



IES INDOOR REPORT

PHOTOMETRIC FILENAME : AT3-14-P16-835-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] 3-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] AT3-14-P16-835-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	1534
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	107
Total Luminaire Watts	14.4
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	1985	1917	1900
55	1689	1648	1585
65	1501	1454	1074
75	1192	851	779
85	982	675	501

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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	699.436	699.436	699.436	699.436	699.436
5	691.983	691.021	690.059	688.857	688.376
10	683.808	681.163	676.835	673.469	672.507
15	655.196	652.551	646.059	641.010	638.125
20	624.420	618.409	608.070	598.933	595.326
25	559.742	553.490	543.151	534.495	532.091
30	514.779	506.845	495.063	488.091	485.927
35	466.211	458.757	448.418	443.129	441.446
40	415.478	408.265	400.090	397.205	395.522
45	378.451	370.516	365.467	362.822	362.101
50	317.139	311.368	308.002	305.838	304.396
55	261.117	256.308	254.865	250.537	245.007
60	209.903	206.777	205.816	193.794	182.253
65	170.952	169.028	165.662	136.088	122.383
70	125.269	124.788	108.919	82.230	80.066
75	83.192	84.154	59.388	55.541	54.339
80	50.973	44.722	37.028	35.104	33.902
85	23.082	18.033	15.869	12.743	11.782
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	247.53	N.A.	16.10
0-30	500.31	N.A.	32.60
0-40	782.45	N.A.	51.00
0-60	1289.04	N.A.	84.00
0-80	1514.35	N.A.	98.70
0-90	1533.91	N.A.	100.00
10-90	1468.38	N.A.	95.70
20-40	534.93	N.A.	34.90
20-50	814.15	N.A.	53.10
40-70	658.47	N.A.	42.90
60-80	225.31	N.A.	14.70
70-80	73.43	N.A.	4.80
80-90	19.56	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	1533.91	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	65.53
10-20	182.00
20-30	252.78
30-40	282.14
40-50	279.23
50-60	227.36
60-70	151.88
70-80	73.43
80-90	19.56
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	122	122	122	122	119	119	119	119	114	114	114	109	109	109	105	105	105	103
1	113	108	104	101	110	106	102	99	102	99	96	98	95	93	94	92	90	88
2	103	95	89	83	101	94	88	82	90	85	81	87	82	79	84	80	77	75
3	95	85	77	71	92	83	76	70	80	74	69	77	72	67	75	70	66	64
4	87	76	67	61	85	74	66	60	72	65	59	69	63	59	67	62	58	56
5	81	68	59	53	78	67	59	52	65	57	52	63	56	51	61	55	51	49
6	75	62	53	46	73	61	52	46	59	51	46	57	51	46	55	50	45	43
7	69	56	47	41	68	55	47	41	54	46	41	52	46	41	51	45	40	38
8	65	51	43	37	63	51	43	37	49	42	37	48	42	37	47	41	36	35
9	61	47	39	34	59	47	39	34	46	38	33	45	38	33	44	38	33	31
10	57	44	36	31	56	43	36	31	42	35	31	41	35	30	40	35	30	29

