

IES INDOOR REPORT

PHOTOMETRIC FILENAME : MX4D-8-00-L12-830-F-DIM1-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
[ISSUE DATE] 09-18-2025
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO 64836
[LUMINAIRE] 8' DIRECT SUSPENDED LUMINAIRE
[MORE] WITH FROSTED ACRYLIC LENS
[LUMCAT] MX4D-8-00-L12-830-F-DIM1-UNV
[LAMPCAT] HLM 80 CRI, 3000K CCT
[SEARCH_SOURCETYPE] LED
[SEARCH_APPLICATION] Indoor, Architectural, Classroom, Direct
[SEARCH_MOUNTING] Suspended

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	9509
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	127
Total Luminaire Watts	75
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)	8.00 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	15957	13827	12543
55	13212	11045	10045
65	9956	8372	7580
75	6835	6004	5357
85	3291	2743	2194

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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	4520.632	4520.632	4520.632	4520.632	4520.632
5	4537.011	4487.873	4466.035	4438.736	4433.276
10	4449.656	4378.679	4329.542	4280.405	4258.566
15	4313.163	4247.647	4111.154	4045.638	4012.880
20	4143.912	4012.880	3865.468	3761.733	3718.056
25	3914.605	3761.733	3570.644	3477.829	3450.530
30	3647.080	3461.450	3270.360	3177.545	3133.868
35	3324.957	3128.408	2937.319	2844.504	2789.907
40	2964.617	2795.366	2566.059	2478.704	2418.647
45	2576.978	2418.647	2233.017	2085.605	2025.549
50	2151.122	1998.250	1812.620	1697.967	1681.588
55	1730.725	1610.612	1446.821	1386.764	1315.788
60	1370.385	1222.973	1119.239	1048.262	1015.504
65	960.907	879.012	808.036	758.898	731.600
70	687.922	600.567	567.809	524.131	513.212
75	404.018	382.179	354.881	333.042	316.663
80	223.848	212.928	202.009	185.630	174.710
85	65.516	65.516	54.597	54.597	43.678
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	1587.51	N.A.	16.70
0-30	3255.09	N.A.	34.20
0-40	5123.76	N.A.	53.90
0-60	8199.04	N.A.	86.20
0-80	9423.75	N.A.	99.10
0-90	9509.36	N.A.	100.00
10-90	9086.9	N.A.	95.60
20-40	3536.25	N.A.	37.20
20-50	5273.83	N.A.	55.50
40-70	3907.49	N.A.	41.10
60-80	1224.71	N.A.	12.90
70-80	392.51	N.A.	4.10
80-90	85.61	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	9509.36	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	422.46
10-20	1165.05
20-30	1667.58
30-40	1868.67
40-50	1737.58
50-60	1337.7
60-70	832.20
70-80	392.51
80-90	85.61
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	100	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	59	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	63	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

