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IES INDOOR REPORT PHOTOMETRIC FILENAME : ALR 4 LIGHT.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] 18097-C
[TESTLAB] LightLab International (www.LightLabInternational.com)
[MANUFAC] Justice Design Group, Los Angeles, CA 90071
[LUMCAT] Alabaster Rocks (ALR) 4-Light Bath Bar
[LUMINAIRE] Justice Design Group - Wall mount bathroom luminaire. Product ID: ALR 4-Light
[MORE] Steel formed housing and three shaved alabaster rock in resin cast lenses.
[MORE] 40 LEDs mounted in four 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 18, 2018

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	1805
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	60
Total Luminaire Watts	29.99
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)	0.66 m
Luminous Height	0.14 m

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	2415	2750	6065
55	2037	2175	4383
65	1822	1891	3738
75	1691	1717	3910
85	1628	1633	4713

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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	282.924	282.924	282.924	282.924	282.924	282.924	282.924	282.924	282.924
0.5	280.185	281.000	282.076	282.207	283.120	284.261	285.142	285.207	285.240
1.0	280.903	281.848	282.305	282.500	283.479	285.305	286.707	287.261	287.685
1.5	283.153	283.707	283.707	283.218	284.424	286.805	288.859	290.164	290.686
2.0	285.664	285.892	285.729	284.327	285.533	288.435	291.370	293.392	294.044
2.5	288.729	288.925	288.077	285.990	286.935	290.392	294.207	296.947	297.697
3.0	292.381	291.762	290.686	287.946	288.370	292.414	297.403	300.469	301.479
3.5	296.066	295.186	293.588	289.936	290.033	294.501	300.371	304.153	305.751
4.0	299.882	298.968	296.294	292.153	291.696	296.947	303.664	307.904	309.469
4.5	303.730	302.393	299.425	294.240	293.490	299.392	306.860	311.817	313.643
5.0	307.349	306.306	302.458	296.490	295.186	301.806	309.860	315.404	317.589
5.5	311.002	309.730	305.490	299.001	297.044	304.219	313.154	319.382	321.502
6.0	315.208	313.513	308.588	301.414	298.903	306.827	316.610	323.328	326.067
6.5	318.991	317.165	311.915	303.762	300.632	309.306	319.839	327.144	329.687
7.0	322.774	320.687	315.045	306.273	302.621	311.817	323.296	331.122	333.861
7.5	326.524	324.633	318.241	308.751	304.577	314.426	326.752	335.003	337.905
8.0	330.078	328.252	321.535	311.132	306.534	317.002	330.013	338.785	341.785
8.5	333.731	332.002	324.698	313.643	308.328	319.611	333.437	342.568	345.666
9.0	337.840	335.492	327.926	316.154	310.415	322.187	336.959	346.220	349.547
9.5	341.688	339.111	331.220	318.600	312.534	324.828	339.992	349.775	353.427
10.0	345.373	342.894	334.350	321.143	314.360	327.274	343.253	353.721	357.243
10.5	349.025	346.873	337.644	323.785	316.317	329.915	346.644	357.340	361.091
11.0	353.199	350.297	340.807	326.296	318.274	332.524	349.775	360.960	364.906
11.5	357.112	353.949	343.905	329.035	320.263	335.133	353.068	364.449	368.460
12.0	360.732	357.699	347.199	331.546	322.252	337.742	356.264	368.200	372.145
12.5	363.699	361.058	350.623	333.992	324.176	340.448	359.395	371.461	375.765
13.0	365.786	364.352	353.655	336.535	326.035	342.959	362.558	375.048	378.993
13.5	367.091	366.960	357.014	339.014	328.057	345.601	365.623	378.341	381.700
14.0	367.515	368.623	360.014	341.296	330.013	348.047	368.623	381.341	383.494
14.5	368.526	369.993	363.178	343.872	331.742	350.557	371.591	383.787	384.472
15.0	369.276	370.874	366.145	346.351	333.894	353.036	374.722	385.548	384.896
15.5	370.026	371.558	368.982	348.862	335.850	355.384	377.559	386.233	384.765
16.0	370.287	372.439	371.395	351.340	337.513	357.895	380.396	386.657	384.570
16.5	370.613	372.537	373.580	353.655	339.307	360.308	383.298	386.592	384.113
17.0	370.645	372.765	375.472	356.003	341.427	362.558	385.874	386.265	383.428
17.5	371.069	373.254	376.972	358.449	343.122	364.808	388.092	385.907	383.167
18.0	370.841	373.189	377.917	360.699	344.916	367.221	390.081	385.287	382.287
18.5	371.069	373.156	378.733	362.982	346.807	369.406	391.320	384.700	381.407
19.0	371.004	373.319	379.091	365.265	348.634	371.721	392.005	384.048	380.559
19.5	370.515	372.830	379.352	367.580	350.460	373.841	392.266	383.331	379.580
20.0	369.895	372.700	379.450	369.634	352.188	376.156	392.135	382.352	378.798
20.5	369.373	372.406	379.417	371.917	354.112	378.243	391.777	381.504	377.656
21.0	368.167	371.591	379.287	373.971	355.873	380.428	391.255	380.526	376.580
21.5	367.515	370.776	379.026	376.124	357.699	382.581	390.570	379.320	375.504
22.0	366.862	370.156	378.602	378.080	359.525	384.537	389.853	378.211	374.102
22.5	365.786	369.080	378.178	379.939	361.384	386.624	389.135	376.841	372.439
23.0	364.743	367.808	377.722	381.570	363.112	388.450	388.124	375.406	371.069
23.5	363.243	366.308	376.809	382.711	364.645	390.374	386.983	374.037	369.210
24.0	361.808	364.743	375.993	383.689	366.471	392.168	385.874	372.178	367.319
24.5	360.569	363.471	375.048	384.537	368.069	393.929	384.635	370.123	365.623
25.0	359.069	361.743	373.743	385.222	369.700	395.461	383.233	368.395	363.699
25.5	357.406	360.112	372.504	385.744	371.330	396.635	381.896	366.308	361.514
26.0	355.579	358.253	370.971	385.874	372.732	397.679	380.135	364.058	359.427
26.5	353.851	356.329	369.373	386.265	374.232	398.331	378.537	361.906	356.949

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CANDELA TABULATION - (Cont.)

