

**IES INDOOR REPORT**
**PHOTOMETRIC FILENAME : PRDDH22LEDGV-110L35KEXXXPR22XX.IES**
**DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002

[LUMCAT] PRDDH22LEDGV-110L-35K-Ex/xx/xx/PR22/xx

[LUMINAIRE] 22" Diam. High Bay - Prismatic Refractor Open aperture

[LAMP] N/A

[TEST] CRT1509031201-001-MOD to: PRDDH22LEDGV-110L-35KEx/xx/xx/PR22/xx

[TESTLAB] Intertek

[ISSUE DATE] 10/23/2015

[UPDATE] 06/01/2016

[MANUFAC] Spectrum

[OTHER] Total Luminaire Watts is approximate

[OTHER] CCT Output Multipliers: 5000K x 1.07, 4000K X 1.03, 3000K X 0.983, 2700K X 0.967

[OTHER] Output Multiplier for Clear Polycarbonate (flat) Lens: x 0.90

[OTHER] Scaled from 220L (172W) report

**CHARACTERISTICS**

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	8807
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	100
Total Luminaire Watts	88
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.06
Spacing Criterion (90-270)	1.08
Spacing Criterion (Diagonal)	0.98
Basic Luminous Shape	Circular w/ Sides
Luminous Length (0-180)	1.83 ft (Diameter)
Luminous Width (90-270)	1.83 ft (Diameter)
Luminous Height	1.17 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	2122	2538	2235
55	1062	998	1031
65	631	569	631
75	465	468	468
85	373	401	382

