

IES Report

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

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

	2700K	3000K	3500K	4000K
Efficacy - Lumens per Watt	92	95	97	98
Total Lumens, 4' rail length (1219mm)	2537	2618	2671	2698
Lumens per foot (305mm)	634	654	668	674
Lumens per foot UP (305mm)	315	325	332	335
Lumens per foot DOWN (305mm)	319	329	336	340
Input Power (W), 4' rail length (1219mm)	27.6	27.6	27.6	27.6
Watts per foot (305mm)	7.0	7.0	7.0	7.0
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_DR_LO_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-LO-359-G1G2-AL

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

[MORE] 120° flywing lens down, low 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	2671
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	97
Total Luminaire Watts	27.64
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	6604	7386	13779
55	4694	5580	13060
65	2746	3561	11784
75	829	1548	8812
85	38	76	3092

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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	413.965	413.965	413.965	413.965	413.965	413.965	413.965	413.965	413.965	413.965
5	417.820	417.925	417.780	417.655	417.360	417.005	416.625	416.210	415.685	415.120
10	431.485	431.485	430.855	429.955	428.550	426.935	425.010	422.830	420.485	418.135
15	450.765	450.490	449.320	447.285	444.350	440.810	436.640	432.155	427.125	421.930
20	468.785	468.260	466.500	463.675	459.400	454.265	448.125	440.895	433.075	424.905
25	478.760	478.320	476.395	473.060	468.305	462.165	454.660	445.800	435.655	424.590
30	477.210	476.580	474.820	471.575	466.965	460.780	452.860	443.325	432.050	419.350
35	462.920	462.560	460.990	458.330	454.095	448.605	441.145	431.925	420.585	407.320
40	436.680	436.495	435.340	433.265	430.120	425.535	419.245	410.820	399.990	387.060
45	400.220	399.905	399.170	397.915	395.630	392.150	387.185	380.165	370.735	358.790
50	354.030	353.905	353.655	352.920	351.935	349.670	346.110	340.725	333.055	322.765
55	300.720	300.760	300.930	300.930	300.675	299.670	297.595	293.825	288.040	279.765
60	242.085	242.190	242.735	243.280	243.845	243.905	243.215	241.080	237.200	231.040
65	180.095	180.285	181.040	182.190	183.535	184.520	184.960	184.455	182.465	178.670
70	117.020	117.250	118.485	120.245	122.465	124.605	126.300	127.330	127.160	125.570
75	53.985	54.340	55.910	58.470	61.925	65.720	69.325	72.485	74.560	75.380
80	10.560	10.625	11.130	11.985	13.455	15.550	18.505	22.340	26.570	30.450
85	2.390	2.390	2.410	2.475	2.555	2.620	2.725	2.915	3.100	3.480
90	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
95	31.225	31.225	31.160	31.055	30.825	30.470	29.925	29.255	28.355	26.845
100	77.540	77.560	77.705	77.790	77.725	77.180	76.030	74.120	71.020	66.765
105	130.555	130.495	130.470	130.370	129.905	128.945	127.140	123.890	119.135	112.470
110	187.640	187.620	187.495	187.115	186.110	184.520	181.625	177.035	170.225	160.940
115	245.230	245.185	244.640	243.805	242.125	239.255	235.000	228.650	219.830	208.345
120	300.090	299.735	298.895	297.280	294.770	290.620	284.835	276.785	265.975	252.015
125	349.000	348.540	347.240	344.875	341.310	335.905	328.840	319.245	306.460	290.075
130	389.655	389.155	387.455	384.625	380.270	373.875	365.345	353.845	339.050	320.775
135	421.720	421.005	418.995	415.390	409.920	402.295	392.045	378.615	362.080	342.675
140	442.045	441.145	438.360	433.935	427.505	418.490	406.965	392.630	375.595	356.125
145	448.500	447.370	444.375	439.425	432.470	423.040	411.075	397.035	380.580	361.785
150	442.215	441.270	438.275	433.225	426.265	417.065	405.980	392.735	377.525	361.030
155	424.695	423.920	421.050	416.460	410.150	401.980	392.190	380.790	368.175	354.430
160	397.830	397.095	394.750	391.020	385.885	379.305	371.655	363.275	353.990	344.455
165	366.100	365.580	364.155	361.870	358.660	354.640	350.070	344.850	339.360	333.600
170	338.775	338.545	337.895	336.680	335.215	333.410	331.250	328.925	326.475	323.790
175	320.585	320.480	320.270	320.020	319.725	319.225	318.720	318.135	317.525	316.920
180	314.885	314.885	314.885	314.885	314.885	314.885	314.885	314.885	314.885	314.885

