



IES INDOOR REPORT

PHOTOMETRIC FILENAME : MX4D-4-00-L15-935-P-AWNS-DSR-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from BALLABS TEST NO. 20650.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 29 AUG, 2024

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] 4-72 LED 23.75"ARRAYS 4' DOWNLIGHT LUMINAIRE

[MORE] WHITE ALUM BODY w/WHITE REFL & 5/16"FROST DROP LENS

[LUMCAT] MX4D-4-00-L15-935-P-AWNS/DSR-UNV

[LAMPCAT] MX2472_2835 REV A 1 10560314

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	4682
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	101
Total Luminaire Watts	46.4
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.20
Spacing Criterion (90-270)	1.18
Spacing Criterion (Diagonal)	1.30
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	3.99 ft
Luminous Width (90-270)	0.31 ft
Luminous Height	0.02 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	12983	12505	12149
55	11653	11211	10775
65	9921	9449	9264
75	7277	7503	7523
85	2699	4843	5782

IES INDOOR REPORT
 PHOTOMETRIC FILENAME : MX4D-4-00-L15-935-P-AWNS-DSR-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	1832.445	1832.445	1832.445	1832.445	1832.445
5	1832.445	1823.922	1815.399	1815.399	1815.399
10	1789.830	1781.307	1775.625	1775.625	1769.943
15	1735.851	1718.805	1715.964	1718.805	1713.123
20	1653.462	1642.098	1644.939	1633.575	1630.734
25	1562.550	1554.027	1551.186	1545.504	1545.504
30	1448.910	1434.705	1440.387	1431.864	1426.182
35	1329.588	1321.065	1315.383	1315.383	1309.701
40	1196.061	1193.220	1190.379	1179.015	1179.015
45	1051.170	1059.693	1059.693	1051.170	1045.488
50	909.120	920.484	920.484	923.325	917.643
55	767.070	784.116	786.957	781.275	772.752
60	616.497	633.543	644.907	647.748	644.907
65	482.970	497.175	505.698	508.539	511.380
70	343.761	355.125	375.012	392.058	392.058
75	218.757	232.962	264.213	278.418	278.418
80	107.958	130.686	150.573	170.460	176.142
85	28.410	51.138	76.707	99.435	102.276
90	0.000	14.205	34.092	51.138	53.979
95	2.841	14.205	36.933	51.138	51.138
100	2.841	14.205	34.092	48.297	51.138
105	0.000	17.046	34.092	45.456	51.138
110	0.000	8.523	28.410	39.774	42.615
115	0.000	8.523	25.569	39.774	42.615
120	0.000	8.523	19.887	34.092	34.092
125	0.000	8.523	17.046	28.410	28.410
130	0.000	2.841	14.205	19.887	25.569
135	0.000	0.000	8.523	17.046	17.046
140	0.000	0.000	8.523	17.046	17.046
145	0.000	0.000	8.523	14.205	17.046
150	0.000	0.000	5.682	8.523	11.364
155	0.000	0.000	0.000	8.523	8.523
160	0.000	0.000	0.000	0.000	2.841
165	0.000	0.000	0.000	0.000	0.000
170	0.000	0.000	0.000	0.000	0.000
175	0.000	0.000	0.000	0.000	0.000
180	0.000	0.000	0.000	0.000	0.000

IES INDOOR REPORT
PHOTOMETRIC FILENAME : MX4D-4-00-L15-935-P-AWNS-DSR-UNV_.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	656.77	N.A.	14.00
0-30	1369.58	N.A.	29.30
0-40	2193.13	N.A.	46.80
0-60	3705.02	N.A.	79.10
0-80	4476.5	N.A.	95.60
0-90	4565.39	N.A.	97.50
10-90	4393.03	N.A.	93.80
20-40	1536.37	N.A.	32.80
20-50	2350.44	N.A.	50.20
40-70	2010.83	N.A.	42.90
60-80	771.47	N.A.	16.50
70-80	272.53	N.A.	5.80
80-90	88.90	N.A.	1.90
90-110	65.51	N.A.	1.40
90-120	88.35	N.A.	1.90
90-130	103.30	N.A.	2.20
90-150	115.30	N.A.	2.50
90-180	116.73	N.A.	2.50
110-180	51.23	N.A.	1.10
0-180	4682.13	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	172.36
10-20	484.40
20-30	712.81
30-40	823.55
40-50	814.08
50-60	697.81
60-70	498.94
70-80	272.53
80-90	88.90
90-100	34.68
100-110	30.83
110-120	22.85
120-130	14.95
130-140	7.39
140-150	4.61
150-160	1.41
160-170	0.03
170-180	0.00

