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IES INDOOR REPORT
PHOTOMETRIC FILENAME : PNA 2 LIGHT.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] 18097-A
[TESTLAB] LightLab International (www.LightLabInternational.com)
[MANUFAC] Justice Design Group, Los Angeles, CA 90071
[LUMCAT] Porcelina (PNA) 2-Light Bath Bar
[LUMINAIRE] Justice Design Group - Wall mount bathroom luminaire. Product ID: PNA 2-Light
[MORE] Steel formed housing and two frosted resin lenses with white interior.
[MORE] 20 LEDs mounted in two circular arrays with white plastic dome lenses.
[MORE] No driver.
[MORE] Operating at 120 VAC and 60 Hz.
[MORE] Simulated data from test of one and six lamp fixtures.
[ISSUE DATE] April 20, 2018

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	937
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	63
Total Luminaire Watts	14.98
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)	0.33 m
Luminous Height	0.14 m

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	2508	2684	5359
55	2115	2104	3693
65	1892	1813	2957
75	1756	1630	2816
85	1690	1534	2865

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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>
0.0	146.885	146.885	146.885	146.885	146.885	146.885	146.885	146.885	146.885
0.5	145.463	145.886	146.444	146.512	146.986	147.579	148.036	148.070	148.087
1.0	145.835	146.326	146.563	146.665	147.172	148.121	148.849	149.136	149.356
1.5	147.003	147.291	147.291	147.037	147.663	148.899	149.966	150.643	150.914
2.0	148.307	148.425	148.341	147.613	148.239	149.746	151.270	152.319	152.658
2.5	149.898	150.000	149.560	148.476	148.967	150.762	152.742	154.165	154.554
3.0	151.794	151.473	150.914	149.492	149.712	151.811	154.402	155.993	156.518
3.5	153.707	153.250	152.421	150.525	150.575	152.895	155.942	157.906	158.736
4.0	155.688	155.214	153.826	151.676	151.439	154.165	157.652	159.853	160.666
4.5	157.686	156.992	155.451	152.759	152.370	155.434	159.311	161.885	162.833
5.0	159.565	159.023	157.026	153.928	153.250	156.687	160.869	163.747	164.881
5.5	161.461	160.801	158.600	155.231	154.215	157.940	162.579	165.812	166.913
6.0	163.645	162.765	160.209	156.484	155.180	159.294	164.373	167.861	169.283
6.5	165.609	164.661	161.935	157.703	156.078	160.581	166.049	169.842	171.162
7.0	167.573	166.490	163.561	159.007	157.110	161.885	167.844	171.907	173.329
7.5	169.520	168.538	165.220	160.293	158.126	163.239	169.639	173.922	175.429
8.0	171.365	170.417	166.930	161.529	159.142	164.577	171.332	175.886	177.443
8.5	173.262	172.364	168.572	162.833	160.073	165.931	173.109	177.850	179.458
9.0	175.395	174.176	170.248	164.136	161.157	167.268	174.938	179.746	181.473
9.5	177.393	176.055	171.958	165.406	162.257	168.640	176.512	181.591	183.487
10.0	179.306	178.019	173.583	166.727	163.205	169.909	178.205	183.640	185.468
10.5	181.202	180.084	175.293	168.098	164.221	171.281	179.966	185.519	187.466
11.0	183.369	181.862	176.935	169.402	165.237	172.635	181.591	187.398	189.447
11.5	185.400	183.758	178.544	170.824	166.270	173.990	183.301	189.210	191.292
12.0	187.280	185.705	180.254	172.127	167.302	175.344	184.960	191.157	193.205
12.5	188.820	187.449	182.031	173.397	168.301	176.749	186.586	192.850	195.084
13.0	189.904	189.159	183.606	174.718	169.266	178.053	188.228	194.712	196.760
13.5	190.581	190.513	185.350	176.004	170.316	179.424	189.819	196.422	198.166
14.0	190.801	191.377	186.907	177.189	171.332	180.694	191.377	197.979	199.097
14.5	191.326	192.088	188.549	178.527	172.229	181.997	192.917	199.249	199.605
15.0	191.715	192.545	190.090	179.814	173.346	183.284	194.543	200.163	199.825
15.5	192.105	192.900	191.563	181.117	174.362	184.503	196.016	200.519	199.757
16.0	192.240	193.358	192.816	182.404	175.225	185.807	197.488	200.739	199.655
16.5	192.409	193.408	193.950	183.606	176.157	187.060	198.995	200.705	199.418
17.0	192.426	193.527	194.932	184.825	177.257	188.228	200.333	200.536	199.063
17.5	192.646	193.781	195.711	186.095	178.137	189.396	201.484	200.350	198.927
18.0	192.528	193.747	196.202	187.263	179.069	190.649	202.517	200.028	198.470
18.5	192.646	193.730	196.625	188.448	180.051	191.783	203.160	199.723	198.013
19.0	192.613	193.815	196.811	189.633	180.999	192.985	203.516	199.385	197.573
19.5	192.359	193.561	196.947	190.835	181.947	194.086	203.651	199.012	197.065
20.0	192.037	193.493	196.997	191.902	182.844	195.288	203.583	198.504	196.659
20.5	191.766	193.341	196.981	193.087	183.843	196.371	203.397	198.064	196.066
21.0	191.140	192.917	196.913	194.153	184.757	197.505	203.126	197.556	195.508
21.5	190.801	192.494	196.777	195.271	185.705	198.623	202.771	196.930	194.949
22.0	190.462	192.172	196.557	196.286	186.653	199.639	202.398	196.354	194.221
22.5	189.904	191.614	196.337	197.251	187.618	200.722	202.026	195.643	193.358
23.0	189.362	190.953	196.100	198.098	188.516	201.670	201.501	194.898	192.646
23.5	188.583	190.175	195.626	198.690	189.311	202.669	200.908	194.187	191.681
24.0	187.838	189.362	195.203	199.198	190.259	203.600	200.333	193.222	190.700
24.5	187.195	188.702	194.712	199.639	191.089	204.514	199.689	192.155	189.819
25.0	186.416	187.804	194.035	199.994	191.935	205.310	198.961	191.258	188.820
25.5	185.553	186.958	193.391	200.265	192.782	205.920	198.267	190.175	187.686
26.0	184.605	185.993	192.596	200.333	193.510	206.461	197.353	189.007	186.602
26.5	183.707	184.994	191.766	200.536	194.289	206.800	196.523	187.889	185.316

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CANDELA TABULATION - (Cont.)

