



IES INDOOR REPORT

PHOTOMETRIC FILENAME : WMA-3-L30-830-AF-DIM-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] 12-JAN-2024

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] 3' DIRECT/INDIRECT WALL MOUNT LED LUMINAIRE

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

[MORE] 0-10V DIMMING DRIVER

[LUMCAT] WMA-3-L30-830-AF-DIM-UNV

[LAMPCAT] HLM 80 CRI 3000K CCT

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	3094
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	129
Total Luminaire Watts	24
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)	3.00 ft
Luminous Height	0.46 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	4310	4119	4690
55	3528	3305	3915
65	2852	2629	3191
75	2257	1865	2203
85	2325	1782	857

IES INDOOR REPORT
PHOTOMETRIC FILENAME : WMA-3-L30-830-AF-DIM-UNV_.IES

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	554.192	554.192	554.192	554.192	554.192	554.192	554.192	554.192	554.192
5	604.921	598.221	585.778	568.549	550.842	540.792	524.999	513.513	508.249
10	638.422	626.936	603.485	569.985	532.656	505.856	475.705	456.084	448.905
15	657.565	645.122	612.578	565.678	514.470	473.313	433.591	407.748	398.176
20	696.329	674.793	628.371	561.849	488.627	428.326	377.119	343.140	332.132
25	678.143	657.565	604.921	531.699	452.255	386.690	331.175	297.675	284.275
30	677.186	651.822	591.042	504.899	412.055	336.440	274.703	239.767	226.845
35	670.008	643.686	574.771	481.448	382.862	304.375	242.160	204.352	192.388
40	640.336	612.100	537.920	438.855	335.004	254.124	192.388	156.973	145.009
45	624.064	592.000	511.599	402.483	294.325	211.531	152.187	119.166	108.158
50	572.857	541.749	460.870	357.018	252.689	173.245	117.251	86.144	77.529
55	524.999	493.891	413.012	311.075	210.574	134.959	83.751	56.472	47.858
60	466.612	437.419	364.197	268.003	173.245	103.373	58.386	33.500	26.322
65	423.062	393.390	320.647	226.367	137.830	73.701	32.065	12.922	8.614
70	365.633	338.832	270.396	184.731	102.894	45.465	11.007	2.393	2.393
75	323.518	290.975	214.881	139.266	68.915	21.536	2.393	4.307	4.307
80	315.382	280.925	195.738	102.894	40.679	2.393	4.307	4.307	5.743
85	311.554	275.660	187.124	80.879	15.793	2.393	8.136	13.879	15.793
90	284.275	252.689	171.331	73.222	0.000	8.136	14.836	20.100	22.015
95	309.639	276.617	188.559	80.879	16.750	2.871	11.486	16.750	18.664
100	313.468	280.925	196.695	103.373	42.115	2.393	4.307	6.221	7.657
105	321.604	290.975	217.752	140.223	69.872	18.186	2.393	4.307	4.307
110	365.154	340.747	273.746	185.209	102.894	41.158	8.614	2.393	3.829
115	420.191	394.826	322.561	228.760	138.309	70.351	30.629	10.529	7.657
120	462.784	436.462	365.154	269.439	174.202	101.937	55.993	32.065	25.365
125	520.692	492.456	415.883	313.468	214.402	134.959	85.187	56.472	47.858
130	565.199	538.878	460.870	358.454	256.039	173.245	117.251	86.144	77.529
135	615.928	589.128	511.599	403.919	296.718	211.531	152.187	118.208	108.158
140	635.072	610.664	539.356	440.769	339.790	255.560	193.824	158.409	146.923
145	664.265	640.336	574.771	482.406	389.562	305.811	243.596	206.267	193.824
150	670.008	649.429	591.042	506.334	417.319	338.354	277.575	241.681	228.760
155	672.879	655.172	603.964	532.656	457.998	386.690	332.611	298.153	285.710
160	688.194	671.922	626.457	561.849	494.370	429.762	377.597	346.490	334.525
165	655.650	645.122	613.057	567.114	522.127	473.791	434.548	409.183	400.090
170	633.157	625.021	602.050	569.985	540.792	505.856	476.663	457.998	450.819
175	603.964	599.657	586.735	571.899	559.935	543.185	527.870	516.384	511.599
180	555.628	555.628	555.628	555.628	555.628	555.628	555.628	555.628	555.628

