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IES INDOOR REPORT
PHOTOMETRIC FILENAME : PNA 1 LIGHT.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] LLI-18097-3
[TESTLAB] LightLab International (www.LightLabInternational.com)
[MANUFAC] Justice Design Group, Los Angeles, CA 90071
[LUMCAT] Porcelina (PNA) 1-Light Wall Sconce
[LUMINAIRE] Justice Design Group - Wall mount bathroom luminaire. Product ID: PNA 1-Light
[MORE] Steel formed housing and frosted resin lens with white interior.
[MORE] 10 LEDs mounted in circular array with white plastic dome lens.
[MORE] No driver.
[MORE] Operating at 120 VAC and 60 Hz.
[OTHER] Absolute test - lamp lumens value set to -1
[MORE] NA conventions used for C0 plane alignment and C-plane rotation direction.
[MORE] The sample was tested at a distance of 8m.
[MORE] This IES file created by LightLab/LSA Report program version 3.820a.
[DATE] This file created: Wednesday, April 18, 2018 12:43:45 PM
[ISSUEDATE] Wednesday, April 18, 2018 12:43:45 PM

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	471
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	63
Total Luminaire Watts	7.48
Ballast Factor	1.00
CIE Type	Semi-Direct
Spacing Criterion (0-180)	1.56
Spacing Criterion (90-270)	1.74
Spacing Criterion (Diagonal)	1.54
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	0.08 m
Luminous Width (90-270)	0.17 m
Luminous Height	0.14 m

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PHOTOMETRIC FILENAME : PNA 1 LIGHT.IES

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	2518	2405	4147
55	2124	1859	2692
65	1899	1579	2011
75	1763	1399	1753
85	1697	1295	1573

IES INDOOR REPORT
PHOTOMETRIC FILENAME : PNA 1 LIGHT.IES

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>
0.0	73.746	73.746	73.746	73.746	73.746	73.746	73.746	73.746	73.746
0.5	73.032	73.245	73.525	73.559	73.797	74.095	74.324	74.341	74.350
1.0	73.219	73.466	73.585	73.636	73.891	74.367	74.732	74.877	74.987
1.5	73.806	73.950	73.950	73.823	74.137	74.758	75.293	75.633	75.769
2.0	74.460	74.520	74.477	74.112	74.426	75.183	75.948	76.475	76.645
2.5	75.259	75.310	75.089	74.545	74.792	75.693	76.687	77.401	77.597
3.0	76.211	76.050	75.769	75.055	75.166	76.220	77.520	78.319	78.583
3.5	77.172	76.942	76.526	75.574	75.599	76.764	78.294	79.280	79.696
4.0	78.166	77.928	77.231	76.152	76.033	77.401	79.152	80.257	80.665
4.5	79.169	78.821	78.047	76.696	76.500	78.039	79.985	81.277	81.753
5.0	80.113	79.841	78.838	77.282	76.942	78.668	80.767	82.212	82.782
5.5	81.065	80.733	79.628	77.937	77.427	79.297	81.626	83.249	83.802
6.0	82.161	81.719	80.436	78.566	77.911	79.977	82.527	84.278	84.992
6.5	83.147	82.671	81.303	79.178	78.362	80.623	83.368	85.272	85.935
7.0	84.133	83.589	82.119	79.832	78.880	81.277	84.269	86.309	87.023
7.5	85.111	84.618	82.952	80.478	79.390	81.957	85.170	87.321	88.077
8.0	86.037	85.561	83.810	81.099	79.900	82.629	86.020	88.307	89.089
8.5	86.989	86.539	84.635	81.753	80.368	83.309	86.913	89.293	90.100
9.0	88.060	87.448	85.476	82.408	80.912	83.980	87.831	90.245	91.112
9.5	89.063	88.392	86.335	83.045	81.464	84.669	88.621	91.171	92.123
10.0	90.024	89.378	87.151	83.708	81.940	85.306	89.471	92.200	93.118
10.5	90.976	90.415	88.009	84.397	82.450	85.995	90.355	93.143	94.121
11.0	92.064	91.307	88.834	85.051	82.960	86.675	91.171	94.087	95.115
11.5	93.084	92.259	89.641	85.765	83.479	87.355	92.030	94.996	96.042
12.0	94.027	93.237	90.500	86.420	83.997	88.035	92.863	95.974	97.002
12.5	94.801	94.112	91.392	87.057	84.499	88.740	93.679	96.824	97.946
13.0	95.345	94.971	92.183	87.720	84.983	89.395	94.503	97.759	98.787
13.5	95.685	95.651	93.058	88.366	85.510	90.083	95.302	98.617	99.493
14.0	95.795	96.084	93.840	88.961	86.020	90.721	96.084	99.399	99.960
14.5	96.059	96.441	94.665	89.633	86.471	91.375	96.858	100.037	100.215
15.0	96.254	96.671	95.438	90.279	87.032	92.021	97.674	100.496	100.326
15.5	96.450	96.849	96.178	90.933	87.542	92.633	98.413	100.674	100.292
16.0	96.518	97.079	96.807	91.579	87.975	93.288	99.153	100.785	100.241
16.5	96.603	97.104	97.376	92.183	88.443	93.917	99.909	100.768	100.122
17.0	96.611	97.164	97.869	92.795	88.995	94.503	100.581	100.683	99.943
17.5	96.722	97.291	98.260	93.432	89.437	95.090	101.159	100.589	99.875
18.0	96.662	97.274	98.507	94.019	89.905	95.719	101.677	100.428	99.646
18.5	96.722	97.266	98.719	94.614	90.398	96.288	102.000	100.275	99.416
19.0	96.705	97.308	98.813	95.209	90.874	96.892	102.179	100.105	99.195
19.5	96.577	97.181	98.881	95.812	91.350	97.444	102.247	99.918	98.940
20.0	96.416	97.147	98.906	96.348	91.800	98.048	102.213	99.663	98.736
20.5	96.280	97.070	98.898	96.943	92.302	98.592	102.119	99.442	98.439
21.0	95.965	96.858	98.864	97.478	92.761	99.161	101.983	99.187	98.158
21.5	95.795	96.645	98.796	98.039	93.237	99.722	101.805	98.872	97.878
22.0	95.625	96.484	98.685	98.549	93.713	100.232	101.618	98.583	97.512
22.5	95.345	96.203	98.575	99.034	94.197	100.776	101.431	98.226	97.079
23.0	95.073	95.872	98.456	99.459	94.648	101.252	101.167	97.852	96.722
23.5	94.682	95.481	98.218	99.756	95.047	101.754	100.870	97.495	96.237
24.0	94.308	95.073	98.005	100.011	95.523	102.221	100.581	97.011	95.744
24.5	93.985	94.741	97.759	100.232	95.940	102.680	100.258	96.475	95.302
25.0	93.594	94.291	97.419	100.411	96.365	103.080	99.892	96.025	94.801
25.5	93.160	93.866	97.096	100.547	96.790	103.386	99.544	95.481	94.231
26.0	92.684	93.381	96.696	100.581	97.155	103.658	99.085	94.894	93.687
26.5	92.234	92.880	96.280	100.683	97.546	103.828	98.668	94.333	93.041

