



IES INDOOR REPORT

PHOTOMETRIC FILENAME : MX4D-2-00-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

[ISSUE DATE] 29 AUG, 2024

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] 2-72 LED 23.75"ARRAYS 2' DOWNLIGHT LUMINAIRE

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

[LUMCAT] MX4D-2-00-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	2146
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	95
Total Luminaire Watts	22.5
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)	1.99 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	11867	11450	11164
55	10628	10251	9901
65	9015	8621	8513
75	6560	6815	6913
85	2347	4334	5313

IES INDOOR REPORT
 PHOTOMETRIC FILENAME : MX4D-2-00-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	839.790	839.790	839.790	839.790	839.790
5	839.790	835.884	831.978	831.978	831.978
10	820.260	816.354	813.750	813.750	811.146
15	795.522	787.710	786.408	787.710	785.106
20	757.764	752.556	753.858	748.650	747.348
25	716.100	712.194	710.892	708.288	708.288
30	664.020	657.510	660.114	656.208	653.604
35	609.336	605.430	602.826	602.826	600.222
40	548.142	546.840	545.538	540.330	540.330
45	481.740	485.646	485.646	481.740	479.136
50	416.640	421.848	421.848	423.150	420.546
55	351.540	359.352	360.654	358.050	354.144
60	282.534	290.346	295.554	296.856	295.554
65	221.340	227.850	231.756	233.058	234.360
70	157.542	162.750	171.864	179.676	179.676
75	100.254	106.764	121.086	127.596	127.596
80	49.476	59.892	69.006	78.120	80.724
85	13.020	23.436	35.154	45.570	46.872
90	0.000	6.510	15.624	23.436	24.738
95	1.302	6.510	16.926	23.436	23.436
100	1.302	6.510	15.624	22.134	23.436
105	0.000	7.812	15.624	20.832	23.436
110	0.000	3.906	13.020	18.228	19.530
115	0.000	3.906	11.718	18.228	19.530
120	0.000	3.906	9.114	15.624	15.624
125	0.000	3.906	7.812	13.020	13.020
130	0.000	1.302	6.510	9.114	11.718
135	0.000	0.000	3.906	7.812	7.812
140	0.000	0.000	3.906	7.812	7.812
145	0.000	0.000	3.906	6.510	7.812
150	0.000	0.000	2.604	3.906	5.208
155	0.000	0.000	0.000	3.906	3.906
160	0.000	0.000	0.000	0.000	1.302
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-2-00-L15-935-P-AWNS-DSR-UNV_.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	300.99	N.A.	14.00
0-30	627.66	N.A.	29.30
0-40	1005.09	N.A.	46.80
0-60	1697.97	N.A.	79.10
0-80	2051.53	N.A.	95.60
0-90	2092.27	N.A.	97.50
10-90	2013.28	N.A.	93.80
20-40	704.10	N.A.	32.80
20-50	1077.18	N.A.	50.20
40-70	921.54	N.A.	42.90
60-80	353.56	N.A.	16.50
70-80	124.90	N.A.	5.80
80-90	40.74	N.A.	1.90
90-110	30.02	N.A.	1.40
90-120	40.49	N.A.	1.90
90-130	47.34	N.A.	2.20
90-150	52.84	N.A.	2.50
90-180	53.50	N.A.	2.50
110-180	23.48	N.A.	1.10
0-180	2145.77	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	78.99
10-20	222.00
20-30	326.68
30-40	377.43
40-50	373.08
50-60	319.80
60-70	228.66
70-80	124.90
80-90	40.74
90-100	15.89
100-110	14.13
110-120	10.47
120-130	6.85
130-140	3.39
140-150	2.11
150-160	0.64
160-170	0.01
170-180	0.00

IES INDOOR REPORT
PHOTOMETRIC FILENAME : MX4D-2-00-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	154	154	154	154	150	150	150	150	143	143	143	136	136	136	130	130	130	127
1	141	135	130	125	137	132	127	123	126	122	118	120	117	114	115	112	110	107
2	129	119	110	103	125	116	108	101	111	104	98	106	100	96	102	97	93	90
3	118	105	94	86	114	102	93	85	98	90	83	94	87	81	90	84	80	77
4	108	93	82	73	105	91	81	73	87	78	71	84	76	70	81	74	69	66
5	100	83	72	64	97	82	71	63	79	69	62	76	68	61	73	66	60	57
6	92	75	64	56	90	74	63	55	71	62	55	69	60	54	66	59	53	50
7	86	68	57	49	83	67	57	49	65	55	49	63	54	48	61	53	47	45
8	80	63	52	44	78	61	51	44	60	50	44	58	49	43	56	48	43	40
9	75	57	47	40	73	57	47	40	55	46	39	53	45	39	52	44	39	36
10	70	53	43	36	68	52	43	36	51	42	36	49	41	36	48	41	35	33

