

## IES INDOOR REPORT

PHOTOMETRIC FILENAME : AT1-24-L83-RGB835-D-DMX-UNV WHITE ONLY\_.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] 1 DEC 2023

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] 2x4' RECESSED LUMINAIRE

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

[MORE] DIFFUSER

[LUMCAT] AT1-24-L83-RGB835-D-DMX-UNV white only

[\_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	8326
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	93
Total Luminaire Watts	89.2
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	3802	4446	4824
55	3298	4038	4351
65	2932	3844	4154
75	2504	3722	3823
85	2110	2261	2311

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : AT1-24-L83-RGB835-D-DMX-UNV WHITE ONLY\_.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>	3203.648	3203.648	3203.648	3203.648	3203.648
<b>5</b>	3206.351	3203.648	3211.758	3211.758	3214.462
<b>10</b>	3119.839	3122.543	3141.467	3157.688	3165.799
<b>15</b>	3011.699	3027.920	3063.066	3100.915	3122.543
<b>20</b>	2822.454	2863.007	2922.484	2995.478	3027.920
<b>25</b>	2598.064	2635.913	2733.239	2838.675	2884.635
<b>30</b>	2376.377	2427.743	2562.918	2698.093	2749.460
<b>35</b>	2181.725	2243.905	2406.115	2554.808	2608.878
<b>40</b>	1895.154	1968.148	2149.283	2295.272	2335.824
<b>45</b>	1659.949	1738.351	1941.113	2065.474	2106.027
<b>50</b>	1405.820	1495.036	1678.874	1787.014	1816.752
<b>55</b>	1167.912	1259.831	1430.152	1516.664	1540.995
<b>60</b>	959.743	1051.662	1205.761	1278.756	1300.384
<b>65</b>	765.091	865.120	1002.999	1065.179	1084.104
<b>70</b>	578.549	683.986	802.940	848.899	857.010
<b>75</b>	400.118	508.258	594.770	616.398	610.991
<b>80</b>	251.426	348.752	381.194	291.978	264.943
<b>85</b>	113.547	159.507	121.658	121.658	124.361
<b>90</b>	0.000	0.000	0.000	0.000	0.000

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : AT1-24-L83-RGB835-D-DMX-UNV WHITE ONLY\_.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	1165.74	N.A.	14.00
0-30	2430.52	N.A.	29.20
0-40	3917.49	N.A.	47.00
0-60	6633.24	N.A.	79.70
0-80	8168.21	N.A.	98.10
0-90	8326.33	N.A.	100.00
10-90	8022.48	N.A.	96.40
20-40	2751.75	N.A.	33.00
20-50	4216.95	N.A.	50.60
40-70	3671.31	N.A.	44.10
60-80	1534.97	N.A.	18.40
70-80	579.40	N.A.	7.00
80-90	158.12	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	8326.33	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	303.84
10-20	861.90
20-30	1264.78
30-40	1486.97
40-50	1465.2
50-60	1250.55
60-70	955.57
70-80	579.40
80-90	158.12
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	179	179	179	179	175	175	175	175	168	168	168	160	160	160	154	154	154	151
1	164	157	151	145	160	154	148	142	147	142	138	141	137	134	136	133	130	127
2	149	137	127	118	146	134	125	117	129	121	114	124	117	112	119	114	109	106
3	137	121	109	99	133	118	107	98	114	104	96	110	101	95	106	99	93	90
4	125	107	94	84	122	105	93	84	102	91	82	98	89	81	95	87	80	77
5	115	96	83	73	112	94	82	72	91	80	72	88	78	71	85	77	70	67
6	107	87	73	64	104	85	73	64	83	71	63	80	70	62	78	69	62	59
7	99	79	66	57	96	78	65	56	75	64	56	73	63	56	71	62	55	52
8	92	72	59	51	90	71	59	50	69	58	50	67	57	50	65	56	50	47
9	86	66	54	46	84	65	54	46	64	53	45	62	52	45	60	51	45	42
10	81	61	49	42	79	60	49	41	59	48	41	58	48	41	56	47	41	38

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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