27.0	351.471	354.210	367.580	386.135	375.602	398.625	376.743	359.395	354.601
27.5	349.840	352.416	365.721	385.874	376.939	398.690	374.624	357.079	352.188
28.0	347.427	350.231	363.536	385.255	378.178	398.429	372.504	354.503	349.579
28.5	345.112	347.688	361.319	384.570	379.580	397.646	370.189	351.862	346.775
29.0	342.894	345.275	359.134	383.331	380.950	396.635	367.678	349.025	343.970
29.5	340.448	342.992	356.656	382.059	382.189	395.266	365.134	346.188	341.101
30.0	338.003	340.481	354.014	380.493	383.200	393.537	362.395	343.285	337.937
30.5	334.937	337.872	351.308	378.569	384.505	391.679	359.330	340.155	334.644
31.0	332.524	335.459	348.470	376.874	385.515	389.592	356.362	336.959	331.546
31.5	329.915	332.687	345.731	374.852	386.657	387.309	353.232	333.829	328.057
32.0	326.817	329.785	342.992	372.504	387.766	384.668	350.036	330.535	324.796
32.5	324.013	327.046	339.764	370.221	388.418	381.765	346.677	327.013	320.948
33.0	320.980	323.980	336.763	367.515	389.233	378.602	343.416	323.426	317.393
33.5	317.491	321.176	333.731	364.645	389.853	375.504	340.024	319.741	313.154
34.0	314.654	317.947	330.372	361.938	389.657	371.787	336.372	316.187	309.567
34.5	311.621	314.817	327.241	358.580	389.168	368.232	332.818	312.404	305.621
35.0	308.034	311.523	323.850	355.221	387.537	364.515	328.937	308.556	301.414
35.5	304.838	308.491	320.589	351.764	385.320	360.667	325.285	304.675	297.273
36.0	301.447	304.936	317.067	348.144	382.450	356.590	321.469	300.469	293.327
36.5	297.860	301.610	313.773	344.231	379.059	352.710	317.589	296.621	288.990
37.0	294.697	298.284	310.252	340.220	374.787	348.340	313.610	292.577	284.848
37.5	291.305	294.794	306.534	336.144	369.439	344.068	309.567	288.272	280.446
38.0	287.718	291.207	303.143	332.068	363.536	339.764	305.588	284.033	276.109
38.5	284.261	287.653	299.425	327.698	357.406	335.231	301.251	279.566	271.902
39.0	280.772	284.261	295.871	323.361	351.079	330.894	297.142	275.326	267.630
39.5	277.446	280.609	292.186	318.861	344.753	326.328	292.870	270.859	263.130
40.0	274.576	277.120	288.403	314.393	338.394	321.828	288.664	266.489	258.923
40.5	271.250	273.565	284.620	309.991	332.361	317.197	284.196	262.087	254.554
41.0	267.891	270.141	280.935	305.360	326.328	312.665	279.859	257.684	250.347
41.5	265.380	266.782	276.989	301.056	320.491	308.034	275.359	253.217	246.303
42.0	262.641	263.424	273.141	296.523	315.078	303.403	270.924	248.847	242.227
42.5	260.358	260.097	269.196	291.957	309.502	298.675	266.293	244.542	238.314
43.0	258.402	256.999	265.348	287.457	304.251	294.044	261.663	240.336	234.238
43.5	256.706	254.325	261.369	282.729	299.327	289.185	257.130	236.292	230.846
44.0	255.304	251.619	257.521	278.098	294.403	284.294	252.304	232.020	227.553
44.5	253.217	249.532	253.641	273.728	289.642	279.500	247.640	228.270	224.455
45.0	251.488	247.510	249.662	268.804	284.881	274.413	242.912	224.650	221.944
45.5	249.858	245.586	246.010	264.271	280.446	269.587	238.444	221.357	219.465
46.0	248.064	243.988	242.194	259.641	275.750	264.434	233.814	218.291	217.117
46.5	246.173	242.162	238.477	255.010	271.348	259.282	229.216	215.617	214.639
47.0	244.249	240.238	235.020	250.119	266.619	254.162	224.455	213.139	212.128
47.5	242.553	238.542	231.433	245.423	261.826	248.880	220.117	210.661	209.617
48.0	240.825	236.814	228.368	240.727	257.032	243.629	215.780	208.313	207.008
48.5	238.933	234.825	225.368	235.770	252.075	238.216	211.443	205.834	204.823
49.0	237.401	233.064	222.792	231.140	247.021	233.064	207.465	203.454	202.475
49.5	235.640	231.238	220.150	226.248	241.836	227.683	203.617	201.008	200.030
50.0	233.912	229.509	217.835	221.520	236.553	222.563	200.225	198.758	197.845
50.5	232.183	227.650	215.454	216.987	231.009	217.248	197.030	196.312	195.562
51.0	230.618	225.987	213.432	212.552	225.466	211.900	194.127	194.095	193.149
51.5	229.183	224.096	211.606	207.595	219.889	206.715	191.551	191.714	191.095
52.0	227.292	222.563	209.976	203.258	213.987	201.562	189.105	189.660	188.975
52.5	225.987	220.868	208.150	198.888	207.954	196.475	187.018	187.410	186.823
53.0	224.357	219.107	206.421	194.388	202.247	191.453	184.670	185.094	184.703
53.5	222.987	217.509	204.628	190.508	196.345	186.692	182.486	183.399	182.551
54.0	221.585	216.074	202.965	186.497	190.573	181.964	180.399	181.051	180.627
54.5	219.726	214.378	201.204	182.844	185.094	177.627	178.279	179.062	178.866

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CANDELA TABULATION - (Cont.)

