



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : AT1-24-P58-835-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] 16-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] AT1-24-P27-835-D-PoE

[\_SEARCH\_SOURCE TYPE]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	5802
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	122
Total Luminaire Watts	47.5
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	2643	2954	3151
55	2252	2610	2777
65	2045	2498	2683
75	1739	2378	2378
85	1541	1098	1027

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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>	2311.671	2311.671	2311.671	2311.671	2311.671
<b>5</b>	2299.444	2300.259	2300.259	2301.074	2301.889
<b>10</b>	2252.982	2255.428	2261.133	2268.469	2273.360
<b>15</b>	2169.840	2175.546	2188.588	2208.151	2217.117
<b>20</b>	2045.128	2057.354	2088.329	2125.824	2141.311
<b>25</b>	1877.213	1892.701	1938.347	1988.884	2011.708
<b>30</b>	1700.333	1866.617	1763.097	1757.391	1885.365
<b>35</b>	1521.008	1548.722	1627.788	1705.224	1734.568
<b>40</b>	1349.018	1380.807	1475.361	1551.167	1575.620
<b>45</b>	1225.120	1264.246	1369.396	1438.681	1460.689
<b>50</b>	1031.122	1075.954	1173.768	1230.826	1245.498
<b>55</b>	846.906	893.368	981.400	1027.862	1044.164
<b>60</b>	688.774	736.865	811.856	854.242	868.099
<b>65</b>	566.506	619.489	692.034	731.975	743.386
<b>70</b>	428.751	484.994	551.019	582.808	588.514
<b>75</b>	295.072	351.315	403.483	408.373	403.483
<b>80</b>	190.737	247.795	242.905	168.729	153.242
<b>85</b>	88.033	101.074	62.764	59.504	58.688
<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	835.48	N.A.	14.40
0-30	1731.2	N.A.	29.80
0-40	2751.51	N.A.	47.40
0-60	4647.24	N.A.	80.10
0-80	5704.71	N.A.	98.30
0-90	5801.66	N.A.	100.00
10-90	5583.3	N.A.	96.20
20-40	1916.03	N.A.	33.00
20-50	2945.28	N.A.	50.80
40-70	2558.56	N.A.	44.10
60-80	1057.48	N.A.	18.20
70-80	394.64	N.A.	6.80
80-90	96.94	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	5801.66	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	218.36
10-20	617.13
20-30	895.72
30-40	1020.31
40-50	1029.26
50-60	866.47
60-70	662.84
70-80	394.64
80-90	96.94
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	252	252	252	252	246	246	246	246	235	235	235	225	225	225	216	216	216	212
1	231	221	212	204	225	216	208	200	207	200	194	199	193	188	191	187	183	178
2	210	193	179	167	205	189	176	165	181	171	161	175	165	157	168	161	154	149
3	192	170	153	140	187	167	151	138	160	147	136	155	143	133	149	140	131	127
4	176	151	133	119	171	148	131	118	143	128	116	138	125	115	134	123	113	109
5	162	135	117	103	158	133	116	102	129	113	101	124	111	100	121	109	99	95
6	150	122	104	90	146	120	103	90	117	101	89	113	99	88	110	97	88	83
7	139	111	93	80	136	110	92	80	106	91	79	103	89	79	100	88	78	74
8	130	102	84	72	127	100	83	72	98	82	71	95	81	71	92	80	70	66
9	122	94	76	65	119	92	76	65	90	75	64	88	74	64	86	73	64	60
10	114	87	70	59	111	85	70	59	83	69	59	81	68	58	79	67	58	54

