

## IES Report

**DoubleBox™ | 107 | Wide Batwing, up | 85° Asymmetric, down | 90 CRI | SO**

**107-DB-XX-4-48-XX-XX-XX-XX-X-X-Z-SO-359-G1A1-X-AL / WH-X**

	2700K	3000K	3500K	4000K
Efficacy - Lumens per Watt	85	88	90	91
Total Lumens, 4' rail length (1219mm)	4061	4190	4275	4318
Lumens per foot (305mm)	1015	1047	1069	1079
Lumens per foot UP (305mm)	640	660	674	681
Lumens per foot DOWN (305mm)	375	387	395	399
Input Power (W), 4' rail length (1219mm)	47.8	47.8	47.8	47.8
Watts per foot (305mm)	12.0	12.0	12.0	12.0
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\_DB\_SO\_359\_G1A1.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] L022010902 / L121911511 (SOURCE REPORTS FOR REFERENCE)

[TESTLAB] REPORT BASED ON DATA FROM NVLAP ACCREDITED LAB

[ISSUE DATE] 3/18/2020

[MANUFAC] Vode Lighting

[LUMCAT] 107-DB-48-Z-SO-359-G1A1-AL

[LUMINAIRE] DoubleBox LED, 48", 3500K, 90 CRI, zipper board, wide batwing lens up /

[MORE] 85° asymmetric lens down, standard 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	4275
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	89
Total Luminaire Watts	47.84
Ballast Factor	1.00
CIE Type	Semi-Indirect
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	0.21 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	11195	11597	16139
55	7010	7190	12506
65	3491	3914	9737
75	924	1566	7081
85	4	9	3316

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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>	720.89	720.89	720.89	720.89	720.89	720.89	720.89	720.89	720.89	720.89
<b>5</b>	846.96	845.28	844.44	842.10	839.33	835.98	831.54	827.51	821.06	814.60
<b>10</b>	985.77	983.68	981.50	976.63	970.68	962.22	952.24	941.26	927.35	912.59
<b>15</b>	1072.61	1070.69	1068.00	1062.14	1053.84	1044.11	1031.54	1016.87	998.76	978.48
<b>20</b>	1106.65	1106.23	1102.62	1096.92	1088.71	1077.81	1064.82	1048.22	1028.44	1005.81
<b>25</b>	1096.75	1095.41	1091.98	1086.61	1078.31	1067.75	1053.84	1036.74	1015.36	991.97
<b>30</b>	1054.84	1053.50	1050.06	1044.20	1035.23	1023.49	1008.66	990.55	967.58	941.76
<b>35</b>	988.79	987.28	983.51	976.97	966.74	953.50	936.65	915.36	890.55	862.47
<b>40</b>	900.10	898.85	894.65	887.36	876.13	861.63	842.26	818.37	791.63	761.29
<b>45</b>	791.47	789.87	786.19	778.98	767.41	751.99	731.95	707.14	679.23	647.71
<b>50</b>	665.73	664.64	661.62	655.25	645.53	629.77	610.66	587.61	561.03	533.12
<b>55</b>	531.11	530.27	528.01	523.65	515.85	503.70	487.61	467.32	444.60	421.05
<b>60</b>	396.49	396.24	395.48	393.14	388.19	380.14	368.74	353.99	337.14	320.04
<b>65</b>	274.11	274.27	274.69	274.52	272.76	269.08	262.87	254.07	243.59	232.86
<b>70</b>	164.80	165.30	166.64	168.32	169.83	170.08	168.91	165.89	161.61	156.42
<b>75</b>	72.93	73.51	75.61	78.54	82.23	86.17	89.27	91.28	92.12	91.79
<b>80</b>	11.07	11.32	12.07	13.66	15.93	19.20	23.47	28.58	33.61	37.72
<b>85</b>	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.50
<b>90</b>	4.88	4.88	4.88	4.88	4.88	4.88	4.88	4.88	4.88	4.88
<b>95</b>	22.72	27.95	26.37	26.97	27.88	29.41	30.17	36.23	39.69	42.36
<b>100</b>	87.76	92.11	94.28	98.77	104.55	110.71	117.81	123.81	131.83	132.53
<b>105</b>	210.65	196.21	209.98	215.48	221.76	232.02	239.80	246.36	252.57	250.98
<b>110</b>	392.72	379.80	381.10	389.40	402.82	403.54	417.51	407.22	396.92	372.27
<b>115</b>	628.18	625.60	603.44	592.03	586.67	583.41	567.41	544.96	516.47	481.20
<b>120</b>	799.43	794.43	783.42	762.71	743.69	717.08	688.83	656.77	607.42	555.75
<b>125</b>	910.83	905.01	891.50	874.43	853.09	812.83	776.50	723.86	671.10	611.69
<b>130</b>	958.45	953.31	938.58	916.29	889.14	853.00	807.09	757.28	700.31	641.74
<b>135</b>	957.94	953.61	939.84	918.17	888.20	853.47	809.57	764.06	711.45	658.91
<b>140</b>	926.93	922.51	910.02	890.60	864.79	832.71	794.81	753.55	709.43	664.09
<b>145</b>	877.97	874.03	864.05	848.62	826.75	800.13	769.09	733.84	697.27	659.96
<b>150</b>	820.97	817.41	810.11	797.53	780.75	759.55	734.63	707.60	680.00	649.99
<b>155</b>	761.79	759.20	754.37	744.75	732.61	717.08	698.81	679.19	658.81	638.19
<b>160</b>	706.13	704.76	700.80	695.37	686.73	676.88	665.56	651.95	637.67	624.88
<b>165</b>	658.44	657.43	654.93	651.98	647.98	642.01	635.38	628.13	620.32	611.28
<b>170</b>	622.81	622.26	621.05	619.70	618.03	616.07	613.82	610.26	606.57	602.72
<b>175</b>	601.44	601.18	600.97	600.34	599.87	599.36	598.81	598.22	597.60	596.95
<b>180</b>	594.00	594.00	594.00	594.00	594.00	594.00	594.00	594.00	594.00	594.00