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**CANDELA TABULATION**

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>	<u>112.5</u>	<u>135.0</u>	<u>157.5</u>	<u>180.0</u>	<u>202.5</u>
<b>0.0</b>	7082.948	7082.948	7082.948	7082.948	7082.948	7082.948	7082.948	7082.948	7082.948	7082.948
<b>2.5</b>	7075.236	7072.800	7091.067	7070.822	7105.934	7070.822	7091.067	7072.800	7075.236	7072.800
<b>5.0</b>	6970.204	7074.627	7067.422	7005.773	7013.130	7005.773	7067.422	7074.627	6970.204	7074.627
<b>7.5</b>	6863.498	7074.323	7092.741	6889.934	6866.847	6889.934	7092.741	7074.323	6863.498	7074.323
<b>10.0</b>	6771.303	7154.187	7149.824	6780.741	6737.815	6780.741	7149.824	7154.187	6771.303	7154.187
<b>12.5</b>	6688.851	7295.295	7305.646	6741.722	6705.849	6741.722	7305.646	7295.295	6688.851	7295.295
<b>15.0</b>	6780.487	7303.667	7292.555	6894.805	6855.786	6894.805	7292.555	7303.667	6780.487	7303.667
<b>17.5</b>	6858.170	7216.699	7306.357	6956.504	6860.961	6956.504	7306.357	7216.699	6858.170	7216.699
<b>20.0</b>	6646.483	6849.240	6925.654	6694.585	6653.485	6694.585	6925.654	6849.240	6646.483	6849.240
<b>22.5</b>	6228.487	6298.813	6288.715	6250.660	6193.273	6250.660	6288.715	6298.813	6228.487	6298.813
<b>25.0</b>	5750.719	5576.326	5546.744	5795.624	5791.159	5795.624	5546.744	5576.326	5750.719	5576.326
<b>27.5</b>	5256.309	5117.535	5097.137	5337.036	5319.784	5337.036	5097.137	5117.535	5256.309	5117.535
<b>30.0</b>	4512.765	4445.280	4443.149	4528.037	4529.763	4528.037	4443.149	4445.280	4512.765	4445.280
<b>32.5</b>	3508.874	3651.149	3663.073	3525.669	3521.153	3525.669	3663.073	3651.149	3508.874	3651.149
<b>35.0</b>	2520.712	2838.294	2894.209	2552.729	2535.427	2552.729	2894.209	2838.294	2520.712	2838.294
<b>37.5</b>	1971.858	2108.957	2124.687	1977.135	1965.363	1977.135	2124.687	2108.957	1971.858	2108.957
<b>40.0</b>	1739.621	1419.401	1395.705	1704.357	1725.769	1704.357	1395.705	1419.401	1739.621	1419.401
<b>42.5</b>	1292.145	1061.329	1044.990	1251.908	1296.153	1251.908	1044.990	1061.329	1292.145	1061.329
<b>45.0</b>	665.861	787.738	796.364	679.561	701.227	679.561	796.364	787.738	665.861	787.738
<b>47.5</b>	469.091	457.776	459.501	454.630	461.937	454.630	459.501	457.776	469.091	457.776
<b>50.0</b>	412.313	389.024	373.345	396.482	402.622	396.482	373.345	389.024	412.313	389.024
<b>52.5</b>	360.102	341.531	332.296	348.584	352.186	348.584	332.296	341.531	360.102	341.531
<b>55.0</b>	322.300	308.195	302.766	312.609	312.914	312.609	302.766	308.195	322.300	308.195
<b>57.5</b>	280.389	281.810	278.055	277.446	277.801	277.446	278.055	281.810	280.389	281.810
