



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : AT2-24-P100-835-D-POE\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN FROM BALLABS TEST NO. 19260.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUE DATE] 3-JAN-2020

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] 4-22" LED ARRAYS 2x4' LUMINAIRE

[MORE] WHITE REFLECTOR w/FROSTED ACRYLIC CONCAVE LENS IN DOOR

[LUMCAT] AT2-24-P100-835-D-PoE

[\_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	10249
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	126
Total Luminaire Watts	81.2
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	4669	5219	5567
55	3979	4611	4906
65	3612	4413	4740
75	3072	4201	4201
85	2722	1941	1815

IES INDOOR REPORT  
 PHOTOMETRIC FILENAME : AT2-24-P100-835-D-POE\_.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>	4083.871	4083.871	4083.871	4083.871	4083.871
<b>5</b>	4062.271	4063.711	4063.711	4065.151	4066.591
<b>10</b>	3980.190	3984.511	3994.591	4007.551	4016.191
<b>15</b>	3833.309	3843.389	3866.430	3900.990	3916.830
<b>20</b>	3612.988	3634.588	3689.308	3755.549	3782.909
<b>25</b>	3316.345	3343.706	3424.346	3513.627	3553.947
<b>30</b>	3003.863	3297.625	3114.744	3104.664	3330.745
<b>35</b>	2687.061	2736.021	2875.702	3012.503	3064.343
<b>40</b>	2383.218	2439.379	2606.420	2740.341	2783.541
<b>45</b>	2164.337	2233.457	2419.219	2541.619	2580.500
<b>50</b>	1821.614	1900.815	2073.616	2174.417	2200.337
<b>55</b>	1496.171	1578.252	1733.773	1815.854	1844.654
<b>60</b>	1216.809	1301.770	1434.251	1509.132	1533.612
<b>65</b>	1000.808	1094.408	1222.569	1293.130	1313.290
<b>70</b>	757.446	856.807	973.447	1029.608	1039.688
<b>75</b>	521.284	620.645	712.805	721.446	712.805
<b>80</b>	336.963	437.763	429.123	298.082	270.722
<b>85</b>	155.521	178.561	110.881	105.121	103.681
<b>90</b>	0.000	0.000	0.000	0.000	0.000

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : AT2-24-P100-835-D-POE\_.IES**

**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	1475.99	N.A.	14.40
0-30	3058.39	N.A.	29.80
0-40	4860.91	N.A.	47.40
0-60	8209.96	N.A.	80.10
0-80	10078.13	N.A.	98.30
0-90	10249.4	N.A.	100.00
10-90	9863.64	N.A.	96.20
20-40	3384.92	N.A.	33.00
20-50	5203.23	N.A.	50.80
40-70	4520.04	N.A.	44.10
60-80	1868.18	N.A.	18.20
70-80	697.19	N.A.	6.80
80-90	171.26	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	10249.4	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	385.76
10-20	1090.24
20-30	1582.4
30-40	1802.51
40-50	1818.32
50-60	1530.73
60-70	1170.99
70-80	697.19
80-90	171.26
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

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : AT2-24-P100-835-D-POE\_.IES**

**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	436	436	436	436	426	426	426	426	407	407	407	390	390	390	374	374	374	366
1	399	382	367	353	389	374	360	347	358	347	336	344	335	326	331	323	316	309
2	364	334	310	289	354	327	305	286	314	295	279	302	286	273	291	278	266	259
3	332	295	265	242	323	289	261	240	278	254	235	268	248	231	258	242	227	219
4	305	262	230	206	297	257	227	205	248	222	202	239	217	199	231	212	196	188
5	281	235	202	178	273	231	200	177	223	196	175	216	192	173	209	188	172	164
6	260	212	180	156	253	208	178	156	202	175	154	196	171	153	190	168	152	144
7	241	193	161	139	235	190	160	138	184	157	137	179	154	136	174	152	135	128
8	225	176	145	124	219	174	144	124	169	142	123	164	140	122	160	138	122	115
9	211	162	132	112	205	160	131	112	156	130	111	152	128	111	148	126	110	104
10	198	150	121	102	193	148	120	102	144	119	102	141	118	101	138	116	101	94

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : AT2-24-P100-835-D-POE\_.IES**

