



IES INDOOR REPORT

PHOTOMETRIC FILENAME : MX4RG-8-00-L8-840-F-(L4)-DIM1-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] 01-23-2024

[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-L8-840-F-(L4)-DIM1-UNV

[LAMPCAT] HLMX 80 CRI 4000K CCT

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	3274
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	131
Total Luminaire Watts	25
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	4726	4626	4435
55	4377	4115	4046
65	3692	3560	3448
75	2754	2723	2754
85	1272	1272	1272

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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	1339.550	1339.550	1339.550	1339.550	1339.550
5	1347.044	1332.056	1322.689	1320.815	1320.815
10	1322.689	1307.701	1296.460	1294.586	1292.713
15	1285.219	1266.484	1253.369	1251.496	1245.876
20	1219.647	1206.532	1202.785	1195.291	1185.924
25	1148.454	1137.213	1129.719	1118.478	1112.857
30	1069.767	1056.652	1043.538	1036.044	1028.550
35	985.459	977.965	955.483	959.230	938.622
40	891.785	886.164	878.670	856.188	844.947
45	790.616	783.122	773.754	751.272	741.905
50	687.573	683.826	665.091	653.850	646.356
55	593.899	580.784	558.302	558.302	548.935
60	468.374	472.121	455.260	449.639	438.398
65	369.079	365.332	355.964	348.470	344.723
70	273.531	266.037	256.669	252.922	251.049
75	168.615	164.868	166.741	162.994	168.615
80	86.181	82.434	86.181	93.675	86.181
85	26.229	26.229	26.229	31.849	26.229
90	1.873	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	480.66	N.A.	14.70
0-30	1000.42	N.A.	30.60
0-40	1602.74	N.A.	49.00
0-60	2702.08	N.A.	82.50
0-80	3234.88	N.A.	98.80
0-90	3273.69	N.A.	100.00
10-90	3147.76	N.A.	96.20
20-40	1122.08	N.A.	34.30
20-50	1716.08	N.A.	52.40
40-70	1453.3	N.A.	44.40
60-80	532.80	N.A.	16.30
70-80	178.84	N.A.	5.50
80-90	38.81	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	3273.69	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	125.93
10-20	354.73
20-30	519.76
30-40	602.32
40-50	594.01
50-60	505.33
60-70	353.96
70-80	178.84
80-90	38.81
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	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	17.1	18.7	17.4	19.0	19.3	16.7	18.3	17.1	18.6	18.9
	3H	18.6	20.0	19.0	20.4	20.7	18.2	19.7	18.6	20.0	20.4
	4H	19.1	20.4	19.5	20.8	21.2	18.8	20.1	19.2	20.4	20.8
	6H	19.4	20.6	19.8	21.0	21.4	19.1	20.3	19.5	20.7	21.1
	8H	19.4	20.6	19.9	21.0	21.4	19.2	20.3	19.6	20.7	21.1
	12H	19.5	20.6	19.9	21.0	21.4	19.2	20.3	19.6	20.7	21.1

