



IES INDOOR REPORT

PHOTOMETRIC FILENAME : AT3-22-P52-8TW-D-POE 4000K_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN FROM BALLABS TEST NO. 19435.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 3-JAN-2020

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] 2-22" LED ARRAYS 2x2' LUMINAIRE

[MORE] WHITE REFLECTOR w/2 PIECE FROSTED ACRYLIC LENS IN DOOR

[LUMCAT] AT3-22-P52-8TW-D-PoE 4000k

[_SEARCH_SOURCETYPE] LED

[_SEARCH_APPLICATION] Indoor, Architectural, Classroom, Commercial, Office, Direct

[_SEARCH_MOUNTING] Recessed

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	4858
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	97
Total Luminaire Watts	50.06
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.16
Spacing Criterion (90-270)	1.28
Spacing Criterion (Diagonal)	1.30
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	1.76 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	5016	5460	5899
55	4411	4982	5355
65	3899	4560	5008
75	3236	4102	4741
85	1740	1543	1463

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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	1911.916	1911.916	1911.916	1911.916	1911.916
5	1907.931	1901.953	1900.956	1899.960	1897.967
10	1865.089	1864.093	1860.108	1872.063	1875.052
15	1801.326	1799.333	1806.307	1831.215	1839.185
20	1704.684	1709.665	1737.562	1773.429	1790.366
25	1586.123	1603.060	1647.894	1697.709	1723.614
30	1463.577	1485.496	1543.282	1609.038	1633.946
35	1330.072	1353.983	1419.739	1492.470	1516.381
40	1180.625	1202.544	1273.282	1342.027	1371.917
45	1025.201	1051.105	1115.865	1180.625	1205.533
50	876.751	901.659	966.419	1029.187	1046.124
55	731.290	754.205	825.940	878.744	887.711
60	596.789	619.704	687.453	737.268	741.253
65	476.235	495.165	556.936	600.774	611.733
70	355.682	373.616	432.398	471.254	486.198
75	242.103	261.033	306.863	335.756	354.686
80	134.502	158.413	161.402	160.406	158.413
85	43.838	51.808	38.856	37.860	36.863
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	691.82	N.A.	14.20
0-30	1452.32	N.A.	29.90
0-40	2339.32	N.A.	48.20
0-60	3935.18	N.A.	81.00
0-80	4792.02	N.A.	98.60
0-90	4857.62	N.A.	100.00
10-90	4677.24	N.A.	96.30
20-40	1647.5	N.A.	33.90
20-50	2510.27	N.A.	51.70
40-70	2140.85	N.A.	44.10
60-80	856.84	N.A.	17.60
70-80	311.85	N.A.	6.40
80-90	65.60	N.A.	1.40
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	4857.62	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	180.38
10-20	511.44
20-30	760.51
30-40	886.99
40-50	862.77
50-60	733.09
60-70	544.99
70-80	311.85
80-90	65.60
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	387	387	387	387	378	378	378	378	362	362	362	346	346	346	332	332	332	325
1	355	340	327	315	346	333	321	310	319	309	300	307	298	291	295	288	282	275
2	324	298	277	258	316	292	272	255	280	264	249	270	256	244	260	249	238	231
3	296	263	237	216	288	258	234	214	248	227	211	239	222	207	231	216	203	196
4	272	234	206	184	264	229	203	183	221	199	181	214	194	178	207	190	176	169
5	250	209	181	160	244	206	179	159	199	175	157	193	172	155	187	168	154	147
6	232	189	161	140	225	186	159	139	180	156	138	175	153	137	170	151	136	129
7	215	172	144	124	210	169	143	124	164	140	123	160	138	122	155	136	121	115
8	201	157	130	111	195	155	129	111	151	127	110	147	125	110	143	123	109	103
9	188	145	118	100	183	143	117	100	139	116	100	135	114	99	132	113	99	93
10	176	134	108	91	172	132	108	91	129	106	91	126	105	90	123	104	90	84

