

## IES INDOOR REPORT

PHOTOMETRIC FILENAME : ALR 36 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) 36" Bowl

[LUMINAIRE] Justice Design Group - Pendant mount luminaire. Product ID: ALR 36" Bowl

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

[LAMPCAT] 6-13W LED-3K 1000L EACH 6000 TOTAL LUMENS,

[MORE] 78W AT 120.0 VOLTS

### CHARACTERISTICS

Lumens Per Lamp	1000 (6 lamps)
Total Lamp Lumens	6000
Luminaire Lumens	3108
Total Luminaire Efficiency	52 %
Luminaire Efficacy Rating (LER)	40
Total Luminaire Watts	78
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	5422	5521	5654
55	4695	4860	5025
65	3901	4133	4331
75	3174	3405	3604
85	2447	2678	2876

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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>
<b>0.0</b>	672.320	672.320	672.320	672.320	672.320
<b>2.5</b>	672.320	669.264	672.320	669.264	672.320
<b>5.0</b>	669.264	666.208	669.264	669.264	672.320
<b>7.5</b>	666.208	663.152	666.208	666.208	666.208
<b>10.0</b>	663.152	660.096	663.152	663.152	666.208
<b>12.5</b>	657.040	657.040	657.040	660.096	660.096
<b>15.0</b>	650.928	650.928	650.928	653.984	653.984
<b>17.5</b>	641.760	644.816	644.816	647.872	644.816
<b>20.0</b>	632.592	635.648	635.648	638.704	635.648
<b>22.5</b>	623.424	626.480	623.424	629.536	626.480
<b>25.0</b>	614.256	617.312	614.256	620.368	617.312
<b>27.5</b>	602.032	605.088	605.088	611.200	608.144
<b>30.0</b>	589.808	592.864	592.864	602.032	595.920
<b>32.5</b>	577.584	580.640	580.640	589.808	586.752
<b>35.0</b>	565.360	568.416	568.416	577.584	574.528
<b>37.5</b>	550.080	556.192	556.192	565.360	562.304
<b>40.0</b>	534.800	540.912	540.912	553.136	550.080
<b>42.5</b>	519.520	525.632	525.632	537.856	534.800
<b>45.0</b>	501.184	510.352	510.352	525.632	522.576
<b>47.5</b>	485.904	495.072	495.072	510.352	507.296
<b>50.0</b>	470.624	479.792	482.848	498.128	495.072
<b>52.5</b>	452.288	461.456	464.512	482.848	479.792
<b>55.0</b>	433.952	446.176	449.232	464.512	464.512
<b>57.5</b>	415.616	427.840	430.896	449.232	446.176
<b>60.0</b>	397.280	412.560	415.616	433.952	430.896
<b>62.5</b>	378.944	391.168	397.280	415.616	415.616
<b>65.0</b>	360.608	375.888	382.000	400.336	400.336
<b>67.5</b>	342.272	357.552	363.664	382.000	382.000
<b>70.0</b>	326.992	342.272	348.384	366.720	366.720
<b>72.5</b>	308.656	323.936	330.048	351.440	348.384
<b>75.0</b>	293.376	308.656	314.768	336.160	333.104
<b>77.5</b>	275.040	290.320	296.432	317.824	314.768
<b>80.0</b>	256.704	275.040	281.152	302.544	299.488
<b>82.5</b>	241.424	256.704	262.816	284.208	281.152
<b>85.0</b>	226.144	241.424	247.536	268.928	265.872
<b>87.5</b>	207.808	226.144	229.200	250.592	247.536
<b>90.0</b>	195.584	204.752	213.920	229.200	235.312
<b>92.5</b>	183.360	180.304	198.640	207.808	220.032
<b>95.0</b>	168.080	165.024	186.416	189.472	204.752
<b>97.5</b>	152.800	149.744	168.080	171.136	183.360
<b>100.0</b>	137.520	134.464	152.800	155.856	168.080
<b>102.5</b>	122.240	119.184	137.520	140.576	152.800
<b>105.0</b>	110.016	106.960	122.240	125.296	137.520
<b>107.5</b>	94.736	94.736	106.960	110.016	122.240
<b>110.0</b>	85.568	82.512	94.736	97.792	106.960
<b>112.5</b>	70.288	70.288	82.512	82.512	91.680
<b>115.0</b>	61.120	58.064	70.288	70.288	79.456
<b>117.5</b>	51.952	48.896	58.064	58.064	67.232
<b>120.0</b>	42.784	39.728	48.896	48.896	55.008
<b>122.5</b>	33.616	33.616	39.728	39.728	45.840
<b>125.0</b>	27.504	24.448	30.560	30.560	36.672
<b>127.5</b>	21.392	18.336	24.448	21.392	27.504
<b>130.0</b>	15.280	12.224	18.336	15.280	18.336
<b>132.5</b>	9.168	9.168	12.224	9.168	12.224