55.0	218.259	213.074	199.508	179.551	179.518	173.224	176.192	176.974	176.779
55.5	217.280	211.606	197.780	176.811	174.268	169.115	174.105	175.083	175.050
56.0	215.943	210.106	196.182	174.007	168.985	165.659	172.018	173.159	173.094
56.5	214.606	208.606	194.388	171.757	164.061	162.365	169.996	171.300	171.202
57.0	213.465	207.400	192.790	169.344	159.463	159.854	168.105	169.376	169.442
57.5	212.095	205.769	191.192	167.061	154.897	157.865	166.148	167.518	167.681
58.0	211.019	204.465	189.497	165.398	150.658	156.235	164.061	165.757	165.887
58.5	209.519	203.258	188.062	164.126	146.941	154.506	162.202	163.930	163.996
59.0	208.508	201.889	186.562	162.593	143.777	152.908	160.376	162.072	162.333
59.5	207.237	200.584	184.997	161.256	141.169	151.343	158.419	160.474	160.833
60.0	205.867	199.378	183.562	159.854	139.212	149.713	156.724	158.713	158.941
60.5	204.660	198.138	182.159	158.419	137.582	147.984	154.897	156.887	157.474
61.0	203.584	196.867	180.692	156.919	136.245	146.288	153.039	155.289	155.582
61.5	202.704	195.758	179.029	155.582	135.038	144.691	151.408	153.593	154.180
62.0	201.399	194.453	177.790	153.919	133.897	143.125	149.615	151.963	152.387
62.5	200.193	193.214	176.387	152.582	132.560	141.430	148.017	150.365	150.691
63.0	199.149	192.008	174.920	151.115	131.288	139.799	146.386	148.539	149.289
63.5	197.780	190.801	173.616	149.680	129.983	138.169	144.723	147.136	147.560
64.0	196.704	189.758	172.409	148.310	128.646	136.701	142.995	145.571	146.093
64.5	195.921	188.584	170.974	146.778	127.277	135.038	141.495	144.071	144.495
65.0	194.812	187.410	169.898	145.408	125.972	133.538	139.897	142.440	142.995
65.5	193.573	186.268	168.431	144.104	124.603	131.810	138.136	141.103	141.462
66.0	192.497	185.257	167.257	142.669	123.266	130.342	136.669	139.538	139.995
66.5	191.551	184.018	165.952	141.169	121.961	128.842	135.038	138.006	138.625
67.0	190.540	183.073	164.680	140.060	120.396	127.212	133.375	136.473	137.092
67.5	189.334	181.931	163.376	138.690	119.190	125.614	132.038	135.038	135.592
68.0	188.290	180.757	162.235	137.125	117.918	124.342	130.570	133.538	134.255
68.5	187.377	179.681	161.061	135.918	116.483	122.646	129.038	132.234	132.984
69.0	186.431	178.735	159.789	134.581	115.081	121.342	127.701	130.766	131.288
69.5	185.388	177.627	158.648	133.147	113.776	119.940	126.201	129.364	129.983
70.0	184.475	176.681	157.376	131.973	112.374	118.342	124.864	127.994	128.744
70.5	183.268	175.572	156.104	130.701	111.004	116.939	123.429	126.690	127.049
71.0	182.225	174.529	155.191	129.233	109.667	115.537	121.994	125.190	125.907
71.5	181.409	173.713	154.050	128.092	108.363	114.135	120.592	123.918	124.570
72.0	180.464	172.637	152.843	126.755	107.091	112.635	119.287	122.516	123.266
72.5	179.583	171.626	151.832	125.385	105.754	111.331	117.918	121.277	121.896
73.0	178.507	170.648	150.723	124.309	104.450	109.928	116.646	119.874	120.624
73.5	177.496	169.735	149.582	122.972	103.145	108.526	115.244	118.668	119.287
74.0	176.811	168.659	148.539	121.668	101.906	107.189	114.005	117.363	118.081
74.5	176.061	167.648	147.365	120.592	100.504	105.819	112.700	116.092	116.744
75.0	174.985	166.833	146.354	119.450	99.363	104.613	111.494	114.918	115.407
75.5	173.909	165.822	145.441	118.146	98.123	103.374	110.189	113.515	114.200
76.0	173.029	164.909	144.430	117.037	96.786	101.971	108.885	112.309	112.896
76.5	171.985	163.996	143.288	115.929	95.515	100.830	107.646	111.070	111.754
77.0	170.942	163.017	142.473	114.755	94.406	99.591	106.341	109.928	110.581
77.5	170.420	162.235	141.397	113.548	93.102	98.221	105.167	108.624	109.504
78.0	169.442	161.256	140.256	112.504	92.025	97.113	103.993	107.417	108.200
78.5	168.333	160.278	139.440	111.200	90.754	95.906	102.819	106.243	107.059
79.0	167.746	159.365	138.462	110.254	89.580	94.602	101.580	105.102	105.656
79.5	166.604	158.485	137.353	109.276	88.406	93.395	100.406	103.863	104.580
80.0	166.083	157.572	136.538	108.004	87.297	92.221	99.232	102.721	103.439
80.5	165.137	156.789	135.495	107.026	86.253	91.080	97.993	101.678	102.428
81.0	164.191	155.941	134.549	105.982	85.112	89.906	97.015	100.471	101.091
81.5	163.572	154.930	133.701	104.939	84.166	88.927	95.906	99.395	100.015
82.0	162.496	154.082	132.690	104.026	83.090	87.754	94.667	98.417	99.004
82.5	161.778	153.397	131.679	103.080	81.982	86.547	93.623	97.308	97.928

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CANDELA TABULATION - (Cont.)

