



IES INDOOR REPORT

PHOTOMETRIC FILENAME : MX4S-3-00-L8-840-F-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] GEN FROM BALLABS TEST NO. 20649.0
 [TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
 [ISSUEDATE] 04-JUNE-2021
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
 [LUMINAIRE] 3' LED LINEAR DOWNLIGHT LUMINAIRE
 [MORE] WHITE ALUM BODY w/WHITE REFL & FLAT FROST LENS
 [LUMCAT] MX4S-3-00-L8-840-F-DIM-UNV
 [LAMPCAT] MX2472_2835 REV A 10560314

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	2546
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	116
Total Luminaire Watts	22
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.22
Spacing Criterion (90-270)	1.06
Spacing Criterion (Diagonal)	1.20
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	3.00 ft
Luminous Width (90-270)	0.31 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	11391	9871	8954
55	9432	7884	7170
65	7107	5976	5411
75	4879	4286	3824
85	2350	1958	1566

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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	1210.153	1210.153	1210.153	1210.153	1210.153
5	1214.538	1201.384	1195.538	1188.230	1186.769
10	1191.153	1172.153	1159.000	1145.846	1140.000
15	1154.615	1137.077	1100.538	1083.000	1074.230
20	1109.307	1074.230	1034.769	1007.000	995.307
25	1047.923	1007.000	955.846	931.000	923.692
30	976.307	926.615	875.461	850.615	838.923
35	890.077	837.461	786.307	761.461	746.846
40	793.615	748.307	686.923	663.538	647.461
45	689.846	647.461	597.769	558.307	542.231
50	575.846	534.923	485.231	454.538	450.154
55	463.308	431.154	387.308	371.231	352.231
60	366.846	327.385	299.615	280.615	271.846
65	257.231	235.308	216.308	203.154	195.846
70	184.154	160.769	152.000	140.308	137.385
75	108.154	102.308	95.000	89.154	84.769
80	59.923	57.000	54.077	49.692	46.769
85	17.538	17.538	14.615	14.615	11.692
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	424.97	N.A.	16.70
0-30	871.37	N.A.	34.20
0-40	1371.61	N.A.	53.90
0-60	2194.85	N.A.	86.20
0-80	2522.7	N.A.	99.10
0-90	2545.61	N.A.	100.00
10-90	2432.52	N.A.	95.60
20-40	946.64	N.A.	37.20
20-50	1411.78	N.A.	55.50
40-70	1046.02	N.A.	41.10
60-80	327.85	N.A.	12.90
70-80	105.07	N.A.	4.10
80-90	22.92	N.A.	0.90
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	2545.61	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	113.09
10-20	311.88
20-30	446.40
30-40	500.23
40-50	465.14
50-60	358.10
60-70	222.78
70-80	105.07
80-90	22.92
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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	106	102	99	107	104	100	97	99	97	94	96	93	91	92	90	89	87
2	101	94	88	83	99	92	86	82	89	84	80	85	81	78	82	79	76	74
3	93	84	76	70	91	82	75	70	79	73	68	76	71	67	74	70	66	64
4	86	75	67	61	84	74	66	60	71	65	59	69	63	59	67	62	58	56
5	79	67	59	53	77	66	59	53	64	57	52	62	56	52	61	55	51	49
6	74	61	53	47	72	60	52	47	58	51	46	57	51	46	55	50	45	44
7	69	56	48	42	67	55	47	42	54	46	41	52	46	41	51	45	41	39
8	64	51	43	38	62	51	43	38	49	42	37	48	42	37	47	41	37	35
9	60	47	39	34	59	47	39	34	46	39	34	44	38	34	43	38	34	32
10	56	44	36	31	55	43	36	31	42	36	31	41	35	31	40	35	31	29

