

**IES INDOOR REPORT**
**PHOTOMETRIC FILENAME : SP-00661\_2 ~ CP0608XT-13L35K-OSDEX-NLSFA-PT.IES**
**DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
 [TEST] SP-00661\_2\_M-13L  
 [TESTLAB] Spectrum Lighting Photometric Lab, VLS-245-981  
 [MANUFAC] Spectrum Lighting  
 [ISSUEDATE] 4/18/2018  
 [UPDATE] 11/1/2018  
 [LUMCAT] CP0608XT-13L-35K-OSD-EX-NLSFA-PT  
 [LUMINAIRE] Nom 6" diam x 8.2" H, Carli Pendant decorative luminaire  
 [LAMPCAT] N/A  
 [LAMP] N/A, 19mm LES  
 [OTHER] Open Spherical Diffuser at LED  
 [OTHER] No Upper Lens  
 [OTHER] Acrylic Shade  
 [OTHER] 75.8% Downlight  
 [OTHER] 24.2% Uplight  
 [OTHER] Luminaire tested with Platinum painted finish  
 [OTHER] Total Luminaire watts is approximate  
 [OTHER] LEDXT lumen output is the same for all available CCT's  
 [OTHER] This report prepared by Spectrum Lighting, scaled from 20L

**CHARACTERISTICS**

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	543
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	42
Total Luminaire Watts	13
Ballast Factor	1.00
CIE Type	Semi-Direct
Spacing Criterion (0-180)	0.60
Spacing Criterion (90-270)	0.60
Spacing Criterion (Diagonal)	0.62
Basic Luminous Shape	Circular w/ Sides
Luminous Length (0-180)	0.50 ft (Diameter)
Luminous Width (90-270)	0.50 ft (Diameter)
Luminous Height	0.12 ft

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : SP-00661\_2 ~ CP0608XT-13L35K-OSDEX-NLSFA-PT.IES****LUMINANCE DATA (cd/sq.m)**

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	1909	1924	2154
55	425	509	432
65	1820	1906	1579
75	3946	4280	3773
85	7329	8277	7266

