



IES INDOOR REPORT

PHOTOMETRIC FILENAME : AT3-14-L50-835-D-DIM-UNV_.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] 2-42 LED 22" ARRAYS 1x4' RECESSED LUMINAIRE

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

[LUMCAT] AT3-14-L50-835-D-DIM-UNV

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	4702
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	97
Total Luminaire Watts	48.31
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	6086	5877	5823
55	5176	5052	4857
65	4599	4457	3293
75	3655	2609	2387
85	3011	2070	1537

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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	2143.905	2143.905	2143.905	2143.905	2143.905
5	2121.059	2118.111	2115.163	2111.478	2110.004
10	2096.001	2087.894	2074.628	2064.310	2061.362
15	2008.299	2000.192	1980.294	1964.817	1955.973
20	1913.964	1895.540	1863.849	1835.843	1824.789
25	1715.714	1696.552	1664.862	1638.330	1630.960
30	1577.897	1553.576	1517.463	1496.091	1489.458
35	1429.025	1406.178	1374.487	1358.274	1353.115
40	1273.520	1251.410	1226.352	1217.508	1212.349
45	1160.023	1135.702	1120.226	1112.119	1109.908
50	972.090	954.403	944.085	937.452	933.030
55	800.372	785.632	781.210	767.944	750.993
60	643.393	633.812	630.864	594.014	558.639
65	524.000	518.104	507.786	417.137	375.128
70	383.972	382.498	333.857	252.051	245.418
75	254.999	257.947	182.037	170.245	166.560
80	156.242	137.080	113.497	107.601	103.916
85	70.751	55.274	48.641	39.060	36.113
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	758.72	N.A.	16.10
0-30	1533.55	N.A.	32.60
0-40	2398.37	N.A.	51.00
0-60	3951.15	N.A.	84.00
0-80	4641.77	N.A.	98.70
0-90	4701.72	N.A.	100.00
10-90	4500.86	N.A.	95.70
20-40	1639.65	N.A.	34.90
20-50	2495.53	N.A.	53.10
40-70	2018.32	N.A.	42.90
60-80	690.62	N.A.	14.70
70-80	225.08	N.A.	4.80
80-90	59.95	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	4701.72	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	200.86
10-20	557.86
20-30	774.83
30-40	864.82
40-50	855.88
50-60	696.90
60-70	465.54
70-80	225.08
80-90	59.95
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	199	199	199	199	194	194	194	194	186	186	186	178	178	178	170	170	170	167
1	183	176	169	163	179	172	166	161	165	160	156	159	155	151	153	149	147	143
2	168	155	145	136	164	152	142	134	146	138	131	141	134	128	136	130	125	122
3	154	138	125	115	150	135	123	114	130	120	112	126	117	110	121	114	108	104
4	142	123	109	98	138	121	108	98	117	105	96	113	103	95	109	101	94	90
5	131	110	96	86	127	109	95	85	105	93	84	102	92	83	99	90	83	79
6	121	100	86	76	118	98	85	75	96	84	75	93	82	74	90	81	73	70
7	113	91	77	67	110	90	77	67	87	75	67	85	74	66	83	73	66	62
8	105	84	70	61	103	82	69	60	80	68	60	78	67	60	76	67	59	56
9	99	77	64	55	96	76	63	55	74	63	54	72	62	54	71	61	54	51
10	93	71	59	50	91	70	58	50	69	57	50	67	57	49	66	56	49	46

