



IES INDOOR REPORT

PHOTOMETRIC FILENAME : MX4U-4-00-L8-935-A-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] GEN FROM BALLABS TEST NO. 20657.0
 [TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
 [ISSUEDATE] 7 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-L8-935-A-DIM-UNV
 [LAMPCAT] HLM 90 CRI, 3500K CCT
 [SEARCH_SOURCETYPE] 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	2637
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	91
Total Luminaire Watts	29
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)	0.32 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	47.360	46.413	48.307	47.360	50.202
100	100.403	101.350	95.667	100.403	99.456
105	169.548	168.601	168.601	165.760	162.918
110	242.483	238.694	235.852	233.958	229.222
115	321.100	316.364	310.681	301.209	301.209
120	398.770	390.246	381.721	376.985	372.249
125	469.810	467.916	458.444	448.972	444.236
130	543.692	542.745	533.273	524.748	521.906
135	613.784	615.679	605.260	593.893	590.104
140	688.613	684.824	678.194	662.092	662.092
145	755.864	751.128	740.709	736.920	728.395
150	811.749	817.432	807.013	798.488	794.699
155	866.686	871.422	863.845	853.426	852.478
160	914.993	918.782	911.205	906.469	901.733
165	950.987	955.723	949.093	944.357	941.515
170	976.561	981.297	975.614	972.773	972.773
175	989.822	995.505	990.769	987.928	984.139
180	993.611	993.611	993.611	993.611	993.611

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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	229.81	N.A.	8.70
90-120	536.63	N.A.	20.40
90-130	946.76	N.A.	35.90
90-150	1878.2	N.A.	71.20
90-180	2636.89	N.A.	100.00
110-180	2407.08	N.A.	91.30
0-180	2636.89	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	53.02
100-110	176.78
110-120	306.82
120-130	410.14
130-140	466.74
140-150	464.69
150-160	397.15
160-170	267.48
170-180	94.06

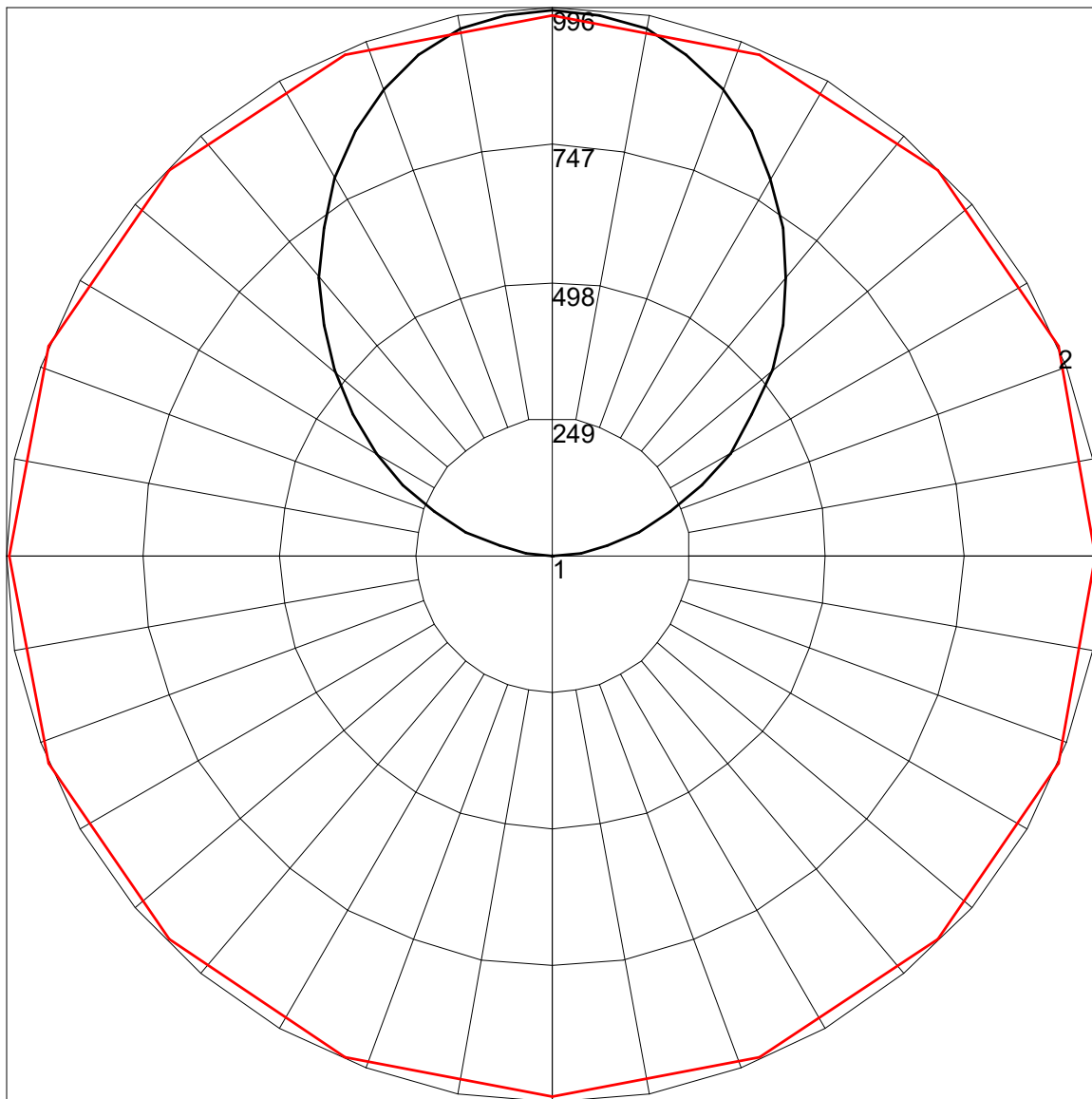
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	72	72	72	72	61	61	61	61	42	42	42	24	24	24	8	8	8	0
1	65	62	59	57	56	53	51	49	36	35	34	21	20	20	7	7	6	0
2	59	54	50	47	50	46	43	40	32	30	28	18	17	16	6	6	5	0
3	54	48	43	39	46	41	37	33	28	25	23	16	15	14	5	5	5	0
4	49	42	36	32	42	36	32	28	25	22	20	14	13	12	5	4	4	0
5	45	37	32	27	38	32	27	24	22	19	17	13	11	10	4	4	3	0
6	41	33	27	23	35	28	24	20	20	17	14	11	10	9	4	3	3	0
7	38	30	24	20	32	25	21	18	18	15	12	10	9	7	3	3	2	0
8	35	27	21	18	30	23	18	15	16	13	11	9	8	6	3	3	2	0
9	32	24	19	15	28	21	16	13	14	12	10	8	7	6	3	2	2	0
10	30	22	17	14	26	19	15	12	13	10	8	8	6	5	2	2	2	0

POLAR GRAPH



Maximum Candela = 995.505 Located At Horizontal Angle = 22.5, Vertical Angle = 175
1 - Vertical Plane Through Horizontal Angles (90 - 270)
2 - Horizontal Cone Through Vertical Angle (175) (Through Max. Cd.)