

## IES INDOOR REPORT

PHOTOMETRIC FILENAME : ALR 24 BOWL.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST]BALLABS TEST NO. 15395.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUE DATE] APR-2010

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

[LUMCAT] Alabaster Rocks (ALR) 24" Bowl

[LUMINAIRE] Justice Design Group - Pendant mount luminaire. Product ID: ALR 24" Bowl

[MORE] Extruded base plate with shaved alabaster rock in resin cast bowl lens.

[LAMP CAT] 5-13W LED 1000L EACH 5000 TOTAL LUMENS,

[MORE] 65W AT 120.0 VOLTS SCALED FROM 3-LED LAMP

### CHARACTERISTICS

Lumens Per Lamp	1000 (5 lamps)
Total Lamp Lumens	5000
Luminaire Lumens	2590
Total Luminaire Efficiency	52 %
Luminaire Efficacy Rating (LER)	40
Total Luminaire Watts	65
Ballast Factor	1.00
CIE Type	Semi-Direct
Spacing Criterion (0-180)	1.32
Spacing Criterion (90-270)	1.34
Spacing Criterion (Diagonal)	1.48
Basic Luminous Shape	Sphere
Luminous Length (0-180)	0.00 ft
Luminous Width (90-270)	1.13 ft (Diameter)
Luminous Height	0.42 ft (Diameter)

### LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	4518	4601	4711
55	3912	4050	4188
65	3251	3444	3609
75	2645	2838	3003
85	2039	2232	2397

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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>
0.0	560.274	560.274	560.274	560.274	560.274
2.5	560.274	557.727	560.274	557.727	560.274
5.0	557.727	555.181	557.727	557.727	560.274
7.5	555.181	552.634	555.181	555.181	555.181
10.0	552.634	550.087	552.634	552.634	555.181
12.5	547.541	547.541	547.541	550.087	550.087
15.0	542.447	542.447	542.447	544.994	544.994
17.5	534.807	537.354	537.354	539.900	537.354
20.0	527.167	529.714	529.714	532.260	529.714
22.5	519.527	522.074	519.527	524.620	522.074
25.0	511.887	514.433	511.887	516.980	514.433
27.5	501.700	504.247	504.247	509.340	506.793
30.0	491.513	494.060	494.060	501.700	496.607
32.5	481.326	483.873	483.873	491.513	488.966
35.0	471.140	473.686	473.686	481.326	478.780
37.5	458.406	463.499	463.499	471.140	468.593
40.0	445.673	450.766	450.766	460.953	458.406
42.5	432.939	438.032	438.032	448.219	445.673
45.0	417.659	425.299	425.299	438.032	435.486
47.5	404.925	412.565	412.565	425.299	422.752
50.0	392.192	399.832	402.379	415.112	412.565
52.5	376.912	384.552	387.098	402.379	399.832
55.0	361.631	371.818	374.365	387.098	387.098
57.5	346.351	356.538	359.085	374.365	371.818
60.0	331.071	343.805	346.351	361.631	359.085
62.5	315.791	325.978	331.071	346.351	346.351
65.0	300.511	313.244	318.338	333.618	333.618
67.5	285.230	297.964	303.057	318.338	318.338
70.0	272.497	285.230	290.324	305.604	305.604
72.5	257.217	269.950	275.044	292.871	290.324
75.0	244.483	257.217	262.310	280.137	277.590
77.5	229.203	241.937	247.030	264.857	262.310
80.0	213.923	229.203	234.296	252.123	249.577
82.5	201.189	213.923	219.016	236.843	234.296
85.0	188.456	201.189	206.283	224.110	221.563
87.5	173.176	188.456	191.003	208.829	206.283
90.0	162.989	170.629	178.269	191.003	196.096
92.5	152.802	150.255	165.536	173.176	183.362
95.0	140.069	137.522	155.349	157.895	170.629
97.5	127.335	124.788	140.069	142.615	152.802
100.0	114.602	112.055	127.335	129.882	140.069
102.5	101.868	99.321	114.602	117.148	127.335
105.0	91.681	89.135	101.868	104.415	114.602
107.5	78.948	78.948	89.135	91.681	101.868
110.0	71.308	68.761	78.948	81.494	89.135
112.5	58.574	58.574	68.761	68.761	76.401
115.0	50.934	48.387	58.574	58.574	66.214
117.5	43.294	40.747	48.387	48.387	56.027
120.0	35.654	33.107	40.747	40.747	45.841
122.5	28.014	28.014	33.107	33.107	38.201
125.0	22.920	20.374	25.467	25.467	30.560
127.5	17.827	15.280	20.374	17.827	22.920
130.0	12.734	10.187	15.280	12.734	15.280
132.5	7.640	7.640	10.187	7.640	10.187

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**CANDELA TABULATION - (Cont.)**

