



IES INDOOR REPORT

PHOTOMETRIC FILENAME : AT1-24-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

[ISSUEDATE] 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-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	10048
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	124
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	4577	5116	5457
55	3901	4520	4809
65	3541	4326	4647
75	3012	4119	4119
85	2668	1903	1779

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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>
0	4003.788	4003.788	4003.788	4003.788	4003.788
5	3982.612	3984.023	3984.023	3985.435	3986.847
10	3902.140	3906.376	3916.258	3928.964	3937.435
15	3758.140	3768.022	3790.610	3824.493	3840.022
20	3542.138	3563.315	3616.962	3681.904	3708.728
25	3251.313	3278.137	3357.196	3444.726	3484.256
30	2944.958	3232.960	3053.665	3043.783	3265.431
35	2634.368	2682.369	2819.311	2953.429	3004.253
40	2336.484	2391.543	2555.309	2686.604	2728.957
45	2121.895	2189.660	2371.779	2491.779	2529.897
50	1785.893	1863.540	2032.953	2131.777	2157.189
55	1466.832	1547.303	1699.775	1780.246	1808.481
60	1192.948	1276.243	1406.126	1479.538	1503.538
65	981.182	1072.947	1198.595	1267.772	1287.537
70	742.593	840.005	954.359	1009.418	1019.300
75	511.062	608.474	698.828	707.298	698.828
80	330.355	429.179	420.708	292.237	265.413
85	152.471	175.060	108.707	103.059	101.648
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	1447.05	N.A.	14.40
0-30	2998.42	N.A.	29.80
0-40	4765.59	N.A.	47.40
0-60	8048.96	N.A.	80.10
0-80	9880.5	N.A.	98.30
0-90	10048.41	N.A.	100.00
10-90	9670.22	N.A.	96.20
20-40	3318.54	N.A.	33.00
20-50	5101.2	N.A.	50.80
40-70	4431.4	N.A.	44.10
60-80	1831.54	N.A.	18.20
70-80	683.51	N.A.	6.80
80-90	167.91	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	10048.41	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	378.19
10-20	1068.86
20-30	1551.37
30-40	1767.17
40-50	1782.66
50-60	1500.72
60-70	1148.03
70-80	683.51
80-90	167.91
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	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	287	273	291	278	267	259
3	332	295	265	242	323	289	261	240	278	255	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	172	153	190	168	152	144
7	242	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	121	102	144	119	102	141	118	101	138	116	101	94

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UGR TABLE - CORRECTED

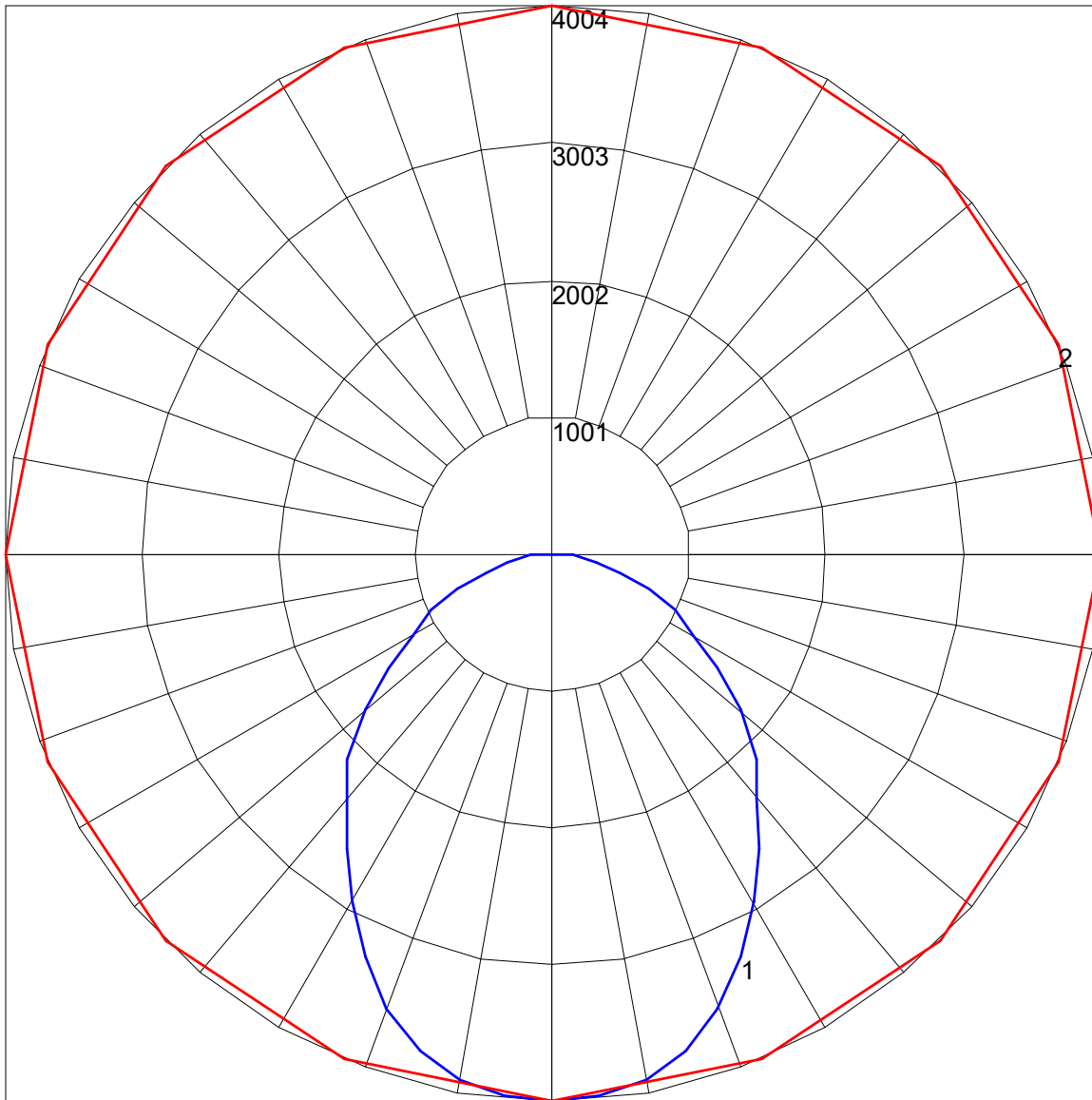
Reflectances

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 = 4003.788 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.)