



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : AT3-22-L30-935-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  
 [ISSUE DATE] 11-JAN-2023  
 [MANUFACT] WILLIAMS INDOOR  
 [OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO 64836  
 [LUMINAIRE] 2x2' RECESSED LUMINAIRE  
 [MORE] WITH FROSTED ACRYLIC LENS  
 [LUMCAT] AT3-22-L30-935-D-DIM-UNV  
 [LAMPCAT] HLM 90 CRI, 3500K 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	2487
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	102
Total Luminaire Watts	24.4
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	2555	2842	3093
55	2227	2626	2854
65	1872	2372	2663
75	1520	2223	2354
85	1019	874	631

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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>	968.708	968.708	968.708	968.708	968.708
<b>5</b>	968.708	965.052	963.834	963.834	962.615
<b>10</b>	944.338	944.338	944.338	949.212	950.430
<b>15</b>	909.001	912.657	917.531	928.497	932.153
<b>20</b>	862.698	870.009	882.194	899.253	906.564
<b>25</b>	800.555	813.958	840.765	863.917	874.883
<b>30</b>	732.319	750.596	785.933	820.051	828.580
<b>35</b>	662.864	683.579	718.915	768.874	772.529
<b>40</b>	590.973	605.595	648.242	698.201	703.075
<b>45</b>	520.300	526.392	578.788	614.124	629.965
<b>50</b>	445.971	450.845	508.115	532.485	554.418
<b>55</b>	367.987	381.391	433.786	454.501	471.560
<b>60</b>	296.096	316.810	360.676	381.391	393.576
<b>65</b>	227.860	258.322	288.785	310.718	324.121
<b>70</b>	165.716	199.834	224.204	243.700	252.230
<b>75</b>	113.321	142.565	165.716	173.027	175.464
<b>80</b>	67.018	86.514	98.699	70.673	64.581
<b>85</b>	25.589	28.026	21.933	18.278	15.841
<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	350.83	N.A.	14.10
0-30	736.99	N.A.	29.60
0-40	1187.75	N.A.	47.80
0-60	2009.62	N.A.	80.80
0-80	2452.66	N.A.	98.60
0-90	2486.65	N.A.	100.00
10-90	2395.18	N.A.	96.30
20-40	836.92	N.A.	33.70
20-50	1279.95	N.A.	51.50
40-70	1103.36	N.A.	44.40
60-80	443.04	N.A.	17.80
70-80	161.55	N.A.	6.50
80-90	33.98	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	2486.65	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	91.47
10-20	259.36
20-30	386.16
30-40	450.76
40-50	443.03
50-60	378.84
60-70	281.49
70-80	161.55
80-90	33.98
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	105	105	105	105	103	103	103	103	98	98	98	94	94	94	90	90	90	88
1	96	92	89	85	94	90	87	84	87	84	81	83	81	79	80	78	77	75
2	88	81	75	70	86	79	74	69	76	71	68	73	69	66	70	67	65	63
3	80	71	64	59	78	70	63	58	67	62	57	65	60	56	63	58	55	53
4	74	63	56	50	72	62	55	50	60	54	49	58	53	48	56	51	48	46
5	68	57	49	43	66	56	48	43	54	47	42	52	46	42	50	46	42	40
6	63	51	43	38	61	50	43	38	49	42	37	47	41	37	46	41	37	35
7	58	47	39	34	57	46	39	33	44	38	33	43	37	33	42	37	33	31
8	54	43	35	30	53	42	35	30	41	34	30	40	34	30	39	33	29	28
9	51	39	32	27	50	39	32	27	38	31	27	37	31	27	36	30	27	25
10	48	36	29	25	47	36	29	25	35	29	24	34	28	24	33	28	24	23

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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

X=2H	Y=2H	14.8	16.4	15.2	16.8	17.1	16.2	17.8	16.6	18.1	18.4
	3H	16.4	17.9	16.8	18.2	18.6	18.1	19.5	18.5	19.9	20.2
	4H	17.0	18.4	17.4	18.7	19.1	18.8	20.2	19.2	20.5	20.9
	6H	17.4	18.7	17.9	19.1	19.5	19.1	20.4	19.5	20.7	21.1
	8H	17.6	18.8	18.0	19.2	19.5	19.2	20.4	19.6	20.8	21.2
	12H	17.6	18.8	18.1	19.2	19.6	19.2	20.3	19.6	20.7	21.1