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UGR TABLE - CORRECTED

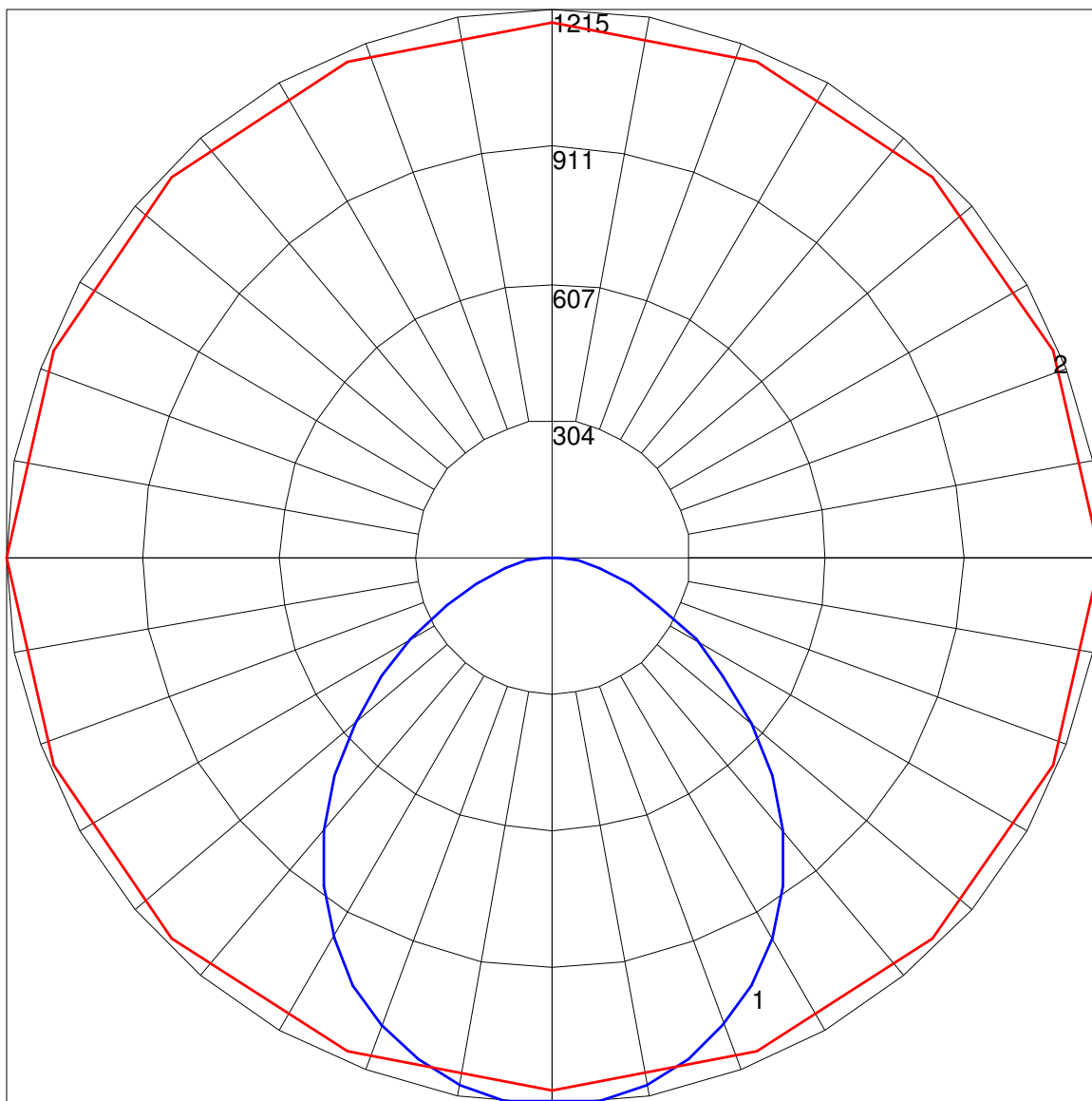
Reflectances

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	19.3	20.9	19.7	21.2	21.5	18.1	19.6	18.5	19.9	20.3
	3H	20.6	22.0	21.0	22.3	22.7	19.3	20.7	19.7	21.0	21.3
	4H	21.0	22.3	21.4	22.6	23.0	19.7	20.9	20.1	21.3	21.7
	6H	21.2	22.4	21.7	22.8	23.2	19.9	21.1	20.3	21.4	21.8
	8H	21.3	22.4	21.7	22.8	23.2	20.0	21.1	20.4	21.5	21.9
	12H	21.3	22.4	21.8	22.8	23.2	20.0	21.0	20.4	21.4	21.8
4H	2H	19.6	20.9	20.0	21.3	21.6	18.6	19.9	19.0	20.2	20.6
	3H	21.1	22.2	21.5	22.6	23.0	20.0	21.0	20.4	21.4	21.8
	4H	21.6	22.5	22.0	23.0	23.4	20.5	21.4	20.9	21.8	22.3
	6H	22.0	22.8	22.4	23.2	23.7	20.8	21.6	21.3	22.1	22.5
	8H	22.0	22.8	22.5	23.3	23.7	20.9	21.6	21.3	22.1	22.6
	12H	22.1	22.8	22.6	23.3	23.7	20.9	21.6	21.4	22.1	22.5
8H	4H	21.7	22.5	22.2	22.9	23.4	20.7	21.4	21.1	21.9	22.4
	6H	22.2	22.8	22.6	23.3	23.8	21.1	21.7	21.6	22.2	22.7
	8H	22.3	22.9	22.8	23.4	23.9	21.2	21.8	21.7	22.3	22.8
	12H	22.4	22.9	22.9	23.4	23.9	21.3	21.8	21.8	22.3	22.8
12H	4H	21.7	22.4	22.2	22.9	23.3	20.7	21.4	21.2	21.9	22.3
	6H	22.2	22.7	22.7	23.2	23.7	21.1	21.7	21.6	22.2	22.7
	8H	22.3	22.8	22.9	23.3	23.9	21.3	21.8	21.8	22.3	22.8

Maximum UGR = 23.9

POLAR GRAPH



Maximum Candela = 1214.538 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.)