



The Perfect Lighting Choice.™

visit us at www.JDG.com

IES INDOOR REPORT

PHOTOMETRIC FILENAME : PNA 3 LIGHT.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] 18097-B

[TESTLAB] LightLab International (www.LightLabInternational.com)

[MANUFAC] Justice Design Group, Los Angeles, CA 90071

[LUMCAT] Porcelina (PNA) 3-Light Bath Bar

[LUMINAIRE] Justice Design Group - Wall mount bathroom luminaire. Product ID: PNA 3-Light

[MORE] Steel formed housing and three frosted resin lenses with white interior.

[MORE] 30 LEDs mounted in three 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	1405
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	62
Total Luminaire Watts	22.49
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)	0.50 m
Luminous Height	0.14 m

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	2506	2793	5944
55	2113	2203	4220
65	1890	1909	3512
75	1754	1727	3535
85	1689	1636	3955

IES INDOOR REPORT
PHOTOMETRIC FILENAME : PNA 3 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	220.110	220.110	220.110	220.110	220.110	220.110	220.110	220.110	220.110
0.5	217.979	218.613	219.450	219.552	220.262	221.150	221.835	221.886	221.911
1.0	218.537	219.273	219.628	219.780	220.541	221.962	223.053	223.484	223.814
1.5	220.288	220.719	220.719	220.338	221.277	223.129	224.727	225.742	226.148
2.0	222.241	222.419	222.292	221.201	222.140	224.398	226.681	228.254	228.761
2.5	224.626	224.778	224.119	222.495	223.231	225.920	228.888	231.019	231.603
3.0	227.467	226.985	226.148	224.017	224.347	227.493	231.374	233.759	234.546
3.5	230.334	229.649	228.406	225.565	225.641	229.116	233.683	236.626	237.869
4.0	233.303	232.592	230.512	227.290	226.935	231.019	236.245	239.544	240.761
4.5	236.296	235.256	232.947	228.914	228.330	232.922	238.732	242.588	244.009
5.0	239.112	238.300	235.307	230.664	229.649	234.799	241.066	245.379	247.078
5.5	241.954	240.964	237.666	232.618	231.095	236.677	243.628	248.474	250.123
6.0	245.226	243.907	240.076	234.495	232.541	238.706	246.317	251.544	253.675
6.5	248.169	246.749	242.664	236.322	233.886	240.634	248.829	254.512	256.491
7.0	251.112	249.489	245.100	238.275	235.434	242.588	251.518	257.607	259.738
7.5	254.030	252.558	247.586	240.203	236.956	244.618	254.207	260.626	262.884
8.0	256.795	255.374	250.148	242.055	238.478	246.622	256.744	263.569	265.903
8.5	259.637	258.292	252.609	244.009	239.873	248.651	259.408	266.512	268.922
9.0	262.833	261.007	255.121	245.962	241.497	250.656	262.148	269.353	271.941
9.5	265.827	263.823	257.683	247.865	243.146	252.711	264.508	272.119	274.960
10.0	268.694	266.766	260.119	249.844	244.567	254.613	267.045	275.188	277.928
10.5	271.535	269.861	262.681	251.899	246.089	256.668	269.683	278.004	280.922
11.0	274.782	272.525	265.142	253.852	247.611	258.698	272.119	280.821	283.890
11.5	277.827	275.366	267.552	255.983	249.159	260.727	274.681	283.535	286.656
12.0	280.643	278.284	270.114	257.937	250.706	262.757	277.167	286.453	289.522
12.5	282.952	280.897	272.778	259.840	252.203	264.863	279.603	288.990	292.339
13.0	284.575	283.459	275.138	261.818	253.649	266.816	282.064	291.780	294.850
13.5	285.590	285.489	277.751	263.747	255.222	268.871	284.448	294.343	296.956
14.0	285.920	286.782	280.085	265.522	256.744	270.774	286.782	296.677	298.351
14.5	286.706	287.848	282.546	267.527	258.089	272.727	289.091	298.580	299.112
15.0	287.290	288.533	284.854	269.455	259.763	274.656	291.527	299.950	299.442
15.5	287.873	289.066	287.062	271.408	261.286	276.482	293.734	300.482	299.341
16.0	288.076	289.751	288.939	273.336	262.579	278.436	295.941	300.812	299.188
16.5	288.330	289.827	290.639	275.138	263.975	280.313	298.199	300.761	298.833
17.0	288.355	290.004	292.110	276.964	265.624	282.064	300.203	300.508	298.300
17.5	288.685	290.385	293.277	278.867	266.943	283.814	301.928	300.229	298.097
18.0	288.508	290.334	294.013	280.618	268.338	285.692	303.476	299.747	297.413
18.5	288.685	290.309	294.647	282.393	269.810	287.391	304.440	299.290	296.728
19.0	288.634	290.436	294.926	284.169	271.231	289.193	304.973	298.782	296.068
19.5	288.254	290.055	295.129	285.971	272.651	290.842	305.176	298.224	295.307
20.0	287.772	289.954	295.205	287.569	273.996	292.643	305.074	297.463	294.698
20.5	287.366	289.725	295.180	289.345	275.493	294.267	304.795	296.804	293.810
21.0	286.427	289.091	295.078	290.943	276.863	295.966	304.389	296.043	292.973
21.5	285.920	288.457	294.876	292.618	278.284	297.641	303.856	295.104	292.136
22.0	285.412	287.975	294.546	294.140	279.704	299.163	303.298	294.241	291.045
22.5	284.575	287.138	294.216	295.586	281.150	300.787	302.740	293.176	289.751
23.0	283.763	286.148	293.861	296.854	282.495	302.207	301.954	292.059	288.685
23.5	282.596	284.981	293.150	297.742	283.687	303.704	301.066	290.994	287.239
24.0	281.480	283.763	292.516	298.503	285.108	305.100	300.203	289.548	285.768
24.5	280.516	282.774	291.780	299.163	286.351	306.470	299.239	287.949	284.448
25.0	279.349	281.429	290.766	299.696	287.620	307.662	298.148	286.605	282.952
25.5	278.055	280.161	289.802	300.102	288.888	308.575	297.108	284.981	281.252
26.0	276.634	278.715	288.609	300.203	289.979	309.387	295.738	283.231	279.628
26.5	275.290	277.218	287.366	300.508	291.146	309.895	294.495	281.556	277.700

