

## IES INDOOR REPORT

PHOTOMETRIC FILENAME : AT2-22-L30-935-D-EM10W-DIM-UNV (EMER MODE)\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from BALLABS TEST NO. 18882.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 08-31-2023

[MANUFAC] WILLIAMS INDOOR

[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO 64836

[LUMINAIRE] 2x2' RECESSED LUMINAIRE

[MORE] WITH FROST CONCAVE ACRYLIC LENS w/DEEP ACRYLIC CENTER

[MORE] DIFFUSER

[LUMCAT] AT2-22-L30-935-D-EM10W-DIM-UNV (EMER MODE)

[LAMPCAT] HLM 90 CRI, 3500K CCT

[\_SEARCH\_SOURCETYPE] LED

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

[\_SEARCH\_MOUNTING] Ceiling, Recessed

[\_SEARCH\_CERTIFICATION] DLC

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	880
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	88
Total Luminaire Watts	10
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.16
Spacing Criterion (90-270)	1.24
Spacing Criterion (Diagonal)	1.28
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	1.76 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	926	993	1062
55	811	876	948
65	691	775	845
75	550	658	744
85	272	408	357

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : AT2-22-L30-935-D-EM10W-DIM-UNV (EMER MODE)\_.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>	359.684	359.684	359.684	359.684	359.684
<b>5</b>	358.828	357.115	357.543	357.115	357.115
<b>10</b>	350.264	350.264	351.120	351.549	351.977
<b>15</b>	336.562	337.846	340.416	342.128	343.841
<b>20</b>	320.290	322.003	326.285	330.139	333.136
<b>25</b>	298.452	301.878	307.873	312.583	316.865
<b>30</b>	273.189	276.614	286.463	292.458	295.883
<b>35</b>	247.069	249.210	261.199	268.479	273.189
<b>40</b>	218.380	220.949	232.510	240.646	245.356
<b>45</b>	189.262	192.688	202.965	211.957	217.095
<b>50</b>	161.002	164.855	174.276	181.555	187.550
<b>55</b>	134.453	137.451	145.158	151.153	157.148
<b>60</b>	108.762	113.044	119.467	125.890	129.743
<b>65</b>	84.355	89.921	94.631	98.913	103.195
<b>70</b>	61.660	68.940	71.509	75.362	79.644
<b>75</b>	41.107	44.961	49.243	54.809	55.665
<b>80</b>	22.266	26.120	29.117	31.686	30.830
<b>85</b>	6.851	8.992	10.277	11.133	8.992
<b>90</b>	0.000	0.000	0.000	0.000	0.000

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : AT2-22-L30-935-D-EM10W-DIM-UNV (EMER MODE)\_.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	129.84	N.A.	14.80
0-30	271.29	N.A.	30.80
0-40	433.48	N.A.	49.30
0-60	720.31	N.A.	81.90
0-80	866.69	N.A.	98.50
0-90	879.63	N.A.	100.00
10-90	845.71	N.A.	96.10
20-40	303.64	N.A.	34.50
20-50	460.10	N.A.	52.30
40-70	380.80	N.A.	43.30
60-80	146.38	N.A.	16.60
70-80	52.41	N.A.	6.00
80-90	12.93	N.A.	1.50
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	879.63	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	33.92
10-20	95.92
20-30	141.46
30-40	162.18
40-50	156.46
50-60	130.37
60-70	93.97
70-80	52.41
80-90	12.93
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	101	97	107	102	99	95	98	95	92	94	92	90	91	89	87	85
2	100	92	85	80	97	90	84	79	87	81	77	83	79	75	80	77	74	72
3	91	81	73	67	89	80	72	67	77	70	65	74	69	64	71	67	63	61
4	84	72	64	57	82	71	63	57	69	62	56	66	60	55	64	59	55	53
5	77	65	56	50	75	64	56	50	62	55	49	60	53	48	58	52	48	46
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	42	40
7	67	53	45	39	65	53	44	39	51	44	38	50	43	38	48	42	38	36
8	62	49	41	35	61	48	40	35	47	40	35	46	39	34	44	39	34	32
9	58	45	37	32	57	44	37	31	43	36	31	42	36	31	41	35	31	29
10	55	42	34	29	53	41	34	29	40	33	28	39	33	28	38	32	28	27

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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	11.0	12.6	11.3	12.9	13.2	UGR Viewed Endwise			
	3H	12.6	14.0	13.0	14.3	14.7	11.8	13.3	12.1	13.7
	4H	13.1	14.5	13.5	14.8	15.2	13.5	14.9	13.9	15.3
	6H	13.5	14.7	13.9	15.1	15.5	14.2	15.5	14.6	15.9
	8H	13.5	14.7	14.0	15.1	15.5	14.6	15.9	15.1	16.2
	12H	13.6	14.7	14.0	15.1	15.5	14.8	15.9	15.2	16.3

