



IES INDOOR REPORT

PHOTOMETRIC FILENAME : MX4RXX-6-00-L12-840-F-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST]BALLABS TEST NO. 20647.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUE DATE] 02-NOV-2018

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] 2-72 LED 23.75"ARRAYS 6'RECESSED GRID LUMINAIRE

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

[MORE] ADVANCE #XI036C100V054DSM5

[LUMCAT] MX4Rxx-6-00-L12-840-F-DIM-UNV

[LAMPCAT] MX2472_2835 REV A 10560314

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	7968
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	122
Total Luminaire Watts	65.4
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)	6.00 ft
Luminous Width (90-270)	0.33 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	14780	14465	13869
55	13687	12867	12651
65	11544	11134	10782
75	8612	8516	8612
85	3978	3978	3978

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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	3260.269	3260.269	3260.269	3260.269	3260.269
5	3278.508	3242.030	3219.231	3214.671	3214.671
10	3219.231	3182.752	3155.393	3150.833	3146.274
15	3128.034	3082.436	3050.517	3045.958	3032.278
20	2968.441	2936.522	2927.402	2909.163	2886.364
25	2795.168	2767.809	2749.570	2722.211	2708.531
30	2603.655	2571.737	2539.818	2521.579	2503.339
35	2398.464	2380.224	2325.507	2334.626	2284.468
40	2170.473	2156.793	2138.554	2083.836	2056.477
45	1924.243	1906.003	1883.204	1828.487	1805.687
50	1673.453	1664.333	1618.735	1591.376	1573.137
55	1445.462	1413.543	1358.825	1358.825	1336.026
60	1139.954	1149.074	1108.035	1094.356	1066.997
65	898.284	889.164	866.365	848.126	839.006
70	665.733	647.494	624.695	615.575	611.015
75	410.384	401.264	405.824	396.704	410.384
80	209.752	200.632	209.752	227.991	209.752
85	63.837	63.837	63.837	77.517	63.837
90	4.560	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	1169.86	N.A.	14.70
0-30	2434.88	N.A.	30.60
0-40	3900.83	N.A.	49.00
0-60	6576.46	N.A.	82.50
0-80	7873.22	N.A.	98.80
0-90	7967.68	N.A.	100.00
10-90	7661.19	N.A.	96.20
20-40	2730.97	N.A.	34.30
20-50	4176.7	N.A.	52.40
40-70	3537.12	N.A.	44.40
60-80	1296.76	N.A.	16.30
70-80	435.26	N.A.	5.50
80-90	94.46	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	7967.68	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	306.49
10-20	863.37
20-30	1265.02
30-40	1465.95
40-50	1445.73
50-60	1229.9
60-70	861.49
70-80	435.26
80-90	94.46
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	21.0	22.6	21.4	22.9	23.2	20.7	22.3	21.1	22.6	22.9
	3H	22.6	24.0	23.0	24.3	24.7	22.2	23.6	22.6	24.0	24.3
	4H	23.1	24.4	23.5	24.8	25.1	22.7	24.1	23.1	24.4	24.8
	6H	23.4	24.6	23.8	25.0	25.4	23.1	24.3	23.5	24.7	25.1
	8H	23.4	24.6	23.8	25.0	25.4	23.1	24.3	23.6	24.7	25.1
	12H	23.4	24.6	23.9	25.0	25.4	23.2	24.3	23.6	24.7	25.1