**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>	<u>95</u>
<b>0</b>	720.89	720.89	720.89	720.89	720.89	720.89	720.89	720.89	720.89	720.89
<b>5</b>	807.98	799.68	789.12	777.97	766.66	754.67	742.09	729.02	715.52	698.84
<b>10</b>	896.42	876.88	855.09	831.79	807.90	782.16	755.59	727.68	699.68	672.94
<b>15</b>	956.10	929.36	898.93	865.99	831.45	794.23	755.42	714.52	673.69	633.04
<b>20</b>	979.99	949.14	913.77	874.20	832.29	785.77	736.73	685.51	634.38	582.41
<b>25</b>	963.73	930.62	892.31	849.14	803.04	749.97	694.99	636.90	578.89	524.40
<b>30</b>	912.26	877.72	838.16	793.65	745.78	691.13	633.96	573.11	512.92	456.17
<b>35</b>	831.28	795.66	755.84	712.17	665.23	612.17	556.59	498.25	440.33	385.59
<b>40</b>	728.77	693.23	654.58	613.51	570.51	522.14	472.43	421.22	367.65	319.54
<b>45</b>	615.94	581.66	546.87	509.65	472.27	431.02	386.76	339.15	300.85	260.86
<b>50</b>	502.11	473.27	443.18	412.33	381.32	347.87	313.50	278.21	243.26	209.14
<b>55</b>	396.57	373.27	349.63	325.41	302.52	276.96	248.37	220.71	193.30	166.14
<b>60</b>	303.36	286.34	268.82	251.22	233.45	214.17	193.22	172.34	150.88	130.18

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**CANDELA TABULATION - (Cont.)**

