



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : MX4RG-8-00-L8-835-F-DIM-UNV\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002  
 [TEST] GEN FROM BALLABS TEST NO. 20647.0  
 [TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC  
 [ISSUEDATE] 23 DEC 2020  
 [MANUFAC] WILLIAMS INDOOR  
 [OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO  
 [LUMINAIRE] 8' RECESSED GRID LED LUMINAIRE  
 [MORE] WHITE ALUM BODY w/WHITE REFL & FLAT FROST LENS  
 [LUMCAT] MX4RG-8-00-L8-835-F-DIM-UNV  
 [LAMPCAT] HLMX 80 CRI 3500K CCT

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	6993
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	120
Total Luminaire Watts	58.4
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.20
Spacing Criterion (90-270)	1.16
Spacing Criterion (Diagonal)	1.30
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	8.00 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	10097	9881	9475
55	9350	8790	8642
65	7886	7606	7366
75	5883	5818	5883
85	2718	2718	2718

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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>	2861.637	2861.637	2861.637	2861.637	2861.637
<b>5</b>	2877.646	2845.628	2825.617	2821.614	2821.614
<b>10</b>	2825.617	2793.598	2769.585	2765.582	2761.580
<b>15</b>	2745.571	2705.548	2677.532	2673.530	2661.523
<b>20</b>	2605.491	2577.475	2569.470	2553.461	2533.449
<b>25</b>	2453.404	2429.390	2413.381	2389.367	2377.360
<b>30</b>	2285.307	2257.291	2229.275	2213.266	2197.257
<b>35</b>	2105.204	2089.195	2041.168	2049.172	2005.147
<b>40</b>	1905.090	1893.083	1877.074	1829.046	1805.033
<b>45</b>	1688.966	1672.957	1652.946	1604.918	1584.907
<b>50</b>	1468.840	1460.836	1420.813	1396.799	1380.790
<b>55</b>	1268.726	1240.710	1192.682	1192.682	1172.671
<b>60</b>	1000.572	1008.577	972.556	960.550	936.536
<b>65</b>	788.451	780.447	760.435	744.426	736.421
<b>70</b>	584.334	568.325	548.314	540.309	536.307
<b>75</b>	360.206	352.201	356.204	348.199	360.206
<b>80</b>	184.105	176.101	184.105	200.114	184.105
<b>85</b>	56.032	56.032	56.032	68.039	56.032
<b>90</b>	4.002	0.000	0.000	0.000	0.000

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	1026.83	N.A.	14.70
0-30	2137.17	N.A.	30.60
0-40	3423.88	N.A.	49.00
0-60	5772.36	N.A.	82.50
0-80	6910.56	N.A.	98.80
0-90	6993.47	N.A.	100.00
10-90	6724.46	N.A.	96.20
20-40	2397.06	N.A.	34.30
20-50	3666.01	N.A.	52.40
40-70	3104.64	N.A.	44.40
60-80	1138.2	N.A.	16.30
70-80	382.04	N.A.	5.50
80-90	82.91	N.A.	1.20
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	6993.47	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	269.02
10-20	757.81
20-30	1110.34
30-40	1286.71
40-50	1268.96
50-60	1079.52
60-70	756.16
70-80	382.04
80-90	82.91
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	99	96	93	95	92	90	91	89	87	85
2	100	92	86	80	97	90	84	79	87	82	77	84	79	76	81	77	74	72
3	92	81	74	67	89	80	73	67	77	71	66	74	69	64	72	67	63	61
4	84	72	64	58	82	71	63	57	69	62	56	66	60	56	64	59	55	53
5	77	65	56	50	75	64	56	50	62	55	49	60	54	49	58	52	48	46
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	42	40
7	67	53	45	39	65	53	44	39	51	44	38	50	43	38	48	42	38	36
8	62	49	41	35	61	48	40	35	47	40	34	46	39	34	44	39	34	32
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31	29
10	54	42	34	29	53	41	34	29	40	33	28	39	33	28	38	32	28	26