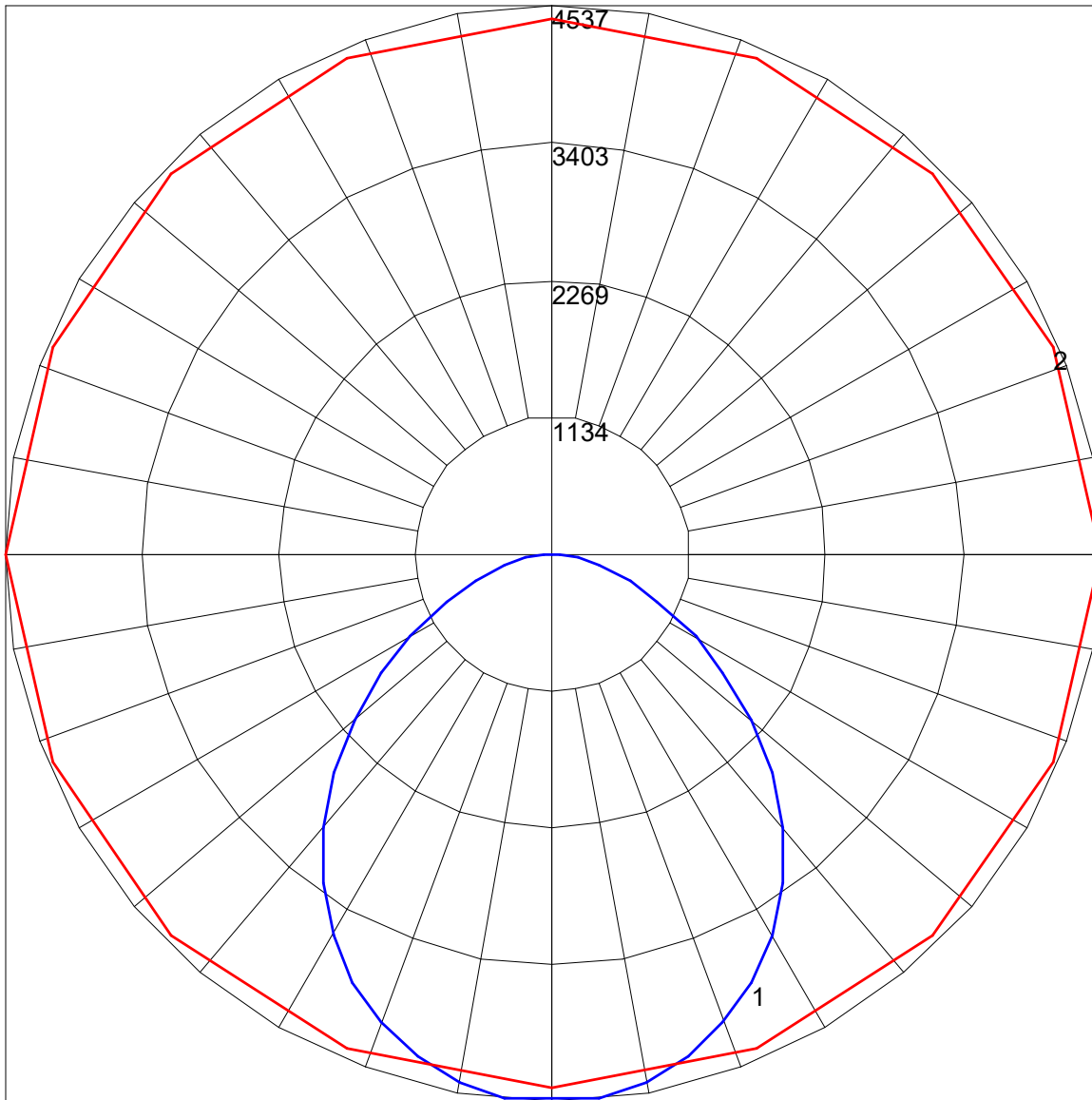
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UGR TABLE - CORRECTED

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	20.5	22.1	20.9	22.4	22.7	19.3	20.8	19.7	21.1	21.5
	3H	21.8	23.2	22.2	23.5	23.8	20.5	21.8	20.9	22.2	22.5
	4H	22.2	23.5	22.6	23.8	24.2	20.8	22.1	21.2	22.5	22.9
	6H	22.4	23.6	22.9	24.0	24.4	21.1	22.3	21.5	22.6	23.0
	8H	22.5	23.6	22.9	24.0	24.4	21.2	22.3	21.6	22.7	23.1
	12H	22.5	23.6	23.0	24.0	24.4	21.2	22.2	21.6	22.6	23.0
4H	2H	20.8	22.1	21.2	22.5	22.8	19.8	21.1	20.2	21.4	21.8
	3H	22.3	23.3	22.7	23.7	24.1	21.2	22.2	21.6	22.6	23.0
	4H	22.8	23.7	23.2	24.1	24.6	21.6	22.6	22.1	23.0	23.5
	6H	23.1	24.0	23.6	24.4	24.9	22.0	22.8	22.4	23.3	23.7
	8H	23.2	24.0	23.7	24.5	24.9	22.1	22.8	22.5	23.3	23.8
	12H	23.3	24.0	23.8	24.4	24.9	22.1	22.8	22.6	23.3	23.7
8H	4H	22.9	23.7	23.4	24.1	24.6	21.9	22.6	22.3	23.1	23.5
	6H	23.3	24.0	23.8	24.5	24.9	22.3	22.9	22.8	23.4	23.9
	8H	23.5	24.1	24.0	24.6	25.0	22.4	23.0	22.9	23.5	24.0
	12H	23.6	24.1	24.1	24.6	25.1	22.5	23.0	23.0	23.5	24.0
12H	4H	22.9	23.6	23.4	24.1	24.5	21.9	22.6	22.4	23.0	23.5
	6H	23.4	23.9	23.9	24.4	24.9	22.3	22.9	22.8	23.4	23.9
	8H	23.5	24.0	24.0	24.5	25.1	22.5	23.0	23.0	23.5	24.0

Maximum UGR = 25.1

POLAR GRAPH



Maximum Candela = 4537.011 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.)