UGR Viewed Endwise

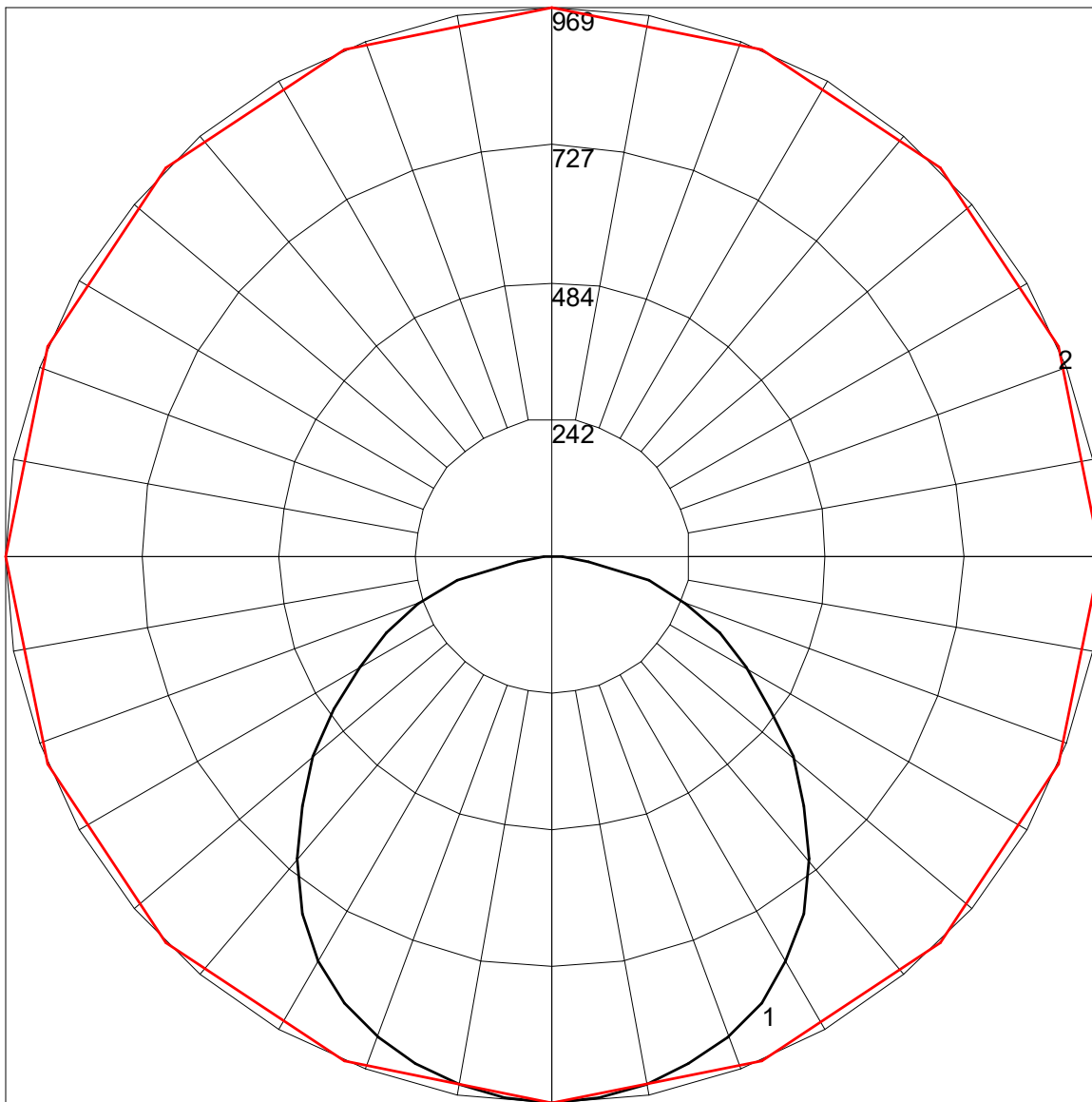
4H	2H	15.7	17.0	16.1	17.4	17.8	16.7	18.1	17.1	18.4	18.8
	3H	17.6	18.7	18.0	19.1	19.5	18.9	20.0	19.3	20.4	20.8
	4H	18.3	19.3	18.7	19.7	20.1	19.7	20.7	20.1	21.2	21.6
	6H	18.8	19.7	19.3	20.1	20.6	20.1	21.0	20.6	21.5	21.9
	8H	19.0	19.8	19.4	20.2	20.7	20.2	21.0	20.6	21.5	21.9
	12H	19.1	19.8	19.5	20.3	20.7	20.2	20.9	20.7	21.4	21.9

8H	4H	18.7	19.6	19.2	20.0	20.5	20.0	20.8	20.5	21.3	21.7
	6H	19.4	20.1	19.9	20.6	21.1	20.5	21.2	21.0	21.7	22.1
	8H	19.6	20.3	20.1	20.8	21.2	20.6	21.2	21.1	21.7	22.2
	12H	19.8	20.3	20.3	20.8	21.4	20.6	21.2	21.1	21.6	22.2

12H	4H	18.8	19.5	19.2	20.0	20.5	20.0	20.8	20.5	21.2	21.7
	6H	19.5	20.1	20.0	20.6	21.1	20.5	21.1	21.0	21.6	22.1
	8H	19.7	20.3	20.2	20.8	21.3	20.6	21.2	21.1	21.7	22.2

Maximum UGR = 22.2

POLAR GRAPH



Maximum Candela = 968.708 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)  
# 2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)