



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : MX4S-3-00-L8-830-F-(L4)-DIM-UNV\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN FROM BALLABS TEST NO. 20649.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 10/28/2022

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] 3' SURFACE MOUNT LED LUMINAIRE

[MORE] WHITE ALUM BODY w/WHITE REFL & FLAT FROST LENS

[LUMCAT] MX4S-3-00-L8-830-F-(L4)-DIM-UNV

[LAMPCAT] HLMX 80 CRI 3000K CCT

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	1163
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	116
Total Luminaire Watts	10
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.22
Spacing Criterion (90-270)	1.06
Spacing Criterion (Diagonal)	1.20
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	3.00 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	4797	4157	3771
55	3972	3320	3020
65	2993	2517	2279
75	2055	1805	1610
85	989	825	660

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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>
<b>0</b>	552.792	552.792	552.792	552.792	552.792
<b>5</b>	554.795	548.786	546.116	542.778	542.110
<b>10</b>	544.113	535.434	529.425	523.417	520.746
<b>15</b>	527.422	519.411	502.720	494.709	490.703
<b>20</b>	506.726	490.703	472.677	459.993	454.652
<b>25</b>	478.686	459.993	436.626	425.276	421.938
<b>30</b>	445.972	423.273	399.906	388.557	383.216
<b>35</b>	406.583	382.548	359.181	347.832	341.156
<b>40</b>	362.520	341.823	313.783	303.101	295.757
<b>45</b>	315.118	295.757	273.058	255.032	247.688
<b>50</b>	263.044	244.350	221.651	207.631	205.628
<b>55</b>	211.637	196.949	176.920	169.576	160.897
<b>60</b>	167.573	149.548	136.863	128.184	124.178
<b>65</b>	117.502	107.487	98.808	92.800	89.462
<b>70</b>	84.121	73.439	69.433	64.092	62.757
<b>75</b>	49.404	46.734	43.396	40.725	38.722
<b>80</b>	27.373	26.037	24.702	22.699	21.364
<b>85</b>	8.011	8.011	6.676	6.676	5.341
<b>90</b>	0.000	0.000	0.000	0.000	0.000

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : MX4S-3-00-L8-830-F-(L4)-DIM-UNV\_.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	194.12	N.A.	16.70
0-30	398.04	N.A.	34.20
0-40	626.54	N.A.	53.90
0-60	1002.6	N.A.	86.20
0-80	1152.36	N.A.	99.10
0-90	1162.82	N.A.	100.00
10-90	1111.17	N.A.	95.60
20-40	432.42	N.A.	37.20
20-50	644.90	N.A.	55.50
40-70	477.82	N.A.	41.10
60-80	149.76	N.A.	12.90
70-80	48.00	N.A.	4.10
80-90	10.47	N.A.	0.90
90-110	0.00	N.A.	0.00
90-120	0.00	N.A.	0.00
90-130	0.00	N.A.	0.00
90-150	0.00	N.A.	0.00
90-180	0.00	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	1162.82	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	51.66
10-20	142.46
20-30	203.92
30-40	228.50
40-50	212.48
50-60	163.58
60-70	101.76
70-80	48.00
80-90	10.47
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

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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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	106	102	99	107	104	100	97	99	97	94	96	93	91	92	90	89	87
2	101	94	88	83	99	92	86	82	89	84	80	85	81	78	82	79	76	74
3	93	84	76	70	91	82	75	70	79	73	68	76	71	67	74	70	66	64
4	86	75	67	61	84	74	66	60	71	65	59	69	63	59	67	62	58	56
5	79	67	59	53	77	66	59	53	64	57	52	62	56	52	61	55	51	49
6	74	61	53	47	72	60	52	47	58	51	46	57	51	46	55	50	45	44
7	69	56	48	42	67	55	47	42	54	46	41	52	46	41	51	45	41	39
8	64	51	43	38	62	51	43	38	49	42	37	48	42	37	47	41	37	35
9	60	47	39	34	59	47	39	34	46	39	34	44	38	34	43	38	34	32
10	56	44	36	31	55	43	36	31	42	36	31	41	35	31	40	35	31	29

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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	16.4	17.9	16.7	18.2	18.5	15.1	16.7	15.5	17.0	17.3
	3H	17.6	19.0	18.0	19.3	19.7	16.3	17.7	16.7	18.0	18.4
	4H	18.0	19.3	18.4	19.6	20.0	16.7	18.0	17.1	18.3	18.7
	6H	18.3	19.4	18.7	19.8	20.2	16.9	18.1	17.3	18.5	18.9
	8H	18.3	19.5	18.8	19.8	20.2	17.0	18.1	17.4	18.5	18.9
	12H	18.3	19.4	18.8	19.8	20.2	17.0	18.1	17.4	18.4	18.9

