

## IES Report

# RaceRail® | 107 | Diffuse, round | 80 CRI | HO

107-RR-XX-4-48-XX-XX-XX-XX-X-X-Z-HO-35-2-X-XX-X

	2700K	3000K	3500K	4000K
Efficacy - Lumens per Watt	134	139	142	142
Total Lumens, 4' rail length (1219mm)	6572	6780	6918	6918
Lumens per foot (305mm)	1643	1695	1730	1730
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	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\_RR\_HO\_35\_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-35-2-AL

[LUMINAIRE] RaceRail LED, 48", 3500K, 80 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	6907
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	141
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	69220	74536	83459
55	55362	62386	71741
65	40420	49567	58493
75	29295	37897	44700
85	23674	31640	33359

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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>	2521.2	2521.2	2521.2	2521.2	2521.2	2521.2	2521.2	2521.2	2521.2	2521.2
<b>5</b>	2514.6	2514.6	2514.6	2514.6	2514.6	2514.6	2514.6	2514.6	2514.6	2514.6
<b>10</b>	2483.8	2483.8	2483.8	2483.8	2483.8	2483.8	2481.6	2481.6	2481.6	2481.6
<b>15</b>	2428.8	2431.0	2428.8	2428.8	2428.8	2426.6	2426.6	2426.6	2426.6	2424.4
<b>20</b>	2354.0	2354.0	2354.0	2354.0	2351.8	2349.6	2347.4	2347.4	2345.2	2343.0
<b>25</b>	2255.0	2255.0	2255.0	2252.8	2250.6	2248.4	2246.2	2244.0	2241.8	2237.4
<b>30</b>	2131.8	2131.8	2131.8	2129.6	2127.4	2125.2	2120.8	2116.4	2112.0	2107.6
<b>35</b>	1980.0	1980.0	1980.0	1980.0	1977.8	1977.8	1973.4	1969.0	1962.4	1955.8
<b>40</b>	1790.8	1790.8	1793.0	1795.2	1795.2	1797.4	1797.4	1795.2	1790.8	1784.2
<b>45</b>	1573.0	1575.2	1577.4	1579.6	1584.0	1588.4	1592.8	1595.0	1592.8	1588.4
<b>50</b>	1348.6	1348.6	1350.8	1355.2	1361.8	1366.2	1372.8	1375.0	1377.2	1375.0
<b>55</b>	1117.6	1117.6	1122.0	1128.6	1135.2	1144.0	1152.8	1157.2	1159.4	1157.2
<b>60</b>	891.0	893.2	897.6	906.4	915.2	926.2	937.2	946.0	950.4	950.4
<b>65</b>	688.6	690.8	695.2	701.8	712.8	723.8	734.8	745.8	752.4	754.6
<b>70</b>	523.6	523.6	528.0	534.6	543.4	552.2	563.2	572.0	576.4	578.6
<b>75</b>	391.6	391.6	396.0	400.4	407.0	415.8	422.4	429.0	433.4	433.4
<b>80</b>	294.8	294.8	297.0	301.4	305.8	312.4	316.8	321.2	323.4	321.2
<b>85</b>	220.0	220.0	222.2	224.4	228.8	231.0	235.4	235.4	235.4	231.0
<b>90</b>	167.2	167.2	167.2	169.4	171.6	171.6	173.8	173.8	171.6	165.0
<b>95</b>	127.6	127.6	127.6	127.6	127.6	129.8	127.6	127.6	123.2	116.6
<b>100</b>	96.8	96.8	96.8	96.8	96.8	96.8	94.6	92.4	88.0	81.4
<b>105</b>	74.8	74.8	74.8	74.8	72.6	72.6	70.4	68.2	63.8	57.2
<b>110</b>	57.2	57.2	57.2	57.2	55.0	55.0	52.8	48.4	44.0	39.6
<b>115</b>	44.0	44.0	44.0	44.0	41.8	39.6	37.4	35.2	30.8	26.4
<b>120</b>	33.0	33.0	33.0	33.0	30.8	28.6	28.6	24.2	22.0	19.8
<b>125</b>	24.2	24.2	24.2	24.2	22.0	22.0	19.8	17.6	15.4	13.2
<b>130</b>	17.6	17.6	17.6	17.6	17.6	17.6	15.4	15.4	13.2	11.0
<b>135</b>	15.4	15.4	15.4	15.4	13.2	13.2	13.2	11.0	11.0	8.8
<b>140</b>	13.2	13.2	13.2	13.2	11.0	11.0	11.0	8.8	8.8	8.8
<b>145</b>	11.0	11.0	11.0	11.0	11.0	8.8	8.8	0.0	0.0	0.0
<b>150</b>	8.8	8.8	8.8	8.8	8.8	8.8	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>	2521.2	2521.2	2521.2	2521.2	2521.2	2521.2	2521.2	2521.2	2521.2
<b>5</b>	2514.6	2514.6	2514.6	2514.6	2514.6	2514.6	2514.6	2514.6	2516.8
<b>10</b>	2481.6	2481.6	2481.6	2481.6	2481.6	2481.6	2481.6	2481.6	2481.6
<b>15</b>	2422.2	2422.2	2420.0	2420.0	2417.8	2420.0	2417.8	2417.8	2420.0
<b>20</b>	2340.8	2338.6	2334.2	2334.2	2332.0	2329.8	2329.8	2327.6	2329.8
<b>25</b>	2233.0	2228.6	2224.2	2219.8	2217.6	2213.2	2213.2	2213.2	2213.2
<b>30</b>	2101.0	2094.4	2087.8	2081.2	2076.8	2070.2	2068.0	2065.8	2065.8
<b>35</b>	1949.2	1938.2	1929.4	1918.4	1909.6	1903.0	1896.4	1894.2	1894.2
<b>40</b>	1773.2	1760.0	1746.8	1733.6	1720.4	1711.6	1702.8	1698.4	1696.2
<b>45</b>	1577.4	1564.2	1546.6	1531.2	1515.8	1500.4	1489.4	1482.8	1482.8
<b>50</b>	1366.2	1355.2	1337.6	1317.8	1298.0	1280.4	1267.2	1258.4	1258.4
<b>55</b>	1150.6	1139.6	1124.2	1102.2	1082.4	1062.6	1047.2	1038.4	1036.2
<b>60</b>	943.8	930.6	913.0	895.4	873.4	851.4	833.8	825.0	820.6