IES INDOOR REPORT
PHOTOMETRIC FILENAME : WMA-3-L30-830-AF-DIM-UNV_.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	199.83	N.A.	6.50
0-30	415.55	N.A.	13.40
0-40	668.38	N.A.	21.60
0-60	1145.81	N.A.	37.00
0-80	1444.36	N.A.	46.70
0-90	1545.96	N.A.	50.00
10-90	1493.56	N.A.	48.30
20-40	468.54	N.A.	15.10
20-50	722.82	N.A.	23.40
40-70	652.35	N.A.	21.10
60-80	298.55	N.A.	9.60
70-80	123.64	N.A.	4.00
80-90	101.60	N.A.	3.30
90-110	226.30	N.A.	7.30
90-120	400.86	N.A.	13.00
90-130	624.20	N.A.	20.20
90-150	1131.89	N.A.	36.60
90-180	1548.21	N.A.	50.00
110-180	1321.91	N.A.	42.70
0-180	3094.17	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	52.40
10-20	147.43
20-30	215.72
30-40	252.82
40-50	254.27
50-60	223.16
60-70	174.91
70-80	123.64
80-90	101.60
90-100	102.48
100-110	123.81
110-120	174.56
120-130	223.35
130-140	254.24
140-150	253.44
150-160	215.99
160-170	147.73
170-180	52.59