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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>
0.0	493.987	493.987	493.987	493.987	493.987	493.987	493.987	493.987	493.987	493.987
2.5	492.840	494.740	492.598	495.332	493.425	492.617	494.410	492.278	493.384	492.632
5.0	491.068	487.925	491.130	486.975	489.671	489.057	487.962	489.692	488.752	492.609
7.5	471.091	473.177	466.403	475.726	469.735	464.854	471.806	475.198	480.914	476.020
10.0	433.860	437.001	430.216	433.449	429.395	426.819	439.028	438.218	449.173	447.658
12.5	382.151	384.019	376.184	384.201	379.314	375.031	386.237	391.506	403.487	399.628
15.0	319.256	324.268	315.110	324.531	319.215	315.586	329.829	329.786	344.879	340.305
17.5	258.026	260.146	256.222	263.266	261.615	258.396	269.866	269.294	280.052	279.462
20.0	197.855	205.445	198.009	210.713	206.173	202.203	215.899	210.340	223.109	217.900
22.5	155.642	155.712	157.204	158.940	162.430	160.364	166.741	163.519	169.143	171.183
25.0	122.747	126.964	120.355	131.958	126.910	123.469	133.659	129.267	137.272	129.968
27.5	107.045	106.982	107.441	106.207	109.029	108.412	111.357	109.626	111.758	114.037
30.0	98.397	96.593	98.359	99.631	101.159	99.253	100.248	102.516	103.145	105.227
32.5	87.958	89.357	87.998	92.763	92.386	91.573	95.183	94.724	98.240	98.027
35.0	76.942	78.779	77.509	81.262	83.191	84.178	86.238	86.458	90.002	91.171
37.5	65.663	67.363	65.772	69.757	71.945	72.145	75.601	75.804	81.271	79.962
40.0	54.320	54.668	53.986	58.217	59.948	59.509	63.803	63.764	69.191	68.128
42.5	43.230	41.748	43.158	46.743	48.107	48.431	51.603	51.732	56.824	56.718
45.0	32.183	32.353	32.427	35.622	36.310	37.465	40.412	39.704	45.312	45.343
47.5	23.737	23.376	23.380	25.036	27.124	27.401	29.481	30.245	33.850	34.088
50.0	15.586	15.421	14.851	16.534	18.487	17.475	20.669	21.717	23.634	22.918
52.5	10.891	7.525	10.735	9.769	12.318	11.432	12.254	14.353	13.831	15.797
55.0	6.386	8.445	7.658	8.179	6.493	5.971	8.893	7.322	10.187	9.128
57.5	10.049	9.530	10.534	8.293	8.351	7.456	6.167	8.295	7.327	8.780
60.0	13.766	13.650	13.903	12.345	10.806	9.314	10.268	10.927	10.806	9.008
62.5	18.507	17.929	19.254	16.838	15.466	13.715	14.810	16.273	14.633	13.721
65.0	23.245	23.821	24.340	22.152	20.174	18.158	19.461	21.993	20.273	18.451
67.5	27.949	29.557	28.631	27.356	24.136	22.799	24.133	26.946	25.749	23.260
70.0	32.497	34.346	33.134	32.393	28.175	27.473	29.350	31.835	30.598	28.049
72.5	36.116	39.179	38.150	37.495	33.229	32.259	34.606	36.128	35.362	32.766
75.0	39.909	44.208	43.291	42.677	38.165	36.924	40.278	40.429	39.880	37.304
77.5	44.460	49.210	48.669	47.521	42.203	41.265	45.785	45.857	44.491	41.330
80.0	48.408	54.120	53.333	52.015	46.084	45.167	50.204	51.115	49.315	45.089
82.5	50.431	57.998	56.887	55.457	49.184	48.121	54.400	54.028	53.232	48.257
85.0	52.396	59.245	59.179	58.009	51.945	50.677	57.572	56.731	55.483	51.031
87.5	54.222	59.979	59.853	59.259	53.464	52.545	60.085	57.871	57.308	53.097
90.0	54.954	59.665	59.595	59.609	54.253	53.040	60.377	58.588	58.494	53.864
92.5	53.492	58.748	58.362	58.929	52.976	51.624	59.972	57.174	58.485	52.712
95.0	51.856	56.844	57.032	57.658	51.519	49.973	57.710	55.635	57.021	51.388
97.5	49.938	54.785	55.618	55.734	49.666	48.045	55.378	53.633	55.349	49.857
100.0	47.662	52.519	53.258	53.511	47.814	45.989	52.896	51.509	53.468	47.971
102.5	44.910	49.999	50.224	50.901	45.961	43.808	50.317	49.039	50.762	45.729
105.0	41.077	47.197	47.265	48.152	43.310	41.339	47.576	42.487	47.369	42.204
107.5	36.061	39.053	44.349	44.899	39.493	38.646	44.464	26.712	37.105	37.625
110.0	25.012	26.066	41.148	41.504	31.319	36.076	40.836	13.693	22.175	25.362
112.5	8.576	14.774	37.812	38.754	17.969	33.585	36.330	5.625	11.532	7.961
115.0	1.366	4.750	29.706	36.135	10.236	30.692	30.829	0.828	3.308	1.457
117.5	0.967	0.859	19.820	32.917	8.104	27.589	21.102	0.773	0.733	1.007
120.0	0.833	0.747	11.132	29.617	6.467	23.549	7.461	0.738	0.697	0.858
122.5	0.857	0.716	2.785	22.866	5.236	19.115	1.247	0.730	0.649	0.842
125.0	0.778	0.724	1.074	15.838	3.713	11.596	0.804	0.785	0.599	0.772

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## CANDELA TABULATION - (Cont.)