27.0	182.472	183.894	190.835	200.468	195.000	206.952	195.592	186.586	184.097
27.5	181.625	182.963	189.870	200.333	195.694	206.986	194.492	185.383	182.844
28.0	180.372	181.828	188.736	200.011	196.337	206.851	193.391	184.046	181.490
28.5	179.170	180.508	187.584	199.655	197.065	206.444	192.189	182.675	180.034
29.0	178.019	179.255	186.450	199.012	197.776	205.920	190.886	181.202	178.578
29.5	176.749	178.070	185.163	198.352	198.420	205.209	189.565	179.729	177.088
30.0	175.479	176.766	183.792	197.539	198.944	204.311	188.143	178.222	175.446
30.5	173.888	175.412	182.387	196.540	199.622	203.346	186.552	176.597	173.736
31.0	172.635	174.159	180.914	195.660	200.146	202.263	185.011	174.938	172.127
31.5	171.281	172.720	179.492	194.610	200.739	201.078	183.386	173.312	170.316
32.0	169.672	171.213	178.070	193.391	201.315	199.706	181.727	171.602	168.623
32.5	168.216	169.791	176.394	192.206	201.653	198.200	179.983	169.774	166.625
33.0	166.642	168.200	174.836	190.801	202.076	196.557	178.290	167.912	164.780
33.5	164.830	166.744	173.262	189.311	202.398	194.949	176.529	165.999	162.579
34.0	163.358	165.067	171.518	187.906	202.297	193.019	174.633	164.153	160.716
34.5	161.783	163.442	169.893	186.162	202.043	191.174	172.788	162.189	158.668
35.0	159.921	161.732	168.132	184.418	201.196	189.244	170.773	160.192	156.484
35.5	158.262	160.158	166.439	182.624	200.045	187.246	168.877	158.177	154.334
36.0	156.501	158.312	164.610	180.745	198.555	185.130	166.896	155.993	152.285
36.5	154.639	156.586	162.900	178.713	196.794	183.115	164.881	153.995	150.034
37.0	152.996	154.859	161.072	176.631	194.576	180.846	162.816	151.896	147.884
37.5	151.236	153.047	159.142	174.514	191.800	178.628	160.716	149.661	145.598
38.0	149.373	151.185	157.381	172.398	188.736	176.394	158.651	147.460	143.346
38.5	147.579	149.340	155.451	170.130	185.553	174.040	156.399	145.141	141.162
39.0	145.767	147.579	153.606	167.878	182.268	171.789	154.266	142.940	138.945
39.5	144.040	145.683	151.693	165.542	178.984	169.419	152.048	140.621	136.608
40.0	142.551	143.871	149.729	163.222	175.683	167.082	149.864	138.352	134.424
40.5	140.824	142.026	147.765	160.937	172.551	164.678	147.545	136.066	132.156
41.0	139.080	140.248	145.852	158.533	169.419	162.325	145.293	133.781	129.972
41.5	137.776	138.504	143.803	156.298	166.388	159.921	142.957	131.461	127.872
42.0	136.354	136.761	141.806	153.944	163.578	157.517	140.654	129.193	125.756
42.5	135.169	135.034	139.757	151.574	160.683	155.062	138.250	126.958	123.724
43.0	134.153	133.425	137.759	149.238	157.957	152.658	135.846	124.774	121.608
43.5	133.273	132.037	135.694	146.783	155.400	150.135	133.493	122.675	119.847
44.0	132.545	130.632	133.696	144.379	152.844	147.596	130.987	120.457	118.138
44.5	131.461	129.548	131.682	142.110	150.372	145.107	128.566	118.510	116.529
45.0	130.564	128.499	129.616	139.554	147.900	142.466	126.112	116.631	115.226
45.5	129.718	127.500	127.720	137.201	145.598	139.960	123.792	114.921	113.939
46.0	128.787	126.670	125.739	134.797	143.160	137.285	121.388	113.329	112.720
46.5	127.805	125.722	123.809	132.393	140.875	134.610	119.001	111.941	111.433
47.0	126.806	124.723	122.015	129.853	138.420	131.952	116.529	110.654	110.130
47.5	125.925	123.843	120.152	127.415	135.931	129.210	114.277	109.368	108.826
48.0	125.028	122.946	118.561	124.977	133.442	126.484	112.026	108.149	107.472
48.5	124.046	121.913	117.003	122.404	130.869	123.674	109.774	106.862	106.337
49.0	123.250	120.999	115.666	120.000	128.245	120.999	107.709	105.626	105.118
49.5	122.336	120.051	114.294	117.460	125.553	118.205	105.711	104.357	103.849
50.0	121.439	119.153	113.092	115.005	122.810	115.547	103.950	103.188	102.714
50.5	120.542	118.188	111.857	112.652	119.932	112.788	102.291	101.919	101.529
51.0	119.729	117.325	110.807	110.350	117.054	110.011	100.784	100.767	100.276
51.5	118.984	116.343	109.859	107.776	114.159	107.319	99.447	99.531	99.210
52.0	118.002	115.547	109.012	105.525	111.095	104.644	98.177	98.465	98.109
52.5	117.325	114.667	108.064	103.256	107.963	102.003	97.094	97.297	96.992
53.0	116.478	113.753	107.167	100.920	105.000	99.396	95.875	96.095	95.892
53.5	115.767	112.923	106.236	98.905	101.936	96.924	94.740	95.214	94.774
54.0	115.039	112.178	105.372	96.823	98.939	94.469	93.657	93.995	93.775
54.5	114.074	111.298	104.458	94.927	96.095	92.218	92.556	92.963	92.861

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CANDELA TABULATION - (Cont.)