**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	413.965	413.965	413.965	413.965	413.965	413.965	413.965	413.965	413.965	413.965
5	414.490	413.985	413.420	412.940	412.455	412.205	412.035	411.785	411.495	411.785
10	415.640	413.210	411.180	409.335	407.425	405.960	405.165	404.600	403.990	404.600
15	416.625	411.595	406.590	402.165	398.520	395.565	393.280	392.045	391.460	392.045
20	416.165	407.575	399.505	392.025	385.925	380.980	377.335	375.195	374.440	375.195
25	412.960	400.890	389.550	378.845	370.040	362.915	357.825	354.850	353.820	354.850
30	405.310	390.495	376.205	362.540	351.285	342.210	335.840	332.070	330.600	332.070
35	391.815	375.575	358.870	342.985	330.080	319.390	311.765	307.360	305.915	307.360
40	371.385	354.535	337.035	320.040	306.040	294.685	286.555	281.985	280.310	281.985
45	344.180	327.500	309.665	293.320	279.090	267.900	260.105	255.705	254.320	255.705
50	309.460	294.285	278.150	262.475	249.840	239.695	232.675	228.715	227.375	228.715
55	268.575	255.560	241.810	228.485	217.690	209.100	203.380	200.215	199.080	200.215
60	222.555	212.430	201.660	191.205	182.800	176.345	172.050	169.745	169.030	169.745

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CANDELA TABULATION - (Cont.)

65	173.055	165.950	158.680	151.535	145.810	141.390	138.480	136.820	136.300	136.820
70	122.740	118.820	114.670	110.585	107.230	104.615	102.850	101.890	101.555	101.890
75	75.085	73.935	72.405	70.725	69.240	67.980	67.145	66.600	66.430	66.600
80	33.280	34.810	35.395	35.460	35.270	34.935	34.660	34.430	34.285	34.430
85	4.130	5.325	6.935	8.800	9.935	10.355	10.395	10.290	10.145	10.290
90	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
95	24.540	21.900	19.320	17.060	15.570	14.670	14.230	14.000	13.455	14.000
100	61.360	55.515	49.835	44.995	41.620	39.420	37.975	36.885	36.130	36.885
105	104.045	94.785	85.545	77.370	71.440	67.290	64.505	62.595	61.735	62.595
110	149.440	136.275	123.160	111.255	102.370	95.935	91.745	89.065	88.100	89.065
115	193.360	176.850	160.020	144.450	132.650	124.040	118.400	115.030	113.835	115.030
120	234.270	214.525	194.240	175.530	161.465	150.780	143.695	139.525	138.100	139.525
125	269.765	247.640	225.090	204.070	187.810	175.275	167.060	162.220	160.690	162.220
130	298.500	274.795	251.265	229.010	211.465	197.865	188.665	183.365	181.605	183.365
135	320.060	296.170	272.365	250.280	232.485	218.490	209.015	203.460	201.555	203.460
140	334.145	311.470	288.920	267.795	250.845	237.515	228.190	222.680	220.750	222.680
145	341.730	321.195	300.865	282.045	267.020	254.680	246.130	240.955	239.190	240.955
150	343.575	325.910	309.060	293.550	280.685	270.310	262.745	258.180	256.630	258.180
155	340.430	326.895	314.005	302.020	292.150	283.910	277.940	274.170	272.930	274.170
160	334.565	325.445	316.290	307.905	300.990	295.310	290.995	288.250	287.350	288.250
165	327.670	322.180	316.770	311.785	307.655	304.135	301.515	299.860	299.335	299.860
170	321.150	318.530	316.205	313.795	311.995	310.235	309.145	308.430	308.220	308.430
175	316.245	315.620	315.010	314.550	314.130	313.795	313.585	313.420	313.420	313.420
180	314.885	314.885	314.885	314.885	314.885	314.885	314.885	314.885	314.885	314.885

