



IES INDOOR REPORT

PHOTOMETRIC FILENAME : MX4UD-4-L12-835U-L12-835D.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST]GEN from BALLABS TEST NO. 20659.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 07-NOV-2018

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

[LUMINAIRE] 1-72 LED-UP 2-72 LED-DOWN 23.75"ARRAYS 2'LUMINAIRE

[MORE] WHITE ALUM BODY w/REFL & FLAT FROST LENSES-UP/DOWN

[MORE] 2 ADVANCE #XI036C100V054DSM5

[LUMCAT] MX4UD-4'00-L12/835U/L12/835D-AF-DIM-UNV

[LAMPCAT] MX2472_2835 REV A 10560314

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	9480
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	86
Total Luminaire Watts	110.4
Ballast Factor	1.00
CIE Type	General Diffuse
Spacing Criterion (0-180)	N.A.
Spacing Criterion (90-270)	N.A.
Spacing Criterion (Diagonal)	N.A.
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	4.00 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	12257	11988	11685
55	11167	10793	10420
65	9465	9184	8789
75	7176	6992	6992
85	3825	4098	3552

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CANDELA TABULATION

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
0	1748.984	1748.984	1748.984	1748.984	1748.984
5	1768.699	1743.351	1734.902	1729.269	1726.453
10	1732.085	1703.921	1698.289	1687.023	1687.023
15	1678.574	1650.410	1639.144	1630.695	1625.062
20	1599.715	1574.367	1563.101	1554.652	1546.203
25	1506.774	1481.426	1472.977	1458.895	1453.262
30	1394.118	1377.219	1368.770	1349.055	1332.157
35	1273.012	1270.196	1256.114	1233.583	1219.501
40	1154.724	1135.009	1132.192	1109.661	1098.396
45	1025.169	1011.087	1002.638	974.474	977.290
50	889.982	881.533	873.084	850.553	842.103
55	757.611	749.162	732.264	715.365	706.916
60	611.159	608.342	588.627	580.178	571.729
65	473.155	470.339	459.073	450.624	439.358
70	349.233	340.784	326.702	332.335	326.702
75	219.679	214.046	214.046	219.679	214.046
80	109.840	121.105	121.105	121.105	112.656
85	39.430	42.246	42.246	42.246	36.613
90	2.816	2.816	2.816	2.816	2.816
95	64.777	67.594	64.777	56.328	56.328
100	152.086	149.269	149.269	138.004	126.738
105	261.925	261.925	247.843	233.761	214.046
110	411.194	402.745	377.397	366.132	346.417
115	557.647	543.565	526.667	498.503	475.971
120	737.897	737.897	692.834	661.854	644.955
125	918.146	932.228	870.267	850.553	822.389
130	1112.478	1123.743	1070.232	1039.251	1016.720
135	1289.911	1273.012	1256.114	1242.032	1236.399
140	1456.078	1453.262	1444.813	1425.098	1430.731
145	1599.715	1602.531	1594.082	1580.000	1602.531
150	1732.085	1737.718	1734.902	1715.187	1743.351
155	1833.476	1841.925	1841.925	1827.843	1856.007
160	1912.335	1929.233	1920.784	1912.335	1929.233
165	1977.112	1994.011	1977.112	1977.112	1985.561
170	2013.725	2033.440	2016.542	2013.725	2008.093
175	2041.889	2058.788	2041.889	2039.073	2024.991
180	2047.522	2047.522	2047.522	2047.522	2047.522

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	627.48	N.A.	6.60
0-30	1305.41	N.A.	13.80
0-40	2087.3	N.A.	22.00
0-60	3511.35	N.A.	37.00
0-80	4201.33	N.A.	44.30
0-90	4256.81	N.A.	44.90
10-90	4092.11	N.A.	43.20
20-40	1459.82	N.A.	15.40
20-50	2229.83	N.A.	23.50
40-70	1880.53	N.A.	19.80
60-80	689.98	N.A.	7.30
70-80	233.50	N.A.	2.50
80-90	55.48	N.A.	0.60
90-110	341.87	N.A.	3.60
90-120	866.38	N.A.	9.10
90-130	1656.00	N.A.	17.50
90-150	3623.69	N.A.	38.20
90-180	5223.11	N.A.	55.10
110-180	4881.24	N.A.	51.50
0-180	9479.92	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	164.70
10-20	462.78
20-30	677.93
30-40	781.89
40-50	770.01
50-60	654.04
60-70	456.48
70-80	233.50
80-90	55.48
90-100	73.89
100-110	267.98
110-120	524.51
120-130	789.62
130-140	971.39
140-150	996.30
150-160	846.19
160-170	559.02
170-180	194.21

