



IES INDOOR REPORT

PHOTOMETRIC FILENAME : AT1-14-L63-835-D-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from BALLABS TEST NO. 19432.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 19-DEC-2019

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] 2-32 LED 22" ARRAYS 1x4' RECESSED LUMINAIRE

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

[LUMCAT] AT1-14-L63-835-D-DIM-UNV

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	6318
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	101
Total Luminaire Watts	62.4
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.14
Spacing Criterion (90-270)	1.10
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	7817	7672	7567
55	6559	6543	6381
65	5781	5781	4638
75	4558	3804	3410
85	3624	2238	1599

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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	2867.266	2867.266	2867.266	2867.266	2867.266
5	2889.803	2887.299	2887.299	2887.299	2884.795
10	2807.166	2802.157	2797.149	2792.141	2792.141
15	2696.983	2696.983	2681.958	2671.941	2671.941
20	2586.799	2579.287	2561.758	2541.725	2536.716
25	2346.400	2338.887	2313.846	2303.829	2291.308
30	2133.546	2123.529	2098.488	2078.455	2073.446
35	1948.238	1938.221	1915.684	1898.155	1888.138
40	1697.822	1685.301	1667.772	1650.243	1642.730
45	1489.976	1472.447	1462.431	1449.910	1442.397
50	1264.602	1254.585	1244.569	1239.560	1237.056
55	1014.186	1014.186	1011.681	1001.665	986.640
60	826.373	828.878	828.878	793.819	768.778
65	658.595	663.603	658.595	575.957	528.378
70	480.799	488.312	450.749	370.616	363.104
75	318.029	330.549	265.441	242.904	237.895
80	187.812	177.796	150.250	125.208	115.191
85	85.142	70.117	52.587	40.067	37.562
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	1029.59	N.A.	16.30
0-30	2100.75	N.A.	33.20
0-40	3290.8	N.A.	52.10
0-60	5328.87	N.A.	84.30
0-80	6246.41	N.A.	98.90
0-90	6318.06	N.A.	100.00
10-90	6045.89	N.A.	95.70
20-40	2261.21	N.A.	35.80
20-50	3388.58	N.A.	53.60
40-70	2654.31	N.A.	42.00
60-80	917.54	N.A.	14.50
70-80	301.30	N.A.	4.80
80-90	71.65	N.A.	1.10
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	6318.06	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	272.17
10-20	757.42
20-30	1071.16
30-40	1190.05
40-50	1127.38
50-60	910.70
60-70	616.24
70-80	301.30
80-90	71.65
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	248	248	248	248	243	243	243	243	232	232	232	222	222	222	213	213	213	209
1	229	220	212	205	224	215	208	201	207	201	195	199	194	189	191	187	184	179
2	210	194	181	170	205	190	178	168	183	173	164	176	168	161	170	163	157	153
3	193	172	157	144	188	169	155	143	163	151	140	157	147	138	152	143	136	131
4	178	154	137	124	173	151	135	123	146	132	121	142	130	120	137	127	118	114
5	164	139	121	108	160	136	120	107	132	118	106	128	115	105	124	113	104	100
6	152	126	108	95	148	124	107	95	120	105	94	117	103	93	113	102	93	88
7	142	115	97	85	138	113	96	85	110	95	84	107	94	84	104	92	83	79
8	132	105	88	76	129	104	88	76	101	86	76	98	85	75	96	84	75	71
9	124	97	80	69	121	96	80	69	93	79	69	91	78	68	89	77	68	64
10	116	90	74	63	114	89	73	63	87	73	63	85	72	63	83	71	62	59