127.5	0.648	0.783	0.795	8.178	1.999	3.056	0.765	0.903	0.633	0.681
130.0	0.704	0.862	0.790	0.684	1.280	1.186	0.981	0.847	0.692	0.714
132.5	0.833	0.801	0.824	0.774	1.110	0.961	1.013	0.650	0.706	0.780
135.0	0.839	0.696	0.835	0.857	0.978	0.924	0.954	0.646	0.712	0.803
137.5	0.809	0.746	0.844	0.839	0.863	0.919	0.866	0.773	0.720	0.819
140.0	0.715	0.831	0.902	0.811	0.922	0.776	0.769	0.790	0.729	0.769
142.5	0.608	0.779	0.957	0.710	1.039	0.617	0.799	0.746	0.696	0.711
145.0	0.739	0.705	0.816	0.643	1.191	0.803	0.872	0.791	0.660	0.651
147.5	0.908	0.892	0.688	0.739	1.351	1.009	0.864	0.874	0.710	0.591
150.0	0.909	1.106	0.727	0.818	1.180	0.879	0.836	0.941	0.760	0.689
152.5	0.894	1.031	0.771	0.835	0.947	0.753	0.950	1.000	0.727	0.788
155.0	0.788	0.943	0.864	0.861	0.846	0.752	1.087	0.909	0.700	0.827
157.5	0.708	0.833	0.857	0.908	0.762	0.761	0.893	0.777	0.717	0.844
160.0	1.037	0.729	0.493	0.955	0.835	0.830	0.694	0.814	0.699	0.719
162.5	1.189	0.642	0.528	1.002	0.869	0.818	0.679	0.824	0.582	0.614
165.0	0.996	0.700	1.014	0.922	0.799	0.688	0.785	0.660	0.623	0.539
167.5	0.838	0.837	0.836	0.868	0.973	0.787	1.019	0.571	0.739	0.762
170.0	0.715	0.643	0.776	0.982	1.091	0.799	0.980	0.588	0.695	0.875
172.5	0.656	0.756	0.781	1.195	0.945	0.826	0.840	0.750	0.792	0.775
175.0	0.661	0.842	0.657	0.890	0.776	0.931	0.912	0.872	0.788	0.622
177.5	0.606	0.704	0.772	0.592	0.964	0.666	0.893	0.725	0.994	0.754
180.0	0.776	0.776	0.776	0.776	0.776	0.776	0.776	0.776	0.776	0.776

## 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	493.987	493.987	493.987	493.987	493.987	493.987	493.987
2.5	494.309	492.198	494.643	495.028	494.239	494.896	492.840
5.0	490.350	490.117	489.017	490.304	494.612	488.568	491.068
7.5	480.231	477.073	480.477	480.594	473.728	479.789	471.091
10.0	452.085	441.614	444.830	449.586	443.351	441.310	433.860
12.5	404.018	397.091	397.713	400.883	391.767	395.346	382.151
15.0	348.844	337.267	341.406	345.427	332.532	334.331	319.256
17.5	287.260	278.772	282.032	285.410	272.983	270.575	258.026
20.0	230.236	222.091	227.000	230.385	213.349	214.797	197.855
22.5	176.663	174.333	173.074	178.118	169.068	159.940	155.642
25.0	140.671	136.502	140.439	142.393	127.871	131.813	122.747
27.5	115.454	113.769	111.631	114.059	112.035	105.388	107.045
30.0	104.275	105.142	102.768	101.571	99.663	98.519	98.397
32.5	99.990	96.387	96.250	94.597	90.962	91.604	87.958
35.0	91.668	87.534	85.771	85.071	82.536	79.447	76.942
37.5	81.731	77.143	75.048	74.862	70.851	67.411	65.663
40.0	70.183	65.790	63.329	62.867	59.093	56.692	54.320
42.5	58.140	53.929	51.607	50.523	47.382	46.100	43.230
45.0	46.696	41.808	40.002	39.348	35.879	36.312	32.183
47.5	35.391	31.729	28.685	28.321	26.922	26.680	23.737
50.0	25.097	22.473	20.378	20.290	18.236	17.722	15.586
52.5	14.969	14.977	12.739	12.470	11.486	10.280	10.891
55.0	10.147	8.039	9.284	9.821	6.316	7.910	6.386
57.5	5.851	8.020	7.212	7.477	8.868	7.372	10.049
60.0	8.068	9.658	11.385	11.367	11.950	11.526	13.766
62.5	10.587	13.446	15.704	15.322	16.908	15.651	18.507
65.0	15.183	17.590	20.509	20.069	21.813	19.718	23.245