**IES INDOOR REPORT
PHOTOMETRIC FILENAME : PNA 1 LIGHT.IES**

CANDELA TABULATION - (Cont.)

27.0	91.613	92.327	95.812	100.649	97.903	103.904	98.201	93.679	92.429
27.5	91.188	91.860	95.328	100.581	98.252	103.921	97.648	93.075	91.800
28.0	90.559	91.290	94.758	100.419	98.575	103.853	97.096	92.404	91.120
28.5	89.956	90.627	94.180	100.241	98.940	103.649	96.492	91.715	90.389
29.0	89.378	89.998	93.611	99.918	99.297	103.386	95.838	90.976	89.658
29.5	88.740	89.403	92.965	99.586	99.620	103.029	95.175	90.236	88.910
30.0	88.103	88.749	92.276	99.178	99.884	102.578	94.461	89.480	88.086
30.5	87.304	88.069	91.571	98.677	100.224	102.094	93.662	88.664	87.227
31.0	86.675	87.440	90.831	98.235	100.487	101.550	92.888	87.831	86.420
31.5	85.995	86.717	90.117	97.708	100.785	100.955	92.072	87.015	85.510
32.0	85.187	85.961	89.403	97.096	101.074	100.266	91.239	86.156	84.660
32.5	84.456	85.247	88.562	96.501	101.244	99.510	90.364	85.238	83.657
33.0	83.666	84.448	87.780	95.795	101.456	98.685	89.514	84.303	82.731
33.5	82.756	83.717	86.989	95.047	101.618	97.878	88.630	83.343	81.626
34.0	82.017	82.875	86.114	94.342	101.567	96.909	87.678	82.416	80.691
34.5	81.226	82.059	85.298	93.466	101.439	95.982	86.751	81.430	79.662
35.0	80.291	81.201	84.414	92.591	101.014	95.013	85.740	80.427	78.566
35.5	79.458	80.410	83.564	91.690	100.436	94.010	84.788	79.416	77.486
36.0	78.574	79.484	82.646	90.746	99.688	92.948	83.793	78.319	76.458
36.5	77.639	78.617	81.787	89.726	98.804	91.936	82.782	77.316	75.327
37.0	76.815	77.750	80.869	88.681	97.691	90.797	81.745	76.262	74.248
37.5	75.931	76.840	79.900	87.618	96.297	89.684	80.691	75.140	73.100
38.0	74.996	75.905	79.016	86.556	94.758	88.562	79.654	74.035	71.970
38.5	74.095	74.979	78.047	85.417	93.160	87.380	78.523	72.871	70.873
39.0	73.185	74.095	77.121	84.286	91.511	86.250	77.452	71.766	69.760
39.5	72.318	73.143	76.160	83.113	89.862	85.060	76.339	70.601	68.587
40.0	71.570	72.233	75.174	81.949	88.205	83.887	75.242	69.462	67.490
40.5	70.703	71.307	74.188	80.801	86.632	82.680	74.078	68.315	66.351
41.0	69.828	70.414	73.228	79.594	85.060	81.498	72.947	67.167	65.255
41.5	69.173	69.539	72.199	78.472	83.538	80.291	71.774	66.003	64.201
42.0	68.459	68.663	71.196	77.291	82.127	79.084	70.618	64.864	63.138
42.5	67.864	67.796	70.168	76.101	80.674	77.852	69.411	63.742	62.118
43.0	67.354	66.989	69.165	74.928	79.305	76.645	68.204	62.645	61.056
43.5	66.912	66.292	68.128	73.695	78.022	75.378	67.023	61.591	60.172
44.0	66.547	65.586	67.125	72.488	76.738	74.103	65.765	60.478	59.313
44.5	66.003	65.042	66.113	71.349	75.497	72.854	64.549	59.500	58.506
45.0	65.552	64.515	65.076	70.066	74.256	71.528	63.317	58.557	57.851
45.5	65.127	64.014	64.124	68.884	73.100	70.270	62.152	57.698	57.205
46.0	64.660	63.597	63.130	67.677	71.876	68.927	60.945	56.899	56.593
46.5	64.167	63.121	62.161	66.470	70.729	67.584	59.747	56.202	55.947
47.0	63.665	62.620	61.260	65.195	69.496	66.249	58.506	55.556	55.293
47.5	63.223	62.178	60.325	63.971	68.247	64.872	57.375	54.910	54.638
48.0	62.773	61.727	59.526	62.747	66.997	63.504	56.245	54.298	53.958
48.5	62.280	61.209	58.744	61.455	65.705	62.093	55.114	53.652	53.389
49.0	61.880	60.750	58.072	60.248	64.388	60.750	54.077	53.032	52.777
49.5	61.421	60.274	57.384	58.973	63.036	59.347	53.074	52.394	52.139
50.0	60.971	59.823	56.780	57.741	61.659	58.013	52.190	51.808	51.570
50.5	60.520	59.339	56.160	56.559	60.214	56.627	51.357	51.170	50.975
51.0	60.112	58.905	55.633	55.403	58.769	55.233	50.601	50.592	50.346
51.5	59.738	58.412	55.157	54.111	57.316	53.882	49.929	49.972	49.810
52.0	59.245	58.013	54.732	52.981	55.777	52.539	49.292	49.436	49.258
52.5	58.905	57.571	54.256	51.842	54.205	51.213	48.748	48.850	48.697
53.0	58.480	57.112	53.805	50.669	52.717	49.904	48.136	48.246	48.144
53.5	58.123	56.695	53.338	49.657	51.179	48.663	47.566	47.804	47.583
54.0	57.758	56.321	52.904	48.612	49.674	47.430	47.022	47.192	47.082
54.5	57.273	55.879	52.445	47.660	48.246	46.300	46.470	46.674	46.623

