



IES INDOOR REPORT

PHOTOMETRIC FILENAME : MX4U-4-00-L12-835-F-(L8.5)-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] 16-APR-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-L12-835-F-(L8.5)-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	3477
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	120
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)	0.33 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	42.976	45.023	42.976	42.976	38.883
100	98.232	98.232	98.232	87.999	85.953
105	169.859	169.859	155.534	149.394	143.255
110	274.231	261.952	237.394	216.929	214.882
115	388.835	368.370	331.533	309.021	302.882
120	507.532	480.927	439.997	403.160	397.021
125	644.647	611.903	552.554	513.671	497.299
130	787.902	751.065	679.437	632.368	624.182
135	908.645	851.343	808.367	759.251	751.065
140	1033.482	988.459	929.110	884.087	871.808
145	1146.039	1131.713	1043.714	1000.738	990.505
150	1242.224	1225.852	1148.085	1113.295	1094.876
155	1326.131	1305.666	1242.224	1223.806	1205.387
160	1397.758	1385.479	1344.549	1322.038	1305.666
165	1448.921	1448.921	1420.270	1403.898	1389.572
170	1487.804	1491.897	1479.618	1473.479	1461.200
175	1508.269	1518.502	1514.409	1506.223	1500.083
180	1518.502	1518.502	1518.502	1518.502	1518.502

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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	220.49	N.A.	6.30
90-120	557.37	N.A.	16.00
90-130	1062.76	N.A.	30.60
90-150	2352.21	N.A.	67.70
90-180	3476.67	N.A.	100.00
110-180	3256.19	N.A.	93.70
0-180	3476.67	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	49.02
100-110	171.46
110-120	336.88
120-130	505.39
130-140	628.16
140-150	661.29
150-160	580.44
160-170	400.82
170-180	143.20

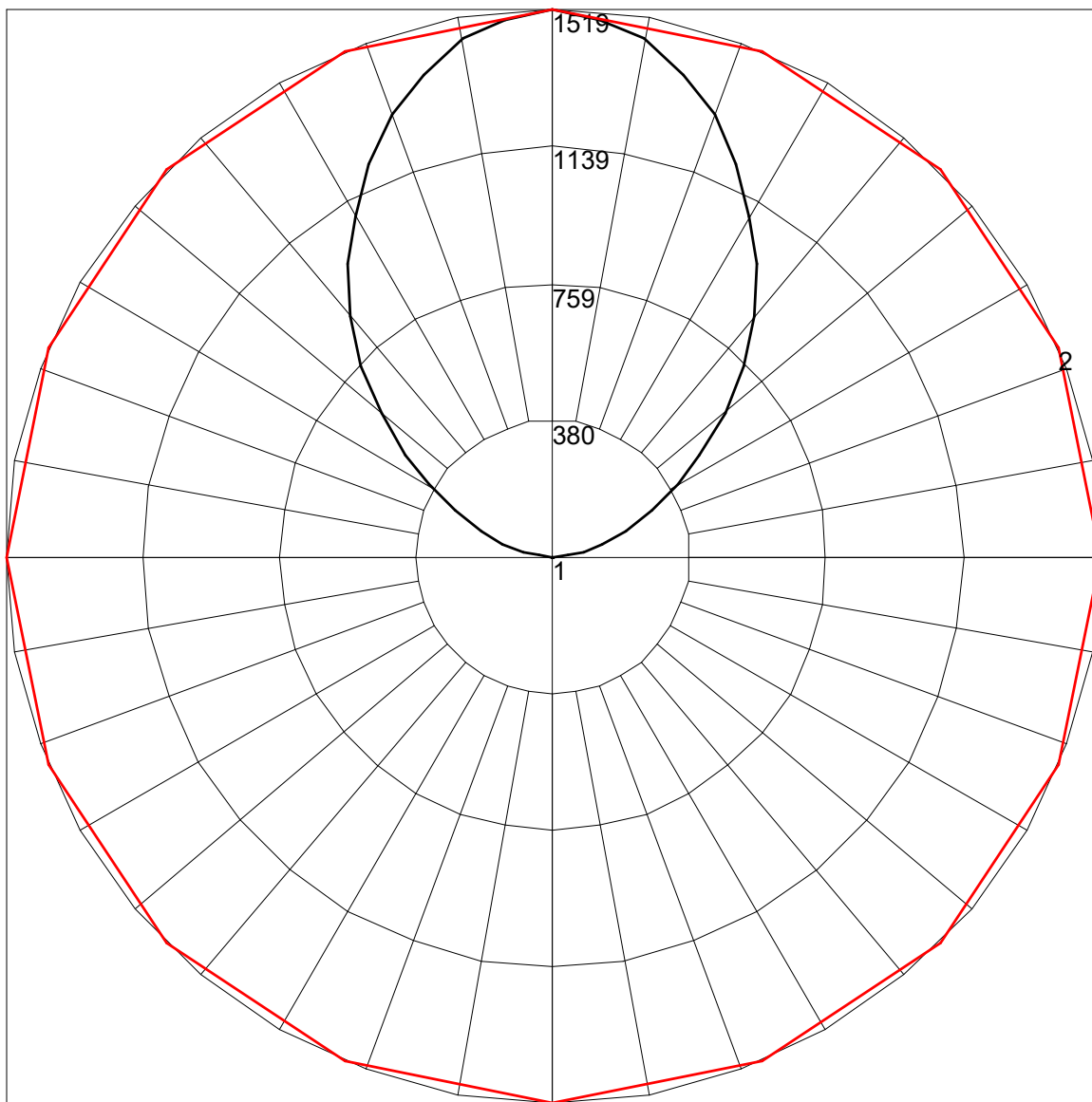
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	194	194	194	194	166	166	166	166	113	113	113	65	65	65	21	21	21	0
1	176	168	161	154	150	144	138	133	99	95	92	57	55	53	18	18	17	0
2	161	147	135	126	137	126	117	109	86	81	76	50	47	45	16	15	15	0
3	146	129	115	104	124	110	99	90	76	69	63	44	40	37	14	13	12	0
4	133	113	99	88	113	97	85	76	67	59	54	39	35	32	12	11	10	0
5	122	100	85	74	104	86	74	65	59	52	46	34	30	27	11	10	9	0
6	112	89	74	64	95	77	64	55	53	45	39	31	26	23	10	9	8	0
7	103	80	65	55	87	69	56	48	48	40	34	28	23	20	9	8	7	0
8	95	72	58	48	81	62	50	42	43	35	29	25	21	18	8	7	6	0
9	88	65	51	42	75	56	44	36	39	31	26	23	18	15	7	6	5	0
10	82	59	46	37	70	51	40	32	35	28	23	21	16	14	7	5	5	0

POLAR GRAPH



Maximum Candela = 1518.502 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.)