



IES INDOOR REPORT

PHOTOMETRIC FILENAME : MX4U-4-00-L8-835-F-(L2.5)-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN FROM BALLABS TEST NO. 20656.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIOES, INC

[ISSUEDATE] 27-JAN-2021

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] 4' INDIRECT SUSPENDED LUMINAIRE

[MORE] WITH FROSTED ACRYLIC LENS

[LUMCAT] MX4U-4-00-L8-835-F-(L2.5)-DIM-UNV

[LAMPCAT] HLM 80 CRI, 3500K CCT

[_SEARCH_SOURCE] LED

[_SEARCH_APPLICATION] Indoor, Architectural, Classroom, Indirect

[_SEARCH_MOUNTING] Suspended

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	1012
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	119
Total Luminaire Watts	8.5
Ballast Factor	1.00
CIE Type	Indirect
Spacing Criterion (0-180)	N.A.
Spacing Criterion (90-270)	N.A.
Spacing Criterion (Diagonal)	N.A.
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	4.00 ft
Luminous Width (90-270)	0.33 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	0	0	0
55	0	0	0
65	0	0	0
75	0	0	0
85	0	0	0

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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	0.000	0.000	0.000	0.000	0.000
5	0.000	0.000	0.000	0.000	0.000
10	0.000	0.000	0.000	0.000	0.000
15	0.000	0.000	0.000	0.000	0.000
20	0.000	0.000	0.000	0.000	0.000
25	0.000	0.000	0.000	0.000	0.000
30	0.000	0.000	0.000	0.000	0.000
35	0.000	0.000	0.000	0.000	0.000
40	0.000	0.000	0.000	0.000	0.000
45	0.000	0.000	0.000	0.000	0.000
50	0.000	0.000	0.000	0.000	0.000
55	0.000	0.000	0.000	0.000	0.000
60	0.000	0.000	0.000	0.000	0.000
65	0.000	0.000	0.000	0.000	0.000
70	0.000	0.000	0.000	0.000	0.000
75	0.000	0.000	0.000	0.000	0.000
80	0.000	0.000	0.000	0.000	0.000
85	0.000	0.000	0.000	0.000	0.000
90	0.000	0.000	0.000	0.000	0.000
95	12.509	13.104	12.509	12.509	11.317
100	28.591	28.591	28.591	25.613	25.017
105	49.438	49.438	45.269	43.482	41.695
110	79.816	76.242	69.095	63.138	62.543
115	113.172	107.216	96.494	89.942	88.155
120	147.720	139.976	128.064	117.342	115.555
125	187.628	178.098	160.824	149.507	144.742
130	229.323	218.602	197.754	184.054	181.672
135	264.466	247.788	235.280	220.984	218.602
140	300.800	287.696	270.423	257.318	253.745
145	333.561	329.391	303.779	291.270	288.292
150	361.556	356.791	334.157	324.031	318.670
155	385.978	380.021	361.556	356.195	350.835
160	406.825	403.251	391.338	384.786	380.021
165	421.716	421.716	413.377	408.612	404.443
170	433.033	434.225	430.651	428.864	425.290
175	438.990	441.968	440.777	438.394	436.607
180	441.968	441.968	441.968	441.968	441.968

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	0.00	N.A.	0.00
0-30	0.00	N.A.	0.00
0-40	0.00	N.A.	0.00
0-60	0.00	N.A.	0.00
0-80	0.00	N.A.	0.00
0-90	0.00	N.A.	0.00
10-90	0.00	N.A.	0.00
20-40	0.00	N.A.	0.00
20-50	0.00	N.A.	0.00
40-70	0.00	N.A.	0.00
60-80	0.00	N.A.	0.00
70-80	0.00	N.A.	0.00
80-90	0.00	N.A.	0.00
90-110	64.17	N.A.	6.30
90-120	162.22	N.A.	16.00
90-130	309.32	N.A.	30.60
90-150	684.62	N.A.	67.70
90-180	1011.91	N.A.	100.00
110-180	947.73	N.A.	93.70
0-180	1011.91	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	0.00
10-20	0.00
20-30	0.00
30-40	0.00
40-50	0.00
50-60	0.00
60-70	0.00
70-80	0.00
80-90	0.00
90-100	14.27
100-110	49.91
110-120	98.05
120-130	147.10
130-140	182.83
140-150	192.47
150-160	168.94
160-170	116.66
170-180	41.68