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PHOTOMETRIC FILENAME : PNA 1 LIGHT.IES**

CANDELA TABULATION - (Cont.)

55.0	56.891	55.539	52.003	46.801	46.793	45.152	45.926	46.130	46.079
55.5	56.636	55.157	51.553	46.087	45.424	44.081	45.382	45.637	45.628
56.0	56.287	54.766	51.136	45.356	44.047	43.180	44.838	45.135	45.118
56.5	55.939	54.375	50.669	44.770	42.764	42.322	44.311	44.651	44.625
57.0	55.641	54.060	50.252	44.141	41.565	41.667	43.818	44.149	44.166
57.5	55.284	53.635	49.836	43.546	40.375	41.149	43.308	43.665	43.707
58.0	55.004	53.295	49.394	43.112	39.270	40.724	42.764	43.206	43.240
58.5	54.613	52.981	49.020	42.781	38.301	40.273	42.279	42.730	42.747
59.0	54.349	52.624	48.629	42.381	37.477	39.857	41.803	42.245	42.313
59.5	54.018	52.284	48.221	42.033	36.797	39.449	41.293	41.829	41.922
60.0	53.661	51.969	47.847	41.667	36.287	39.024	40.851	41.370	41.429
60.5	53.346	51.646	47.481	41.293	35.862	38.573	40.375	40.894	41.047
61.0	53.066	51.315	47.099	40.902	35.513	38.131	39.891	40.477	40.554
61.5	52.836	51.026	46.665	40.554	35.199	37.715	39.466	40.035	40.188
62.0	52.496	50.686	46.342	40.120	34.901	37.307	38.998	39.610	39.721
62.5	52.182	50.363	45.977	39.772	34.553	36.865	38.582	39.194	39.279
63.0	51.910	50.048	45.594	39.389	34.221	36.440	38.157	38.718	38.913
63.5	51.553	49.734	45.254	39.015	33.881	36.015	37.723	38.352	38.463
64.0	51.272	49.462	44.940	38.658	33.533	35.632	37.273	37.944	38.080
64.5	51.068	49.156	44.566	38.259	33.176	35.199	36.882	37.553	37.664
65.0	50.779	48.850	44.285	37.902	32.836	34.808	36.465	37.128	37.273
65.5	50.456	48.552	43.903	37.562	32.479	34.357	36.006	36.780	36.873
66.0	50.176	48.289	43.597	37.188	32.130	33.975	35.624	36.372	36.491
66.5	49.929	47.966	43.257	36.797	31.790	33.584	35.199	35.972	36.134
67.0	49.666	47.719	42.925	36.508	31.382	33.159	34.765	35.573	35.734
67.5	49.351	47.422	42.585	36.151	31.068	32.742	34.417	35.199	35.343
68.0	49.079	47.116	42.288	35.743	30.736	32.411	34.034	34.808	34.995
68.5	48.841	46.835	41.982	35.428	30.362	31.969	33.635	34.468	34.663
69.0	48.595	46.589	41.650	35.080	29.997	31.629	33.286	34.085	34.221
69.5	48.323	46.300	41.353	34.706	29.657	31.263	32.895	33.720	33.881
70.0	48.085	46.053	41.021	34.400	29.291	30.847	32.547	33.363	33.558
70.5	47.770	45.764	40.690	34.068	28.934	30.481	32.173	33.023	33.116
71.0	47.498	45.492	40.452	33.686	28.586	30.116	31.799	32.632	32.819
71.5	47.286	45.280	40.154	33.388	28.246	29.750	31.433	32.300	32.470
72.0	47.039	44.999	39.840	33.040	27.914	29.359	31.093	31.935	32.130
72.5	46.810	44.736	39.576	32.683	27.566	29.019	30.736	31.612	31.773
73.0	46.529	44.481	39.287	32.402	27.226	28.654	30.405	31.246	31.442
73.5	46.266	44.243	38.990	32.054	26.886	28.288	30.039	30.932	31.093
74.0	46.087	43.962	38.718	31.714	26.563	27.940	29.716	30.592	30.779
74.5	45.892	43.699	38.412	31.433	26.197	27.583	29.376	30.260	30.430
75.0	45.611	43.486	38.148	31.136	25.900	27.268	29.062	29.954	30.082
75.5	45.331	43.223	37.910	30.796	25.577	26.945	28.722	29.589	29.767
76.0	45.101	42.985	37.647	30.507	25.228	26.580	28.382	29.274	29.427
76.5	44.829	42.747	37.349	30.218	24.897	26.282	28.059	28.951	29.130
77.0	44.557	42.492	37.137	29.912	24.608	25.959	27.719	28.654	28.824
77.5	44.421	42.288	36.856	29.597	24.268	25.602	27.413	28.314	28.543
78.0	44.166	42.033	36.559	29.325	23.987	25.313	27.107	27.999	28.203
78.5	43.877	41.778	36.346	28.985	23.656	24.999	26.801	27.693	27.906
79.0	43.724	41.540	36.091	28.739	23.350	24.659	26.478	27.396	27.540
79.5	43.427	41.310	35.802	28.484	23.044	24.344	26.172	27.073	27.260
80.0	43.291	41.072	35.590	28.152	22.755	24.038	25.866	26.775	26.962
80.5	43.044	40.868	35.318	27.897	22.483	23.741	25.543	26.503	26.699
81.0	42.798	40.647	35.071	27.625	22.185	23.435	25.288	26.189	26.350
81.5	42.636	40.384	34.850	27.353	21.939	23.180	24.999	25.908	26.070
82.0	42.356	40.163	34.587	27.115	21.658	22.874	24.676	25.653	25.806
82.5	42.169	39.984	34.323	26.869	21.369	22.559	24.404	25.364	25.526

IES INDOOR REPORT
PHOTOMETRIC FILENAME : PNA 1 LIGHT.IES

CANDELA TABULATION - (Cont.)