55.0	113.312	110.621	103.578	93.217	93.200	89.932	91.473	91.879	91.778
55.5	112.805	109.859	102.680	91.794	90.474	87.799	90.389	90.897	90.880
56.0	112.110	109.080	101.851	90.338	87.731	86.004	89.306	89.898	89.864
56.5	111.416	108.301	100.920	89.170	85.175	84.294	88.256	88.933	88.882
57.0	110.824	107.675	100.090	87.917	82.788	82.991	87.274	87.934	87.968
57.5	110.113	106.828	99.261	86.732	80.417	81.958	86.258	86.969	87.054
58.0	109.554	106.151	98.380	85.869	78.217	81.112	85.175	86.055	86.123
58.5	108.775	105.525	97.635	85.209	76.287	80.214	84.210	85.107	85.141
59.0	108.250	104.814	96.857	84.413	74.644	79.385	83.262	84.142	84.278
59.5	107.590	104.136	96.044	83.719	73.290	78.572	82.246	83.313	83.499
60.0	106.879	103.510	95.299	82.991	72.274	77.726	81.366	82.398	82.517
60.5	106.253	102.867	94.571	82.246	71.428	76.828	80.417	81.450	81.755
61.0	105.694	102.206	93.809	81.467	70.734	75.948	79.452	80.621	80.773
61.5	105.237	101.631	92.946	80.773	70.107	75.118	78.606	79.740	80.045
62.0	104.560	100.954	92.302	79.910	69.515	74.306	77.675	78.894	79.114
62.5	103.933	100.310	91.574	79.215	68.820	73.425	76.845	78.064	78.234
63.0	103.392	99.684	90.813	78.454	68.160	72.579	75.999	77.116	77.506
63.5	102.680	99.057	90.135	77.709	67.483	71.732	75.135	76.388	76.608
64.0	102.122	98.516	89.509	76.998	66.789	70.971	74.238	75.576	75.846
64.5	101.715	97.906	88.764	76.202	66.078	70.107	73.459	74.797	75.017
65.0	101.140	97.297	88.205	75.491	65.401	69.328	72.630	73.950	74.238
65.5	100.496	96.704	87.443	74.814	64.690	68.431	71.715	73.256	73.442
66.0	99.938	96.179	86.834	74.069	63.995	67.669	70.954	72.443	72.680
66.5	99.447	95.536	86.157	73.290	63.318	66.890	70.107	71.648	71.969
67.0	98.922	95.045	85.496	72.714	62.506	66.044	69.244	70.852	71.174
67.5	98.296	94.452	84.819	72.003	61.879	65.214	68.550	70.107	70.395
68.0	97.754	93.843	84.227	71.191	61.219	64.554	67.788	69.328	69.701
68.5	97.280	93.284	83.617	70.564	60.474	63.674	66.992	68.651	69.041
69.0	96.789	92.793	82.957	69.870	59.746	62.997	66.298	67.889	68.160
69.5	96.247	92.218	82.364	69.125	59.069	62.269	65.519	67.161	67.483
70.0	95.773	91.727	81.704	68.516	58.341	61.439	64.825	66.450	66.840
70.5	95.147	91.151	81.044	67.855	57.630	60.711	64.080	65.773	65.959
71.0	94.605	90.609	80.570	67.094	56.936	59.983	63.335	64.994	65.367
71.5	94.182	90.186	79.977	66.501	56.258	59.255	62.607	64.334	64.673
72.0	93.691	89.627	79.351	65.807	55.598	58.476	61.930	63.606	63.995
72.5	93.234	89.103	78.826	65.096	54.904	57.799	61.219	62.963	63.284
73.0	92.675	88.595	78.250	64.537	54.227	57.071	60.559	62.235	62.624
73.5	92.150	88.121	77.658	63.843	53.550	56.343	59.831	61.608	61.930
74.0	91.794	87.562	77.116	63.166	52.906	55.649	59.187	60.931	61.304
74.5	91.405	87.037	76.507	62.607	52.178	54.938	58.510	60.271	60.609
75.0	90.846	86.614	75.982	62.015	51.586	54.311	57.884	59.661	59.915
75.5	90.288	86.089	75.508	61.337	50.942	53.668	57.206	58.933	59.289
76.0	89.831	85.615	74.983	60.762	50.248	52.940	56.529	58.307	58.612
76.5	89.289	85.141	74.390	60.186	49.588	52.348	55.886	57.664	58.019
77.0	88.747	84.633	73.967	59.577	49.012	51.704	55.209	57.071	57.410
77.5	88.476	84.227	73.408	58.950	48.335	50.993	54.599	56.394	56.851
78.0	87.968	83.719	72.816	58.408	47.776	50.418	53.990	55.767	56.174
78.5	87.393	83.211	72.393	57.731	47.116	49.791	53.380	55.158	55.581
79.0	87.088	82.737	71.885	57.240	46.507	49.114	52.737	54.565	54.853
79.5	86.495	82.280	71.309	56.732	45.897	48.488	52.127	53.922	54.295
80.0	86.224	81.806	70.886	56.072	45.322	47.878	51.518	53.329	53.702
80.5	85.734	81.399	70.344	55.564	44.780	47.285	50.875	52.788	53.177
81.0	85.243	80.959	69.853	55.022	44.187	46.676	50.367	52.161	52.483
81.5	84.921	80.434	69.413	54.481	43.696	46.168	49.791	51.603	51.924
82.0	84.362	79.994	68.888	54.007	43.138	45.559	49.148	51.095	51.399
82.5	83.990	79.639	68.363	53.516	42.562	44.932	48.606	50.519	50.841

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CANDELA TABULATION - (Cont.)

