



IES INDOOR REPORT

PHOTOMETRIC FILENAME : MX4RG-7-00-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] 02-NOV-2018

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] 2-72 LED 23.75"ARRAYS 4'RECESSED GRID LUMINAIRE

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

[MORE] ADVANCE #XI036C100V054DSM5

[LUMCAT] MX4RG-7-00--L8-835-x

[LAMPCAT] MX2472_2835 REV A 10560314

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	6152
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	116
Total Luminaire Watts	53
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)	7.00 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	10151	9935	9526
55	9401	8837	8689
65	7929	7647	7406
75	5915	5849	5915
85	2732	2732	2732

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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	2517.439	2517.439	2517.439	2517.439	2517.439
5	2531.522	2503.355	2485.751	2482.230	2482.230
10	2485.751	2457.583	2436.458	2432.937	2429.416
15	2415.333	2380.124	2355.477	2351.957	2341.394
20	2292.101	2267.455	2260.413	2246.330	2228.725
25	2158.307	2137.182	2123.099	2101.973	2091.410
30	2010.430	1985.784	1961.137	1947.054	1932.970
35	1851.990	1837.906	1795.655	1802.697	1763.967
40	1675.945	1665.382	1651.299	1609.048	1587.923
45	1485.817	1471.733	1454.129	1411.878	1394.274
50	1292.168	1285.126	1249.917	1228.792	1214.708
55	1116.123	1091.477	1049.226	1049.226	1031.622
60	880.223	887.265	855.577	845.014	823.889
65	693.616	686.574	668.970	654.886	647.844
70	514.050	499.967	482.362	475.321	471.800
75	316.880	309.839	313.359	306.318	316.880
80	161.961	154.919	161.961	176.045	161.961
85	49.293	49.293	49.293	59.855	49.293
90	3.521	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	903.32	N.A.	14.70
0-30	1880.11	N.A.	30.60
0-40	3012.06	N.A.	49.00
0-60	5078.06	N.A.	82.50
0-80	6079.36	N.A.	98.80
0-90	6152.3	N.A.	100.00
10-90	5915.64	N.A.	96.20
20-40	2108.74	N.A.	34.30
20-50	3225.06	N.A.	52.40
40-70	2731.21	N.A.	44.40
60-80	1001.3	N.A.	16.30
70-80	336.09	N.A.	5.50
80-90	72.94	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	6152.3	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	236.66
10-20	666.66
20-30	976.79
30-40	1131.95
40-50	1116.33
50-60	949.68
60-70	665.21
70-80	336.09
80-90	72.94
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

X=2H	Y=2H	19.7	21.3	20.1	21.6	21.9	19.4	21.0	19.8	21.3	21.6
	3H	21.3	22.7	21.7	23.0	23.4	20.9	22.3	21.3	22.7	23.0
	4H	21.8	23.1	22.2	23.5	23.8	21.4	22.8	21.8	23.1	23.5
	6H	22.1	23.3	22.5	23.7	24.0	21.8	23.0	22.2	23.4	23.7
	8H	22.1	23.3	22.5	23.7	24.1	21.8	23.0	22.2	23.4	23.8
	12H	22.1	23.3	22.6	23.6	24.1	21.9	23.0	22.3	23.4	23.8