83.0	41.888	39.721	34.119	26.588	21.089	22.304	24.132	25.075	25.228
83.5	41.684	39.534	33.890	26.333	20.834	22.041	23.843	24.778	24.931
84.0	41.506	39.330	33.635	26.121	20.570	21.752	23.588	24.531	24.650
84.5	41.285	39.083	33.448	25.849	20.324	21.480	23.299	24.225	24.361
85.0	41.106	38.862	33.227	25.628	20.094	21.208	23.052	23.979	24.157
85.5	40.911	38.658	32.980	25.398	19.822	20.919	22.814	23.707	23.860
86.0	40.707	38.446	32.768	25.152	19.601	20.689	22.508	23.384	23.647
86.5	40.494	38.276	32.598	24.939	19.355	20.426	22.253	23.146	23.299
87.0	40.265	38.063	32.351	24.778	19.134	20.179	22.024	22.925	23.061
87.5	40.078	37.842	32.173	24.523	18.964	19.950	21.769	22.644	22.840
88.0	39.899	37.715	31.994	24.361	18.709	19.720	21.548	22.415	22.559
88.5	39.704	37.519	31.799	24.183	18.556	19.491	21.310	22.185	22.313
89.0	39.670	37.409	31.654	23.987	18.377	19.329	21.080	21.922	22.032
89.5	39.687	37.400	31.654	23.970	18.250	19.159	20.868	21.709	21.820
90.0	39.610	37.451	31.714	24.004	18.318	19.117	20.783	21.582	21.675
90.5	39.738	37.502	31.722	24.030	18.318	19.134	20.732	21.514	21.633
91.0	39.848	37.536	31.773	24.081	18.301	19.134	20.689	21.480	21.590
91.5	39.882	37.638	31.816	24.132	18.360	19.142	20.681	21.463	21.514
92.0	39.950	37.630	31.901	24.115	18.369	19.142	20.638	21.395	21.488
92.5	40.001	37.698	31.935	24.183	18.420	19.117	20.604	21.327	21.429
93.0	40.069	37.757	31.935	24.242	18.403	19.066	20.604	21.301	21.395
93.5	40.171	37.800	32.054	24.268	18.488	19.074	20.604	21.267	21.335
94.0	40.214	37.885	32.088	24.336	18.471	19.057	20.528	21.233	21.267
94.5	40.273	37.910	32.139	24.353	18.513	19.015	20.553	21.174	21.165
95.0	40.401	37.970	32.173	24.395	18.513	19.015	20.494	21.055	21.106
95.5	40.384	38.063	32.215	24.446	18.539	19.006	20.451	21.021	21.080
96.0	40.486	38.106	32.275	24.480	18.556	18.989	20.409	20.978	20.970
96.5	40.537	38.148	32.377	24.506	18.607	18.964	20.358	20.885	20.919
97.0	40.596	38.208	32.360	24.565	18.598	18.947	20.332	20.825	20.808
97.5	40.639	38.259	32.411	24.633	18.607	18.904	20.307	20.808	20.766
98.0	40.732	38.267	32.470	24.625	18.675	18.921	20.230	20.723	20.698
98.5	40.741	38.344	32.513	24.701	18.683	18.870	20.205	20.664	20.613
99.0	40.792	38.395	32.513	24.769	18.709	18.819	20.188	20.596	20.545
99.5	40.851	38.412	32.572	24.744	18.726	18.819	20.094	20.528	20.426
100.0	40.868	38.454	32.598	24.795	18.768	18.785	20.077	20.468	20.375
100.5	40.936	38.463	32.606	24.837	18.777	18.760	20.052	20.383	20.290
101.0	40.928	38.488	32.640	24.888	18.819	18.726	20.001	20.290	20.205
101.5	41.021	38.505	32.674	24.905	18.836	18.666	19.941	20.239	20.086
102.0	40.987	38.531	32.666	24.948	18.904	18.649	19.882	20.145	20.052
102.5	41.013	38.531	32.674	24.956	18.904	18.624	19.805	20.060	19.967
103.0	41.021	38.556	32.691	24.990	18.955	18.556	19.737	19.992	19.890
103.5	41.021	38.565	32.674	25.041	18.938	18.530	19.686	19.941	19.737
104.0	41.089	38.573	32.640	24.990	18.955	18.488	19.610	19.856	19.703
104.5	41.106	38.607	32.649	25.041	18.972	18.437	19.508	19.754	19.567
105.0	41.030	38.616	32.632	25.067	19.023	18.386	19.414	19.695	19.474
105.5	41.072	38.565	32.623	25.016	19.040	18.343	19.321	19.584	19.363
106.0	41.106	38.573	32.649	25.033	19.015	18.309	19.227	19.465	19.295
106.5	41.089	38.590	32.632	25.033	19.040	18.267	19.142	19.380	19.185
107.0	41.115	38.590	32.606	25.024	19.015	18.233	19.040	19.253	19.100
107.5	41.089	38.565	32.598	25.016	19.015	18.182	18.955	19.151	18.955
108.0	41.089	38.556	32.581	25.058	19.040	18.080	18.862	18.981	18.811
108.5	41.106	38.548	32.598	25.016	19.006	18.063	18.777	18.879	18.658
109.0	41.030	38.539	32.555	25.016	19.023	17.969	18.683	18.734	18.564
109.5	41.055	38.480	32.513	24.982	18.981	17.944	18.590	18.624	18.352
110.0	41.013	38.488	32.487	24.982	19.006	17.901	18.496	18.454	18.284
110.5	41.021	38.420	32.487	24.973	18.972	17.850	18.377	18.369	18.071

IES INDOOR REPORT
PHOTOMETRIC FILENAME : PNA 1 LIGHT.IES

CANDELA TABULATION - (Cont.)