<b>65</b>	221.55	210.06	198.83	187.26	174.77	160.86	145.77	130.43	114.92	99.42
<b>70</b>	150.80	144.60	138.14	131.02	122.89	113.92	104.19	93.72	83.15	73.10
<b>75</b>	90.70	88.69	86.09	82.82	78.63	73.51	67.90	61.61	55.16	49.21
<b>80</b>	40.66	42.33	42.83	42.50	41.41	39.40	36.97	34.12	30.93	28.08
<b>85</b>	1.59	4.19	8.22	11.23	12.74	13.16	12.99	12.49	11.74	11.23
<b>90</b>	4.88	4.88	4.88	4.88	4.88	4.88	4.88	4.88	4.88	4.88
<b>95</b>	42.99	53.19	51.95	41.69	38.78	39.04	38.27	36.85	37.64	36.85
<b>100</b>	132.32	131.77	122.04	108.71	99.63	91.59	84.39	81.64	81.98	81.64
<b>105</b>	244.09	225.11	203.12	177.19	157.78	143.37	133.03	127.79	126.99	127.79
<b>110</b>	338.05	307.34	273.78	239.33	213.43	196.02	183.44	177.08	176.79	177.08
<b>115</b>	434.67	383.23	337.06	297.41	267.24	246.59	232.36	224.77	224.15	224.77
<b>120</b>	500.44	441.82	391.04	350.33	317.63	295.31	281.68	272.89	269.33	272.89
<b>125</b>	548.64	490.45	438.91	396.26	362.10	338.66	324.57	316.05	311.83	316.05
<b>130</b>	583.46	529.01	480.30	438.35	404.42	378.95	361.79	350.91	342.76	350.91
<b>135</b>	605.93	556.85	511.67	474.14	442.97	419.31	403.68	393.96	389.95	393.96
<b>140</b>	618.40	576.72	537.62	502.90	475.75	453.44	438.54	429.46	425.24	429.46
<b>145</b>	623.31	588.68	556.37	527.36	503.63	484.97	470.98	463.66	459.44	463.66
<b>150</b>	621.81	594.69	568.42	546.79	526.45	512.80	500.28	495.12	491.63	495.12
<b>155</b>	617.08	596.88	578.39	560.38	547.41	535.94	527.38	522.93	519.71	522.93
<b>160</b>	611.37	597.09	583.29	573.42	563.90	554.74	550.73	547.33	544.77	547.33
<b>165</b>	602.89	596.01	589.12	582.28	575.53	572.46	569.90	567.57	565.73	567.57
<b>170</b>	598.75	594.70	590.69	588.77	587.01	585.37	583.86	582.44	581.24	582.44
<b>175</b>	596.28	595.59	594.88	594.17	593.46	592.75	592.03	591.36	590.71	591.36
<b>180</b>	594.00	594.00	594.00	594.00	594.00	594.00	594.00	594.00	594.00	594.00

**Vert.  
Angles**

**Horizontal Angles**

	<b>100</b>	<b>105</b>	<b>110</b>	<b>115</b>	<b>120</b>	<b>125</b>	<b>130</b>	<b>135</b>	<b>140</b>	<b>145</b>
<b>0</b>	720.89	720.89	720.89	720.89	720.89	720.89	720.89	720.89	720.89	720.89
