



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : AT1-24-L40-840-D-EM10W-DIM-UNV\_(EMER MODE).IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from BALLABS TEST NO. 18876.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 04-07-2022

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] 2x4 'RECESSED LUMINAIRE

[MORE]WITH FROSTED ACRYLIC LENS

[LUMCAT] AT1-24-L40-840-D-EM10W-DIM-UNV

[LAMPCAT] HLM 80 CRI, 4000K CCT

[\_SEARCH\_SOURCETYPE] LED

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

[\_SEARCH\_MOUNTING] Ceiling, Recessed

[\_SEARCH\_CERTIFICATION] DLC

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	1220
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	122
Total Luminaire Watts	10
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.12
Spacing Criterion (90-270)	1.28
Spacing Criterion (Diagonal)	1.32
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	557	651	707
55	483	592	637
65	430	563	609
75	367	545	560
85	309	331	339

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	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
<b>0</b>	469.383	469.383	469.383	469.383	469.383
<b>5</b>	469.779	469.383	470.571	470.571	470.968
<b>10</b>	457.104	457.500	460.273	462.649	463.838
<b>15</b>	441.260	443.636	448.786	454.331	457.500
<b>20</b>	413.532	419.474	428.188	438.883	443.636
<b>25</b>	380.656	386.201	400.461	415.909	422.643
<b>30</b>	348.175	355.701	375.506	395.312	402.838
<b>35</b>	319.656	328.766	352.532	374.318	382.240
<b>40</b>	277.669	288.364	314.903	336.292	342.234
<b>45</b>	243.208	254.695	284.403	302.623	308.565
<b>50</b>	205.974	219.045	245.981	261.825	266.182
<b>55</b>	171.117	184.584	209.539	222.214	225.779
<b>60</b>	140.617	154.084	176.662	187.357	190.526
<b>65</b>	112.097	126.753	146.955	156.065	158.838
<b>70</b>	84.766	100.214	117.643	124.377	125.565
<b>75</b>	58.623	74.468	87.143	90.312	89.519
<b>80</b>	36.838	51.097	55.851	42.779	38.818
<b>85</b>	16.636	23.370	17.825	17.825	18.221
<b>90</b>	0.000	0.000	0.000	0.000	0.000

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : AT1-24-L40-840-D-EM10W-DIM-UNV\_(EMER MODE).IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	170.80	N.A.	14.00
0-30	356.11	N.A.	29.20
0-40	573.97	N.A.	47.00
0-60	971.87	N.A.	79.70
0-80	1196.77	N.A.	98.10
0-90	1219.93	N.A.	100.00
10-90	1175.42	N.A.	96.40
20-40	403.17	N.A.	33.00
20-50	617.85	N.A.	50.60
40-70	537.90	N.A.	44.10
60-80	224.90	N.A.	18.40
70-80	84.89	N.A.	7.00
80-90	23.17	N.A.	1.90
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	1219.93	N.A.	100.00

Total Luminaire Efficiency = N.A.%

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	44.52
10-20	126.28
20-30	185.31
30-40	217.86
40-50	214.67
50-60	183.22
60-70	140.01
70-80	84.89
80-90	23.17
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	104	100	96	106	102	98	94	98	94	91	94	91	89	90	88	86	84
2	99	91	84	79	97	89	83	78	86	80	76	82	78	74	79	76	72	70
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	59
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	58	53	51
5	76	64	55	48	74	63	54	48	61	53	47	59	52	47	57	51	46	44
6	71	58	49	42	69	57	48	42	55	47	42	53	46	41	52	46	41	39
7	66	52	44	38	64	51	43	37	50	42	37	48	42	37	47	41	37	35
8	61	48	39	34	60	47	39	33	46	38	33	45	38	33	43	37	33	31
9	57	44	36	30	56	43	36	30	42	35	30	41	35	30	40	34	30	28
10	54	41	33	28	52	40	33	27	39	32	27	38	32	27	37	31	27	25

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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

