

IES Report

DoubleRace™ | 107 | 120° Batwing, Flat, up | 120° FlyWing™, Flat, down | 80 CRI | HO

107-DR-XX-4-48-XX-XX-XX-XX-X-X-Z-HO-35-G1G2-X-XX-X

	2700K	3000K	3500K	4000K
Efficacy - Lumens per Watt	114	118	120	120
Total Lumens, 4' rail length (1219mm)	11185	11538	11774	11774
Lumens per foot (305mm)	2796	2885	2943	2943
Lumens per foot UP (305mm)	1389	1432	1462	1462
Lumens per foot DOWN (305mm)	1408	1452	1482	1482
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	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_DR_HO_35_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-35-G1G2-AL

[LUMINAIRE] DoubleRace LED, 48", 3500K, 80 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	11753
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	120
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	29059	32496	60627
55	20654	24551	57464
65	12083	15668	51849
75	3648	6812	38775
85	168	335	13605

IES INDOOR REPORT
PHOTOMETRIC FILENAME : VODE_107_DR_HO_35_G1G2.IES

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	1821.446	1821.446	1821.446	1821.446	1821.446	1821.446	1821.446	1821.446	1821.446	1821.446
5	1838.408	1838.870	1838.232	1837.682	1836.384	1834.822	1833.150	1831.324	1829.014	1826.528
10	1898.534	1898.534	1895.762	1891.802	1885.620	1878.514	1870.044	1860.452	1850.134	1839.794
15	1983.366	1982.156	1977.008	1968.054	1955.140	1939.564	1921.216	1901.482	1879.350	1856.492
20	2062.654	2060.344	2052.600	2040.170	2021.360	1998.766	1971.750	1939.938	1905.530	1869.582
25	2106.544	2104.608	2096.138	2081.464	2060.542	2033.526	2000.504	1961.520	1916.882	1868.196
30	2099.724	2096.952	2089.208	2074.930	2054.646	2027.432	1992.584	1950.630	1901.020	1845.140
35	2036.848	2035.264	2028.356	2016.652	1998.018	1973.862	1941.038	1900.470	1850.574	1792.208
40	1921.392	1920.578	1915.496	1906.366	1892.528	1872.354	1844.678	1807.608	1759.956	1703.064
45	1760.968	1759.582	1756.348	1750.826	1740.772	1725.460	1703.614	1672.726	1631.234	1578.676
50	1557.732	1557.182	1556.082	1552.848	1548.514	1538.548	1522.884	1499.190	1465.442	1420.166
55	1323.168	1323.344	1324.092	1324.092	1322.970	1318.548	1309.418	1292.830	1267.376	1230.966
60	1065.174	1065.636	1068.034	1070.432	1072.918	1073.182	1070.146	1060.752	1043.680	1016.576
65	792.418	793.254	796.576	801.636	807.554	811.888	813.824	811.602	802.846	786.148
70	514.888	515.900	521.334	529.078	538.846	548.262	555.720	560.252	559.504	552.508
75	237.534	239.096	246.004	257.268	272.470	289.168	305.030	318.934	328.064	331.672
80	46.464	46.750	48.972	52.734	59.202	68.420	81.422	98.296	116.908	133.980
85	10.516	10.516	10.604	10.890	11.242	11.528	11.990	12.826	13.640	15.312
90	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
95	137.390	137.390	137.104	136.642	135.630	134.068	131.670	128.722	124.762	118.118
100	341.176	341.264	341.902	342.276	341.990	339.592	334.532	326.128	312.488	293.766
105	574.442	574.178	574.068	573.628	571.582	567.358	559.416	545.116	524.194	494.868
110	825.616	825.528	824.978	823.306	818.884	811.888	799.150	778.954	748.990	708.136
115	1079.012	1078.814	1076.416	1072.742	1065.350	1052.722	1034.000	1006.060	967.252	916.718
120	1320.396	1318.834	1315.138	1308.032	1296.988	1278.728	1253.274	1217.854	1170.290	1108.866
125	1535.600	1533.576	1527.856	1517.450	1501.764	1477.982	1446.896	1404.678	1348.424	1276.330
130	1714.482	1712.282	1704.802	1692.350	1673.188	1645.050	1607.518	1556.918	1491.820	1411.410
135	1855.568	1852.422	1843.578	1827.716	1803.648	1770.098	1724.998	1665.906	1593.152	1507.770
140	1944.998	1941.038	1928.784	1909.314	1881.022	1841.356	1790.646	1727.572	1652.618	1566.950
145	1973.400	1968.428	1955.250	1933.470	1902.868	1861.376	1808.730	1746.954	1674.552	1591.854
150	1945.746	1941.588	1928.410	1906.190	1875.566	1835.086	1786.312	1728.034	1661.110	1588.532
155	1868.658	1865.248	1852.620	1832.424	1804.660	1768.712	1725.636	1675.476	1619.970	1559.492
160	1750.452	1747.218	1736.900	1720.488	1697.894	1668.942	1635.282	1598.410	1557.556	1515.602
165	1610.840	1608.552	1602.282	1592.228	1578.104	1560.416	1540.308	1517.340	1493.184	1467.840
170	1490.610	1489.598	1486.738	1481.392	1474.946	1467.004	1457.500	1447.270	1436.490	1424.676
175	1410.574	1410.112	1409.188	1408.088	1406.790	1404.590	1402.368	1399.794	1397.110	1394.448
180	1385.494	1385.494	1385.494	1385.494	1385.494	1385.494	1385.494	1385.494	1385.494	1385.494