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UGR TABLE - CORRECTED

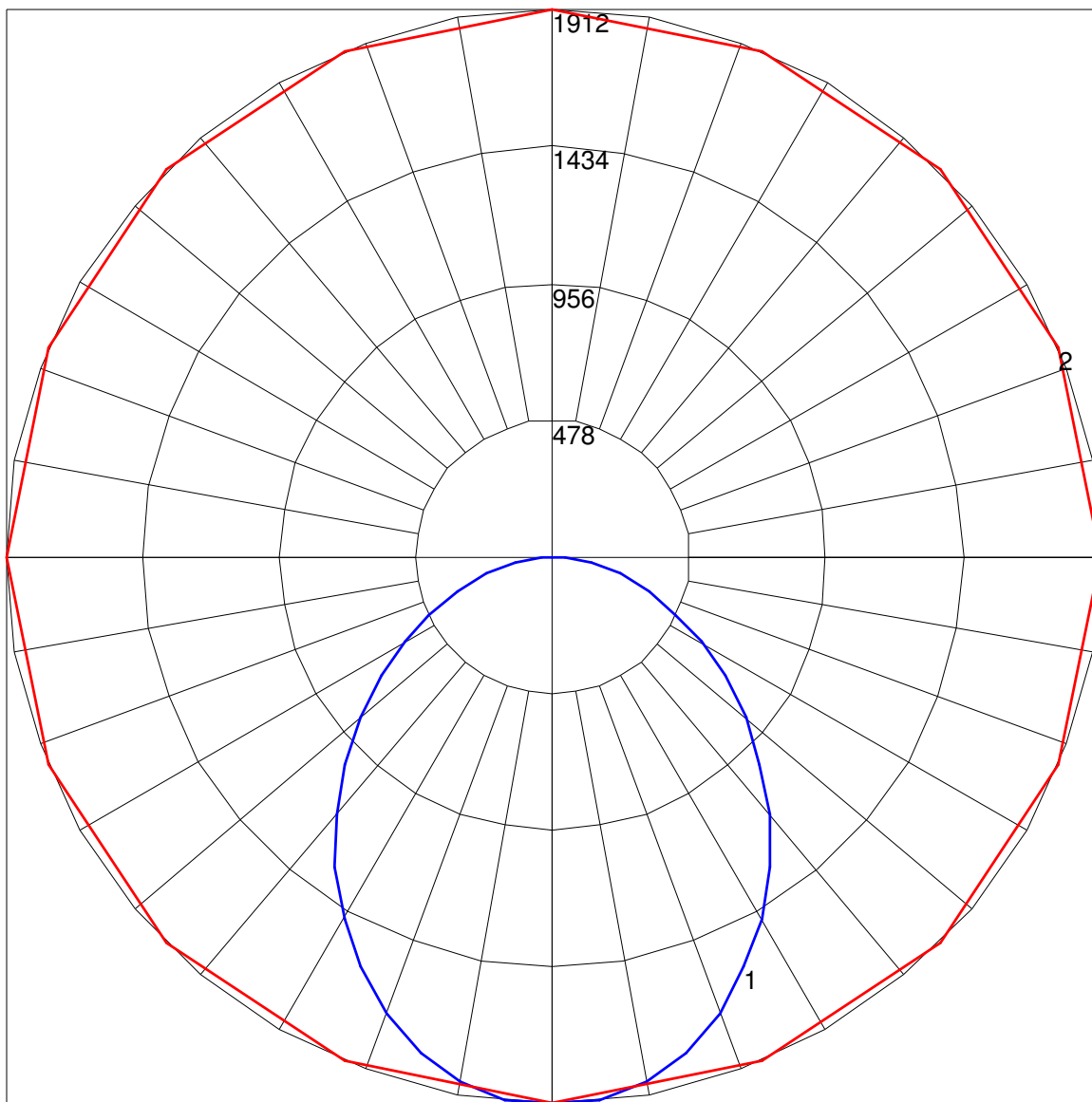
Reflectances

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	12.7	14.3	13.1	14.6	14.9	13.9	15.5	14.3	15.8	16.1
	3H	14.4	15.8	14.7	16.1	16.5	15.8	17.2	16.2	17.6	17.9
	4H	15.0	16.3	15.4	16.7	17.0	16.5	17.9	16.9	18.2	18.6
	6H	15.4	16.6	15.8	17.0	17.4	16.9	18.2	17.4	18.6	19.0
	8H	15.5	16.7	15.9	17.1	17.5	17.0	18.2	17.5	18.6	19.0
	12H	15.5	16.7	15.9	17.0	17.5	17.0	18.2	17.5	18.6	19.0
4H	2H	13.5	14.8	13.9	15.2	15.6	14.4	15.8	14.8	16.1	16.5
	3H	15.4	16.5	15.8	16.9	17.3	16.6	17.7	17.0	18.1	18.5
	4H	16.1	17.1	16.5	17.5	17.9	17.4	18.5	17.9	18.9	19.3
	6H	16.6	17.5	17.0	17.9	18.4	18.0	18.8	18.4	19.3	19.7
	8H	16.7	17.6	17.2	18.0	18.5	18.1	18.9	18.5	19.3	19.8
	12H	16.8	17.6	17.3	18.0	18.5	18.1	18.8	18.6	19.3	19.8
8H	4H	16.5	17.3	16.9	17.7	18.2	17.7	18.5	18.1	19.0	19.4
	6H	17.1	17.8	17.6	18.3	18.8	18.3	19.0	18.8	19.5	19.9
	8H	17.3	17.9	17.8	18.4	18.9	18.4	19.0	18.9	19.5	20.0
	12H	17.4	18.0	18.0	18.5	19.0	18.5	19.0	19.0	19.5	20.1
12H	4H	16.5	17.3	17.0	17.7	18.2	17.7	18.4	18.2	18.9	19.4
	6H	17.2	17.8	17.7	18.3	18.8	18.3	18.9	18.8	19.4	19.9
	8H	17.4	18.0	17.9	18.5	19.0	18.5	19.0	19.0	19.5	20.1

Maximum UGR = 20.1

POLAR GRAPH



Maximum Candela = 1911.916 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.)