IES INDOOR REPORT
PHOTOMETRIC FILENAME : MX4WD-8-00-L8-835-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] MXW4D-8-00-L8-835-F-DIM-UNV

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	6591
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	113
Total Luminaire Watts	58.4
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	9464	9177	9033
55	8691	8338	8102
65	7397	7277	7037
75	5615	5876	5550
85	2714	3490	3296

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	2682.372	2682.372	2682.372	2682.372	2682.372
5	2694.365	2666.382	2654.389	2646.394	2646.394
10	2646.394	2618.411	2606.418	2598.423	2590.428
15	2554.450	2534.462	2514.474	2506.479	2494.486
20	2446.515	2418.532	2402.542	2378.557	2370.561
25	2306.600	2274.620	2258.629	2230.646	2226.649
30	2166.685	2130.707	2098.726	2090.731	2070.743
35	1970.804	1946.819	1918.836	1890.853	1890.853
40	1786.916	1762.930	1726.952	1718.957	1690.974
45	1583.039	1559.054	1535.068	1511.083	1511.083
50	1391.156	1359.175	1339.187	1323.197	1303.209
55	1179.284	1151.301	1131.313	1111.326	1099.333
60	959.418	943.427	931.435	915.444	903.452
65	739.551	735.554	727.558	707.571	703.573
70	547.668	543.670	531.677	523.682	515.687
75	343.791	355.784	359.782	347.789	339.794
80	175.893	183.888	183.888	187.886	191.884
85	55.966	59.964	71.956	63.961	67.959
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	962.35	N.A.	14.60
0-30	2003.76	N.A.	30.40
0-40	3207.87	N.A.	48.70
0-60	5411.55	N.A.	82.10
0-80	6506.00	N.A.	98.70
0-90	6591.4	N.A.	100.00
10-90	6339.02	N.A.	96.20
20-40	2245.52	N.A.	34.10
20-50	3433.91	N.A.	52.10
40-70	2923.61	N.A.	44.40
60-80	1094.45	N.A.	16.60
70-80	374.52	N.A.	5.70
80-90	85.40	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	6591.4	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	252.38
10-20	709.97
20-30	1041.41
30-40	1204.11
40-50	1188.39
50-60	1015.29
60-70	719.93
70-80	374.52
80-90	85.40
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	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	179	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	150	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	84	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

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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					UGR Viewed Endwise				
X=2H	Y=2H	19.4	21.0	19.8	21.3	21.6	19.1	20.7	19.5	21.0	21.4
	3H	21.0	22.4	21.4	22.7	23.1	20.7	22.1	21.1	22.4	22.8
	4H	21.5	22.8	21.9	23.2	23.6	21.2	22.6	21.6	22.9	23.3
	6H	21.8	23.1	22.2	23.4	23.8	21.6	22.8	22.0	23.2	23.6
	8H	21.9	23.1	22.3	23.5	23.9	21.7	22.9	22.1	23.3	23.7
	12H	21.9	23.0	22.3	23.4	23.9	21.7	22.9	22.2	23.3	23.7
4H	2H	19.9	21.3	20.3	21.6	22.0	19.7	21.1	20.1	21.4	21.8
	3H	21.7	22.9	22.1	23.3	23.7	21.5	22.6	21.9	23.0	23.4
	4H	22.4	23.4	22.8	23.8	24.2	22.1	23.2	22.6	23.6	24.0
	6H	22.8	23.7	23.2	24.1	24.6	22.6	23.5	23.1	23.9	24.4
	8H	22.9	23.7	23.3	24.1	24.6	22.7	23.6	23.2	24.0	24.5
	12H	22.9	23.7	23.4	24.1	24.6	22.8	23.6	23.3	24.0	24.5
8H	4H	22.6	23.4	23.1	23.9	24.3	22.4	23.2	22.9	23.7	24.1
	6H	23.1	23.8	23.6	24.3	24.7	23.0	23.6	23.4	24.1	24.6
	8H	23.2	23.9	23.7	24.4	24.9	23.1	23.7	23.6	24.3	24.7
	12H	23.3	23.9	23.9	24.4	24.9	23.3	23.8	23.8	24.3	24.9
12H	4H	22.6	23.4	23.1	23.8	24.3	22.4	23.2	22.9	23.6	24.1
	6H	23.1	23.7	23.6	24.2	24.7	23.0	23.6	23.5	24.1	24.6
	8H	23.3	23.9	23.8	24.3	24.9	23.2	23.7	23.7	24.2	24.8