IES INDOOR REPORT
PHOTOMETRIC FILENAME : PNA 3 LIGHT.IES

CANDELA TABULATION - (Cont.)

27.0	273.438	275.569	285.971	300.406	292.212	310.123	293.100	279.603	275.873
27.5	272.169	274.174	284.525	300.203	293.252	310.174	291.451	277.801	273.996
28.0	270.292	272.474	282.825	299.721	294.216	309.971	289.802	275.797	271.966
28.5	268.491	270.495	281.100	299.188	295.307	309.362	288.000	273.742	269.785
29.0	266.766	268.618	279.400	298.224	296.372	308.575	286.047	271.535	267.603
29.5	264.863	266.842	277.472	297.235	297.336	307.510	284.068	269.328	265.370
30.0	262.960	264.888	275.417	296.017	298.123	306.165	281.937	267.070	262.909
30.5	260.575	262.859	273.311	294.520	299.138	304.719	279.552	264.634	260.347
31.0	258.698	260.981	271.104	293.201	299.924	303.095	277.243	262.148	257.937
31.5	256.668	258.825	268.973	291.628	300.812	301.319	274.808	259.713	255.222
32.0	254.258	256.567	266.842	289.802	301.675	299.265	272.322	257.150	252.685
32.5	252.076	254.436	264.330	288.026	302.182	297.007	269.708	254.410	249.692
33.0	249.717	252.051	261.996	285.920	302.816	294.546	267.171	251.620	246.926
33.5	247.002	249.869	259.637	283.687	303.298	292.136	264.533	248.753	243.628
34.0	244.795	247.357	257.023	281.582	303.146	289.243	261.692	245.988	240.837
34.5	242.436	244.922	254.588	278.969	302.766	286.478	258.926	243.045	237.768
35.0	239.645	242.360	251.949	276.355	301.497	283.586	255.907	240.051	234.495
35.5	237.159	240.000	249.412	273.666	299.772	280.592	253.066	237.032	231.273
36.0	234.520	237.235	246.673	270.850	297.539	277.421	250.097	233.759	228.203
36.5	231.730	234.647	244.110	267.806	294.901	274.402	247.078	230.766	224.829
37.0	229.269	232.059	241.370	264.685	291.577	271.002	243.983	227.620	221.607
37.5	226.630	229.345	238.478	261.514	287.417	267.679	240.837	224.271	218.182
38.0	223.840	226.554	235.840	258.343	282.825	264.330	237.742	220.973	214.808
38.5	221.150	223.789	232.947	254.943	278.055	260.804	234.368	217.497	211.535
39.0	218.436	221.150	230.182	251.569	273.133	257.429	231.171	214.199	208.212
39.5	215.848	218.309	227.315	248.068	268.212	253.878	227.848	210.723	204.711
40.0	213.615	215.594	224.372	244.592	263.264	250.377	224.575	207.324	201.438
40.5	211.028	212.829	221.429	241.167	258.571	246.774	221.100	203.899	198.038
41.0	208.415	210.165	218.563	237.565	253.878	243.248	217.725	200.474	194.765
41.5	206.461	207.552	215.493	234.216	249.336	239.645	214.224	196.998	191.620
42.0	204.330	204.939	212.499	230.689	245.125	236.042	210.774	193.598	188.448
42.5	202.554	202.351	209.429	227.138	240.787	232.364	207.171	190.250	185.404
43.0	201.032	199.941	206.436	223.637	236.702	228.761	203.569	186.977	182.233
43.5	199.713	197.861	203.341	219.958	232.871	224.981	200.042	183.831	179.594
44.0	198.622	195.755	200.347	216.355	229.040	221.176	196.288	180.508	177.032
44.5	196.998	194.131	197.328	212.956	225.336	217.446	192.660	177.590	174.622
45.0	195.653	192.558	194.233	209.125	221.632	213.489	188.981	174.774	172.668
45.5	194.385	191.061	191.391	205.598	218.182	209.734	185.505	172.212	170.740
46.0	192.990	189.818	188.423	201.996	214.529	205.725	181.903	169.827	168.913
46.5	191.518	188.398	185.531	198.393	211.104	201.717	178.326	167.746	166.985
47.0	190.021	186.901	182.842	194.588	207.425	197.734	174.622	165.818	165.032
47.5	188.702	185.582	180.051	190.935	203.696	193.624	171.247	163.890	163.078
48.0	187.357	184.237	177.666	187.281	199.966	189.539	167.873	162.064	161.049
48.5	185.886	182.689	175.332	183.425	196.110	185.328	164.499	160.135	159.349
49.0	184.694	181.319	173.328	179.823	192.178	181.319	161.404	158.283	157.522
49.5	183.324	179.899	171.273	176.017	188.144	177.133	158.410	156.381	155.620
50.0	181.979	178.554	169.472	172.338	184.034	173.150	155.772	154.630	153.920
50.5	180.634	177.108	167.620	168.812	179.721	169.015	153.286	152.727	152.144
51.0	179.417	175.814	166.047	165.362	175.408	164.854	151.028	151.002	150.267
51.5	178.300	174.343	164.626	161.505	171.070	160.820	149.023	149.150	148.668
52.0	176.829	173.150	163.357	158.131	166.478	156.812	147.121	147.552	147.019
52.5	175.814	171.831	161.937	154.732	161.784	152.854	145.497	145.801	145.345
53.0	174.546	170.461	160.592	151.231	157.345	148.947	143.670	144.000	143.696
53.5	173.480	169.218	159.197	148.212	152.753	145.243	141.971	142.681	142.021
54.0	172.389	168.102	157.903	145.091	148.262	141.565	140.347	140.854	140.524
54.5	170.943	166.782	156.533	142.250	144.000	138.190	138.698	139.307	139.154

