

IES INDOOR REPORT

PHOTOMETRIC FILENAME : WMAUD-3-L49-835U-L49-835D-AF-DIMU-DIMD-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from BALLABS TEST NO. 17320.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUE DATE] 8 AUG, 2023

[MANUFAC] WILLIAMS INDOOR

[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO 64836

[LUMINAIRE] 3' DIRECT/INDIRECT WALL MOUNT LUMINAIRE

[MORE] WHITE REFLECTOR w/FROSTED ACRYLIC LENS ON TOP & BOTTOM

[LUMCAT] WMAUD-3-L49-835U-L49-835D-AF-DIMU-DIMD-UNV

[LAMPCAT] HLM 80 CRI, 3500K CCT

[_SEARCH_SOURCE TYPE] LED

[_SEARCH_APPLICATION] Indoor, Corridor, Healthcare, Direct-Indirect

[_SEARCH_MOUNTING] Wall

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	4682
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	129
Total Luminaire Watts	36.2
Ballast Factor	1.00
CIE Type	General Diffuse
Spacing Criterion (0-180)	N.A.
Spacing Criterion (90-270)	N.A.
Spacing Criterion (Diagonal)	N.A.
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	0.28 ft
Luminous Width (90-270)	2.98 ft
Luminous Height	0.46 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	6568	6275	7140
55	5376	5034	5958
65	4346	4005	4854
75	3439	2841	3349
85	3543	2714	1301

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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>	<u>112.5</u>	<u>135.0</u>	<u>157.5</u>	<u>180.0</u>
0	838.632	838.632	838.632	838.632	838.632	838.632	838.632	838.632	838.632
5	915.398	905.259	886.430	860.358	833.563	818.354	794.455	777.074	769.108
10	966.093	948.712	913.225	862.531	806.043	765.487	719.862	690.170	679.306
15	995.061	976.231	926.985	856.013	778.523	716.241	656.132	617.025	602.540
20	1053.722	1021.132	950.884	850.219	739.416	648.166	570.675	519.257	502.600
25	1026.202	995.061	915.398	804.594	684.376	585.159	501.151	450.457	430.179
30	1024.753	986.370	894.396	764.039	623.542	509.118	415.695	362.828	343.274
35	1013.890	974.059	869.773	728.553	579.366	460.596	366.449	309.237	291.131
40	968.989	926.261	814.009	664.098	506.945	384.554	291.131	237.540	219.435
45	944.366	895.844	774.178	609.058	445.387	320.100	230.298	180.328	163.671
50	866.876	819.803	697.412	540.259	382.381	262.163	177.431	130.357	117.322
55	794.455	747.382	624.991	470.735	318.651	204.226	126.736	85.456	72.421
60	706.102	661.925	551.122	405.556	262.163	156.429	88.353	50.695	39.831
65	640.199	595.298	485.219	342.550	208.572	111.528	48.522	19.554	13.036
70	553.294	512.739	409.177	279.544	155.705	68.800	16.657	3.621	3.621
75	489.564	440.318	325.169	210.744	104.286	32.589	3.621	6.518	6.518
80	477.253	425.110	296.201	155.705	61.558	3.621	6.518	6.518	8.690
85	471.459	417.143	283.165	122.391	23.899	3.621	12.312	21.002	23.899
90	430.179	382.381	259.266	110.804	0.000	12.312	22.450	30.417	33.314
95	468.562	418.592	285.338	122.391	25.347	4.345	17.381	25.347	28.244
100	474.356	425.110	297.649	156.429	63.730	3.621	6.518	9.415	11.587
105	486.667	440.318	329.514	212.193	105.734	27.520	3.621	6.518	6.518
110	552.570	515.636	414.247	280.268	155.705	62.282	13.036	3.621	5.794
115	635.854	597.471	488.116	346.171	209.296	106.458	46.349	15.933	11.587
120	700.308	660.477	552.570	407.729	263.611	154.256	84.732	48.522	38.383
125	787.938	745.209	629.336	474.356	324.445	204.226	128.909	85.456	72.421
130	855.289	815.457	697.412	542.431	387.451	262.163	177.431	130.357	117.322
135	932.055	891.499	774.178	611.231	449.009	320.100	230.298	178.879	163.671
140	961.023	924.088	816.182	666.995	514.187	386.727	293.304	239.713	222.332
145	1005.200	968.989	869.773	730.001	589.505	462.768	368.622	312.133	293.304
150	1013.890	982.749	894.396	766.211	631.509	512.015	420.040	365.725	346.171
155	1018.235	991.440	913.950	806.043	693.066	585.159	503.324	451.181	432.352
160	1041.410	1016.787	947.987	850.219	748.106	650.338	571.400	524.326	506.221
165	992.164	976.231	927.710	858.186	790.110	716.965	657.580	619.197	605.437
170	958.126	945.815	911.053	862.531	818.354	765.487	721.310	693.066	682.203
175	913.950	907.432	887.878	865.428	847.323	821.975	798.801	781.420	774.178
180	840.805	840.805	840.805	840.805	840.805	840.805	840.805	840.805	840.805

