

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	99	102	104	106
Total Lumens, 4' rail length (1219mm)	4839	4991	5093	5195
Lumens per foot (305mm)	1210	1248	1273	1299
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_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-HO-359-2
[LUMINAIRE] RaceRail LED, 48", 3500K, 90 CRI, zipper board,
[MORE] round diffuse lens, high output
[TEST PROCEDURE] IESNA:LM-79-08

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	5099
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	104
Total Luminaire Watts	49.22
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	46837	48045	51153
55	38490	40962	43480
65	29996	33453	35689
75	23409	27353	28643
85	20657	24997	22854

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>
0	1850.76	1850.76	1850.76	1850.76	1850.76	1850.76	1850.76	1850.76	1850.76	1850.76
5	1844.94	1846.88	1844.94	1844.94	1844.94	1844.94	1844.94	1844.94	1844.94	1844.94
10	1823.60	1823.60	1823.60	1823.60	1823.60	1821.66	1821.66	1821.66	1819.72	1819.72
15	1786.74	1786.74	1786.74	1784.80	1784.80	1782.86	1780.92	1778.98	1777.04	1775.10
20	1730.48	1730.48	1730.48	1728.54	1726.60	1724.66	1722.72	1718.84	1716.90	1713.02
25	1658.70	1656.76	1656.76	1654.82	1652.88	1649.00	1645.12	1641.24	1637.36	1631.54
30	1565.58	1565.58	1563.64	1561.70	1559.76	1555.88	1552.00	1546.18	1538.42	1532.60
35	1455.00	1455.00	1453.06	1451.12	1447.24	1443.36	1439.48	1431.72	1423.96	1416.20
40	1326.96	1326.96	1325.02	1323.08	1321.14	1317.26	1311.44	1303.68	1295.92	1286.22
45	1179.52	1179.52	1179.52	1177.58	1177.58	1173.70	1169.82	1164.00	1154.30	1142.66
50	1018.50	1018.50	1018.50	1020.44	1020.44	1018.50	1016.56	1012.68	1004.92	993.28
55	853.60	853.60	855.54	857.48	859.42	861.36	861.36	857.48	851.66	841.96
60	696.46	696.46	698.40	702.28	706.16	708.10	710.04	708.10	704.22	694.52
65	554.84	554.84	556.78	560.66	564.54	568.42	572.30	572.30	566.48	558.72
70	432.62	434.56	436.50	440.38	444.26	448.14	450.08	450.08	448.14	440.38
75	333.68	335.62	337.56	339.50	343.38	347.26	349.20	349.20	345.32	337.56
80	259.96	259.96	261.90	263.84	265.78	267.72	269.66	267.72	263.84	256.08
85	197.88	199.82	199.82	201.76	201.76	203.70	203.70	201.76	197.88	190.12
90	153.26	153.26	153.26	153.26	155.20	153.26	153.26	149.38	145.50	137.74
95	118.34	116.40	118.34	118.34	116.40	116.40	114.46	110.58	104.76	97.00
100	91.18	91.18	91.18	89.24	89.24	87.30	85.36	81.48	75.66	67.90
105	69.84	69.84	69.84	67.90	67.90	65.96	62.08	58.20	54.32	46.56
110	54.32	52.38	52.38	52.38	50.44	48.50	44.62	42.68	36.86	32.98
115	40.74	40.74	38.80	38.80	36.86	34.92	32.98	29.10	25.22	21.34
120	29.10	29.10	29.10	29.10	27.16	25.22	23.28	19.40	17.46	13.58
125	21.34	21.34	21.34	19.40	19.40	17.46	15.52	13.58	9.70	7.76
130	15.52	15.52	13.58	13.58	11.64	11.64	9.70	7.76	5.82	3.88
135	9.70	9.70	7.76	7.76	7.76	5.82	5.82	3.88	3.88	3.88
140	5.82	5.82	5.82	5.82	5.82	0.00	0.00	0.00	0.00	0.00
145	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
150	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
155	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
160	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
165	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
170	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
175	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
180	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>
0	1850.76	1850.76	1850.76	1850.76	1850.76	1850.76	1850.76	1850.76	1850.76
5	1844.94	1844.94	1844.94	1844.94	1844.94	1843.00	1843.00	1843.00	1843.00
10	1817.78	1817.78	1817.78	1815.84	1815.84	1815.84	1815.84	1813.90	1813.90
15	1773.16	1771.22	1769.28	1767.34	1767.34	1765.40	1765.40	1763.46	1763.46
20	1709.14	1705.26	1701.38	1699.44	1695.56	1693.62	1691.68	1689.74	1689.74
25	1627.66	1621.84	1616.02	1610.20	1606.32	1600.50	1598.56	1596.62	1596.62
30	1524.84	1517.08	1509.32	1501.56	1493.80	1487.98	1484.10	1480.22	1480.22
35	1406.50	1394.86	1385.16	1373.52	1363.82	1356.06	1350.24	1346.36	1344.42
40	1272.64	1261.00	1247.42	1233.84	1222.20	1210.56	1202.80	1196.98	1195.04
45	1129.08	1113.56	1098.04	1080.58	1067.00	1053.42	1043.72	1037.90	1035.96
50	977.76	962.24	942.84	925.38	909.86	894.34	882.70	876.88	874.94
55	828.38	810.92	791.52	770.18	752.72	737.20	725.56	719.74	715.86
60	680.94	665.42	646.02	626.62	607.22	591.70	578.12	572.30	568.42

