IES INDOOR REPORT
PHOTOMETRIC FILENAME : MX4WD-8-00-L12-835-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-L12-835-F-DIM-UNV

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	9399
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	109
Total Luminaire Watts	86.4
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	13495	13086	12881
55	12393	11889	11553
65	10548	10377	10035
75	8007	8379	7914
85	3871	4977	4700

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	3824.985	3824.985	3824.985	3824.985	3824.985
5	3842.086	3802.183	3785.082	3773.681	3773.681
10	3773.681	3733.778	3716.677	3705.276	3693.875
15	3642.571	3614.069	3585.567	3574.166	3557.065
20	3488.660	3448.757	3425.955	3391.752	3380.352
25	3289.145	3243.541	3220.740	3180.837	3175.136
30	3089.630	3038.326	2992.723	2981.322	2952.820
35	2810.309	2776.107	2736.204	2696.301	2696.301
40	2548.090	2513.887	2462.583	2451.182	2411.279
45	2257.368	2223.165	2188.963	2154.760	2154.760
50	1983.748	1938.144	1909.642	1886.840	1858.338
55	1681.625	1641.722	1613.220	1584.718	1567.617
60	1368.102	1345.300	1328.199	1305.397	1288.296
65	1054.578	1048.878	1037.477	1008.975	1003.275
70	780.958	775.258	758.156	746.756	735.355
75	490.236	507.338	513.038	495.937	484.536
80	250.819	262.220	262.220	267.920	273.620
85	79.806	85.506	102.608	91.207	96.907
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	1372.28	N.A.	14.60
0-30	2857.3	N.A.	30.40
0-40	4574.33	N.A.	48.70
0-60	7716.71	N.A.	82.10
0-80	9277.36	N.A.	98.70
0-90	9399.14	N.A.	100.00
10-90	9039.26	N.A.	96.20
20-40	3202.05	N.A.	34.10
20-50	4896.66	N.A.	52.10
40-70	4168.98	N.A.	44.40
60-80	1560.65	N.A.	16.60
70-80	534.05	N.A.	5.70
80-90	121.78	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	9399.14	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	359.88
10-20	1012.4
20-30	1485.01
30-40	1717.03
40-50	1694.61
50-60	1447.77
60-70	1026.6
70-80	534.05
80-90	121.78
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	170	170	170	170	166	166	166	166	158	158	158	152	152	152	146	146	146	143
1	156	150	144	139	152	146	141	136	140	136	132	135	131	128	130	127	124	121
2	142	131	122	114	139	129	120	113	124	116	110	119	113	108	115	110	105	102
3	130	116	105	96	127	114	103	95	109	100	93	106	98	92	102	95	90	87
4	120	103	91	82	116	101	90	81	98	88	80	94	86	79	91	84	78	75
5	110	92	80	71	107	91	79	70	88	78	70	85	76	69	82	75	68	65
6	102	83	71	62	99	82	70	62	80	69	61	77	68	61	75	67	60	57
7	95	76	64	55	92	75	63	55	73	62	55	71	61	54	69	60	54	51
8	88	69	58	49	86	68	57	49	67	56	49	65	55	49	63	55	48	46
9	83	64	52	45	81	63	52	44	61	51	44	60	51	44	58	50	44	41
10	78	59	48	41	76	58	48	40	57	47	40	56	47	40	54	46	40	37

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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	19.5	21.1	19.9	21.4	21.7	19.2	20.8	19.6	21.1	21.4
	3H	21.1	22.5	21.4	22.8	23.2	20.8	22.2	21.2	22.5	22.9
	4H	21.6	22.9	22.0	23.3	23.7	21.3	22.7	21.7	23.0	23.4
	6H	21.9	23.1	22.3	23.5	23.9	21.7	22.9	22.1	23.3	23.7
	8H	22.0	23.2	22.4	23.5	23.9	21.8	23.0	22.2	23.4	23.8
	12H	22.0	23.1	22.4	23.5	23.9	21.8	23.0	22.3	23.3	23.8
4H	2H	20.0	21.4	20.4	21.7	22.1	19.8	21.2	20.2	21.5	21.9
	3H	21.8	22.9	22.2	23.3	23.7	21.6	22.7	22.0	23.1	23.5
	4H	22.5	23.5	22.9	23.9	24.3	22.2	23.2	22.7	23.7	24.1
	6H	22.9	23.8	23.3	24.2	24.6	22.7	23.6	23.1	24.0	24.5
	8H	23.0	23.8	23.4	24.2	24.7	22.8	23.7	23.3	24.1	24.6
	12H	23.0	23.8	23.5	24.2	24.7	22.9	23.6	23.4	24.1	24.6
8H	4H	22.7	23.5	23.1	24.0	24.4	22.5	23.3	22.9	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	23.8	24.5	24.9	23.2	23.8	23.7	24.3	24.8
	12H	23.4	24.0	23.9	24.5	25.0	23.4	23.9	23.9	24.4	24.9
12H	4H	22.7	23.4	23.2	23.9	24.4	22.5	23.2	23.0	23.7	24.2
	6H	23.2	23.8	23.7	24.3	24.8	23.1	23.7	23.6	24.2	24.7
	8H	23.4	23.9	23.9	24.4	25.0	23.3	23.8	23.8	24.3	24.9