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UGR TABLE - CORRECTED

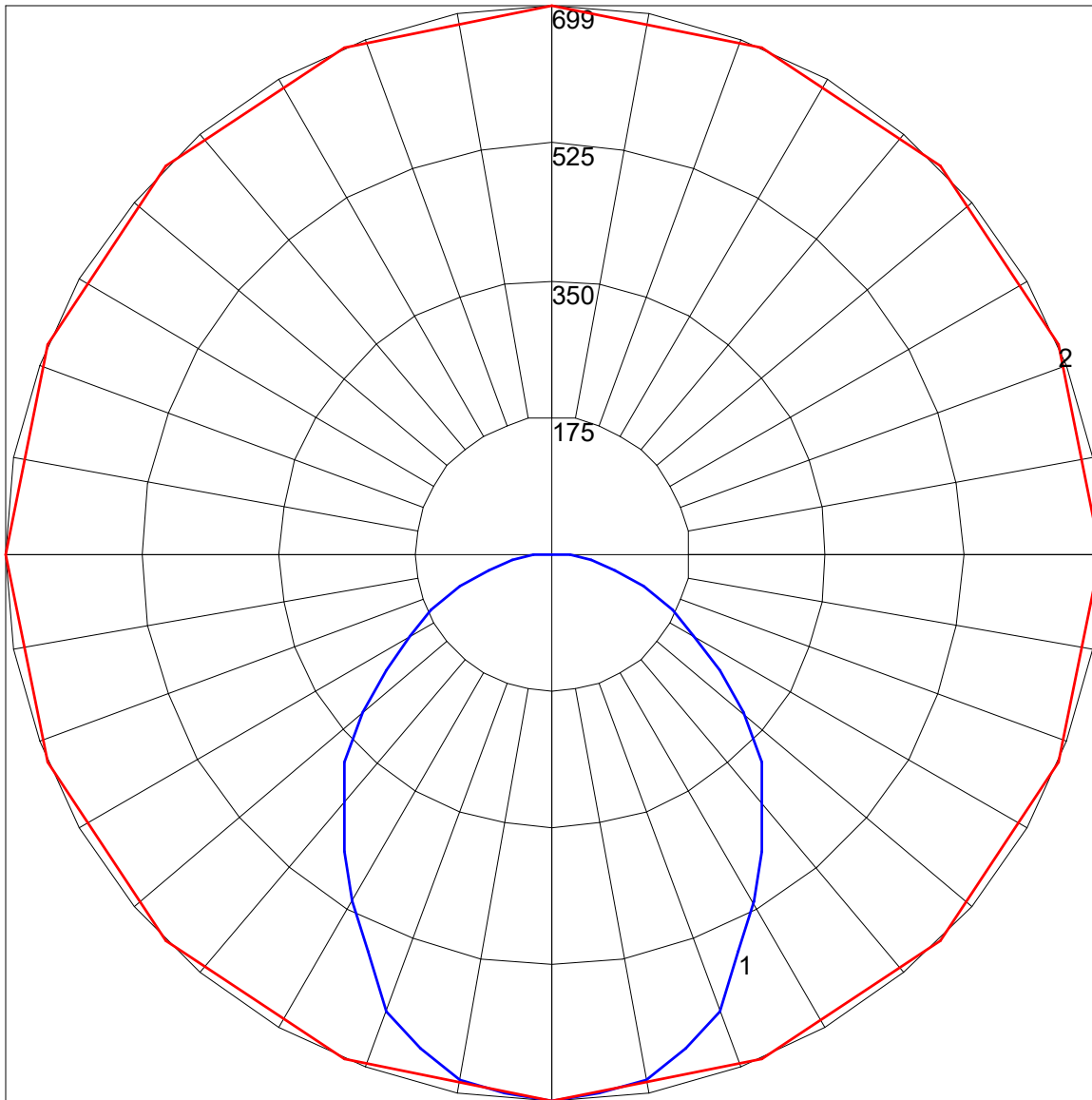
Reflectances

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	13.5	15.1	13.9	15.4	15.7	13.2	14.7	13.5	15.0	15.3
	3H	15.2	16.6	15.6	16.9	17.3	14.1	15.5	14.5	15.8	16.2
	4H	15.8	17.1	16.2	17.4	17.8	14.4	15.7	14.8	16.1	16.5
	6H	16.2	17.4	16.6	17.8	18.2	14.7	15.9	15.1	16.3	16.7
	8H	16.3	17.5	16.8	17.9	18.3	14.8	15.9	15.2	16.3	16.7
	12H	16.4	17.5	16.9	17.9	18.4	14.8	15.9	15.2	16.3	16.7
4H	2H	14.1	15.4	14.5	15.8	16.1	13.8	15.1	14.2	15.5	15.8
	3H	15.9	17.0	16.4	17.4	17.8	14.9	16.0	15.3	16.4	16.8
	4H	16.7	17.6	17.1	18.0	18.5	15.3	16.3	15.7	16.7	17.1
	6H	17.2	18.0	17.6	18.5	18.9	15.7	16.5	16.1	17.0	17.4
	8H	17.4	18.1	17.8	18.6	19.1	15.8	16.6	16.3	17.0	17.5
	12H	17.5	18.2	18.0	18.7	19.1	15.9	16.6	16.3	17.0	17.5
8H	4H	16.8	17.6	17.2	18.0	18.5	15.6	16.3	16.0	16.8	17.3
	6H	17.4	18.0	17.9	18.5	19.0	16.0	16.7	16.5	17.2	17.6
	8H	17.6	18.2	18.1	18.7	19.2	16.2	16.8	16.7	17.3	17.8
	12H	17.8	18.3	18.3	18.8	19.4	16.3	16.8	16.8	17.3	17.9
12H	4H	16.8	17.5	17.3	18.0	18.4	15.6	16.3	16.1	16.8	17.2
	6H	17.4	18.0	17.9	18.5	19.0	16.1	16.7	16.6	17.1	17.7
	8H	17.7	18.2	18.2	18.7	19.3	16.3	16.8	16.8	17.3	17.8

Maximum UGR = 19.4

POLAR GRAPH



Maximum Candela = 699.436 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.)