**UGR TABLE - CORRECTED**

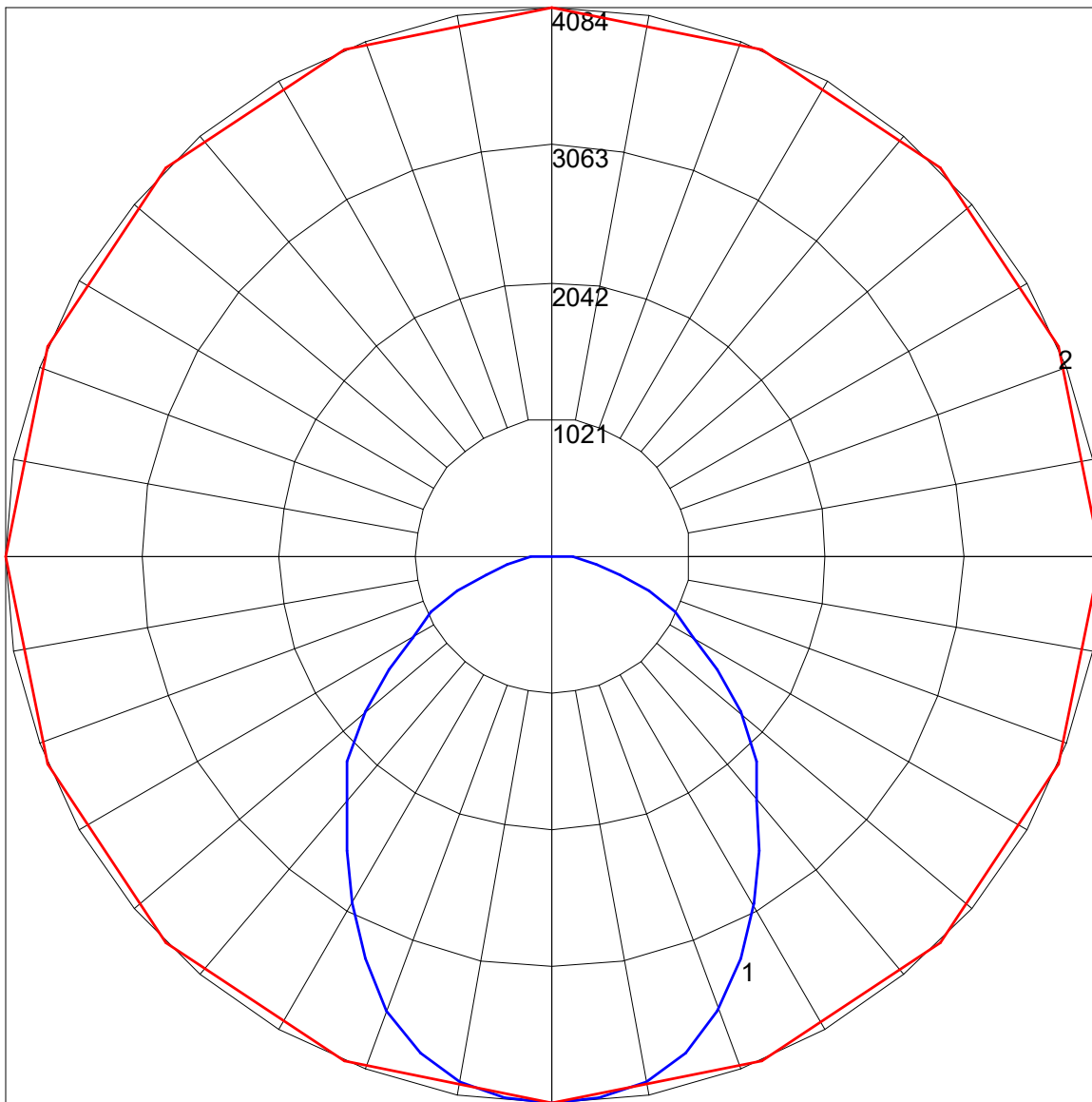
Reflectances

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					UGR Viewed Endwise				
X=2H	Y=2H	12.0	13.6	12.4	13.9	14.2	13.1	14.7	13.4	15.0	15.3
	3H	13.8	15.2	14.1	15.5	15.9	15.1	16.6	15.5	16.9	17.2
	4H	14.4	15.8	14.8	16.1	16.5	15.8	17.2	16.2	17.6	17.9
	6H	14.9	16.2	15.3	16.6	17.0	16.2	17.4	16.6	17.8	18.2
	8H	15.1	16.3	15.6	16.7	17.1	16.2	17.4	16.6	17.8	18.2
	12H	15.3	16.4	15.7	16.8	17.2	16.3	17.4	16.7	17.8	18.2
4H	2H	12.8	14.2	13.2	14.6	14.9	13.7	15.0	14.1	15.4	15.8
	3H	14.9	16.0	15.3	16.4	16.8	15.9	17.1	16.4	17.5	17.9
	4H	15.7	16.7	16.1	17.1	17.5	16.8	17.9	17.3	18.3	18.7
	6H	16.3	17.3	16.8	17.7	18.1	17.2	18.1	17.7	18.6	19.0
	8H	16.6	17.4	17.0	17.9	18.3	17.3	18.2	17.8	18.6	19.1
	12H	16.7	17.5	17.2	18.0	18.5	17.4	18.1	17.8	18.6	19.1
8H	4H	16.1	17.0	16.6	17.4	17.9	17.1	18.0	17.6	18.4	18.9
	6H	17.0	17.7	17.5	18.2	18.7	17.6	18.3	18.1	18.8	19.3
	8H	17.3	17.9	17.8	18.5	18.9	17.7	18.4	18.2	18.9	19.4
	12H	17.6	18.1	18.1	18.6	19.2	17.8	18.4	18.3	18.9	19.4
12H	4H	16.2	16.9	16.6	17.4	17.9	17.2	17.9	17.6	18.4	18.9
	6H	17.1	17.7	17.6	18.2	18.7	17.7	18.3	18.2	18.8	19.3
	8H	17.4	18.0	17.9	18.5	19.1	17.8	18.4	18.4	18.9	19.5

Maximum UGR = 19.5

POLAR GRAPH



Maximum Candela = 4083.871 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.)