Maximum UGR = 25.0

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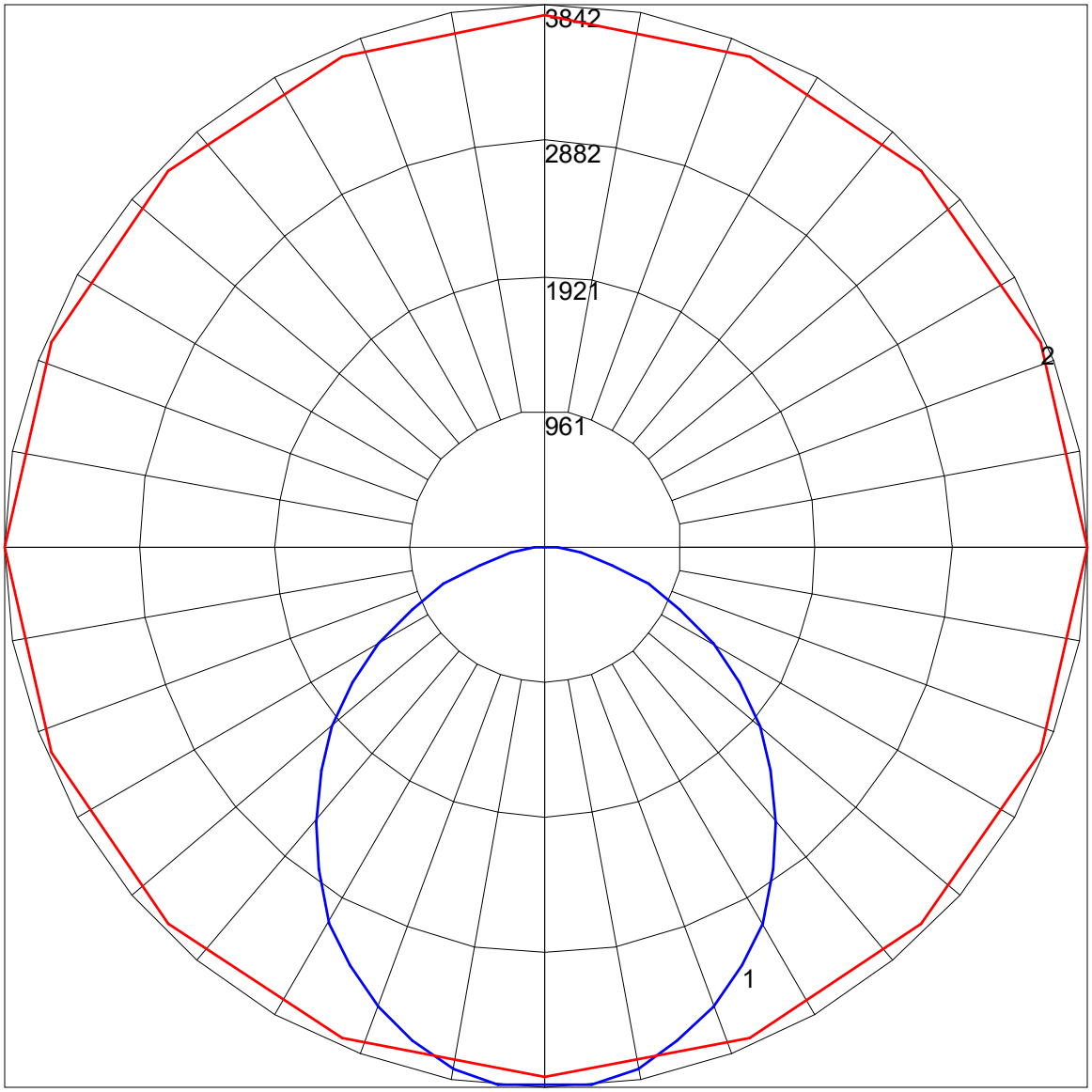
POLAR GRAPH



Maximum Candela = 3842.086 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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