### UGR Viewed Endwise

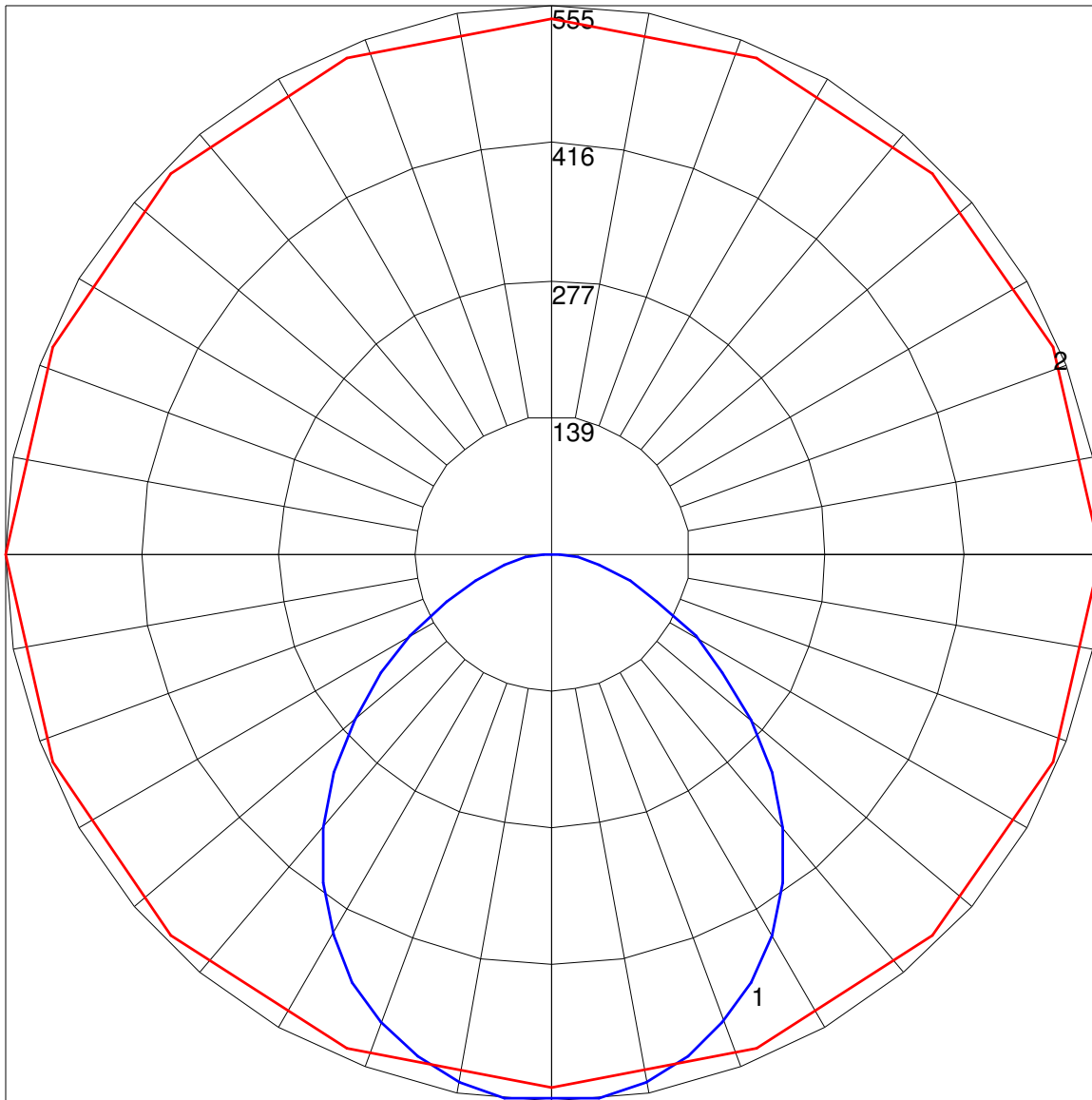
4H	2H	16.7	17.9	17.1	18.3	18.7	15.6	16.9	16.0	17.3	17.6
	3H	18.1	19.2	18.5	19.6	20.0	17.0	18.1	17.4	18.5	18.9
	4H	18.6	19.6	19.0	20.0	20.4	17.5	18.4	17.9	18.8	19.3
	6H	19.0	19.8	19.4	20.2	20.7	17.8	18.6	18.3	19.1	19.5
	8H	19.1	19.8	19.5	20.3	20.7	17.9	18.7	18.4	19.1	19.6
	12H	19.1	19.8	19.6	20.3	20.7	17.9	18.6	18.4	19.1	19.6

8H	4H	18.7	19.5	19.2	19.9	20.4	17.7	18.5	18.2	18.9	19.4
	6H	19.2	19.8	19.7	20.3	20.8	18.1	18.7	18.6	19.2	19.7
	8H	19.3	19.9	19.8	20.4	20.9	18.2	18.8	18.7	19.3	19.8
	12H	19.4	19.9	19.9	20.4	20.9	18.3	18.8	18.8	19.3	19.9

12H	4H	18.7	19.4	19.2	19.9	20.4	17.7	18.4	18.2	18.9	19.3
	6H	19.2	19.8	19.7	20.2	20.8	18.1	18.7	18.7	19.2	19.7
	8H	19.4	19.9	19.9	20.3	20.9	18.3	18.8	18.8	19.3	19.9

Maximum UGR = 20.9

POLAR GRAPH



Maximum Candela = 554.795 Located At Horizontal Angle = 0, Vertical Angle = 5  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (5) (Through Max. Cd.)