<b>135.0</b>	5.093	5.093	7.640	5.093	5.093
<b>137.5</b>	2.547	2.547	2.547	2.547	2.547
<b>140.0</b>	0.000	0.000	0.000	0.000	0.000
<b>142.5</b>	0.000	0.000	0.000	0.000	0.000
<b>145.0</b>	0.000	0.000	0.000	0.000	0.000
<b>147.5</b>	0.000	0.000	0.000	0.000	0.000
<b>150.0</b>	0.000	0.000	0.000	0.000	0.000
<b>152.5</b>	0.000	0.000	0.000	0.000	0.000
<b>155.0</b>	0.000	0.000	0.000	0.000	0.000
<b>157.5</b>	0.000	0.000	0.000	0.000	0.000
<b>160.0</b>	0.000	0.000	0.000	0.000	0.000
<b>162.5</b>	0.000	0.000	0.000	0.000	0.000
<b>165.0</b>	0.000	0.000	0.000	0.000	0.000
<b>167.5</b>	0.000	0.000	0.000	0.000	0.000
<b>170.0</b>	0.000	0.000	0.000	0.000	0.000
<b>172.5</b>	0.000	0.000	0.000	0.000	0.000
<b>175.0</b>	0.000	0.000	0.000	0.000	0.000
<b>177.5</b>	0.000	0.000	0.000	0.000	0.000
<b>180.0</b>	0.000	0.000	0.000	0.000	0.000

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	206.54	4.10	8.00
0-30	443.82	8.90	17.10
0-40	742.05	14.80	28.60
0-60	1411.07	28.20	54.50
0-80	2007.95	40.20	77.50
0-90	2235.34	44.70	86.30
10-90	2182.31	43.60	84.30
20-40	535.50	10.70	20.70
20-50	867.04	17.30	33.50
40-70	986.39	19.70	38.10
60-80	596.88	11.90	23.00
70-80	279.52	5.60	10.80
80-90	227.38	4.50	8.80
90-110	270.81	5.40	10.50
90-120	327.34	6.50	12.60
90-130	350.16	7.00	13.50
90-150	354.82	7.10	13.70
90-180	354.82	7.10	13.70
110-180	84.01	1.70	3.20
0-180	2590.16	51.80	100.00

Total Luminaire Efficiency = 51.80%

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	53.03
10-20	153.52
20-30	237.27
30-40	298.23
40-50	331.53
50-60	337.49
60-70	317.37
70-80	279.52
80-90	227.38
90-100	165.01
100-110	105.80
110-120	56.53
120-130	22.82
130-140	4.66
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

Effective Floor Cavity Reflectance 0.20

RC RW	80				70				50			30			10			0
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	60	60	60	60	58	58	58	58	54	54	54	50	50	50	46	46	46	45
1	53	49	47	44	51	48	45	43	44	42	40	41	39	37	38	36	35	33
2	47	42	38	34	45	40	37	33	37	34	31	35	32	30	32	30	28	26
3	43	36	32	28	41	35	31	27	32	29	26	30	27	24	28	25	23	21
4	39	32	27	23	37	31	26	22	28	25	21	26	23	20	24	22	19	18
5	36	28	23	19	34	27	23	19	25	21	18	24	20	17	22	19	16	15
6	33	25	20	17	31	24	20	16	23	19	16	21	18	15	20	17	14	13
7	30	23	18	15	29	22	18	14	21	17	14	19	16	13	18	15	13	11
8	28	21	16	13	27	20	16	13	19	15	12	18	14	12	16	13	11	10
9	26	19	15	12	25	18	14	11	17	13	11	16	13	10	15	12	10	9
10	25	17	13	10	23	17	13	10	16	12	10	15	12	9	14	11	9	8