**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	1821.446	1821.446	1821.446	1821.446	1821.446	1821.446	1821.446	1821.446	1821.446	1821.446
5	1823.756	1821.534	1819.048	1816.936	1814.802	1813.702	1812.954	1811.854	1810.578	1811.854
10	1828.816	1818.124	1809.192	1801.074	1792.670	1786.224	1782.726	1780.240	1777.556	1780.240
15	1833.150	1811.018	1788.996	1769.526	1753.488	1740.486	1730.432	1724.998	1722.424	1724.998
20	1831.126	1793.330	1757.822	1724.910	1698.070	1676.312	1660.274	1650.858	1647.536	1650.858
25	1817.024	1763.916	1714.020	1666.918	1628.176	1596.826	1574.430	1561.340	1556.808	1561.340
30	1783.364	1718.178	1655.302	1595.176	1545.654	1505.724	1477.696	1461.108	1454.640	1461.108
35	1723.986	1652.530	1579.028	1509.134	1452.352	1405.316	1371.766	1352.384	1346.026	1352.384
40	1634.094	1559.954	1482.954	1408.176	1346.576	1296.614	1260.842	1240.734	1233.364	1240.734
45	1514.392	1441.000	1362.526	1290.608	1227.996	1178.760	1144.462	1125.102	1119.008	1125.102
50	1361.624	1294.854	1223.860	1154.890	1099.296	1054.658	1023.770	1006.346	1000.450	1006.346
55	1181.730	1124.464	1063.964	1005.334	957.836	920.040	894.872	880.946	875.952	880.946
60	979.242	934.692	887.304	841.302	804.320	775.918	757.020	746.878	743.732	746.878

IES INDOOR REPORT
PHOTOMETRIC FILENAME : VODE_107_DR_HO_35_G1G2.IES

CANDELA TABULATION - (Cont.)

