



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : WMAUD-3-L30-835U-L30-835D-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

[ISSUEDATE] 13-NOV-2019

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] 3' DIRECT/INDIRECT WALL MOUNT LUMINAIRE

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

[LUMCAT] WMAUD-3-L30-835U-L30-835D-AF-DIMU-DIMD-UNV

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	6174
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	132
Total Luminaire Watts	46.6
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	8661	8274	9416
55	7089	6638	7857
65	5731	5281	6401
75	4535	3746	4416
85	4672	3580	1715

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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	1105.876	1105.876	1105.876	1105.876	1105.876	1105.876	1105.876	1105.876	1105.876
5	1207.105	1193.735	1168.906	1134.526	1099.192	1079.137	1047.622	1024.702	1014.198
10	1273.954	1251.035	1204.240	1137.391	1062.902	1009.423	949.258	910.104	895.779
15	1312.154	1287.324	1222.385	1128.796	1026.612	944.483	865.219	813.650	794.550
20	1389.508	1346.534	1253.900	1121.156	975.043	854.715	752.531	684.727	662.762
25	1353.218	1312.154	1207.105	1060.992	902.464	771.631	660.852	594.003	567.263
30	1351.308	1300.694	1179.411	1007.513	822.245	671.357	548.163	478.449	452.664
35	1336.984	1284.459	1146.941	960.718	763.991	607.373	483.224	407.780	383.905
40	1277.774	1221.430	1073.407	875.724	668.492	507.099	383.905	313.236	289.361
45	1245.305	1181.321	1020.882	803.145	587.318	422.105	303.686	237.792	215.827
50	1143.121	1081.047	919.654	712.421	504.234	345.706	233.972	171.898	154.708
55	1047.622	985.548	824.155	620.742	420.195	269.307	167.123	112.689	95.499
60	931.114	872.859	726.746	534.793	345.706	206.277	116.509	66.849	52.524
65	844.210	785.000	639.842	451.709	275.037	147.068	63.984	25.785	17.190
70	729.611	676.132	539.568	368.625	205.322	90.724	21.965	4.775	4.775
75	645.572	580.633	428.790	277.902	137.518	42.974	4.775	8.595	8.595
80	629.337	560.578	390.590	205.322	81.174	4.775	8.595	8.595	11.460
85	621.697	550.073	373.400	161.393	31.515	4.775	16.235	27.695	31.515
90	567.263	504.234	341.886	146.113	0.000	16.235	29.605	40.110	43.929
95	617.877	551.983	376.265	161.393	33.425	5.730	22.920	33.425	37.245
100	625.517	560.578	392.500	206.277	84.039	4.775	8.595	12.415	15.280
105	641.752	580.633	434.520	279.812	139.428	36.290	4.775	8.595	8.595
110	728.656	679.952	546.253	369.580	205.322	82.129	17.190	4.775	7.640
115	838.480	787.865	643.662	456.484	275.992	140.383	61.119	21.010	15.280
120	923.474	870.949	728.656	537.658	347.616	203.413	111.734	63.984	50.614
125	1039.027	982.683	829.885	625.517	427.835	269.307	169.988	112.689	95.499
130	1127.841	1075.317	919.654	715.286	510.919	345.706	233.972	171.898	154.708
135	1229.070	1175.591	1020.882	806.010	592.093	422.105	303.686	235.882	215.827
140	1267.269	1218.565	1076.272	879.544	678.042	509.964	386.770	316.101	293.181
145	1325.524	1277.774	1146.941	962.628	777.360	610.238	486.089	411.600	386.770
150	1336.984	1295.919	1179.411	1010.378	832.750	675.177	553.893	482.269	456.484
155	1342.714	1307.379	1205.195	1062.902	913.924	771.631	663.717	594.958	570.128
160	1373.273	1340.804	1250.080	1121.156	986.503	857.579	753.486	691.412	667.537
165	1308.334	1287.324	1223.340	1131.661	1041.892	945.438	867.129	816.515	798.370
170	1263.450	1247.215	1201.375	1137.391	1079.137	1009.423	951.168	913.924	899.599
175	1205.195	1196.600	1170.816	1141.211	1117.336	1083.912	1053.352	1030.432	1020.882
180	1108.741	1108.741	1108.741	1108.741	1108.741	1108.741	1108.741	1108.741	1108.741

