



IES INDOOR REPORT

PHOTOMETRIC FILENAME : MX4RG-8-00-L8-840-F-(L4.5)-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

[ISSUE DATE] 01-18-2021

[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] MX4RGx-8-00-L8-840-F-(L4.5)-DIM1-UNV

[LAMPCAT] MX2472_2835 REV A 10560314

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	3807
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	125
Total Luminaire Watts	30.4
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	5496	5379	5157
55	5090	4785	4704
65	4293	4140	4010
75	3202	3167	3202
85	1479	1479	1479

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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	1557.693	1557.693	1557.693	1557.693	1557.693
5	1566.408	1548.979	1538.086	1535.907	1535.907
10	1538.086	1520.657	1507.586	1505.407	1503.228
15	1494.514	1472.728	1457.478	1455.299	1448.764
20	1418.263	1403.013	1398.656	1389.942	1379.049
25	1335.477	1322.405	1313.691	1300.619	1294.084
30	1243.976	1228.726	1213.476	1204.761	1196.047
35	1145.939	1137.225	1111.082	1115.439	1091.475
40	1037.010	1030.474	1021.760	995.617	982.545
45	919.366	910.651	899.758	873.615	862.722
50	799.543	795.186	773.400	760.329	751.614
55	690.614	675.364	649.220	649.220	638.327
60	544.648	549.005	529.398	522.862	509.791
65	429.183	424.825	413.932	405.218	400.861
70	318.074	309.360	298.467	294.110	291.931
75	196.073	191.716	193.895	189.538	196.073
80	100.215	95.858	100.215	108.930	100.215
85	30.500	30.500	30.500	37.036	30.500
90	2.179	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	558.94	N.A.	14.70
0-30	1163.34	N.A.	30.60
0-40	1863.74	N.A.	49.00
0-60	3142.11	N.A.	82.50
0-80	3761.67	N.A.	98.80
0-90	3806.8	N.A.	100.00
10-90	3660.37	N.A.	96.20
20-40	1304.8	N.A.	34.30
20-50	1995.54	N.A.	52.40
40-70	1689.97	N.A.	44.40
60-80	619.56	N.A.	16.30
70-80	207.96	N.A.	5.50
80-90	45.13	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	3806.8	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	146.44
10-20	412.50
20-30	604.40
30-40	700.40
40-50	690.74
50-60	587.62
60-70	411.60
70-80	207.96
80-90	45.13
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