IES INDOOR REPORT
PHOTOMETRIC FILENAME : WMA-3-L30-830-AF-DIM-UNV_.IES

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

IES INDOOR REPORT
PHOTOMETRIC FILENAME : WMA-3-L30-830-AF-DIM-UNV_.IES

UGR TABLE - CORRECTED

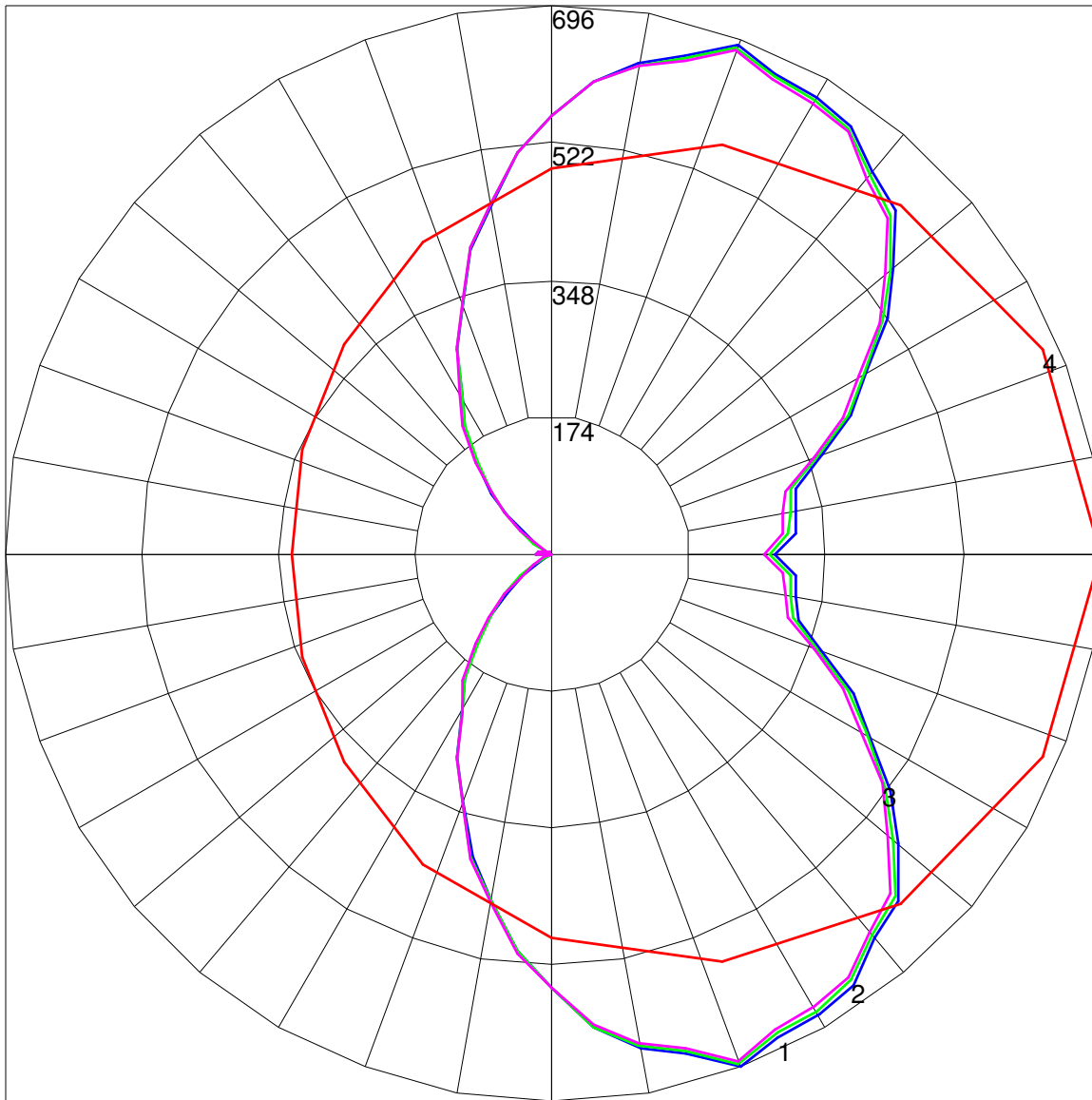
Reflectances

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	16.4	17.3	17.4	18.3	19.5	9.0	9.9	10.0	10.9	12.1
	3H	18.8	19.6	19.8	20.6	21.9	10.1	10.9	11.1	11.9	13.2
	4H	20.0	20.7	20.9	21.7	23.0	10.4	11.2	11.4	12.1	13.4
	6H	21.3	22.0	22.3	23.0	24.3	10.5	11.2	11.5	12.2	13.5
	8H	22.1	22.8	23.1	23.8	25.1	10.5	11.2	11.5	12.2	13.5
	12H	23.0	23.6	24.0	24.6	25.9	10.5	11.2	11.5	12.2	13.5
4H	2H	16.5	17.3	17.5	18.3	19.6	10.2	11.0	11.2	11.9	13.2
	3H	19.1	19.7	20.1	20.8	22.1	11.5	12.1	12.5	13.2	14.5
	4H	20.4	21.0	21.4	22.0	23.3	11.9	12.5	12.9	13.5	14.8
	6H	22.0	22.5	23.0	23.5	24.8	12.1	12.6	13.1	13.7	15.0
	8H	22.9	23.3	23.9	24.4	25.7	12.2	12.6	13.2	13.7	15.0
	12H	23.9	24.3	24.9	25.3	26.7	12.2	12.6	13.2	13.6	15.0
8H	4H	20.4	20.9	21.4	21.9	23.3	12.7	13.2	13.7	14.2	15.6
	6H	22.1	22.5	23.2	23.6	25.0	13.2	13.6	14.2	14.6	16.0
	8H	23.2	23.5	24.2	24.6	25.9	13.3	13.7	14.3	14.7	16.1
	12H	24.4	24.7	25.4	25.7	27.1	13.4	13.7	14.4	14.7	16.1
12H	4H	20.4	20.8	21.4	21.9	23.2	13.0	13.5	14.1	14.5	15.9
	6H	22.1	22.5	23.2	23.5	24.9	13.6	14.0	14.7	15.0	16.4
	8H	23.2	23.5	24.2	24.6	26.0	13.8	14.2	14.9	15.2	16.6

Maximum UGR = 27.1

POLAR GRAPH



Maximum Candela = 696.329 Located At Horizontal Angle = 0, Vertical Angle = 20
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Vertical Plane Through Horizontal Angles (5 - 185)
3 - Vertical Plane Through Horizontal Angles (10 - 190)
4 - Horizontal Cone Through Vertical Angle (20) (Through Max. Cd.)