



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : LT-24-L40-835-AF-EM10W-DIM-UNV\_(EMER MODE).IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002  
 [TEST]GEN FROM BALLABS TEST NO. 18669.0  
 [TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC  
 [ISSUE DATE] 10-13-2021  
 [MANUFAC] WILLIAMS INDOOR  
 [OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO  
 [LUMINAIRE] 2-22" LED ARRAYS 2x4'RECESSED LUMINAIRE  
 [MORE] WHITE REFLECTOR w/CENTER FROSTED ACRYLIC LENS  
 [MORE] ELECTRONIC LED DRIVER  
 [LUMCAT] LT-24-L40-835-AF-EM10W-DIM-UNV  
 [LAMPCAT] HLM 80 CRI 3500K CCT

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	1240
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	124
Total Luminaire Watts	10
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.14
Spacing Criterion (90-270)	1.24
Spacing Criterion (Diagonal)	1.36
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	3.92 ft
Luminous Width (90-270)	1.90 ft
Luminous Height	0.00 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	514	582	641
55	445	542	628
65	391	544	666
75	321	572	725
85	277	688	631

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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>	441.198	441.198	441.198	441.198	441.198
<b>5</b>	439.306	439.650	439.650	439.822	439.994
<b>10</b>	432.598	432.770	434.146	435.350	436.038
<b>15</b>	415.913	416.945	419.698	422.622	423.998
<b>20</b>	399.917	401.981	407.657	413.333	415.569
<b>25</b>	367.923	371.020	378.760	386.328	389.940
<b>30</b>	328.878	333.350	344.186	354.163	358.979
<b>35</b>	304.109	309.957	324.062	337.478	343.154
<b>40</b>	273.319	281.060	299.293	316.493	322.341
<b>45</b>	251.475	261.279	284.328	306.001	313.569
<b>50</b>	212.601	223.093	247.690	270.567	279.684
<b>55</b>	176.651	188.004	215.009	239.262	248.894
<b>60</b>	141.390	153.602	181.124	206.409	214.665
<b>65</b>	114.385	127.629	158.935	186.112	194.712
<b>70</b>	85.316	99.420	132.618	158.591	166.503
<b>75</b>	57.450	72.415	102.344	123.157	129.693
<b>80</b>	35.261	51.086	75.855	91.680	94.260
<b>85</b>	16.685	29.413	41.454	41.970	38.014
<b>90</b>	0.000	0.000	0.000	0.000	0.000

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : LT-24-L40-835-AF-EM10W-DIM-UNV\_(EMER MODE).IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	160.64	N.A.	13.00
0-30	334.58	N.A.	27.00
0-40	536.75	N.A.	43.30
0-60	942.85	N.A.	76.00
0-80	1201.56	N.A.	96.90
0-90	1239.93	N.A.	100.00
10-90	1198.14	N.A.	96.60
20-40	376.11	N.A.	30.30
20-50	591.09	N.A.	47.70
40-70	560.33	N.A.	45.20
60-80	258.71	N.A.	20.90
70-80	104.48	N.A.	8.40
80-90	38.37	N.A.	3.10
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	1239.93	N.A.	100.00

Total Luminaire Efficiency = N.A.%

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	41.79
10-20	118.85
20-30	173.94
30-40	202.17
40-50	214.98
50-60	191.13
60-70	154.23
70-80	104.48
80-90	38.37
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	108	103	98	94	105	101	96	93	96	93	90	92	90	87	89	86	84	82
2	98	89	82	76	95	87	81	75	84	78	73	80	76	72	77	74	70	68
3	89	78	70	63	87	77	69	62	74	67	61	71	65	60	68	63	59	57
4	82	69	60	53	79	68	59	53	65	58	52	63	57	51	61	55	51	48
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	39	51	44	39	50	43	39	37
7	64	50	42	35	62	50	41	35	48	40	35	47	40	35	45	39	34	32
8	60	46	37	32	58	45	37	31	44	37	31	43	36	31	42	35	31	29
9	56	42	34	28	54	42	34	28	41	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	39	31	26	38	30	26	37	30	25	36	30	25	24

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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	8.7	10.3	9.0	10.6	11.0	10.7	12.3	11.0	12.6	13.0
	3H	10.4	11.9	10.7	12.2	12.6	13.2	14.7	13.5	15.0	15.3
	4H	11.0	12.4	11.4	12.7	13.1	14.2	15.6	14.6	16.0	16.3
	6H	11.4	12.8	11.9	13.1	13.5	15.1	16.5	15.5	16.8	17.2
	8H	11.6	12.9	12.0	13.3	13.7	15.5	16.7	15.9	17.1	17.5
	12H	11.7	12.9	12.1	13.3	13.8	15.7	16.9	16.1	17.3	17.7