<b>60.0</b>	248.829	248.372	246.546	244.567	243.653	244.567	246.546	248.372	248.829	248.372
<b>62.5</b>	216.508	202.047	203.518	210.013	213.108	210.013	203.518	202.047	216.508	202.047
<b>65.0</b>	179.061	164.144	161.455	176.524	179.011	176.524	161.455	164.144	179.061	164.144
<b>67.5</b>	157.497	146.486	143.746	156.482	159.324	156.482	143.746	146.486	157.497	146.486
<b>70.0</b>	148.516	135.983	135.780	145.979	147.755	145.979	135.780	135.983	148.516	135.983
<b>72.5</b>	132.685	128.017	127.408	133.649	134.207	133.649	127.408	128.017	132.685	128.017
<b>75.0</b>	118.782	117.768	119.746	120.152	119.746	120.152	119.746	117.768	118.782	117.768
<b>77.5</b>	106.453	110.207	112.085	107.924	105.996	107.924	112.085	110.207	106.453	110.207
<b>80.0</b>	96.609	105.184	106.808	97.674	97.218	97.674	106.808	105.184	96.609	105.184
<b>82.5</b>	88.744	99.298	97.472	89.556	89.252	89.556	97.472	99.298	88.744	99.298
<b>85.0</b>	81.844	88.947	88.186	84.584	83.873	84.584	88.186	88.947	81.844	88.947
<b>87.5</b>	77.937	79.459	80.169	79.865	79.814	79.865	80.169	79.459	77.937	79.459
<b>90.0</b>	72.254	73.319	76.313	74.080	72.254	74.080	76.313	73.319	72.254	73.319
<b>92.5</b>	65.607	70.427	70.275	70.021	69.362	70.021	70.275	70.427	65.607	70.427
<b>95.0</b>	66.165	61.954	61.852	69.209	72.710	69.209	61.852	61.954	66.165	61.954
<b>97.5</b>	66.165	60.431	59.163	68.702	73.421	68.702	59.163	60.431	66.165	60.431
<b>100.0</b>	62.562	58.706	59.518	66.571	67.281	66.571	59.518	58.706	62.562	58.706
<b>102.5</b>	64.592	60.025	62.156	66.672	63.222	66.672	62.156	60.025	64.592	60.025
<b>105.0</b>	60.634	60.228	61.040	63.070	62.309	63.070	61.040	60.228	60.634	60.228
<b>107.5</b>	59.670	61.446	60.787	60.584	61.040	60.584	60.787	61.446	59.670	61.446
<b>110.0</b>	59.721	60.381	59.822	59.112	60.228	59.112	59.822	60.381	59.721	60.381
<b>112.5</b>	58.402	58.250	56.169	57.438	56.930	57.438	56.169	58.250	58.402	58.250
<b>115.0</b>	55.154	55.662	54.190	55.713	56.524	55.713	54.190	55.662	55.154	55.662
<b>117.5</b>	53.531	55.154	56.880	54.190	56.829	54.190	56.880	55.154	53.531	55.154
<b>120.0</b>	56.930	56.981	57.387	57.742	59.366	57.742	57.387	56.981	56.930	56.981
<b>122.5</b>	60.584	59.163	60.533	59.772	60.634	59.772	60.533	59.163	60.584	59.163
<b>125.0</b>	63.932	61.598	61.801	63.679	62.918	63.679	61.801	61.598	63.932	61.598
<b>127.5</b>	64.947	63.780	64.186	68.042	67.586	68.042	64.186	63.780	64.947	63.780
<b>130.0</b>	68.448	68.042	68.600	71.391	72.051	71.391	68.600	68.042	68.448	68.042
<b>132.5</b>	75.958	71.797	71.696	75.755	77.277	75.755	71.696	71.797	75.958	71.797