83.0	83.431	79.114	67.957	52.957	42.003	44.424	48.064	49.943	50.248
83.5	83.025	78.741	67.500	52.449	41.495	43.899	47.489	49.351	49.656
84.0	82.669	78.335	66.992	52.026	40.971	43.324	46.981	48.860	49.097
84.5	82.229	77.844	66.620	51.484	40.480	42.782	46.405	48.250	48.521
85.0	81.873	77.404	66.179	51.044	40.023	42.240	45.914	47.760	48.115
85.5	81.484	76.998	65.688	50.587	39.481	41.665	45.440	47.218	47.523
86.0	81.078	76.574	65.265	50.096	39.041	41.208	44.831	46.574	47.099
86.5	80.655	76.236	64.927	49.673	38.550	40.683	44.323	46.100	46.405
87.0	80.197	75.813	64.436	49.351	38.109	40.192	43.866	45.660	45.931
87.5	79.825	75.372	64.080	48.843	37.771	39.735	43.358	45.102	45.491
88.0	79.469	75.118	63.725	48.521	37.263	39.278	42.918	44.644	44.932
88.5	79.080	74.729	63.335	48.166	36.958	38.820	42.444	44.187	44.441
89.0	79.012	74.509	63.047	47.776	36.603	38.499	41.986	43.662	43.883
89.5	79.046	74.492	63.047	47.743	36.349	38.160	41.563	43.239	43.459
90.0	78.894	74.594	63.166	47.810	36.484	38.076	41.394	42.985	43.171
90.5	79.148	74.695	63.183	47.861	36.484	38.109	41.292	42.850	43.087
91.0	79.368	74.763	63.284	47.963	36.450	38.109	41.208	42.782	43.002
91.5	79.436	74.966	63.369	48.064	36.569	38.126	41.191	42.748	42.850
92.0	79.571	74.949	63.538	48.030	36.586	38.126	41.106	42.613	42.799
92.5	79.673	75.085	63.606	48.166	36.687	38.076	41.038	42.477	42.681
93.0	79.808	75.203	63.606	48.284	36.653	37.974	41.038	42.427	42.613
93.5	80.011	75.288	63.843	48.335	36.823	37.991	41.038	42.359	42.494
94.0	80.096	75.457	63.911	48.471	36.789	37.957	40.886	42.291	42.359
94.5	80.214	75.508	64.012	48.504	36.874	37.872	40.937	42.173	42.156
95.0	80.468	75.626	64.080	48.589	36.874	37.872	40.818	41.936	42.037
95.5	80.434	75.813	64.165	48.691	36.924	37.855	40.734	41.868	41.986
96.0	80.638	75.897	64.283	48.758	36.958	37.822	40.649	41.783	41.766
96.5	80.739	75.982	64.486	48.809	37.060	37.771	40.547	41.597	41.665
97.0	80.858	76.100	64.453	48.928	37.043	37.737	40.497	41.478	41.445
97.5	80.942	76.202	64.554	49.063	37.060	37.652	40.446	41.445	41.360
98.0	81.129	76.219	64.673	49.046	37.195	37.686	40.293	41.275	41.225
98.5	81.145	76.371	64.757	49.199	37.212	37.585	40.243	41.157	41.055
99.0	81.247	76.473	64.757	49.334	37.263	37.483	40.209	41.021	40.920
99.5	81.366	76.507	64.876	49.283	37.297	37.483	40.023	40.886	40.683
100.0	81.399	76.591	64.927	49.385	37.381	37.415	39.989	40.767	40.581
100.5	81.535	76.608	64.943	49.469	37.398	37.365	39.938	40.598	40.412
101.0	81.518	76.659	65.011	49.571	37.483	37.297	39.836	40.412	40.243
101.5	81.704	76.693	65.079	49.605	37.517	37.178	39.718	40.310	40.006
102.0	81.636	76.744	65.062	49.690	37.652	37.144	39.599	40.124	39.938
102.5	81.687	76.744	65.079	49.706	37.652	37.094	39.447	39.955	39.769
103.0	81.704	76.794	65.113	49.774	37.754	36.958	39.311	39.819	39.616
103.5	81.704	76.811	65.079	49.876	37.720	36.907	39.210	39.718	39.311
104.0	81.840	76.828	65.011	49.774	37.754	36.823	39.058	39.548	39.244
104.5	81.873	76.896	65.028	49.876	37.788	36.721	38.854	39.345	38.973
105.0	81.721	76.913	64.994	49.927	37.889	36.620	38.668	39.227	38.787
105.5	81.806	76.811	64.977	49.825	37.923	36.535	38.482	39.007	38.567
106.0	81.873	76.828	65.028	49.859	37.872	36.467	38.296	38.770	38.431
106.5	81.840	76.862	64.994	49.859	37.923	36.383	38.126	38.600	38.211
107.0	81.890	76.862	64.943	49.842	37.872	36.315	37.923	38.346	38.042
107.5	81.840	76.811	64.927	49.825	37.872	36.213	37.754	38.143	37.754
108.0	81.840	76.794	64.893	49.910	37.923	36.010	37.568	37.805	37.466
108.5	81.873	76.778	64.927	49.825	37.855	35.976	37.398	37.602	37.161
109.0	81.721	76.761	64.842	49.825	37.889	35.790	37.212	37.314	36.975
109.5	81.772	76.642	64.757	49.757	37.805	35.739	37.026	37.094	36.552
110.0	81.687	76.659	64.706	49.757	37.855	35.655	36.840	36.755	36.416
110.5	81.704	76.524	64.706	49.740	37.788	35.553	36.603	36.586	35.993

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CANDELA TABULATION - (Cont.)

