

IES Report

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

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

	2700K	3000K	3500K	4000K
Efficacy - Lumens per Watt	107	110	112	113
Total Lumens, 4' rail length (1219mm)	5075	5235	5342	5395
Lumens per foot (305mm)	1269	1309	1336	1349
Lumens per foot UP (305mm)	630	650	663	670
Lumens per foot DOWN (305mm)	639	659	672	679
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_DR_SO_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-SO-359-G1G2-AL

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

[MORE] 120° flywing 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	5342
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	112
Total Luminaire Watts	47.84
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	13209	14771	27558
55	9388	11160	26120
65	5492	7122	23568
75	1658	3097	17625
85	76	152	6184

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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	827.93	827.93	827.93	827.93	827.93	827.93	827.93	827.93	827.93	827.93
5	835.64	835.85	835.56	835.31	834.72	834.01	833.25	832.42	831.37	830.24
10	862.97	862.97	861.71	859.91	857.10	853.87	850.02	845.66	840.97	836.27
15	901.53	900.98	898.64	894.57	888.70	881.62	873.28	864.31	854.25	843.86
20	937.57	936.52	933.00	927.35	918.80	908.53	896.25	881.79	866.15	849.81
25	957.52	956.64	952.79	946.12	936.61	924.33	909.32	891.60	871.31	849.18
30	954.42	953.16	949.64	943.15	933.93	921.56	905.72	886.65	864.10	838.70
35	925.84	925.12	921.98	916.66	908.19	897.21	882.29	863.85	841.17	814.64
40	873.36	872.99	870.68	866.53	860.24	851.07	838.49	821.64	799.98	774.12
45	800.44	799.81	798.34	795.83	791.26	784.30	774.37	760.33	741.47	717.58
50	708.06	707.81	707.31	705.84	703.87	699.34	692.22	681.45	666.11	645.53
55	601.44	601.52	601.86	601.86	601.35	599.34	595.19	587.65	576.08	559.53
60	484.17	484.38	485.47	486.56	487.69	487.81	486.43	482.16	474.40	462.08
65	360.19	360.57	362.08	364.38	367.07	369.04	369.92	368.91	364.93	357.34
70	234.04	234.50	236.97	240.49	244.93	249.21	252.60	254.66	254.32	251.14
75	107.97	108.68	111.82	116.94	123.85	131.44	138.65	144.97	149.12	150.76
80	21.12	21.25	22.26	23.97	26.91	31.10	37.01	44.68	53.14	60.90
85	4.78	4.78	4.82	4.95	5.11	5.24	5.45	5.83	6.20	6.96
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95	62.45	62.45	62.32	62.11	61.65	60.94	59.85	58.51	56.71	53.69
100	155.08	155.12	155.41	155.58	155.45	154.36	152.06	148.24	142.04	133.53
105	261.11	260.99	260.94	260.74	259.81	257.89	254.28	247.78	238.27	224.94
110	375.28	375.24	374.99	374.23	372.22	369.04	363.25	354.07	340.45	321.88
115	490.46	490.37	489.28	487.61	484.25	478.51	470.00	457.30	439.66	416.69
120	600.18	599.47	597.79	594.56	589.54	581.24	569.67	553.57	531.95	504.03
125	698.00	697.08	694.48	689.75	682.62	671.81	657.68	638.49	612.92	580.15
130	779.31	778.31	774.91	769.25	760.54	747.75	730.69	707.69	678.10	641.55
135	843.44	842.01	837.99	830.78	819.84	804.59	784.09	757.23	724.16	685.35
140	884.09	882.29	876.72	867.87	855.01	836.98	813.93	785.26	751.19	712.25
145	897.00	894.74	888.75	878.85	864.94	846.08	822.15	794.07	761.16	723.57
150	884.43	882.54	876.55	866.45	852.53	834.13	811.96	785.47	755.05	722.06
155	849.39	847.84	842.10	832.92	820.30	803.96	784.38	761.58	736.35	708.86
160	795.66	794.19	789.50	782.04	771.77	758.61	743.31	726.55	707.98	688.91
165	732.20	731.16	728.31	723.74	717.32	709.28	700.14	689.70	678.72	667.20
170	677.55	677.09	675.79	673.36	670.43	666.82	662.50	657.85	652.95	647.58
175	641.17	640.96	640.54	640.04	639.45	638.45	637.44	636.27	635.05	633.84
180	629.77	629.77	629.77	629.77	629.77	629.77	629.77	629.77	629.77	629.77