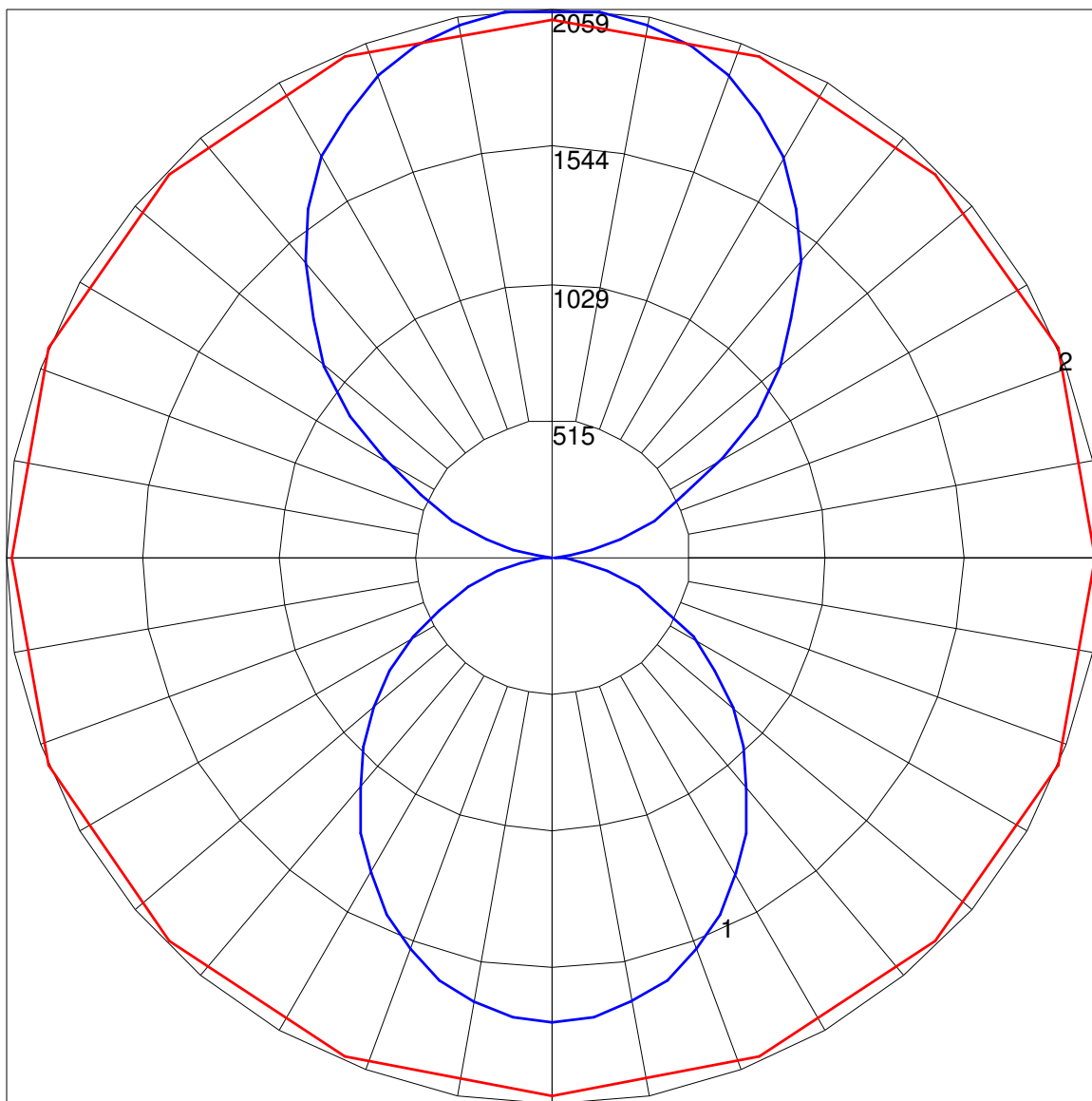
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	298	298	298	298	273	273	273	273	227	227	227	184	184	184	145	145	145	126
1	273	261	250	241	250	240	230	222	200	193	187	163	158	154	129	126	123	108
2	249	228	211	197	227	210	195	183	175	165	156	143	136	130	114	109	105	91
3	227	201	181	165	207	185	167	153	155	142	131	127	118	110	101	95	89	77
4	208	178	156	139	190	164	145	130	138	123	112	113	103	94	91	83	77	67
5	191	159	136	120	174	146	127	112	123	108	97	102	91	82	82	74	68	58
6	176	142	120	104	161	132	112	97	111	96	84	92	81	72	74	66	60	51
7	162	128	106	91	149	119	99	85	101	86	74	84	72	64	68	59	53	46
8	151	117	95	80	138	108	89	76	92	77	66	77	65	57	62	54	48	41
9	140	106	86	72	129	99	80	67	84	69	59	71	59	51	58	49	43	37
10	131	98	78	64	120	91	73	61	78	63	53	65	54	46	53	45	39	34

POLAR GRAPH



Maximum Candela = 2058.788 Located At Horizontal Angle = 22.5, Vertical Angle = 175
1 - Vertical Plane Through Horizontal Angles (22.5 - 202.5) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (175) (Through Max. Cd.)