111.0	40.970	38.429	32.453	24.999	18.981	17.799	18.301	18.224	17.918
111.5	40.945	38.403	32.453	24.965	18.938	17.757	18.165	18.105	17.842
112.0	40.843	38.386	32.419	24.956	18.930	17.672	18.080	17.952	17.655
112.5	40.868	38.352	32.351	24.931	18.947	17.646	18.003	17.833	17.485
113.0	40.851	38.301	32.351	24.905	18.938	17.570	17.910	17.706	17.332
113.5	40.800	38.259	32.309	24.871	18.913	17.536	17.774	17.527	17.213
114.0	40.732	38.233	32.249	24.871	18.904	17.493	17.689	17.434	17.077
114.5	40.749	38.182	32.224	24.829	18.896	17.408	17.604	17.238	16.907
115.0	40.647	38.123	32.147	24.795	18.853	17.357	17.425	17.051	16.711
115.5	40.613	38.131	32.113	24.769	18.862	17.289	17.383	16.881	16.558
116.0	40.528	38.012	32.045	24.710	18.794	17.281	17.238	16.652	16.380
116.5	40.537	37.978	32.003	24.701	18.819	17.179	17.094	16.473	16.201
117.0	40.426	37.919	31.935	24.659	18.777	17.145	17.034	16.312	15.895
117.5	40.333	37.834	31.909	24.616	18.734	17.085	16.941	16.082	15.734
118.0	40.282	37.774	31.807	24.548	18.700	17.009	16.805	15.912	15.462
118.5	40.205	37.740	31.756	24.514	18.649	16.949	16.686	15.725	15.266
119.0	40.103	37.630	31.697	24.497	18.624	16.898	16.618	15.530	15.028
119.5	40.018	37.579	31.637	24.455	18.624	16.847	16.465	15.309	14.773
120.0	39.942	37.528	31.586	24.387	18.564	16.788	16.397	15.079	14.544
120.5	39.882	37.392	31.518	24.302	18.522	16.703	16.269	14.875	14.323
121.0	39.797	37.332	31.416	24.302	18.454	16.643	16.133	14.688	14.093
121.5	39.644	37.273	31.331	24.259	18.454	16.558	16.074	14.501	13.855
122.0	39.576	37.145	31.272	24.157	18.428	16.490	15.955	14.289	13.609
122.5	39.457	37.060	31.212	24.098	18.360	16.465	15.844	14.110	13.405
123.0	39.364	36.984	31.102	24.072	18.318	16.363	15.751	13.915	13.175
123.5	39.236	36.822	31.008	23.962	18.284	16.312	15.657	13.745	12.895
124.0	39.219	36.703	30.949	23.928	18.267	16.261	15.504	13.541	12.708
124.5	39.007	36.618	30.855	23.868	18.199	16.176	15.428	13.371	12.504
125.0	38.862	36.482	30.770	23.800	18.139	16.159	15.351	13.184	12.291
125.5	38.718	36.372	30.643	23.707	18.097	16.082	15.258	13.022	12.130
126.0	38.548	36.219	30.549	23.656	18.080	16.048	15.198	12.878	11.951
126.5	38.480	36.074	30.439	23.571	18.037	16.006	15.088	12.708	11.773
127.0	38.225	35.964	30.345	23.528	18.012	15.963	14.960	12.572	11.594
127.5	38.055	35.794	30.218	23.452	17.978	15.895	14.892	12.453	11.458
128.0	37.936	35.641	30.107	23.358	17.918	15.878	14.816	12.266	11.305
128.5	37.749	35.471	29.988	23.307	17.918	15.861	14.705	12.113	11.161
129.0	37.562	35.377	29.886	23.214	17.842	15.785	14.620	11.943	11.016
129.5	37.434	35.190	29.742	23.154	17.808	15.734	14.561	11.798	10.923
130.0	37.188	35.071	29.623	23.035	17.774	15.640	14.408	11.662	10.787
130.5	37.043	34.901	29.487	22.976	17.774	15.615	14.348	11.535	10.608
131.0	36.873	34.731	29.359	22.925	17.689	15.564	14.263	11.416	10.532
131.5	36.729	34.587	29.249	22.814	17.655	15.530	14.161	11.254	10.455
132.0	36.482	34.417	29.087	22.789	17.629	15.496	14.076	11.135	10.311
132.5	36.261	34.196	28.968	22.661	17.578	15.445	14.017	11.008	10.183
133.0	36.108	34.034	28.832	22.559	17.502	15.394	13.915	10.897	10.158
133.5	35.879	33.864	28.688	22.491	17.493	15.351	13.838	10.812	10.030
134.0	35.692	33.660	28.552	22.389	17.417	15.334	13.745	10.693	9.988
134.5	35.513	33.473	28.407	22.279	17.408	15.283	13.685	10.566	9.877
135.0	35.301	33.295	28.229	22.177	17.340	15.215	13.600	10.489	9.792
135.5	35.097	33.065	28.118	22.092	17.289	15.224	13.515	10.396	9.707
136.0	34.867	32.946	27.948	21.990	17.230	15.130	13.413	10.243	9.597
136.5	34.655	32.751	27.804	21.922	17.187	15.088	13.320	10.175	9.486
137.0	34.417	32.521	27.651	21.794	17.145	15.037	13.286	10.073	9.367
137.5	34.179	32.326	27.498	21.701	17.060	14.994	13.158	9.954	9.325
138.0	33.924	32.122	27.336	21.616	17.043	14.918	13.116	9.903	9.299
138.5	33.728	31.901	27.200	21.505	16.992	14.918	13.082	9.818	9.189

IES INDOOR REPORT
PHOTOMETRIC FILENAME : PNA 1 LIGHT.IES

CANDELA TABULATION - (Cont.)