<b>5</b>	686.27	671.60	659.03	647.54	635.55	624.66	614.68	604.54	660.45	654.75
<b>10</b>	646.87	620.55	594.82	571.26	547.62	535.80	517.61	498.59	483.41	468.83
<b>15</b>	594.90	556.84	520.88	487.94	455.67	427.59	402.27	430.10	409.82	393.47
<b>20</b>	535.22	488.86	446.03	407.89	371.59	379.72	351.56	325.57	305.96	289.53
<b>25</b>	472.27	421.72	376.12	336.64	299.92	270.25	245.19	227.50	209.98	195.56
<b>30</b>	402.94	352.82	308.64	271.34	237.89	211.74	192.13	173.77	159.69	148.70
<b>35</b>	335.72	289.70	249.63	217.27	188.86	167.48	151.22	136.80	126.16	118.11
<b>40</b>	275.45	235.46	201.68	174.86	152.14	135.12	121.88	111.91	104.28	98.41
<b>45</b>	223.89	190.70	163.29	141.91	123.89	111.32	101.51	93.80	88.35	84.33
<b>50</b>	178.55	152.48	131.60	115.01	101.68	92.12	85.17	80.72	76.78	74.02
<b>55</b>	142.92	122.47	106.62	94.13	84.41	78.12	73.01	69.32	66.81	65.13
<b>60</b>	112.58	97.24	85.17	76.53	70.08	65.22	61.78	61.61	59.85	58.68
<b>65</b>	86.76	76.45	67.81	61.53	56.75	53.40	51.30	49.88	48.95	48.45
<b>70</b>	64.55	57.17	51.55	47.44	44.43	42.42	41.16	40.32	39.90	39.65
<b>75</b>	44.09	39.82	36.55	34.28	32.61	31.69	31.18	30.85	30.76	30.85
<b>80</b>	25.82	24.06	22.72	21.88	21.46	21.21	21.29	21.38	21.71	22.05
<b>85</b>	11.07	11.07	11.23	11.40	11.74	12.24	12.57	12.74	12.66	12.57
<b>90</b>	4.88	4.88	4.88	4.88	4.88	4.88	4.88	4.88	4.88	4.88
<b>95</b>	38.27	39.04	38.78	41.69	51.95	53.19	42.99	42.36	39.69	36.23
<b>100</b>	84.39	91.59	99.63	108.71	122.04	131.77	132.32	132.53	131.83	123.81
<b>105</b>	133.03	143.37	157.78	177.19	203.12	225.11	244.09	250.98	252.57	246.36
<b>110</b>	183.44	196.02	213.43	239.33	273.78	307.34	338.05	372.27	396.92	407.22
<b>115</b>	232.36	246.59	267.24	297.41	337.06	383.23	434.67	481.20	516.47	544.96
<b>120</b>	281.68	295.31	317.63	350.33	391.04	441.82	500.44	555.75	607.42	656.77
<b>125</b>	324.57	338.66	362.10	396.26	438.91	490.45	548.64	611.69	671.10	723.86
<b>130</b>	361.79	378.95	404.42	438.35	480.30	529.01	583.46	641.74	700.31	757.28
<b>135</b>	403.68	419.31	442.97	474.14	511.67	556.85	605.93	658.91	711.45	764.06

