

IES Report

DoubleRace™ | 107 | 120° Batwing, Flat, up | 120° FlyWing™, Flat, down | 90 CRI | HO

107-DR-XX-4-48-XX-XX-XX-XX-X-X-Z-HO-359-G1G2-X-XX-X

	2700K	3000K	3500K	4000K
Efficacy - Lumens per Watt	99	102	104	105
Total Lumens, 4' rail length (1219mm)	9642	9947	10150	10251
Lumens per foot (305mm)	2411	2487	2537	2563
Lumens per foot UP (305mm)	1197	1235	1260	1273
Lumens per foot DOWN (305mm)	1214	1252	1277	1290
Input Power (W), 4' rail length (1219mm)	98.1	98.1	98.1	98.1
Watts per foot (305mm)	24.6	24.6	24.6	24.6
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_DR_HO_359_G1G2.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] L121911515 / L121911516 (SOURCE REPORTS FOR REFERENCE)

[TESTLAB] REPORT BASED ON DATA FROM NVLAP ACCREDITED LAB

[ISSUE DATE] 12/23/2019

[MANUFAC] Vode Lighting

[LUMCAT] 107-DR-48-Z-HO-359-G1G2-AL

[LUMINAIRE] DoubleRace LED, 48", 3500K, 90 CRI, zipper board, 120° batwing lens up /

[MORE] 120° flywing lens down, 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	10150
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	103
Total Luminaire Watts	98.12
Ballast Factor	1.00
CIE Type	General Diffuse
Spacing Criterion (0-180)	N.A.
Spacing Criterion (90-270)	N.A.
Spacing Criterion (Diagonal)	N.A.
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	0.07 ft
Luminous Width (90-270)	3.84 ft
Luminous Height	0.17 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	25097	28065	52360
55	17838	21203	49628
65	10435	13531	44779
75	3151	5883	33487
85	145	289	11750

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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>
0	1573.067	1573.067	1573.067	1573.067	1573.067	1573.067	1573.067	1573.067	1573.067	1573.067
5	1587.716	1588.115	1587.564	1587.089	1585.968	1584.619	1583.175	1581.598	1579.603	1577.456
10	1639.643	1639.643	1637.249	1633.829	1628.490	1622.353	1615.038	1606.754	1597.843	1588.913
15	1712.907	1711.862	1707.416	1699.683	1688.530	1675.078	1659.232	1642.189	1623.075	1603.334
20	1781.383	1779.388	1772.700	1761.965	1745.720	1726.207	1702.875	1675.401	1645.685	1614.639
25	1819.288	1817.616	1810.301	1797.628	1779.559	1756.227	1727.708	1694.040	1655.489	1613.442
30	1813.398	1811.004	1804.316	1791.985	1774.467	1750.964	1720.868	1684.635	1641.790	1593.530
35	1759.096	1757.728	1751.762	1741.654	1725.561	1704.699	1676.351	1641.315	1598.223	1547.816
40	1659.384	1658.681	1654.292	1646.407	1634.456	1617.033	1593.131	1561.116	1519.962	1470.828