139.0	33.473	31.722	27.022	21.378	16.898	14.892	12.963	9.699	9.121
139.5	33.252	31.493	26.852	21.276	16.856	14.833	12.903	9.631	9.036
140.0	33.082	31.289	26.622	21.191	16.830	14.816	12.844	9.537	8.951
140.5	32.844	31.042	26.503	21.029	16.728	14.739	12.733	9.469	8.874
141.0	32.606	30.881	26.316	20.970	16.694	14.680	12.699	9.350	8.772
141.5	32.402	30.609	26.163	20.834	16.626	14.671	12.614	9.265	8.687
142.0	32.156	30.405	25.968	20.698	16.541	14.620	12.546	9.163	8.585
142.5	31.858	30.192	25.806	20.596	16.490	14.561	12.504	9.121	8.483
143.0	31.620	29.946	25.619	20.460	16.431	14.544	12.444	8.985	8.458
143.5	31.365	29.699	25.415	20.324	16.363	14.467	12.342	8.908	8.381
144.0	31.127	29.470	25.237	20.222	16.269	14.408	12.325	8.840	8.330
144.5	30.872	29.232	25.058	20.111	16.210	14.425	12.308	8.789	8.271
145.0	30.600	29.028	24.897	19.941	16.133	14.357	12.215	8.679	8.228
145.5	30.354	28.790	24.710	19.848	16.082	14.297	12.155	8.636	8.220
146.0	30.073	28.535	24.506	19.720	15.997	14.229	12.130	8.577	8.271
146.5	29.827	28.271	24.293	19.584	15.904	14.204	12.053	8.449	8.262
147.0	29.580	28.042	24.132	19.448	15.819	14.153	12.062	8.390	8.237
147.5	29.325	27.753	23.936	19.312	15.793	14.110	11.985	8.339	8.262
148.0	29.019	27.515	23.724	19.185	15.683	14.051	11.934	8.271	8.279
148.5	28.730	27.285	23.545	19.040	15.640	14.000	11.892	8.194	8.296
149.0	28.424	27.056	23.333	18.921	15.538	13.966	11.875	8.118	8.339
149.5	28.212	26.792	23.129	18.751	15.445	13.940	11.824	8.084	8.381
150.0	27.923	26.503	22.925	18.632	15.343	13.855	11.781	8.024	8.373
150.5	27.642	26.282	22.712	18.496	15.292	13.838	11.756	7.990	8.424
151.0	27.370	25.976	22.525	18.326	15.198	13.770	11.705	7.982	8.483
151.5	27.124	25.730	22.330	18.207	15.113	13.736	11.662	7.914	8.449
152.0	26.767	25.500	22.100	18.088	15.037	13.668	11.628	7.837	8.432
152.5	26.478	25.203	21.913	17.910	14.935	13.634	11.560	7.829	8.466
153.0	26.257	24.922	21.658	17.731	14.867	13.592	11.569	7.795	8.458
153.5	25.917	24.676	21.480	17.595	14.765	13.524	11.552	7.786	8.492
154.0	25.628	24.404	21.250	17.459	14.680	13.464	11.484	7.769	8.466
154.5	25.313	24.115	21.012	17.289	14.603	13.405	11.484	7.769	8.449
155.0	24.999	23.817	20.808	17.128	14.527	13.337	11.433	7.761	8.449
155.5	24.718	23.528	20.596	16.958	14.425	13.286	11.365	7.778	8.500
156.0	24.446	23.273	20.366	16.839	14.323	13.252	11.365	7.786	8.500
156.5	24.072	22.993	20.120	16.652	14.263	13.175	11.365	7.752	8.551
157.0	23.843	22.729	19.924	16.473	14.127	13.124	11.314	7.684	8.534
157.5	23.511	22.440	19.678	16.312	14.017	13.039	11.297	7.650	8.492
158.0	23.214	22.126	19.482	16.176	13.940	12.997	11.288	7.591	8.492
158.5	22.950	21.879	19.278	15.989	13.813	12.929	11.246	7.480	8.483
159.0	22.619	21.607	19.015	15.819	13.711	12.835	11.229	7.438	8.492
159.5	22.313	21.301	18.794	15.674	13.609	12.810	11.212	7.336	8.500
160.0	21.998	20.995	18.556	15.462	13.498	12.716	11.152	7.327	8.492
160.5	21.718	20.715	18.335	15.300	13.405	12.682	11.101	7.285	8.483
161.0	21.386	20.409	18.080	15.147	13.311	12.597	11.050	7.268	8.551
161.5	21.029	20.120	17.867	14.926	13.184	12.529	10.974	7.166	8.585
162.0	20.698	19.831	17.578	14.739	13.082	12.444	10.897	7.098	8.628
162.5	20.383	19.533	17.357	14.595	13.022	12.385	10.778	7.021	8.628
163.0	20.069	19.219	17.119	14.399	12.861	12.300	10.515	6.970	8.645
163.5	19.729	18.938	16.856	14.229	12.793	12.215	10.234	6.843	8.696
164.0	19.448	18.624	16.626	14.068	12.691	12.189	9.886	6.630	8.670
164.5	19.100	18.301	16.380	13.838	12.563	12.087	9.452	6.443	8.509
165.0	18.768	17.978	16.133	13.660	12.444	11.926	9.053	6.350	8.254
165.5	18.411	17.689	15.878	13.456	12.334	11.739	8.628	6.307	7.914
166.0	18.105	17.374	15.615	13.294	12.189	11.441	8.118	6.273	7.523
166.5	17.740	17.043	15.317	13.116	12.028	11.033	7.693	6.188	6.970

**IES INDOOR REPORT
PHOTOMETRIC FILENAME : PNA 1 LIGHT.IES**

CANDELA TABULATION - (Cont.)

