



IES INDOOR REPORT

PHOTOMETRIC FILENAME : MX4RG-5-00-L8-830-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] 27-JULY-2020
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
 [LUMINAIRE] 5' RECESSED GRID LED LUMINAIRE
 [MORE] WHITE ALUM BODY w/WHITE REFL & FLAT FROST LENS
 [LUMCAT] MX4RG-5-00-L8-830-F-DIM-UNV
 [LAMPCAT] HLMX 80 CRI 3000K CCT

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	4327
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	119
Total Luminaire Watts	36.5
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)	5.00 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	9995	9782	9379
55	9256	8701	8555
65	7807	7529	7292
75	5824	5759	5824
85	2690	2690	2690

IES INDOOR REPORT
PHOTOMETRIC FILENAME : MX4RG-5-00-L8-830-F-DIM-UNV_.IES

CANDELA TABULATION

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
0	1770.515	1770.515	1770.515	1770.515	1770.515
5	1780.420	1760.610	1748.229	1745.753	1745.753
10	1748.229	1728.419	1713.561	1711.085	1708.609
15	1698.704	1673.942	1656.608	1654.132	1646.703
20	1612.035	1594.702	1589.749	1579.844	1567.463
25	1517.938	1503.081	1493.176	1478.318	1470.889
30	1413.936	1396.602	1379.268	1369.363	1359.458
35	1302.505	1292.600	1262.885	1267.837	1240.599
40	1178.693	1171.264	1161.359	1131.644	1116.786
45	1044.975	1035.070	1022.689	992.974	980.593
50	908.782	903.829	879.067	864.209	854.304
55	784.970	767.636	737.921	737.921	725.540
60	619.061	624.014	601.728	594.299	579.441
65	487.820	482.868	470.487	460.582	455.629
70	361.532	351.627	339.246	334.293	331.817
75	222.862	217.910	220.386	215.433	222.862
80	113.907	108.955	113.907	123.812	113.907
85	34.667	34.667	34.667	42.096	34.667
90	2.476	0.000	0.000	0.000	0.000

IES INDOOR REPORT
PHOTOMETRIC FILENAME : MX4RG-5-00-L8-830-F-DIM-UNV_.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	635.30	N.A.	14.70
0-30	1322.28	N.A.	30.60
0-40	2118.38	N.A.	49.00
0-60	3571.4	N.A.	82.50
0-80	4275.61	N.A.	98.80
0-90	4326.91	N.A.	100.00
10-90	4160.47	N.A.	96.20
20-40	1483.08	N.A.	34.30
20-50	2268.19	N.A.	52.40
40-70	1920.86	N.A.	44.40
60-80	704.21	N.A.	16.30
70-80	236.37	N.A.	5.50
80-90	51.30	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	4326.91	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	166.44
10-20	468.86
20-30	686.98
30-40	796.10
40-50	785.11
50-60	667.91
60-70	467.84
70-80	236.37
80-90	51.30
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

IES INDOOR REPORT
PHOTOMETRIC FILENAME : MX4RG-5-00-L8-830-F-DIM-UNV_.IES

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

IES INDOOR REPORT
PHOTOMETRIC FILENAME : MX4RG-5-00-L8-830-F-DIM-UNV_.IES

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	20.9	19.7	21.3	21.6
	3H	21.3	22.7	21.6	23.0	23.4	20.9	22.3	21.3	22.6	23.0
	4H	21.7	23.1	22.1	23.4	23.8	21.4	22.7	21.8	23.1	23.5
	6H	22.0	23.3	22.4	23.6	24.0	21.7	23.0	22.1	23.3	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	23.2	22.5	23.6	24.0	21.8	23.0	22.3	23.3	23.8