IES INDOOR REPORT
PHOTOMETRIC FILENAME : PNA 3 LIGHT.IES

CANDELA TABULATION - (Cont.)

55.0	169.801	165.768	155.214	139.687	139.662	134.765	137.074	137.683	137.531
55.5	169.040	164.626	153.869	137.556	135.577	131.569	135.450	136.212	136.186
56.0	168.000	163.459	152.626	135.374	131.467	128.880	133.827	134.715	134.664
56.5	166.960	162.292	151.231	133.624	127.636	126.317	132.254	133.269	133.192
57.0	166.072	161.353	149.987	131.746	124.059	124.364	130.782	131.772	131.823
57.5	165.006	160.085	148.744	129.971	120.507	122.816	129.260	130.326	130.453
58.0	164.169	159.070	147.425	128.677	117.209	121.548	127.636	128.956	129.057
58.5	163.002	158.131	146.309	127.687	114.317	120.203	126.190	127.535	127.586
59.0	162.216	157.066	145.142	126.495	111.856	118.960	124.770	126.089	126.292
59.5	161.226	156.051	143.924	125.455	109.827	117.742	123.247	124.846	125.125
60.0	160.161	155.112	142.808	124.364	108.305	116.474	121.928	123.476	123.653
60.5	159.222	154.148	141.717	123.247	107.036	115.129	120.507	122.055	122.512
61.0	158.385	153.159	140.575	122.080	105.996	113.810	119.061	120.812	121.040
61.5	157.700	152.296	139.281	121.040	105.057	112.567	117.793	119.493	119.949
62.0	156.685	151.281	138.317	119.746	104.169	111.349	116.398	118.224	118.554
62.5	155.746	150.317	137.226	118.706	103.129	110.030	115.154	116.981	117.235
63.0	154.935	149.379	136.085	117.565	102.140	108.761	113.886	115.560	116.144
63.5	153.869	148.440	135.070	116.448	101.125	107.493	112.592	114.469	114.799
64.0	153.032	147.628	134.131	115.383	100.085	106.351	111.247	113.252	113.658
64.5	152.423	146.715	133.015	114.190	99.019	105.057	110.080	112.085	112.414
65.0	151.560	145.801	132.178	113.125	98.004	103.890	108.837	110.816	111.247
65.5	150.596	144.913	131.036	112.110	96.939	102.546	107.467	109.776	110.055
66.0	149.759	144.127	130.123	110.994	95.899	101.404	106.326	108.558	108.913
66.5	149.023	143.163	129.108	109.827	94.884	100.237	105.057	107.366	107.848
67.0	148.237	142.427	128.118	108.964	93.666	98.968	103.763	106.173	106.655
67.5	147.298	141.539	127.104	107.899	92.727	97.725	102.723	105.057	105.488
68.0	146.486	140.626	126.216	106.681	91.738	96.736	101.581	103.890	104.448
68.5	145.776	139.789	125.302	105.742	90.622	95.417	100.389	102.875	103.459
69.0	145.040	139.053	124.313	104.702	89.531	94.402	99.349	101.734	102.140
69.5	144.228	138.190	123.425	103.586	88.516	93.311	98.182	100.643	101.125
70.0	143.518	137.455	122.436	102.672	87.425	92.068	97.142	99.577	100.161
70.5	142.579	136.592	121.446	101.683	86.359	90.977	96.025	98.562	98.842
71.0	141.768	135.780	120.736	100.541	85.319	89.886	94.909	97.395	97.954
71.5	141.133	135.146	119.848	99.653	84.305	88.795	93.818	96.406	96.913
72.0	140.398	134.309	118.909	98.613	83.315	87.628	92.803	95.315	95.899
72.5	139.713	133.522	118.123	97.548	82.275	86.613	91.738	94.351	94.833
73.0	138.875	132.761	117.260	96.710	81.260	85.522	90.748	93.260	93.844
73.5	138.089	132.051	116.372	95.670	80.245	84.431	89.658	92.321	92.803
74.0	137.556	131.214	115.560	94.655	79.281	83.391	88.694	91.307	91.865
74.5	136.973	130.427	114.647	93.818	78.190	82.326	87.679	90.317	90.825
75.0	136.135	129.793	113.861	92.930	77.302	81.387	86.740	89.404	89.784
75.5	135.298	129.006	113.150	91.916	76.338	80.423	85.725	88.313	88.846
76.0	134.613	128.296	112.364	91.053	75.298	79.332	84.710	87.374	87.831
76.5	133.801	127.586	111.476	90.190	74.309	78.444	83.746	86.410	86.943
77.0	132.990	126.825	110.842	89.277	73.446	77.480	82.732	85.522	86.030
77.5	132.584	126.216	110.004	88.338	72.431	76.414	81.818	84.507	85.192
78.0	131.823	125.455	109.116	87.526	71.594	75.552	80.905	83.569	84.178
78.5	130.960	124.694	108.482	86.512	70.605	74.613	79.992	82.655	83.290
79.0	130.503	123.983	107.721	85.776	69.691	73.598	79.028	81.768	82.199
79.5	129.615	123.298	106.858	85.015	68.778	72.660	78.114	80.803	81.362
80.0	129.209	122.588	106.224	84.025	67.915	71.746	77.201	79.915	80.474
80.5	128.474	121.979	105.412	83.264	67.104	70.858	76.237	79.104	79.687
81.0	127.738	121.319	104.677	82.452	66.216	69.945	75.476	78.165	78.647
81.5	127.256	120.533	104.017	81.641	65.480	69.184	74.613	77.328	77.810
82.0	126.419	119.873	103.231	80.930	64.643	68.271	73.649	76.567	77.023
82.5	125.861	119.340	102.444	80.195	63.780	67.332	72.837	75.704	76.186

