



IES INDOOR REPORT

PHOTOMETRIC FILENAME : AT2-22-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] AT2-22-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	5381
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	107
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	5556	6048	6534
55	4886	5519	5931
65	4319	5050	5547
75	3585	4544	5252
85	1928	1709	1621

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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	2117.747	2117.747	2117.747	2117.747	2117.747
5	2113.333	2106.711	2105.608	2104.504	2102.297
10	2065.879	2064.776	2060.361	2073.604	2076.915
15	1995.251	1993.044	2000.769	2028.358	2037.186
20	1888.205	1893.723	1924.623	1964.351	1983.112
25	1756.880	1775.641	1825.301	1880.480	1909.173
30	1621.141	1645.420	1709.427	1782.262	1809.851
35	1473.263	1499.749	1572.584	1653.145	1679.630
40	1307.728	1332.007	1410.360	1486.506	1519.613
45	1135.571	1164.264	1235.996	1307.728	1335.317
50	971.140	998.729	1070.461	1139.986	1158.746
55	810.019	835.401	914.858	973.347	983.279
60	661.037	686.419	761.462	816.640	821.055
65	527.505	548.473	616.894	665.451	677.591
70	393.974	413.838	478.948	521.988	538.541
75	268.167	289.135	339.899	371.902	392.870
80	148.982	175.467	178.778	177.674	175.467
85	48.557	57.386	43.039	41.936	40.832
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	766.30	N.A.	14.20
0-30	1608.68	N.A.	29.90
0-40	2591.16	N.A.	48.20
0-60	4358.83	N.A.	81.00
0-80	5307.91	N.A.	98.60
0-90	5380.58	N.A.	100.00
10-90	5180.77	N.A.	96.30
20-40	1824.86	N.A.	33.90
20-50	2780.52	N.A.	51.70
40-70	2371.33	N.A.	44.10
60-80	949.08	N.A.	17.60
70-80	345.42	N.A.	6.40
80-90	72.67	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	5380.58	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	199.80
10-20	566.50
20-30	842.38
30-40	982.49
40-50	955.66
50-60	812.01
60-70	603.66
70-80	345.42
80-90	72.67
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	388	388	388	388	378	378	378	378	362	362	362	346	346	346	332	332	332	326
1	355	340	327	315	347	333	321	310	319	309	300	307	298	291	295	288	282	276
2	324	298	277	259	316	292	272	255	281	264	250	270	256	244	260	249	238	231
3	296	263	237	216	288	258	234	214	248	228	211	239	222	207	231	216	203	196
4	272	234	206	185	265	229	203	183	221	199	181	214	194	178	207	190	176	169
5	251	210	181	160	244	206	179	159	199	175	157	193	172	155	187	168	154	147
6	232	189	161	140	226	186	159	140	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	196	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