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**CANDELA TABULATION - (Cont.)**

135.0	78.241	74.131	75.095	79.713	80.372	79.713	75.095	74.131	78.241	74.131
137.5	81.387	78.393	77.835	84.431	83.924	84.431	77.835	78.393	81.387	78.393
140.0	83.467	82.554	83.264	87.882	87.831	87.882	83.264	82.554	83.467	82.554
142.5	88.998	88.237	88.338	90.419	89.556	90.419	88.338	88.237	88.998	88.237
145.0	92.195	96.051	97.319	93.818	94.123	93.818	97.319	96.051	92.195	96.051
147.5	97.167	102.495	105.083	99.704	100.059	99.704	105.083	102.495	97.167	102.495
150.0	106.300	114.571	113.911	110.309	108.127	110.309	113.911	114.571	106.300	114.571
152.5	119.138	123.400	126.647	125.074	121.725	125.074	126.647	123.400	119.138	123.400
155.0	130.351	133.040	133.700	134.918	131.823	134.918	133.700	133.040	130.351	133.040
157.5	137.759	136.592	140.601	140.956	139.281	140.956	140.601	136.592	137.759	136.592
160.0	137.455	139.687	142.326	141.311	140.448	141.311	142.326	139.687	137.455	139.687
162.5	136.947	140.601	143.594	139.687	139.383	139.687	143.594	140.601	136.947	140.601
165.0	137.658	138.266	141.514	138.723	139.484	138.723	141.514	138.266	137.658	138.266
167.5	141.920	141.260	140.803	140.702	142.376	140.702	140.803	141.260	141.920	141.260
170.0	144.609	143.239	143.746	144.000	144.812	144.000	143.746	143.239	144.609	143.239
172.5	146.740	146.842	146.892	147.958	146.994	147.958	146.892	146.842	146.740	146.842
175.0	155.721	158.512	160.541	158.410	158.004	158.410	160.541	158.512	155.721	158.512
177.5	174.190	176.271	180.026	179.975	177.184	179.975	180.026	176.271	174.190	176.271
180.0	186.469	186.469	186.469	186.469	186.469	186.469	186.469	186.469	186.469	186.469