83.0	160.702	152.387	130.897	102.004	80.905	85.569	92.580	96.199	96.786
83.5	159.919	151.669	130.016	101.026	79.927	84.558	91.471	95.058	95.645
84.0	159.235	150.886	129.038	100.211	78.916	83.449	90.493	94.112	94.569
84.5	158.387	149.941	128.320	99.167	77.971	82.405	89.384	92.938	93.460
85.0	157.702	149.093	127.472	98.319	77.090	81.362	88.438	91.993	92.678
85.5	156.952	148.310	126.527	97.439	76.047	80.253	87.525	90.949	91.536
86.0	156.169	147.495	125.712	96.493	75.199	79.373	86.351	89.710	90.721
86.5	155.354	146.843	125.059	95.678	74.253	78.362	85.373	88.797	89.384
87.0	154.474	146.028	124.114	95.058	73.405	77.416	84.493	87.949	88.471
87.5	153.756	145.180	123.429	94.080	72.753	76.536	83.514	86.873	87.623
88.0	153.071	144.691	122.744	93.460	71.775	75.655	82.666	85.993	86.547
88.5	152.321	143.941	121.994	92.775	71.188	74.775	81.753	85.112	85.601
89.0	152.191	143.517	121.440	92.025	70.503	74.155	80.873	84.101	84.525
89.5	152.256	143.484	121.440	91.960	70.014	73.503	80.058	83.286	83.710
90.0	151.963	143.680	121.668	92.091	70.275	73.340	79.731	82.797	83.155
90.5	152.452	143.875	121.701	92.188	70.275	73.405	79.536	82.536	82.992
91.0	152.876	144.006	121.896	92.384	70.209	73.405	79.373	82.405	82.829
91.5	153.006	144.397	122.059	92.580	70.438	73.438	79.340	82.340	82.536
92.0	153.267	144.364	122.385	92.515	70.470	73.438	79.177	82.079	82.438
92.5	153.463	144.625	122.516	92.775	70.666	73.340	79.047	81.818	82.210
93.0	153.724	144.854	122.516	93.004	70.601	73.144	79.047	81.721	82.079
93.5	154.115	145.017	122.972	93.102	70.927	73.177	79.047	81.590	81.851
94.0	154.278	145.343	123.103	93.362	70.862	73.112	78.753	81.460	81.590
94.5	154.506	145.441	123.298	93.428	71.025	72.949	78.851	81.232	81.199
95.0	154.995	145.669	123.429	93.591	71.025	72.949	78.623	80.775	80.971
95.5	154.930	146.028	123.592	93.786	71.122	72.916	78.460	80.645	80.873
96.0	155.321	146.191	123.820	93.917	71.188	72.851	78.297	80.481	80.449
96.5	155.517	146.354	124.211	94.015	71.383	72.753	78.101	80.123	80.253
97.0	155.745	146.582	124.146	94.243	71.351	72.688	78.003	79.894	79.829
97.5	155.908	146.778	124.342	94.504	71.383	72.525	77.905	79.829	79.666
98.0	156.267	146.810	124.570	94.471	71.644	72.590	77.612	79.503	79.405
98.5	156.300	147.104	124.733	94.765	71.677	72.394	77.514	79.275	79.079
99.0	156.495	147.299	124.733	95.026	71.775	72.199	77.449	79.014	78.818
99.5	156.724	147.365	124.962	94.928	71.840	72.199	77.090	78.753	78.362
100.0	156.789	147.528	125.059	95.123	72.003	72.068	77.025	78.525	78.166
100.5	157.050	147.560	125.092	95.286	72.035	71.970	76.927	78.199	77.840
101.0	157.017	147.658	125.222	95.482	72.199	71.840	76.731	77.840	77.514
101.5	157.376	147.723	125.353	95.547	72.264	71.612	76.503	77.644	77.057
102.0	157.245	147.821	125.320	95.710	72.525	71.546	76.275	77.286	76.927
102.5	157.343	147.821	125.353	95.743	72.525	71.449	75.981	76.960	76.601
103.0	157.376	147.919	125.418	95.873	72.720	71.188	75.720	76.699	76.307
103.5	157.376	147.952	125.353	96.069	72.655	71.090	75.525	76.503	75.720
104.0	157.637	147.984	125.222	95.873	72.720	70.927	75.231	76.177	75.590
104.5	157.702	148.115	125.255	96.069	72.786	70.731	74.840	75.786	75.068
105.0	157.408	148.147	125.190	96.167	72.981	70.535	74.481	75.557	74.710
105.5	157.572	147.952	125.157	95.971	73.046	70.372	74.123	75.133	74.286
106.0	157.702	147.984	125.255	96.036	72.949	70.242	73.764	74.677	74.025
106.5	157.637	148.049	125.190	96.036	73.046	70.079	73.438	74.351	73.601
107.0	157.735	148.049	125.092	96.004	72.949	69.948	73.046	73.862	73.275
107.5	157.637	147.952	125.059	95.971	72.949	69.753	72.720	73.470	72.720
108.0	157.637	147.919	124.994	96.134	73.046	69.361	72.362	72.818	72.166
108.5	157.702	147.886	125.059	95.971	72.916	69.296	72.035	72.427	71.579
109.0	157.408	147.854	124.896	95.971	72.981	68.938	71.677	71.872	71.220
109.5	157.506	147.625	124.733	95.841	72.818	68.840	71.318	71.449	70.405
110.0	157.343	147.658	124.635	95.841	72.916	68.677	70.959	70.796	70.144
110.5	157.376	147.397	124.635	95.808	72.786	68.481	70.503	70.470	69.329

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CANDELA TABULATION - (Cont.)