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	827.93	827.93	827.93	827.93	827.93	827.93	827.93	827.93	827.93	827.93
5	828.98	827.97	826.84	825.88	824.91	824.41	824.07	823.57	822.99	823.57
10	831.28	826.42	822.36	818.67	814.85	811.92	810.33	809.20	807.98	809.20
15	833.25	823.19	813.18	804.33	797.04	791.13	786.56	784.09	782.92	784.09
20	832.33	815.15	799.01	784.05	771.85	761.96	754.67	750.39	748.88	750.39
25	825.92	801.78	779.10	757.69	740.08	725.83	715.65	709.70	707.64	709.70
30	810.62	780.99	752.41	725.08	702.57	684.42	671.68	664.14	661.20	664.14
35	783.63	751.15	717.74	685.97	660.16	638.78	623.53	614.72	611.83	614.72
40	742.77	709.07	674.07	640.08	612.08	589.37	573.11	563.97	560.62	563.97
45	688.36	655.00	619.33	586.64	558.18	535.80	520.21	511.41	508.64	511.41
50	618.92	588.57	556.30	524.95	499.68	479.39	465.35	457.43	454.75	457.43
55	537.15	511.12	483.62	456.97	435.38	418.20	406.76	400.43	398.16	400.43
60	445.11	424.86	403.32	382.41	365.60	352.69	344.10	339.49	338.06	339.49

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CANDELA TABULATION - (Cont.)

65	346.11	331.90	317.36	303.07	291.62	282.78	276.96	273.64	272.60	273.64
70	245.48	237.64	229.34	221.17	214.46	209.23	205.70	203.78	203.11	203.78
75	150.17	147.87	144.81	141.45	138.48	135.96	134.29	133.20	132.86	133.20
80	66.56	69.62	70.79	70.92	70.54	69.87	69.32	68.86	68.57	68.86
85	8.26	10.65	13.87	17.60	19.87	20.71	20.79	20.58	20.29	20.58
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95	49.08	43.80	38.64	34.12	31.14	29.34	28.46	28.00	26.91	28.00
100	122.72	111.03	99.67	89.99	83.24	78.84	75.95	73.77	72.26	73.77
105	208.09	189.57	171.09	154.74	142.88	134.58	129.01	125.19	123.47	125.19
110	298.88	272.55	246.32	222.51	204.74	191.87	183.49	178.13	176.20	178.13
115	386.72	353.70	320.04	288.90	265.30	248.08	236.80	230.06	227.67	230.06
120	468.54	429.05	388.48	351.06	322.93	301.56	287.39	279.05	276.20	279.05
125	539.53	495.28	450.18	408.14	375.62	350.55	334.12	324.44	321.38	324.44
130	597.00	549.59	502.53	458.02	422.93	395.73	377.33	366.73	363.21	366.73
135	640.12	592.34	544.73	500.56	464.97	436.98	418.03	406.92	403.11	406.92
140	668.29	622.94	577.84	535.59	501.69	475.03	456.38	445.36	441.50	445.36
145	683.46	642.39	601.73	564.09	534.04	509.36	492.26	481.91	478.38	481.91
150	687.15	651.82	618.12	587.10	561.37	540.62	525.49	516.36	513.26	516.36
155	680.86	653.79	628.01	604.04	584.30	567.82	555.88	548.34	545.86	548.34
160	669.13	650.89	632.58	615.81	601.98	590.62	581.99	576.50	574.70	576.50
165	655.34	644.36	633.54	623.57	615.31	608.27	603.03	599.72	598.67	599.72
170	642.30	637.06	632.41	627.59	623.99	620.47	618.29	616.86	616.44	616.86
175	632.49	631.24	630.02	629.10	628.26	627.59	627.17	626.84	626.84	626.84
180	629.77	629.77	629.77	629.77	629.77	629.77	629.77	629.77	629.77	629.77