65	761.442	730.180	698.192	666.754	641.564	622.116	609.312	602.008	599.720	602.008
70	540.056	522.808	504.548	486.574	471.812	460.306	452.540	448.316	446.842	448.316
75	330.374	325.314	318.582	311.190	304.656	299.112	295.438	293.040	292.292	293.040
80	146.432	153.164	155.738	156.024	155.188	153.714	152.504	151.492	150.854	151.492
85	18.172	23.430	30.514	38.720	43.714	45.562	45.738	45.276	44.638	45.276
90	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
95	107.976	96.360	85.008	75.064	68.508	64.548	62.612	61.600	59.202	61.600
100	269.984	244.266	219.274	197.978	183.128	173.448	167.090	162.294	158.972	162.294
105	457.798	417.054	376.398	340.428	314.336	296.076	283.822	275.418	271.634	275.418
110	657.536	599.610	541.904	489.522	450.428	422.114	403.678	391.886	387.640	391.886
115	850.784	778.140	704.088	635.580	583.660	545.776	520.960	506.132	500.874	506.132
120	1030.788	943.910	854.656	772.332	710.446	663.432	632.258	613.910	607.640	613.910
125	1186.966	1089.616	990.396	897.908	826.364	771.210	735.064	713.768	707.036	713.768
130	1313.400	1209.098	1105.566	1007.644	930.446	870.606	830.126	806.806	799.062	806.806
135	1408.264	1303.148	1198.406	1101.232	1022.934	961.356	919.666	895.224	886.842	895.224
140	1470.238	1370.468	1271.248	1178.298	1103.718	1045.066	1004.036	979.792	971.300	979.792
145	1503.612	1413.258	1323.806	1240.998	1174.888	1120.592	1082.972	1060.202	1052.436	1060.202
150	1511.730	1434.004	1359.864	1291.620	1235.014	1189.364	1156.078	1135.992	1129.172	1135.992
155	1497.892	1438.338	1381.622	1328.888	1285.460	1249.204	1222.936	1206.348	1200.892	1206.348
160	1472.086	1431.958	1391.676	1354.782	1324.356	1299.364	1280.378	1268.300	1264.340	1268.300
165	1441.748	1417.592	1393.788	1371.854	1353.682	1338.194	1326.666	1319.384	1317.074	1319.384
170	1413.060	1401.532	1391.302	1380.698	1372.778	1365.034	1360.238	1357.092	1356.168	1357.092
175	1391.478	1388.728	1386.044	1384.020	1382.172	1380.698	1379.774	1379.048	1379.048	1379.048
180	1385.494	1385.494	1385.494	1385.494	1385.494	1385.494	1385.494	1385.494	1385.494	1385.494

**Vert.
Angles**

Horizontal Angles

	100	105	110	115	120	125	130	135	140	145
0	1821.446	1821.446	1821.446	1821.446	1821.446	1821.446	1821.446	1821.446	1821.446	1821.446
5	1812.954	1813.702	1814.802	1816.936	1819.048	1821.534	1823.756	1826.528	1829.014	1831.324
10	1782.726	1786.224	1792.670	1801.074	1809.192	1818.124	1828.816	1839.794	1850.134	1860.452
15	1730.432	1740.486	1753.488	1769.526	1788.996	1811.018	1833.150	1856.492	1879.350	1901.482
20	1660.274	1676.312	1698.070	1724.910	1757.822	1793.330	1831.126	1869.582	1905.530	1939.938
25	1574.430	1596.826	1628.176	1666.918	1714.020	1763.916	1817.024	1868.196	1916.882	1961.520
30	1477.696	1505.724	1545.654	1595.176	1655.302	1718.178	1783.364	1845.140	1901.020	1950.630
35	1371.766	1405.316	1452.352	1509.134	1579.028	1652.530	1723.986	1792.208	1850.574	1900.470
40	1260.842	1296.614	1346.576	1408.176	1482.954	1559.954	1634.094	1703.064	1759.956	1807.608
45	1144.462	1178.760	1227.996	1290.608	1362.526	1441.000	1514.392	1578.676	1631.234	1672.726
50	1023.770	1054.658	1099.296	1154.890	1223.860	1294.854	1361.624	1420.166	1465.442	1499.190
55	894.872	920.040	957.836	1005.334	1063.964	1124.464	1181.730	1230.966	1267.376	1292.830
60	757.020	775.918	804.320	841.302	887.304	934.692	979.242	1016.576	1043.680	1060.752
65	609.312	622.116	641.564	666.754	698.192	730.180	761.442	786.148	802.846	811.602
70	452.540	460.306	471.812	486.574	504.548	522.808	540.056	552.508	559.504	560.252
75	295.438	299.112	304.656	311.190	318.582	325.314	330.374	331.672	328.064	318.934
80	152.504	153.714	155.188	156.024	155.738	153.164	146.432	133.980	116.908	98.296
85	45.738	45.562	43.714	38.720	30.514	23.430	18.172	15.312	13.640	12.826
90	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
95	62.612	64.548	68.508	75.064	85.008	96.360	107.976	118.118	124.762	128.722
100	167.090	173.448	183.128	197.978	219.274	244.266	269.984	293.766	312.488	326.128
105	283.822	296.076	314.336	340.428	376.398	417.054	457.798	494.868	524.194	545.116
110	403.678	422.114	450.428	489.522	541.904	599.610	657.536	708.136	748.990	778.954
115	520.960	545.776	583.660	635.580	704.088	778.140	850.784	916.718	967.252	1006.060
120	632.258	663.432	710.446	772.332	854.656	943.910	1030.788	1108.866	1170.290	1217.854
125	735.064	771.210	826.364	897.908	990.396	1089.616	1186.966	1276.330	1348.424	1404.678
130	830.126	870.606	930.446	1007.644	1105.566	1209.098	1313.400	1411.410	1491.820	1556.918
135	919.666	961.356	1022.934	1101.232	1198.406	1303.148	1408.264	1507.770	1593.152	1665.906

