



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : LT-22-L49-835-AF-(L40)-DIM-UNV\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002  
 [TEST]GEN FROM BALLABS TEST NO. 18664.0  
 [TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC  
 [ISSUE DATE] 06-12-2023  
 [MANUFAC] WILLIAMS INDOOR  
 [OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO  
 [LUMINAIRE] 1-22" LED ARRAY 2x2'RECESSED LUMINAIRE  
 [MORE] WHITE REFLECTOR w/CENTER FROSTED ACRYLIC LENS  
 [MORE] ELECTRONIC LED DRIVER  
 [LUMCAT] LT-22-L49-835-AF-(L40)-xxx-xxx  
 [LAMPCAT] HLM 80 CRI 3500K CCT

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	3926
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	124
Total Luminaire Watts	31.7
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.22
Spacing Criterion (90-270)	1.30
Spacing Criterion (Diagonal)	1.36
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	1.96 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	3221	3602	3927
55	2864	3461	3971
65	2479	3454	4241
75	2043	3649	4857
85	1221	3434	3586

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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>	1352.289	1352.289	1352.289	1352.289	1352.289
<b>5</b>	1355.733	1347.697	1344.253	1343.105	1341.957
<b>10</b>	1330.478	1325.886	1327.034	1327.034	1329.330
<b>15</b>	1293.743	1290.299	1300.631	1300.631	1305.223
<b>20</b>	1237.493	1237.493	1260.452	1263.896	1269.636
<b>25</b>	1168.616	1175.504	1203.055	1212.238	1222.570
<b>30</b>	1092.851	1102.035	1133.030	1151.397	1173.208
<b>35</b>	997.571	1014.790	1051.525	1088.259	1110.071
<b>40</b>	895.403	912.623	967.724	1018.234	1036.602
<b>45</b>	786.348	813.899	879.332	936.730	958.541
<b>50</b>	673.848	715.175	781.756	846.041	874.740
<b>55</b>	567.089	610.711	685.328	755.353	786.348
<b>60</b>	464.921	508.543	591.196	669.257	699.103
<b>65</b>	361.605	410.967	503.951	586.604	618.747
<b>70</b>	264.029	312.243	416.707	506.247	532.650
<b>75</b>	182.525	228.443	326.019	413.263	433.926
<b>80</b>	107.908	148.086	229.591	292.728	298.468
<b>85</b>	36.734	70.025	103.316	115.943	107.908
<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	493.91	N.A.	12.60
0-30	1045.33	N.A.	26.60
0-40	1703.37	N.A.	43.40
0-60	2990.04	N.A.	76.20
0-80	3817.36	N.A.	97.20
0-90	3926.03	N.A.	100.00
10-90	3798.13	N.A.	96.70
20-40	1209.46	N.A.	30.80
20-50	1884.88	N.A.	48.00
40-70	1780.08	N.A.	45.30
60-80	827.33	N.A.	21.10
70-80	333.91	N.A.	8.50
80-90	108.66	N.A.	2.80
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	3926.03	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	127.89
10-20	366.02
20-30	551.42
30-40	658.04
40-50	675.41
50-60	611.25
60-70	493.41
70-80	333.91
80-90	108.66
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	97	93	96	93	90	92	90	87	89	87	84	82
2	98	89	82	76	95	87	81	75	84	78	74	81	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	58	51	45	56	50	44	55	49	44	42
6	69	56	46	40	67	55	46	40	53	45	39	51	44	39	49	43	39	37
7	64	50	41	35	62	50	41	35	48	40	35	47	40	35	45	39	34	32
8	60	46	37	31	58	45	37	31	44	36	31	43	36	31	41	35	31	29
9	56	42	34	28	54	42	34	28	40	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	38	31	26	37	30	25	36	30	25	36	30	25	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	15.4	17.1	15.8	17.4	17.7	17.2	18.9	17.6	19.2	19.5
	3H	17.0	18.5	17.4	18.8	19.2	19.7	21.2	20.1	21.6	21.9
	4H	17.6	19.0	18.0	19.4	19.7	20.8	22.3	21.2	22.6	23.0
	6H	18.0	19.3	18.4	19.7	20.1	21.8	23.1	22.2	23.5	23.9
	8H	18.1	19.4	18.6	19.8	20.2	22.1	23.4	22.5	23.8	24.2
	12H	18.2	19.4	18.6	19.8	20.2	22.3	23.5	22.7	23.9	24.3

