



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : MX4S-8-00-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] 8' SURFACE MOUNT LINEAR LED LUMINAIRE

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

[LUMCAT] MX4S-8-00-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	3216
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	125
Total Luminaire Watts	25.7
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)	8.00 ft
Luminous Width (90-270)	0.31 ft
Luminous Height	0.00 ft

### LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	5396	4676	4241
55	4468	3735	3396
65	3366	2831	2563
75	2311	2030	1811
85	1113	928	742

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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>	1528.615	1528.615	1528.615	1528.615	1528.615
<b>5</b>	1534.154	1517.539	1510.154	1500.923	1499.077
<b>10</b>	1504.615	1480.615	1464.000	1447.385	1440.000
<b>15</b>	1458.462	1436.308	1390.154	1368.000	1356.923
<b>20</b>	1401.231	1356.923	1307.077	1272.000	1257.231
<b>25</b>	1323.692	1272.000	1207.385	1176.000	1166.769
<b>30</b>	1233.231	1170.462	1105.846	1074.462	1059.692
<b>35</b>	1124.308	1057.846	993.231	961.846	943.385
<b>40</b>	1002.462	945.231	867.692	838.154	817.846
<b>45</b>	871.385	817.846	755.077	705.231	684.923
<b>50</b>	727.385	675.692	612.923	574.154	568.615
<b>55</b>	585.231	544.615	489.231	468.923	444.923
<b>60</b>	463.385	413.538	378.462	354.462	343.385
<b>65</b>	324.923	297.231	273.231	256.615	247.385
<b>70</b>	232.615	203.077	192.000	177.231	173.538
<b>75</b>	136.615	129.231	120.000	112.615	107.077
<b>80</b>	75.692	72.000	68.308	62.769	59.077
<b>85</b>	22.154	22.154	18.462	18.462	14.769
<b>90</b>	0.000	0.000	0.000	0.000	0.000

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : MX4S-8-00-L8-830-F-(L4)-DIM-UNV\_.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	536.80	N.A.	16.70
0-30	1100.68	N.A.	34.20
0-40	1732.56	N.A.	53.90
0-60	2772.44	N.A.	86.20
0-80	3186.57	N.A.	99.10
0-90	3215.51	N.A.	100.00
10-90	3072.66	N.A.	95.60
20-40	1195.75	N.A.	37.20
20-50	1783.3	N.A.	55.50
40-70	1321.29	N.A.	41.10
60-80	414.13	N.A.	12.90
70-80	132.72	N.A.	4.10
80-90	28.95	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	3215.51	N.A.	100.00

Total Luminaire Efficiency = N.A.%

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	142.85
10-20	393.95
20-30	563.88
30-40	631.88
40-50	587.55
50-60	452.33
60-70	281.40
70-80	132.72
80-90	28.95
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	16.8	18.4	17.2	18.7	19.0	15.6	17.1	16.0	17.4	17.8
	3H	18.1	19.5	18.5	19.8	20.1	16.8	18.1	17.2	18.5	18.8
	4H	18.5	19.8	18.9	20.1	20.5	17.1	18.4	17.5	18.8	19.2
	6H	18.7	19.9	19.2	20.3	20.7	17.4	18.6	17.8	18.9	19.3
	8H	18.8	19.9	19.2	20.3	20.7	17.5	18.6	17.9	19.0	19.4
	12H	18.8	19.9	19.3	20.3	20.7	17.5	18.5	17.9	18.9	19.3