UGR Viewed Endwise

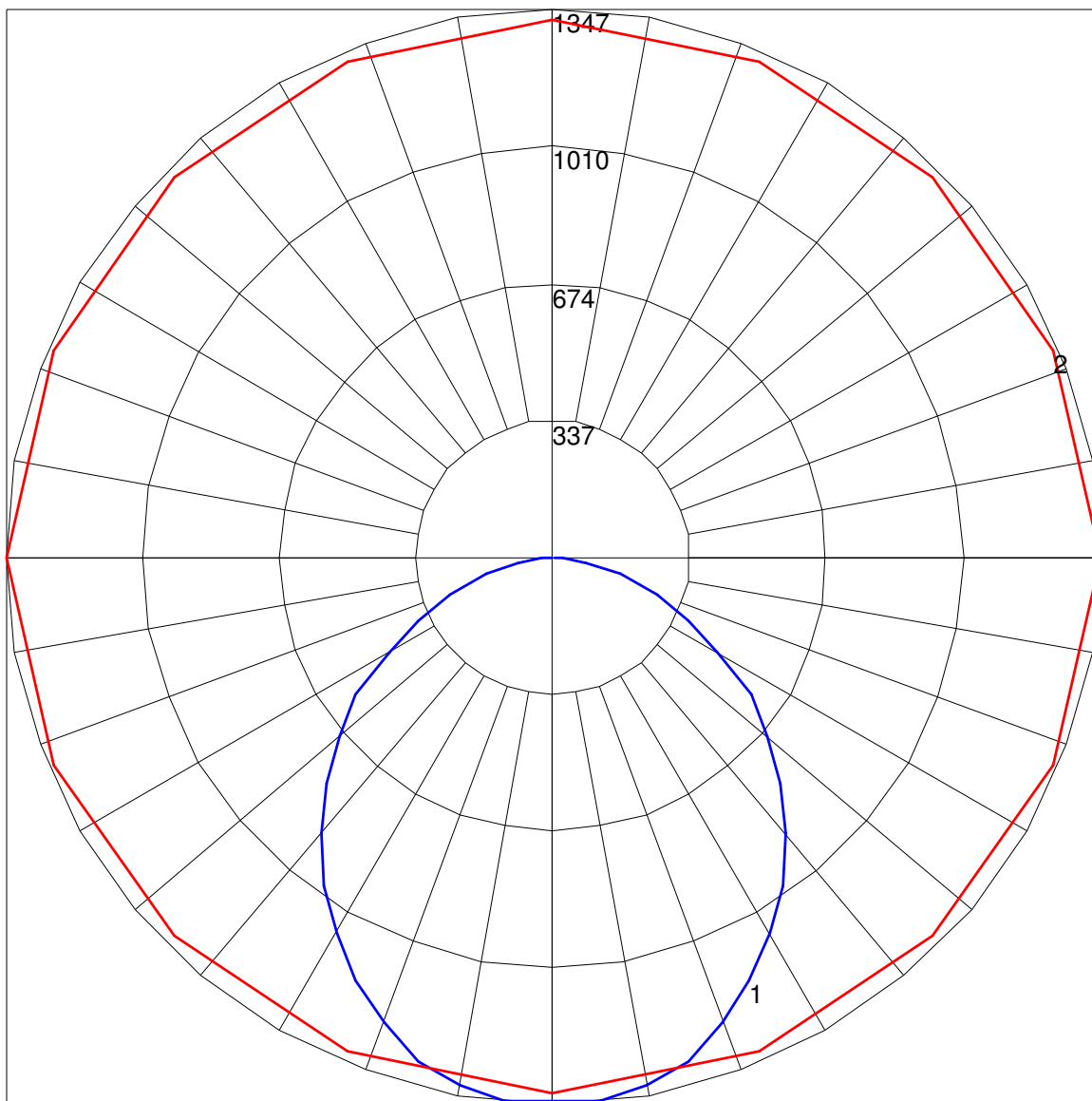
4H	2H	17.6	18.9	18.0	19.3	19.6	17.3	18.6	17.7	19.0	19.4
	3H	19.3	20.4	19.7	20.8	21.2	19.0	20.1	19.4	20.5	20.9
	4H	19.9	20.9	20.4	21.3	21.8	19.6	20.6	20.1	21.1	21.5
	6H	20.3	21.2	20.8	21.6	22.1	20.1	20.9	20.5	21.4	21.8
	8H	20.4	21.2	20.8	21.6	22.1	20.2	21.0	20.7	21.4	21.9
	12H	20.4	21.2	20.9	21.6	22.1	20.2	21.0	20.7	21.5	21.9

8H	4H	20.1	20.9	20.6	21.4	21.8	19.9	20.7	20.3	21.1	21.6
	6H	20.6	21.2	21.1	21.7	22.2	20.4	21.1	20.9	21.6	22.0
	8H	20.7	21.3	21.2	21.8	22.3	20.6	21.2	21.1	21.7	22.2
	12H	20.8	21.3	21.3	21.8	22.4	20.7	21.2	21.2	21.7	22.3

12H	4H	20.1	20.9	20.6	21.3	21.8	19.9	20.6	20.4	21.1	21.6
	6H	20.6	21.2	21.1	21.7	22.2	20.4	21.0	21.0	21.5	22.0
	8H	20.7	21.3	21.3	21.8	22.3	20.6	21.2	21.1	21.7	22.2

Maximum UGR = 22.4

POLAR GRAPH



Maximum Candela = 1347.044 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.)