



IES INDOOR REPORT

PHOTOMETRIC FILENAME : MX4D-4-L8-835-S-A-(L6)-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] GEN FROM BALLABS TEST NO. 20195.0
 [TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
 [ISSUEDATE] 30-AUG-2023
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
 [LUMINAIRE] 4 INCH WIDE, LINEAR SUSPENDED LED LUMINAIRE
 [MORE] WHITE REFL w/FROSTED ACRYLIC LENS
 [MORE] 0-10V DIMMING DRIVER
 [LUMCAT] MX4D-4-L8-835-S-F-(L6)-DIM-UNV
 [LAMPCAT] HLMX 80 CRI 3500K CCT

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	2405
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	121
Total Luminaire Watts	19.8
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.24
Spacing Criterion (90-270)	1.18
Spacing Criterion (Diagonal)	1.30
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	6937	6625	6377
55	6392	6094	5716
65	5656	5320	5093
75	4351	4174	4142
85	2010	2489	2297

IES INDOOR REPORT
PHOTOMETRIC FILENAME : MX4D-4-L8-835-S-A-(L6)-DIM-UNV_.IES

CANDELA TABULATION

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
0	950.173	950.173	950.173	950.173	950.173
5	969.718	948.670	942.656	937.644	932.633
10	956.688	934.136	927.120	919.603	914.090
15	937.143	912.086	899.056	887.029	883.521
20	896.049	870.992	863.976	843.429	839.921
25	838.417	818.873	811.857	796.321	792.813
30	780.786	763.245	754.225	743.200	737.687
35	726.662	706.115	691.582	685.067	679.053
40	666.524	650.488	629.439	619.417	611.398
45	589.348	578.323	562.787	553.265	541.739
50	518.185	499.643	496.636	479.096	469.574
55	440.507	429.482	419.960	404.926	393.901
60	368.844	352.807	347.294	333.763	324.242
65	287.157	278.637	270.118	261.598	258.591
70	210.982	203.465	197.953	189.934	193.442
75	135.309	135.811	129.797	129.797	128.795
80	66.652	70.662	68.657	72.666	67.655
85	21.048	25.057	26.060	30.570	24.055
90	0.000	0.000	0.000	0.000	0.000

IES INDOOR REPORT
PHOTOMETRIC FILENAME : MX4D-4-L8-835-S-A-(L6)-DIM-UNV_.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	343.68	N.A.	14.30
0-30	717.20	N.A.	29.80
0-40	1152.99	N.A.	47.90
0-60	1963.01	N.A.	81.60
0-80	2371.83	N.A.	98.60
0-90	2405.00	N.A.	100.00
10-90	2315.31	N.A.	96.30
20-40	809.31	N.A.	33.70
20-50	1245.06	N.A.	51.80
40-70	1078.55	N.A.	44.80
60-80	408.81	N.A.	17.00
70-80	140.28	N.A.	5.80
80-90	33.18	N.A.	1.40
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	2405.00	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	89.70
10-20	253.98
20-30	373.52
30-40	435.79
40-50	435.75
50-60	374.27
60-70	268.53
70-80	140.28
80-90	33.18
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

IES INDOOR REPORT
PHOTOMETRIC FILENAME : MX4D-4-L8-835-S-A-(L6)-DIM-UNV_.IES

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	109	105	101	97	107	102	99	95	98	95	92	94	92	90	91	89	87	85
2	100	92	85	80	97	90	84	79	86	81	77	83	79	75	80	77	73	71
3	91	81	73	67	89	79	72	66	76	70	65	74	68	64	71	67	63	61
4	84	72	63	57	81	71	63	56	68	61	56	66	60	55	64	58	54	52
5	77	64	56	49	75	63	55	49	61	54	48	59	53	48	57	52	47	45
6	71	58	49	43	69	57	49	43	55	48	43	54	47	42	52	46	42	40
7	66	53	44	38	64	52	44	38	51	43	38	49	42	38	48	42	37	35
8	62	48	40	34	60	48	40	34	46	39	34	45	39	34	44	38	33	32
9	58	44	36	31	56	44	36	31	43	36	31	42	35	30	41	35	30	29
10	54	41	33	28	53	41	33	28	40	33	28	39	32	28	38	32	28	26