45	1520.836	1519.639	1516.846	1512.077	1503.394	1490.170	1471.303	1444.627	1408.793	1363.402
50	1345.314	1344.839	1343.889	1341.096	1337.353	1328.746	1315.218	1294.755	1265.609	1226.507
55	1142.736	1142.888	1143.534	1143.534	1142.565	1138.746	1130.861	1116.535	1094.552	1063.107
60	919.923	920.322	922.393	924.464	926.611	926.839	924.217	916.104	901.360	877.952
65	684.361	685.083	687.952	692.322	697.433	701.176	702.848	700.929	693.367	678.946
70	444.676	445.550	450.243	456.931	465.367	473.499	479.940	483.854	483.208	477.166
75	205.143	206.492	212.458	222.186	235.315	249.736	263.435	275.443	283.328	286.444
80	40.128	40.375	42.294	45.543	51.129	59.090	70.319	84.892	100.966	115.710
85	9.082	9.082	9.158	9.405	9.709	9.956	10.355	11.077	11.780	13.224
90	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
95	118.655	118.655	118.408	118.009	117.135	115.786	113.715	111.169	107.749	102.011
100	294.652	294.728	295.279	295.602	295.355	293.284	288.914	281.656	269.876	253.707
105	496.109	495.881	495.786	495.406	493.639	489.991	483.132	470.782	452.713	427.386
110	713.032	712.956	712.481	711.037	707.218	701.176	690.175	672.733	646.855	611.572
115	931.874	931.703	929.632	926.459	920.075	909.169	893.000	868.870	835.354	791.711
120	1140.342	1138.993	1135.801	1129.664	1120.126	1104.356	1082.373	1051.783	1010.705	957.657
125	1326.200	1324.452	1319.512	1310.525	1296.978	1276.439	1249.592	1213.131	1164.548	1102.285
130	1480.689	1478.789	1472.329	1461.575	1445.026	1420.725	1388.311	1344.611	1288.390	1218.945
135	1602.536	1599.819	1592.181	1578.482	1557.696	1528.721	1489.771	1438.737	1375.904	1302.165
140	1679.771	1676.351	1665.768	1648.953	1624.519	1590.262	1546.467	1491.994	1427.261	1353.275
145	1704.300	1700.006	1688.625	1669.815	1643.386	1607.552	1562.085	1508.733	1446.204	1374.783
150	1680.417	1676.826	1665.445	1646.255	1619.807	1584.847	1542.724	1492.393	1434.595	1371.914
155	1613.841	1610.896	1599.990	1582.548	1558.570	1527.524	1490.322	1447.002	1399.065	1346.834
160	1511.754	1508.961	1500.050	1485.876	1466.363	1441.359	1412.289	1380.445	1345.162	1308.929
165	1391.180	1389.204	1383.789	1375.106	1362.908	1347.632	1330.266	1310.430	1289.568	1267.680
170	1287.345	1286.471	1284.001	1279.384	1273.817	1266.958	1258.750	1249.915	1240.605	1230.402
175	1218.223	1217.824	1217.026	1216.076	1214.955	1213.055	1211.136	1208.913	1206.595	1204.296
180	1196.563	1196.563	1196.563	1196.563	1196.563	1196.563	1196.563	1196.563	1196.563	1196.563