**IES INDOOR REPORT**  
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**CANDELA TABULATION - (Cont.)**

<b>140</b>	438.54	453.44	475.75	502.90	537.62	576.72	618.40	664.09	709.43	753.55
<b>145</b>	470.98	484.97	503.63	527.36	556.37	588.68	623.31	659.96	697.27	733.84
<b>150</b>	500.28	512.80	526.45	546.79	568.42	594.69	621.81	649.99	680.00	707.60
<b>155</b>	527.38	535.94	547.41	560.38	578.39	596.88	617.08	638.19	658.81	679.19
<b>160</b>	550.73	554.74	563.90	573.42	583.29	597.09	611.37	624.88	637.67	651.95
<b>165</b>	569.90	572.46	575.53	582.28	589.12	596.01	602.89	611.28	620.32	628.13
<b>170</b>	583.86	585.37	587.01	588.77	590.69	594.70	598.75	602.72	606.57	610.26
<b>175</b>	592.03	592.75	593.46	594.17	594.88	595.59	596.28	596.95	597.60	598.22
<b>180</b>	594.00	594.00	594.00	594.00	594.00	594.00	594.00	594.00	594.00	594.00

**Vert. Horizontal Angles**  
**Angles**

	<b>150</b>	<b>155</b>	<b>160</b>	<b>165</b>	<b>170</b>	<b>175</b>	<b>180</b>
<b>0</b>	720.89	720.89	720.89	720.89	720.89	720.89	720.89
<b>5</b>	651.65	650.81	652.07	655.42	657.01	654.08	727.93
<b>10</b>	457.18	502.53	498.42	496.66	495.32	490.79	556.09
<b>15</b>	379.30	369.66	362.29	357.68	354.24	349.46	399.51
<b>20</b>	276.62	267.65	259.52	254.07	250.38	246.02	279.97
<b>25</b>	183.99	175.19	189.69	184.83	181.48	178.21	199.84
<b>30</b>	139.82	145.52	143.17	139.48	136.80	134.62	147.87
<b>35</b>	111.65	117.69	113.67	111.07	109.47	107.88	116.01
<b>40</b>	94.13	90.95	94.89	93.21	92.29	91.37	96.57
<b>45</b>	82.06	84.41	82.99	82.06	81.65	81.23	84.83
<b>50</b>	72.17	73.60	73.35	73.01	72.84	72.68	75.11
<b>55</b>	64.04	65.72	65.38	65.22	65.05	64.96	66.72
<b>60</b>	58.01	57.67	57.59	57.50	57.50	57.42	58.84
<b>65</b>	48.12	49.54	49.54	49.71	49.88	49.71	50.80
<b>70</b>	39.65	40.91	41.07	41.24	41.41	41.41	42.42
<b>75</b>	31.02	32.11	32.36	32.61	32.78	32.86	33.53
<b>80</b>	22.38	23.30	23.64	23.89	24.23	24.39	24.98
<b>85</b>	12.57	12.66	13.08	13.16	13.33	13.41	13.75
<b>90</b>	4.88	4.88	4.88	4.88	4.88	4.88	4.88
<b>95</b>	30.17	29.41	27.88	26.97	26.37	27.95	22.72
<b>100</b>	117.81	110.71	104.55	98.77	94.28	92.11	87.76
<b>105</b>	239.80	232.02	221.76	215.48	209.98	196.21	210.65
<b>110</b>	417.51	403.54	402.82	389.40	381.10	379.80	392.72
<b>115</b>	567.41	583.41	586.67	592.03	603.44	625.60	628.18
<b>120</b>	688.83	717.08	743.69	762.71	783.42	794.43	799.43
<b>125</b>	776.50	812.83	853.09	874.43	891.50	905.01	910.83
<b>130</b>	807.09	853.00	889.14	916.29	938.58	953.31	958.45
<b>135</b>	809.57	853.47	888.20	918.17	939.84	953.61	957.94
<b>140</b>	794.81	832.71	864.79	890.60	910.02	922.51	926.93
<b>145</b>	769.09	800.13	826.75	848.62	864.05	874.03	877.97
<b>150</b>	734.63	759.55	780.75	797.53	810.11	817.41	820.97
<b>155</b>	698.81	717.08	732.61	744.75	754.37	759.20	761.79
<b>160</b>	665.56	676.88	686.73	695.37	700.80	704.76	706.13
<b>165</b>	635.38	642.01	647.98	651.98	654.93	657.43	658.44
<b>170</b>	613.82	616.07	618.03	619.70	621.05	622.26	622.81
<b>175</b>	598.81	599.36	599.87	600.34	600.97	601.18	601.44
<b>180</b>	594.00	594.00	594.00	594.00	594.00	594.00	594.00

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : VODE\_107\_DB\_SO\_359\_G1A1.IES**

**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	263.98	N.A.	6.20
0-30	544.67	N.A.	12.70
0-40	855.72	N.A.	20.00
0-60	1363.07	N.A.	31.90
0-80	1566.48	N.A.	36.60
0-90	1579.71	N.A.	36.90
10-90	1510.74	N.A.	35.30
20-40	591.74	N.A.	13.80
20-50	877.82	N.A.	20.50
40-70	647.84	N.A.	15.20
60-80	203.42	N.A.	4.80
70-80	62.92	N.A.	1.50
80-90	13.23	N.A.	0.30
90-110	270.39	N.A.	6.30
90-120	701.64	N.A.	16.40
90-130	1239.49	N.A.	29.00
90-150	2168.42	N.A.	50.70
90-180	2695.79	N.A.	63.10
110-180	2425.4	N.A.	56.70
0-180	4275.5	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	68.97
10-20	195.01
20-30	280.69
30-40	311.05
40-50	286.07
50-60	221.27
60-70	140.50
70-80	62.92
80-90	13.23
90-100	50.67
100-110	219.71
110-120	431.25
120-130	537.86
130-140	512.29
140-150	416.64
150-160	296.23
160-170	174.01
170-180	57.13