111.0	81.603	76.541	64.639	49.791	37.805	35.451	36.450	36.298	35.688
111.5	81.552	76.490	64.639	49.723	37.720	35.367	36.179	36.061	35.536
112.0	81.349	76.456	64.571	49.706	37.703	35.197	36.010	35.756	35.164
112.5	81.399	76.388	64.436	49.656	37.737	35.147	35.858	35.519	34.825
113.0	81.366	76.287	64.436	49.605	37.720	34.994	35.672	35.265	34.520
113.5	81.264	76.202	64.351	49.537	37.669	34.927	35.401	34.910	34.283
114.0	81.129	76.151	64.232	49.537	37.652	34.842	35.231	34.723	34.012
114.5	81.162	76.050	64.182	49.453	37.635	34.673	35.062	34.334	33.674
115.0	80.959	75.931	64.029	49.385	37.551	34.571	34.706	33.962	33.284
115.5	80.892	75.948	63.962	49.334	37.568	34.436	34.622	33.623	32.980
116.0	80.722	75.711	63.826	49.216	37.432	34.419	34.334	33.166	32.624
116.5	80.739	75.643	63.741	49.199	37.483	34.216	34.046	32.810	32.269
117.0	80.519	75.525	63.606	49.114	37.398	34.148	33.928	32.489	31.659
117.5	80.333	75.355	63.555	49.029	37.314	34.029	33.741	32.032	31.337
118.0	80.231	75.237	63.352	48.894	37.246	33.877	33.471	31.693	30.796
118.5	80.079	75.169	63.250	48.826	37.144	33.758	33.234	31.320	30.406
119.0	79.876	74.949	63.132	48.792	37.094	33.657	33.098	30.931	29.932
119.5	79.706	74.848	63.013	48.708	37.094	33.555	32.793	30.491	29.424
120.0	79.554	74.746	62.912	48.572	36.975	33.437	32.658	30.034	28.967
120.5	79.436	74.475	62.776	48.403	36.890	33.267	32.404	29.627	28.527
121.0	79.266	74.357	62.573	48.403	36.755	33.149	32.133	29.255	28.070
121.5	78.962	74.238	62.404	48.318	36.755	32.980	32.015	28.883	27.596
122.0	78.826	73.984	62.285	48.115	36.704	32.844	31.778	28.459	27.105
122.5	78.589	73.815	62.167	47.997	36.569	32.793	31.558	28.104	26.699
123.0	78.403	73.662	61.947	47.946	36.484	32.590	31.371	27.714	26.241
123.5	78.149	73.341	61.761	47.726	36.416	32.489	31.185	27.376	25.683
124.0	78.115	73.104	61.642	47.658	36.383	32.387	30.880	26.969	25.310
124.5	77.692	72.934	61.456	47.539	36.247	32.218	30.728	26.631	24.904
125.0	77.404	72.664	61.287	47.404	36.129	32.184	30.576	26.258	24.481
125.5	77.116	72.443	61.033	47.218	36.044	32.032	30.389	25.937	24.159
126.0	76.778	72.139	60.846	47.116	36.010	31.964	30.271	25.649	23.804
126.5	76.642	71.851	60.626	46.947	35.925	31.879	30.051	25.310	23.448
127.0	76.134	71.631	60.440	46.862	35.875	31.795	29.797	25.039	23.093
127.5	75.796	71.292	60.186	46.710	35.807	31.659	29.661	24.802	22.822
128.0	75.559	70.987	59.966	46.524	35.688	31.625	29.509	24.430	22.517
128.5	75.186	70.649	59.729	46.422	35.688	31.591	29.289	24.125	22.229
129.0	74.814	70.463	59.526	46.236	35.536	31.439	29.120	23.787	21.941
129.5	74.560	70.090	59.238	46.117	35.468	31.337	29.001	23.499	21.755
130.0	74.069	69.853	59.001	45.880	35.401	31.151	28.696	23.228	21.484
130.5	73.781	69.515	58.730	45.762	35.401	31.100	28.578	22.974	21.129
131.0	73.442	69.176	58.476	45.660	35.231	30.999	28.409	22.737	20.976
131.5	73.155	68.888	58.256	45.440	35.164	30.931	28.205	22.415	20.824
132.0	72.664	68.550	57.934	45.389	35.113	30.863	28.036	22.178	20.536
132.5	72.223	68.109	57.697	45.135	35.011	30.762	27.918	21.924	20.282
133.0	71.919	67.788	57.427	44.932	34.859	30.660	27.714	21.704	20.231
133.5	71.462	67.449	57.139	44.797	34.842	30.576	27.562	21.535	19.977
134.0	71.089	67.043	56.868	44.594	34.690	30.542	27.376	21.298	19.893
134.5	70.734	66.670	56.580	44.374	34.673	30.440	27.257	21.044	19.673
135.0	70.310	66.315	56.225	44.170	34.537	30.305	27.088	20.892	19.503
135.5	69.904	65.858	56.004	44.001	34.436	30.322	26.919	20.705	19.334
136.0	69.447	65.621	55.666	43.798	34.317	30.135	26.716	20.401	19.114
136.5	69.024	65.231	55.378	43.662	34.232	30.051	26.529	20.265	18.894
137.0	68.550	64.774	55.073	43.409	34.148	29.949	26.462	20.062	18.657
137.5	68.076	64.385	54.769	43.222	33.979	29.865	26.208	19.825	18.572
138.0	67.568	63.978	54.447	43.053	33.945	29.712	26.123	19.723	18.521
138.5	67.178	63.538	54.176	42.833	33.843	29.712	26.055	19.554	18.301

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CANDELA TABULATION - (Cont.)