**Vert.
Angles**

Horizontal Angles

	100	105	110	115	120	125	130	135	140	145
0	413.965	413.965	413.965	413.965	413.965	413.965	413.965	413.965	413.965	413.965
5	412.035	412.205	412.455	412.940	413.420	413.985	414.490	415.120	415.685	416.210
10	405.165	405.960	407.425	409.335	411.180	413.210	415.640	418.135	420.485	422.830
15	393.280	395.565	398.520	402.165	406.590	411.595	416.625	421.930	427.125	432.155
20	377.335	380.980	385.925	392.025	399.505	407.575	416.165	424.905	433.075	440.895
25	357.825	362.915	370.040	378.845	389.550	400.890	412.960	424.590	435.655	445.800
30	335.840	342.210	351.285	362.540	376.205	390.495	405.310	419.350	432.050	443.325
35	311.765	319.390	330.080	342.985	358.870	375.575	391.815	407.320	420.585	431.925
40	286.555	294.685	306.040	320.040	337.035	354.535	371.385	387.060	399.990	410.820
45	260.105	267.900	279.090	293.320	309.665	327.500	344.180	358.790	370.735	380.165
50	232.675	239.695	249.840	262.475	278.150	294.285	309.460	322.765	333.055	340.725
55	203.380	209.100	217.690	228.485	241.810	255.560	268.575	279.765	288.040	293.825
60	172.050	176.345	182.800	191.205	201.660	212.430	222.555	231.040	237.200	241.080
65	138.480	141.390	145.810	151.535	158.680	165.950	173.055	178.670	182.465	184.455
70	102.850	104.615	107.230	110.585	114.670	118.820	122.740	125.570	127.160	127.330
75	67.145	67.980	69.240	70.725	72.405	73.935	75.085	75.380	74.560	72.485
80	34.660	34.935	35.270	35.460	35.395	34.810	33.280	30.450	26.570	22.340
85	10.395	10.355	9.935	8.800	6.935	5.325	4.130	3.480	3.100	2.915
90	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
95	14.230	14.670	15.570	17.060	19.320	21.900	24.540	26.845	28.355	29.255
100	37.975	39.420	41.620	44.995	49.835	55.515	61.360	66.765	71.020	74.120
105	64.505	67.290	71.440	77.370	85.545	94.785	104.045	112.470	119.135	123.890
110	91.745	95.935	102.370	111.255	123.160	136.275	149.440	160.940	170.225	177.035
115	118.400	124.040	132.650	144.450	160.020	176.850	193.360	208.345	219.830	228.650
120	143.695	150.780	161.465	175.530	194.240	214.525	234.270	252.015	265.975	276.785
125	167.060	175.275	187.810	204.070	225.090	247.640	269.765	290.075	306.460	319.245
130	188.665	197.865	211.465	229.010	251.265	274.795	298.500	320.775	339.050	353.845
135	209.015	218.490	232.485	250.280	272.365	296.170	320.060	342.675	362.080	378.615

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CANDELA TABULATION - (Cont.)

140	228.190	237.515	250.845	267.795	288.920	311.470	334.145	356.125	375.595	392.630
145	246.130	254.680	267.020	282.045	300.865	321.195	341.730	361.785	380.580	397.035
150	262.745	270.310	280.685	293.550	309.060	325.910	343.575	361.030	377.525	392.735
155	277.940	283.910	292.150	302.020	314.005	326.895	340.430	354.430	368.175	380.790
160	290.995	295.310	300.990	307.905	316.290	325.445	334.565	344.455	353.990	363.275
165	301.515	304.135	307.655	311.785	316.770	322.180	327.670	333.600	339.360	344.850
170	309.145	310.235	311.995	313.795	316.205	318.530	321.150	323.790	326.475	328.925
175	313.585	313.795	314.130	314.550	315.010	315.620	316.245	316.920	317.525	318.135
180	314.885	314.885	314.885	314.885	314.885	314.885	314.885	314.885	314.885	314.885