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : WMAUD-3-L30-835U-L30-835D-AF-DIMU-DIMD-UNV\_.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	398.76	N.A.	6.50
0-30	829.22	N.A.	13.40
0-40	1333.73	N.A.	21.60
0-60	2286.44	N.A.	37.00
0-80	2882.19	N.A.	46.70
0-90	3084.93	N.A.	50.00
10-90	2980.37	N.A.	48.30
20-40	934.97	N.A.	15.10
20-50	1442.36	N.A.	23.40
40-70	1301.74	N.A.	21.10
60-80	595.74	N.A.	9.60
70-80	246.72	N.A.	4.00
80-90	202.75	N.A.	3.30
90-110	451.57	N.A.	7.30
90-120	799.90	N.A.	13.00
90-130	1245.58	N.A.	20.20
90-150	2258.66	N.A.	36.60
90-180	3089.41	N.A.	50.00
110-180	2637.83	N.A.	42.70
0-180	6174.34	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	104.57
10-20	294.19
20-30	430.46
30-40	504.50
40-50	507.40
50-60	445.32
60-70	349.03
70-80	246.72
80-90	202.75
90-100	204.51
100-110	247.07
110-120	348.32
120-130	445.69
130-140	507.34
140-150	505.74
150-160	431.01
160-170	294.79
170-180	104.94

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : WMAUD-3-L30-835U-L30-835D-AF-DIMU-DIMD-UNV\_.IES****COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

Effective Floor Cavity Reflectance 0.20

RC RW	80				70				50			30			10			0
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	82	82	82	82	76	76	76	76	64	64	64	53	53	53	43	43	43	38
1	74	71	67	64	68	65	62	60	55	53	51	45	44	43	37	36	35	31
2	67	61	56	52	62	57	52	49	48	45	42	40	37	35	32	30	29	25
3	61	54	48	43	56	50	45	40	42	38	35	35	32	30	28	26	24	21
4	56	48	41	37	52	44	39	34	37	33	30	31	28	25	25	23	21	18
5	52	42	36	31	47	39	34	29	33	29	26	28	25	22	23	20	18	16
6	48	38	32	27	44	35	30	25	30	26	22	25	22	19	21	18	16	14
7	44	34	28	24	40	32	26	22	27	23	20	23	20	17	19	16	14	12
8	41	31	25	21	37	29	24	20	25	21	17	21	18	15	17	15	13	11
9	38	28	23	19	35	27	21	18	23	19	16	19	16	14	16	13	12	10
10	35	26	20	17	33	24	19	16	21	17	14	18	15	12	15	12	11	9

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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	16.8	17.7	17.8	18.7	20.0	UGR Viewed Endwise	11.3	12.2	12.3	13.2	14.5
	3H	18.7	19.5	19.7	20.5	21.8		12.4	13.2	13.4	14.2	15.5
	4H	19.5	20.3	20.5	21.3	22.6		12.7	13.5	13.7	14.5	15.8
	6H	20.4	21.1	21.4	22.1	23.4		12.9	13.6	13.9	14.6	15.9
	8H	20.8	21.5	21.8	22.5	23.8		12.9	13.5	13.9	14.6	15.9
	12H	21.3	22.0	22.3	23.0	24.3		12.9	13.5	13.9	14.5	15.8

4H	2H	17.2	18.0	18.2	19.0	20.3	12.5	13.3	13.5	14.3	15.6
	3H	19.3	20.0	20.3	21.0	22.3	13.8	14.5	14.8	15.5	16.8
	4H	20.3	20.9	21.3	21.9	23.3	14.2	14.8	15.2	15.8	17.2
	6H	21.4	21.9	22.4	22.9	24.3	14.5	15.0	15.5	16.0	17.3
	8H	22.0	22.5	23.0	23.5	24.8	14.5	15.0	15.5	16.0	17.4
	12H	22.6	23.0	23.6	24.0	25.4	14.5	14.9	15.5	16.0	17.3

8H	4H	20.5	21.0	21.5	22.0	23.4	15.1	15.6	16.1	16.6	17.9
	6H	21.8	22.2	22.9	23.3	24.6	15.5	15.9	16.6	17.0	18.3
	8H	22.6	22.9	23.6	24.0	25.3	15.7	16.0	16.7	17.1	18.4
	12H	23.4	23.7	24.4	24.7	26.1	15.7	16.0	16.8	17.1	18.5