111.0	157.180	147.430	124.505	95.906	72.818	68.285	70.209	69.916	68.742
111.5	157.082	147.332	124.505	95.776	72.655	68.122	69.688	69.459	68.448
112.0	156.691	147.267	124.375	95.743	72.622	67.796	69.361	68.872	67.731
112.5	156.789	147.136	124.114	95.645	72.688	67.698	69.068	68.416	67.079
113.0	156.724	146.941	124.114	95.547	72.655	67.405	68.709	67.927	66.492
113.5	156.528	146.778	123.951	95.417	72.557	67.274	68.188	67.242	66.035
114.0	156.267	146.680	123.722	95.417	72.525	67.111	67.861	66.883	65.513
114.5	156.332	146.484	123.625	95.254	72.492	66.785	67.535	66.133	64.861
115.0	155.941	146.256	123.331	95.123	72.329	66.590	66.850	65.416	64.111
115.5	155.811	146.288	123.201	95.026	72.362	66.329	66.687	64.763	63.524
116.0	155.484	145.832	122.940	94.797	72.101	66.296	66.133	63.883	62.839
116.5	155.517	145.701	122.777	94.765	72.199	65.905	65.579	63.198	62.155
117.0	155.093	145.473	122.516	94.602	72.035	65.774	65.350	62.579	60.981
117.5	154.734	145.147	122.418	94.439	71.872	65.546	64.992	61.698	60.361
118.0	154.539	144.919	122.027	94.178	71.742	65.253	64.470	61.046	59.318
118.5	154.245	144.788	121.831	94.047	71.546	65.024	64.013	60.328	58.568
119.0	153.854	144.364	121.603	93.982	71.449	64.829	63.753	59.578	57.654
119.5	153.528	144.169	121.374	93.819	71.449	64.633	63.166	58.731	56.676
120.0	153.234	143.973	121.179	93.558	71.220	64.405	62.905	57.850	55.796
120.5	153.006	143.451	120.918	93.232	71.057	64.079	62.416	57.067	54.948
121.0	152.680	143.223	120.527	93.232	70.796	63.850	61.894	56.350	54.067
121.5	152.093	142.995	120.200	93.069	70.796	63.524	61.666	55.633	53.154
122.0	151.832	142.506	119.972	92.678	70.698	63.263	61.209	54.817	52.209
122.5	151.376	142.180	119.744	92.449	70.438	63.166	60.785	54.133	51.426
123.0	151.017	141.886	119.320	92.352	70.275	62.774	60.426	53.383	50.545
123.5	150.528	141.267	118.961	91.928	70.144	62.579	60.068	52.730	49.469
124.0	150.463	140.810	118.733	91.797	70.079	62.383	59.481	51.948	48.752
124.5	149.647	140.484	118.374	91.569	69.818	62.057	59.187	51.296	47.969
125.0	149.093	139.962	118.048	91.308	69.590	61.992	58.894	50.578	47.154
125.5	148.539	139.538	117.559	90.949	69.427	61.698	58.535	49.959	46.534
126.0	147.886	138.951	117.200	90.754	69.361	61.568	58.307	49.404	45.850
126.5	147.625	138.397	116.776	90.428	69.198	61.405	57.883	48.752	45.165
127.0	146.647	137.973	116.418	90.264	69.101	61.242	57.394	48.230	44.480
127.5	145.995	137.321	115.929	89.971	68.970	60.981	57.133	47.774	43.958
128.0	145.538	136.734	115.505	89.612	68.742	60.915	56.839	47.056	43.371
128.5	144.821	136.082	115.048	89.417	68.742	60.850	56.415	46.469	42.817
129.0	144.104	135.723	114.657	89.058	68.448	60.557	56.089	45.817	42.263
129.5	143.614	135.005	114.102	88.830	68.318	60.361	55.861	45.263	41.904
130.0	142.669	134.549	113.646	88.373	68.188	60.002	55.274	44.741	41.382
130.5	142.114	133.897	113.124	88.145	68.188	59.905	55.046	44.252	40.697
131.0	141.462	133.244	112.635	87.949	67.861	59.709	54.720	43.795	40.404
131.5	140.908	132.690	112.211	87.525	67.731	59.578	54.328	43.176	40.110
132.0	139.962	132.038	111.591	87.427	67.633	59.448	54.002	42.719	39.556
132.5	139.114	131.190	111.135	86.938	67.437	59.252	53.774	42.230	39.067
133.0	138.527	130.570	110.613	86.547	67.144	59.057	53.383	41.806	38.969
133.5	137.647	129.918	110.059	86.286	67.111	58.894	53.089	41.480	38.480
134.0	136.929	129.136	109.537	85.895	66.818	58.828	52.730	41.023	38.317
134.5	136.245	128.418	108.983	85.471	66.785	58.633	52.502	40.534	37.893
135.0	135.429	127.733	108.298	85.079	66.524	58.372	52.176	40.241	37.567
135.5	134.647	126.853	107.874	84.753	66.329	58.405	51.850	39.882	37.241
136.0	133.766	126.396	107.222	84.362	66.100	58.046	51.459	39.295	36.817
136.5	132.951	125.646	106.667	84.101	65.937	57.883	51.100	39.034	36.393
137.0	132.038	124.766	106.080	83.612	65.774	57.687	50.969	38.643	35.936
137.5	131.125	124.016	105.493	83.253	65.448	57.524	50.480	38.186	35.773
138.0	130.147	123.233	104.874	82.927	65.383	57.231	50.317	37.991	35.675
138.5	129.396	122.385	104.352	82.503	65.187	57.231	50.187	37.665	35.251

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CANDELA TABULATION - (Cont.)