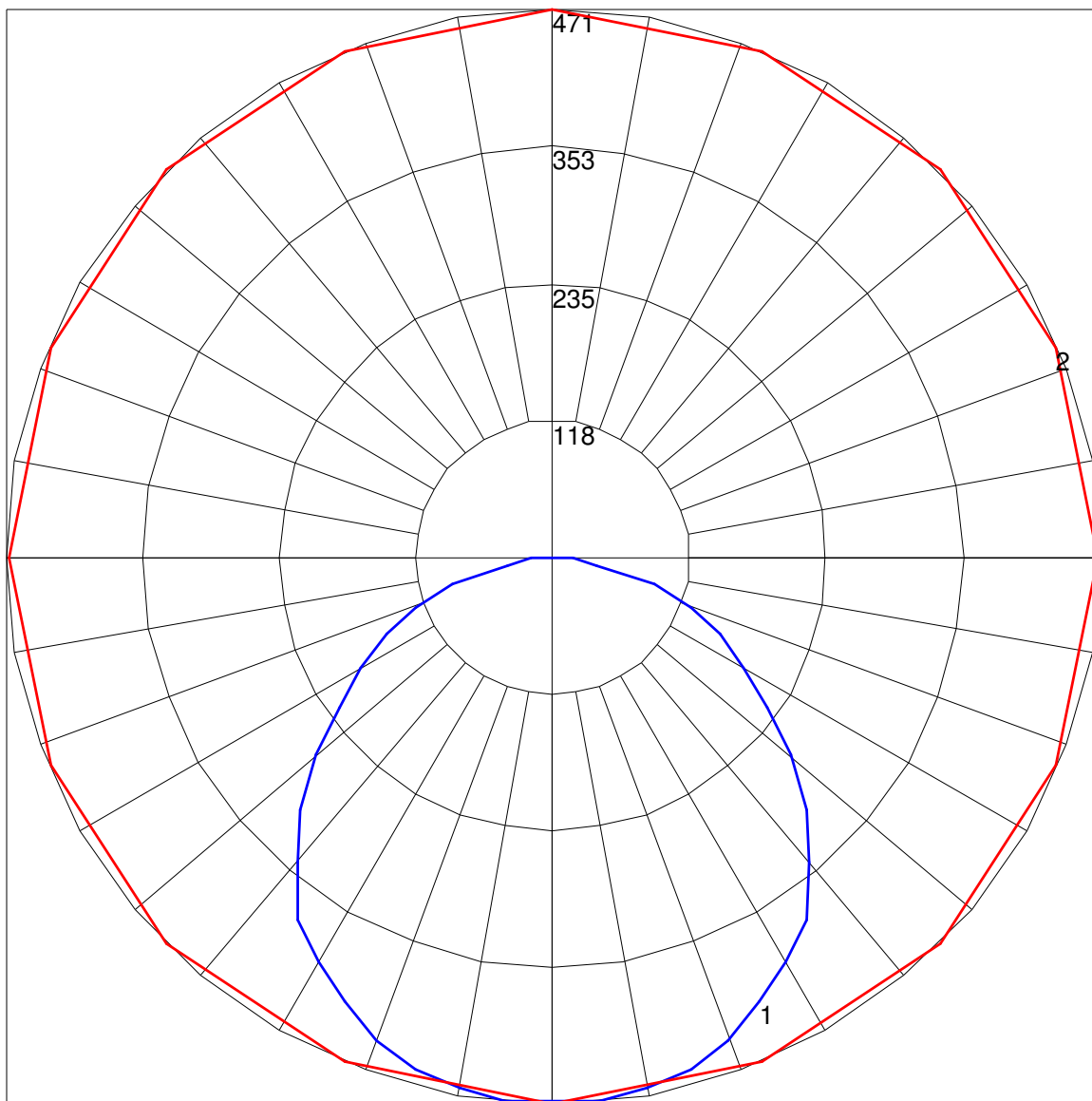
X=2H	Y=2H	9.2	10.8	9.5	11.1	11.4	10.6	12.2	11.0	12.5	12.9
	3H	10.9	12.3	11.3	12.7	13.0	12.6	14.0	13.0	14.4	14.7
	4H	11.5	12.9	11.9	13.2	13.6	13.3	14.7	13.7	15.1	15.4
	6H	12.0	13.3	12.4	13.7	14.1	13.7	15.0	14.2	15.4	15.8
	8H	12.2	13.4	12.6	13.8	14.2	13.8	15.0	14.3	15.4	15.8
	12H	12.3	13.5	12.7	13.9	14.3	13.9	15.1	14.3	15.4	15.9

### UGR Viewed Endwise

4H	2H	10.1	11.5	10.5	11.8	12.2	11.2	12.6	11.6	12.9	13.3
	3H	12.1	13.2	12.5	13.6	14.0	13.4	14.6	13.8	15.0	15.4
	4H	12.9	13.9	13.3	14.3	14.7	14.3	15.4	14.8	15.8	16.2
	6H	13.5	14.4	14.0	14.9	15.3	14.8	15.7	15.3	16.2	16.6
	8H	13.7	14.6	14.2	15.0	15.5	15.0	15.8	15.4	16.2	16.7
	12H	13.9	14.7	14.4	15.1	15.6	15.0	15.8	15.5	16.3	16.8
8H	4H	13.4	14.2	13.8	14.7	15.1	14.6	15.5	15.1	15.9	16.4
	6H	14.2	14.9	14.7	15.4	15.9	15.3	16.0	15.7	16.4	16.9
	8H	14.5	15.2	15.0	15.7	16.2	15.4	16.1	15.9	16.6	17.1
	12H	14.8	15.4	15.3	15.8	16.4	15.6	16.2	16.1	16.6	17.2
12H	4H	13.4	14.2	13.9	14.7	15.1	14.7	15.4	15.1	15.9	16.4
	6H	14.3	15.0	14.8	15.4	16.0	15.3	16.0	15.8	16.4	17.0
	8H	14.7	15.3	15.2	15.8	16.3	15.6	16.1	16.1	16.6	17.2

Maximum UGR = 17.2

POLAR GRAPH



Maximum Candela = 470.968 Located At Horizontal Angle = 90, Vertical Angle = 5  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (5) (Through Max. Cd.)