### UGR Viewed Endwise

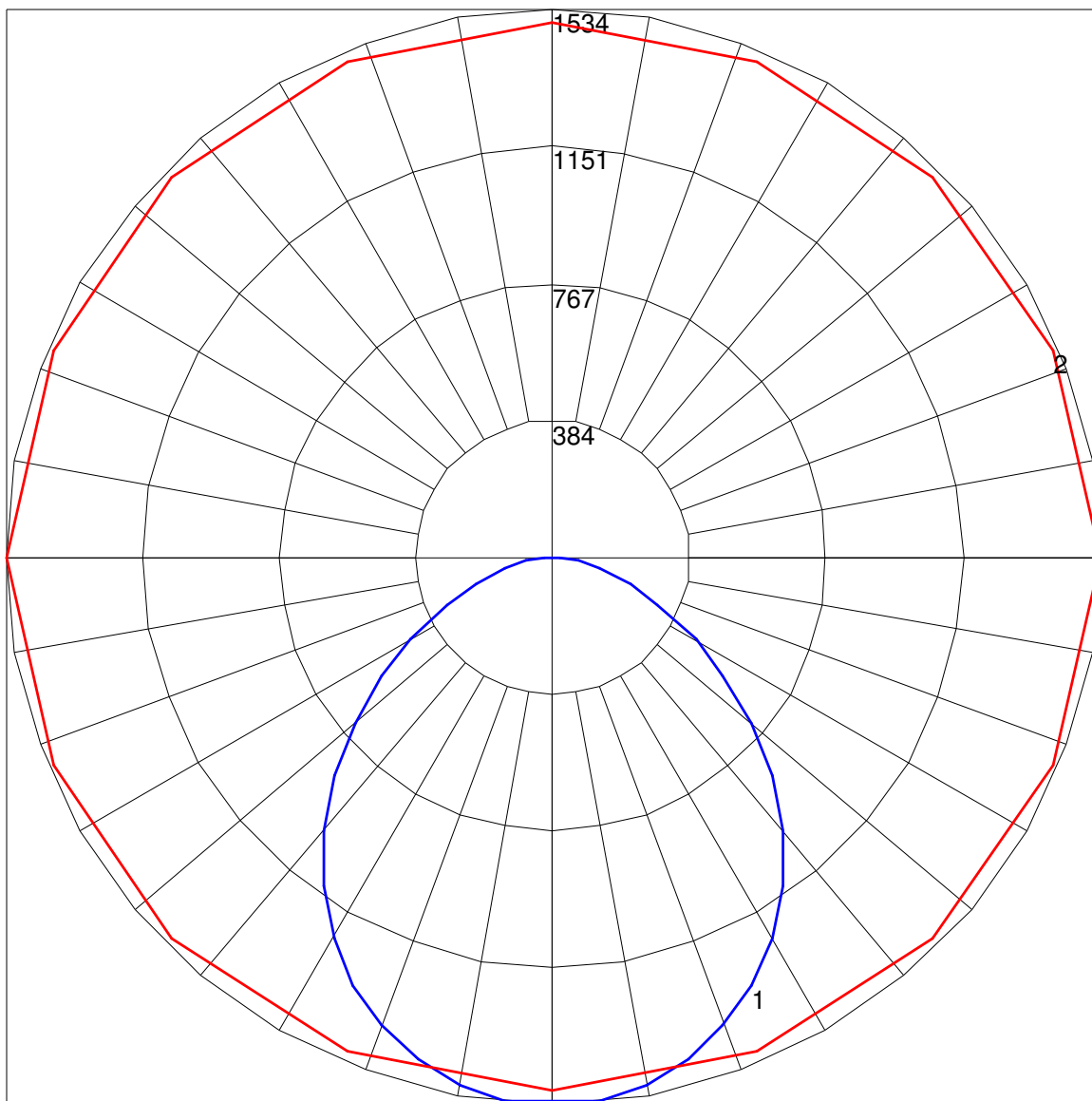
4H	2H	17.1	18.4	17.5	18.8	19.1	16.1	17.4	16.5	17.7	18.1
	3H	18.6	19.6	19.0	20.0	20.4	17.5	18.5	17.9	18.9	19.3
	4H	19.1	20.0	19.5	20.4	20.9	17.9	18.9	18.4	19.3	19.8
	6H	19.4	20.3	19.9	20.7	21.2	18.3	19.1	18.7	19.6	20.0
	8H	19.5	20.3	20.0	20.8	21.2	18.4	19.1	18.8	19.6	20.1
	12H	19.6	20.3	20.1	20.7	21.2	18.4	19.1	18.9	19.6	20.0

8H	4H	19.2	20.0	19.7	20.4	20.9	18.2	18.9	18.6	19.4	19.8
	6H	19.6	20.3	20.1	20.8	21.2	18.6	19.2	19.1	19.7	20.2
	8H	19.8	20.4	20.3	20.9	21.3	18.7	19.3	19.2	19.8	20.3
	12H	19.9	20.4	20.4	20.9	21.4	18.8	19.3	19.3	19.8	20.3

12H	4H	19.2	19.9	19.7	20.4	20.8	18.2	18.9	18.7	19.3	19.8
	6H	19.7	20.2	20.2	20.7	21.2	18.6	19.2	19.1	19.7	20.2
	8H	19.8	20.3	20.3	20.8	21.4	18.8	19.3	19.3	19.8	20.3

Maximum UGR = 21.4

POLAR GRAPH



Maximum Candela = 1534.154 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.)