Vert. Angles **Horizontal Angles**

	100	105	110	115	120	125	130	135	140	145
0	827.93	827.93	827.93	827.93	827.93	827.93	827.93	827.93	827.93	827.93
5	824.07	824.41	824.91	825.88	826.84	827.97	828.98	830.24	831.37	832.42
10	810.33	811.92	814.85	818.67	822.36	826.42	831.28	836.27	840.97	845.66
15	786.56	791.13	797.04	804.33	813.18	823.19	833.25	843.86	854.25	864.31
20	754.67	761.96	771.85	784.05	799.01	815.15	832.33	849.81	866.15	881.79
25	715.65	725.83	740.08	757.69	779.10	801.78	825.92	849.18	871.31	891.60
30	671.68	684.42	702.57	725.08	752.41	780.99	810.62	838.70	864.10	886.65
35	623.53	638.78	660.16	685.97	717.74	751.15	783.63	814.64	841.17	863.85
40	573.11	589.37	612.08	640.08	674.07	709.07	742.77	774.12	799.98	821.64
45	520.21	535.80	558.18	586.64	619.33	655.00	688.36	717.58	741.47	760.33
50	465.35	479.39	499.68	524.95	556.30	588.57	618.92	645.53	666.11	681.45
55	406.76	418.20	435.38	456.97	483.62	511.12	537.15	559.53	576.08	587.65
60	344.10	352.69	365.60	382.41	403.32	424.86	445.11	462.08	474.40	482.16
65	276.96	282.78	291.62	303.07	317.36	331.90	346.11	357.34	364.93	368.91
70	205.70	209.23	214.46	221.17	229.34	237.64	245.48	251.14	254.32	254.66
75	134.29	135.96	138.48	141.45	144.81	147.87	150.17	150.76	149.12	144.97
80	69.32	69.87	70.54	70.92	70.79	69.62	66.56	60.90	53.14	44.68
85	20.79	20.71	19.87	17.60	13.87	10.65	8.26	6.96	6.20	5.83
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95	28.46	29.34	31.14	34.12	38.64	43.80	49.08	53.69	56.71	58.51
100	75.95	78.84	83.24	89.99	99.67	111.03	122.72	133.53	142.04	148.24
105	129.01	134.58	142.88	154.74	171.09	189.57	208.09	224.94	238.27	247.78
110	183.49	191.87	204.74	222.51	246.32	272.55	298.88	321.88	340.45	354.07
115	236.80	248.08	265.30	288.90	320.04	353.70	386.72	416.69	439.66	457.30
120	287.39	301.56	322.93	351.06	388.48	429.05	468.54	504.03	531.95	553.57
125	334.12	350.55	375.62	408.14	450.18	495.28	539.53	580.15	612.92	638.49
130	377.33	395.73	422.93	458.02	502.53	549.59	597.00	641.55	678.10	707.69
135	418.03	436.98	464.97	500.56	544.73	592.34	640.12	685.35	724.16	757.23

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CANDELA TABULATION - (Cont.)

140	456.38	475.03	501.69	535.59	577.84	622.94	668.29	712.25	751.19	785.26
145	492.26	509.36	534.04	564.09	601.73	642.39	683.46	723.57	761.16	794.07
150	525.49	540.62	561.37	587.10	618.12	651.82	687.15	722.06	755.05	785.47
155	555.88	567.82	584.30	604.04	628.01	653.79	680.86	708.86	736.35	761.58
160	581.99	590.62	601.98	615.81	632.58	650.89	669.13	688.91	707.98	726.55
165	603.03	608.27	615.31	623.57	633.54	644.36	655.34	667.20	678.72	689.70
170	618.29	620.47	623.99	627.59	632.41	637.06	642.30	647.58	652.95	657.85
175	627.17	627.59	628.26	629.10	630.02	631.24	632.49	633.84	635.05	636.27
180	629.77	629.77	629.77	629.77	629.77	629.77	629.77	629.77	629.77	629.77