139.0	128.418	121.701	103.667	82.014	64.829	57.133	49.730	37.208	34.991
139.5	127.570	120.820	103.015	81.623	64.666	56.904	49.502	36.947	34.664
140.0	126.918	120.037	102.135	81.297	64.568	56.839	49.274	36.588	34.338
140.5	126.005	119.092	101.678	80.677	64.176	56.546	48.850	36.328	34.045
141.0	125.092	118.472	100.961	80.449	64.046	56.317	48.719	35.871	33.654
141.5	124.309	117.429	100.374	79.927	63.785	56.285	48.393	35.545	33.327
142.0	123.364	116.646	99.624	79.405	63.459	56.089	48.132	35.154	32.936
142.5	122.222	115.831	99.004	79.014	63.263	55.861	47.969	34.991	32.545
143.0	121.309	114.885	98.287	78.492	63.035	55.796	47.741	34.469	32.447
143.5	120.331	113.939	97.504	77.971	62.774	55.502	47.350	34.175	32.153
144.0	119.418	113.059	96.819	77.579	62.416	55.274	47.284	33.914	31.958
144.5	118.440	112.146	96.134	77.155	62.187	55.339	47.219	33.719	31.730
145.0	117.396	111.363	95.515	76.503	61.894	55.078	46.861	33.295	31.566
145.5	116.450	110.450	94.797	76.144	61.698	54.850	46.632	33.132	31.534
146.0	115.374	109.472	94.015	75.655	61.372	54.589	46.534	32.903	31.730
146.5	114.428	108.461	93.199	75.133	61.013	54.491	46.241	32.414	31.697
147.0	113.483	107.580	92.580	74.612	60.687	54.296	46.274	32.186	31.599
147.5	112.504	106.472	91.830	74.090	60.589	54.133	45.980	31.990	31.697
148.0	111.331	105.559	91.015	73.601	60.165	53.904	45.784	31.730	31.762
148.5	110.222	104.678	90.330	73.046	60.002	53.709	45.621	31.436	31.827
149.0	109.048	103.798	89.514	72.590	59.611	53.578	45.556	31.143	31.990
149.5	108.233	102.787	88.732	71.938	59.252	53.480	45.361	31.012	32.153
150.0	107.124	101.678	87.949	71.481	58.861	53.154	45.197	30.784	32.121
150.5	106.048	100.830	87.134	70.959	58.665	53.089	45.100	30.653	32.317
151.0	105.004	99.656	86.416	70.307	58.307	52.828	44.904	30.621	32.545
151.5	104.059	98.710	85.666	69.851	57.981	52.698	44.741	30.360	32.414
152.0	102.689	97.830	84.786	69.394	57.687	52.437	44.610	30.066	32.349
152.5	101.580	96.689	84.069	68.709	57.296	52.306	44.350	30.034	32.480
153.0	100.732	95.613	83.090	68.024	57.035	52.143	44.382	29.903	32.447
153.5	99.428	94.667	82.405	67.503	56.644	51.883	44.317	29.871	32.577
154.0	98.319	93.623	81.525	66.981	56.317	51.654	44.056	29.806	32.480
154.5	97.113	92.515	80.612	66.329	56.024	51.426	44.056	29.806	32.414
155.0	95.906	91.373	79.829	65.709	55.730	51.165	43.860	29.773	32.414
155.5	94.830	90.264	79.014	65.057	55.339	50.969	43.600	29.838	32.610
156.0	93.786	89.286	78.134	64.600	54.948	50.839	43.600	29.871	32.610
156.5	92.352	88.210	77.188	63.883	54.720	50.545	43.600	29.740	32.806
157.0	91.471	87.199	76.438	63.198	54.198	50.350	43.404	29.479	32.740
157.5	90.199	86.090	75.492	62.579	53.774	50.024	43.339	29.349	32.577
158.0	89.058	84.884	74.742	62.057	53.480	49.861	43.306	29.121	32.577
158.5	88.047	83.938	73.959	61.339	52.991	49.600	43.143	28.697	32.545
159.0	86.775	82.895	72.949	60.687	52.600	49.241	43.078	28.534	32.577
159.5	85.601	81.721	72.101	60.133	52.209	49.143	43.013	28.142	32.610
160.0	84.395	80.547	71.188	59.318	51.785	48.785	42.784	28.110	32.577
160.5	83.319	79.471	70.340	58.698	51.426	48.654	42.589	27.947	32.545
161.0	82.047	78.297	69.361	58.111	51.067	48.328	42.393	27.882	32.806
161.5	80.677	77.188	68.546	57.263	50.578	48.067	42.100	27.490	32.936
162.0	79.405	76.079	67.437	56.546	50.187	47.741	41.806	27.229	33.099
162.5	78.199	74.938	66.590	55.991	49.959	47.513	41.349	26.936	33.099
163.0	76.992	73.731	65.677	55.241	49.339	47.187	40.339	26.740	33.164
163.5	75.688	72.655	64.666	54.589	49.078	46.861	39.262	26.251	33.360
164.0	74.612	71.449	63.785	53.970	48.687	46.763	37.925	25.436	33.262
164.5	73.275	70.209	62.839	53.089	48.198	46.371	36.262	24.718	32.643
165.0	72.003	68.970	61.894	52.404	47.741	45.752	34.730	24.360	31.664
165.5	70.633	67.861	60.915	51.622	47.317	45.034	33.099	24.197	30.360
166.0	69.459	66.655	59.905	51.002	46.763	43.893	31.143	24.066	28.860
166.5	68.057	65.383	58.763	50.317	46.143	42.328	29.512	23.740	26.740

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CANDELA TABULATION - (Cont.)

