

IES Report

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

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

	2700K	3000K	3500K	4000K
Efficacy - Lumens per Watt	86	88	90	92
Total Lumens, 4' rail length (1219mm)	1273	1314	1340	1367
Lumens per foot (305mm)	318	328	335	342
Input Power (W), 4' rail length (1219mm)	15.0	15.0	15.0	15.0
Watts per foot (305mm)	3.8	3.8	3.8	3.8
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\_LO\_359\_2.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
 [TEST] L071704216 (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-LO-359-2  
 [LUMINAIRE] RaceRail LED, 48", 3500K, 90 CRI, zipper board,  
 [MORE] round diffuse lens, low output  
 [TEST PROCEDURE] IESNA:LM-79-08

**CHARACTERISTICS**

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	1340
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	90
Total Luminaire Watts	14.95
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.26
Spacing Criterion (90-270)	1.20
Spacing Criterion (Diagonal)	1.34
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	0.08 ft
Luminous Width (90-270)	3.83 ft
Luminous Height	0.02 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	12313	12630	13447
55	10118	10768	11430
65	7886	8794	9382
75	6154	7191	7530
85	5431	6571	6008

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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>	486.54	486.54	486.54	486.54	486.54	486.54	486.54	486.54	486.54	486.54
<b>5</b>	485.01	485.52	485.01	485.01	485.01	485.01	485.01	485.01	485.01	485.01
<b>10</b>	479.40	479.40	479.40	479.40	479.40	478.89	478.89	478.89	478.38	478.38
<b>15</b>	469.71	469.71	469.71	469.20	469.20	468.69	468.18	467.67	467.16	466.65
<b>20</b>	454.92	454.92	454.92	454.41	453.90	453.39	452.88	451.86	451.35	450.33
<b>25</b>	436.05	435.54	435.54	435.03	434.52	433.50	432.48	431.46	430.44	428.91
<b>30</b>	411.57	411.57	411.06	410.55	410.04	409.02	408.00	406.47	404.43	402.90
<b>35</b>	382.50	382.50	381.99	381.48	380.46	379.44	378.42	376.38	374.34	372.30
<b>40</b>	348.84	348.84	348.33	347.82	347.31	346.29	344.76	342.72	340.68	338.13
<b>45</b>	310.08	310.08	310.08	309.57	309.57	308.55	307.53	306.00	303.45	300.39
<b>50</b>	267.75	267.75	267.75	268.26	268.26	267.75	267.24	266.22	264.18	261.12
<b>55</b>	224.40	224.40	224.91	225.42	225.93	226.44	226.44	225.42	223.89	221.34
<b>60</b>	183.09	183.09	183.60	184.62	185.64	186.15	186.66	186.15	185.13	182.58
<b>65</b>	145.86	145.86	146.37	147.39	148.41	149.43	150.45	150.45	148.92	146.88
<b>70</b>	113.73	114.24	114.75	115.77	116.79	117.81	118.32	118.32	117.81	115.77
<b>75</b>	87.72	88.23	88.74	89.25	90.27	91.29	91.80	91.80	90.78	88.74
<b>80</b>	68.34	68.34	68.85	69.36	69.87	70.38	70.89	70.38	69.36	67.32
<b>85</b>	52.02	52.53	52.53	53.04	53.04	53.55	53.55	53.04	52.02	49.98
<b>90</b>	40.29	40.29	40.29	40.29	40.80	40.29	40.29	39.27	38.25	36.21
<b>95</b>	31.11	30.60	31.11	31.11	30.60	30.60	30.09	29.07	27.54	25.50
<b>100</b>	23.97	23.97	23.97	23.46	23.46	22.95	22.44	21.42	19.89	17.85
<b>105</b>	18.36	18.36	18.36	17.85	17.85	17.34	16.32	15.30	14.28	12.24
<b>110</b>	14.28	13.77	13.77	13.77	13.26	12.75	11.73	11.22	9.69	8.67
<b>115</b>	10.71	10.71	10.20	10.20	9.69	9.18	8.67	7.65	6.63	5.61
<b>120</b>	7.65	7.65	7.65	7.65	7.14	6.63	6.12	5.10	4.59	3.57
<b>125</b>	5.61	5.61	5.61	5.10	5.10	4.59	4.08	3.57	2.55	2.04
<b>130</b>	4.08	4.08	3.57	3.57	3.06	3.06	2.55	2.04	1.53	1.02
<b>135</b>	2.55	2.55	2.04	2.04	2.04	1.53	1.53	1.02	1.02	1.02
<b>140</b>	1.53	1.53	1.53	1.53	1.53	0.00	0.00	0.00	0.00	0.00
<b>145</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>150</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>155</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>160</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>165</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>170</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>175</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>180</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**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>	486.54	486.54	486.54	486.54	486.54	486.54	486.54	486.54	486.54
<b>5</b>	485.01	485.01	485.01	485.01	485.01	484.50	484.50	484.50	484.50
<b>10</b>	477.87	477.87	477.87	477.36	477.36	477.36	477.36	476.85	476.85
<b>15</b>	466.14	465.63	465.12	464.61	464.61	464.10	464.10	463.59	463.59
<b>20</b>	449.31	448.29	447.27	446.76	445.74	445.23	444.72	444.21	444.21
<b>25</b>	427.89	426.36	424.83	423.30	422.28	420.75	420.24	419.73	419.73
<b>30</b>	400.86	398.82	396.78	394.74	392.70	391.17	390.15	389.13	389.13
<b>35</b>	369.75	366.69	364.14	361.08	358.53	356.49	354.96	353.94	353.43
<b>40</b>	334.56	331.50	327.93	324.36	321.30	318.24	316.20	314.67	314.16
<b>45</b>	296.82	292.74	288.66	284.07	280.50	276.93	274.38	272.85	272.34
<b>50</b>	257.04	252.96	247.86	243.27	239.19	235.11	232.05	230.52	230.01
<b>55</b>	217.77	213.18	208.08	202.47	197.88	193.80	190.74	189.21	188.19
<b>60</b>	179.01	174.93	169.83	164.73	159.63	155.55	151.98	150.45	149.43