Vert. Horizontal Angles
Angles

	150	155	160	165	170	175	180
0	827.93	827.93	827.93	827.93	827.93	827.93	827.93
5	833.25	834.01	834.72	835.31	835.56	835.85	835.64
10	850.02	853.87	857.10	859.91	861.71	862.97	862.97
15	873.28	881.62	888.70	894.57	898.64	900.98	901.53
20	896.25	908.53	918.80	927.35	933.00	936.52	937.57
25	909.32	924.33	936.61	946.12	952.79	956.64	957.52
30	905.72	921.56	933.93	943.15	949.64	953.16	954.42
35	882.29	897.21	908.19	916.66	921.98	925.12	925.84
40	838.49	851.07	860.24	866.53	870.68	872.99	873.36
45	774.37	784.30	791.26	795.83	798.34	799.81	800.44
50	692.22	699.34	703.87	705.84	707.31	707.81	708.06
55	595.19	599.34	601.35	601.86	601.86	601.52	601.44
60	486.43	487.81	487.69	486.56	485.47	484.38	484.17
65	369.92	369.04	367.07	364.38	362.08	360.57	360.19
70	252.60	249.21	244.93	240.49	236.97	234.50	234.04
75	138.65	131.44	123.85	116.94	111.82	108.68	107.97
80	37.01	31.10	26.91	23.97	22.26	21.25	21.12
85	5.45	5.24	5.11	4.95	4.82	4.78	4.78
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95	59.85	60.94	61.65	62.11	62.32	62.45	62.45
100	152.06	154.36	155.45	155.58	155.41	155.12	155.08
105	254.28	257.89	259.81	260.74	260.94	260.99	261.11
110	363.25	369.04	372.22	374.23	374.99	375.24	375.28
115	470.00	478.51	484.25	487.61	489.28	490.37	490.46
120	569.67	581.24	589.54	594.56	597.79	599.47	600.18
125	657.68	671.81	682.62	689.75	694.48	697.08	698.00
130	730.69	747.75	760.54	769.25	774.91	778.31	779.31
135	784.09	804.59	819.84	830.78	837.99	842.01	843.44
140	813.93	836.98	855.01	867.87	876.72	882.29	884.09
145	822.15	846.08	864.94	878.85	888.75	894.74	897.00
150	811.96	834.13	852.53	866.45	876.55	882.54	884.43
155	784.38	803.96	820.30	832.92	842.10	847.84	849.39
160	743.31	758.61	771.77	782.04	789.50	794.19	795.66
165	700.14	709.28	717.32	723.74	728.31	731.16	732.20
170	662.50	666.82	670.43	673.36	675.79	677.09	677.55
175	637.44	638.45	639.45	640.04	640.54	640.96	641.17
180	629.77	629.77	629.77	629.77	629.77	629.77	629.77

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	318.24	N.A.	6.00
0-30	705.49	N.A.	13.20
0-40	1198.6	N.A.	22.40
0-60	2192.91	N.A.	41.00
0-80	2669.54	N.A.	50.00
0-90	2689.35	N.A.	50.30
10-90	2609.93	N.A.	48.90
20-40	880.36	N.A.	16.50
20-50	1405.69	N.A.	26.30
40-70	1324.98	N.A.	24.80
60-80	476.63	N.A.	8.90
70-80	145.96	N.A.	2.70
80-90	19.81	N.A.	0.40
90-110	278.53	N.A.	5.20
90-120	656.96	N.A.	12.30
90-130	1137.54	N.A.	21.30
90-150	2077.8	N.A.	38.90
90-180	2652.82	N.A.	49.70
110-180	2374.3	N.A.	44.40
0-180	5342.17	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	79.42
10-20	238.82
20-30	387.26
30-40	493.10
40-50	525.33
50-60	468.99
60-70	330.66
70-80	145.96
80-90	19.81
90-100	59.45
100-110	219.08
110-120	378.43
120-130	480.58
130-140	500.38
140-150	439.88
150-160	324.63
160-170	189.46
170-180	60.93