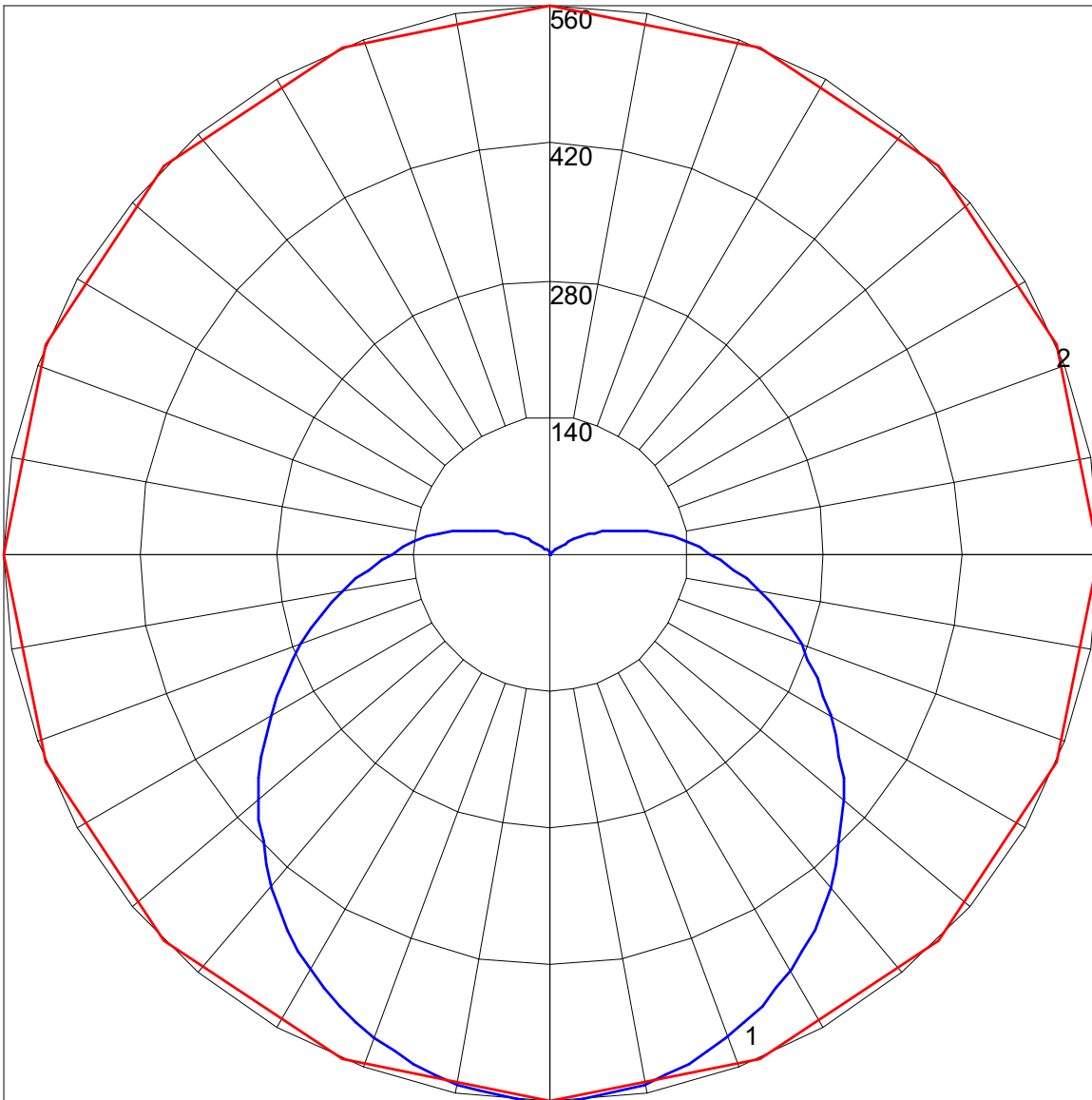
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**UGR TABLE - CORRECTED**

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	13.1	14.6	13.6	15.2	15.8	13.5	15.0	14.0	15.5	16.1
	3H	15.3	16.6	15.8	17.2	17.9	15.8	17.1	16.3	17.7	18.4
	4H	16.2	17.5	16.8	18.1	18.8	16.8	18.1	17.4	18.7	19.4
	6H	17.2	18.4	17.8	19.0	19.7	17.8	19.0	18.4	19.6	20.3
	8H	17.6	18.7	18.2	19.4	20.1	18.3	19.4	18.9	20.1	20.8
	12H	18.0	19.1	18.6	19.7	20.4	18.7	19.8	19.3	20.5	21.2
4H	2H	13.7	15.1	14.3	15.6	16.3	14.0	15.3	14.6	15.9	16.6
	3H	16.1	17.3	16.7	17.9	18.6	16.5	17.7	17.1	18.3	19.0
	4H	17.3	18.3	17.9	19.0	19.7	17.8	18.8	18.4	19.5	20.2
	6H	18.4	19.3	19.0	20.0	20.7	19.0	19.9	19.6	20.6	21.3
	8H	18.9	19.8	19.5	20.4	21.2	19.5	20.4	20.1	21.1	21.8
	12H	19.4	20.2	20.0	20.9	21.6	20.1	20.9	20.7	21.6	22.3
8H	4H	17.7	18.6	18.4	19.3	20.0	18.1	19.0	18.8	19.7	20.4
	6H	19.0	19.8	19.7	20.5	21.2	19.5	20.3	20.2	21.0	21.7
	8H	19.6	20.3	20.3	21.0	21.8	20.2	20.9	20.9	21.6	22.4
	12H	20.3	20.9	20.9	21.6	22.4	20.9	21.5	21.6	22.2	23.1
12H	4H	17.8	18.6	18.5	19.3	20.1	18.2	19.0	18.9	19.7	20.5
	6H	19.2	19.9	19.8	20.5	21.3	19.7	20.3	20.3	21.0	21.8
	8H	19.8	20.5	20.5	21.2	22.0	20.4	21.0	21.1	21.7	22.5

Maximum UGR = 23.1

POLAR GRAPH



Maximum Candela = 560.274 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)