**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>	<u>95</u>
0	1573.067	1573.067	1573.067	1573.067	1573.067	1573.067	1573.067	1573.067	1573.067	1573.067
5	1575.062	1573.143	1570.996	1569.172	1567.329	1566.379	1565.733	1564.783	1563.681	1564.783
10	1579.432	1570.198	1562.484	1555.473	1548.215	1542.648	1539.627	1537.480	1535.162	1537.480
15	1583.175	1564.061	1545.042	1528.227	1514.376	1503.147	1494.464	1489.771	1487.548	1489.771
20	1581.427	1548.785	1518.119	1489.695	1466.515	1447.724	1433.873	1425.741	1422.872	1425.741
25	1569.248	1523.382	1480.290	1439.611	1406.152	1379.077	1359.735	1348.430	1344.516	1348.430
30	1540.178	1483.881	1429.579	1377.652	1334.883	1300.398	1276.192	1261.866	1256.280	1261.866
35	1488.897	1427.185	1363.706	1303.343	1254.304	1213.682	1184.707	1167.968	1162.477	1167.968
40	1411.263	1347.233	1280.733	1216.152	1162.952	1119.803	1088.909	1071.543	1065.178	1071.543
45	1307.884	1244.500	1176.727	1114.616	1060.542	1018.020	988.399	971.679	966.416	971.679
50	1175.948	1118.283	1056.970	997.405	949.392	910.841	884.165	869.117	864.025	869.117
55	1020.585	971.128	918.878	868.243	827.222	794.580	772.844	760.817	756.504	760.817
60	845.709	807.234	766.308	726.579	694.640	670.111	653.790	645.031	642.314	645.031

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CANDELA TABULATION - (Cont.)