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UGR TABLE - CORRECTED

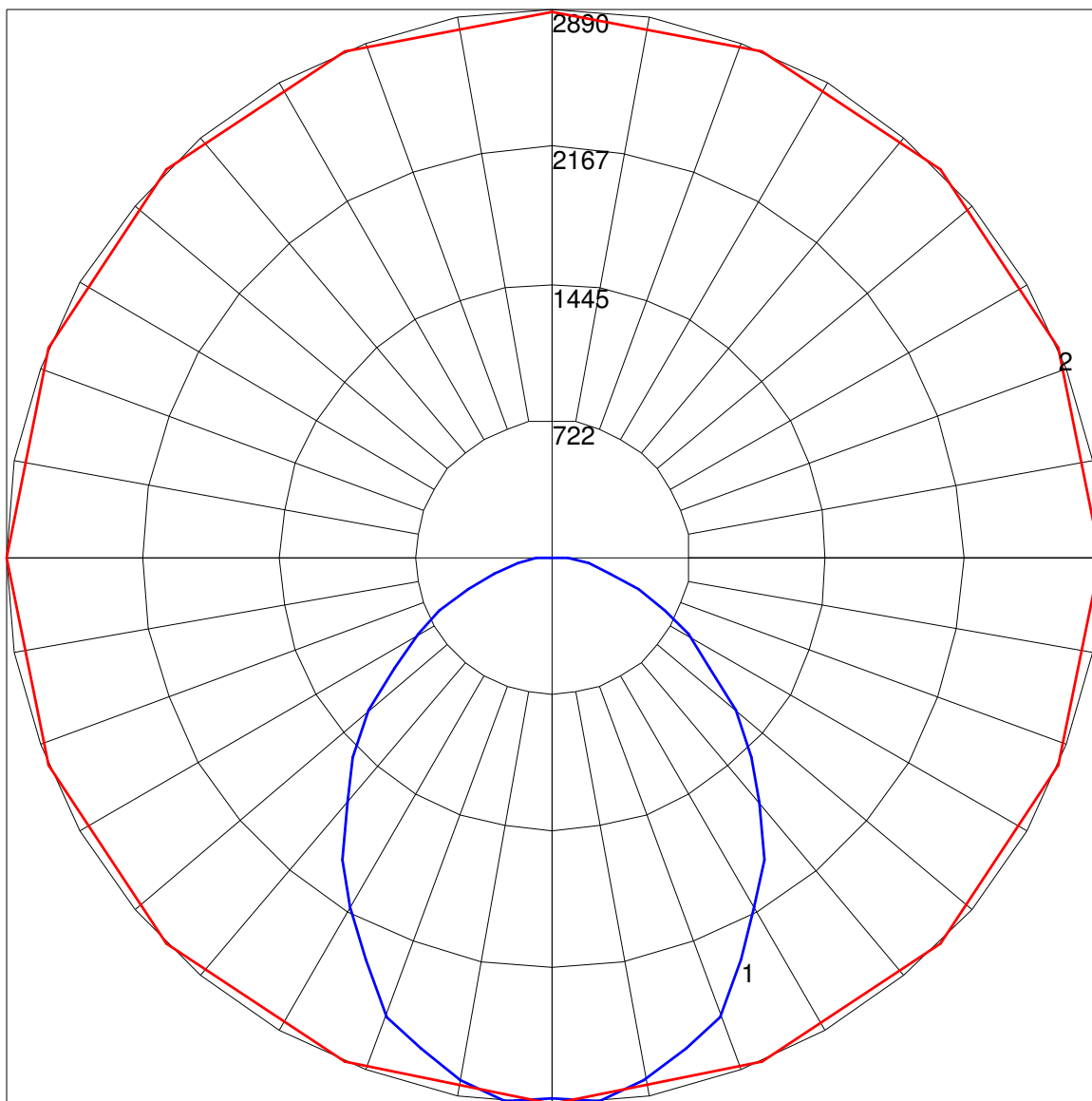
Reflectances

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	17.2	16.0	17.5	17.8	15.5	17.0	15.8	17.3	17.6
	3H	17.3	18.7	17.7	19.0	19.4	16.6	18.0	17.0	18.3	18.6
	4H	17.9	19.2	18.3	19.5	19.9	16.9	18.2	17.3	18.6	19.0
	6H	18.2	19.4	18.7	19.8	20.2	17.2	18.4	17.6	18.7	19.1
	8H	18.4	19.5	18.8	19.9	20.3	17.2	18.3	17.6	18.7	19.1
	12H	18.5	19.5	18.9	19.9	20.4	17.2	18.3	17.6	18.7	19.1
4H	2H	16.3	17.6	16.7	17.9	18.3	16.1	17.4	16.5	17.7	18.1
	3H	18.1	19.1	18.5	19.5	19.9	17.4	18.5	17.8	18.9	19.3
	4H	18.7	19.7	19.2	20.1	20.6	17.8	18.8	18.3	19.2	19.6
	6H	19.2	20.1	19.7	20.5	21.0	18.1	19.0	18.6	19.4	19.9
	8H	19.4	20.2	19.9	20.6	21.1	18.2	19.0	18.6	19.4	19.9
	12H	19.5	20.2	20.0	20.7	21.2	18.2	18.9	18.7	19.4	19.9
8H	4H	18.9	19.7	19.4	20.1	20.6	18.1	18.9	18.5	19.3	19.8
	6H	19.5	20.1	20.0	20.6	21.1	18.4	19.1	18.9	19.6	20.1
	8H	19.7	20.3	20.2	20.8	21.3	18.5	19.1	19.1	19.6	20.1
	12H	19.9	20.4	20.4	20.9	21.5	18.6	19.1	19.1	19.6	20.2
12H	4H	18.9	19.6	19.4	20.1	20.5	18.1	18.8	18.6	19.3	19.7
	6H	19.5	20.1	20.0	20.5	21.1	18.5	19.1	19.0	19.5	20.1
	8H	19.8	20.3	20.3	20.8	21.3	18.6	19.1	19.1	19.6	20.2

Maximum UGR = 21.5

POLAR GRAPH



Maximum Candela = 2889.803 Located At Horizontal Angle = 0, Vertical Angle = 5
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (5) (Through Max. Cd.)