



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : MX4S-4-00-L8-835-F-EM10W-DIM-UNV\_EMER MODE.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002  
 [TEST] GEN FROM BALLABS TEST NO. 29653.0  
 [TESTLABV] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC  
 [ISSUEDATE] 03-01-2022  
 [MANUFAC] WILLIAMS INDOOR  
 [OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO  
 [LUMINAIRE] 2-72 LED 23.75" ARRAYS 4' DOWNLIGHT LUMINAIRE  
 [MORE] WHITE ALUM BODY w/WHITE REFL & FLAT FROST LENS  
 [LUMCAT] MX4S-4-00-L8-835-F-EM10W-DIM-UNV

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	1130
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	113
Total Luminaire Watts	10
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.22
Spacing Criterion (90-270)	1.16
Spacing Criterion (Diagonal)	1.28
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	3244	3146	3097
55	2980	2858	2778
65	2536	2495	2413
75	1925	2015	1903
85	931	1197	1130

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	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
<b>0</b>	459.812	459.812	459.812	459.812	459.812
<b>5</b>	461.868	457.071	455.015	453.645	453.645
<b>10</b>	453.645	448.848	446.792	445.421	444.051
<b>15</b>	437.884	434.457	431.031	429.660	427.605
<b>20</b>	419.381	414.585	411.844	407.732	406.361
<b>25</b>	395.397	389.915	387.174	382.377	381.692
<b>30</b>	371.413	365.246	359.764	358.393	354.967
<b>35</b>	337.835	333.723	328.927	324.130	324.130
<b>40</b>	306.313	302.201	296.034	294.663	289.867
<b>45</b>	271.364	267.253	263.141	259.030	259.030
<b>50</b>	238.472	232.990	229.563	226.822	223.396
<b>55</b>	202.153	197.356	193.930	190.503	188.448
<b>60</b>	164.463	161.722	159.666	156.925	154.870
<b>65</b>	126.774	126.089	124.718	121.292	120.606
<b>70</b>	93.881	93.196	91.140	89.770	88.399
<b>75</b>	58.933	60.988	61.674	59.618	58.247
<b>80</b>	30.152	31.522	31.522	32.207	32.893
<b>85</b>	9.594	10.279	12.335	10.964	11.649
<b>90</b>	0.000	0.000	0.000	0.000	0.000

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : MX4S-4-00-L8-835-F-EM10W-DIM-UNV\_EMER MODE.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	164.97	N.A.	14.60
0-30	343.48	N.A.	30.40
0-40	549.89	N.A.	48.70
0-60	927.65	N.A.	82.10
0-80	1115.26	N.A.	98.70
0-90	1129.9	N.A.	100.00
10-90	1086.63	N.A.	96.20
20-40	384.93	N.A.	34.10
20-50	588.64	N.A.	52.10
40-70	501.16	N.A.	44.40
60-80	187.61	N.A.	16.60
70-80	64.20	N.A.	5.70
80-90	14.64	N.A.	1.30
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	1129.9	N.A.	100.00

Total Luminaire Efficiency = N.A.%

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	43.26
10-20	121.70
20-30	178.52
30-40	206.41
40-50	203.71
50-60	174.04
60-70	123.41
70-80	64.20
80-90	14.64
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	109	105	101	97	107	103	99	96	98	95	93	94	92	90	91	89	87	85
2	100	92	85	80	97	90	84	79	87	82	77	83	79	75	80	77	74	72
3	91	81	73	67	89	80	72	67	77	70	65	74	69	64	71	67	63	61
4	84	72	64	57	82	71	63	57	68	62	56	66	60	55	64	59	55	52
5	77	65	56	50	75	64	56	49	62	54	49	60	53	48	58	52	48	46
6	72	59	50	44	70	58	49	43	56	48	43	54	48	43	53	47	42	40
7	66	53	45	39	65	52	44	39	51	44	38	49	43	38	48	42	38	36
8	62	49	40	35	60	48	40	35	47	39	34	45	39	34	44	38	34	32
9	58	45	37	31	57	44	36	31	43	36	31	42	36	31	41	35	31	29
10	54	41	34	28	53	41	33	28	40	33	28	39	33	28	38	32	28	26

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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