UGR Viewed Endwise

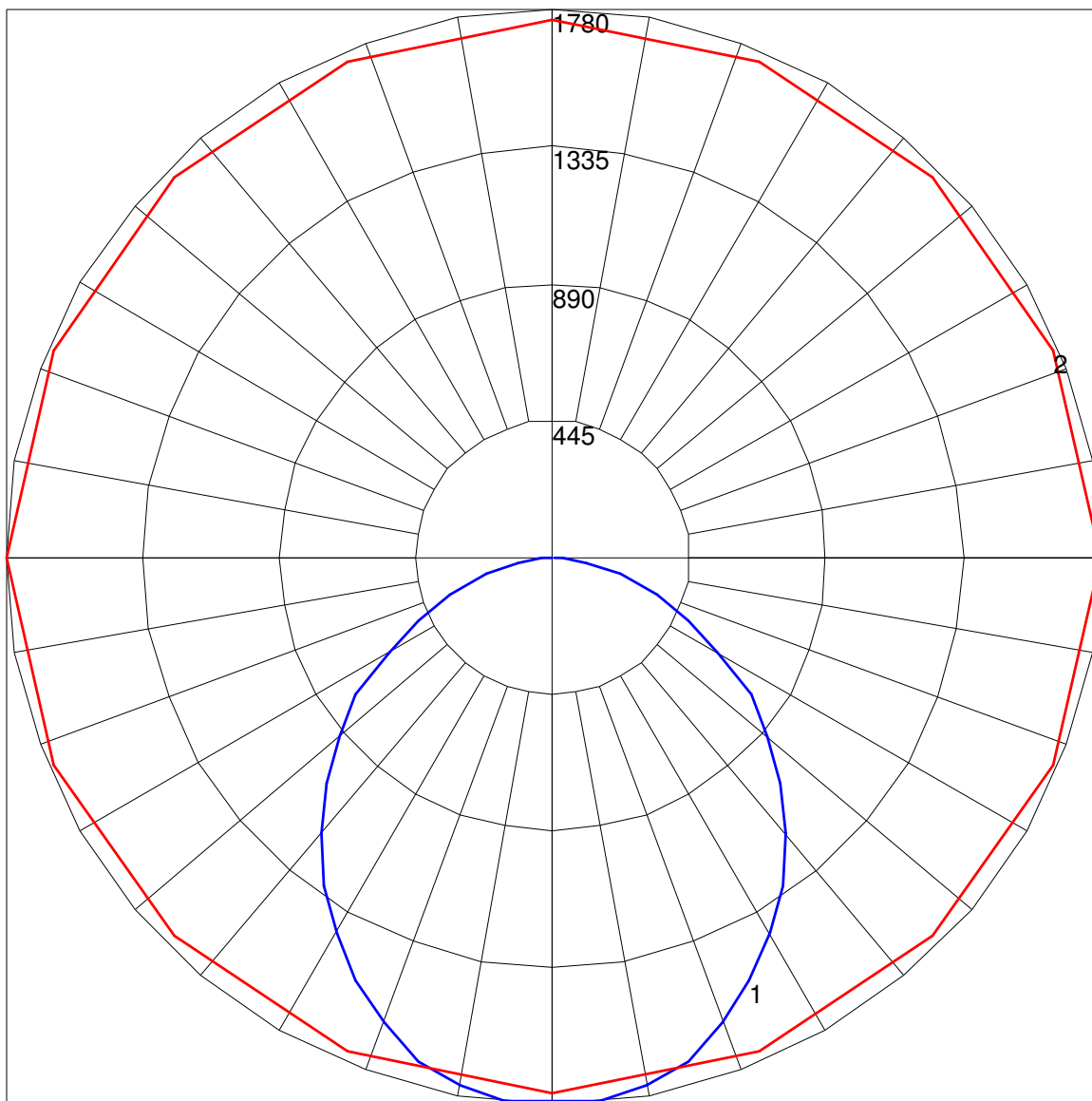
4H	2H	20.2	21.6	20.6	21.9	22.3	19.9	21.3	20.3	21.6	22.0
	3H	22.0	23.1	22.4	23.5	23.9	21.7	22.8	22.1	23.2	23.6
	4H	22.6	23.6	23.0	24.0	24.4	22.3	23.3	22.7	23.7	24.1
	6H	22.9	23.8	23.4	24.2	24.7	22.7	23.6	23.2	24.0	24.5
	8H	23.0	23.8	23.5	24.3	24.7	22.8	23.6	23.3	24.1	24.5
	12H	23.1	23.8	23.5	24.3	24.7	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	24.2
	6H	23.2	23.9	23.7	24.4	24.8	23.0	23.7	23.5	24.2	24.7
	8H	23.3	23.9	23.9	24.4	24.9	23.2	23.8	23.7	24.3	24.8
	12H	23.4	23.9	23.9	24.4	25.0	23.3	23.8	23.8	24.3	24.9

12H	4H	22.8	23.5	23.2	24.0	24.4	22.5	23.2	23.0	23.7	24.2
	6H	23.2	23.8	23.8	24.3	24.8	23.1	23.7	23.6	24.1	24.7
	8H	23.4	23.9	23.9	24.4	25.0	23.3	23.8	23.8	24.3	24.8

Maximum UGR = 25.0

POLAR GRAPH



Maximum Candela = 1780.42 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.)