IES INDOOR REPORT
PHOTOMETRIC FILENAME : MX4WD-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] MXW4D-8-00-L15-835-F-DIM-UNV

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	11519
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	16538	16037	15786
55	15188	14570	14159
65	12927	12717	12298
75	9813	10269	9698
85	4744	6099	5760

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	4687.641	4687.641	4687.641	4687.641	4687.641
5	4708.599	4659.697	4638.739	4624.766	4624.766
10	4624.766	4575.864	4554.906	4540.934	4526.962
15	4464.087	4429.157	4394.227	4380.255	4359.296
20	4275.464	4226.561	4198.617	4156.701	4142.729
25	4030.952	3975.064	3947.119	3898.217	3891.231
30	3786.440	3723.566	3667.677	3653.705	3618.775
35	3444.124	3402.207	3353.305	3304.403	3304.403
40	3122.765	3080.849	3017.974	3004.002	2955.100
45	2766.477	2724.560	2682.644	2640.728	2640.728
50	2431.146	2375.258	2340.327	2312.383	2277.453
55	2060.885	2011.983	1977.053	1942.122	1921.164
60	1676.652	1648.708	1627.750	1599.806	1578.848
65	1292.420	1285.434	1271.461	1236.531	1229.545
70	957.089	950.103	929.145	915.173	901.201
75	600.800	621.759	628.745	607.787	593.814
80	307.386	321.358	321.358	328.344	335.330
85	97.805	104.791	125.749	111.777	118.763
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	1681.78	N.A.	14.60
0-30	3501.71	N.A.	30.40
0-40	5605.99	N.A.	48.70
0-60	9457.07	N.A.	82.10
0-80	11369.7	N.A.	98.70
0-90	11518.95	N.A.	100.00
10-90	11077.91	N.A.	96.20
20-40	3924.21	N.A.	34.10
20-50	6001.01	N.A.	52.10
40-70	5109.22	N.A.	44.40
60-80	1912.63	N.A.	16.60
70-80	654.50	N.A.	5.70
80-90	149.25	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	11518.95	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	441.05
10-20	1240.73
20-30	1819.93
30-40	2104.28
40-50	2076.8
50-60	1774.28
60-70	1258.13
70-80	654.50
80-90	149.25
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	208	208	208	208	203	203	203	203	194	194	194	186	186	186	178	178	178	175
1	191	183	176	170	186	179	173	167	172	167	162	165	161	157	159	155	152	149
2	175	161	149	140	170	158	147	138	151	143	135	146	138	132	140	134	129	125
3	160	142	128	117	155	139	126	116	134	123	114	129	120	112	125	117	110	107
4	147	126	111	100	143	124	110	99	120	108	98	116	105	97	112	103	95	92
5	135	113	98	87	132	111	97	86	108	95	85	104	93	84	101	91	84	80
6	125	102	87	76	122	101	86	76	98	85	75	95	83	74	92	82	74	70
7	116	93	78	68	113	92	77	67	89	76	67	86	75	66	84	74	66	62
8	108	85	71	61	106	84	70	60	82	69	60	79	68	60	77	67	59	56
9	101	78	64	55	99	77	64	55	75	63	54	73	62	54	72	61	54	51
10	95	72	59	50	93	71	58	50	70	58	49	68	57	49	67	56	49	46

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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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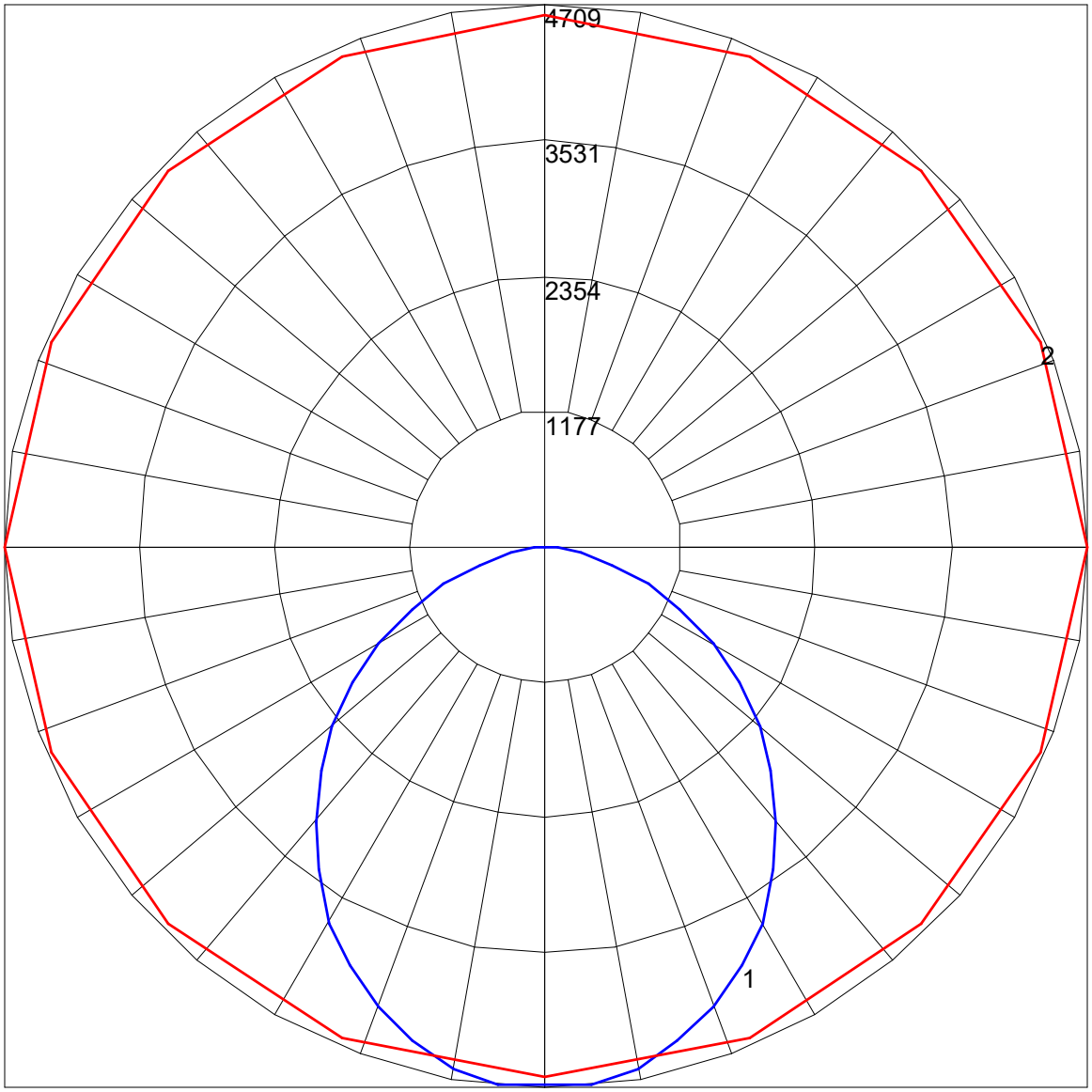
POLAR GRAPH



Maximum Candela = 4708.599 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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