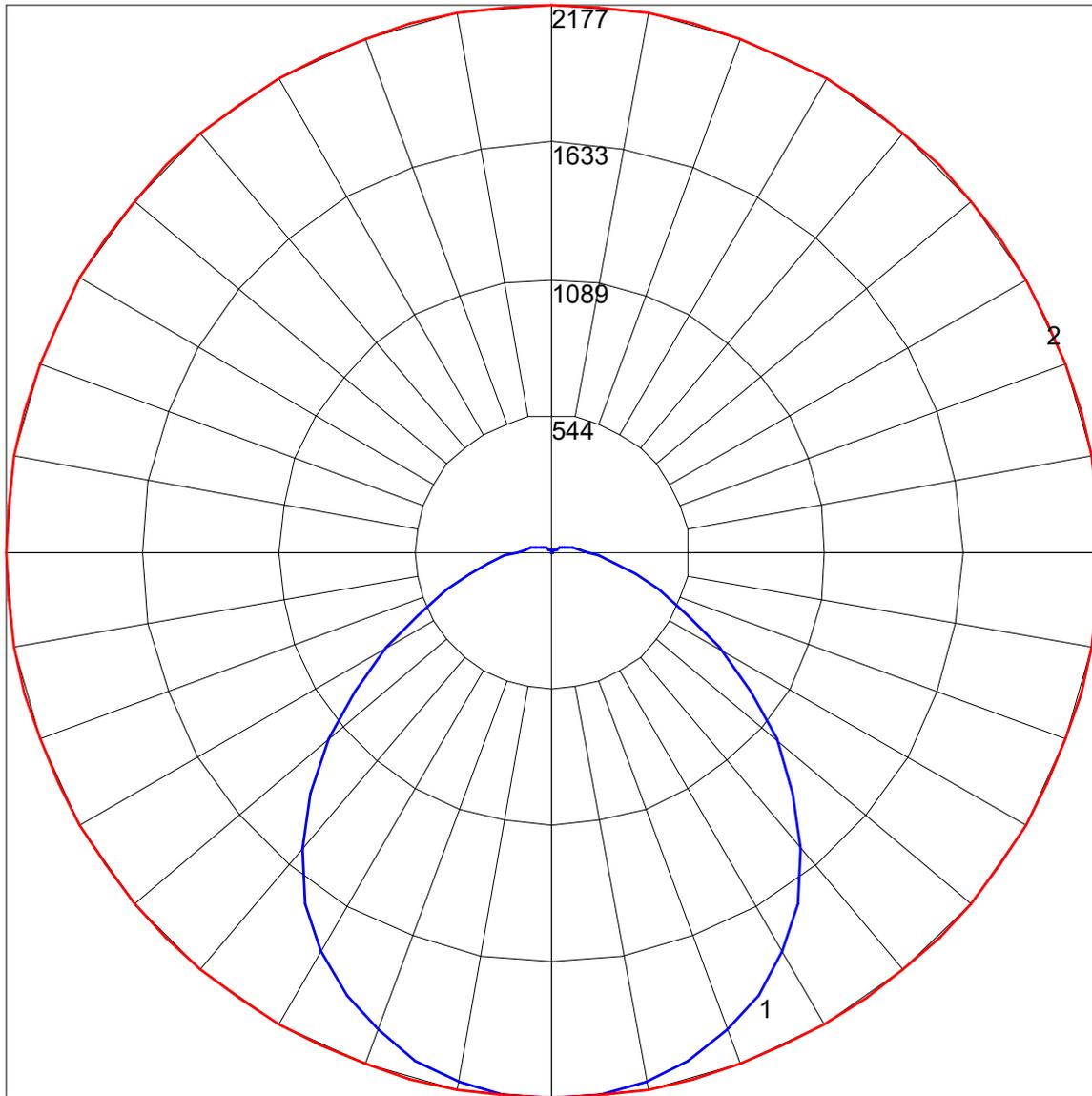
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

Effective Floor Cavity Reflectance 0.20

RC RW	80				70				50			30			10			0
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	118	118	118	118	115	115	115	115	109	109	109	104	104	104	99	99	99	97
1	108	103	99	95	105	101	97	93	96	92	90	91	89	86	87	85	83	81
2	98	90	83	78	95	88	82	77	84	79	74	80	76	72	77	73	70	68
3	90	80	71	65	87	78	70	64	74	68	63	71	66	61	68	64	60	58
4	83	71	62	55	80	69	61	55	66	59	54	64	58	53	61	56	52	50
5	76	63	54	48	74	62	54	48	60	52	47	57	51	46	55	50	45	43
6	70	57	48	42	68	56	48	42	54	47	41	52	46	41	50	44	40	38
7	65	52	43	37	63	51	43	37	49	42	37	47	41	36	46	40	36	34
8	61	47	39	33	59	47	39	33	45	38	33	44	37	32	42	36	32	30
9	57	44	35	30	55	43	35	30	42	34	30	40	34	29	39	33	29	27
10	53	40	32	27	52	40	32	27	38	32	27	37	31	27	36	31	26	25

POLAR GRAPH



Maximum Candela = 2177.4 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180)  
# 2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)