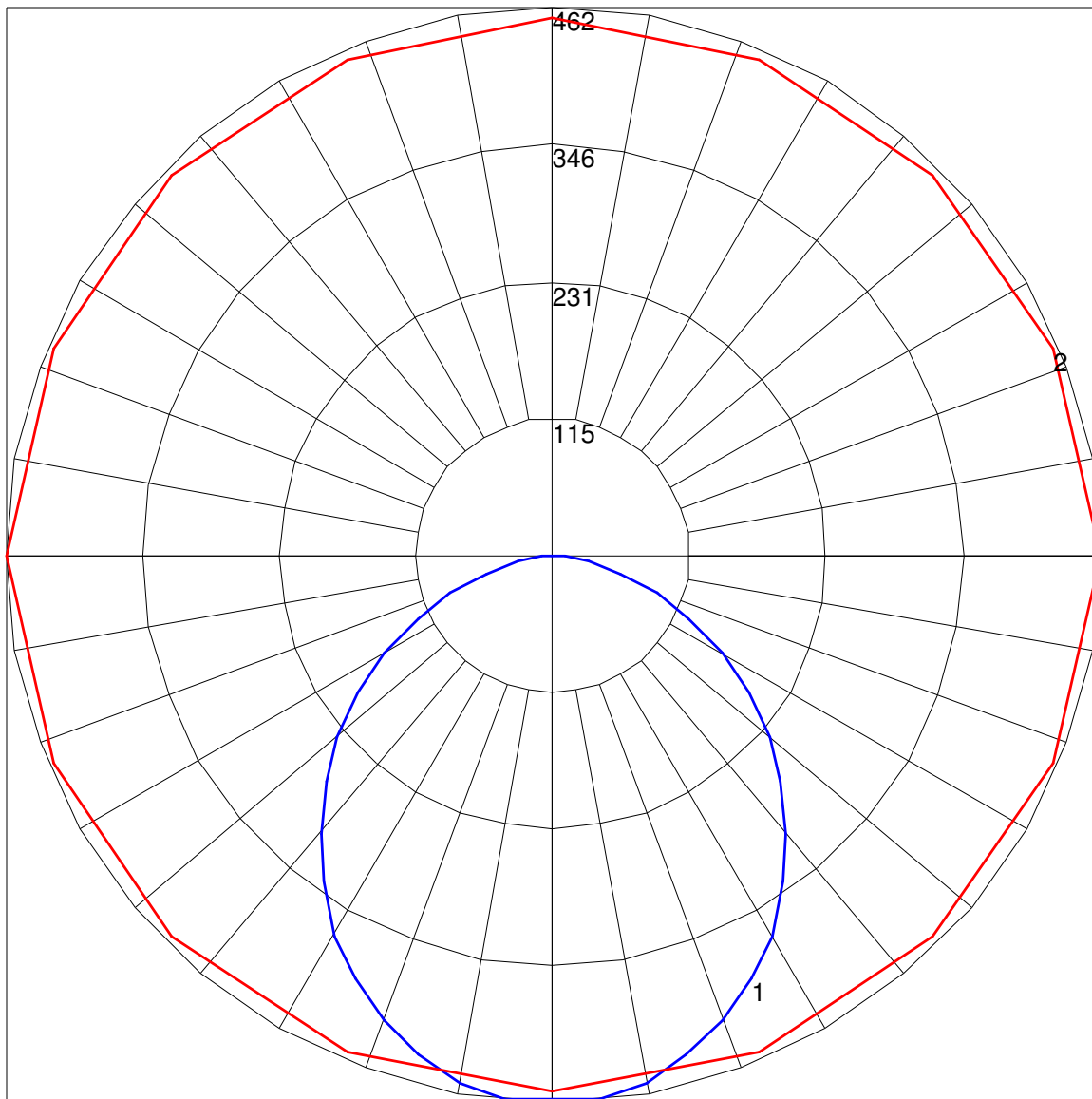
X=2H	Y=2H	15.7	17.3	16.1	17.6	17.9	15.4	17.0	15.8	17.3	17.7
	3H	17.3	18.7	17.7	19.0	19.4	17.0	18.4	17.4	18.7	19.1
	4H	17.8	19.1	18.2	19.5	19.9	17.5	18.9	17.9	19.2	19.6
	6H	18.1	19.4	18.5	19.7	20.1	17.9	19.1	18.3	19.5	19.9
	8H	18.2	19.4	18.6	19.8	20.2	18.0	19.2	18.4	19.6	20.0
	12H	18.2	19.3	18.6	19.7	20.2	18.0	19.2	18.5	19.6	20.0

### UGR Viewed Endwise

4H	2H	16.2	17.6	16.6	17.9	18.3	16.0	17.4	16.4	17.7	18.1
	3H	18.0	19.2	18.4	19.6	20.0	17.8	18.9	18.2	19.3	19.7
	4H	18.7	19.7	19.1	20.1	20.5	18.4	19.5	18.9	19.9	20.3
	6H	19.1	20.0	19.5	20.4	20.9	18.9	19.8	19.4	20.2	20.7
	8H	19.2	20.0	19.6	20.4	20.9	19.0	19.9	19.5	20.3	20.8
	12H	19.2	20.0	19.7	20.4	20.9	19.1	19.9	19.6	20.3	20.8
8H	4H	18.9	19.7	19.4	20.2	20.6	18.7	19.5	19.2	20.0	20.4
	6H	19.4	20.1	19.9	20.6	21.0	19.3	19.9	19.7	20.4	20.9
	8H	19.5	20.2	20.0	20.7	21.2	19.4	20.0	19.9	20.6	21.0
	12H	19.6	20.2	20.2	20.7	21.2	19.6	20.1	20.1	20.6	21.2
12H	4H	18.9	19.7	19.4	20.1	20.6	18.7	19.5	19.2	19.9	20.4
	6H	19.4	20.0	19.9	20.5	21.0	19.3	19.9	19.8	20.4	20.9
	8H	19.6	20.2	20.1	20.6	21.2	19.5	20.0	20.0	20.5	21.1

Maximum UGR = 21.2

POLAR GRAPH



Maximum Candela = 461.868 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.)