IES INDOOR REPORT**PHOTOMETRIC FILENAME : WMAUD-3-L49-835U-L49-835D-AF-DIMU-DIMD-UNV_.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	302.40	N.A.	6.50
0-30	628.83	N.A.	13.40
0-40	1011.42	N.A.	21.60
0-60	1733.9	N.A.	37.00
0-80	2185.68	N.A.	46.70
0-90	2339.43	N.A.	50.00
10-90	2260.14	N.A.	48.30
20-40	709.02	N.A.	15.10
20-50	1093.8	N.A.	23.40
40-70	987.17	N.A.	21.10
60-80	451.78	N.A.	9.60
70-80	187.10	N.A.	4.00
80-90	153.75	N.A.	3.30
90-110	342.45	N.A.	7.30
90-120	606.59	N.A.	13.00
90-130	944.58	N.A.	20.20
90-150	1712.84	N.A.	36.60
90-180	2342.82	N.A.	50.00
110-180	2000.38	N.A.	42.70
0-180	4682.26	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	79.30
10-20	223.10
20-30	326.44
30-40	382.59
40-50	384.78
50-60	337.70
60-70	264.68
70-80	187.10
80-90	153.75
90-100	155.08
100-110	187.36
110-120	264.15
120-130	337.98
130-140	384.74
140-150	383.53
150-160	326.85
160-170	223.55
170-180	79.58

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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	107	107	107	107	99	99	99	99	83	83	83	69	69	69	56	56	56	50
1	97	92	88	84	89	85	81	78	71	69	66	59	57	55	48	47	45	40
2	88	80	73	68	81	74	68	63	62	58	54	52	49	46	42	40	38	33
3	80	70	62	56	73	65	58	53	55	50	46	46	42	39	37	34	32	28
4	73	62	54	48	67	57	50	45	49	43	39	41	36	33	33	30	27	24
5	67	55	47	41	62	51	44	38	44	38	33	36	32	29	30	26	24	21
6	62	50	41	35	57	46	39	33	39	33	29	33	28	25	27	24	21	18
7	57	45	37	31	53	42	34	29	36	30	26	30	25	22	25	21	19	16
8	53	41	33	27	49	38	31	26	32	27	23	27	23	20	23	19	17	14
9	49	37	29	24	45	35	28	23	30	24	20	25	21	18	21	18	15	13
10	46	34	27	22	43	32	25	21	27	22	18	23	19	16	19	16	14	12

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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	17.9	18.8	18.9	19.8	21.1	10.5	11.4	11.5	12.4	13.7
	3H	20.3	21.1	21.3	22.1	23.4	11.6	12.4	12.6	13.4	14.7
	4H	21.5	22.2	22.5	23.2	24.5	11.9	12.7	12.9	13.7	15.0
	6H	22.8	23.5	23.8	24.5	25.8	12.1	12.8	13.0	13.7	15.1
	8H	23.6	24.3	24.6	25.3	26.6	12.1	12.7	13.1	13.7	15.1
	12H	24.5	25.1	25.5	26.1	27.4	12.1	12.7	13.1	13.7	15.0