UGR Viewed Endwise

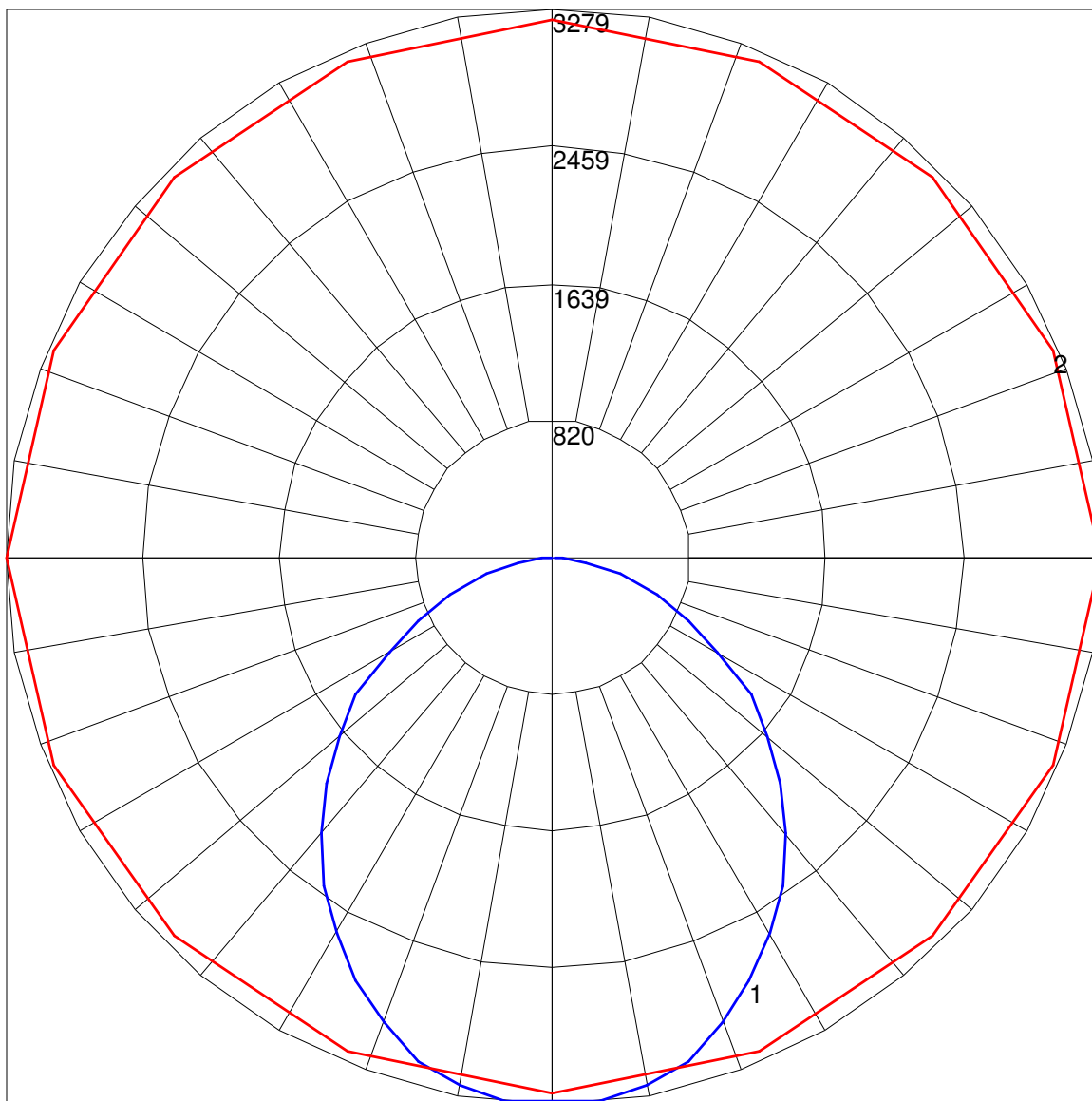
4H	2H	21.6	22.9	22.0	23.2	23.6	21.3	22.6	21.7	23.0	23.3
	3H	23.3	24.4	23.7	24.8	25.2	23.0	24.1	23.4	24.5	24.9
	4H	23.9	24.9	24.3	25.3	25.7	23.6	24.6	24.0	25.0	25.5
	6H	24.3	25.1	24.7	25.6	26.0	24.1	24.9	24.5	25.4	25.8
	8H	24.4	25.2	24.8	25.6	26.1	24.2	25.0	24.6	25.4	25.9
	12H	24.4	25.1	24.9	25.6	26.1	24.2	24.9	24.7	25.4	25.9

8H	4H	24.1	24.9	24.6	25.3	25.8	23.8	24.7	24.3	25.1	25.6
	6H	24.5	25.2	25.0	25.7	26.2	24.4	25.0	24.9	25.5	26.0
	8H	24.7	25.3	25.2	25.8	26.3	24.5	25.1	25.1	25.7	26.1
	12H	24.7	25.3	25.2	25.8	26.3	24.6	25.2	25.1	25.7	26.2

12H	4H	24.1	24.8	24.6	25.3	25.8	23.9	24.6	24.3	25.1	25.5
	6H	24.5	25.2	25.1	25.6	26.2	24.4	25.0	24.9	25.5	26.0
	8H	24.7	25.3	25.2	25.7	26.3	24.6	25.1	25.1	25.6	26.2

Maximum UGR = 26.3

POLAR GRAPH



Maximum Candela = 3278.508 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.)