



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : AT3-24-L40-835-D-EM10W-DIM-UNV(EMER MODE).IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN FROM BALLABS TEST NO. 19260.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 007-08-2020

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] 2x4' RECESSED LUMINAIRE

[MORE] WITH FROSTED ACRYLIC LENS

[LUMCAT] AT3-24-L40-835-D-EM10W-DIM-UNV(EMER MODE)

[LAMPCAT] HLM 80 CRI, 3500K CCT

[\_SEARCH\_SOURCETYPE]LED

[\_SEARCH\_APPLICATION]INDOOR,COMMERCIAL,DIRECT,OFFICE,ARCHITECTURAL

[\_SEARCH\_MOUNTING]RECESSED

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	1168
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	117
Total Luminaire Watts	10
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.12
Spacing Criterion (90-270)	1.22
Spacing Criterion (Diagonal)	1.30
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	3.76 ft
Luminous Width (90-270)	1.88 ft
Luminous Height	0.00 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	532	595	634
55	453	525	559
65	412	503	540
75	350	479	479
85	310	221	207

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : AT3-24-L40-835-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>	465.362	465.362	465.362	465.362	465.362
<b>5</b>	462.901	463.065	463.065	463.229	463.393
<b>10</b>	453.548	454.040	455.188	456.665	457.650
<b>15</b>	436.810	437.959	440.584	444.523	446.328
<b>20</b>	411.704	414.166	420.401	427.949	431.067
<b>25</b>	377.902	381.019	390.208	400.382	404.977
<b>30</b>	342.294	375.768	354.929	353.780	379.542
<b>35</b>	306.194	311.773	327.690	343.278	349.186
<b>40</b>	271.571	277.970	297.005	312.265	317.188
<b>45</b>	246.629	254.505	275.673	289.621	294.051
<b>50</b>	207.575	216.600	236.291	247.777	250.731
<b>55</b>	170.491	179.844	197.566	206.919	210.201
<b>60</b>	138.657	148.338	163.435	171.967	174.757
<b>65</b>	114.043	124.709	139.313	147.354	149.651
<b>70</b>	86.312	97.634	110.926	117.325	118.474
<b>75</b>	59.401	70.723	81.225	82.210	81.225
<b>80</b>	38.397	49.884	48.899	33.967	30.849
<b>85</b>	17.722	20.347	12.635	11.979	11.815
<b>90</b>	0.000	0.000	0.000	0.000	0.000

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : AT3-24-L40-835-D-EM10W-DIM-UNV(EMER MODE).IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	168.19	N.A.	14.40
0-30	348.51	N.A.	29.80
0-40	553.91	N.A.	47.40
0-60	935.53	N.A.	80.10
0-80	1148.42	N.A.	98.30
0-90	1167.93	N.A.	100.00
10-90	1123.97	N.A.	96.20
20-40	385.72	N.A.	33.00
20-50	592.91	N.A.	50.80
40-70	515.06	N.A.	44.10
60-80	212.88	N.A.	18.20
70-80	79.45	N.A.	6.80
80-90	19.52	N.A.	1.70
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	1167.93	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	43.96
10-20	124.23
20-30	180.32
30-40	205.40
40-50	207.20
50-60	174.43
60-70	133.44
70-80	79.45
80-90	19.52
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	95	98	95	92	94	91	89	90	88	86	84
2	99	91	85	79	97	89	83	78	86	81	76	83	78	74	80	76	73	71
3	91	80	72	66	88	79	71	65	76	69	64	73	68	63	71	66	62	60
4	83	71	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	51
5	77	64	55	49	75	63	55	48	61	53	48	59	52	47	57	51	47	45
6	71	58	49	43	69	57	49	43	55	48	42	53	47	42	52	46	41	39
7	66	53	44	38	64	52	44	38	50	43	37	49	42	37	47	41	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

X=2H	Y=2H	8.9	10.5	9.2	10.8	11.1	10.0	11.6	10.3	11.9	12.2
	3H	10.7	12.1	11.0	12.4	12.8	12.0	13.5	12.4	13.8	14.1
	4H	11.3	12.7	11.7	13.0	13.4	12.7	14.1	13.1	14.5	14.8
	6H	11.8	13.1	12.2	13.5	13.9	13.1	14.3	13.5	14.7	15.1
	8H	12.0	13.2	12.4	13.6	14.0	13.1	14.3	13.5	14.7	15.1
	12H	12.2	13.3	12.6	13.7	14.1	13.2	14.3	13.6	14.7	15.1