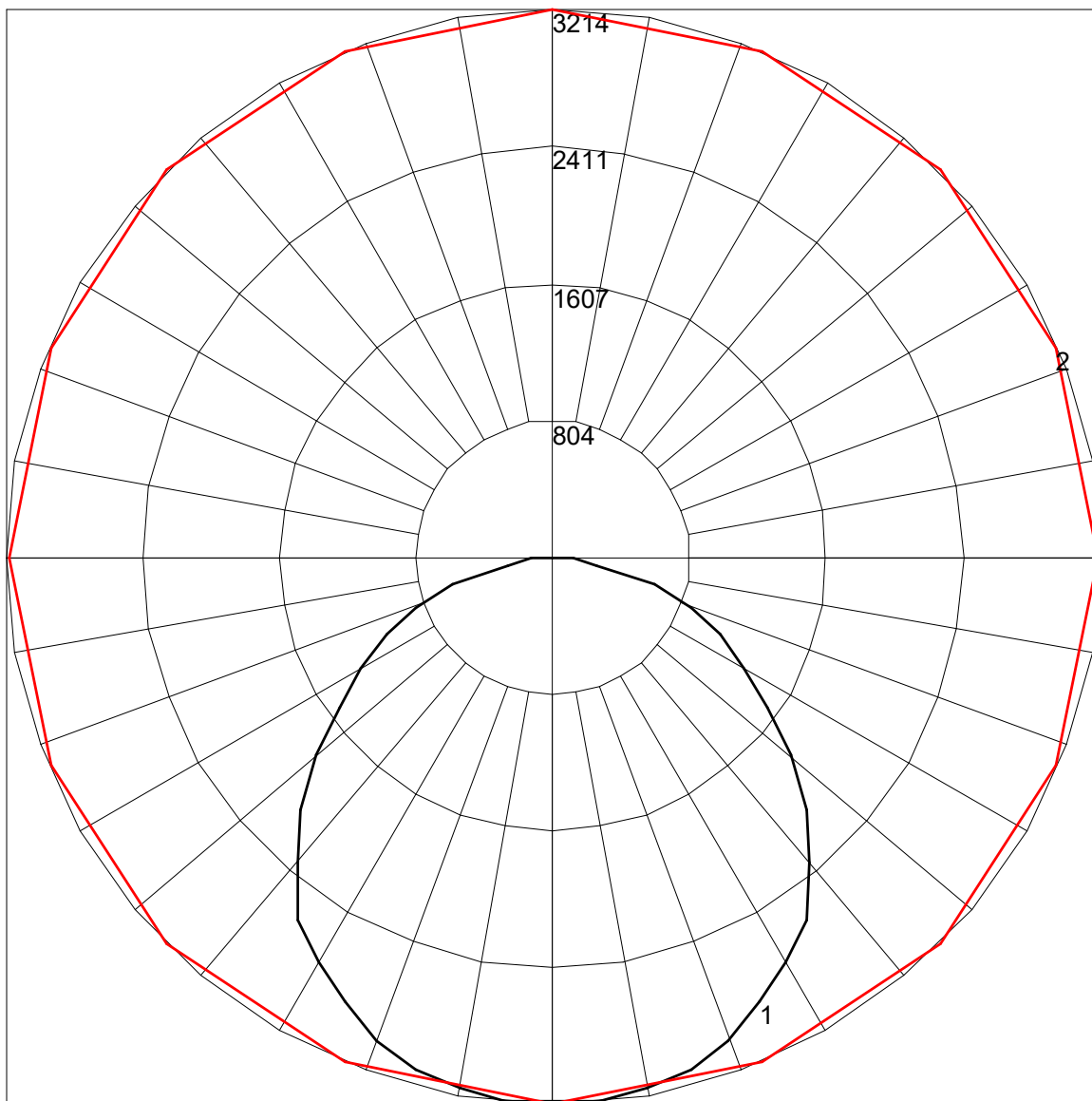
X=2H	Y=2H	14.4	16.0	14.7	16.3	16.6	15.8	17.4	16.2	17.7	18.1
	3H	16.1	17.5	16.5	17.9	18.2	17.8	19.2	18.2	19.6	19.9
	4H	16.7	18.1	17.1	18.4	18.8	18.5	19.9	18.9	20.3	20.6
	6H	17.2	18.5	17.6	18.9	19.3	18.9	20.2	19.4	20.6	21.0
	8H	17.4	18.6	17.8	19.0	19.4	19.0	20.3	19.5	20.6	21.0
	12H	17.5	18.7	17.9	19.1	19.5	19.1	20.3	19.5	20.6	21.1

### UGR Viewed Endwise

4H	2H	15.3	16.7	15.7	17.0	17.4	16.4	17.8	16.8	18.1	18.5
	3H	17.3	18.4	17.7	18.8	19.2	18.6	19.8	19.0	20.2	20.6
	4H	18.1	19.1	18.5	19.5	19.9	19.5	20.6	20.0	21.0	21.4
	6H	18.7	19.6	19.2	20.1	20.5	20.0	20.9	20.5	21.4	21.8
	8H	18.9	19.8	19.4	20.2	20.7	20.2	21.0	20.6	21.4	21.9
	12H	19.1	19.9	19.6	20.3	20.8	20.2	21.0	20.7	21.5	22.0
8H	4H	18.6	19.4	19.0	19.9	20.3	19.8	20.7	20.3	21.1	21.6
	6H	19.4	20.1	19.9	20.6	21.1	20.5	21.2	20.9	21.6	22.1
	8H	19.7	20.4	20.2	20.9	21.4	20.6	21.3	21.1	21.8	22.3
	12H	20.0	20.6	20.5	21.0	21.6	20.8	21.4	21.3	21.8	22.4
12H	4H	18.6	19.4	19.1	19.9	20.3	19.9	20.6	20.3	21.1	21.6
	6H	19.5	20.2	20.0	20.6	21.2	20.5	21.2	21.0	21.6	22.2
	8H	19.9	20.5	20.4	21.0	21.5	20.8	21.3	21.3	21.8	22.4

Maximum UGR = 22.4

POLAR GRAPH



Maximum Candela = 3214.462 Located At Horizontal Angle = 90, Vertical Angle = 5  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)  
# 2 - Horizontal Cone Through Vertical Angle (5) (Through Max. Cd.)