IES INDOOR REPORT
PHOTOMETRIC FILENAME : MX4D-4-00-L15-935-P-AWNS-DSR-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	337	337	337	337	328	328	328	328	312	312	312	297	297	297	283	283	283	277
1	308	295	283	273	300	288	277	268	275	266	258	262	255	249	251	245	240	234
2	281	259	240	224	273	253	235	221	241	227	215	231	219	209	222	212	203	197
3	257	228	206	188	250	223	202	186	214	196	181	205	190	177	197	184	174	167
4	236	203	179	160	229	199	176	159	191	171	156	183	166	153	176	162	150	144
5	218	182	157	139	211	178	155	138	172	151	135	165	147	133	159	144	131	125
6	201	164	139	122	195	161	138	121	155	135	119	150	132	118	145	129	116	110
7	187	149	125	108	182	147	124	107	142	121	106	137	118	105	133	116	103	98
8	174	136	113	96	169	134	112	96	130	110	95	126	107	94	122	105	93	88
9	163	125	103	87	158	123	102	87	120	100	86	116	98	85	113	96	84	79
10	153	116	94	79	149	114	93	79	111	92	78	108	90	77	105	89	77	72

IES INDOOR REPORT

PHOTOMETRIC FILENAME : MX4D-4-00-L15-935-P-AWNS-DSR-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	18.7	20.3	19.1	20.6	21.0	19.0	20.5	19.4	20.9	21.3
	3H	20.1	21.5	20.5	21.9	22.3	20.7	22.1	21.1	22.4	22.8
	4H	20.6	21.9	21.0	22.3	22.7	21.3	22.6	21.7	23.0	23.5
	6H	20.8	22.0	21.2	22.4	22.9	21.8	23.0	22.3	23.4	23.9
	8H	20.8	22.0	21.3	22.4	22.9	22.0	23.2	22.5	23.6	24.1
	12H	20.8	22.0	21.3	22.4	22.9	22.2	23.3	22.6	23.7	24.2