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**CANDELA TABULATION - (Cont.)**

<b>135.0</b>	6.112	6.112	9.168	6.112	6.112
<b>137.5</b>	3.056	3.056	3.056	3.056	3.056
<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	247.85	4.10	8.00
0-30	532.57	8.90	17.10
0-40	890.44	14.80	28.60
0-60	1693.26	28.20	54.50
0-80	2409.51	40.20	77.50
0-90	2682.37	44.70	86.30
10-90	2618.74	43.60	84.30
20-40	642.60	10.70	20.70
20-50	1040.43	17.30	33.50
40-70	1183.65	19.70	38.10
60-80	716.25	11.90	23.00
70-80	335.42	5.60	10.80
80-90	272.86	4.50	8.80
90-110	324.97	5.40	10.50
90-120	392.80	6.50	12.60
90-130	420.19	7.00	13.50
90-150	425.78	7.10	13.70
90-180	425.78	7.10	13.70
110-180	100.81	1.70	3.20
0-180	3108.15	51.80	100.00

Total Luminaire Efficiency = 51.80%

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	63.63
10-20	184.22
20-30	284.72
30-40	357.87
40-50	397.83
50-60	404.98
60-70	380.84
70-80	335.42
80-90	272.86
90-100	198.01
100-110	126.96
110-120	67.83
120-130	27.39
130-140	5.60
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	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	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**