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**UGR TABLE - CORRECTED**

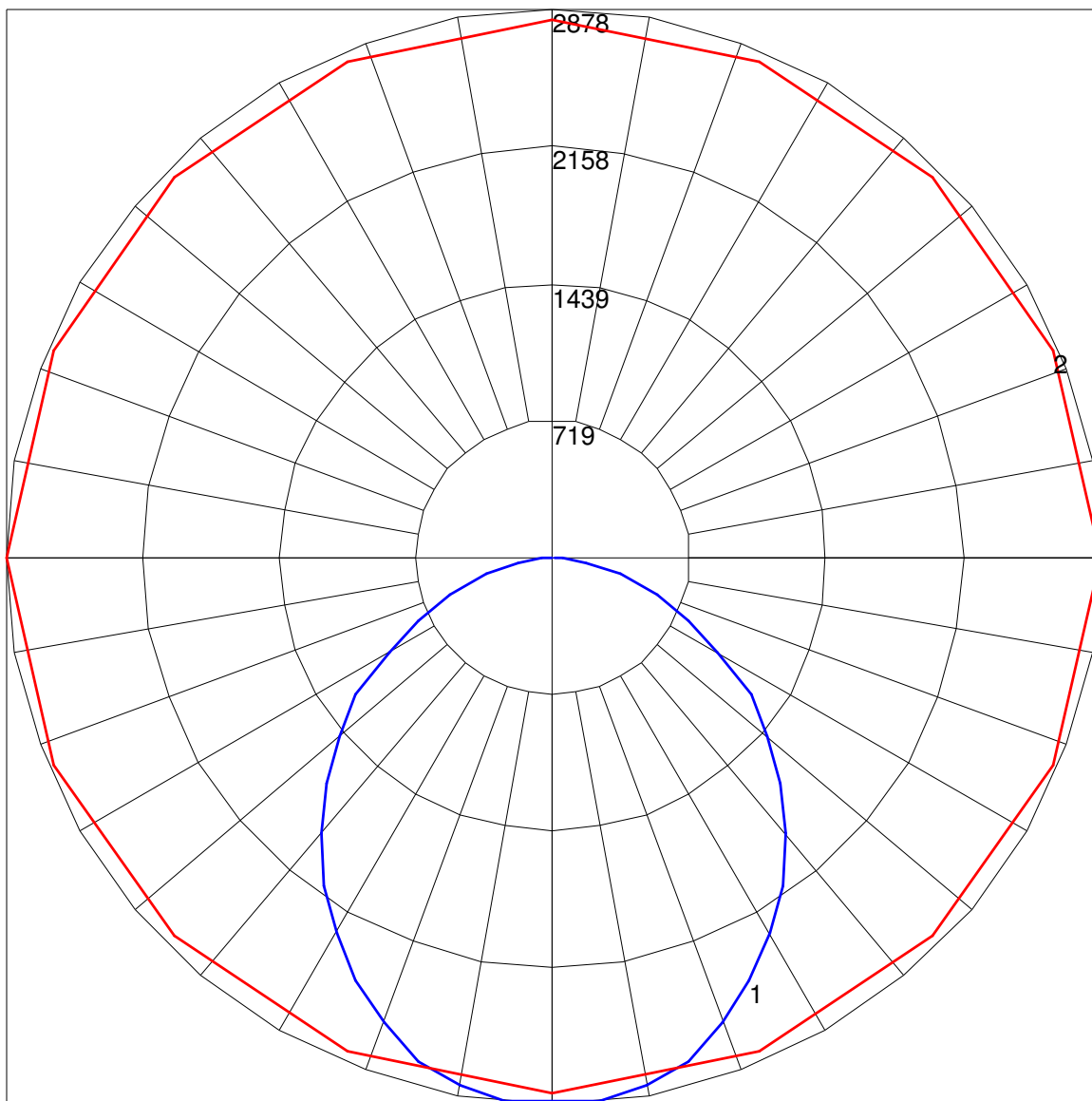
Reflectances

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					UGR Viewed Endwise				
X=2H	Y=2H	19.8	21.4	20.1	21.7	22.0	19.4	21.0	19.8	21.3	21.6
	3H	21.3	22.7	21.7	23.1	23.4	20.9	22.4	21.3	22.7	23.1
	4H	21.8	23.1	22.2	23.5	23.9	21.5	22.8	21.9	23.1	23.5
	6H	22.1	23.3	22.5	23.7	24.1	21.8	23.0	22.2	23.4	23.8
	8H	22.1	23.3	22.6	23.7	24.1	21.9	23.0	22.3	23.4	23.8
	12H	22.2	23.3	22.6	23.7	24.1	21.9	23.0	22.3	23.4	23.8
4H	2H	20.3	21.6	20.7	22.0	22.3	20.0	21.3	20.4	21.7	22.1
	3H	22.0	23.1	22.4	23.5	23.9	21.7	22.8	22.1	23.2	23.6
	4H	22.6	23.6	23.1	24.0	24.5	22.3	23.3	22.8	23.8	24.2
	6H	23.0	23.9	23.5	24.3	24.8	22.8	23.6	23.2	24.1	24.5
	8H	23.1	23.9	23.5	24.3	24.8	22.9	23.7	23.4	24.1	24.6
	12H	23.1	23.9	23.6	24.3	24.8	22.9	23.7	23.4	24.2	24.6
8H	4H	22.8	23.6	23.3	24.1	24.5	22.6	23.4	23.0	23.8	24.3
	6H	23.3	23.9	23.8	24.4	24.9	23.1	23.8	23.6	24.3	24.7
	8H	23.4	24.0	23.9	24.5	25.0	23.3	23.9	23.8	24.4	24.9
	12H	23.5	24.0	24.0	24.5	25.1	23.4	23.9	23.9	24.4	25.0
12H	4H	22.8	23.6	23.3	24.0	24.5	22.6	23.3	23.1	23.8	24.3
	6H	23.3	23.9	23.8	24.4	24.9	23.1	23.7	23.6	24.2	24.7
	8H	23.4	24.0	24.0	24.5	25.0	23.3	23.9	23.8	24.4	24.9

Maximum UGR = 25.1

POLAR GRAPH



Maximum Candela = 2877.646 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.)