167.0	66.622	64.176	57.850	49.665	45.165	40.665	28.208	23.577	24.229
167.5	65.350	62.970	56.904	48.850	43.763	38.675	26.903	22.892	22.044
168.0	63.883	61.535	55.600	48.230	41.806	36.523	26.088	22.436	19.436
168.5	62.546	60.263	54.622	47.448	40.078	34.501	25.566	21.881	17.022
169.0	61.176	59.089	53.709	46.274	37.730	32.349	24.979	20.805	14.153
169.5	59.742	57.850	52.502	44.839	35.643	30.262	24.751	19.631	11.087
170.0	58.241	56.513	51.296	42.915	33.295	28.664	24.294	17.935	8.250
170.5	56.807	54.817	50.024	40.926	31.306	27.621	23.642	15.848	5.968
171.0	55.339	53.252	48.165	38.839	29.642	26.577	23.120	14.022	3.652
171.5	54.002	51.915	46.567	36.654	28.501	25.990	22.207	12.457	2.413
172.0	52.437	50.415	45.002	34.567	27.490	25.566	20.642	10.598	2.152
172.5	51.100	48.361	42.817	33.034	26.610	24.816	18.816	8.772	2.120
173.0	48.752	46.502	40.730	31.599	25.860	23.968	16.957	7.011	2.022
173.5	45.947	44.382	38.382	29.903	24.914	22.240	14.511	5.935	1.728
174.0	44.447	41.643	35.675	28.534	24.131	19.729	12.000	5.478	1.500
174.5	42.002	39.002	33.230	26.968	22.664	17.218	9.587	4.924	1.272
175.0	39.067	36.164	30.882	25.012	20.544	14.348	7.663	4.500	0.978
175.5	35.251	32.871	28.110	23.023	17.935	11.218	6.555	3.718	0.717
176.0	31.436	29.219	25.371	20.642	15.164	8.511	5.805	3.098	0.946
176.5	27.327	25.110	22.142	17.283	11.935	6.555	4.957	2.185	0.750
177.0	22.534	20.936	18.522	13.859	9.033	5.511	4.174	1.435	0.620
177.5	17.577	16.240	15.098	10.794	6.652	4.859	3.522	0.946	0.620
178.0	12.294	11.381	11.511	7.337	4.891	4.044	2.772	0.783	1.044
178.5	7.826	7.272	7.598	4.663	3.946	3.326	2.087	0.848	0.717
179.0	4.598	4.370	4.076	2.902	3.065	2.641	1.630	0.783	0.815
179.5	1.630	2.478	1.565	1.565	2.120	2.120	1.011	0.815	1.141
180.0	1.174	1.174	1.174	1.174	1.174	1.174	1.174	1.174	1.174

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	132.93	N.A.	7.40
0-30	305.25	N.A.	16.90
0-40	513.65	N.A.	28.50
0-60	878.92	N.A.	48.70
0-80	1162.82	N.A.	64.40
0-90	1277.53	N.A.	70.80
10-90	1247.41	N.A.	69.10
20-40	380.72	N.A.	21.10
20-50	577.14	N.A.	32.00
40-70	515.79	N.A.	28.60
60-80	283.90	N.A.	15.70
70-80	133.38	N.A.	7.40
80-90	114.72	N.A.	6.40
90-110	209.73	N.A.	11.60
90-120	302.19	N.A.	16.70
90-130	379.48	N.A.	21.00
90-150	483.75	N.A.	26.80
90-180	527.88	N.A.	29.20
110-180	318.14	N.A.	17.60
0-180	1805.41	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	30.12
10-20	102.81
20-30	172.33
30-40	208.39
40-50	196.42
50-60	168.85
60-70	150.52
70-80	133.38
80-90	114.72
90-100	106.89
100-110	102.84
110-120	92.46
120-130	77.28
130-140	60.57
140-150	43.71
150-160	27.99
160-170	13.75
170-180	2.39

IES INDOOR REPORT
PHOTOMETRIC FILENAME : ALR 4 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	112	106	106	106	106	95	95	95	85	85	85	75	75	75	71
1	100	94	89	85	85	94	89	85	81	80	76	73	71	68	66	63	61	59	54
2	90	81	74	68	68	85	77	70	65	69	64	59	61	57	53	54	51	48	44
3	82	71	63	56	56	77	67	60	54	60	54	49	54	49	44	47	44	40	37
4	75	63	54	47	47	70	60	51	45	53	47	41	48	42	38	42	38	34	31
5	69	56	47	40	40	65	53	45	39	48	41	36	43	37	33	38	33	30	27
6	63	50	41	35	35	60	48	40	34	43	36	31	38	33	28	34	30	26	23
7	59	45	37	31	31	55	43	35	29	39	32	27	35	29	25	31	27	23	21
8	54	41	33	27	27	51	39	31	26	36	29	24	32	26	22	29	24	21	18
9	51	38	30	24	24	48	36	28	23	33	26	22	29	24	20	27	22	19	16
10	47	35	27	22	22	45	33	26	21	30	24	20	27	22	18	25	20	17	15