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	413.965	413.965	413.965	413.965	413.965	413.965	413.965
5	416.625	417.005	417.360	417.655	417.780	417.925	417.820
10	425.010	426.935	428.550	429.955	430.855	431.485	431.485
15	436.640	440.810	444.350	447.285	449.320	450.490	450.765
20	448.125	454.265	459.400	463.675	466.500	468.260	468.785
25	454.660	462.165	468.305	473.060	476.395	478.320	478.760
30	452.860	460.780	466.965	471.575	474.820	476.580	477.210
35	441.145	448.605	454.095	458.330	460.990	462.560	462.920
40	419.245	425.535	430.120	433.265	435.340	436.495	436.680
45	387.185	392.150	395.630	397.915	399.170	399.905	400.220
50	346.110	349.670	351.935	352.920	353.655	353.905	354.030
55	297.595	299.670	300.675	300.930	300.930	300.760	300.720
60	243.215	243.905	243.845	243.280	242.735	242.190	242.085
65	184.960	184.520	183.535	182.190	181.040	180.285	180.095
70	126.300	124.605	122.465	120.245	118.485	117.250	117.020
75	69.325	65.720	61.925	58.470	55.910	54.340	53.985
80	18.505	15.550	13.455	11.985	11.130	10.625	10.560
85	2.725	2.620	2.555	2.475	2.410	2.390	2.390
90	0.000	0.000	0.000	0.000	0.000	0.000	0.000
95	29.925	30.470	30.825	31.055	31.160	31.225	31.225
100	76.030	77.180	77.725	77.790	77.705	77.560	77.540
105	127.140	128.945	129.905	130.370	130.470	130.495	130.555
110	181.625	184.520	186.110	187.115	187.495	187.620	187.640
115	235.000	239.255	242.125	243.805	244.640	245.185	245.230
120	284.835	290.620	294.770	297.280	298.895	299.735	300.090
125	328.840	335.905	341.310	344.875	347.240	348.540	349.000
130	365.345	373.875	380.270	384.625	387.455	389.155	389.655
135	392.045	402.295	409.920	415.390	418.995	421.005	421.720
140	406.965	418.490	427.505	433.935	438.360	441.145	442.045
145	411.075	423.040	432.470	439.425	444.375	447.370	448.500
150	405.980	417.065	426.265	433.225	438.275	441.270	442.215
155	392.190	401.980	410.150	416.460	421.050	423.920	424.695
160	371.655	379.305	385.885	391.020	394.750	397.095	397.830
165	350.070	354.640	358.660	361.870	364.155	365.580	366.100
170	331.250	333.410	335.215	336.680	337.895	338.545	338.775
175	318.720	319.225	319.725	320.020	320.270	320.480	320.585
180	314.885	314.885	314.885	314.885	314.885	314.885	314.885

IES INDOOR REPORT
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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	159.12	N.A.	6.00
0-30	352.75	N.A.	13.20
0-40	599.30	N.A.	22.40
0-60	1096.46	N.A.	41.00
0-80	1334.77	N.A.	50.00
0-90	1344.68	N.A.	50.30
10-90	1304.97	N.A.	48.90
20-40	440.18	N.A.	16.50
20-50	702.84	N.A.	26.30
40-70	662.49	N.A.	24.80
60-80	238.31	N.A.	8.90
70-80	72.98	N.A.	2.70
80-90	9.91	N.A.	0.40
90-110	139.26	N.A.	5.20
90-120	328.48	N.A.	12.30
90-130	568.77	N.A.	21.30
90-150	1038.9	N.A.	38.90
90-180	1326.41	N.A.	49.70
110-180	1187.15	N.A.	44.40
0-180	2671.09	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	39.71
10-20	119.41
20-30	193.63
30-40	246.55
40-50	262.66
50-60	234.49
60-70	165.33
70-80	72.98
80-90	9.91
90-100	29.73
100-110	109.54
110-120	189.22
120-130	240.29
130-140	250.19
140-150	219.94
150-160	162.31
160-170	94.73
170-180	30.47