IES INDOOR REPORT
PHOTOMETRIC FILENAME : PNA 3 LIGHT.IES

CANDELA TABULATION - (Cont.)

83.0	125.023	118.554	101.835	79.357	62.943	66.571	72.025	74.841	75.298
83.5	124.414	117.996	101.150	78.596	62.182	65.784	71.163	73.954	74.410
84.0	123.882	117.387	100.389	77.962	61.395	64.922	70.402	73.218	73.573
84.5	123.222	116.651	99.831	77.150	60.660	64.110	69.539	72.304	72.710
85.0	122.689	115.992	99.171	76.491	59.975	63.298	68.803	71.569	72.102
85.5	122.106	115.383	98.436	75.806	59.163	62.436	68.093	70.757	71.214
86.0	121.497	114.749	97.801	75.070	58.503	61.751	67.180	69.793	70.579
86.5	120.863	114.241	97.294	74.436	57.767	60.964	66.419	69.083	69.539
87.0	120.178	113.607	96.558	73.954	57.108	60.228	65.734	68.423	68.829
87.5	119.620	112.947	96.025	73.192	56.600	59.543	64.973	67.586	68.169
88.0	119.087	112.567	95.493	72.710	55.839	58.858	64.313	66.901	67.332
88.5	118.503	111.983	94.909	72.178	55.383	58.173	63.603	66.216	66.596
89.0	118.402	111.653	94.478	71.594	54.850	57.691	62.918	65.429	65.759
89.5	118.453	111.628	94.478	71.543	54.469	57.184	62.283	64.795	65.125
90.0	118.224	111.780	94.655	71.645	54.672	57.057	62.030	64.414	64.693
90.5	118.605	111.932	94.681	71.721	54.672	57.108	61.877	64.211	64.567
91.0	118.935	112.034	94.833	71.873	54.622	57.108	61.751	64.110	64.440
91.5	119.036	112.338	94.960	72.025	54.799	57.133	61.725	64.059	64.211
92.0	119.239	112.313	95.214	71.975	54.825	57.133	61.598	63.856	64.135
92.5	119.391	112.516	95.315	72.178	54.977	57.057	61.497	63.653	63.958
93.0	119.594	112.694	95.315	72.355	54.926	56.905	61.497	63.577	63.856
93.5	119.899	112.820	95.670	72.431	55.180	56.930	61.497	63.476	63.679
94.0	120.025	113.074	95.772	72.634	55.129	56.880	61.269	63.374	63.476
94.5	120.203	113.150	95.924	72.685	55.256	56.753	61.345	63.197	63.171
95.0	120.584	113.328	96.025	72.812	55.256	56.753	61.167	62.841	62.994
95.5	120.533	113.607	96.152	72.964	55.332	56.727	61.040	62.740	62.918
96.0	120.837	113.734	96.330	73.066	55.383	56.677	60.913	62.613	62.588
96.5	120.990	113.861	96.634	73.142	55.535	56.600	60.761	62.334	62.436
97.0	121.167	114.038	96.584	73.319	55.510	56.550	60.685	62.156	62.106
97.5	121.294	114.190	96.736	73.522	55.535	56.423	60.609	62.106	61.979
98.0	121.573	114.216	96.913	73.497	55.738	56.474	60.381	61.852	61.776
98.5	121.598	114.444	97.040	73.725	55.763	56.321	60.304	61.674	61.522
99.0	121.751	114.596	97.040	73.928	55.839	56.169	60.254	61.472	61.319
99.5	121.928	114.647	97.218	73.852	55.890	56.169	59.975	61.269	60.964
100.0	121.979	114.774	97.294	74.004	56.017	56.068	59.924	61.091	60.812
100.5	122.182	114.799	97.319	74.131	56.042	55.992	59.848	60.837	60.558
101.0	122.157	114.875	97.421	74.283	56.169	55.890	59.696	60.558	60.304
101.5	122.436	114.926	97.522	74.334	56.220	55.713	59.518	60.406	59.949
102.0	122.334	115.002	97.497	74.461	56.423	55.662	59.340	60.127	59.848
102.5	122.410	115.002	97.522	74.486	56.423	55.586	59.112	59.873	59.594
103.0	122.436	115.078	97.573	74.588	56.575	55.383	58.909	59.670	59.366
103.5	122.436	115.104	97.522	74.740	56.524	55.307	58.757	59.518	58.909
104.0	122.639	115.129	97.421	74.588	56.575	55.180	58.529	59.264	58.808
104.5	122.689	115.231	97.446	74.740	56.626	55.028	58.224	58.960	58.402
105.0	122.461	115.256	97.395	74.816	56.778	54.875	57.945	58.782	58.123
105.5	122.588	115.104	97.370	74.664	56.829	54.748	57.666	58.452	57.793
106.0	122.689	115.129	97.446	74.715	56.753	54.647	57.387	58.097	57.590
106.5	122.639	115.180	97.395	74.715	56.829	54.520	57.133	57.844	57.260
107.0	122.715	115.180	97.319	74.689	56.753	54.419	56.829	57.463	57.006
107.5	122.639	115.104	97.294	74.664	56.753	54.266	56.575	57.159	56.575
108.0	122.639	115.078	97.243	74.791	56.829	53.962	56.296	56.651	56.144
108.5	122.689	115.053	97.294	74.664	56.727	53.911	56.042	56.347	55.687
109.0	122.461	115.028	97.167	74.664	56.778	53.632	55.763	55.915	55.408
109.5	122.537	114.850	97.040	74.562	56.651	53.556	55.484	55.586	54.774
110.0	122.410	114.875	96.964	74.562	56.727	53.429	55.205	55.078	54.571
110.5	122.436	114.672	96.964	74.537	56.626	53.277	54.850	54.825	53.937