167.0	17.366	16.728	15.079	12.946	11.773	10.600	7.353	6.146	6.316
167.5	17.034	16.414	14.833	12.733	11.407	10.081	7.013	5.967	5.746
168.0	16.652	16.040	14.493	12.572	10.897	9.520	6.800	5.848	5.066
168.5	16.303	15.708	14.238	12.368	10.447	8.993	6.664	5.704	4.437
169.0	15.946	15.402	14.000	12.062	9.835	8.432	6.511	5.423	3.689
169.5	15.572	15.079	13.685	11.688	9.291	7.888	6.452	5.117	2.890
170.0	15.181	14.731	13.371	11.186	8.679	7.472	6.333	4.675	2.151
170.5	14.807	14.289	13.039	10.668	8.160	7.200	6.163	4.131	1.556
171.0	14.425	13.881	12.555	10.124	7.727	6.928	6.027	3.655	0.952
171.5	14.076	13.532	12.138	9.554	7.429	6.775	5.789	3.247	0.629
172.0	13.668	13.141	11.730	9.010	7.166	6.664	5.381	2.763	0.561
172.5	13.320	12.606	11.161	8.611	6.936	6.469	4.905	2.287	0.553
173.0	12.708	12.121	10.617	8.237	6.741	6.248	4.420	1.828	0.527
173.5	11.977	11.569	10.005	7.795	6.494	5.797	3.783	1.547	0.451
174.0	11.586	10.855	9.299	7.438	6.290	5.143	3.128	1.428	0.391
174.5	10.948	10.166	8.662	7.030	5.908	4.488	2.499	1.284	0.332
175.0	10.183	9.427	8.050	6.520	5.355	3.740	1.998	1.173	0.255
175.5	9.189	8.568	7.327	6.001	4.675	2.924	1.709	0.969	0.187
176.0	8.194	7.616	6.613	5.381	3.953	2.219	1.513	0.808	0.247
176.5	7.123	6.545	5.772	4.505	3.111	1.709	1.292	0.570	0.196
177.0	5.874	5.457	4.828	3.613	2.355	1.437	1.088	0.374	0.162
177.5	4.582	4.233	3.936	2.814	1.734	1.267	0.918	0.247	0.162
178.0	3.205	2.967	3.001	1.913	1.275	1.054	0.723	0.204	0.272
178.5	2.040	1.896	1.981	1.216	1.029	0.867	0.544	0.221	0.187
179.0	1.199	1.139	1.063	0.757	0.799	0.689	0.425	0.204	0.213
179.5	0.425	0.646	0.408	0.408	0.553	0.553	0.264	0.213	0.298
180.0	0.306	0.306	0.306	0.306	0.306	0.306	0.306	0.306	0.306

IES INDOOR REPORT
PHOTOMETRIC FILENAME : PNA 1 LIGHT.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	34.65	N.A.	7.40
0-30	79.57	N.A.	16.90
0-40	133.89	N.A.	28.50
0-60	229.10	N.A.	48.70
0-80	303.10	N.A.	64.40
0-90	333.00	N.A.	70.80
10-90	325.15	N.A.	69.10
20-40	99.24	N.A.	21.10
20-50	150.44	N.A.	32.00
40-70	134.44	N.A.	28.60
60-80	74.00	N.A.	15.70
70-80	34.77	N.A.	7.40
80-90	29.90	N.A.	6.40
90-110	54.67	N.A.	11.60
90-120	78.77	N.A.	16.70
90-130	98.91	N.A.	21.00
90-150	126.09	N.A.	26.80
90-180	137.60	N.A.	29.20
110-180	82.93	N.A.	17.60
0-180	470.59	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	7.85
10-20	26.80
20-30	44.92
30-40	54.32
40-50	51.20
50-60	44.01
60-70	39.23
70-80	34.77
80-90	29.90
90-100	27.86
100-110	26.81
110-120	24.10
120-130	20.14
130-140	15.79
140-150	11.39
150-160	7.29
160-170	3.58
170-180	0.62

IES INDOOR REPORT
PHOTOMETRIC FILENAME : PNA 1 LIGHT.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	112	112	112	112	106	106	106	106	95	95	95	85	85	85	75	75	75	71	71
1	100	94	89	85	94	89	85	81	80	76	73	71	68	65	63	60	59	54	54
2	90	81	74	68	85	77	70	65	69	63	59	61	57	53	54	51	48	44	44
3	82	71	63	56	77	67	60	54	60	54	49	54	49	44	47	43	40	37	37
4	75	63	54	47	70	59	51	45	53	47	41	47	42	38	42	38	34	31	31
5	69	56	47	40	65	53	45	39	48	41	36	43	37	33	38	33	30	27	27
6	63	50	41	35	60	48	39	34	43	36	31	38	33	28	34	30	26	23	23
7	59	45	37	31	55	43	35	29	39	32	27	35	29	25	31	27	23	21	21
8	54	41	33	27	51	39	31	26	35	29	24	32	26	22	29	24	21	18	18
9	51	38	30	24	48	36	28	23	33	26	22	29	24	20	27	22	18	16	16
10	47	35	27	22	45	33	26	21	30	24	20	27	22	18	25	20	17	15	15

