



IES INDOOR REPORT

PHOTOMETRIC FILENAME : MX4S-8-00-L15-835-F-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN FROM BALLABS TEST NO. 29653.0

[TESTLABV] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 15-MAR-2020

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] 4-72 LED 23.75" ARRAYS 8' DOWNLIGHT LUMINAIRE

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

[LUMCAT] MX4S-8-00-L15-835-F-DIM-UNV

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	11511
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	107
Total Luminaire Watts	108
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.22
Spacing Criterion (90-270)	1.16
Spacing Criterion (Diagonal)	1.28
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	16527	16026	15776
55	15178	14560	14149
65	12918	12709	12290
75	9806	10262	9692
85	4740	6095	5756

IES INDOOR REPORT
PHOTOMETRIC FILENAME : MX4S-8-00-L15-835-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	4684.385	4684.385	4684.385	4684.385	4684.385
5	4705.329	4656.461	4635.517	4621.555	4621.555
10	4621.555	4572.686	4551.743	4537.780	4523.818
15	4460.987	4426.081	4391.175	4377.213	4356.269
20	4272.495	4223.626	4195.701	4153.814	4139.852
25	4028.153	3972.303	3944.378	3895.510	3888.529
30	3783.811	3720.980	3665.130	3651.168	3616.262
35	3441.732	3399.845	3350.976	3302.108	3302.108
40	3120.596	3078.709	3015.878	3001.916	2953.048
45	2764.555	2722.668	2680.781	2638.894	2638.894
50	2429.458	2373.608	2338.702	2310.777	2275.871
55	2059.454	2010.586	1975.680	1940.774	1919.830
60	1675.488	1647.563	1626.620	1598.695	1577.751
65	1291.522	1284.541	1270.578	1235.672	1228.691
70	956.424	949.443	928.500	914.537	900.575
75	600.383	621.327	628.308	607.364	593.402
80	307.173	321.135	321.135	328.116	335.098
85	97.737	104.718	125.662	111.699	118.680
90	0.000	0.000	0.000	0.000	0.000

IES INDOOR REPORT
PHOTOMETRIC FILENAME : MX4S-8-00-L15-835-F-DIM-UNV_.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	1680.61	N.A.	14.60
0-30	3499.28	N.A.	30.40
0-40	5602.09	N.A.	48.70
0-60	9450.51	N.A.	82.10
0-80	11361.81	N.A.	98.70
0-90	11510.95	N.A.	100.00
10-90	11070.21	N.A.	96.20
20-40	3921.48	N.A.	34.10
20-50	5996.84	N.A.	52.10
40-70	5105.67	N.A.	44.40
60-80	1911.3	N.A.	16.60
70-80	654.05	N.A.	5.70
80-90	149.15	N.A.	1.30
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	11510.95	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	440.74
10-20	1239.87
20-30	1818.67
30-40	2102.82
40-50	2075.36
50-60	1773.05
60-70	1257.25
70-80	654.05
80-90	149.15
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 : MX4S-8-00-L15-835-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	238	238	238	238	233	233	233	233	222	222	222	213	213	213	204	204	204	200
1	219	210	202	194	213	205	198	191	197	191	185	189	184	180	182	178	174	170
2	200	184	171	160	195	180	168	158	173	163	154	167	158	151	161	154	148	143
3	183	162	147	134	178	159	145	133	153	141	131	148	137	128	143	134	126	122
4	168	145	128	115	163	142	126	114	137	123	112	132	120	111	128	118	109	105
5	155	130	112	99	151	127	111	99	123	109	98	119	107	97	116	105	96	91
6	143	117	100	87	139	115	99	87	112	97	86	108	95	85	105	94	85	80
7	133	106	89	77	129	105	89	77	102	87	76	99	86	76	96	84	75	71
8	124	97	81	69	121	96	80	69	93	79	69	91	78	68	89	77	68	64
9	116	90	73	63	113	88	73	62	86	72	62	84	71	62	82	70	61	58
10	109	83	67	57	106	82	67	57	80	66	57	78	65	56	76	64	56	53