IES INDOOR REPORT
PHOTOMETRIC FILENAME : PNA 3 LIGHT.IES

CANDELA TABULATION - (Cont.)

111.0	122.283	114.698	96.863	74.613	56.651	53.125	54.622	54.393	53.480
111.5	122.207	114.622	96.863	74.512	56.524	52.998	54.216	54.038	53.252
112.0	121.903	114.571	96.761	74.486	56.499	52.744	53.962	53.581	52.693
112.5	121.979	114.469	96.558	74.410	56.550	52.668	53.734	53.226	52.186
113.0	121.928	114.317	96.558	74.334	56.524	52.440	53.455	52.846	51.729
113.5	121.776	114.190	96.431	74.233	56.448	52.338	53.049	52.313	51.374
114.0	121.573	114.114	96.254	74.233	56.423	52.211	52.795	52.034	50.968
114.5	121.624	113.962	96.178	74.106	56.398	51.958	52.541	51.450	50.461
115.0	121.319	113.784	95.949	74.004	56.271	51.806	52.008	50.892	49.877
115.5	121.218	113.810	95.848	73.928	56.296	51.603	51.882	50.385	49.421
116.0	120.964	113.455	95.645	73.751	56.093	51.577	51.450	49.700	48.888
116.5	120.990	113.353	95.518	73.725	56.169	51.273	51.019	49.167	48.355
117.0	120.660	113.176	95.315	73.598	56.042	51.171	50.841	48.685	47.442
117.5	120.381	112.922	95.239	73.472	55.915	50.994	50.562	48.000	46.960
118.0	120.228	112.744	94.935	73.269	55.814	50.765	50.156	47.493	46.148
118.5	120.000	112.643	94.782	73.167	55.662	50.588	49.801	46.934	45.565
119.0	119.696	112.313	94.605	73.116	55.586	50.436	49.598	46.351	44.854
119.5	119.442	112.161	94.427	72.989	55.586	50.283	49.142	45.691	44.093
120.0	119.214	112.009	94.275	72.787	55.408	50.106	48.939	45.006	43.408
120.5	119.036	111.603	94.072	72.533	55.281	49.852	48.558	44.397	42.748
121.0	118.782	111.425	93.768	72.533	55.078	49.674	48.152	43.839	42.063
121.5	118.326	111.247	93.514	72.406	55.078	49.421	47.975	43.281	41.353
122.0	118.123	110.867	93.336	72.102	55.002	49.218	47.619	42.647	40.617
122.5	117.768	110.613	93.159	71.924	54.799	49.142	47.290	42.114	40.008
123.0	117.488	110.385	92.829	71.848	54.672	48.837	47.011	41.531	39.323
123.5	117.108	109.903	92.550	71.518	54.571	48.685	46.732	41.023	38.486
124.0	117.057	109.548	92.372	71.417	54.520	48.533	46.275	40.414	37.928
124.5	116.423	109.294	92.093	71.239	54.317	48.279	46.047	39.907	37.319
125.0	115.992	108.888	91.839	71.036	54.140	48.228	45.818	39.349	36.685
125.5	115.560	108.558	91.459	70.757	54.013	48.000	45.539	38.867	36.203
126.0	115.053	108.102	91.180	70.605	53.962	47.899	45.362	38.436	35.670
126.5	114.850	107.670	90.850	70.351	53.835	47.772	45.032	37.928	35.137
127.0	114.089	107.340	90.571	70.224	53.759	47.645	44.651	37.522	34.605
127.5	113.581	106.833	90.190	69.996	53.658	47.442	44.448	37.167	34.199
128.0	113.226	106.376	89.861	69.717	53.480	47.391	44.220	36.609	33.742
128.5	112.668	105.869	89.505	69.565	53.480	47.340	43.890	36.152	33.311
129.0	112.110	105.590	89.201	69.285	53.252	47.112	43.636	35.645	32.880
129.5	111.729	105.032	88.770	69.108	53.150	46.960	43.459	35.214	32.600
130.0	110.994	104.677	88.414	68.753	53.049	46.681	43.002	34.808	32.195
130.5	110.562	104.169	88.009	68.575	53.049	46.605	42.825	34.427	31.662
131.0	110.055	103.662	87.628	68.423	52.795	46.452	42.571	34.072	31.433
131.5	109.624	103.231	87.298	68.093	52.693	46.351	42.266	33.590	31.205
132.0	108.888	102.723	86.816	68.017	52.617	46.250	42.013	33.235	30.774
132.5	108.228	102.064	86.461	67.636	52.465	46.097	41.835	32.854	30.393
133.0	107.772	101.581	86.055	67.332	52.237	45.945	41.531	32.524	30.317
133.5	107.087	101.074	85.624	67.129	52.211	45.818	41.302	32.271	29.937
134.0	106.529	100.465	85.218	66.825	51.983	45.767	41.023	31.915	29.810
134.5	105.996	99.907	84.787	66.495	51.958	45.615	40.846	31.535	29.480
135.0	105.362	99.374	84.254	66.190	51.755	45.412	40.592	31.307	29.226
135.5	104.753	98.689	83.924	65.937	51.603	45.438	40.338	31.028	28.973
136.0	104.068	98.334	83.417	65.632	51.425	45.159	40.034	30.571	28.643
136.5	103.433	97.751	82.985	65.429	51.298	45.032	39.755	30.368	28.313
137.0	102.723	97.066	82.529	65.049	51.171	44.880	39.653	30.063	27.958
137.5	102.013	96.482	82.072	64.770	50.918	44.753	39.273	29.708	27.831
138.0	101.252	95.873	81.590	64.516	50.867	44.524	39.146	29.556	27.755
138.5	100.668	95.214	81.184	64.186	50.715	44.524	39.044	29.302	27.425