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**CANDELA TABULATION - (Cont.)**

<b>65</b>	750.2	737.0	721.6	699.6	677.6	655.6	638.0	627.0	624.8
<b>70</b>	576.4	565.4	550.0	528.0	503.8	481.8	462.0	451.0	446.6
<b>75</b>	429.0	418.0	402.6	382.8	358.6	334.4	314.6	301.4	294.8
<b>80</b>	314.6	303.6	286.0	264.0	239.8	215.6	193.6	178.2	173.8
<b>85</b>	224.4	211.2	193.6	173.8	149.6	123.2	101.2	83.6	77.0
<b>90</b>	156.2	145.2	127.6	107.8	85.8	63.8	41.8	22.0	8.8
<b>95</b>	107.8	96.8	81.4	63.8	46.2	28.6	13.2	4.4	2.2
<b>100</b>	72.6	63.8	50.6	37.4	26.4	13.2	4.4	2.2	0.0
<b>105</b>	50.6	41.8	33.0	22.0	13.2	6.6	2.2	0.0	0.0
<b>110</b>	33.0	26.4	19.8	13.2	8.8	4.4	0.0	0.0	0.0
<b>115</b>	22.0	17.6	13.2	8.8	6.6	0.0	0.0	0.0	0.0
<b>120</b>	15.4	13.2	8.8	6.6	4.4	0.0	0.0	0.0	0.0
<b>125</b>	13.2	11.0	8.8	6.6	0.0	0.0	0.0	0.0	0.0
<b>130</b>	8.8	8.8	6.6	6.6	0.0	0.0	0.0	0.0	0.0
<b>135</b>	8.8	6.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>140</b>	6.6	6.6	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	922.76	N.A.	13.40
0-30	1951.7	N.A.	28.30
0-40	3166.73	N.A.	45.90
0-60	5366.03	N.A.	77.70
0-80	6489.45	N.A.	94.00
0-90	6706.57	N.A.	97.10
10-90	6467.62	N.A.	93.60
20-40	2243.96	N.A.	32.50
20-50	3443.07	N.A.	49.90
40-70	2902.89	N.A.	42.00
60-80	1123.42	N.A.	16.30
70-80	419.83	N.A.	6.10
80-90	217.13	N.A.	3.10
90-110	153.84	N.A.	2.20
90-120	178.53	N.A.	2.60
90-130	190.66	N.A.	2.80
90-150	199.61	N.A.	2.90
90-180	199.95	N.A.	2.90
110-180	46.10	N.A.	0.70
0-180	6906.52	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	238.96
10-20	683.81
20-30	1028.94
30-40	1215.02
40-50	1199.1
50-60	1000.19
60-70	703.59
70-80	419.83
80-90	217.13
90-100	103.32
100-110	50.52
110-120	24.69
120-130	12.13
130-140	6.28
140-150	2.67
150-160	0.34
160-170	0.00
170-180	0.00