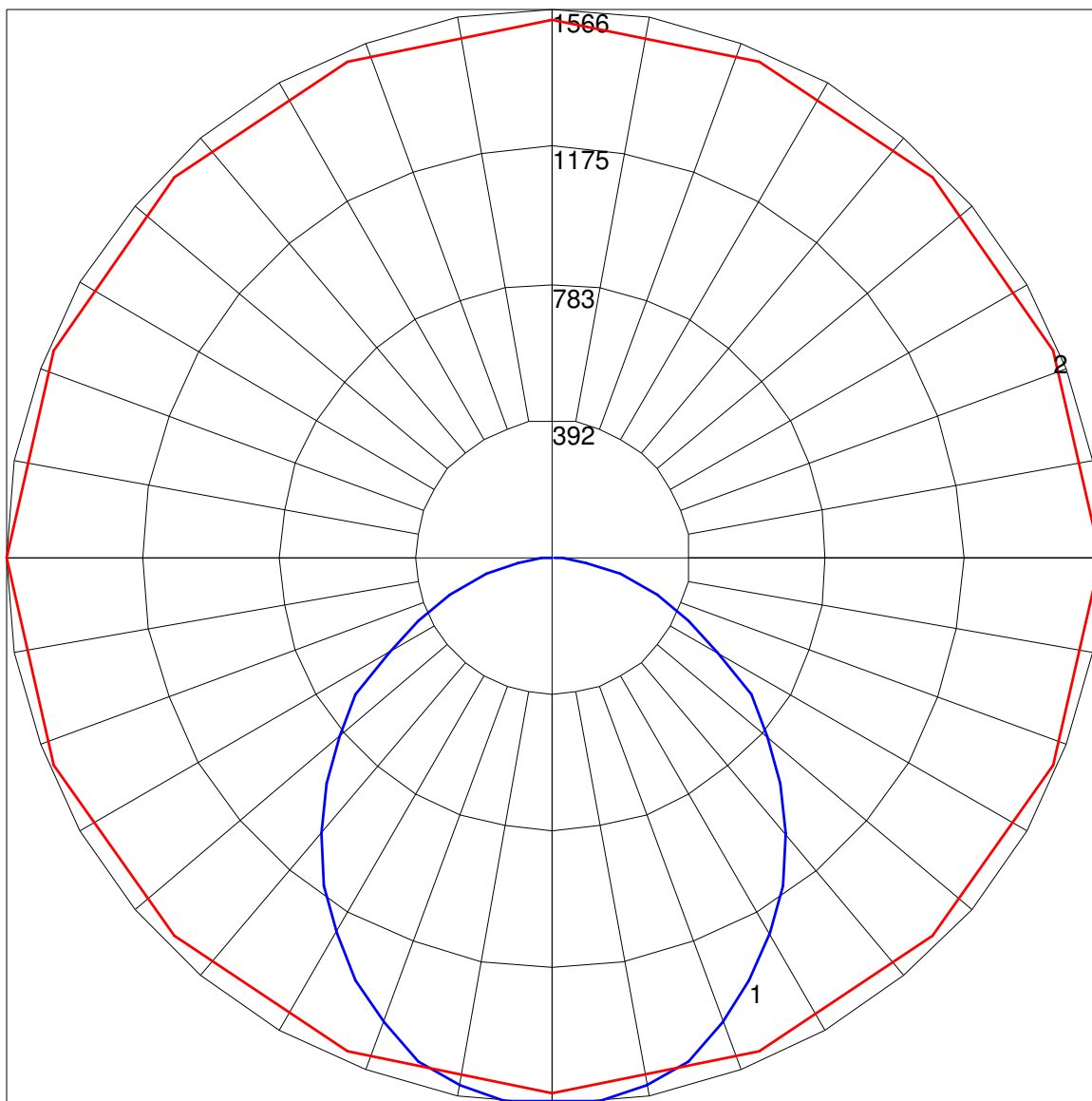
Reflectances

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	17.6	19.2	17.9	19.5	19.8	17.2	18.8	17.6	19.1	19.4
	3H	19.1	20.5	19.5	20.9	21.2	18.7	20.2	19.1	20.5	20.9
	4H	19.6	20.9	20.0	21.3	21.7	19.3	20.6	19.7	20.9	21.3
	6H	19.9	21.1	20.3	21.5	21.9	19.6	20.8	20.0	21.2	21.6
	8H	19.9	21.1	20.4	21.5	21.9	19.7	20.8	20.1	21.2	21.6
	12H	20.0	21.1	20.4	21.5	21.9	19.7	20.8	20.1	21.2	21.6
4H	2H	18.1	19.4	18.5	19.8	20.1	17.8	19.1	18.2	19.5	19.9
	3H	19.8	20.9	20.2	21.3	21.7	19.5	20.6	19.9	21.0	21.4
	4H	20.4	21.4	20.9	21.8	22.3	20.1	21.1	20.6	21.6	22.0
	6H	20.8	21.7	21.3	22.1	22.6	20.6	21.4	21.0	21.9	22.3
	8H	20.9	21.7	21.3	22.1	22.6	20.7	21.5	21.2	21.9	22.4
	12H	20.9	21.7	21.4	22.1	22.6	20.7	21.5	21.2	22.0	22.4
8H	4H	20.6	21.4	21.1	21.9	22.3	20.4	21.2	20.8	21.6	22.1
	6H	21.1	21.7	21.6	22.2	22.7	20.9	21.6	21.4	22.1	22.5
	8H	21.2	21.8	21.7	22.3	22.8	21.1	21.7	21.6	22.2	22.7
	12H	21.3	21.8	21.8	22.3	22.9	21.2	21.7	21.7	22.2	22.8
12H	4H	20.6	21.4	21.1	21.8	22.3	20.4	21.1	20.9	21.6	22.1
	6H	21.1	21.7	21.6	22.2	22.7	20.9	21.5	21.5	22.0	22.5
	8H	21.2	21.8	21.8	22.3	22.8	21.1	21.7	21.6	22.2	22.7

Maximum UGR = 22.9

POLAR GRAPH



Maximum Candela = 1566.408 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.)