



IES INDOOR REPORT

PHOTOMETRIC FILENAME : AT1-14-P25-835-D-POE_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN FROM BALLABS TEST NO. 19434.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 15-JAN-2020

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] 2-22" LED ARRAYS 1x4' LUMINAIRE

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

[LUMCAT] AT1-14-P25-835-D-PoE

[_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	2506
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	108
Total Luminaire Watts	23.2
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.12
Spacing Criterion (90-270)	1.06
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	3243	3132	3103
55	2759	2693	2589
65	2451	2375	1755
75	1948	1391	1272
85	1605	1103	819

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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	1142.626	1142.626	1142.626	1142.626	1142.626
5	1130.449	1128.878	1127.307	1125.343	1124.557
10	1117.094	1112.774	1105.704	1100.205	1098.633
15	1070.352	1066.032	1055.426	1047.178	1042.464
20	1020.075	1010.256	993.366	978.440	972.548
25	914.415	904.202	887.312	873.172	869.244
30	840.963	828.001	808.754	797.363	793.828
35	761.620	749.443	732.553	723.912	721.162
40	678.741	666.957	653.602	648.889	646.139
45	618.251	605.289	597.041	592.720	591.542
50	518.090	508.663	503.164	499.629	497.272
55	426.570	418.714	416.357	409.287	400.253
60	342.906	337.799	336.228	316.589	297.735
65	279.274	276.131	270.632	222.319	199.930
70	204.644	203.858	177.934	134.334	130.799
75	135.905	137.476	97.019	90.734	88.771
80	83.271	73.059	60.490	57.347	55.383
85	37.708	29.459	25.924	20.818	19.247
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	404.37	N.A.	16.10
0-30	817.33	N.A.	32.60
0-40	1278.24	N.A.	51.00
0-60	2105.82	N.A.	84.00
0-80	2473.9	N.A.	98.70
0-90	2505.85	N.A.	100.00
10-90	2398.8	N.A.	95.70
20-40	873.87	N.A.	34.90
20-50	1330.03	N.A.	53.10
40-70	1075.69	N.A.	42.90
60-80	368.07	N.A.	14.70
70-80	119.96	N.A.	4.80
80-90	31.95	N.A.	1.30
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	2505.85	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	107.05
10-20	297.32
20-30	412.96
30-40	460.92
40-50	456.16
50-60	371.42
60-70	248.12
70-80	119.96
80-90	31.95
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	181	181	181	181	177	177	177	177	169	169	169	162	162	162	155	155	155	152
1	167	160	154	149	163	157	151	146	150	146	142	144	141	137	139	136	133	130
2	153	141	132	123	149	138	129	122	133	126	119	128	122	116	124	118	114	111
3	140	125	114	104	136	123	112	103	118	109	102	114	106	100	110	104	98	95
4	129	112	99	90	126	110	98	89	106	96	88	103	94	87	99	92	85	82
5	119	101	88	78	116	99	87	78	96	85	77	93	83	76	90	82	75	72
6	110	91	78	69	108	90	77	68	87	76	68	84	75	67	82	73	67	64
7	103	83	70	61	100	82	70	61	79	69	61	77	68	60	75	66	60	57
8	96	76	64	55	93	75	63	55	73	62	55	71	61	54	69	61	54	51
9	90	70	58	50	88	69	58	50	67	57	50	66	56	49	64	56	49	46
10	84	65	53	46	82	64	53	45	63	52	45	61	52	45	60	51	45	42