Maximum UGR = 24.9

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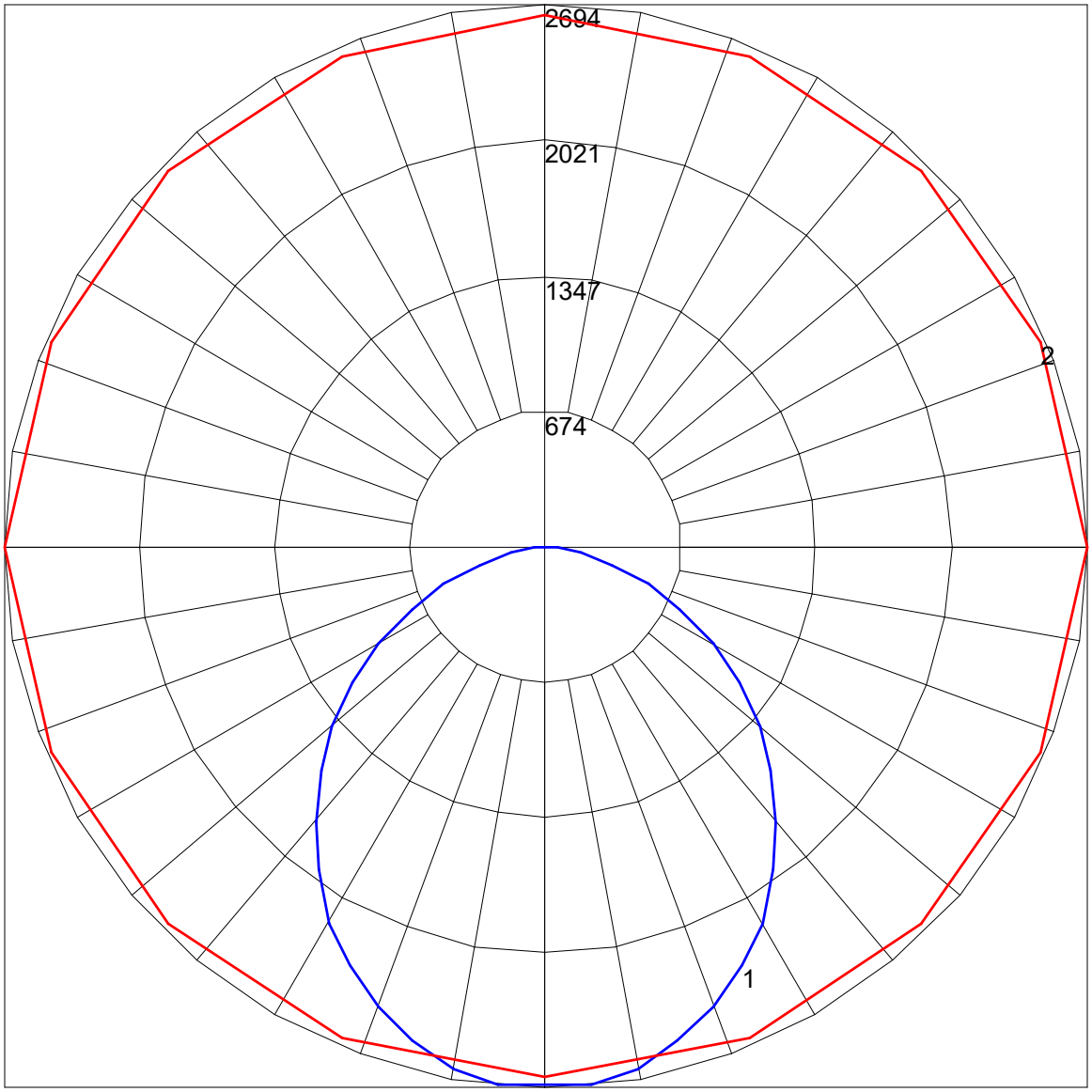
POLAR GRAPH



Maximum Candela = 2694.365 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.)

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