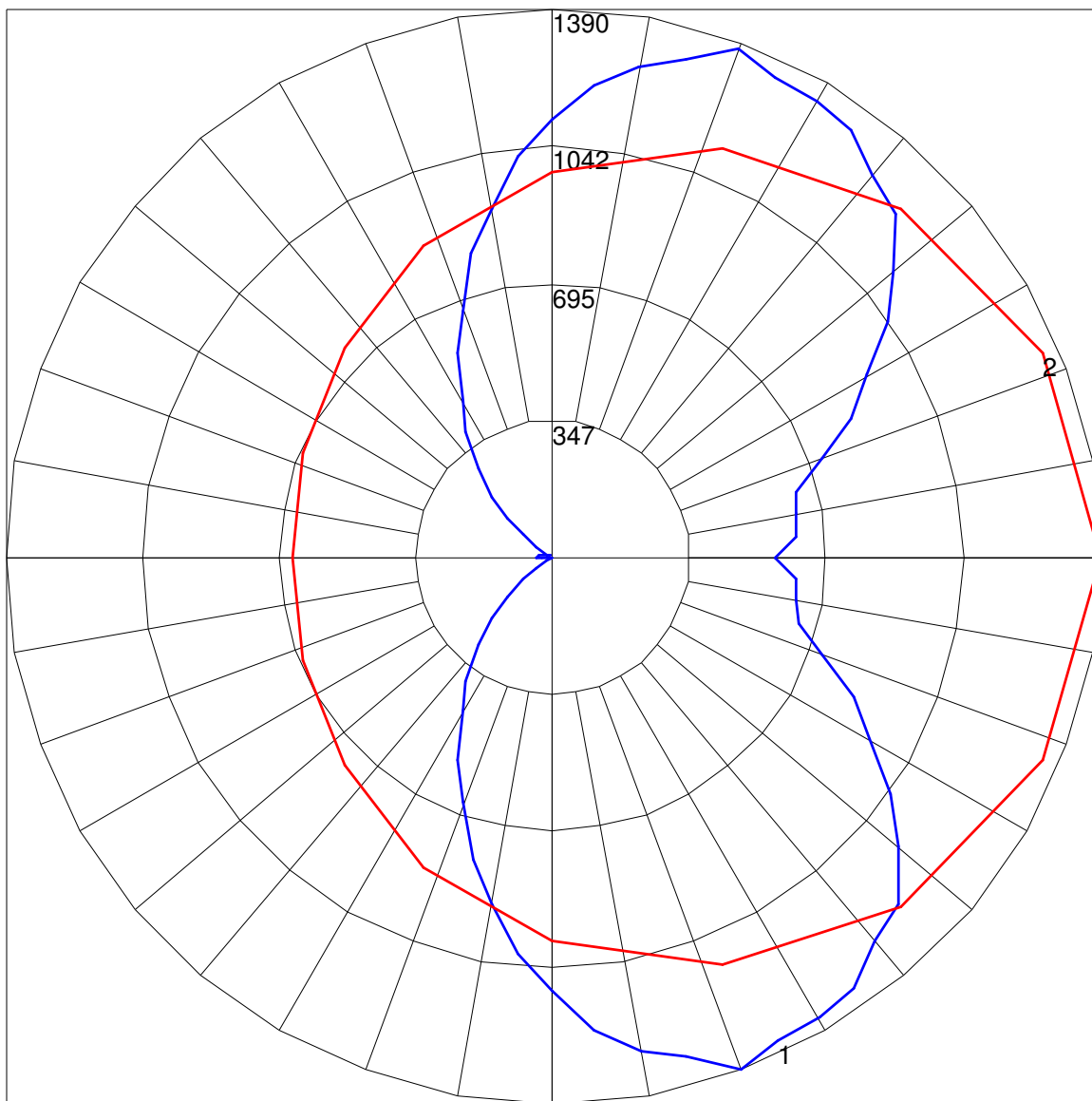
12H	4H	20.5	20.9	21.5	22.0	23.3	15.4	15.8	16.4	16.9	18.2
	6H	21.9	22.2	22.9	23.3	24.7	16.0	16.3	17.0	17.4	18.8
	8H	22.7	23.0	23.7	24.0	25.5	16.2	16.5	17.2	17.6	19.0

Maximum UGR = 26.1

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## POLAR GRAPH



Maximum Candela = 1389.508 Located At Horizontal Angle = 0, Vertical Angle = 20

# 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)

# 2 - Horizontal Cone Through Vertical Angle (20) (Through Max. Cd.)