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UGR TABLE - CORRECTED

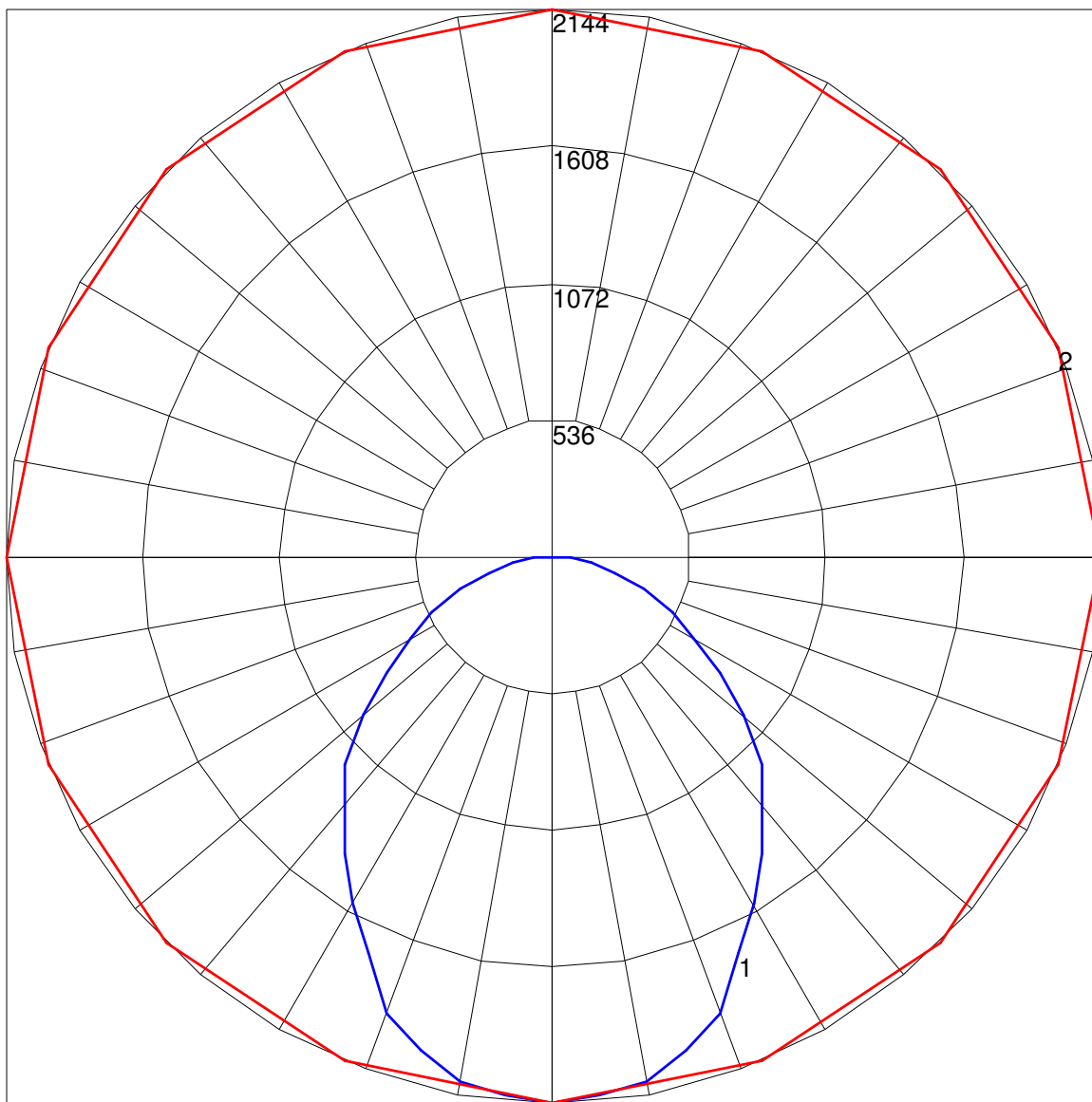
Reflectances

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	15.7	17.3	16.1	17.6	17.9	15.4	16.9	15.7	17.2	17.5
	3H	17.4	18.8	17.8	19.1	19.5	16.3	17.7	16.7	18.0	18.4
	4H	18.0	19.3	18.4	19.6	20.0	16.6	17.9	17.0	18.3	18.7
	6H	18.4	19.6	18.8	20.0	20.4	16.9	18.1	17.3	18.5	18.9
	8H	18.5	19.7	19.0	20.1	20.5	17.0	18.1	17.4	18.5	18.9
	12H	18.6	19.7	19.1	20.1	20.6	17.0	18.1	17.4	18.5	18.9
4H	2H	16.3	17.6	16.7	18.0	18.3	16.0	17.3	16.4	17.7	18.0
	3H	18.1	19.2	18.6	19.6	20.0	17.1	18.2	17.5	18.6	19.0
	4H	18.9	19.8	19.3	20.2	20.7	17.5	18.5	17.9	18.9	19.3
	6H	19.4	20.2	19.8	20.7	21.1	17.9	18.7	18.3	19.2	19.6
	8H	19.6	20.3	20.0	20.8	21.3	18.0	18.8	18.5	19.2	19.7
	12H	19.7	20.4	20.2	20.9	21.3	18.1	18.8	18.5	19.2	19.7
8H	4H	19.0	19.8	19.4	20.2	20.7	17.8	18.5	18.2	19.0	19.5
	6H	19.6	20.2	20.1	20.7	21.2	18.2	18.9	18.7	19.4	19.8
	8H	19.8	20.4	20.3	20.9	21.4	18.4	19.0	18.9	19.5	20.0
	12H	20.0	20.5	20.5	21.0	21.6	18.5	19.0	19.0	19.5	20.1
12H	4H	19.0	19.7	19.5	20.2	20.6	17.8	18.5	18.3	19.0	19.4
	6H	19.6	20.2	20.1	20.7	21.2	18.3	18.9	18.8	19.3	19.9
	8H	19.9	20.4	20.4	20.9	21.5	18.5	19.0	19.0	19.5	20.0

Maximum UGR = 21.6

POLAR GRAPH



Maximum Candela = 2143.905 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.)