### UGR Viewed Endwise

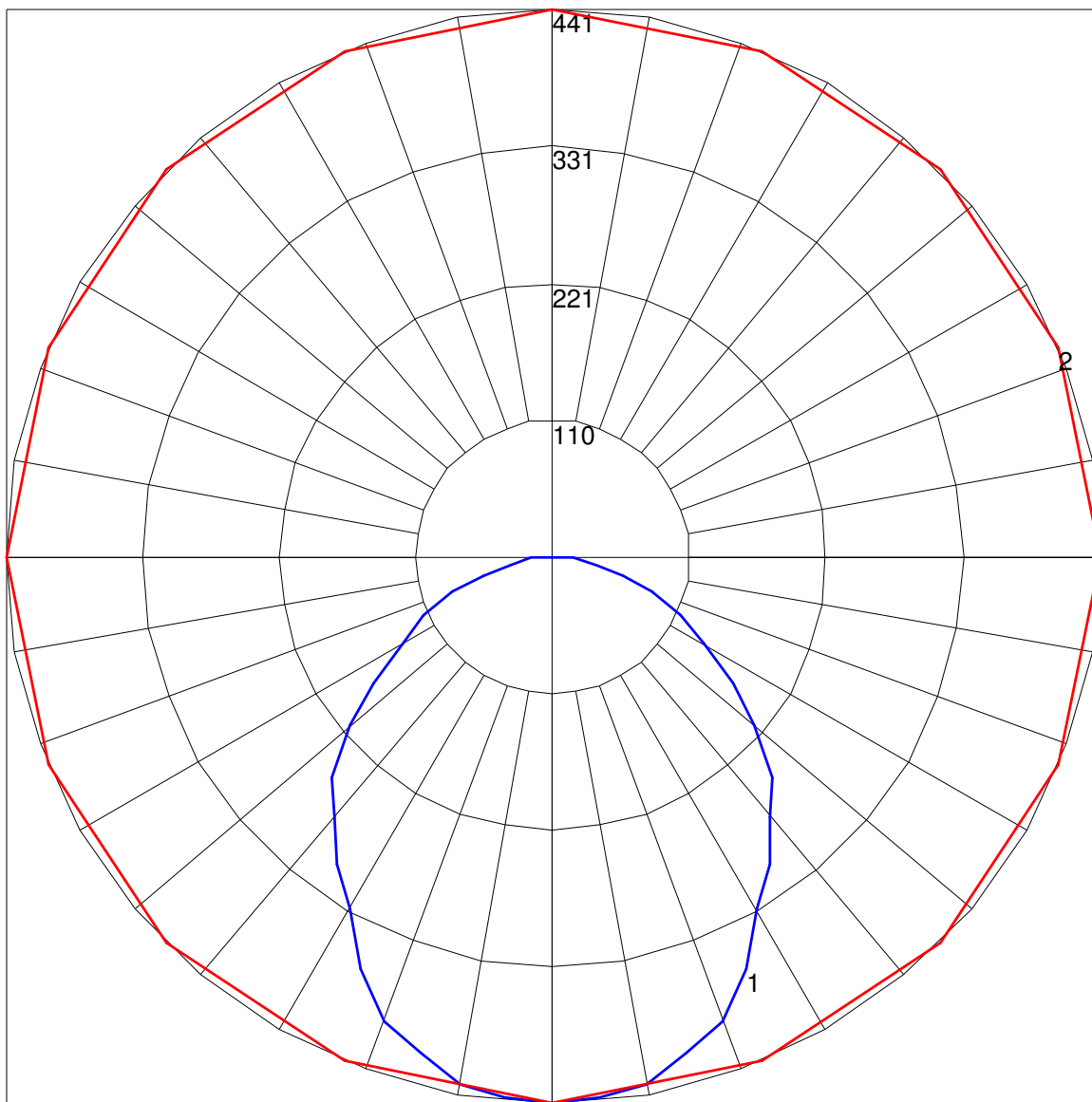
4H	2H	9.7	11.1	10.1	11.5	11.9	11.2	12.6	11.6	13.0	13.4
	3H	11.7	12.9	12.1	13.3	13.7	14.0	15.2	14.4	15.6	16.0
	4H	12.4	13.5	12.8	13.9	14.3	15.2	16.3	15.6	16.7	17.1
	6H	13.0	14.0	13.4	14.4	14.9	16.3	17.3	16.8	17.7	18.2
	8H	13.2	14.1	13.7	14.6	15.0	16.8	17.7	17.2	18.1	18.6
	12H	13.4	14.2	13.9	14.7	15.2	17.1	17.9	17.5	18.3	18.8
8H	4H	13.1	14.1	13.6	14.5	15.0	15.5	16.4	16.0	16.9	17.3
	6H	14.0	14.7	14.5	15.2	15.7	16.8	17.6	17.3	18.1	18.6
	8H	14.3	15.0	14.8	15.5	16.0	17.4	18.1	17.9	18.6	19.1
	12H	14.6	15.2	15.1	15.7	16.2	17.8	18.4	18.3	18.9	19.4
12H	4H	13.3	14.2	13.8	14.6	15.1	15.5	16.4	16.0	16.8	17.3
	6H	14.3	15.0	14.8	15.4	15.9	16.9	17.6	17.5	18.1	18.6
	8H	14.7	15.3	15.2	15.8	16.3	17.5	18.2	18.1	18.6	19.2

Maximum UGR = 19.4

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## POLAR GRAPH



Maximum Candela = 441.198 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.)