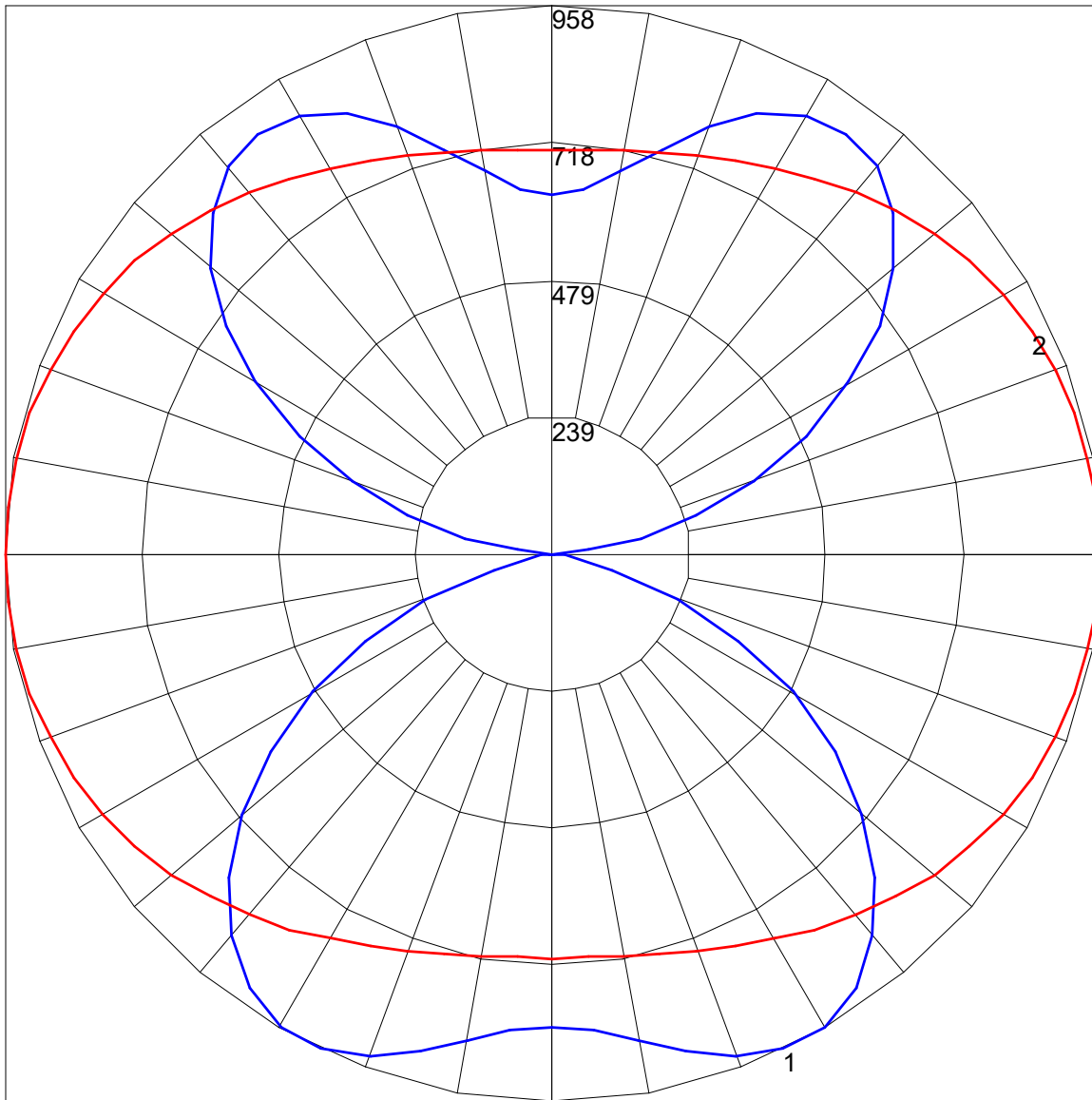
IES INDOOR REPORT
PHOTOMETRIC FILENAME : VODE_107_DR_SO_359_G1G2.IES

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 = 957.52 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.)