IES INDOOR REPORT

PHOTOMETRIC FILENAME : MX4D-2-00-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

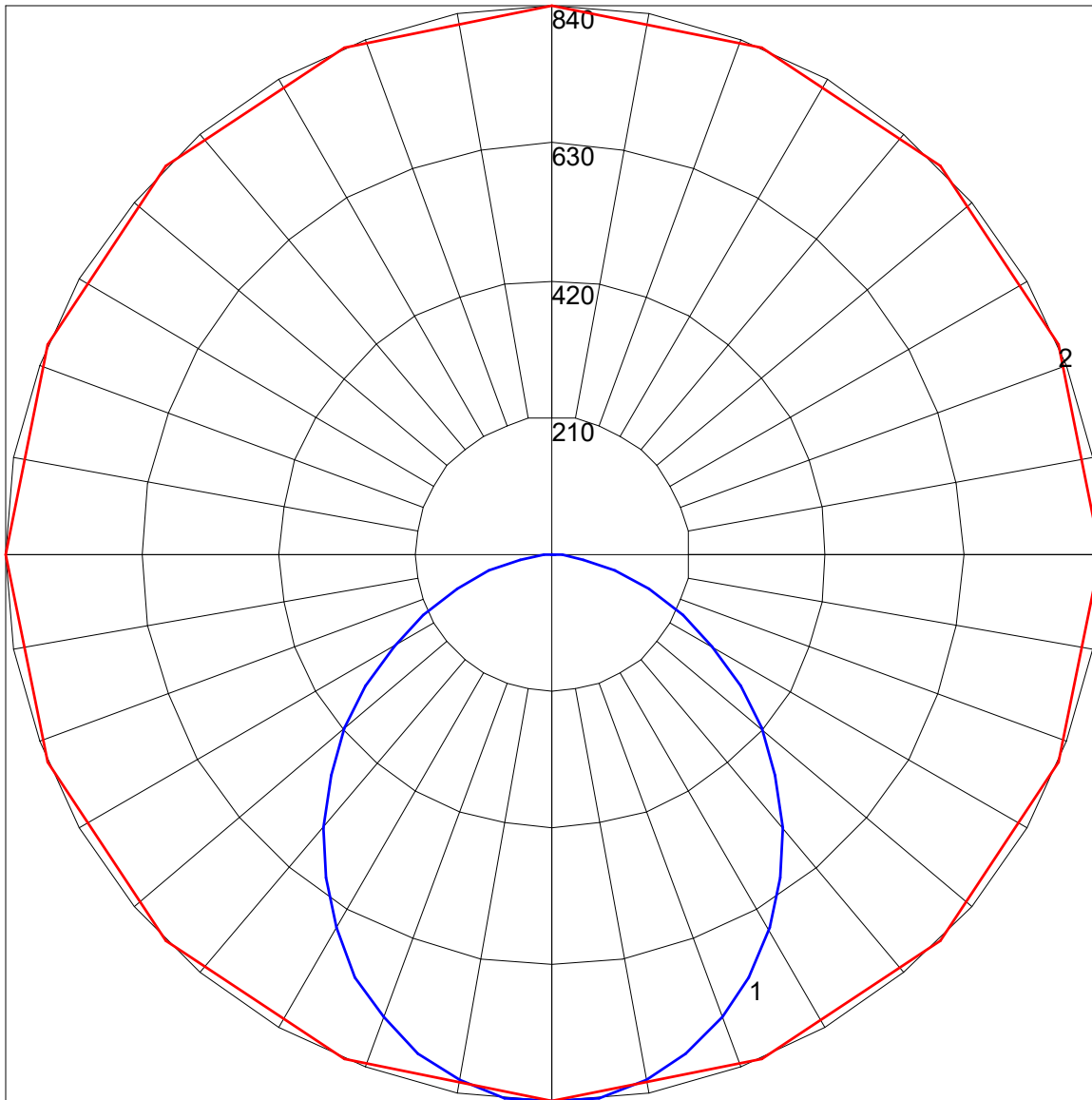
4H	2H	19.3	20.6	19.7	21.0	21.4	19.5	20.8	19.9	21.2	21.6
	3H	20.9	22.0	21.3	22.5	22.9	21.4	22.5	21.8	22.9	23.4
	4H	21.5	22.4	21.9	22.9	23.4	22.2	23.2	22.6	23.6	24.1
	6H	21.8	22.7	22.3	23.1	23.6	22.8	23.7	23.3	24.2	24.7
	8H	21.9	22.7	22.3	23.1	23.7	23.1	23.9	23.6	24.4	24.9
	12H	21.9	22.6	22.4	23.1	23.6	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 = 839.79 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.)