IES INDOOR REPORT
PHOTOMETRIC FILENAME : PNA 1 LIGHT.IES

UGR TABLE - CORRECTED

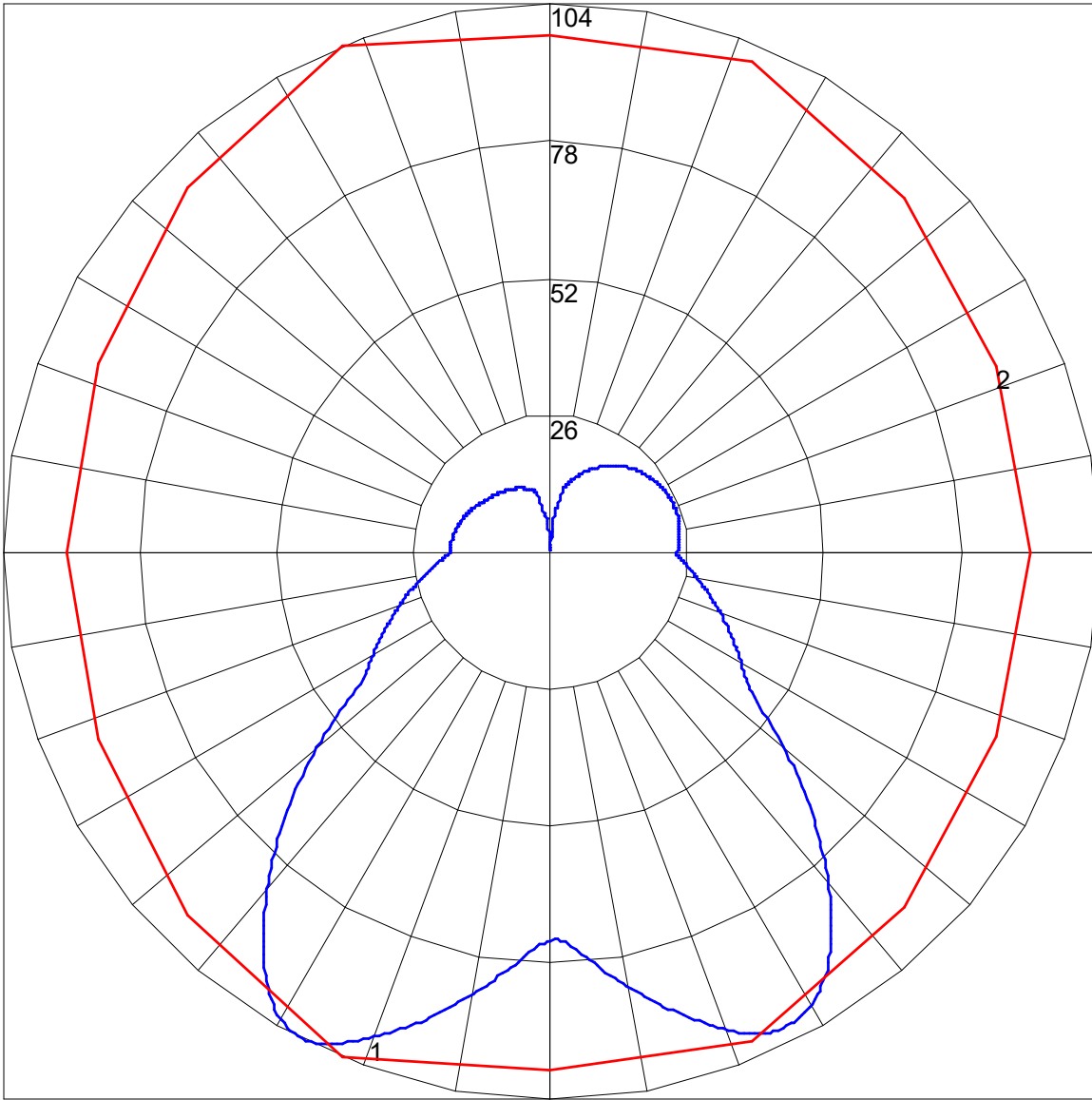
Reflectances

Ceiling Cavity	70	70	50	50	30	70	70	50	50	30
Walls	50	30	50	30	30	50	30	50	30	30
Floor Cavity	20	20	20	20	20	20	20	20	20	20

Room Size		UGR Viewed Crosswise					UGR Viewed Endwise				
X=2H	Y=2H	12.2	13.3	12.9	14.1	15.0	10.4	11.6	11.1	12.3	13.3
	3H	14.5	15.6	15.3	16.3	17.3	12.3	13.3	13.0	14.1	15.1
	4H	15.6	16.6	16.4	17.4	18.4	13.1	14.1	13.9	14.9	15.8
	6H	16.7	17.7	17.5	18.5	19.5	13.8	14.8	14.6	15.6	16.5
	8H	17.3	18.2	18.1	19.0	20.0	14.2	15.1	15.0	15.9	16.9
	12H	17.8	18.6	18.6	19.4	20.5	14.5	15.3	15.3	16.2	17.2
4H	2H	12.7	13.7	13.5	14.5	15.5	11.2	12.2	12.0	13.0	14.0
	3H	15.3	16.2	16.1	17.0	18.0	13.3	14.2	14.1	15.0	16.0
	4H	16.6	17.4	17.4	18.2	19.2	14.3	15.1	15.1	15.9	16.9
	6H	17.9	18.6	18.7	19.5	20.5	15.2	15.9	16.0	16.7	17.8
	8H	18.5	19.2	19.3	20.0	21.1	15.6	16.3	16.4	17.1	18.1
	12H	19.2	19.8	20.0	20.6	21.7	16.0	16.6	16.8	17.5	18.5
8H	4H	17.0	17.6	17.8	18.5	19.5	14.9	15.5	15.7	16.4	17.4
	6H	18.5	19.0	19.3	19.9	20.9	16.0	16.6	16.8	17.4	18.5
	8H	19.3	19.8	20.1	20.6	21.7	16.5	17.0	17.4	17.9	19.0
	12H	20.1	20.5	20.9	21.4	22.5	17.1	17.5	17.9	18.4	19.5
12H	4H	17.0	17.6	17.8	18.5	19.5	15.0	15.6	15.9	16.5	17.5
	6H	18.6	19.1	19.5	20.0	21.0	16.2	16.7	17.1	17.6	18.7
	8H	19.4	19.9	20.3	20.8	21.9	16.9	17.3	17.7	18.2	19.3

Maximum UGR = 22.5

POLAR GRAPH



Maximum Candela = 103.921 Located At Horizontal Angle = 112.5, Vertical Angle = 27.5
1 - Vertical Plane Through Horizontal Angles (112.5 - 292.5) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (27.5) (Through Max. Cd.)