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

	<u>225.0</u>	<u>247.5</u>	<u>270.0</u>	<u>292.5</u>	<u>315.0</u>	<u>337.5</u>	<u>360.0</u>
0.0	7082.948	7082.948	7082.948	7082.948	7082.948	7082.948	7082.948
2.5	7091.067	7070.822	7105.934	7070.822	7091.067	7072.800	7075.236
5.0	7067.422	7005.773	7013.130	7005.773	7067.422	7074.627	6970.204
7.5	7092.741	6889.934	6866.847	6889.934	7092.741	7074.323	6863.498
10.0	7149.824	6780.741	6737.815	6780.741	7149.824	7154.187	6771.303
12.5	7305.646	6741.722	6705.849	6741.722	7305.646	7295.295	6688.851
15.0	7292.555	6894.805	6855.786	6894.805	7292.555	7303.667	6780.487
17.5	7306.357	6956.504	6860.961	6956.504	7306.357	7216.699	6858.170
20.0	6925.654	6694.585	6653.485	6694.585	6925.654	6849.240	6646.483
22.5	6288.715	6250.660	6193.273	6250.660	6288.715	6298.813	6228.487
25.0	5546.744	5795.624	5791.159	5795.624	5546.744	5576.326	5750.719
27.5	5097.137	5337.036	5319.784	5337.036	5097.137	5117.535	5256.309
30.0	4443.149	4528.037	4529.763	4528.037	4443.149	4445.280	4512.765
32.5	3663.073	3525.669	3521.153	3525.669	3663.073	3651.149	3508.874
35.0	2894.209	2552.729	2535.427	2552.729	2894.209	2838.294	2520.712
37.5	2124.687	1977.135	1965.363	1977.135	2124.687	2108.957	1971.858
40.0	1395.705	1704.357	1725.769	1704.357	1395.705	1419.401	1739.621
42.5	1044.990	1251.908	1296.153	1251.908	1044.990	1061.329	1292.145
45.0	796.364	679.561	701.227	679.561	796.364	787.738	665.861
47.5	459.501	454.630	461.937	454.630	459.501	457.776	469.091
50.0	373.345	396.482	402.622	396.482	373.345	389.024	412.313
52.5	332.296	348.584	352.186	348.584	332.296	341.531	360.102
55.0	302.766	312.609	312.914	312.609	302.766	308.195	322.300
57.5	278.055	277.446	277.801	277.446	278.055	281.810	280.389
60.0	246.546	244.567	243.653	244.567	246.546	248.372	248.829
62.5	203.518	210.013	213.108	210.013	203.518	202.047	216.508
65.0	161.455	176.524	179.011	176.524	161.455	164.144	179.061
67.5	143.746	156.482	159.324	156.482	143.746	146.486	157.497
70.0	135.780	145.979	147.755	145.979	135.780	135.983	148.516
72.5	127.408	133.649	134.207	133.649	127.408	128.017	132.685
75.0	119.746	120.152	119.746	120.152	119.746	117.768	118.782
77.5	112.085	107.924	105.996	107.924	112.085	110.207	106.453
80.0	106.808	97.674	97.218	97.674	106.808	105.184	96.609

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**CANDELA TABULATION - (Cont.)**

82.5	97.472	89.556	89.252	89.556	97.472	99.298	88.744
85.0	88.186	84.584	83.873	84.584	88.186	88.947	81.844
87.5	80.169	79.865	79.814	79.865	80.169	79.459	77.937
90.0	76.313	74.080	72.254	74.080	76.313	73.319	72.254
92.5	70.275	70.021	69.362	70.021	70.275	70.427	65.607
95.0	61.852	69.209	72.710	69.209	61.852	61.954	66.165
97.5	59.163	68.702	73.421	68.702	59.163	60.431	66.165
100.0	59.518	66.571	67.281	66.571	59.518	58.706	62.562
102.5	62.156	66.672	63.222	66.672	62.156	60.025	64.592
105.0	61.040	63.070	62.309	63.070	61.040	60.228	60.634
107.5	60.787	60.584	61.040	60.584	60.787	61.446	59.670
110.0	59.822	59.112	60.228	59.112	59.822	60.381	59.721
112.5	56.169	57.438	56.930	57.438	56.169	58.250	58.402
115.0	54.190	55.713	56.524	55.713	54.190	55.662	55.154
117.5	56.880	54.190	56.829	54.190	56.880	55.154	53.531
120.0	57.387	57.742	59.366	57.742	57.387	56.981	56.930
122.5	60.533	59.772	60.634	59.772	60.533	59.163	60.584
125.0	61.801	63.679	62.918	63.679	61.801	61.598	63.932
127.5	64.186	68.042	67.586	68.042	64.186	63.780	64.947
130.0	68.600	71.391	72.051	71.391	68.600	68.042	68.448
132.5	71.696	75.755	77.277	75.755	71.696	71.797	75.958
135.0	75.095	79.713	80.372	79.713	75.095	74.131	78.241
137.5	77.835	84.431	83.924	84.431	77.835	78.393	81.387
140.0	83.264	87.882	87.831	87.882	83.264	82.554	83.467
142.5	88.338	90.419	89.556	90.419	88.338	88.237	88.998
145.0	97.319	93.818	94.123	93.818	97.319	96.051	92.195
147.5	105.083	99.704	100.059	99.704	105.083	102.495	97.167
150.0	113.911	110.309	108.127	110.309	113.911	114.571	106.300
152.5	126.647	125.074	121.725	125.074	126.647	123.400	119.138
155.0	133.700	134.918	131.823	134.918	133.700	133.040	130.351
157.5	140.601	140.956	139.281	140.956	140.601	136.592	137.759
160.0	142.326	141.311	140.448	141.311	142.326	139.687	137.455
162.5	143.594	139.687	139.383	139.687	143.594	140.601	136.947
165.0	141.514	138.723	139.484	138.723	141.514	138.266	137.658
167.5	140.803	140.702	142.376	140.702	140.803	141.260	141.920
170.0	143.746	144.000	144.812	144.000	143.746	143.239	144.609
172.5	146.892	147.958	146.994	147.958	146.892	146.842	146.740
175.0	160.541	158.410	158.004	158.410	160.541	158.512	155.721
177.5	180.026	179.975	177.184	179.975	180.026	176.271	174.190
180.0	186.469	186.469	186.469	186.469	186.469	186.469	186.469