IES INDOOR REPORT
PHOTOMETRIC FILENAME : PNA 3 LIGHT.IES

CANDELA TABULATION - (Cont.)

139.0	99.907	94.681	80.651	63.806	50.436	44.448	38.689	28.947	27.222
139.5	99.247	93.996	80.144	63.501	50.309	44.271	38.512	28.744	26.968
140.0	98.740	93.387	79.459	63.247	50.233	44.220	38.334	28.465	26.715
140.5	98.030	92.651	79.104	62.765	49.928	43.992	38.004	28.262	26.486
141.0	97.319	92.169	78.546	62.588	49.827	43.814	37.903	27.907	26.182
141.5	96.710	91.357	78.089	62.182	49.624	43.789	37.649	27.653	25.928
142.0	95.975	90.748	77.505	61.776	49.370	43.636	37.446	27.349	25.624
142.5	95.087	90.114	77.023	61.472	49.218	43.459	37.319	27.222	25.319
143.0	94.376	89.379	76.465	61.066	49.040	43.408	37.142	26.816	25.243
143.5	93.615	88.643	75.856	60.660	48.837	43.180	36.837	26.588	25.015
144.0	92.905	87.958	75.324	60.355	48.558	43.002	36.786	26.385	24.863
144.5	92.144	87.247	74.791	60.025	48.381	43.053	36.736	26.233	24.685
145.0	91.332	86.639	74.309	59.518	48.152	42.850	36.457	25.903	24.558
145.5	90.596	85.928	73.751	59.239	48.000	42.672	36.279	25.776	24.533
146.0	89.759	85.167	73.142	58.858	47.746	42.469	36.203	25.598	24.685
146.5	89.023	84.381	72.507	58.452	47.467	42.393	35.975	25.218	24.660
147.0	88.288	83.696	72.025	58.047	47.214	42.241	36.000	25.040	24.584
147.5	87.526	82.833	71.442	57.641	47.137	42.114	35.772	24.888	24.660
148.0	86.613	82.123	70.808	57.260	46.808	41.937	35.619	24.685	24.710
148.5	85.751	81.438	70.275	56.829	46.681	41.784	35.493	24.457	24.761
149.0	84.837	80.753	69.641	56.474	46.376	41.683	35.442	24.228	24.888
149.5	84.203	79.966	69.032	55.966	46.097	41.607	35.290	24.127	25.015
150.0	83.340	79.104	68.423	55.611	45.793	41.353	35.163	23.949	24.989
150.5	82.503	78.444	67.789	55.205	45.641	41.302	35.087	23.848	25.142
151.0	81.691	77.531	67.230	54.698	45.362	41.099	34.934	23.822	25.319
151.5	80.956	76.795	66.647	54.343	45.108	40.998	34.808	23.619	25.218
152.0	79.890	76.110	65.962	53.987	44.880	40.795	34.706	23.391	25.167
152.5	79.028	75.222	65.404	53.455	44.575	40.693	34.503	23.366	25.269
153.0	78.368	74.385	64.643	52.922	44.372	40.567	34.529	23.264	25.243
153.5	77.353	73.649	64.110	52.516	44.068	40.364	34.478	23.239	25.345
154.0	76.491	72.837	63.425	52.110	43.814	40.186	34.275	23.188	25.269
154.5	75.552	71.975	62.715	51.603	43.586	40.008	34.275	23.188	25.218
155.0	74.613	71.087	62.106	51.121	43.357	39.806	34.123	23.163	25.218
155.5	73.776	70.224	61.472	50.613	43.053	39.653	33.920	23.214	25.370
156.0	72.964	69.463	60.787	50.258	42.748	39.552	33.920	23.239	25.370
156.5	71.848	68.626	60.051	49.700	42.571	39.323	33.920	23.137	25.522
157.0	71.163	67.839	59.467	49.167	42.165	39.171	33.767	22.934	25.471
157.5	70.173	66.977	58.732	48.685	41.835	38.918	33.717	22.833	25.345
158.0	69.285	66.038	58.148	48.279	41.607	38.791	33.691	22.655	25.345
158.5	68.499	65.302	57.539	47.721	41.226	38.588	33.565	22.326	25.319
159.0	67.510	64.491	56.753	47.214	40.922	38.309	33.514	22.199	25.345
159.5	66.596	63.577	56.093	46.782	40.617	38.233	33.463	21.894	25.370
160.0	65.658	62.664	55.383	46.148	40.288	37.954	33.285	21.869	25.345
160.5	64.820	61.827	54.723	45.666	40.008	37.852	33.133	21.742	25.319
161.0	63.831	60.913	53.962	45.209	39.729	37.598	32.981	21.691	25.522
161.5	62.765	60.051	53.328	44.550	39.349	37.395	32.753	21.387	25.624
162.0	61.776	59.188	52.465	43.992	39.044	37.142	32.524	21.184	25.751
162.5	60.837	58.300	51.806	43.560	38.867	36.964	32.169	20.956	25.751
163.0	59.899	57.362	51.095	42.977	38.385	36.710	31.383	20.803	25.801
163.5	58.884	56.524	50.309	42.469	38.182	36.457	30.545	20.423	25.954
164.0	58.047	55.586	49.624	41.987	37.877	36.381	29.505	19.789	25.877
164.5	57.006	54.622	48.888	41.302	37.497	36.076	28.211	19.230	25.395
165.0	56.017	53.658	48.152	40.770	37.142	35.594	27.019	18.951	24.634
165.5	54.951	52.795	47.391	40.161	36.812	35.036	25.751	18.825	23.619
166.0	54.038	51.856	46.605	39.679	36.381	34.148	24.228	18.723	22.452
166.5	52.947	50.867	45.717	39.146	35.899	32.930	22.960	18.469	20.803