UGR Viewed Endwise

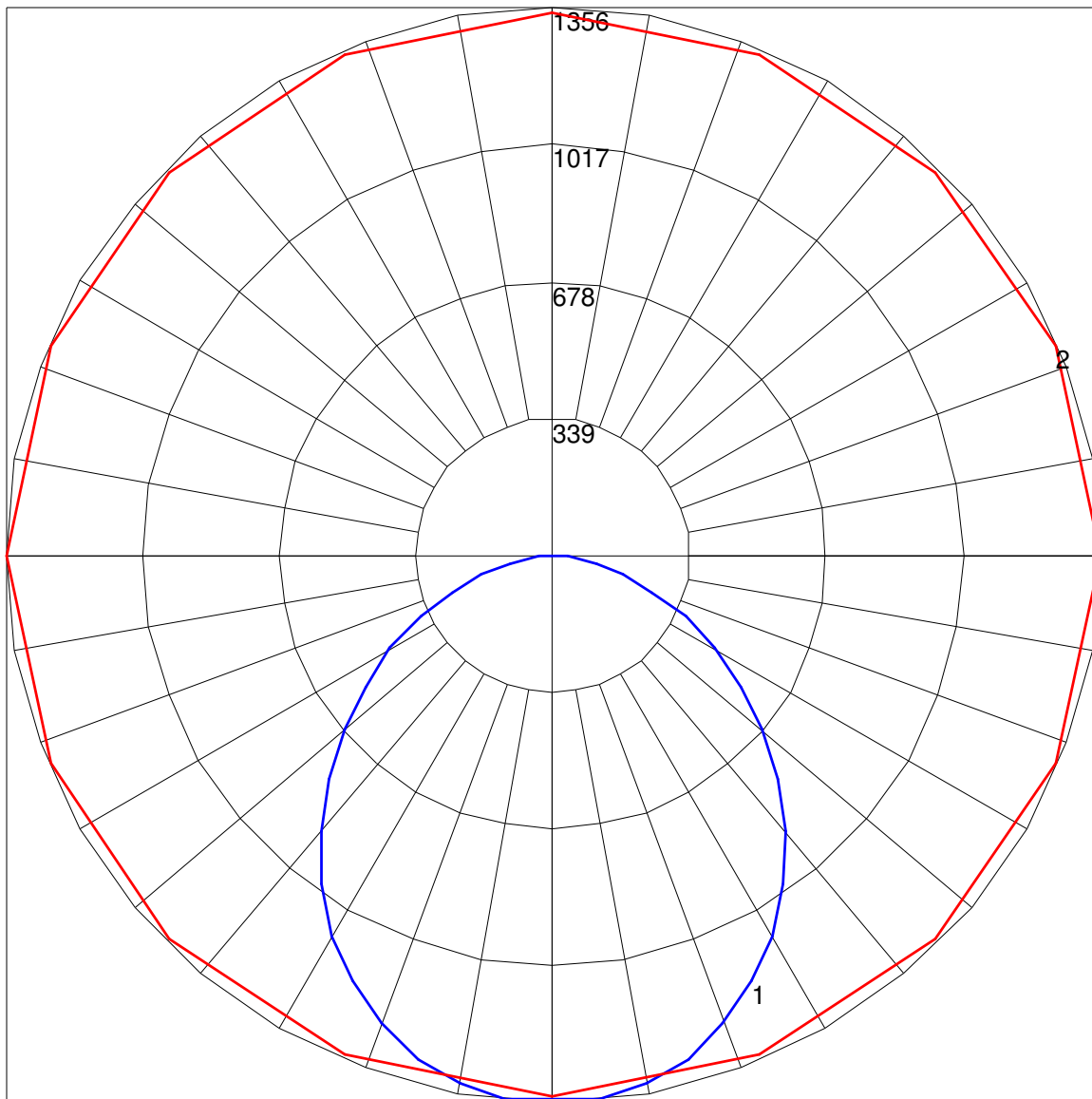
4H	2H	16.4	17.8	16.8	18.2	18.5	17.8	19.2	18.2	19.6	19.9
	3H	18.2	19.5	18.7	19.8	20.2	20.5	21.7	20.9	22.1	22.5
	4H	19.0	20.1	19.4	20.5	20.9	21.9	23.0	22.3	23.4	23.8
	6H	19.5	20.5	20.0	20.9	21.4	23.0	24.0	23.5	24.4	24.9
	8H	19.7	20.6	20.2	21.0	21.5	23.4	24.3	23.9	24.7	25.2
	12H	19.8	20.6	20.3	21.1	21.5	23.6	24.4	24.1	24.9	25.4

8H	4H	19.7	20.6	20.2	21.1	21.5	22.2	23.1	22.6	23.5	24.0
	6H	20.5	21.2	20.9	21.7	22.2	23.5	24.2	24.0	24.7	25.2
	8H	20.7	21.4	21.2	21.9	22.4	24.0	24.7	24.5	25.2	25.7
	12H	20.9	21.5	21.4	22.0	22.5	24.3	24.9	24.8	25.4	26.0

12H	4H	19.9	20.7	20.4	21.2	21.6	22.2	23.0	22.7	23.5	23.9
	6H	20.7	21.4	21.2	21.9	22.4	23.6	24.2	24.1	24.7	25.2
	8H	21.0	21.6	21.5	22.1	22.7	24.1	24.7	24.6	25.2	25.8

Maximum UGR = 26.0

POLAR GRAPH



Maximum Candela = 1355.733 Located At Horizontal Angle = 0, Vertical Angle = 5  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (5) (Through Max. Cd.)