IES INDOOR REPORT
PHOTOMETRIC FILENAME : VODE_107_DR_HO_35_G1G2.IES

CANDELA TABULATION - (Cont.)

140	1004.036	1045.066	1103.718	1178.298	1271.248	1370.468	1470.238	1566.950	1652.618	1727.572
145	1082.972	1120.592	1174.888	1240.998	1323.806	1413.258	1503.612	1591.854	1674.552	1746.954
150	1156.078	1189.364	1235.014	1291.620	1359.864	1434.004	1511.730	1588.532	1661.110	1728.034
155	1222.936	1249.204	1285.460	1328.888	1381.622	1438.338	1497.892	1559.492	1619.970	1675.476
160	1280.378	1299.364	1324.356	1354.782	1391.676	1431.958	1472.086	1515.602	1557.556	1598.410
165	1326.666	1338.194	1353.682	1371.854	1393.788	1417.592	1441.748	1467.840	1493.184	1517.340
170	1360.238	1365.034	1372.778	1380.698	1391.302	1401.532	1413.060	1424.676	1436.490	1447.270
175	1379.774	1380.698	1382.172	1384.020	1386.044	1388.728	1391.478	1394.448	1397.110	1399.794
180	1385.494	1385.494	1385.494	1385.494	1385.494	1385.494	1385.494	1385.494	1385.494	1385.494