139.0	66.670	63.183	53.820	42.579	33.657	29.661	25.818	19.317	18.166
139.5	66.230	62.726	53.482	42.376	33.572	29.543	25.700	19.182	17.997
140.0	65.892	62.319	53.025	42.206	33.521	29.509	25.581	18.995	17.827
140.5	65.418	61.828	52.788	41.885	33.318	29.357	25.361	18.860	17.675
141.0	64.943	61.507	52.415	41.766	33.251	29.238	25.293	18.623	17.472
141.5	64.537	60.965	52.111	41.495	33.115	29.221	25.124	18.454	17.302
142.0	64.046	60.559	51.721	41.225	32.946	29.120	24.989	18.251	17.099
142.5	63.454	60.135	51.399	41.021	32.844	29.001	24.904	18.166	16.896
143.0	62.980	59.644	51.027	40.751	32.726	28.967	24.786	17.895	16.845
143.5	62.472	59.153	50.621	40.480	32.590	28.815	24.582	17.743	16.693
144.0	61.998	58.696	50.265	40.276	32.404	28.696	24.548	17.607	16.591
144.5	61.490	58.222	49.910	40.056	32.286	28.730	24.515	17.506	16.473
145.0	60.948	57.816	49.588	39.718	32.133	28.595	24.328	17.286	16.388
145.5	60.457	57.342	49.216	39.532	32.032	28.476	24.210	17.201	16.371
146.0	59.898	56.834	48.809	39.278	31.862	28.341	24.159	17.082	16.473
146.5	59.407	56.309	48.386	39.007	31.676	28.290	24.007	16.828	16.456
147.0	58.916	55.852	48.064	38.736	31.507	28.188	24.024	16.710	16.405
147.5	58.408	55.276	47.675	38.465	31.456	28.104	23.871	16.608	16.456
148.0	57.799	54.802	47.252	38.211	31.236	27.985	23.770	16.473	16.490
148.5	57.223	54.345	46.896	37.923	31.151	27.884	23.685	16.321	16.524
149.0	56.614	53.888	46.473	37.686	30.948	27.816	23.651	16.168	16.608
149.5	56.191	53.363	46.067	37.348	30.762	27.765	23.550	16.100	16.693
150.0	55.615	52.788	45.660	37.111	30.559	27.596	23.465	15.982	16.676
150.5	55.056	52.348	45.237	36.840	30.457	27.562	23.414	15.914	16.778
151.0	54.515	51.738	44.864	36.501	30.271	27.427	23.313	15.897	16.896
151.5	54.024	51.247	44.475	36.264	30.102	27.359	23.228	15.762	16.828
152.0	53.313	50.790	44.018	36.027	29.949	27.223	23.160	15.609	16.795
152.5	52.737	50.197	43.646	35.672	29.746	27.156	23.025	15.593	16.862
153.0	52.297	49.639	43.138	35.316	29.611	27.071	23.042	15.525	16.845
153.5	51.620	49.148	42.782	35.045	29.407	26.936	23.008	15.508	16.913
154.0	51.044	48.606	42.325	34.774	29.238	26.817	22.872	15.474	16.862
154.5	50.418	48.030	41.851	34.436	29.086	26.699	22.872	15.474	16.828
155.0	49.791	47.438	41.445	34.114	28.933	26.563	22.771	15.457	16.828
155.5	49.232	46.862	41.021	33.775	28.730	26.462	22.635	15.491	16.930
156.0	48.691	46.354	40.564	33.538	28.527	26.394	22.635	15.508	16.930
156.5	47.946	45.796	40.073	33.166	28.409	26.241	22.635	15.440	17.032
157.0	47.489	45.271	39.684	32.810	28.138	26.140	22.534	15.305	16.998
157.5	46.828	44.695	39.193	32.489	27.918	25.971	22.500	15.237	16.913
158.0	46.236	44.069	38.804	32.218	27.765	25.886	22.483	15.118	16.913
158.5	45.711	43.578	38.397	31.845	27.511	25.751	22.398	14.898	16.896
159.0	45.051	43.036	37.872	31.507	27.308	25.564	22.365	14.814	16.913
159.5	44.441	42.427	37.432	31.219	27.105	25.514	22.331	14.611	16.930
160.0	43.815	41.817	36.958	30.796	26.885	25.327	22.212	14.594	16.913
160.5	43.256	41.258	36.518	30.474	26.699	25.260	22.111	14.509	16.896
161.0	42.596	40.649	36.010	30.169	26.512	25.090	22.009	14.475	17.032
161.5	41.885	40.073	35.587	29.729	26.258	24.955	21.857	14.272	17.099
162.0	41.225	39.498	35.011	29.357	26.055	24.786	21.704	14.137	17.184
162.5	40.598	38.905	34.571	29.069	25.937	24.667	21.467	13.984	17.184
163.0	39.972	38.279	34.097	28.679	25.615	24.498	20.942	13.883	17.218
163.5	39.295	37.720	33.572	28.341	25.480	24.328	20.384	13.629	17.319
164.0	38.736	37.094	33.115	28.019	25.276	24.278	19.690	13.205	17.269
164.5	38.042	36.450	32.624	27.562	25.023	24.074	18.826	12.833	16.947
165.0	37.381	35.807	32.133	27.207	24.786	23.753	18.030	12.647	16.439
165.5	36.670	35.231	31.625	26.800	24.565	23.380	17.184	12.562	15.762
166.0	36.061	34.605	31.100	26.479	24.278	22.788	16.168	12.494	14.983
166.5	35.333	33.945	30.508	26.123	23.956	21.975	15.322	12.325	13.883

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CANDELA TABULATION - (Cont.)