IES INDOOR REPORT
PHOTOMETRIC FILENAME : PNA 3 LIGHT.IES

CANDELA TABULATION - (Cont.)

167.0	51.831	49.928	45.006	38.639	35.137	31.636	21.945	18.343	18.850
167.5	50.841	48.989	44.271	38.004	34.047	30.089	20.930	17.810	17.150
168.0	49.700	47.873	43.256	37.522	32.524	28.414	20.296	17.455	15.121
168.5	48.660	46.884	42.495	36.913	31.180	26.841	19.890	17.023	13.243
169.0	47.594	45.970	41.784	36.000	29.353	25.167	19.433	16.186	11.011
169.5	46.478	45.006	40.846	34.884	27.729	23.543	19.256	15.273	8.626
170.0	45.311	43.966	39.907	33.387	25.903	22.300	18.901	13.953	6.419
170.5	44.195	42.647	38.918	31.839	24.355	21.488	18.393	12.330	4.643
171.0	43.053	41.429	37.471	30.216	23.061	20.677	17.987	10.909	2.841
171.5	42.013	40.389	36.228	28.516	22.173	20.220	17.277	9.691	1.877
172.0	40.795	39.222	35.011	26.892	21.387	19.890	16.059	8.245	1.674
172.5	39.755	37.624	33.311	25.700	20.702	19.307	14.638	6.825	1.649
173.0	37.928	36.178	31.687	24.584	20.118	18.647	13.192	5.455	1.573
173.5	35.746	34.529	29.860	23.264	19.383	17.302	11.290	4.617	1.345
174.0	34.579	32.397	27.755	22.199	18.774	15.349	9.336	4.262	1.167
174.5	32.677	30.343	25.852	20.981	17.632	13.395	7.459	3.831	0.989
175.0	30.393	28.135	24.025	19.459	15.983	11.163	5.962	3.501	0.761
175.5	27.425	25.573	21.869	17.911	13.953	8.727	5.099	2.892	0.558
176.0	24.457	22.732	19.738	16.059	11.797	6.622	4.516	2.410	0.736
176.5	21.260	19.535	17.226	13.446	9.285	5.099	3.856	1.700	0.584
177.0	17.531	16.288	14.410	10.782	7.027	4.288	3.247	1.116	0.482
177.5	13.674	12.634	11.746	8.397	5.175	3.780	2.740	0.736	0.482
178.0	9.564	8.854	8.956	5.708	3.805	3.146	2.156	0.609	0.812
178.5	6.089	5.658	5.911	3.628	3.070	2.588	1.624	0.660	0.558
179.0	3.577	3.400	3.171	2.258	2.385	2.055	1.268	0.609	0.634
179.5	1.268	1.928	1.218	1.218	1.649	1.649	0.786	0.634	0.888
180.0	0.913	0.913	0.913	0.913	0.913	0.913	0.913	0.913	0.913

IES INDOOR REPORT
PHOTOMETRIC FILENAME : PNA 3 LIGHT.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	103.42	N.A.	7.40
0-30	237.48	N.A.	16.90
0-40	399.61	N.A.	28.50
0-60	683.78	N.A.	48.70
0-80	904.65	N.A.	64.40
0-90	993.90	N.A.	70.80
10-90	970.47	N.A.	69.10
20-40	296.19	N.A.	21.10
20-50	449.01	N.A.	32.00
40-70	401.28	N.A.	28.60
60-80	220.87	N.A.	15.70
70-80	103.77	N.A.	7.40
80-90	89.25	N.A.	6.40
90-110	163.17	N.A.	11.60
90-120	235.10	N.A.	16.70
90-130	295.23	N.A.	21.00
90-150	376.35	N.A.	26.80
90-180	410.68	N.A.	29.20
110-180	247.51	N.A.	17.60
0-180	1404.58	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	23.43
10-20	79.98
20-30	134.07
30-40	162.13
40-50	152.81
50-60	131.36
60-70	117.10
70-80	103.77
80-90	89.25
90-100	83.16
100-110	80.01
110-120	71.93
120-130	60.13
130-140	47.12
140-150	34.00
150-160	21.77
160-170	10.70
170-180	1.86