65	657.609	630.610	602.984	575.833	554.078	537.282	526.224	519.916	517.940	519.916
70	466.412	451.516	435.746	420.223	407.474	397.537	390.830	387.182	385.909	387.182
75	285.323	280.953	275.139	268.755	263.112	258.324	255.151	253.080	252.434	253.080
80	126.464	132.278	134.501	134.748	134.026	132.753	131.708	130.834	130.283	130.834
85	15.694	20.235	26.353	33.440	37.753	39.349	39.501	39.102	38.551	39.102
90	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
95	93.252	83.220	73.416	64.828	59.166	55.746	54.074	53.200	51.129	53.200
100	233.168	210.957	189.373	170.981	158.156	149.796	144.305	140.163	137.294	140.163
105	395.371	360.183	325.071	294.006	271.472	255.702	245.119	237.861	234.593	237.861
110	567.872	517.845	468.008	422.769	389.006	364.553	348.631	338.447	334.780	338.447
115	734.768	672.030	608.076	548.910	504.070	471.352	449.920	437.114	432.573	437.114
120	890.226	815.195	738.112	667.014	613.567	572.964	546.041	530.195	524.780	530.195
125	1025.107	941.032	855.342	775.466	713.678	666.045	634.828	616.436	610.622	616.436
130	1134.300	1044.221	954.807	870.238	803.567	751.887	716.927	696.787	690.099	696.787
135	1216.228	1125.446	1034.987	951.064	883.443	830.262	794.257	773.148	765.909	773.148
140	1269.751	1183.586	1097.896	1017.621	953.211	902.557	867.122	846.184	838.850	846.184
145	1298.574	1220.541	1143.287	1071.771	1014.676	967.784	935.294	915.629	908.922	915.629
150	1305.585	1238.458	1174.428	1115.490	1066.603	1027.178	998.431	981.084	975.194	981.084
155	1293.634	1242.201	1193.219	1147.676	1110.170	1078.858	1056.172	1041.846	1037.134	1041.846
160	1271.347	1236.691	1201.902	1170.039	1143.762	1122.178	1105.781	1095.350	1091.930	1095.350
165	1245.146	1224.284	1203.726	1184.783	1169.089	1155.713	1145.757	1139.468	1137.473	1139.468
170	1220.370	1210.414	1201.579	1192.421	1185.581	1178.893	1174.751	1172.034	1171.236	1172.034
175	1201.731	1199.356	1197.038	1195.290	1193.694	1192.421	1191.623	1190.996	1190.996	1190.996
180	1196.563	1196.563	1196.563	1196.563	1196.563	1196.563	1196.563	1196.563	1196.563	1196.563

**Vert.
Angles**

Horizontal Angles

	100	105	110	115	120	125	130	135	140	145
0	1573.067	1573.067	1573.067	1573.067	1573.067	1573.067	1573.067	1573.067	1573.067	1573.067
5	1565.733	1566.379	1567.329	1569.172	1570.996	1573.143	1575.062	1577.456	1579.603	1581.598
10	1539.627	1542.648	1548.215	1555.473	1562.484	1570.198	1579.432	1588.913	1597.843	1606.754
15	1494.464	1503.147	1514.376	1528.227	1545.042	1564.061	1583.175	1603.334	1623.075	1642.189
20	1433.873	1447.724	1466.515	1489.695	1518.119	1548.785	1581.427	1614.639	1645.685	1675.401
25	1359.735	1379.077	1406.152	1439.611	1480.290	1523.382	1569.248	1613.442	1655.489	1694.040
30	1276.192	1300.398	1334.883	1377.652	1429.579	1483.881	1540.178	1593.530	1641.790	1684.635
35	1184.707	1213.682	1254.304	1303.343	1363.706	1427.185	1488.897	1547.816	1598.223	1641.315
40	1088.909	1119.803	1162.952	1216.152	1280.733	1347.233	1411.263	1470.828	1519.962	1561.116
45	988.399	1018.020	1060.542	1114.616	1176.727	1244.500	1307.884	1363.402	1408.793	1444.627
50	884.165	910.841	949.392	997.405	1056.970	1118.283	1175.948	1226.507	1265.609	1294.755
55	772.844	794.580	827.222	868.243	918.878	971.128	1020.585	1063.107	1094.552	1116.535
60	653.790	670.111	694.640	726.579	766.308	807.234	845.709	877.952	901.360	916.104
65	526.224	537.282	554.078	575.833	602.984	630.610	657.609	678.946	693.367	700.929
70	390.830	397.537	407.474	420.223	435.746	451.516	466.412	477.166	483.208	483.854
75	255.151	258.324	263.112	268.755	275.139	280.953	285.323	286.444	283.328	275.443
80	131.708	132.753	134.026	134.748	134.501	132.278	126.464	115.710	100.966	84.892
85	39.501	39.349	37.753	33.440	26.353	20.235	15.694	13.224	11.780	11.077
90	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
95	54.074	55.746	59.166	64.828	73.416	83.220	93.252	102.011	107.749	111.169
100	144.305	149.796	158.156	170.981	189.373	210.957	233.168	253.707	269.876	281.656
105	245.119	255.702	271.472	294.006	325.071	360.183	395.371	427.386	452.713	470.782
110	348.631	364.553	389.006	422.769	468.008	517.845	567.872	611.572	646.855	672.733
115	449.920	471.352	504.070	548.910	608.076	672.030	734.768	791.711	835.354	868.870
120	546.041	572.964	613.567	667.014	738.112	815.195	890.226	957.657	1010.705	1051.783
125	634.828	666.045	713.678	775.466	855.342	941.032	1025.107	1102.285	1164.548	1213.131
130	716.927	751.887	803.567	870.238	954.807	1044.221	1134.300	1218.945	1288.390	1344.611
135	794.257	830.262	883.443	951.064	1034.987	1125.446	1216.228	1302.165	1375.904	1438.737