UGR Viewed Endwise

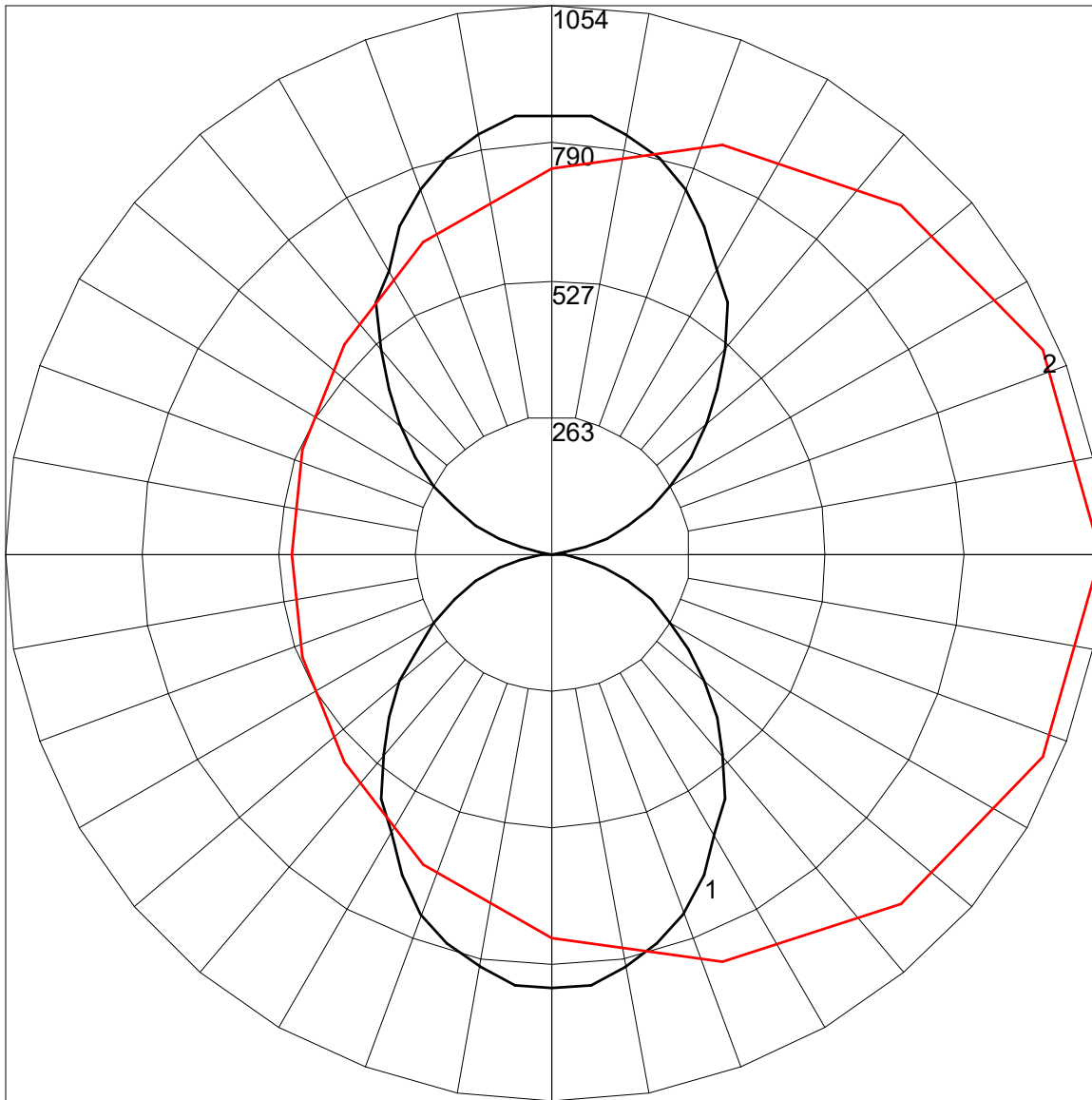
4H	2H	18.1	18.8	19.0	19.8	21.1	11.7	12.5	12.7	13.5	14.8
	3H	20.6	21.3	21.6	22.3	23.6	13.0	13.7	14.0	14.7	16.0
	4H	21.9	22.5	22.9	23.5	24.9	13.4	14.0	14.4	15.0	16.4
	6H	23.5	24.0	24.5	25.0	26.4	13.6	14.2	14.6	15.2	16.5
	8H	24.4	24.9	25.4	25.9	27.2	13.7	14.2	14.7	15.2	16.5
	12H	25.4	25.8	26.4	26.8	28.2	13.7	14.1	14.7	15.2	16.5

8H	4H	22.0	22.4	23.0	23.5	24.8	14.3	14.7	15.3	15.8	17.1
	6H	23.7	24.1	24.7	25.1	26.5	14.7	15.1	15.7	16.2	17.5
	8H	24.7	25.1	25.7	26.1	27.5	14.8	15.2	15.9	16.2	17.6
	12H	25.9	26.2	26.9	27.2	28.6	14.9	15.2	15.9	16.2	17.6

12H	4H	21.9	22.3	22.9	23.4	24.7	14.5	15.0	15.6	16.0	17.4
	6H	23.7	24.0	24.7	25.1	26.4	15.1	15.5	16.2	16.5	17.9
	8H	24.7	25.0	25.8	26.1	27.5	15.4	15.7	16.4	16.7	18.1

Maximum UGR = 28.6

POLAR GRAPH



Maximum Candela = 1053.722 Located At Horizontal Angle = 0, Vertical Angle = 20
1 - Vertical Plane Through Horizontal Angles (90 - 270)
2 - Horizontal Cone Through Vertical Angle (20) (Through Max. Cd.)