UGR Viewed Endwise

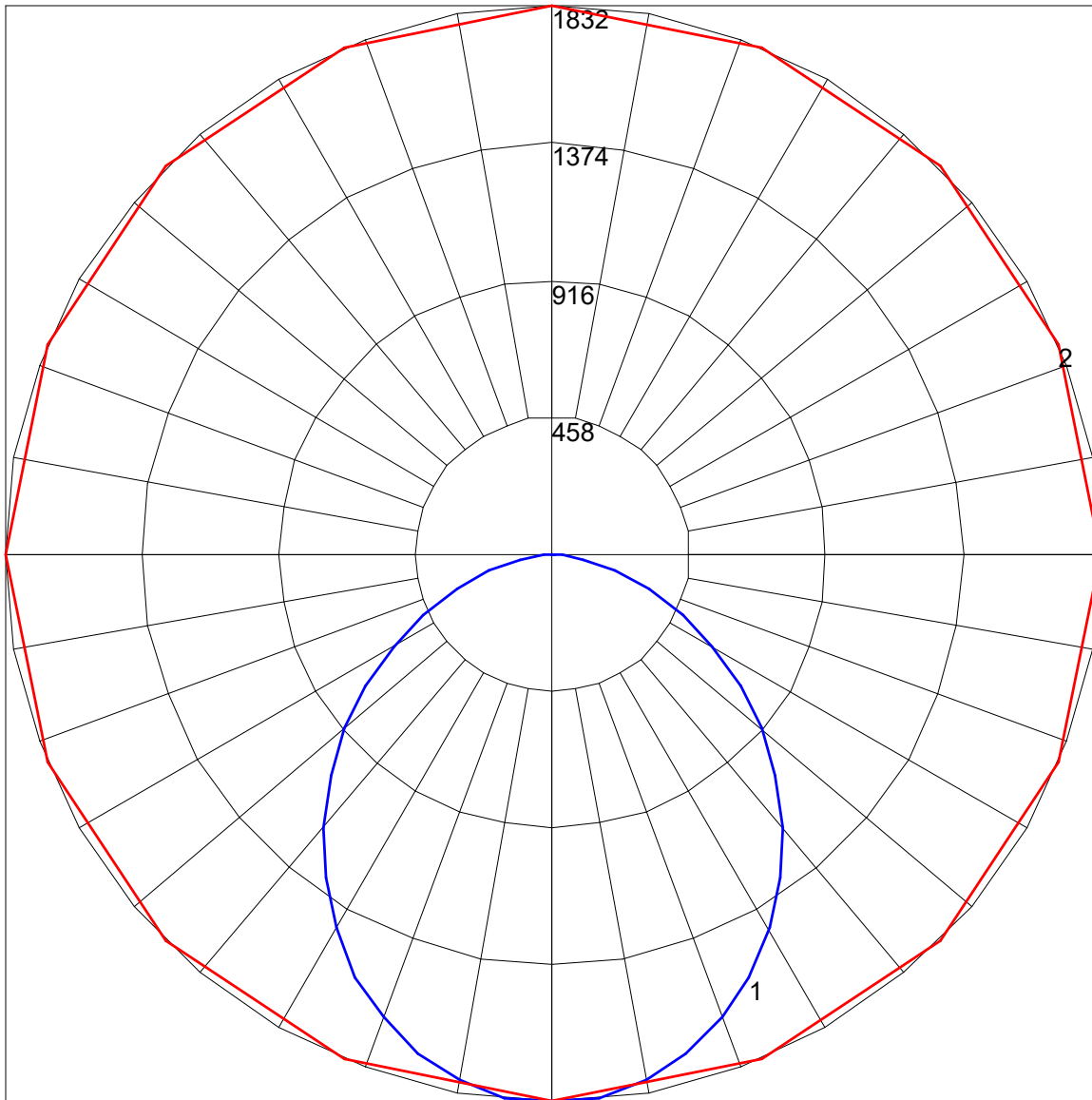
4H	2H	19.3	20.6	19.7	21.0	21.4	19.5	20.8	19.9	21.2	21.6
	3H	20.9	22.0	21.3	22.5	22.9	21.4	22.5	21.8	22.9	23.4
	4H	21.5	22.4	21.9	22.9	23.4	22.2	23.2	22.6	23.6	24.1
	6H	21.8	22.7	22.3	23.1	23.6	22.8	23.7	23.3	24.2	24.7
	8H	21.9	22.7	22.3	23.1	23.7	23.1	23.9	23.6	24.4	24.9
	12H	21.9	22.6	22.4	23.1	23.6	23.3	24.0	23.8	24.5	25.1

8H	4H	21.7	22.6	22.2	23.0	23.6	22.4	23.2	22.9	23.7	24.2
	6H	22.2	22.8	22.7	23.4	23.9	23.1	23.8	23.7	24.3	24.9
	8H	22.3	22.9	22.8	23.4	24.0	23.5	24.1	24.0	24.6	25.2
	12H	22.3	22.9	22.9	23.4	24.0	23.8	24.4	24.3	24.9	25.5

12H	4H	21.8	22.5	22.3	23.0	23.5	22.4	23.1	22.9	23.7	24.2
	6H	22.2	22.9	22.8	23.4	23.9	23.2	23.8	23.7	24.3	24.9
	8H	22.4	22.9	22.9	23.5	24.1	23.5	24.1	24.1	24.6	25.2

Maximum UGR = 25.5

POLAR GRAPH



Maximum Candela = 1832.445 Located At Horizontal Angle = 0, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)