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CANDELA TABULATION - (Cont.)

140	867.122	902.557	953.211	1017.621	1097.896	1183.586	1269.751	1353.275	1427.261	1491.994
145	935.294	967.784	1014.676	1071.771	1143.287	1220.541	1298.574	1374.783	1446.204	1508.733
150	998.431	1027.178	1066.603	1115.490	1174.428	1238.458	1305.585	1371.914	1434.595	1492.393
155	1056.172	1078.858	1110.170	1147.676	1193.219	1242.201	1293.634	1346.834	1399.065	1447.002
160	1105.781	1122.178	1143.762	1170.039	1201.902	1236.691	1271.347	1308.929	1345.162	1380.445
165	1145.757	1155.713	1169.089	1184.783	1203.726	1224.284	1245.146	1267.680	1289.568	1310.430
170	1174.751	1178.893	1185.581	1192.421	1201.579	1210.414	1220.370	1230.402	1240.605	1249.915
175	1191.623	1192.421	1193.694	1195.290	1197.038	1199.356	1201.731	1204.296	1206.595	1208.913
180	1196.563	1196.563	1196.563	1196.563	1196.563	1196.563	1196.563	1196.563	1196.563	1196.563

Vert. Horizontal Angles
Angles

	<u>150</u>	<u>155</u>	<u>160</u>	<u>165</u>	<u>170</u>	<u>175</u>	<u>180</u>
0	1573.067	1573.067	1573.067	1573.067	1573.067	1573.067	1573.067
5	1583.175	1584.619	1585.968	1587.089	1587.564	1588.115	1587.716
10	1615.038	1622.353	1628.490	1633.829	1637.249	1639.643	1639.643
15	1659.232	1675.078	1688.530	1699.683	1707.416	1711.862	1712.907
20	1702.875	1726.207	1745.720	1761.965	1772.700	1779.388	1781.383
25	1727.708	1756.227	1779.559	1797.628	1810.301	1817.616	1819.288
30	1720.868	1750.964	1774.467	1791.985	1804.316	1811.004	1813.398
35	1676.351	1704.699	1725.561	1741.654	1751.762	1757.728	1759.096
40	1593.131	1617.033	1634.456	1646.407	1654.292	1658.681	1659.384
45	1471.303	1490.170	1503.394	1512.077	1516.846	1519.639	1520.836
50	1315.218	1328.746	1337.353	1341.096	1343.889	1344.839	1345.314
55	1130.861	1138.746	1142.565	1143.534	1143.534	1142.888	1142.736
60	924.217	926.839	926.611	924.464	922.393	920.322	919.923
65	702.848	701.176	697.433	692.322	687.952	685.083	684.361
70	479.940	473.499	465.367	456.931	450.243	445.550	444.676
75	263.435	249.736	235.315	222.186	212.458	206.492	205.143
80	70.319	59.090	51.129	45.543	42.294	40.375	40.128
85	10.355	9.956	9.709	9.405	9.158	9.082	9.082
90	0.000	0.000	0.000	0.000	0.000	0.000	0.000
95	113.715	115.786	117.135	118.009	118.408	118.655	118.655
100	288.914	293.284	295.355	295.602	295.279	294.728	294.652
105	483.132	489.991	493.639	495.406	495.786	495.881	496.109
110	690.175	701.176	707.218	711.037	712.481	712.956	713.032
115	893.000	909.169	920.075	926.459	929.632	931.703	931.874
120	1082.373	1104.356	1120.126	1129.664	1135.801	1138.993	1140.342
125	1249.592	1276.439	1296.978	1310.525	1319.512	1324.452	1326.200
130	1388.311	1420.725	1445.026	1461.575	1472.329	1478.789	1480.689
135	1489.771	1528.721	1557.696	1578.482	1592.181	1599.819	1602.536
140	1546.467	1590.262	1624.519	1648.953	1665.768	1676.351	1679.771
145	1562.085	1607.552	1643.386	1669.815	1688.625	1700.006	1704.300
150	1542.724	1584.847	1619.807	1646.255	1665.445	1676.826	1680.417
155	1490.322	1527.524	1558.570	1582.548	1599.990	1610.896	1613.841
160	1412.289	1441.359	1466.363	1485.876	1500.050	1508.961	1511.754
165	1330.266	1347.632	1362.908	1375.106	1383.789	1389.204	1391.180
170	1258.750	1266.958	1273.817	1279.384	1284.001	1286.471	1287.345
175	1211.136	1213.055	1214.955	1216.076	1217.026	1217.824	1218.223
180	1196.563	1196.563	1196.563	1196.563	1196.563	1196.563	1196.563

IES INDOOR REPORT
PHOTOMETRIC FILENAME : VODE_107_DR_HO_359_G1G2.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	604.65	N.A.	6.00
0-30	1340.44	N.A.	13.20
0-40	2277.34	N.A.	22.40
0-60	4166.53	N.A.	41.00
0-80	5072.12	N.A.	50.00
0-90	5109.77	N.A.	50.30
10-90	4958.87	N.A.	48.90
20-40	1672.69	N.A.	16.50
20-50	2670.81	N.A.	26.30
40-70	2517.46	N.A.	24.80
60-80	905.59	N.A.	8.90
70-80	277.33	N.A.	2.70
80-90	37.64	N.A.	0.40
90-110	529.20	N.A.	5.20
90-120	1248.22	N.A.	12.30
90-130	2161.33	N.A.	21.30
90-150	3947.81	N.A.	38.90
90-180	5040.36	N.A.	49.70
110-180	4511.16	N.A.	44.40
0-180	10150.13	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	150.89
10-20	453.76
20-30	735.79
30-40	936.90
40-50	998.12
50-60	891.08
60-70	628.26
70-80	277.33
80-90	37.64
90-100	112.96
100-110	416.24
110-120	719.02
120-130	913.11
130-140	950.72
140-150	835.76
150-160	616.80
160-170	359.98
170-180	115.77