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

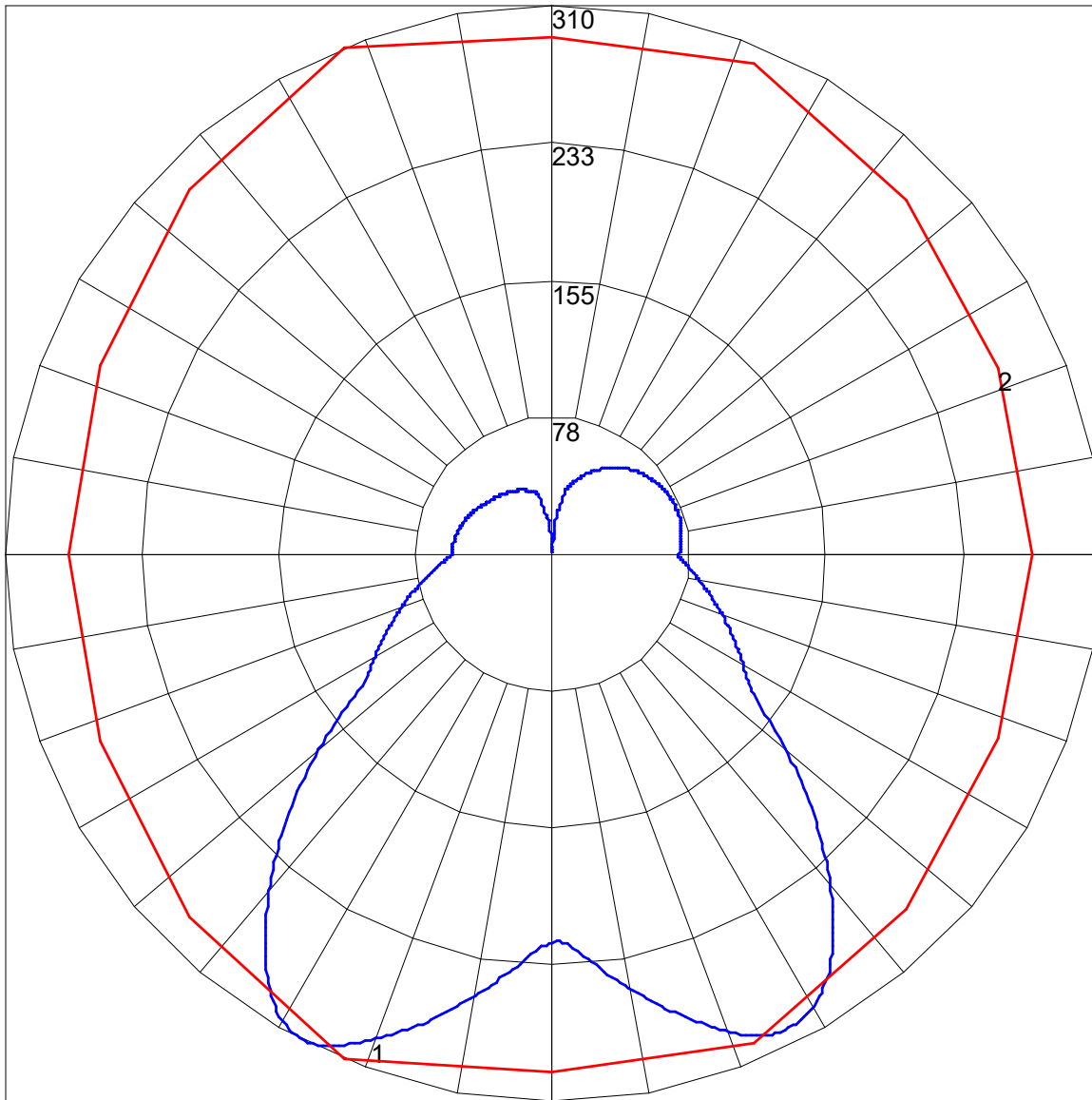
IES INDOOR REPORT
PHOTOMETRIC FILENAME : PNA 3 LIGHT.IES

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	12.4	13.6	13.1	14.3	15.3	10.6	11.8	11.4	12.6	13.5
	3H	14.7	15.8	15.4	16.5	17.5	12.5	13.5	13.2	14.3	15.3
	4H	15.8	16.8	16.6	17.6	18.6	13.3	14.3	14.0	15.0	16.0
	6H	16.9	17.8	17.7	18.6	19.6	14.0	14.9	14.8	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	19.6	20.6	14.6	15.5	15.4	16.3	17.3
4H	2H	13.0	14.0	13.8	14.8	15.8	11.6	12.6	12.4	13.4	14.4
	3H	15.6	16.4	16.4	17.3	18.3	13.6	14.5	14.4	15.3	16.3
	4H	16.9	17.7	17.7	18.5	19.5	14.6	15.4	15.4	16.2	17.2
	6H	18.1	18.8	19.0	19.7	20.7	15.4	16.1	16.3	17.0	18.0
	8H	18.7	19.4	19.6	20.2	21.3	15.8	16.5	16.7	17.3	18.4
	12H	19.3	19.9	20.2	20.8	21.8	16.2	16.8	17.1	17.7	18.7
8H	4H	17.3	17.9	18.1	18.8	19.8	15.3	15.9	16.1	16.8	17.8
	6H	18.8	19.3	19.6	20.2	21.2	16.4	16.9	17.2	17.8	18.8
	8H	19.5	20.0	20.4	20.9	22.0	16.9	17.4	17.7	18.3	19.3
	12H	20.3	20.8	21.2	21.6	22.7	17.4	17.8	18.2	18.7	19.8
12H	4H	17.4	18.0	18.2	18.8	19.9	15.5	16.1	16.3	16.9	18.0
	6H	18.9	19.4	19.8	20.3	21.4	16.7	17.2	17.5	18.0	19.1
	8H	19.8	20.2	20.6	21.1	22.2	17.3	17.7	18.1	18.6	19.7

Maximum UGR = 22.7

POLAR GRAPH



Maximum Candela = 310.174 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.)