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : SP-00661\_2 ~ CP0608XT-13L35K-OSDEX-NLSFA-PT.IES****CANDELA TABULATION - (Cont.)**

<b>67.5</b>	19.798	22.883	25.401	24.894	26.572	23.962	27.949
<b>70.0</b>	24.718	28.302	30.512	30.250	31.542	28.500	32.497
<b>72.5</b>	29.506	33.522	35.418	35.472	36.971	33.156	36.116
<b>75.0</b>	33.144	38.730	39.900	40.065	42.191	37.971	39.909
<b>77.5</b>	36.850	43.264	44.344	44.723	47.052	42.013	44.460
<b>80.0</b>	40.945	47.764	48.725	49.616	51.146	45.193	48.408
<b>82.5</b>	44.845	51.569	52.811	53.983	54.135	48.023	50.431
<b>85.0</b>	47.960	55.294	56.497	56.938	57.017	50.532	52.396
<b>87.5</b>	50.346	58.278	58.739	59.026	59.775	51.427	54.222
<b>90.0</b>	50.472	60.512	59.358	59.285	60.267	51.108	54.954
<b>92.5</b>	50.140	58.414	58.558	58.925	58.587	50.149	53.492
<b>95.0</b>	48.708	56.350	56.456	57.490	56.735	48.795	51.856
<b>97.5</b>	47.401	54.431	54.705	55.903	54.744	47.619	49.938
<b>100.0</b>	46.328	52.289	53.217	54.103	52.210	46.532	47.662
<b>102.5</b>	44.463	49.446	50.786	51.692	49.321	44.433	44.910
<b>105.0</b>	41.352	46.998	47.765	48.580	46.459	41.933	41.077
<b>107.5</b>	38.797	45.503	38.662	45.648	43.612	27.707	36.061
<b>110.0</b>	36.953	43.451	26.519	42.886	40.800	9.764	25.012
<b>112.5</b>	33.976	40.299	17.948	39.931	38.004	4.000	8.576
<b>115.0</b>	29.817	36.890	10.808	36.824	30.655	1.095	1.366
<b>117.5</b>	21.272	33.076	8.108	33.951	21.785	0.764	0.967
<b>120.0</b>	8.888	29.048	6.802	31.227	12.173	0.850	0.833
<b>122.5</b>	2.847	24.741	5.735	24.765	2.370	0.719	0.857
<b>125.0</b>	1.323	17.295	4.722	16.336	0.688	0.565	0.778
<b>127.5</b>	0.787	6.463	3.032	9.225	0.509	0.638	0.648
<b>130.0</b>	0.827	1.195	1.227	2.666	0.587	0.721	0.704
<b>132.5</b>	0.777	0.828	0.875	0.903	0.696	0.670	0.833
<b>135.0</b>	0.684	0.741	0.674	0.716	0.642	0.625	0.839
<b>137.5</b>	0.705	0.857	0.915	0.676	0.577	0.693	0.809
<b>140.0</b>	0.766	0.825	1.176	0.673	0.716	0.759	0.715
<b>142.5</b>	0.768	0.703	0.985	0.708	0.846	0.805	0.608
<b>145.0</b>	0.753	0.601	0.808	0.749	0.736	0.838	0.739
<b>147.5</b>	0.666	0.509	0.870	0.630	0.643	0.792	0.908
<b>150.0</b>	0.564	0.567	0.907	0.493	0.726	0.740	0.909
<b>152.5</b>	0.629	0.684	0.727	0.543	0.778	0.657	0.894
<b>155.0</b>	0.716	0.668	0.599	0.606	0.630	0.642	0.788
<b>157.5</b>	0.793	0.615	0.749	0.757	0.570	0.822	0.708
<b>160.0</b>	0.853	0.762	0.831	0.871	0.796	0.900	1.037
<b>162.5</b>	0.805	0.900	0.774	0.831	0.903	0.833	1.189
<b>165.0</b>	0.720	0.887	0.783	0.699	0.883	0.747	0.996
<b>167.5</b>	0.600	0.781	0.836	0.539	0.831	0.721	0.838
<b>170.0</b>	0.614	0.703	0.937	0.827	0.761	0.870	0.715
<b>172.5</b>	0.664	0.794	0.858	0.886	0.844	0.703	0.656
<b>175.0</b>	0.854	0.787	0.727	0.771	1.020	0.855	0.661
<b>177.5</b>	0.617	0.794	0.851	0.652	0.706	0.875	0.606
<b>180.0</b>	0.776	0.776	0.776	0.776	0.776	0.776	0.776