### UGR Viewed Endwise

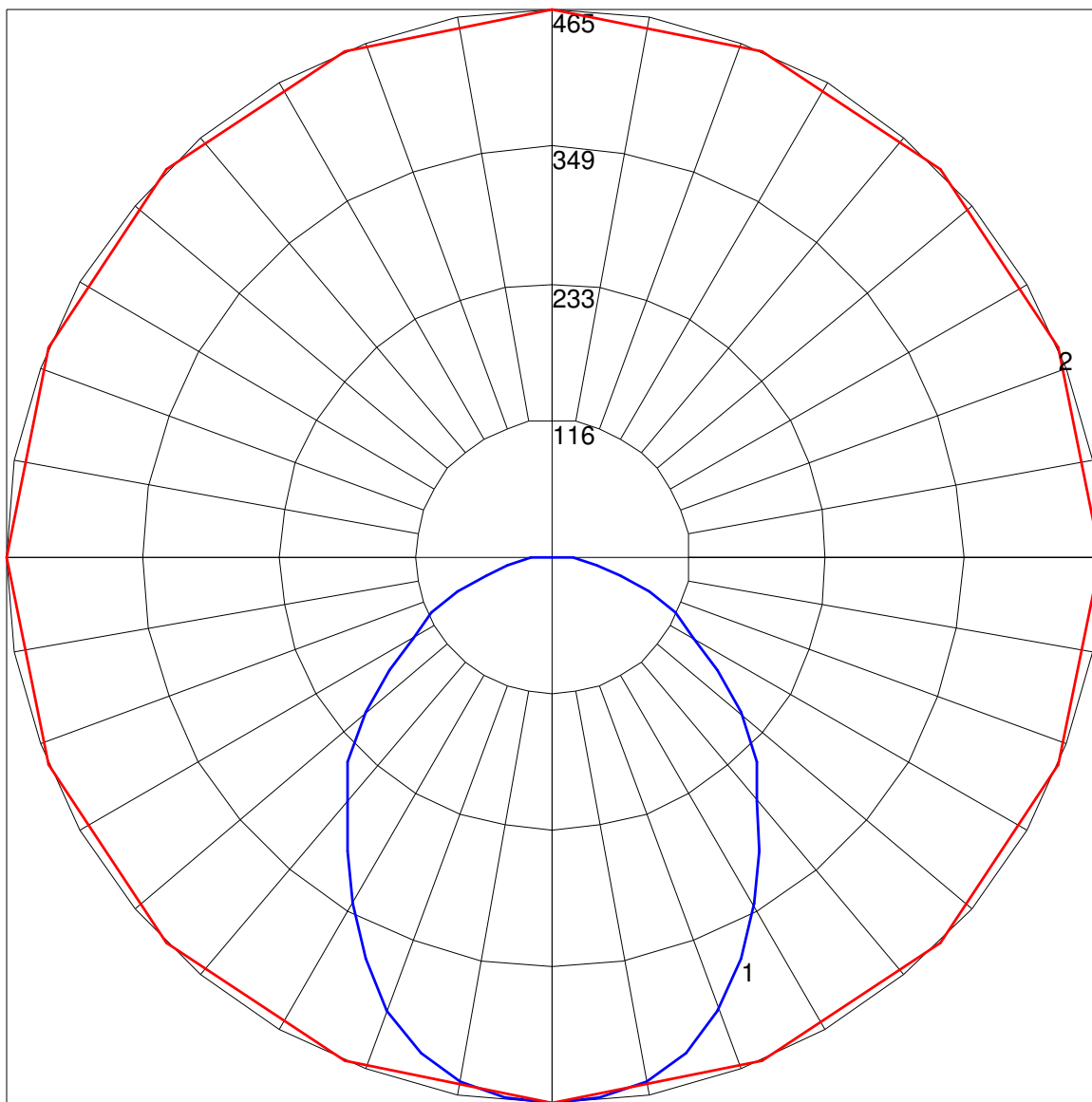
4H	2H	9.7	11.1	10.1	11.5	11.8	10.6	11.9	11.0	12.3	12.7
	3H	11.8	12.9	12.2	13.3	13.7	12.8	14.0	13.3	14.4	14.8
	4H	12.6	13.6	13.0	14.0	14.4	13.7	14.8	14.1	15.2	15.6
	6H	13.2	14.1	13.7	14.6	15.0	14.1	15.0	14.6	15.5	15.9
	8H	13.5	14.3	13.9	14.8	15.2	14.2	15.1	14.7	15.5	16.0
	12H	13.6	14.4	14.1	14.9	15.4	14.2	15.0	14.7	15.5	16.0

8H	4H	13.0	13.9	13.5	14.3	14.8	14.0	14.9	14.5	15.3	15.8
	6H	13.9	14.6	14.4	15.1	15.6	14.5	15.2	15.0	15.7	16.2
	8H	14.2	14.8	14.7	15.3	15.8	14.6	15.3	15.1	15.8	16.3
	12H	14.5	15.0	15.0	15.5	16.1	14.7	15.3	15.2	15.8	16.3

12H	4H	13.1	13.8	13.5	14.3	14.8	14.0	14.8	14.5	15.3	15.8
	6H	14.0	14.6	14.5	15.1	15.6	14.6	15.2	15.1	15.7	16.2
	8H	14.3	14.9	14.8	15.4	15.9	14.7	15.3	15.3	15.8	16.4

Maximum UGR = 16.4

POLAR GRAPH



Maximum Candela = 465.362 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.)