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**UGR TABLE - CORRECTED**

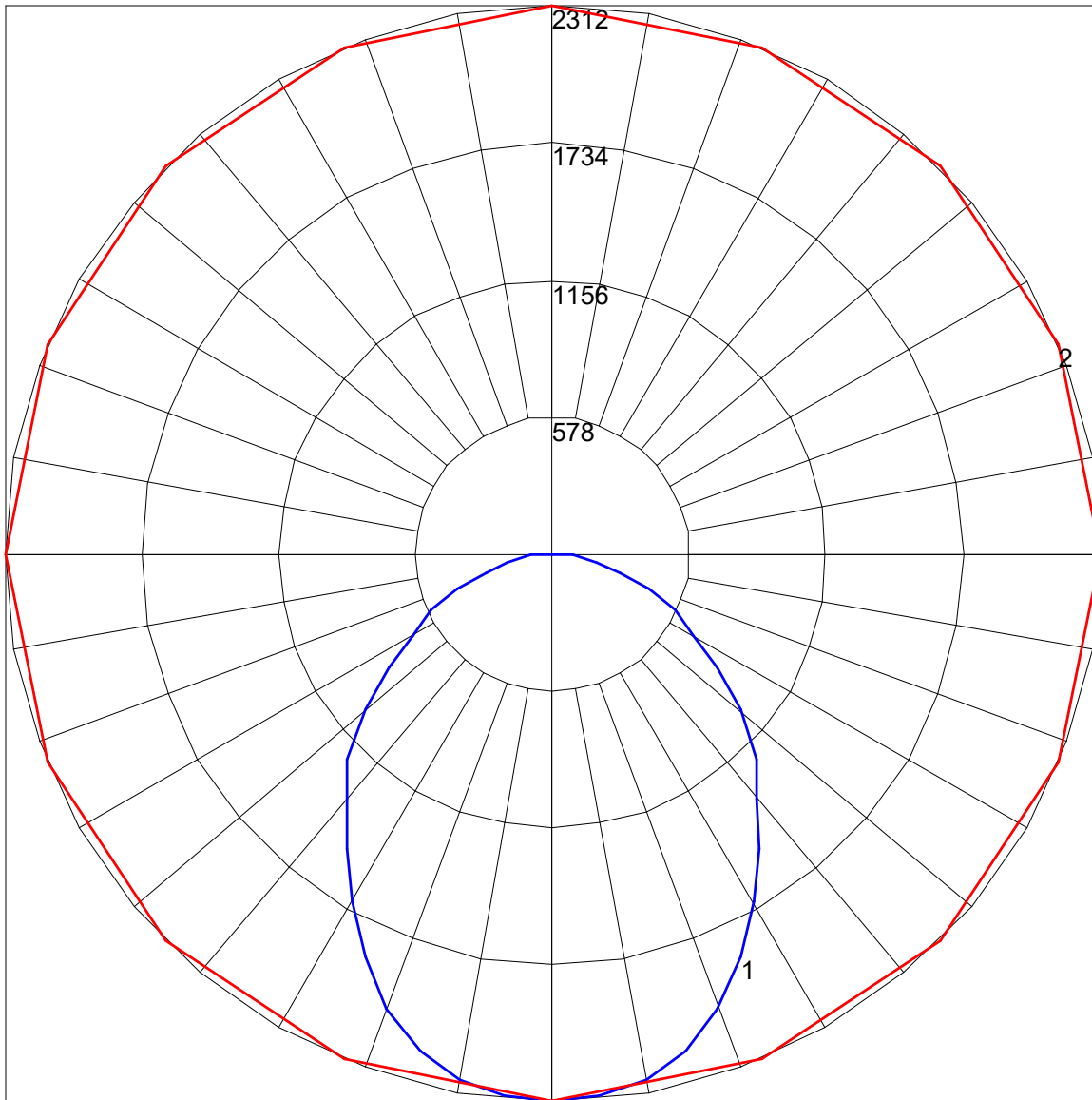
Reflectances

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	11.9	13.5	12.3	13.8	14.1	13.0	14.6	13.3	14.9	15.2
	3H	13.7	15.1	14.0	15.4	15.8	15.0	16.5	15.4	16.8	17.1
	4H	14.3	15.7	14.7	16.0	16.4	15.7	17.1	16.1	17.5	17.8
	6H	14.8	16.1	15.2	16.5	16.9	16.1	17.3	16.5	17.7	18.1
	8H	15.0	16.2	15.5	16.6	17.0	16.1	17.3	16.5	17.7	18.1
	12H	15.2	16.3	15.6	16.7	17.1	16.2	17.3	16.6	17.7	18.1
4H	2H	12.7	14.1	13.1	14.5	14.8	13.6	14.9	14.0	15.3	15.7
	3H	14.8	15.9	15.2	16.3	16.7	15.8	17.0	16.3	17.4	17.8
	4H	15.6	16.6	16.0	17.0	17.4	16.7	17.8	17.2	18.2	18.6
	6H	16.2	17.2	16.7	17.6	18.0	17.1	18.0	17.6	18.5	18.9
	8H	16.5	17.3	16.9	17.8	18.2	17.2	18.1	17.7	18.5	19.0
	12H	16.6	17.4	17.1	17.9	18.4	17.3	18.0	17.7	18.5	19.0
8H	4H	16.0	16.9	16.5	17.3	17.8	17.0	17.9	17.5	18.3	18.8
	6H	16.9	17.6	17.4	18.1	18.6	17.5	18.2	18.0	18.7	19.2
	8H	17.2	17.8	17.7	18.4	18.8	17.6	18.3	18.1	18.8	19.3
	12H	17.5	18.0	18.0	18.5	19.1	17.7	18.3	18.2	18.8	19.3
12H	4H	16.1	16.8	16.5	17.3	17.8	17.1	17.8	17.5	18.3	18.8
	6H	17.0	17.6	17.5	18.1	18.6	17.6	18.2	18.1	18.7	19.2
	8H	17.3	17.9	17.8	18.4	19.0	17.7	18.3	18.3	18.8	19.4

Maximum UGR = 19.4

POLAR GRAPH



Maximum Candela = 2311.671 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.)