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : SP-00661\_2 ~ CP0608XT-13L35K-OSDEX-NLSFA-PT.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	135.43	N.A.	24.90
0-30	199.28	N.A.	36.70
0-40	250.99	N.A.	46.20
0-60	290.74	N.A.	53.50
0-80	353.13	N.A.	65.00
0-90	412.14	N.A.	75.80
10-90	366.90	N.A.	67.50
20-40	115.56	N.A.	21.30
20-50	145.56	N.A.	26.80
40-70	60.19	N.A.	11.10
60-80	62.39	N.A.	11.50
70-80	41.95	N.A.	7.70
80-90	59.01	N.A.	10.90
90-110	105.23	N.A.	19.40
90-120	124.78	N.A.	23.00
90-130	129.44	N.A.	23.80
90-150	130.58	N.A.	24.00
90-180	131.24	N.A.	24.20
110-180	26.01	N.A.	4.80
0-180	543.38	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	45.24
10-20	90.19
20-30	63.85
30-40	51.71
40-50	30.00
50-60	9.75
60-70	20.44
70-80	41.95
80-90	59.01
90-100	59.23
100-110	46.00
110-120	19.55
120-130	4.66
130-140	0.64
140-150	0.50
150-160	0.36
160-170	0.22
170-180	0.08