Vert. Horizontal Angles
Angles

	150	155	160	165	170	175	180
0	1821.446	1821.446	1821.446	1821.446	1821.446	1821.446	1821.446
5	1833.150	1834.822	1836.384	1837.682	1838.232	1838.870	1838.408
10	1870.044	1878.514	1885.620	1891.802	1895.762	1898.534	1898.534
15	1921.216	1939.564	1955.140	1968.054	1977.008	1982.156	1983.366
20	1971.750	1998.766	2021.360	2040.170	2052.600	2060.344	2062.654
25	2000.504	2033.526	2060.542	2081.464	2096.138	2104.608	2106.544
30	1992.584	2027.432	2054.646	2074.930	2089.208	2096.952	2099.724
35	1941.038	1973.862	1998.018	2016.652	2028.356	2035.264	2036.848
40	1844.678	1872.354	1892.528	1906.366	1915.496	1920.578	1921.392
45	1703.614	1725.460	1740.772	1750.826	1756.348	1759.582	1760.968
50	1522.884	1538.548	1548.514	1552.848	1556.082	1557.182	1557.732
55	1309.418	1318.548	1322.970	1324.092	1324.092	1323.344	1323.168
60	1070.146	1073.182	1072.918	1070.432	1068.034	1065.636	1065.174
65	813.824	811.888	807.554	801.636	796.576	793.254	792.418
70	555.720	548.262	538.846	529.078	521.334	515.900	514.888
75	305.030	289.168	272.470	257.268	246.004	239.096	237.534
80	81.422	68.420	59.202	52.734	48.972	46.750	46.464
85	11.990	11.528	11.242	10.890	10.604	10.516	10.516
90	0.000	0.000	0.000	0.000	0.000	0.000	0.000
95	131.670	134.068	135.630	136.642	137.104	137.390	137.390
100	334.532	339.592	341.990	342.276	341.902	341.264	341.176
105	559.416	567.358	571.582	573.628	574.068	574.178	574.442
110	799.150	811.888	818.884	823.306	824.978	825.528	825.616
115	1034.000	1052.722	1065.350	1072.742	1076.416	1078.814	1079.012
120	1253.274	1278.728	1296.988	1308.032	1315.138	1318.834	1320.396
125	1446.896	1477.982	1501.764	1517.450	1527.856	1533.576	1535.600
130	1607.518	1645.050	1673.188	1692.350	1704.802	1712.282	1714.482
135	1724.998	1770.098	1803.648	1827.716	1843.578	1852.422	1855.568
140	1790.646	1841.356	1881.022	1909.314	1928.784	1941.038	1944.998
145	1808.730	1861.376	1902.868	1933.470	1955.250	1968.428	1973.400
150	1786.312	1835.086	1875.566	1906.190	1928.410	1941.588	1945.746
155	1725.636	1768.712	1804.660	1832.424	1852.620	1865.248	1868.658
160	1635.282	1668.942	1697.894	1720.488	1736.900	1747.218	1750.452
165	1540.308	1560.416	1578.104	1592.228	1602.282	1608.552	1610.840
170	1457.500	1467.004	1474.946	1481.392	1486.738	1489.598	1490.610
175	1402.368	1404.590	1406.790	1408.088	1409.188	1410.112	1410.574
180	1385.494	1385.494	1385.494	1385.494	1385.494	1385.494	1385.494

IES INDOOR REPORT
PHOTOMETRIC FILENAME : VODE_107_DR_HO_35_G1G2.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	700.12	N.A.	6.00
0-30	1552.09	N.A.	13.20
0-40	2636.92	N.A.	22.40
0-60	4824.41	N.A.	41.00
0-80	5872.98	N.A.	50.00
0-90	5916.57	N.A.	50.30
10-90	5741.85	N.A.	48.90
20-40	1936.79	N.A.	16.50
20-50	3092.52	N.A.	26.30
40-70	2914.95	N.A.	24.80
60-80	1048.58	N.A.	8.90
70-80	321.12	N.A.	2.70
80-90	43.59	N.A.	0.40
90-110	612.76	N.A.	5.20
90-120	1445.31	N.A.	12.30
90-130	2502.6	N.A.	21.30
90-150	4571.15	N.A.	38.90
90-180	5836.21	N.A.	49.70
110-180	5223.45	N.A.	44.40
0-180	11752.78	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	174.72
10-20	525.40
20-30	851.96
30-40	1084.83
40-50	1155.72
50-60	1031.77
60-70	727.45
70-80	321.12
80-90	43.59
90-100	130.79
100-110	481.97
110-120	832.55
120-130	1057.29
130-140	1100.83
140-150	967.73
150-160	714.18
160-170	416.82
170-180	134.05