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**CANDELA TABULATION - (Cont.)**

<b>65</b>	143.82	139.74	134.64	129.54	124.44	119.85	116.79	114.75	114.24
<b>70</b>	112.71	108.63	104.04	98.43	93.84	89.25	85.68	83.64	83.13
<b>75</b>	86.19	82.11	77.52	72.42	67.32	62.73	59.16	57.12	56.61
<b>80</b>	64.77	60.69	56.10	51.00	45.90	41.31	37.23	35.19	34.17
<b>85</b>	46.92	43.35	38.76	34.17	29.07	23.97	19.89	16.83	15.81
<b>90</b>	33.15	30.09	26.01	21.42	16.83	12.24	8.16	4.59	1.53
<b>95</b>	22.95	19.89	16.83	12.75	9.18	5.61	2.55	0.51	0.00
<b>100</b>	15.81	13.26	10.20	7.65	4.59	2.55	0.51	0.00	0.00
<b>105</b>	10.71	8.67	6.12	4.08	2.04	1.02	0.00	0.00	0.00
<b>110</b>	7.14	5.10	3.57	2.04	1.02	0.51	0.00	0.00	0.00
<b>115</b>	4.59	3.06	2.04	1.02	0.51	0.00	0.00	0.00	0.00
<b>120</b>	2.55	1.53	1.02	0.51	0.00	0.00	0.00	0.00	0.00
<b>125</b>	1.53	1.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>130</b>	1.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>135</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>140</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>145</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>150</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>155</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>160</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>165</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>170</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>175</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>180</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	177.67	N.A.	13.30
0-30	374.83	N.A.	28.00
0-40	606.04	N.A.	45.20
0-60	1025.46	N.A.	76.50
0-80	1249.84	N.A.	93.20
0-90	1297.06	N.A.	96.80
10-90	1250.99	N.A.	93.30
20-40	428.37	N.A.	32.00
20-50	656.34	N.A.	49.00
40-70	557.44	N.A.	41.60
60-80	224.38	N.A.	16.70
70-80	86.36	N.A.	6.40
80-90	47.22	N.A.	3.50
90-110	34.83	N.A.	2.60
90-120	40.24	N.A.	3.00
90-130	42.50	N.A.	3.20
90-150	43.29	N.A.	3.20
90-180	43.29	N.A.	3.20
110-180	8.46	N.A.	0.60
0-180	1340.35	N.A.	100.00

Total Luminaire Efficiency = N.A.%

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	46.07
10-20	131.60
20-30	197.15
30-40	231.22
40-50	227.97
50-60	191.45
60-70	138.02
70-80	86.36
80-90	47.22
90-100	23.34
100-110	11.49
110-120	5.41
120-130	2.26
130-140	0.73
140-150	0.06
150-160	0.00
160-170	0.00
170-180	0.00