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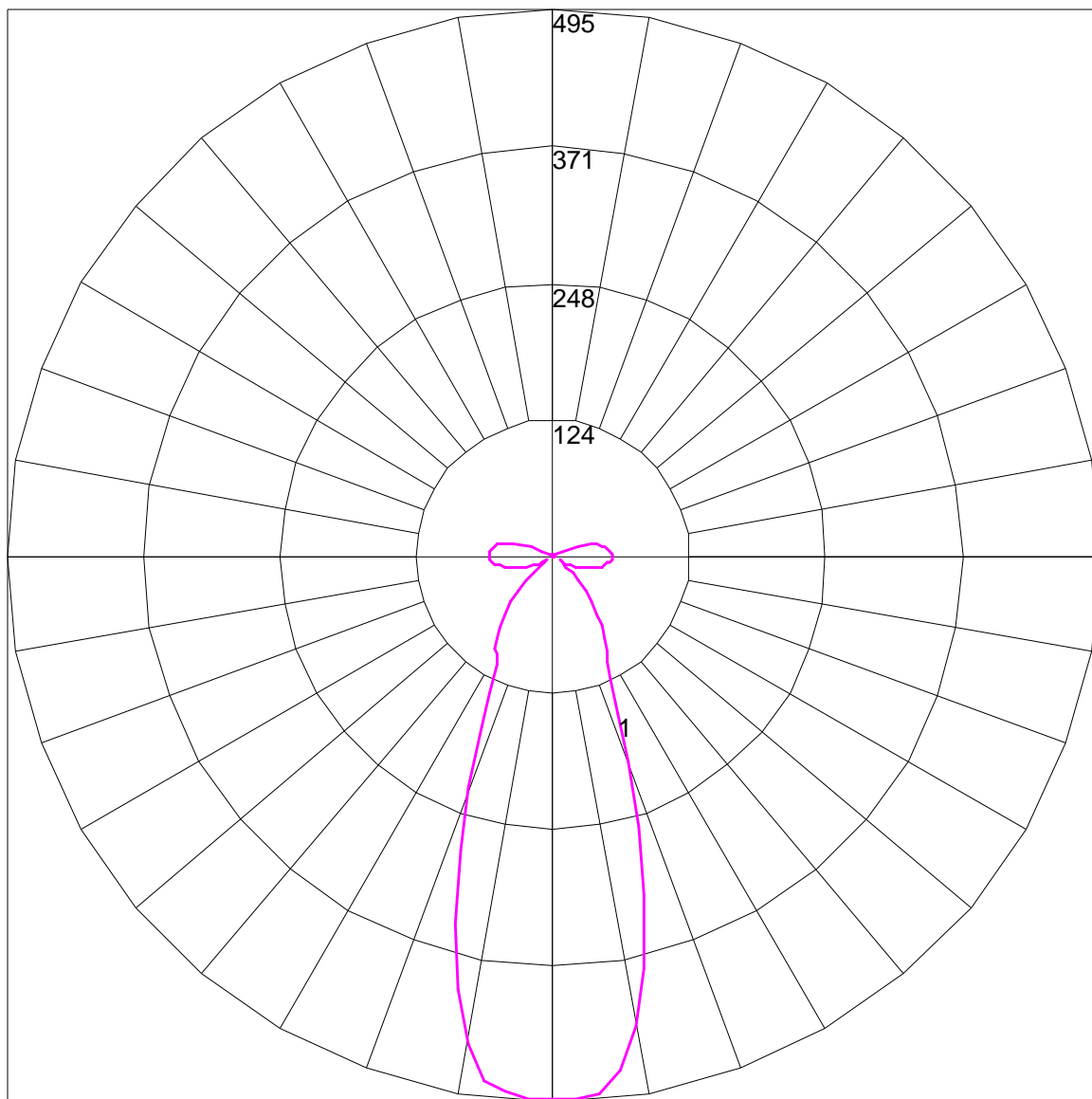
## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	113	113	113	113	108	108	108	108	98	98	98	88	88	88	80	80	80	76
1	101	95	90	86	96	91	86	82	82	78	75	74	71	68	66	64	62	58
2	93	84	77	72	88	80	74	69	73	68	64	66	62	59	60	57	54	50
3	86	76	68	62	82	73	66	60	66	61	56	61	56	52	55	51	48	45
4	80	70	62	55	76	67	59	54	61	55	50	56	51	47	51	47	44	41
5	75	64	56	50	72	61	54	49	57	51	46	52	47	43	48	44	41	38
6	71	59	51	46	68	57	50	45	53	47	42	49	44	40	45	41	38	36
7	67	55	48	42	64	53	46	41	50	44	39	46	41	37	43	39	36	34
8	63	52	44	39	60	50	43	38	47	41	37	44	39	35	41	37	34	32
9	60	48	41	36	57	47	40	36	44	38	34	41	37	33	39	35	32	30
10	57	46	39	34	55	44	38	34	42	36	32	39	35	31	37	33	30	28

IES INDOOR REPORT  
PHOTOMETRIC FILENAME : SP-00661\_2 ~ CP0608XT-13L35K-OSDEX-NLSFA-PT.IES

POLAR GRAPH



Maximum Candela = 495.332 Located At Horizontal Angle = 67.5, Vertical Angle = 2.5  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180)