



**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : AT1-14-P52-835-D-POE\_.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
[TEST] GEN from BALLABS TEST NO. 19432.0  
[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC  
[ISSUE DATE] 26-JUN-2020  
[MANUFAC] WILLIAMS INDOOR  
[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO  
[LUMINAIRE] 22" LED ARRAYS 1x4' RECESSED LUMINAIRE  
[MORE] WHITE REFLECTOR w/2 PIECE FROSTED ACRILIC LENS IN DOOR  
[LUMCAT] AT1-14-P52-835-D-PoE

**CHARACTERISTICS**

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	5240
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	112
Total Luminaire Watts	46.9
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.14
Spacing Criterion (90-270)	1.10
Spacing Criterion (Diagonal)	1.22
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	3.76 ft
Luminous Width (90-270)	0.77 ft
Luminous Height	0.00 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	6483	6363	6276
55	5440	5427	5292
65	4794	4794	3847
75	3780	3155	2828
85	3005	1856	1326

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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>	2378.043	2378.043	2378.043	2378.043	2378.043
<b>5</b>	2396.735	2394.658	2394.658	2394.658	2392.581
<b>10</b>	2328.197	2324.043	2319.890	2315.736	2315.736
<b>15</b>	2236.814	2236.814	2224.353	2216.045	2216.045
<b>20</b>	2145.431	2139.200	2124.662	2108.046	2103.893
<b>25</b>	1946.049	1939.818	1919.049	1910.742	1900.357
<b>30</b>	1769.513	1761.205	1740.436	1723.821	1719.667
<b>35</b>	1615.823	1607.515	1588.823	1574.285	1565.977
<b>40</b>	1408.134	1397.749	1383.211	1368.673	1362.442
<b>45</b>	1235.751	1221.213	1212.906	1202.521	1196.290
<b>50</b>	1048.831	1040.523	1032.216	1028.062	1025.985
<b>55</b>	841.142	841.142	839.065	830.757	818.296
<b>60</b>	685.375	687.452	687.452	658.375	637.606
<b>65</b>	546.223	550.377	546.223	477.685	438.224
<b>70</b>	398.763	404.994	373.841	307.380	301.149
<b>75</b>	263.765	274.150	220.151	201.459	197.305
<b>80</b>	155.767	147.459	124.614	103.845	95.537
<b>85</b>	70.614	58.153	43.615	33.230	31.153
<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	853.92	N.A.	16.30
0-30	1742.31	N.A.	33.20
0-40	2729.31	N.A.	52.10
0-60	4419.64	N.A.	84.30
0-80	5180.63	N.A.	98.90
0-90	5240.05	N.A.	100.00
10-90	5014.32	N.A.	95.70
20-40	1875.39	N.A.	35.80
20-50	2810.41	N.A.	53.60
40-70	2201.42	N.A.	42.00
60-80	760.99	N.A.	14.50
70-80	249.89	N.A.	4.80
80-90	59.42	N.A.	1.10
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	5240.05	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	225.73
10-20	628.19
20-30	888.39
30-40	987.00
40-50	935.02
50-60	755.31
60-70	511.09
70-80	249.89
80-90	59.42
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	378	378	378	378	370	370	370	370	353	353	353	338	338	338	324	324	324	318
1	349	335	323	312	340	328	317	307	315	305	297	302	295	288	291	285	280	273
2	320	296	276	259	312	290	272	256	279	264	250	269	256	245	259	249	239	233
3	294	263	239	219	286	258	235	217	248	229	214	240	224	210	232	218	206	200
4	270	235	209	189	263	231	206	187	223	202	185	216	197	182	209	193	180	173
5	250	211	184	165	243	208	183	164	201	179	162	195	176	160	189	172	159	152
6	232	192	165	145	226	189	163	145	183	160	143	178	158	142	173	155	141	135
7	216	175	148	129	210	172	147	129	167	145	128	163	142	127	159	140	126	120
8	201	160	134	117	196	158	133	116	154	131	115	150	130	115	146	128	114	108
9	189	148	123	106	184	146	122	105	142	120	105	139	119	104	136	117	104	98
10	177	137	113	96	173	135	112	96	132	111	96	129	109	95	126	108	95	90