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UGR TABLE - CORRECTED

Reflectances

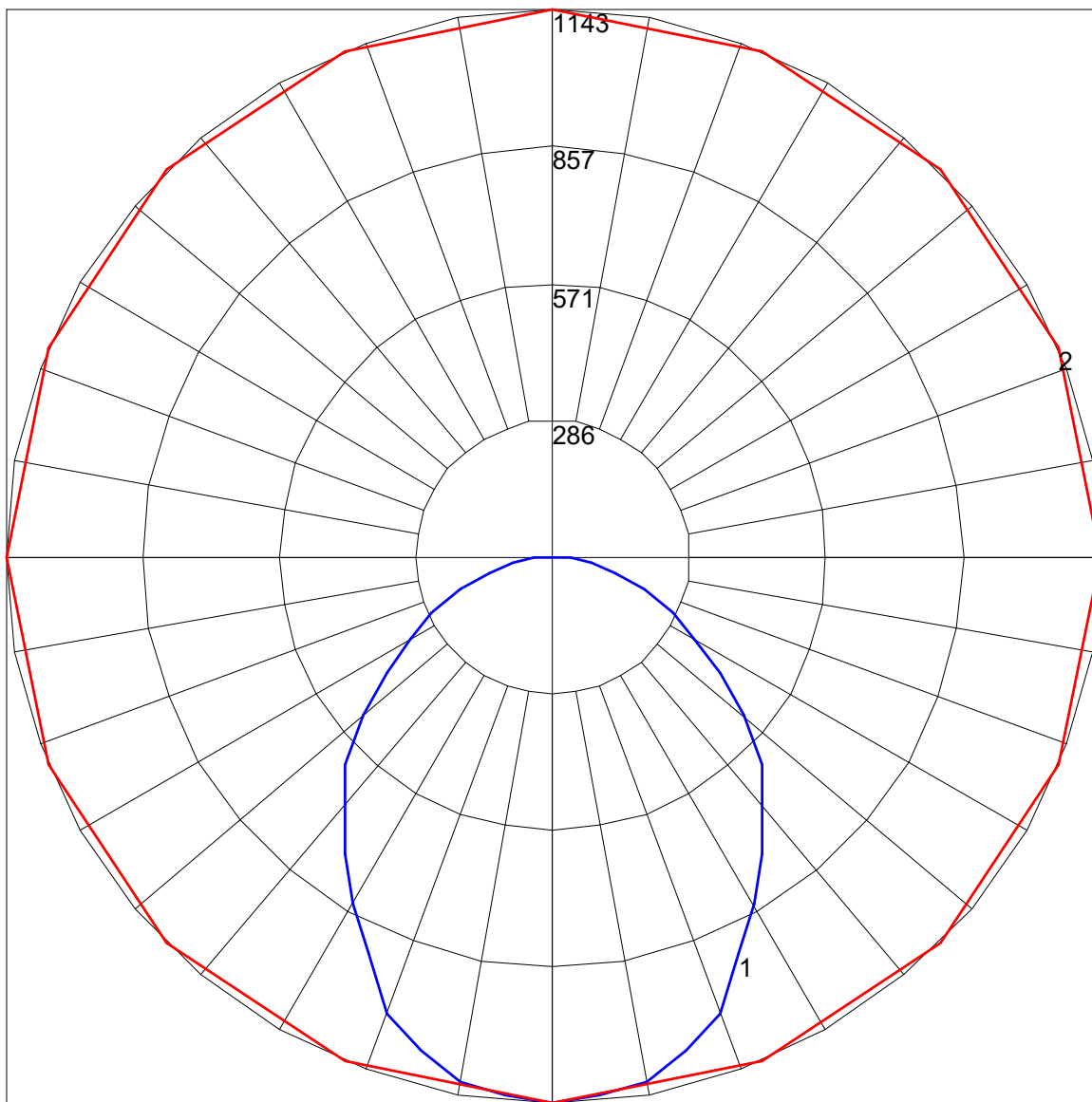
Ceiling Cavity	70	70	50	50	30	70	70	50	50	30
Walls	50	30	50	30	30	50	30	50	30	30
Floor Cavity	20	20	20	20	20	20	20	20	20	20

Room Size UGR Viewed Crosswise

X=2H	Y=2H	13.8	15.4	14.2	15.7	16.0	UGR Viewed Endwise				
	3H	15.5	16.9	15.9	17.2	17.6	13.5	15.0	13.8	15.3	15.6
	4H	16.1	17.4	16.5	17.7	18.1	14.4	15.8	14.8	16.1	16.5
	6H	16.5	17.7	16.9	18.1	18.5	14.7	16.0	15.1	16.4	16.8
	8H	16.6	17.8	17.1	18.2	18.6	15.0	16.2	15.4	16.6	17.0
	12H	16.7	17.8	17.2	18.2	18.7	15.1	16.2	15.5	16.6	17.0
4H	2H	14.4	15.7	14.8	16.1	16.4	14.1	15.4	14.5	15.8	16.1
	3H	16.2	17.3	16.7	17.7	18.1	15.2	16.3	15.6	16.7	17.1
	4H	17.0	17.9	17.4	18.3	18.8	15.6	16.6	16.0	17.0	17.4
	6H	17.5	18.3	17.9	18.8	19.2	16.0	16.8	16.4	17.3	17.7
	8H	17.7	18.4	18.1	18.9	19.4	16.1	16.9	16.6	17.3	17.8
	12H	17.8	18.5	18.3	19.0	19.4	16.2	16.9	16.6	17.3	17.8
8H	4H	17.1	17.9	17.5	18.3	18.8	15.9	16.6	16.3	17.1	17.6
	6H	17.7	18.3	18.2	18.8	19.3	16.3	17.0	16.8	17.5	17.9
	8H	17.9	18.5	18.4	19.0	19.5	16.5	17.1	17.0	17.6	18.1
	12H	18.1	18.6	18.6	19.1	19.7	16.6	17.1	17.1	17.6	18.2
12H	4H	17.1	17.8	17.6	18.3	18.7	15.9	16.6	16.4	17.1	17.5
	6H	17.7	18.3	18.2	18.8	19.3	16.4	17.0	16.9	17.4	18.0
	8H	18.0	18.5	18.5	19.0	19.6	16.6	17.1	17.1	17.6	18.1

Maximum UGR = 19.7

POLAR GRAPH



Maximum Candela = 1142.626 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.)