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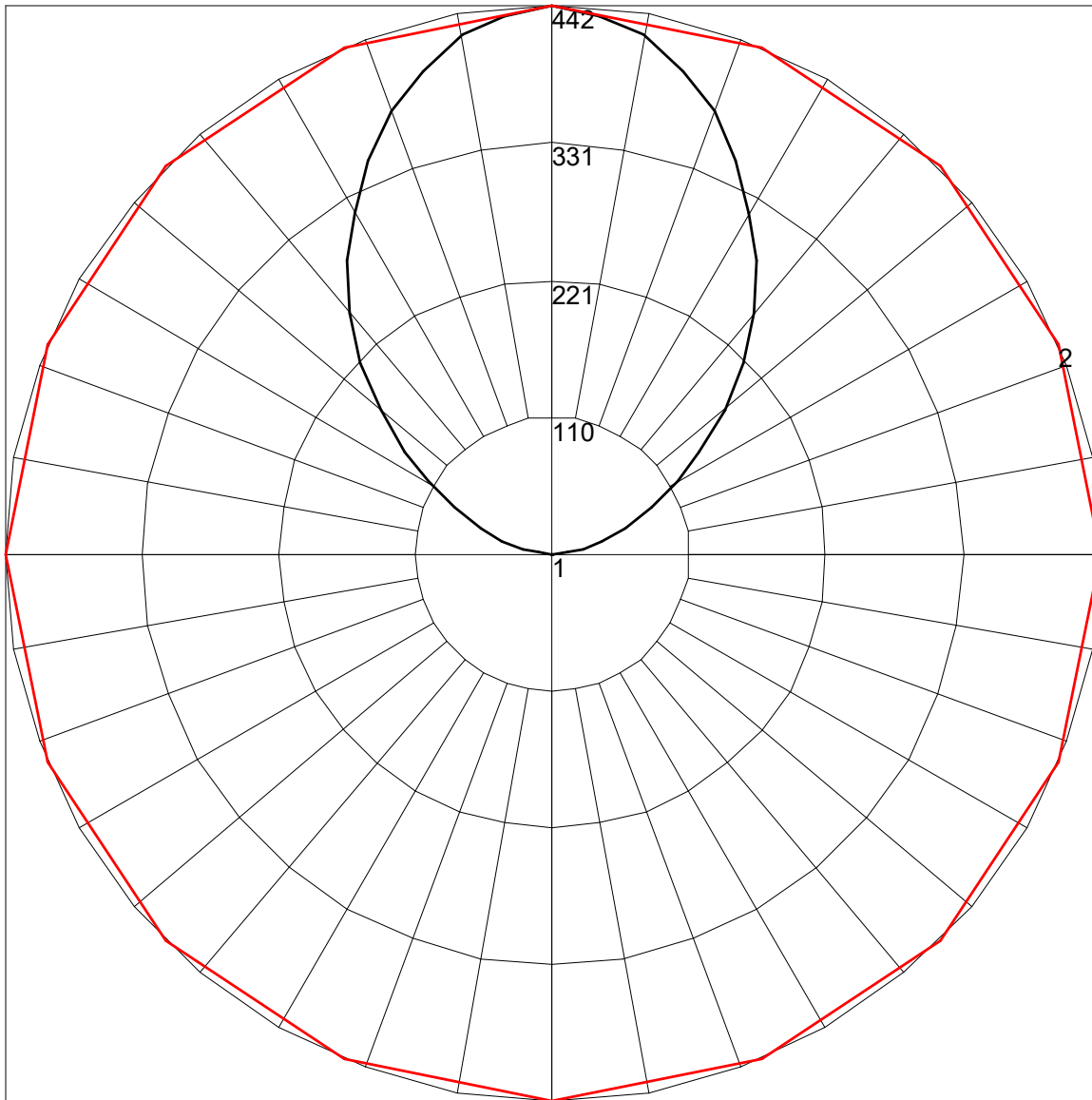
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	47	47	47	47	40	40	40	40	27	27	27	16	16	16	5	5	5	0
1	43	41	39	37	36	35	33	32	24	23	22	14	13	13	4	4	4	0
2	39	35	33	30	33	30	28	26	21	19	18	12	11	11	4	4	3	0
3	35	31	28	25	30	27	24	22	18	17	15	11	10	9	3	3	3	0
4	32	27	24	21	27	23	21	18	16	14	13	9	8	8	3	3	3	0
5	29	24	21	18	25	21	18	16	14	12	11	8	7	7	3	2	2	0
6	27	22	18	15	23	19	16	13	13	11	9	7	6	6	2	2	2	0
7	25	19	16	13	21	17	14	12	11	10	8	7	6	5	2	2	2	0
8	23	17	14	11	19	15	12	10	10	8	7	6	5	4	2	2	1	0
9	21	16	12	10	18	14	11	9	9	8	6	5	4	4	2	1	1	0
10	20	14	11	9	17	12	10	8	9	7	5	5	4	3	2	1	1	0

POLAR GRAPH



Maximum Candela = 441.968 Located At Horizontal Angle = 0, Vertical Angle = 180
1 - Vertical Plane Through Horizontal Angles (90 - 270)
2 - Horizontal Cone Through Vertical Angle (180) (Through Max. Cd.)