UGR Viewed Endwise

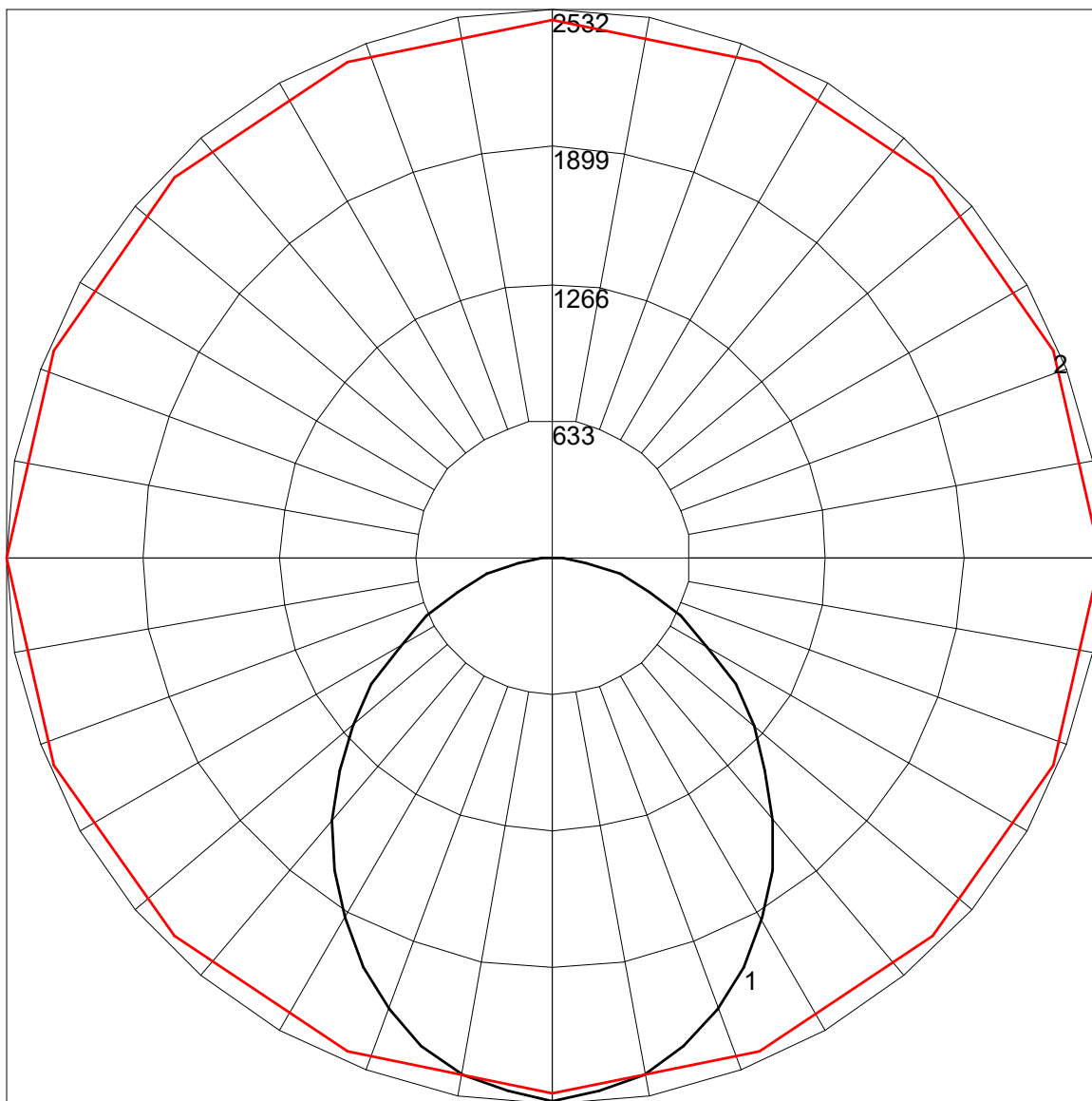
4H	2H	20.2	21.6	20.6	21.9	22.3	20.0	21.3	20.4	21.7	22.0
	3H	22.0	23.1	22.4	23.5	23.9	21.7	22.8	22.1	23.2	23.6
	4H	22.6	23.6	23.0	24.0	24.4	22.3	23.3	22.7	23.7	24.2
	6H	23.0	23.8	23.4	24.3	24.7	22.7	23.6	23.2	24.1	24.5
	8H	23.0	23.9	23.5	24.3	24.8	22.9	23.7	23.3	24.1	24.6
	12H	23.1	23.8	23.6	24.3	24.8	22.9	23.6	23.4	24.1	24.6

8H	4H	22.8	23.6	23.2	24.0	24.5	22.5	23.3	23.0	23.8	24.3
	6H	23.2	23.9	23.7	24.4	24.9	23.1	23.7	23.5	24.2	24.7
	8H	23.4	24.0	23.9	24.5	25.0	23.2	23.8	23.8	24.3	24.8
	12H	23.4	24.0	23.9	24.5	25.0	23.3	23.9	23.8	24.4	24.9

12H	4H	22.8	23.5	23.3	24.0	24.5	22.5	23.3	23.0	23.7	24.2
	6H	23.2	23.9	23.8	24.3	24.9	23.1	23.7	23.6	24.2	24.7
	8H	23.4	23.9	23.9	24.4	25.0	23.3	23.8	23.8	24.3	24.9

Maximum UGR = 25.0

POLAR GRAPH



Maximum Candela = 2531.522 Located At Horizontal Angle = 0, Vertical Angle = 5
1 - Vertical Plane Through Horizontal Angles (90 - 270)
2 - Horizontal Cone Through Vertical Angle (5) (Through Max. Cd.)