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	2655.27	N.A.	30.20
0-30	5260.86	N.A.	59.70
0-40	7008.43	N.A.	79.60
0-60	7920.85	N.A.	89.90
0-80	8226.54	N.A.	93.40
0-90	8321.25	N.A.	94.50
10-90	7652.54	N.A.	86.90
20-40	4353.16	N.A.	49.40
20-50	4985.74	N.A.	56.60
40-70	1091.18	N.A.	12.40
60-80	305.69	N.A.	3.50
70-80	126.93	N.A.	1.40
80-90	94.72	N.A.	1.10
90-110	138.31	N.A.	1.60
90-120	194.60	N.A.	2.20
90-130	250.98	N.A.	2.80
90-150	370.62	N.A.	4.20
90-180	485.27	N.A.	5.50
110-180	346.96	N.A.	3.90
0-180	8806.52	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	668.71
10-20	1986.56
20-30	2605.59
30-40	1747.57
40-50	632.58
50-60	279.85
60-70	178.76
70-80	126.93
80-90	94.72
90-100	73.09
100-110	65.22
110-120	56.29
120-130	56.37
130-140	59.68
140-150	59.96
150-160	60.03
160-170	39.88
170-180	14.74

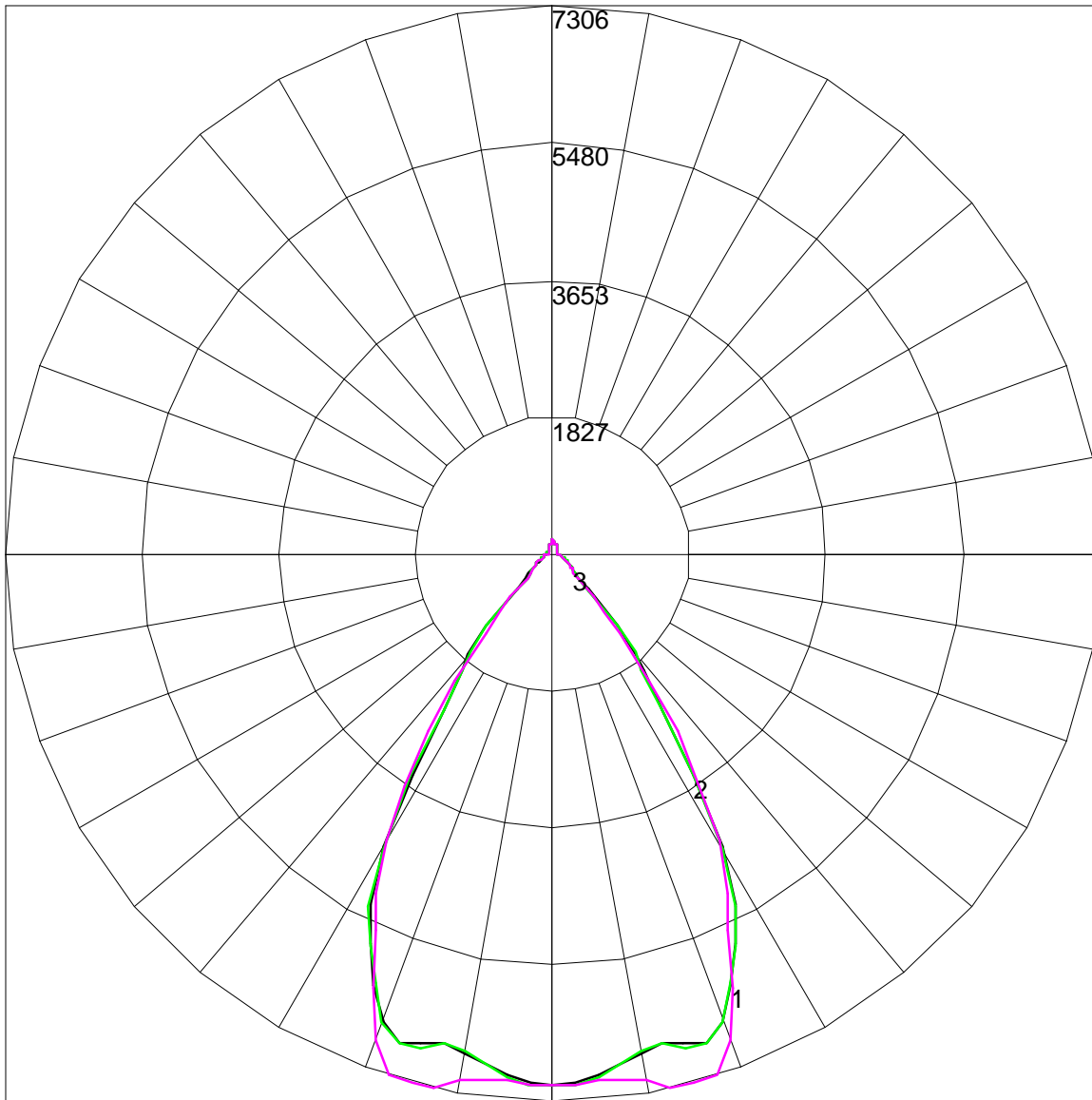
**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : PRDDH22LEDGV-110L35KEXXXPR22XX.IES**

**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	118	118	118	118	114	114	114	114	108	108	108	102	102	102	97	97	97	94
1	111	108	105	102	108	105	102	100	100	98	96	95	93	92	91	89	88	86
2	104	99	94	90	102	97	92	89	92	89	86	88	86	83	85	83	81	79
3	98	91	85	81	96	89	84	80	86	81	78	82	79	76	79	76	74	72
4	93	84	78	73	90	83	77	72	80	75	71	77	73	69	74	71	68	66
5	87	78	72	67	85	77	71	66	74	69	65	72	67	64	70	66	63	61
6	82	73	66	61	81	71	65	61	69	64	60	67	63	59	66	61	58	57
7	78	68	61	57	76	67	61	56	65	59	55	63	58	55	62	57	54	53
8	74	63	57	52	72	63	56	52	61	55	52	59	55	51	58	54	50	49
9	70	60	53	49	69	59	53	49	57	52	48	56	51	48	55	50	47	46
10	66	56	50	46	65	55	49	45	54	49	45	53	48	45	52	47	44	43

POLAR GRAPH



Maximum Candela = 7306.357 Located At Horizontal Angle = 45, Vertical Angle = 17.5

- # 1 - Vertical Plane Through Horizontal Angles (0 - 180)
- # 2 - Vertical Plane Through Horizontal Angles (90 - 270)
- # 3 - Vertical Plane Through Horizontal Angles (45 - 225)