



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : AT2-24-L55-B40S-D-DIM-UNV\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN FROM BALLABS TEST NO. 18892.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 09-AUG-2021

[MANUFAC] WILLIAMS INDOOR

[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO

[LUMINAIRE] 2x4' RECESSED LED LUMINAIRE w/WHITE

[MORE] REFL, FROST CONCAVE ACRYLIC LENS w/DEEP ACRYLIC CENTER

[MORE] W/BIOS SKY BLUE MODULES

[LUMCAT] AT2-24-L55-B40S-D-DIM-UNV

[LAMPCAT] BIOS SKY BLUE BH-00SM

[\_SEARCH\_SOURCETYPE] LED

[\_SEARCH\_APPLICATION] Indoor, Architectural, Classroom, Commercial, Office, Direct

[\_SEARCH\_MOUNTING] Recessed

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	5792
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	114
Total Luminaire Watts	51
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.12
Spacing Criterion (90-270)	1.18
Spacing Criterion (Diagonal)	1.28
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	3.76 ft
Luminous Width (90-270)	1.77 ft
Luminous Height	0.00 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	2908	3100	3223
55	2507	2706	2840
65	2207	2440	2564
75	1814	2170	2299
85	1424	1762	1615

IES INDOOR REPORT  
 PHOTOMETRIC FILENAME : AT2-24-L55-B40S-D-DIM-UNV\_.IES

CANDELA TABULATION

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
<b>0</b>	2391.539	2391.539	2391.539	2391.539	2391.539
<b>5</b>	2367.837	2367.837	2368.627	2370.207	2371.787
<b>10</b>	2323.593	2325.963	2334.654	2344.135	2348.085
<b>15</b>	2220.884	2226.414	2244.586	2261.177	2265.918
<b>20</b>	2130.816	2142.667	2174.270	2203.502	2213.773
<b>25</b>	1923.028	1940.409	1977.543	2010.726	2028.897
<b>30</b>	1751.583	1770.545	1818.739	1855.872	1875.624
<b>35</b>	1615.691	1640.183	1693.908	1738.152	1754.743
<b>40</b>	1422.914	1448.987	1503.501	1550.115	1558.806
<b>45</b>	1269.641	1297.293	1353.388	1396.052	1407.113
<b>50</b>	1065.013	1091.085	1144.020	1177.993	1192.214
<b>55</b>	888.038	910.950	958.354	988.376	1005.758
<b>60</b>	712.642	733.184	775.848	801.920	811.401
<b>65</b>	575.960	598.082	636.796	664.448	669.188
<b>70</b>	430.588	451.129	488.263	512.755	516.705
<b>75</b>	289.955	309.707	346.840	362.642	367.382
<b>80</b>	176.975	198.307	226.750	221.219	221.219
<b>85</b>	76.637	94.018	94.808	89.278	86.908
<b>90</b>	0.000	0.000	0.000	0.000	0.000

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : AT2-24-L55-B40S-D-DIM-UNV\_.IES**

**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	860.85	N.A.	14.90
0-30	1775.78	N.A.	30.70
0-40	2823.62	N.A.	48.80
0-60	4702.92	N.A.	81.20
0-80	5685.13	N.A.	98.20
0-90	5791.64	N.A.	100.00
10-90	5566.44	N.A.	96.10
20-40	1962.77	N.A.	33.90
20-50	2990.94	N.A.	51.60
40-70	2500.87	N.A.	43.20
60-80	982.21	N.A.	17.00
70-80	360.63	N.A.	6.20
80-90	106.51	N.A.	1.80
90-110	0.00	N.A.	0.00
90-120	0.00	N.A.	0.00
90-130	0.00	N.A.	0.00
90-150	0.00	N.A.	0.00
90-180	0.00	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	5791.64	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	225.20
10-20	635.65
20-30	914.92
30-40	1047.85
40-50	1028.17
50-60	851.12
60-70	621.58
70-80	360.63
80-90	106.51
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : AT2-24-L55-B40S-D-DIM-UNV\_.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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	100	97	106	102	98	95	98	95	92	94	92	89	90	88	87	85
2	100	92	85	79	97	90	84	79	86	81	77	83	79	75	80	76	73	71
3	91	81	73	67	89	79	72	66	76	70	65	74	68	64	71	67	63	61
4	84	72	64	57	81	71	63	57	68	61	56	66	60	55	64	59	54	52
5	77	65	56	49	75	64	55	49	61	54	49	60	53	48	58	52	48	46
6	71	58	50	43	70	58	49	43	56	48	43	54	48	43	53	47	42	40
7	66	53	45	39	65	52	44	38	51	44	38	49	43	38	48	42	38	36
8	62	49	40	35	60	48	40	35	47	39	34	45	39	34	44	38	34	32
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31	29
10	54	41	34	29	53	41	33	28	40	33	28	39	33	28	38	32	28	26

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : AT2-24-L55-B40S-D-DIM-UNV\_.IES**