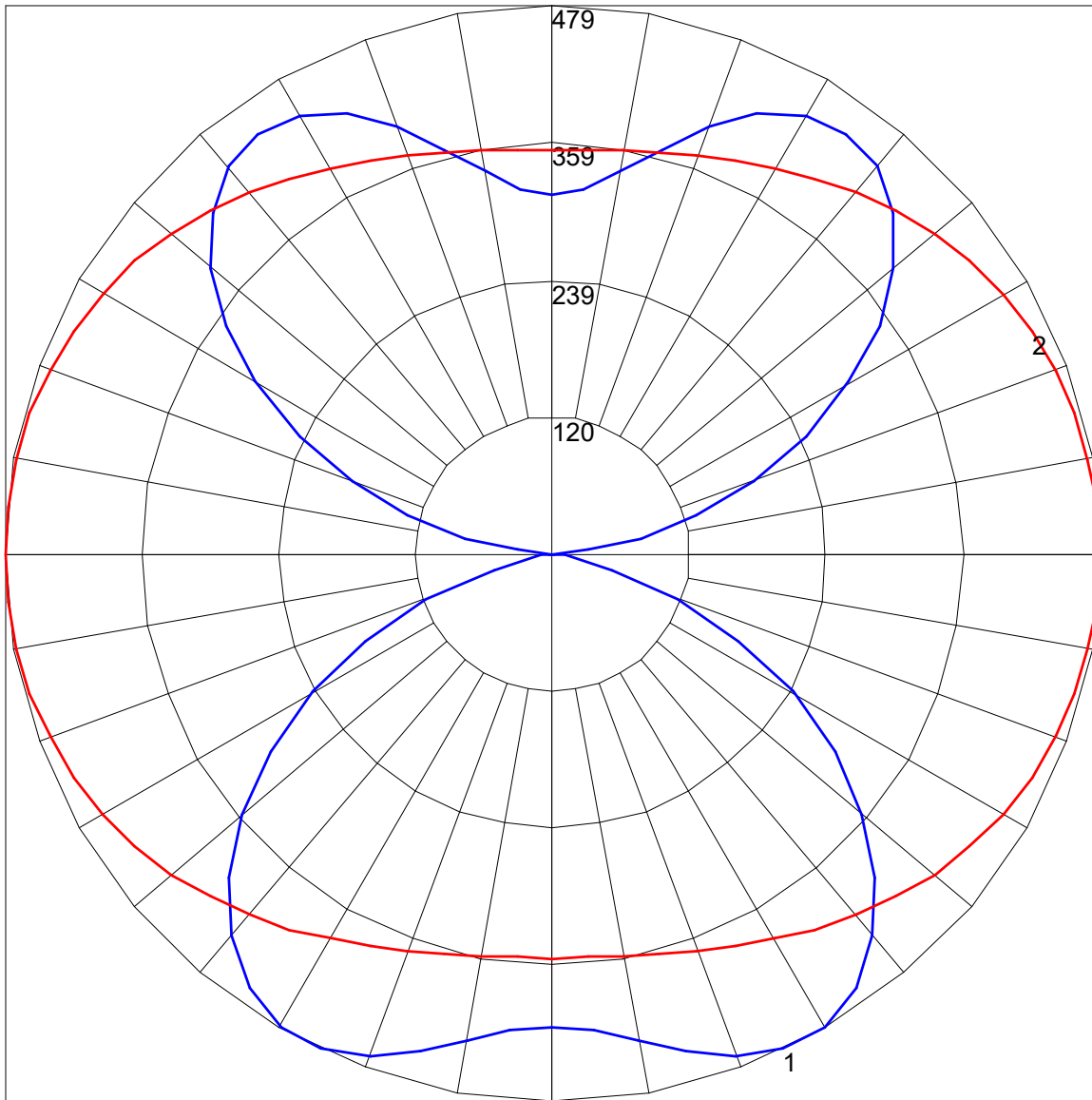
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	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 = 478.76 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.)