



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : AT3-22-L30-940-D-DIM-UNV\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002  
 [TEST] GEN from BALLABS TEST NO. 19255.0  
 [TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC  
 [ISSUEDATE] 02-11-2023  
 [MANUFAC] WILLIAMS INDOOR  
 [OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO 64836  
 [LUMINAIRE] 2x2' RECESSED LUMINAIRE  
 [MORE] WITH FROSTED ACRYLIC LENS  
 [LUMCAT] AT3-22-L30-940-D-DIM-UNV  
 [LAMPCAT] HLM 90 CRI, 4000K CCT  
 [SEARCH\_SOURCETYPE] LED  
 [SEARCH\_APPLICATION] Indoor, Architectural, Commercial, Office, Direct  
 [SEARCH\_MOUNTING] Recessed

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	2309
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	78
Total Luminaire Watts	29.5
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.14
Spacing Criterion (90-270)	1.28
Spacing Criterion (Diagonal)	1.32
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	1.76 ft
Luminous Width (90-270)	1.76 ft
Luminous Height	0.00 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	2372	2638	2872
55	2068	2438	2650
65	1738	2203	2472
75	1411	2064	2185
85	946	811	586

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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</b>	899.390	899.390	899.390	899.390	899.390
<b>5</b>	899.390	895.996	894.865	894.865	893.733
<b>10</b>	876.764	876.764	876.764	881.289	882.420
<b>15</b>	843.956	847.350	851.875	862.057	865.451
<b>20</b>	800.966	807.754	819.067	834.905	841.693
<b>25</b>	743.269	755.714	780.602	802.097	812.279
<b>30</b>	679.916	696.886	729.694	761.370	769.289
<b>35</b>	615.432	634.664	667.472	713.855	717.249
<b>40</b>	548.684	562.260	601.856	648.239	652.765
<b>45</b>	483.068	488.725	537.371	570.179	584.886
<b>50</b>	414.059	418.584	471.755	494.382	514.745
<b>55</b>	341.655	354.099	402.746	421.978	437.816
<b>60</b>	274.908	294.140	334.867	354.099	365.412
<b>65</b>	211.555	239.837	268.120	288.484	300.928
<b>70</b>	153.858	185.535	208.161	226.262	234.181
<b>75</b>	105.212	132.363	153.858	160.646	162.908
<b>80</b>	62.222	80.323	91.636	65.616	59.959
<b>85</b>	23.757	26.020	20.364	16.970	14.707
<b>90</b>	0.000	0.000	0.000	0.000	0.000

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	325.73	N.A.	14.10
0-30	684.25	N.A.	29.60
0-40	1102.76	N.A.	47.80
0-60	1865.82	N.A.	80.80
0-80	2277.16	N.A.	98.60
0-90	2308.71	N.A.	100.00
10-90	2223.78	N.A.	96.30
20-40	777.03	N.A.	33.70
20-50	1188.36	N.A.	51.50
40-70	1024.41	N.A.	44.40
60-80	411.34	N.A.	17.80
70-80	149.99	N.A.	6.50
80-90	31.55	N.A.	1.40
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	2308.71	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	84.93
10-20	240.80
20-30	358.53
30-40	418.50
40-50	411.33
50-60	351.73
60-70	261.35
70-80	149.99
80-90	31.55
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

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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
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	105	100	97	106	102	99	95	98	95	92	94	92	89	91	89	87	85
2	100	91	85	79	97	90	83	78	86	81	76	83	79	75	80	76	73	71
3	91	81	73	66	88	79	72	66	76	70	65	73	68	63	71	66	62	60
4	83	72	63	56	81	70	62	56	68	61	55	66	59	55	63	58	54	52
5	77	64	55	49	75	63	55	49	61	54	48	59	53	48	57	52	47	45
6	71	58	49	43	69	57	49	43	55	48	42	54	47	42	52	46	42	39
7	66	53	44	38	64	52	44	38	50	43	38	49	42	37	48	42	37	35
8	61	48	40	34	60	47	39	34	46	39	34	45	38	33	44	38	33	31
9	57	44	36	31	56	44	36	31	43	35	30	41	35	30	40	34	30	28
10	54	41	33	28	53	40	33	28	39	32	28	38	32	28	38	32	27	26