IES INDOOR REPORT
PHOTOMETRIC FILENAME : MX4S-8-00-L15-835-F-DIM-UNV_.IES

UGR TABLE - CORRECTED

Reflectances

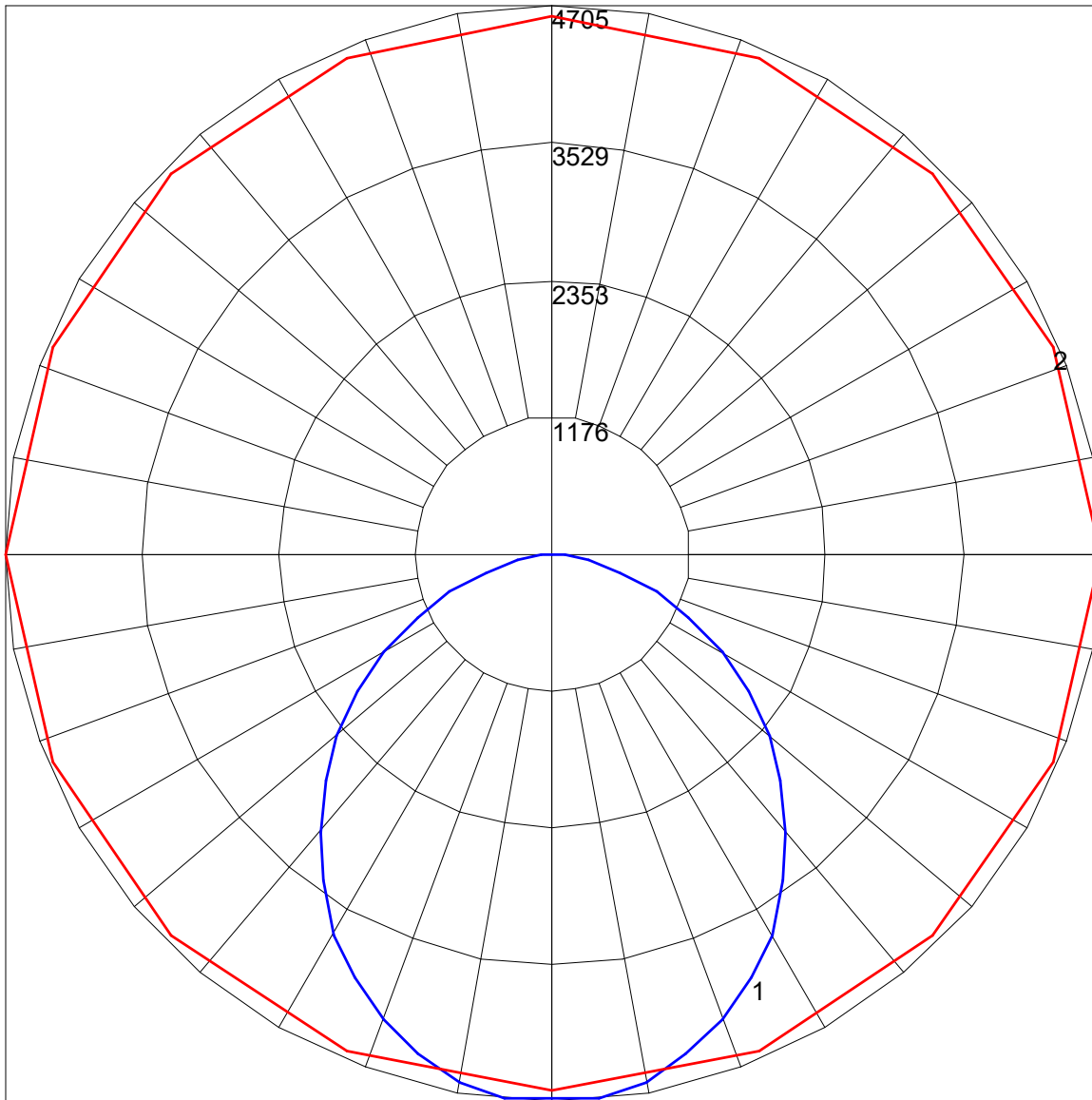
Ceiling Cavity	70	70	50	50	30	70	70	50	50	30
Walls	50	30	50	30	30	50	30	50	30	30
Floor Cavity	20	20	20	20	20	20	20	20	20	20

Room Size UGR Viewed Crosswise

X=2H	Y=2H	21.4	23.0	21.8	23.3	23.6	21.1	22.7	21.5	23.0	23.4
	3H	23.0	24.4	23.4	24.7	25.1	22.7	24.1	23.1	24.4	24.8
	4H	23.5	24.8	23.9	25.2	25.6	23.2	24.6	23.6	24.9	25.3
	6H	23.8	25.1	24.2	25.4	25.8	23.6	24.8	24.0	25.2	25.6
	8H	23.9	25.1	24.3	25.5	25.9	23.7	24.9	24.1	25.3	25.7
	12H	23.9	25.0	24.3	25.4	25.9	23.7	24.9	24.2	25.3	25.7
4H	2H	21.9	23.3	22.3	23.6	24.0	21.7	23.1	22.1	23.4	23.8
	3H	23.7	24.9	24.1	25.3	25.7	23.5	24.6	23.9	25.0	25.4
	4H	24.4	25.4	24.8	25.8	26.2	24.1	25.2	24.6	25.6	26.0
	6H	24.8	25.7	25.2	26.1	26.6	24.6	25.5	25.1	25.9	26.4
	8H	24.9	25.7	25.3	26.1	26.6	24.7	25.6	25.2	26.0	26.5
	12H	24.9	25.7	25.4	26.1	26.6	24.8	25.6	25.3	26.0	26.5
8H	4H	24.6	25.4	25.1	25.9	26.3	24.4	25.2	24.9	25.7	26.1
	6H	25.1	25.8	25.6	26.3	26.7	25.0	25.6	25.4	26.1	26.6
	8H	25.2	25.9	25.7	26.4	26.9	25.1	25.7	25.6	26.3	26.7
	12H	25.3	25.9	25.9	26.4	26.9	25.3	25.8	25.8	26.3	26.9
12H	4H	24.6	25.4	25.1	25.8	26.3	24.4	25.2	24.9	25.6	26.1
	6H	25.1	25.7	25.6	26.2	26.7	25.0	25.6	25.5	26.1	26.6
	8H	25.3	25.9	25.8	26.3	26.9	25.2	25.7	25.7	26.2	26.8

Maximum UGR = 26.9

POLAR GRAPH



Maximum Candela = 4705.329 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.)