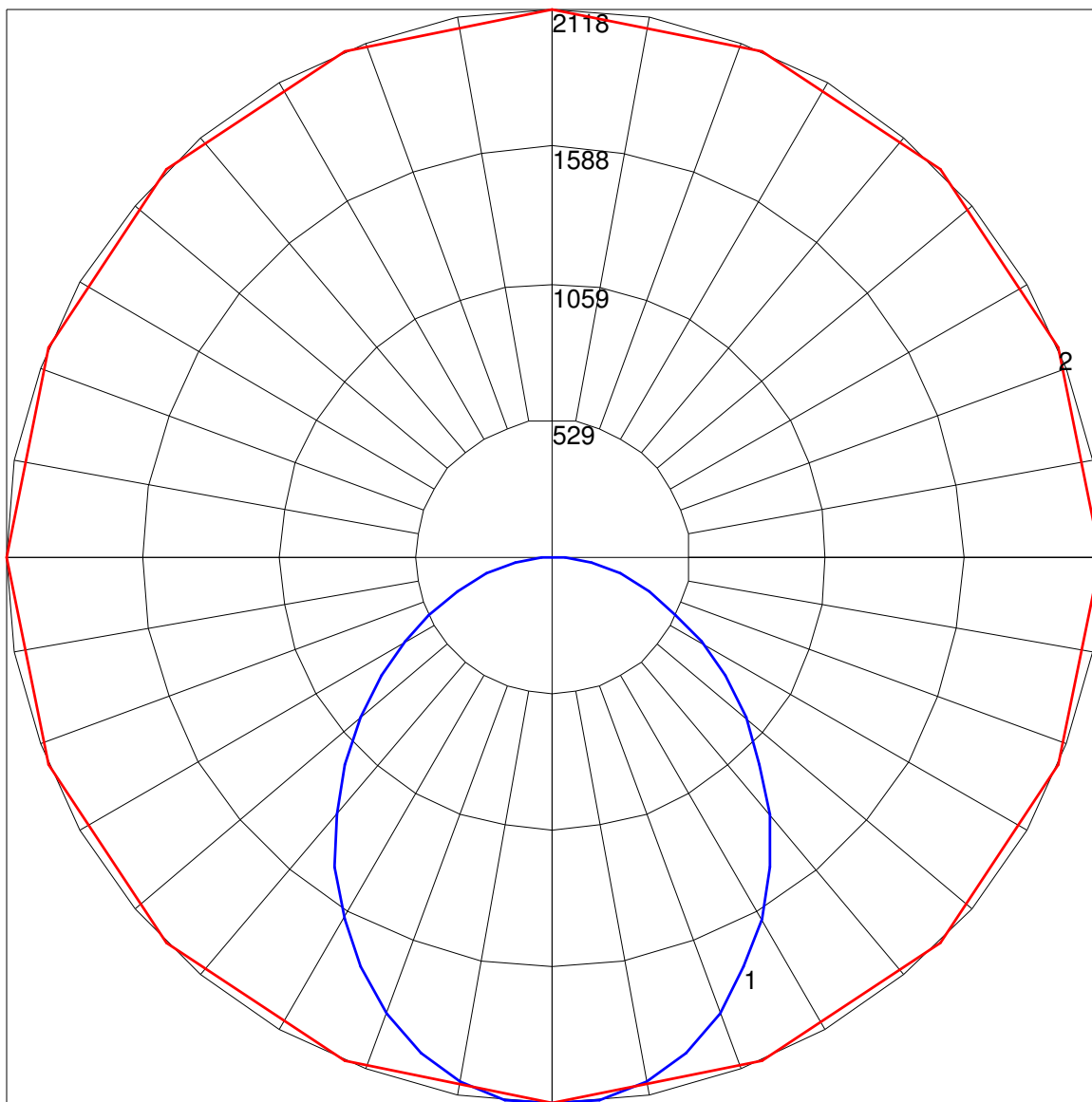
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UGR TABLE - CORRECTED

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	13.0	14.6	13.4	14.9	15.2	14.2	15.8	14.6	16.1	16.4
	3H	14.7	16.1	15.0	16.4	16.8	16.1	17.5	16.5	17.9	18.2
	4H	15.3	16.6	15.7	17.0	17.3	16.8	18.2	17.2	18.5	18.9
	6H	15.7	16.9	16.1	17.3	17.7	17.2	18.5	17.7	18.9	19.3
	8H	15.8	17.0	16.2	17.4	17.8	17.3	18.5	17.8	18.9	19.3
	12H	15.8	17.0	16.2	17.3	17.8	17.3	18.5	17.8	18.9	19.3
4H	2H	13.8	15.1	14.2	15.5	15.9	14.7	16.1	15.1	16.4	16.8
	3H	15.7	16.8	16.1	17.2	17.6	16.9	18.0	17.3	18.4	18.8
	4H	16.4	17.4	16.8	17.8	18.2	17.7	18.8	18.2	19.2	19.6
	6H	16.9	17.8	17.3	18.2	18.7	18.3	19.1	18.7	19.6	20.0
	8H	17.0	17.9	17.5	18.3	18.8	18.4	19.2	18.8	19.6	20.1
	12H	17.1	17.9	17.6	18.3	18.8	18.4	19.1	18.9	19.6	20.1
8H	4H	16.8	17.6	17.2	18.0	18.5	18.0	18.8	18.4	19.3	19.7
	6H	17.4	18.1	17.9	18.6	19.1	18.6	19.3	19.1	19.8	20.2
	8H	17.6	18.2	18.1	18.7	19.2	18.7	19.3	19.2	19.8	20.3
	12H	17.7	18.3	18.3	18.8	19.3	18.8	19.3	19.3	19.8	20.4
12H	4H	16.8	17.6	17.3	18.0	18.5	18.0	18.7	18.5	19.2	19.7
	6H	17.5	18.1	18.0	18.6	19.1	18.6	19.2	19.1	19.7	20.2
	8H	17.7	18.3	18.2	18.8	19.3	18.8	19.3	19.3	19.8	20.4

Maximum UGR = 20.4

POLAR GRAPH



Maximum Candela = 2117.747 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.)