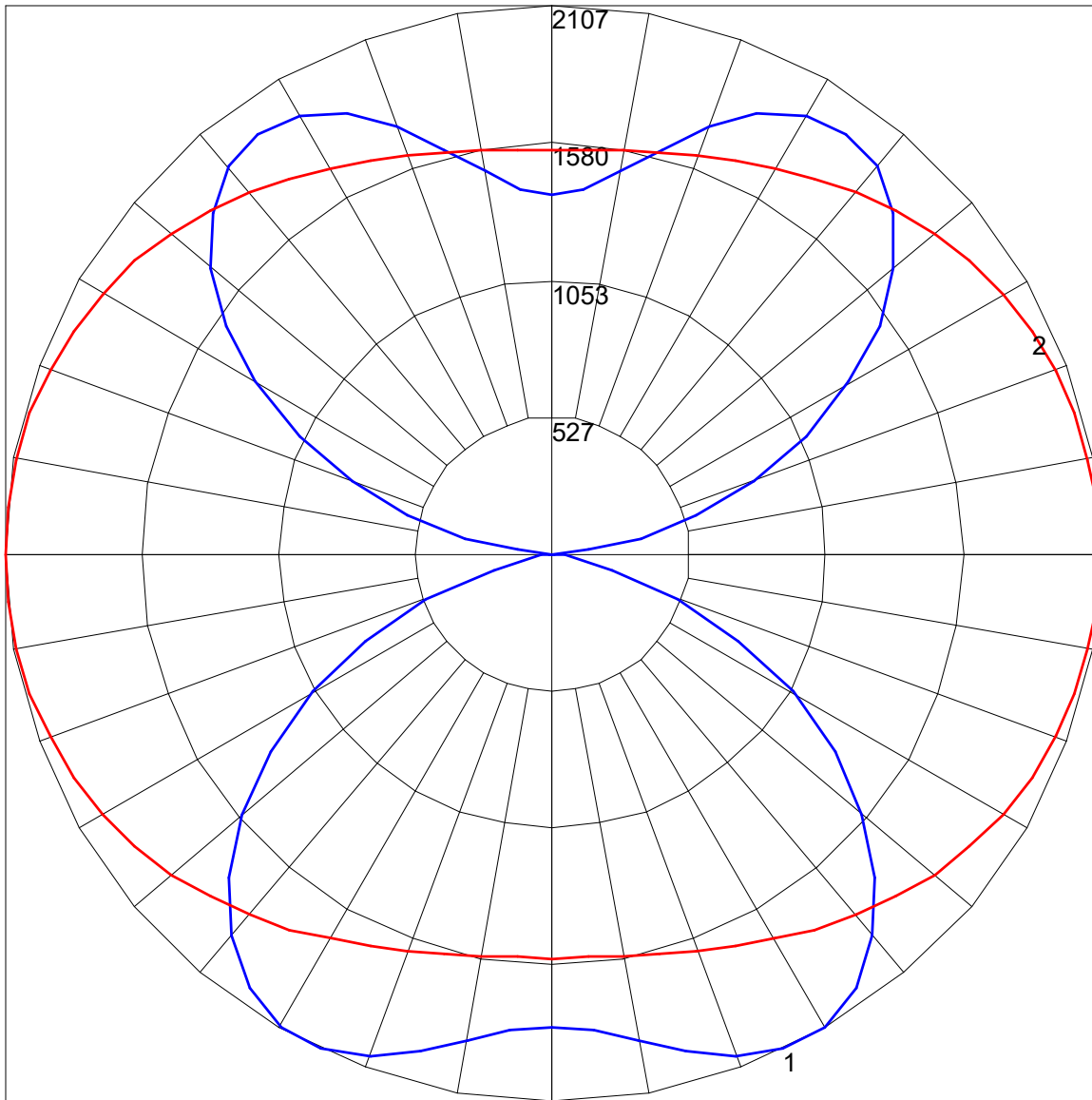
IES INDOOR REPORT
PHOTOMETRIC FILENAME : VODE_107_DR_HO_35_G1G2.IES

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 = 2106.544 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.)