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CANDELA TABULATION - (Cont.)

65	547.08	531.56	512.16	492.76	473.36	455.90	444.26	436.50	434.56
70	428.74	413.22	395.76	374.42	356.96	339.50	325.92	318.16	316.22
75	327.86	312.34	294.88	275.48	256.08	238.62	225.04	217.28	215.34
80	246.38	230.86	213.40	194.00	174.60	157.14	141.62	133.86	129.98
85	178.48	164.90	147.44	129.98	110.58	91.18	75.66	64.02	60.14
90	126.10	114.46	98.94	81.48	64.02	46.56	31.04	17.46	5.82
95	87.30	75.66	64.02	48.50	34.92	21.34	9.70	1.94	0.00
100	60.14	50.44	38.80	29.10	17.46	9.70	1.94	0.00	0.00
105	40.74	32.98	23.28	15.52	7.76	3.88	0.00	0.00	0.00
110	27.16	19.40	13.58	7.76	3.88	1.94	0.00	0.00	0.00
115	17.46	11.64	7.76	3.88	1.94	0.00	0.00	0.00	0.00
120	9.70	5.82	3.88	1.94	0.00	0.00	0.00	0.00	0.00
125	5.82	3.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00
130	3.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
135	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
140	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
145	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
150	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
155	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
160	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
165	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
170	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
175	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
180	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	675.85	N.A.	13.30
0-30	1425.8	N.A.	28.00
0-40	2305.34	N.A.	45.20
0-60	3900.78	N.A.	76.50
0-80	4754.29	N.A.	93.20
0-90	4933.9	N.A.	96.80
10-90	4758.65	N.A.	93.30
20-40	1629.48	N.A.	32.00
20-50	2496.67	N.A.	49.00
40-70	2120.44	N.A.	41.60
60-80	853.52	N.A.	16.70
70-80	328.51	N.A.	6.40
80-90	179.61	N.A.	3.50
90-110	132.51	N.A.	2.60
90-120	153.08	N.A.	3.00
90-130	161.68	N.A.	3.20
90-150	164.69	N.A.	3.20
90-180	164.69	N.A.	3.20
110-180	32.18	N.A.	0.60
0-180	5098.59	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	175.25
10-20	500.60
20-30	749.95
30-40	879.53
40-50	867.19
50-60	728.25
60-70	525.00
70-80	328.51
80-90	179.61
90-100	88.80
100-110	43.71
110-120	20.57
120-130	8.60
130-140	2.76
140-150	0.24
150-160	0.00
160-170	0.00
170-180	0.00