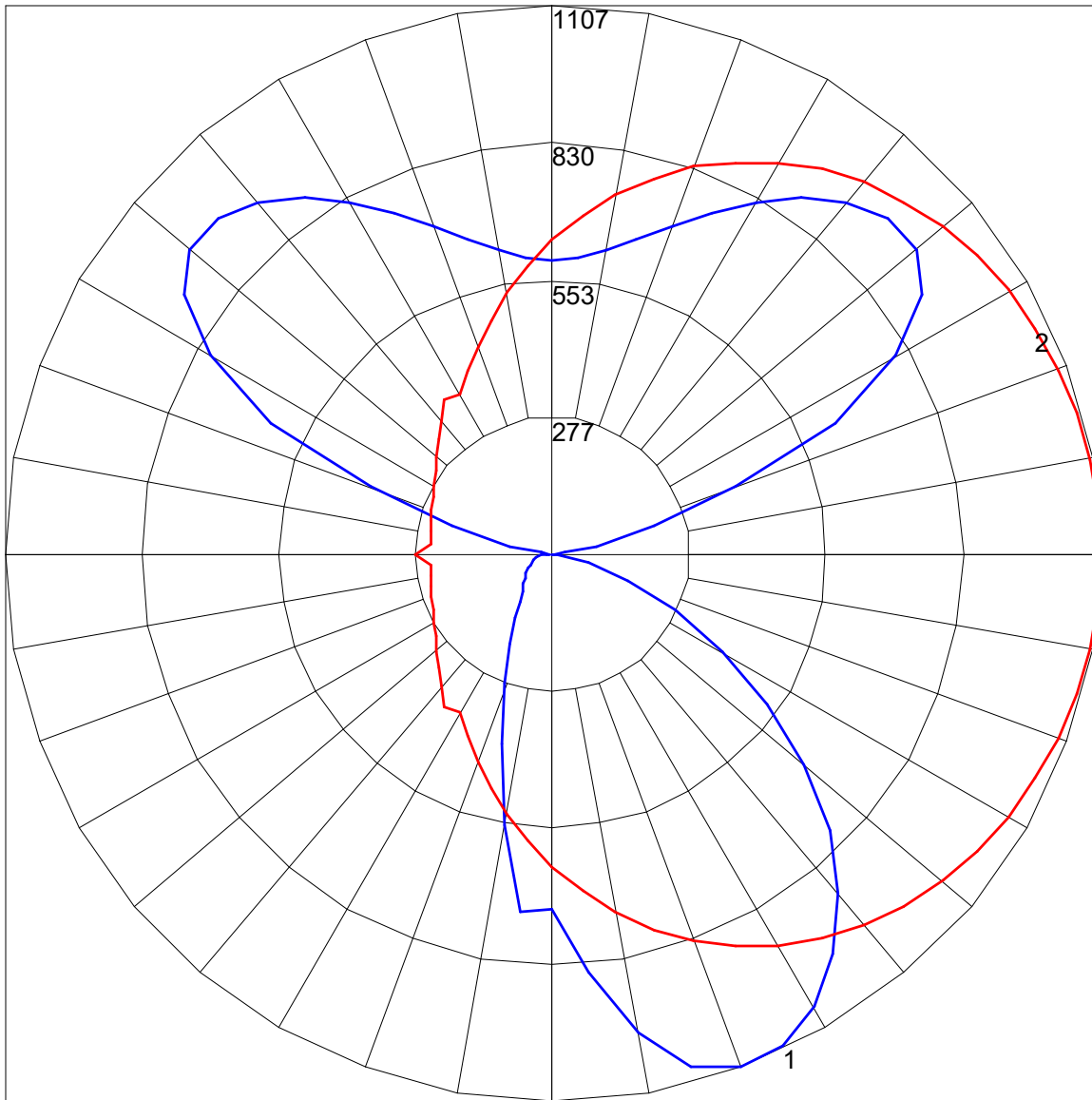
**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : VODE\_107\_DB\_SO\_359\_G1A1.IES**

**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	104	104	104	104	94	94	94	94	76	76	76	59	59	59	44	44	44	37
1	95	91	88	84	86	83	80	77	67	65	63	53	52	50	40	39	38	32
2	87	80	74	70	79	73	68	64	59	56	53	47	45	43	35	34	33	27
3	80	71	64	58	72	64	59	54	53	48	45	42	39	36	32	30	28	24
4	73	63	55	49	66	57	51	46	47	42	39	37	34	31	29	26	25	21
5	67	56	48	43	61	51	44	39	42	37	33	34	30	27	26	24	22	18
6	62	50	43	37	56	46	39	34	38	33	29	31	27	24	24	21	19	16
7	57	45	38	32	52	42	35	30	35	29	26	28	24	21	22	19	17	14
8	53	41	34	29	48	38	31	27	31	26	23	25	22	19	20	17	15	13
9	49	38	30	26	45	35	28	24	29	24	21	23	20	17	18	16	14	12
10	46	34	28	23	42	32	26	21	27	22	19	22	18	16	17	15	13	11

POLAR GRAPH



Maximum Candela = 1106.65 Located At Horizontal Angle = 0, Vertical Angle = 20  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180)  
# 2 - Horizontal Cone Through Vertical Angle (20) (Through Max. Cd.)