167.0	34.588	33.318	30.034	25.784	23.448	21.112	14.644	12.240	12.579
167.5	33.928	32.692	29.543	25.361	22.720	20.079	13.967	11.885	11.445
168.0	33.166	31.947	28.866	25.039	21.704	18.962	13.544	11.648	10.090
168.5	32.472	31.287	28.358	24.633	20.807	17.912	13.273	11.360	8.837
169.0	31.761	30.677	27.884	24.024	19.588	16.795	12.968	10.801	7.348
169.5	31.016	30.034	27.257	23.279	18.504	15.711	12.850	10.192	5.756
170.0	30.237	29.340	26.631	22.280	17.286	14.881	12.613	9.311	4.283
170.5	29.492	28.459	25.971	21.247	16.253	14.340	12.274	8.228	3.098
171.0	28.730	27.647	25.006	20.164	15.389	13.798	12.003	7.280	1.896
171.5	28.036	26.953	24.176	19.029	14.797	13.493	11.529	6.467	1.253
172.0	27.223	26.174	23.363	17.946	14.272	13.273	10.717	5.502	1.117
172.5	26.529	25.107	22.229	17.150	13.815	12.884	9.769	4.554	1.100
173.0	25.310	24.142	21.146	16.405	13.425	12.444	8.804	3.640	1.050
173.5	23.854	23.042	19.927	15.525	12.935	11.546	7.534	3.081	0.897
174.0	23.076	21.620	18.521	14.814	12.528	10.243	6.230	2.844	0.779
174.5	21.806	20.248	17.252	14.001	11.766	8.939	4.977	2.556	0.660
175.0	20.282	18.775	16.033	12.985	10.666	7.449	3.979	2.336	0.508
175.5	18.301	17.065	14.594	11.953	9.311	5.824	3.403	1.930	0.372
176.0	16.321	15.169	13.172	10.717	7.872	4.419	3.014	1.608	0.491
176.5	14.187	13.036	11.495	8.973	6.196	3.403	2.573	1.134	0.389
177.0	11.699	10.869	9.616	7.195	4.690	2.861	2.167	0.745	0.322
177.5	9.125	8.431	7.839	5.604	3.454	2.523	1.828	0.491	0.322
178.0	6.383	5.909	5.976	3.809	2.539	2.099	1.439	0.406	0.542
178.5	4.063	3.775	3.945	2.421	2.049	1.727	1.084	0.440	0.372
179.0	2.387	2.269	2.116	1.507	1.591	1.371	0.846	0.406	0.423
179.5	0.846	1.287	0.813	0.813	1.100	1.100	0.525	0.423	0.593
180.0	0.609	0.609	0.609	0.609	0.609	0.609	0.609	0.609	0.609

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	69.01	N.A.	7.40
0-30	158.48	N.A.	16.90
0-40	266.67	N.A.	28.50
0-60	456.30	N.A.	48.70
0-80	603.69	N.A.	64.40
0-90	663.25	N.A.	70.80
10-90	647.61	N.A.	69.10
20-40	197.66	N.A.	21.10
20-50	299.63	N.A.	32.00
40-70	267.78	N.A.	28.60
60-80	147.39	N.A.	15.70
70-80	69.25	N.A.	7.40
80-90	59.56	N.A.	6.40
90-110	108.89	N.A.	11.60
90-120	156.89	N.A.	16.70
90-130	197.01	N.A.	21.00
90-150	251.15	N.A.	26.80
90-180	274.06	N.A.	29.20
110-180	165.17	N.A.	17.60
0-180	937.31	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	15.64
10-20	53.37
20-30	89.47
30-40	108.19
40-50	101.98
50-60	87.66
60-70	78.15
70-80	69.25
80-90	59.56
90-100	55.49
100-110	53.39
110-120	48.00
120-130	40.12
130-140	31.44
140-150	22.69
150-160	14.53
160-170	7.14
170-180	1.24

IES INDOOR REPORT
PHOTOMETRIC FILENAME : PNA 2 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	0
1	100	94	89	85	94	89	85	81	80	76	73	71	68	66	63	61	59	54	0
2	90	81	74	68	85	77	70	65	69	64	59	61	57	53	54	51	48	44	0
3	82	71	63	56	77	67	60	54	60	54	49	54	49	44	47	44	40	37	0
4	75	63	54	47	70	60	51	45	53	47	41	48	42	38	42	38	34	31	0
5	69	56	47	40	65	53	45	39	48	41	36	43	37	33	38	33	30	27	0
6	63	50	41	35	60	48	40	34	43	36	31	39	33	29	34	30	26	23	0
7	59	45	37	31	55	43	35	29	39	32	27	35	29	25	31	27	23	21	0
8	54	41	33	27	51	39	31	26	36	29	24	32	26	22	29	24	21	18	0
9	51	38	30	24	48	36	28	23	33	26	22	29	24	20	27	22	19	16	0
10	47	35	27	22	45	33	26	21	30	24	20	27	22	18	25	20	17	15	0