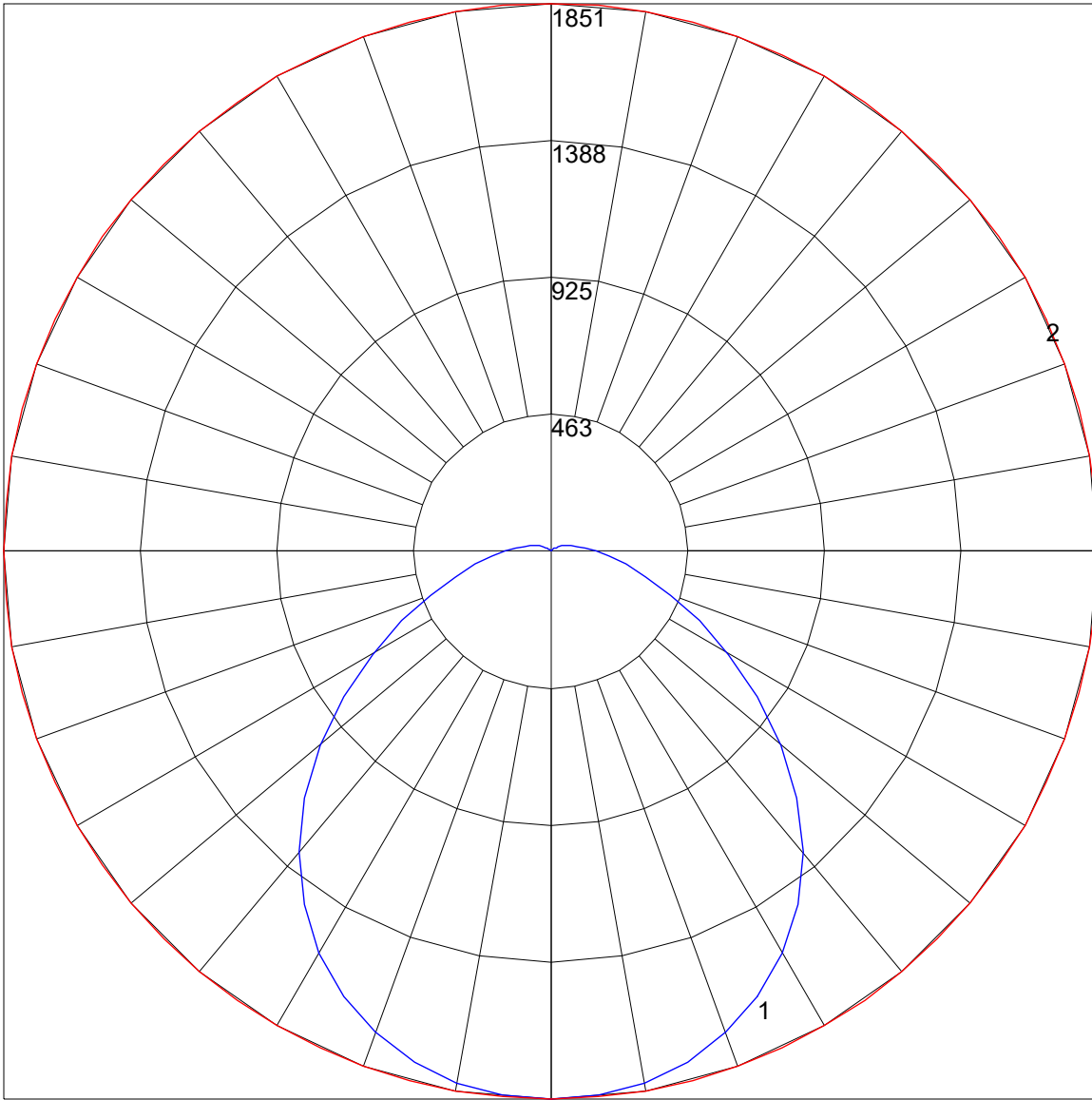
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	83	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	47	47	73	62	53	47	59	52	46	57	50	45	55	49	45	42
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 = 1850.76 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.)