**UGR TABLE - CORRECTED**

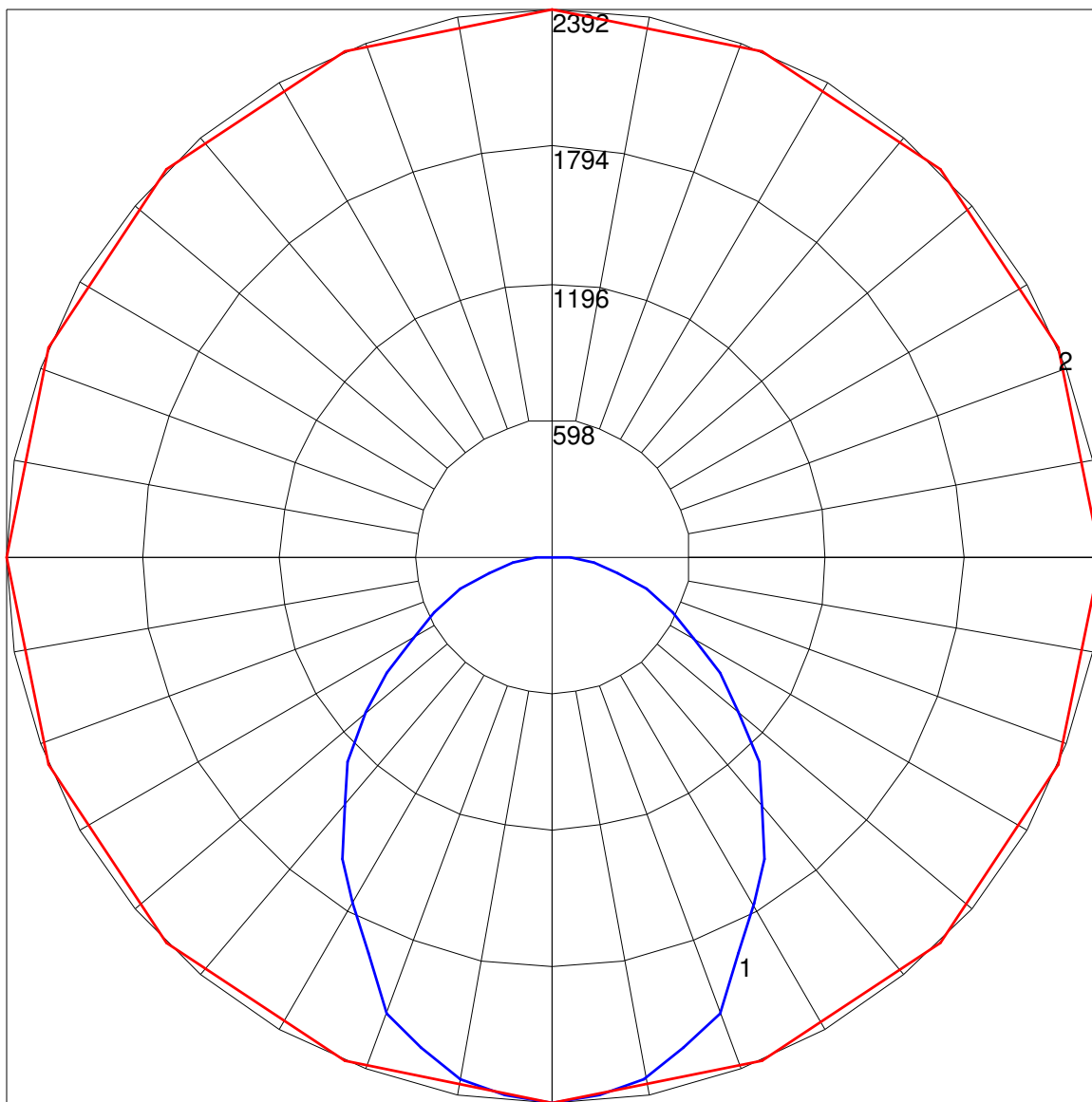
Reflectances

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	14.8	16.4	15.2	16.7	17.0	15.5	17.0	15.8	17.4	17.7
	3H	16.5	17.9	16.9	18.2	18.6	17.3	18.7	17.7	19.0	19.4
	4H	17.1	18.4	17.5	18.8	19.1	18.0	19.3	18.4	19.7	20.0
	6H	17.5	18.8	17.9	19.1	19.5	18.5	19.7	18.9	20.1	20.5
	8H	17.7	18.9	18.1	19.2	19.6	18.7	19.8	19.1	20.2	20.6
	12H	17.8	18.9	18.2	19.3	19.7	18.7	19.9	19.2	20.3	20.7
4H	2H	15.5	16.9	15.9	17.2	17.6	16.0	17.4	16.4	17.7	18.1
	3H	17.4	18.5	17.8	18.9	19.3	18.1	19.2	18.5	19.6	20.0
	4H	18.1	19.1	18.6	19.5	20.0	18.9	19.9	19.3	20.3	20.8
	6H	18.7	19.6	19.2	20.0	20.5	19.6	20.5	20.0	20.9	21.4
	8H	18.9	19.7	19.4	20.2	20.6	19.8	20.6	20.2	21.1	21.5
	12H	19.0	19.8	19.5	20.3	20.7	19.9	20.7	20.4	21.1	21.6
8H	4H	18.5	19.3	19.0	19.8	20.2	19.2	20.0	19.7	20.5	20.9
	6H	19.2	19.9	19.7	20.4	20.9	20.0	20.7	20.5	21.2	21.6
	8H	19.5	20.1	20.0	20.6	21.1	20.3	20.9	20.8	21.4	21.9
	12H	19.7	20.3	20.2	20.8	21.3	20.5	21.0	21.0	21.5	22.1
12H	4H	18.6	19.3	19.0	19.8	20.2	19.2	20.0	19.7	20.4	20.9
	6H	19.3	19.9	19.8	20.4	20.9	20.1	20.7	20.6	21.1	21.7
	8H	19.6	20.2	20.2	20.7	21.3	20.4	20.9	20.9	21.4	22.0

Maximum UGR = 22.1

POLAR GRAPH



Maximum Candela = 2391.539 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.)