IES INDOOR REPORT
PHOTOMETRIC FILENAME : MX4D-4-L8-835-S-A-(L6)-DIM-UNV_.IES

UGR TABLE - CORRECTED

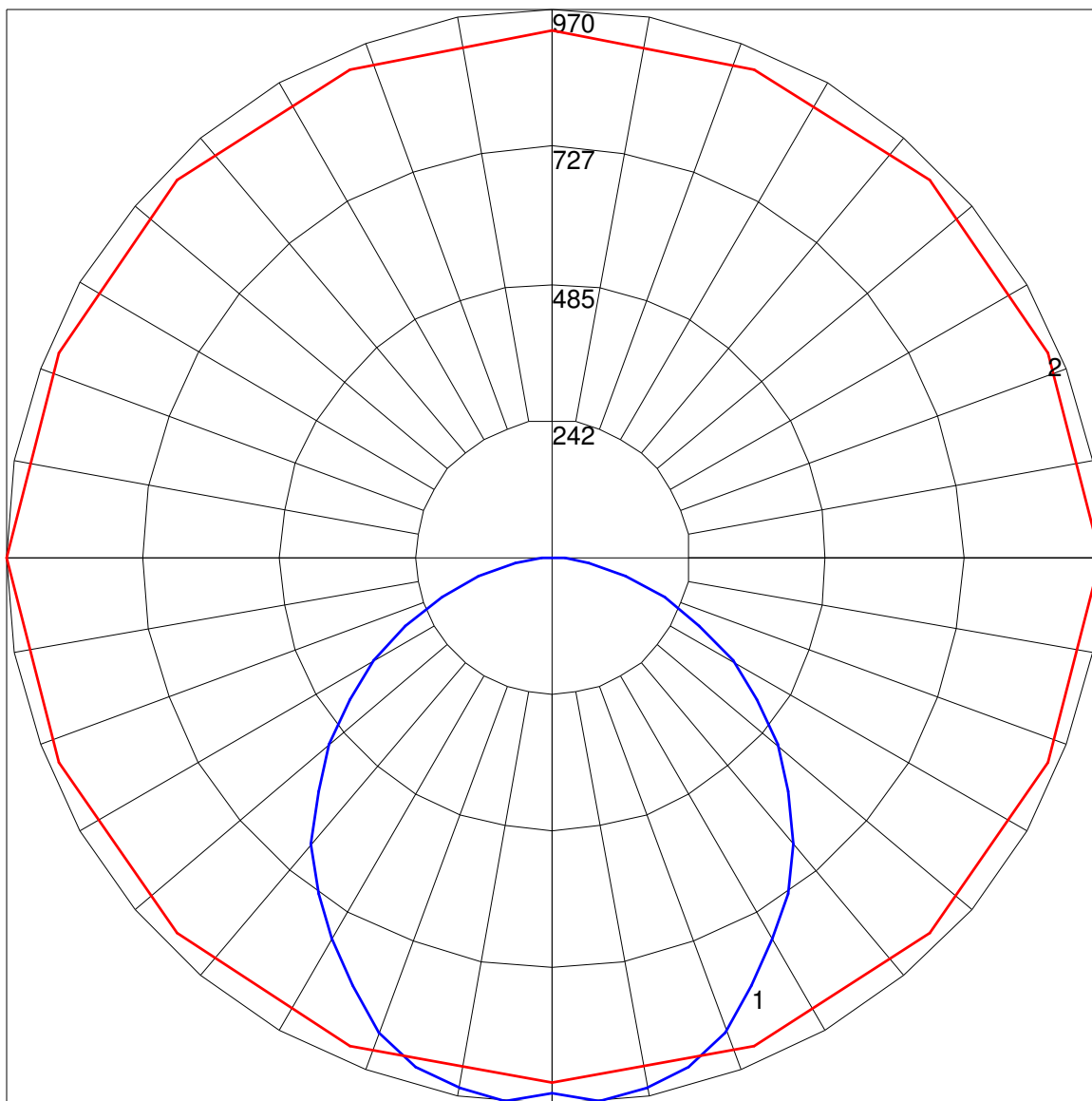
Reflectances

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	18.4	20.0	18.8	20.3	20.6	17.9	19.5	18.3	19.9	20.2
	3H	20.1	21.5	20.4	21.8	22.2	19.5	21.0	19.9	21.3	21.7
	4H	20.6	21.9	21.0	22.3	22.7	20.1	21.5	20.5	21.8	22.2
	6H	20.9	22.2	21.3	22.5	22.9	20.5	21.7	20.9	22.1	22.5
	8H	21.0	22.2	21.4	22.6	23.0	20.6	21.8	21.0	22.1	22.5
	12H	21.0	22.2	21.4	22.5	23.0	20.6	21.8	21.0	22.1	22.6
4H	2H	18.9	20.3	19.3	20.7	21.0	18.6	19.9	19.0	20.3	20.6
	3H	20.8	21.9	21.2	22.3	22.7	20.4	21.5	20.8	21.9	22.3
	4H	21.4	22.5	21.9	22.9	23.3	21.0	22.1	21.5	22.5	22.9
	6H	21.9	22.8	22.3	23.2	23.7	21.5	22.4	22.0	22.8	23.3
	8H	22.0	22.8	22.4	23.2	23.7	21.6	22.5	22.1	22.9	23.4
	12H	22.0	22.8	22.5	23.3	23.7	21.7	22.5	22.2	22.9	23.4
8H	4H	21.7	22.5	22.1	22.9	23.4	21.3	22.1	21.8	22.6	23.0
	6H	22.2	22.9	22.7	23.4	23.8	21.9	22.6	22.4	23.1	23.5
	8H	22.3	23.0	22.8	23.5	23.9	22.1	22.7	22.6	23.2	23.7
	12H	22.4	23.0	23.0	23.5	24.0	22.2	22.8	22.7	23.3	23.8
12H	4H	21.7	22.4	22.2	22.9	23.4	21.3	22.1	21.8	22.5	23.0
	6H	22.2	22.8	22.7	23.3	23.8	21.9	22.5	22.4	23.0	23.5
	8H	22.4	23.0	22.9	23.4	24.0	22.2	22.7	22.7	23.2	23.8

Maximum UGR = 24.0

POLAR GRAPH



Maximum Candela = 969.718 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.)