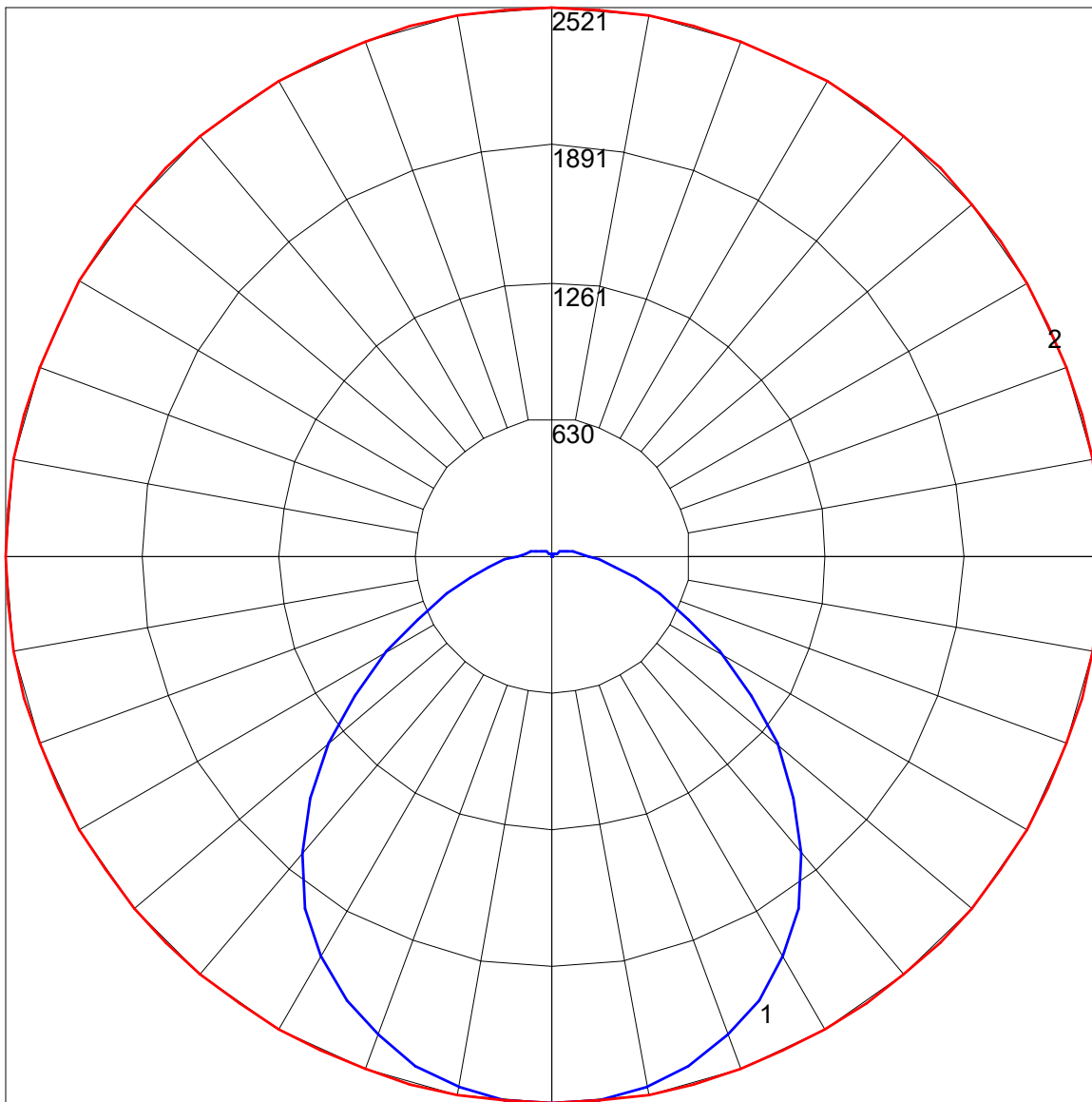
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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	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 = 2521.2 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.)