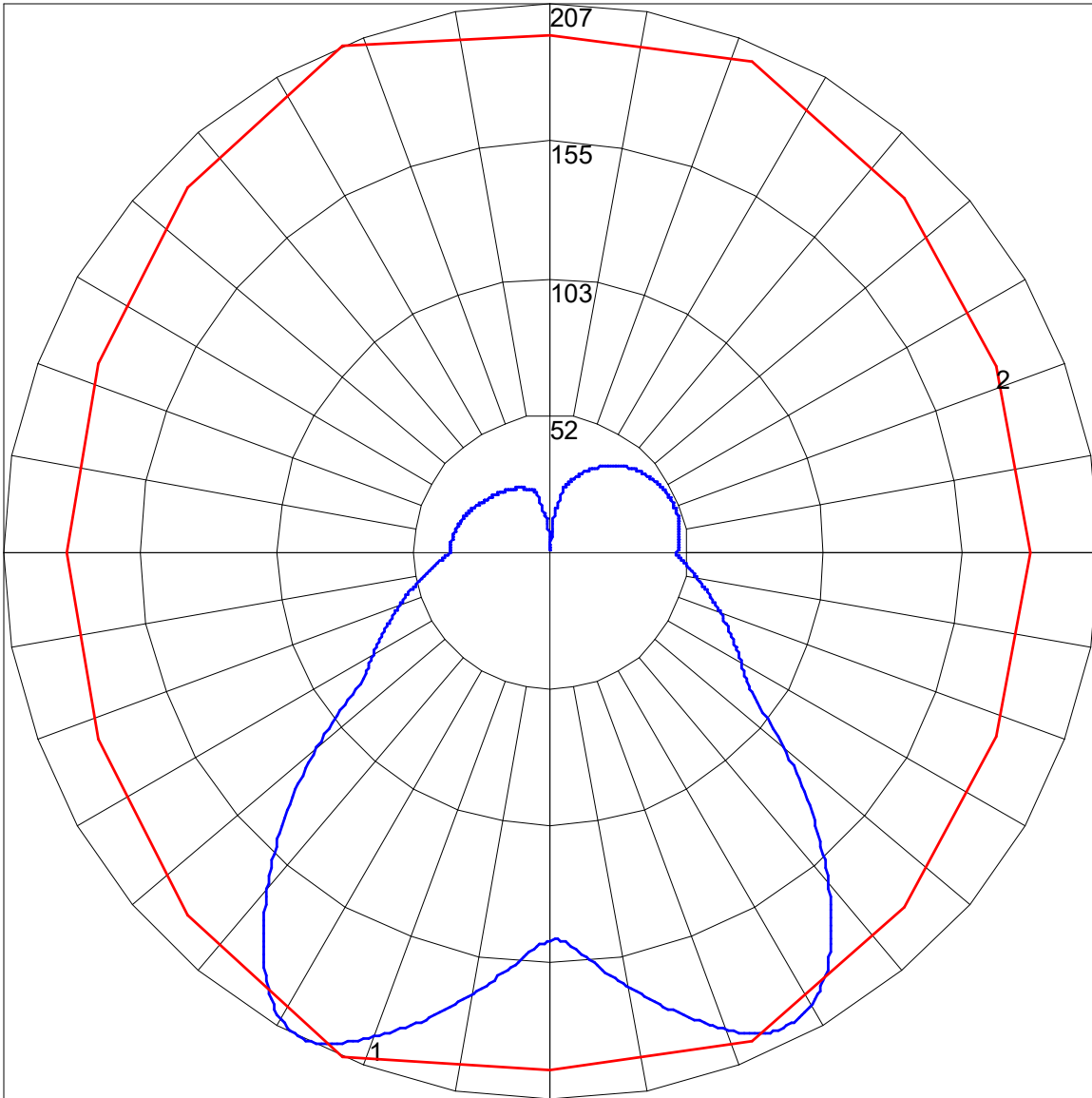
IES INDOOR REPORT
PHOTOMETRIC FILENAME : PNA 2 LIGHT.IES

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	12.3	13.5	13.1	14.3	15.2	10.6	11.7	11.3	12.5	13.4
	3H	14.6	15.7	15.4	16.5	17.5	12.4	13.5	13.2	14.2	15.2
	4H	15.8	16.8	16.5	17.6	18.5	13.2	14.2	14.0	15.0	16.0
	6H	16.9	17.8	17.6	18.6	19.6	14.0	14.9	14.7	15.7	16.7
	8H	17.4	18.3	18.2	19.1	20.1	14.3	15.2	15.1	16.0	17.0
	12H	17.9	18.7	18.7	19.5	20.6	14.6	15.4	15.4	16.3	17.3
4H	2H	13.0	14.0	13.7	14.8	15.7	11.5	12.5	12.3	13.3	14.3
	3H	15.5	16.4	16.3	17.2	18.2	13.6	14.4	14.3	15.2	16.2
	4H	16.8	17.6	17.6	18.4	19.4	14.5	15.3	15.3	16.1	17.1
	6H	18.1	18.8	18.9	19.6	20.6	15.4	16.1	16.2	16.9	17.9
	8H	18.7	19.3	19.5	20.2	21.2	15.8	16.4	16.6	17.3	18.3
	12H	19.3	19.9	20.1	20.8	21.8	16.2	16.8	17.0	17.6	18.7
8H	4H	17.2	17.9	18.0	18.7	19.7	15.2	15.8	16.0	16.7	17.7
	6H	18.7	19.3	19.5	20.1	21.2	16.3	16.8	17.1	17.7	18.7
	8H	19.5	20.0	20.3	20.8	21.9	16.8	17.3	17.6	18.2	19.2
	12H	20.2	20.7	21.1	21.6	22.7	17.3	17.8	18.2	18.6	19.7
12H	4H	17.3	17.9	18.1	18.7	19.8	15.3	16.0	16.2	16.8	17.9
	6H	18.8	19.3	19.7	20.2	21.3	16.5	17.0	17.4	17.9	19.0
	8H	19.7	20.1	20.5	21.0	22.1	17.1	17.6	18.0	18.5	19.6

Maximum UGR = 22.7

POLAR GRAPH



Maximum Candela = 206.986 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.)