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**UGR TABLE - CORRECTED**

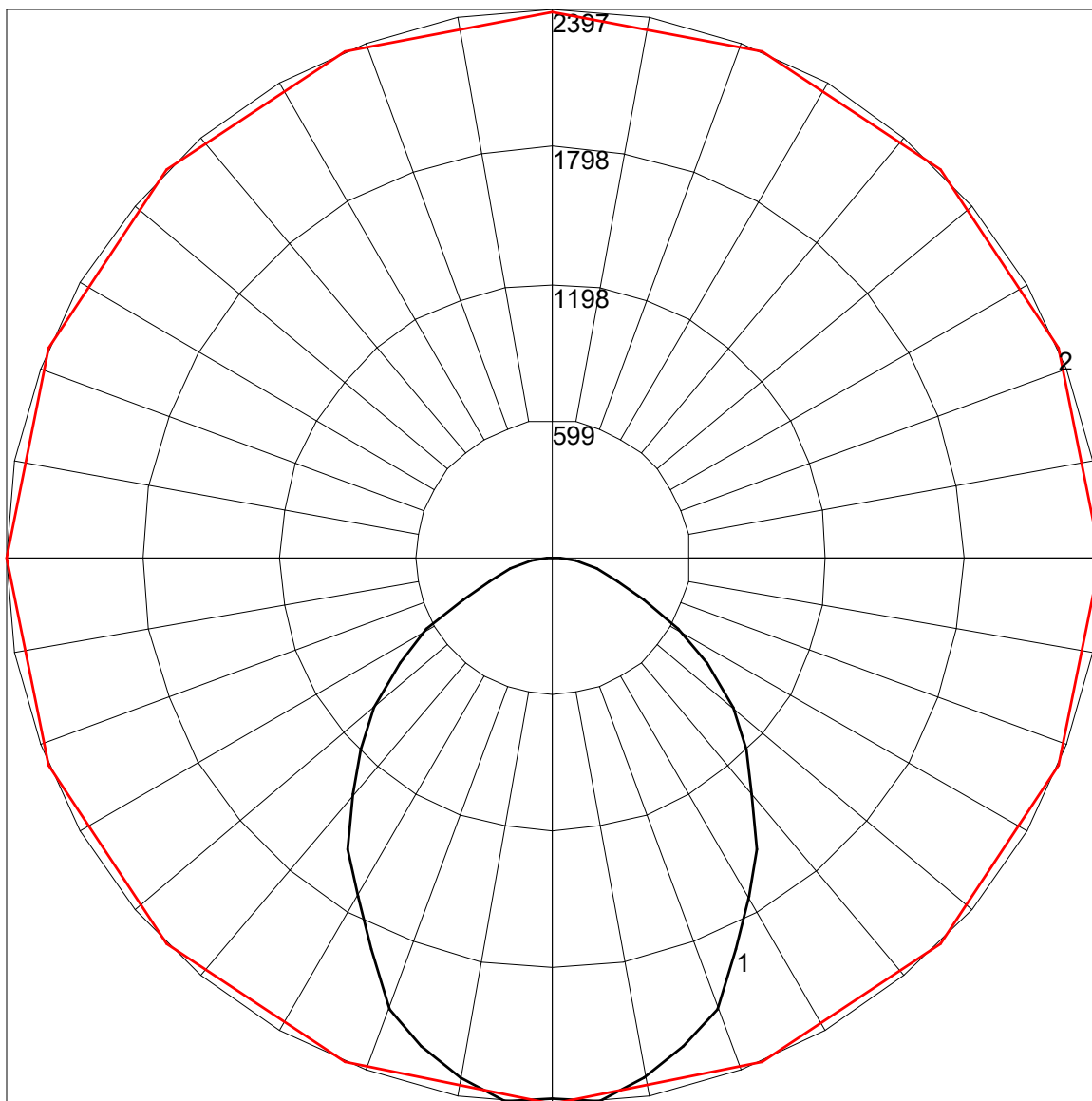
Reflectances

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					UGR Viewed Endwise				
X=2H	Y=2H	13.6	15.1	13.9	15.4	15.7	13.4	14.9	13.7	15.2	15.5
	3H	15.2	16.6	15.6	16.9	17.3	14.5	15.9	14.9	16.2	16.5
	4H	15.8	17.1	16.2	17.4	17.8	14.8	16.1	15.2	16.5	16.9
	6H	16.1	17.3	16.6	17.7	18.1	15.1	16.3	15.5	16.6	17.0
	8H	16.3	17.4	16.7	17.8	18.2	15.1	16.2	15.5	16.6	17.0
	12H	16.4	17.4	16.8	17.8	18.3	15.1	16.2	15.5	16.6	17.0
4H	2H	14.2	15.5	14.6	15.8	16.2	14.0	15.3	14.4	15.6	16.0
	3H	16.0	17.0	16.4	17.4	17.8	15.3	16.4	15.7	16.8	17.2
	4H	16.6	17.6	17.1	18.0	18.5	15.7	16.7	16.2	17.1	17.5
	6H	17.1	18.0	17.6	18.4	18.9	16.0	16.9	16.5	17.3	17.8
	8H	17.3	18.1	17.8	18.5	19.0	16.1	16.9	16.5	17.3	17.8
	12H	17.4	18.1	17.9	18.6	19.1	16.1	16.8	16.6	17.3	17.8
8H	4H	16.8	17.6	17.3	18.0	18.5	16.0	16.8	16.4	17.2	17.7
	6H	17.4	18.0	17.9	18.5	19.0	16.3	17.0	16.8	17.5	18.0
	8H	17.6	18.2	18.1	18.7	19.2	16.4	17.0	17.0	17.5	18.0
	12H	17.8	18.3	18.3	18.8	19.4	16.5	17.0	17.0	17.5	18.1
12H	4H	16.8	17.5	17.3	18.0	18.4	16.0	16.7	16.5	17.2	17.6
	6H	17.4	18.0	17.9	18.4	19.0	16.4	17.0	16.9	17.4	18.0
	8H	17.7	18.2	18.2	18.7	19.2	16.5	17.0	17.0	17.5	18.1

Maximum UGR = 19.4

POLAR GRAPH



Maximum Candela = 2396.735 Located At Horizontal Angle = 0, Vertical Angle = 5  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)  
# 2 - Horizontal Cone Through Vertical Angle (5) (Through Max. Cd.)