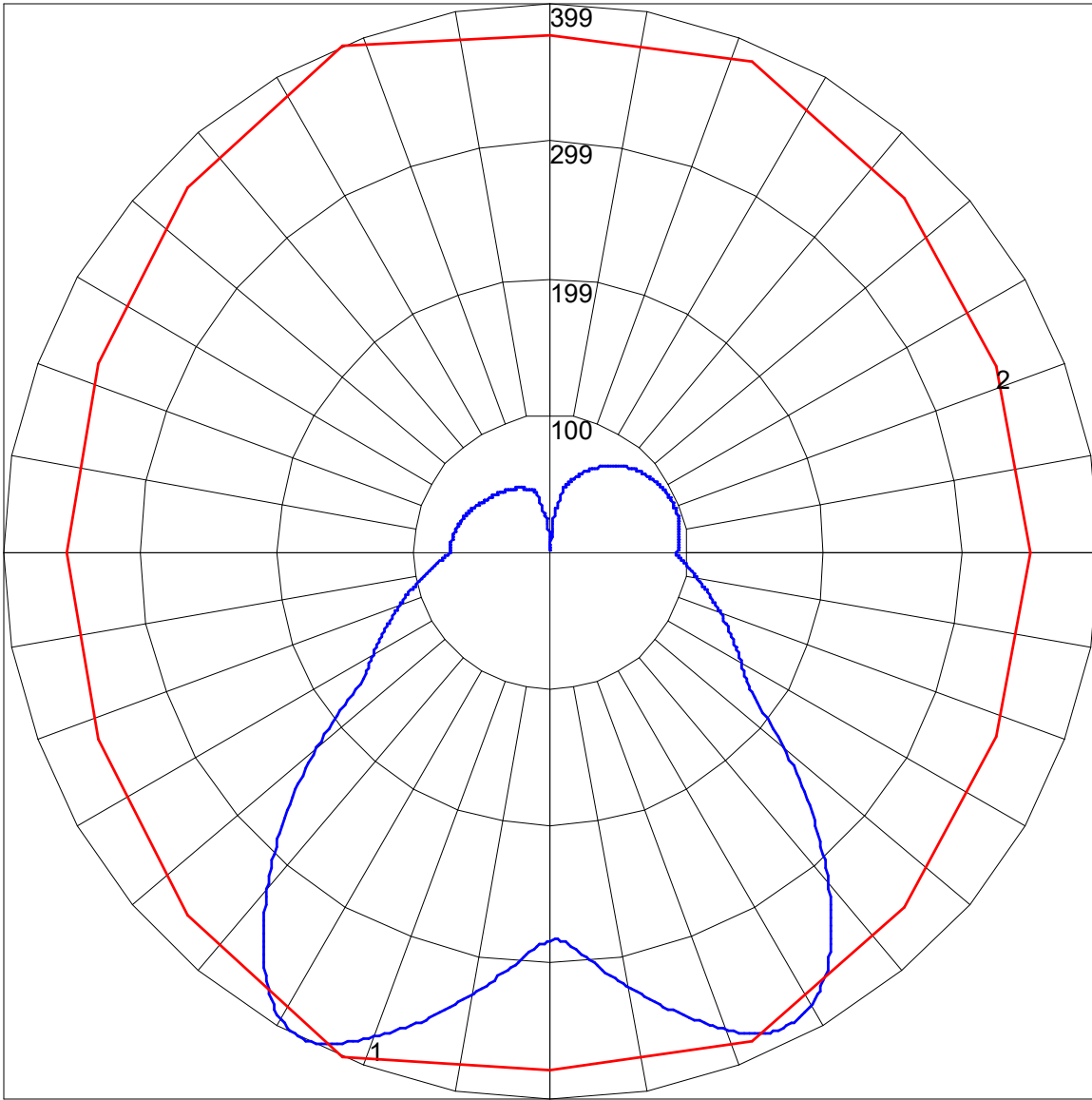
IES INDOOR REPORT
PHOTOMETRIC FILENAME : ALR 4 LIGHT.IES

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	17.4	12.4	13.4	13.1	14.2	15.2
	4H	15.7	16.7	16.5	17.5	18.5	13.2	14.2	14.0	15.0	15.9
	6H	16.8	17.7	17.6	18.5	19.5	13.9	14.8	14.7	15.6	16.6
	8H	17.3	18.2	18.1	19.0	20.0	14.2	15.1	15.0	15.9	16.9
	12H	17.8	18.7	18.6	19.5	20.5	14.5	15.4	15.3	16.2	17.2
4H	2H	13.0	14.0	13.8	14.8	15.8	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	14.4	15.3	16.3
	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	20.7	21.8	16.1	16.8	17.0	17.6	18.7
8H	4H	17.2	17.9	18.0	18.7	19.8	15.2	15.9	16.1	16.7	17.8
	6H	18.7	19.3	19.6	20.2	21.2	16.3	16.9	17.2	17.8	18.8
	8H	19.5	20.0	20.3	20.9	21.9	16.8	17.3	17.7	18.2	19.3
	12H	20.3	20.7	21.1	21.6	22.7	17.3	17.8	18.2	18.7	19.8
12H	4H	17.3	17.9	18.1	18.8	19.8	15.4	16.0	16.3	16.9	17.9
	6H	18.9	19.4	19.7	20.2	21.3	16.6	17.1	17.5	18.0	19.1
	8H	19.7	20.2	20.6	21.0	22.1	17.2	17.7	18.1	18.5	19.6

Maximum UGR = 22.7

POLAR GRAPH



Maximum Candela = 398.69 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.)