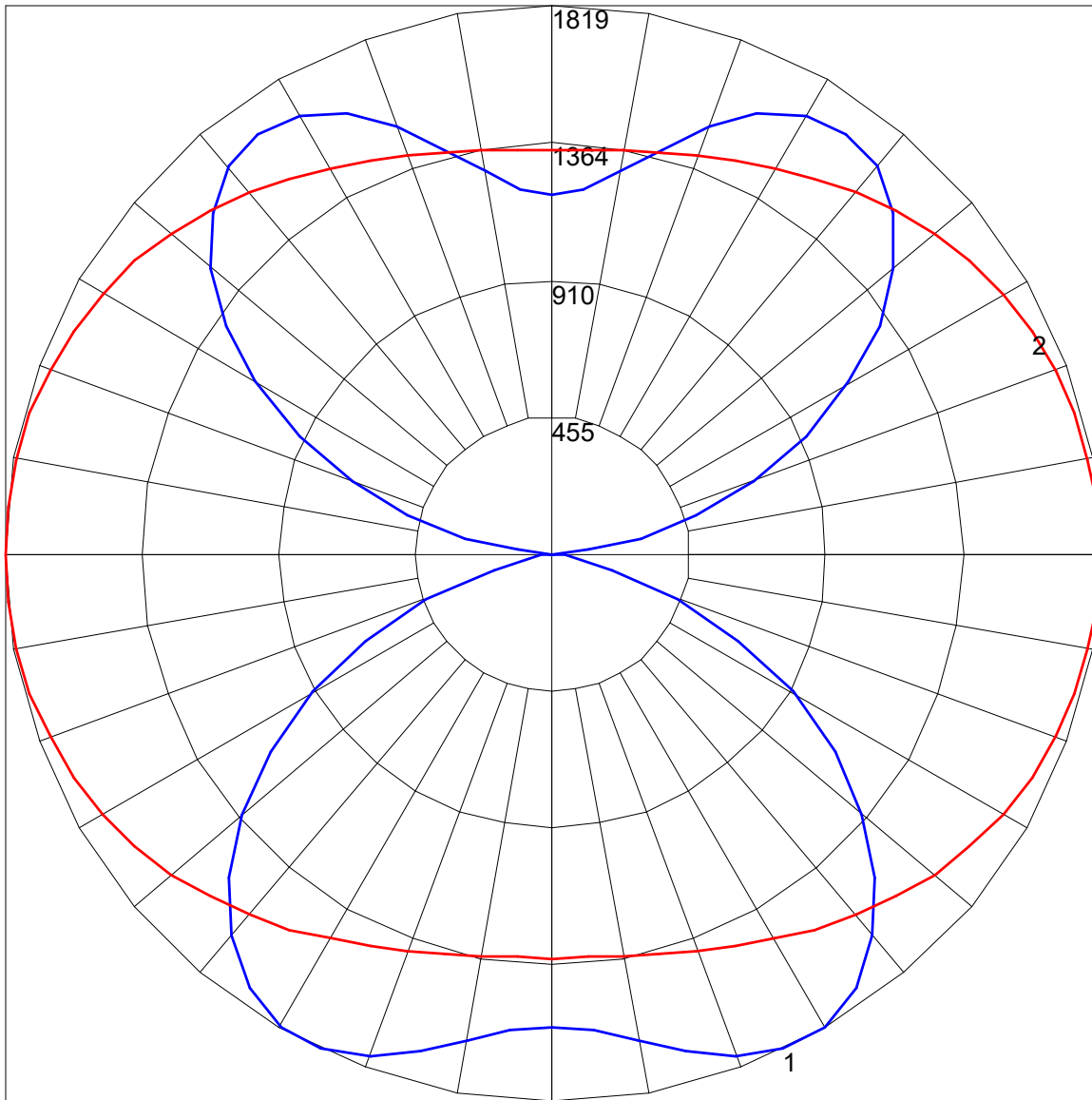
IES INDOOR REPORT
PHOTOMETRIC FILENAME : VODE_107_DR_HO_359_G1G2.IES

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	107	107	107	107	99	99	99	99	84	84	84	69	69	69	56	56	56	50
1	98	94	90	86	90	87	83	80	73	71	69	61	60	58	50	49	48	43
2	89	82	76	71	82	76	70	66	64	60	57	54	51	48	44	42	40	36
3	81	72	64	59	75	66	60	55	57	52	48	47	44	41	39	36	34	30
4	74	63	55	49	68	59	52	46	50	45	40	42	38	35	35	32	29	26
5	68	56	48	42	62	52	45	40	45	39	35	38	33	30	31	28	25	22
6	63	50	42	36	57	47	39	34	40	34	30	34	29	26	28	25	22	19
7	58	45	37	32	53	42	35	30	36	30	26	31	26	23	25	22	19	17
8	53	41	33	28	49	38	31	26	33	27	23	28	23	20	23	20	17	15
9	50	37	30	25	46	35	28	23	30	25	21	26	21	18	21	18	15	13
10	46	34	27	22	43	32	25	21	28	22	19	24	19	16	20	16	14	12

POLAR GRAPH



Maximum Candela = 1819.288 Located At Horizontal Angle = 0, Vertical Angle = 25
1 - Vertical Plane Through Horizontal Angles (0 - 180)
2 - Horizontal Cone Through Vertical Angle (25) (Through Max. Cd.)