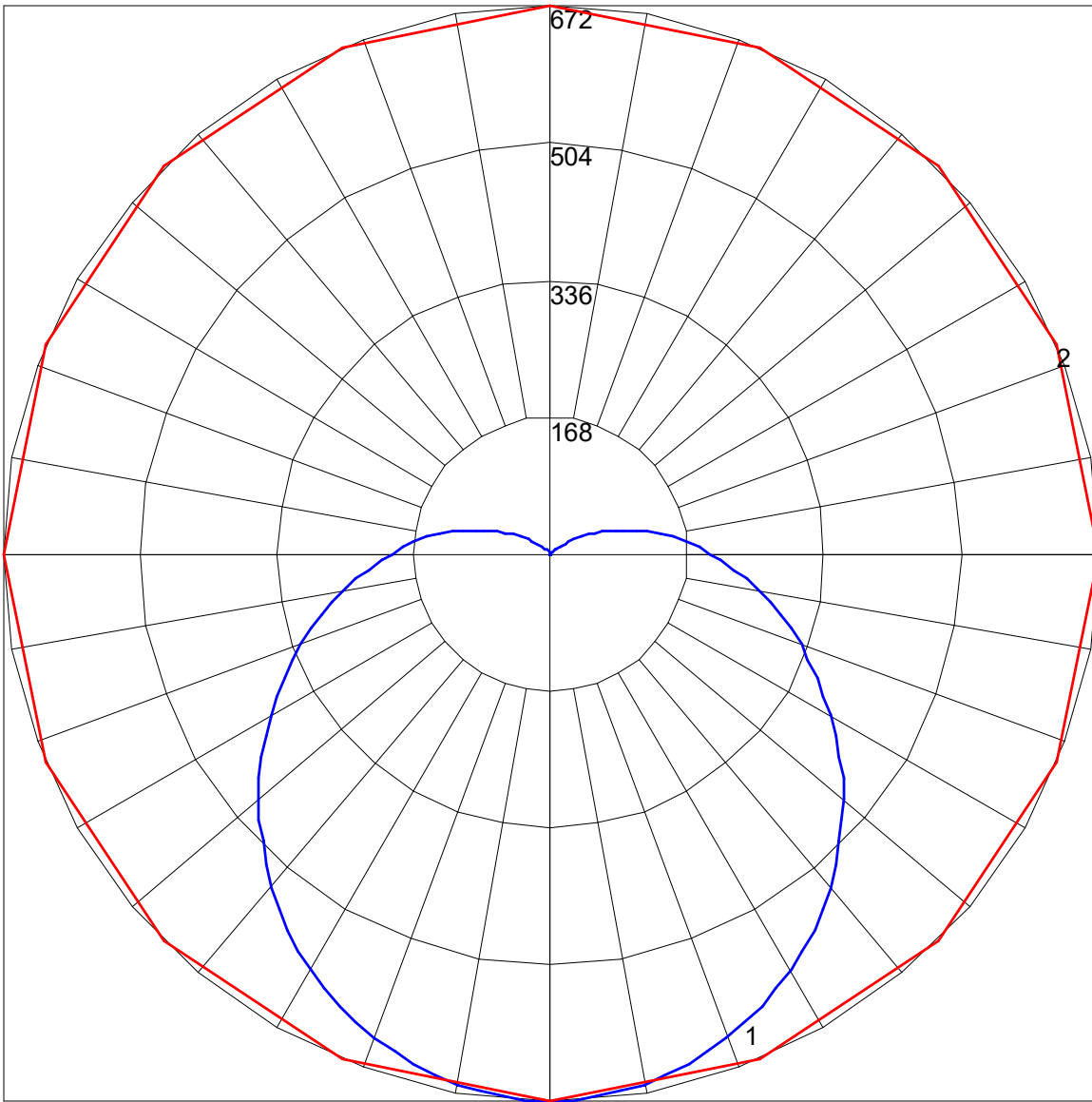
Reflectances

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	13.7	15.2	14.2	15.8	16.4	14.1	15.6	14.6	16.1	16.7
	3H	15.9	17.2	16.4	17.8	18.5	16.4	17.7	16.9	18.3	19.0
	4H	16.8	18.1	17.4	18.7	19.4	17.4	18.7	18.0	19.3	20.0
	6H	17.7	19.0	18.3	19.6	20.3	18.4	19.6	19.0	20.2	20.9
	8H	18.2	19.3	18.8	20.0	20.7	18.9	20.0	19.5	20.7	21.4
	12H	18.6	19.7	19.2	20.3	21.0	19.3	20.4	19.9	21.1	21.8
4H	2H	14.3	15.7	14.9	16.2	16.9	14.6	15.9	15.2	16.5	17.2
	3H	16.7	17.9	17.3	18.5	19.2	17.1	18.3	17.7	18.9	19.6
	4H	17.9	18.9	18.5	19.6	20.3	18.4	19.4	19.0	20.1	20.8
	6H	19.0	19.9	19.6	20.6	21.3	19.6	20.5	20.2	21.2	21.9
	8H	19.5	20.4	20.1	21.0	21.8	20.1	21.0	20.7	21.7	22.4
	12H	20.0	20.8	20.6	21.5	22.2	20.7	21.5	21.3	22.2	22.9
8H	4H	18.3	19.2	18.9	19.9	20.6	18.7	19.6	19.4	20.3	21.0
	6H	19.6	20.4	20.3	21.1	21.8	20.1	20.9	20.8	21.6	22.3
	8H	20.2	20.9	20.9	21.6	22.4	20.8	21.5	21.5	22.2	23.0
	12H	20.9	21.5	21.5	22.2	23.0	21.5	22.1	22.2	22.8	23.7
12H	4H	18.4	19.2	19.1	19.9	20.7	18.8	19.6	19.5	20.3	21.1
	6H	19.8	20.5	20.4	21.1	21.9	20.3	20.9	20.9	21.6	22.4
	8H	20.4	21.1	21.1	21.8	22.6	21.0	21.6	21.7	22.3	23.1

Maximum UGR = 23.7

POLAR GRAPH



Maximum Candela = 672.32 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.)