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**UGR TABLE - CORRECTED**

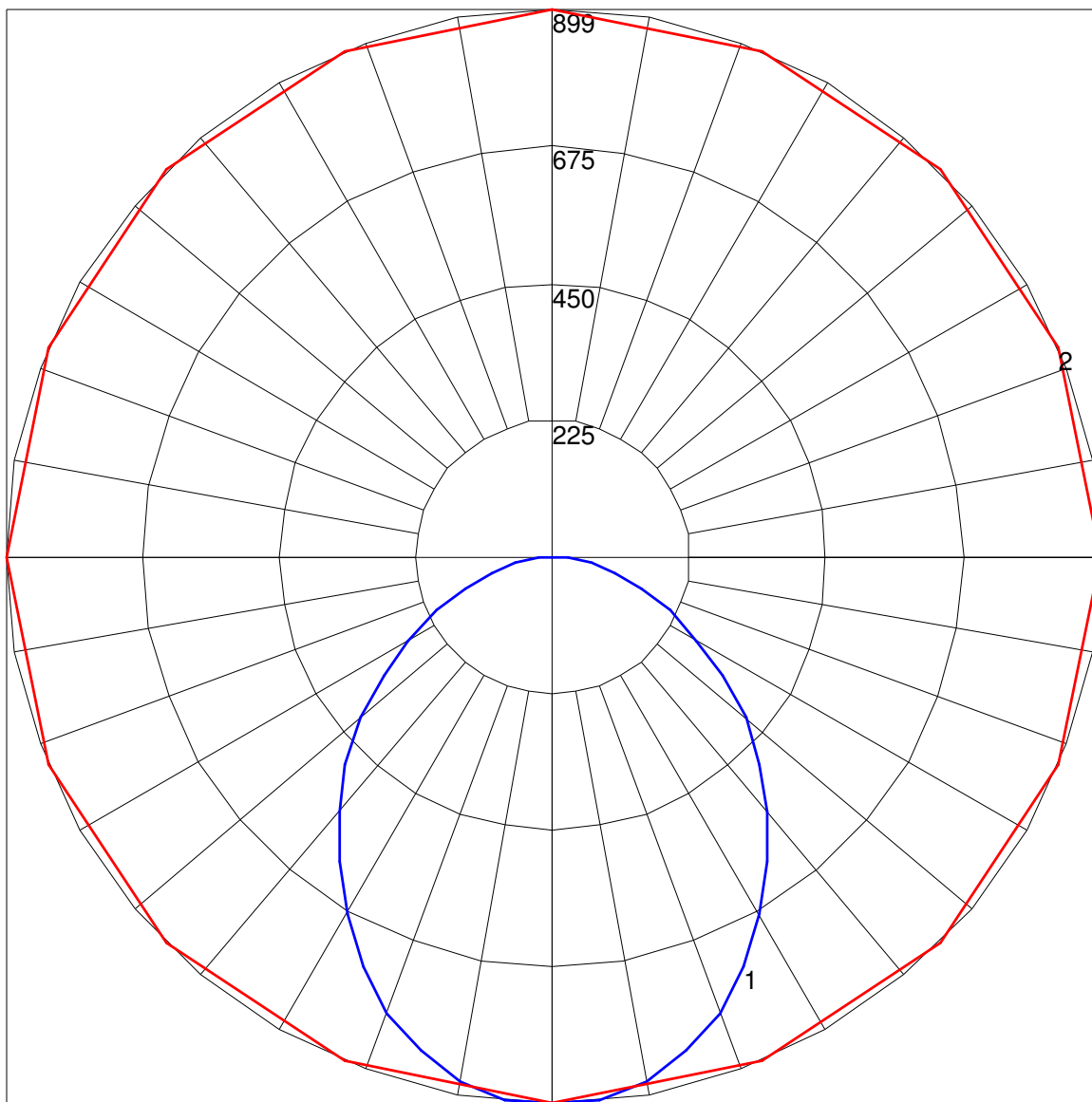
Reflectances

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	14.1	15.7	14.5	16.1	16.4	15.5	17.1	15.9	17.4	17.7
	3H	15.7	17.2	16.1	17.5	17.9	17.4	18.8	17.8	19.2	19.5
	4H	16.3	17.7	16.7	18.0	18.4	18.1	19.5	18.5	19.8	20.2
	6H	16.7	18.0	17.2	18.4	18.8	18.4	19.7	18.8	20.0	20.4
	8H	16.9	18.1	17.3	18.5	18.8	18.5	19.7	18.9	20.1	20.5
	12H	16.9	18.1	17.4	18.5	18.9	18.5	19.6	18.9	20.0	20.4
4H	2H	15.0	16.3	15.4	16.7	17.1	16.0	17.4	16.4	17.7	18.1
	3H	16.9	18.0	17.3	18.4	18.8	18.2	19.3	18.6	19.7	20.1
	4H	17.6	18.6	18.0	19.0	19.4	19.0	20.0	19.4	20.5	20.9
	6H	18.1	19.0	18.6	19.4	19.9	19.4	20.3	19.9	20.8	21.2
	8H	18.3	19.1	18.7	19.5	20.0	19.5	20.3	19.9	20.8	21.2
	12H	18.4	19.1	18.8	19.6	20.0	19.5	20.2	20.0	20.7	21.2
8H	4H	18.0	18.9	18.5	19.3	19.8	19.3	20.1	19.8	20.6	21.0
	6H	18.7	19.4	19.2	19.9	20.4	19.8	20.5	20.3	21.0	21.4
	8H	18.9	19.6	19.4	20.1	20.5	19.9	20.5	20.4	21.0	21.5
	12H	19.1	19.6	19.6	20.1	20.7	19.9	20.5	20.4	20.9	21.5
12H	4H	18.1	18.8	18.5	19.3	19.8	19.3	20.1	19.8	20.5	21.0
	6H	18.8	19.4	19.3	19.9	20.4	19.8	20.4	20.3	20.9	21.4
	8H	19.0	19.6	19.5	20.1	20.6	19.9	20.5	20.4	21.0	21.5

Maximum UGR = 21.5

POLAR GRAPH



Maximum Candela = 899.39 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.)