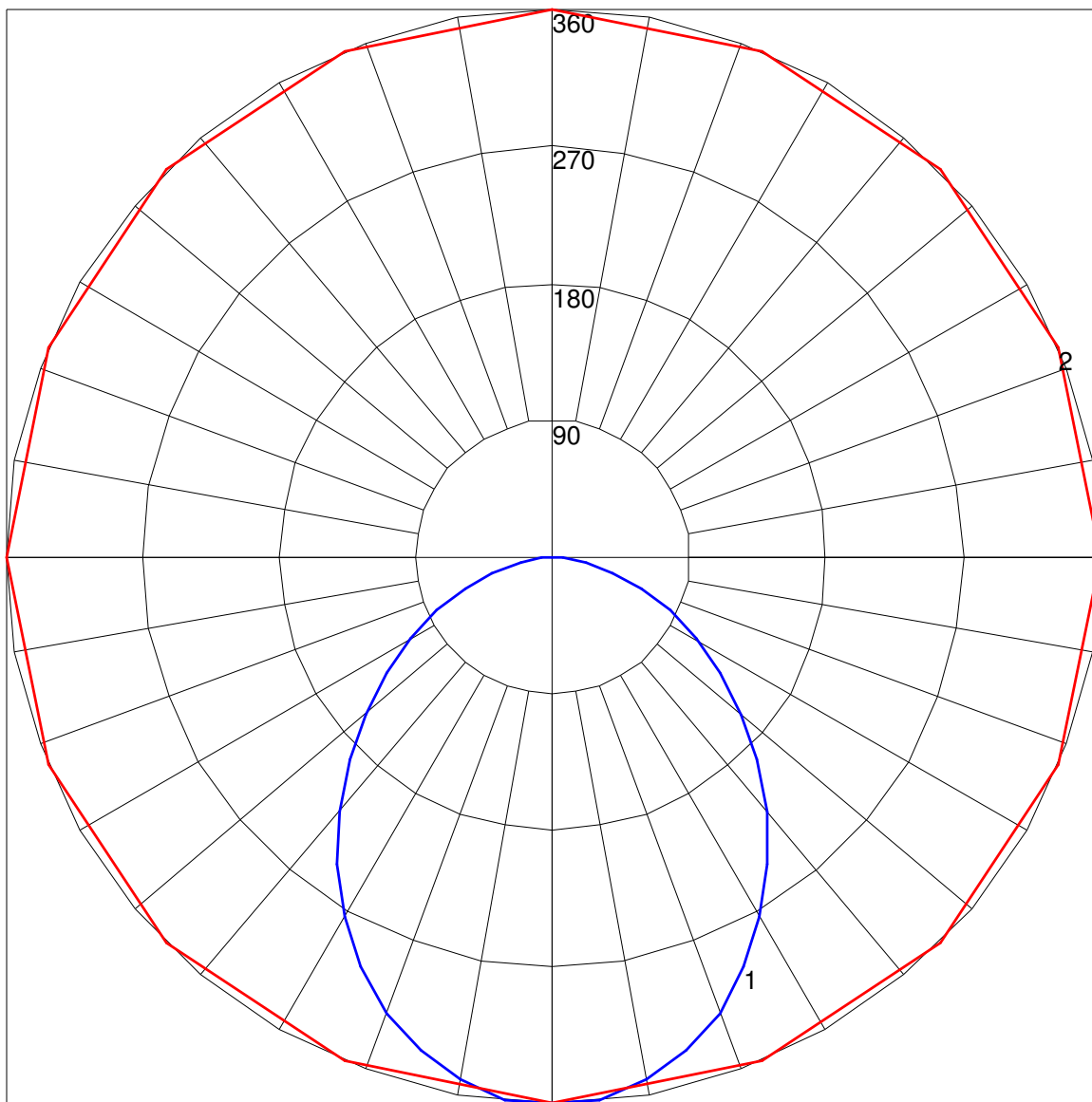
4H	2H	11.7	13.0	12.1	13.3	13.7	12.3	13.6	12.7	14.0
	3H	13.5	14.6	13.9	15.0	15.4	14.2	15.4	14.7	15.8
	4H	14.1	15.1	14.6	15.6	16.0	15.1	16.1	15.5	16.5
	6H	14.6	15.5	15.0	15.9	16.4	15.6	16.5	16.1	17.0
	8H	14.7	15.5	15.2	16.0	16.5	15.8	16.6	16.3	17.1
	12H	14.8	15.5	15.3	16.0	16.5	15.9	16.6	16.4	17.1

8H	4H	14.5	15.3	14.9	15.7	16.2	15.3	16.1	15.8	16.6
	6H	15.1	15.7	15.6	16.2	16.7	16.0	16.7	16.5	17.2
	8H	15.2	15.8	15.7	16.4	16.8	16.2	16.9	16.7	17.4
	12H	15.4	15.9	15.9	16.4	16.9	16.4	16.9	16.9	17.4

12H	4H	14.5	15.2	15.0	15.7	16.2	15.3	16.1	15.8	16.5
	6H	15.1	15.7	15.6	16.2	16.7	16.0	16.7	16.6	17.1
	8H	15.4	15.9	15.9	16.4	17.0	16.3	16.9	16.8	17.4

Maximum UGR = 18.0

POLAR GRAPH



Maximum Candela = 359.684 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.)