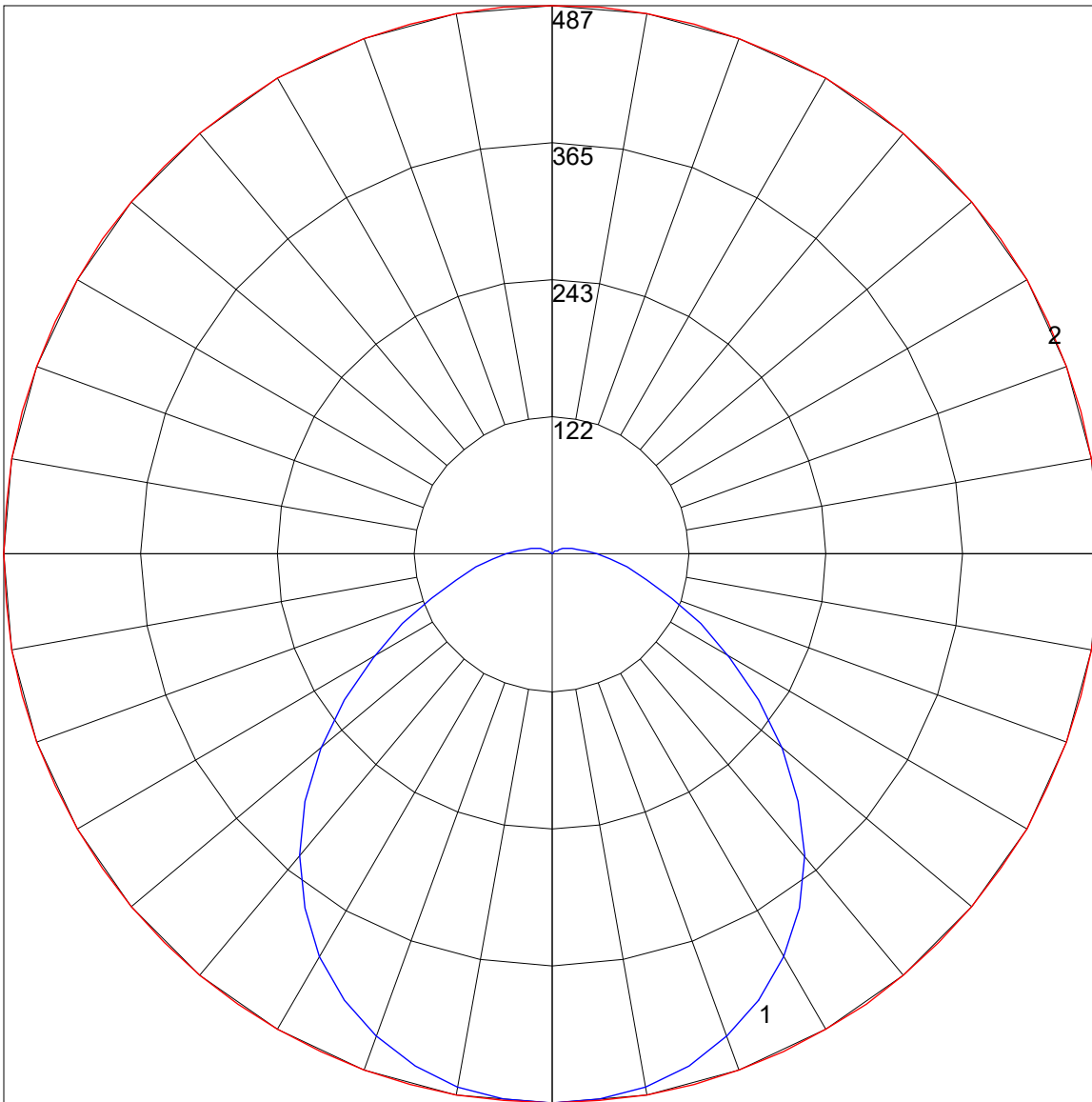
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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	118	118	118	118	118	115	115	115	115	109	109	109	104	104	104	99	99	99	97
1	108	103	98	94	94	105	100	96	92	95	92	89	91	88	86	87	85	83	80
2	98	90	83	77	77	95	88	81	76	84	78	74	80	75	72	76	73	69	67
3	90	79	71	64	64	87	77	70	64	74	67	62	71	65	61	68	63	59	57
4	82	70	62	55	55	80	69	61	54	66	59	53	63	57	52	61	55	51	49
5	76	63	54	48	48	73	62	53	47	59	52	46	57	50	45	55	49	45	43
6	70	57	48	42	42	68	56	47	41	54	46	41	52	45	40	50	44	39	37
7	65	52	43	37	37	63	51	42	37	49	41	36	47	41	36	45	40	35	33
8	61	47	39	33	33	59	46	38	33	45	38	32	43	37	32	42	36	32	30
9	57	43	35	30	30	55	43	35	30	41	34	29	40	34	29	39	33	29	27
10	53	40	32	27	27	52	39	32	27	38	31	27	37	31	26	36	30	26	24

POLAR GRAPH



Maximum Candela = 486.54 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)