



IES INDOOR REPORT

PHOTOMETRIC FILENAME : AT2-24-L55-835-D-(L49)-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN FROM BALLABS TEST NO. 18892.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 28 JULY 2021

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] 4-56LED 22"ARRAYS-SERIES 2x4'RECESSED LUMINAIRE w/WHITE

[MORE] REFL, FROST CONCAVE ACRYLIC LENS w/DEEP ACRYLIC CENTER

[MORE] DIFFUSER 2 EVERLINE #D10CC55UNVTZ-C @69 SETPOINT WIRED ZH2

[LUMCAT] AT2-24-L55-835-D-(L49)-DIM-UNV

[LAMPCAT] HLM 80 CRI 3500K CCT

[_SEARCH_SOURCETYPE] LED

[_SEARCH_APPLICATION] Indoor, Architectural, Classroom, Commercial, Office, Direct

[_SEARCH_MOUNTING] Recessed

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	4943
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	115
Total Luminaire Watts	43
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.12
Spacing Criterion (90-270)	1.18
Spacing Criterion (Diagonal)	1.28
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	3.76 ft
Luminous Width (90-270)	1.77 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	2482	2645	2750
55	2140	2309	2424
65	1884	2083	2189
75	1548	1852	1962
85	1215	1503	1378

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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	2040.985	2040.985	2040.985	2040.985	2040.985
5	2020.757	2020.757	2021.432	2022.780	2024.129
10	1982.999	1985.021	1992.438	2000.529	2003.901
15	1895.345	1900.065	1915.573	1929.732	1933.778
20	1818.479	1828.593	1855.564	1880.511	1889.277
25	1641.149	1655.983	1687.673	1715.992	1731.500
30	1494.834	1511.017	1552.147	1583.837	1600.693
35	1378.862	1399.764	1445.613	1483.372	1497.532
40	1214.342	1236.593	1283.117	1322.898	1330.315
45	1083.536	1107.135	1155.007	1191.417	1200.857
50	908.903	931.153	976.329	1005.322	1017.458
55	757.868	777.422	817.877	843.499	858.333
60	608.183	625.713	662.123	684.374	692.465
65	491.536	510.415	543.454	567.053	571.098
70	367.472	385.002	416.693	437.595	440.966
75	247.453	264.310	296.000	309.485	313.531
80	151.034	169.239	193.513	188.793	188.793
85	65.403	80.237	80.911	76.191	74.169
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	734.67	N.A.	14.90
0-30	1515.48	N.A.	30.70
0-40	2409.73	N.A.	48.80
0-60	4013.56	N.A.	81.20
0-80	4851.8	N.A.	98.20
0-90	4942.69	N.A.	100.00
10-90	4750.5	N.A.	96.10
20-40	1675.07	N.A.	33.90
20-50	2552.53	N.A.	51.60
40-70	2134.29	N.A.	43.20
60-80	838.24	N.A.	17.00
70-80	307.77	N.A.	6.20
80-90	90.90	N.A.	1.80
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	4942.69	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	192.19
10-20	542.48
20-30	780.81
30-40	894.25
40-50	877.46
50-60	726.36
60-70	530.47
70-80	307.77
80-90	90.90
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	109	104	100	97	106	102	98	95	98	95	92	94	92	89	90	88	87	85
2	100	92	85	79	97	90	84	79	86	81	77	83	79	75	80	76	73	71
3	91	81	73	67	89	79	72	66	76	70	65	74	68	64	71	67	63	61
4	84	72	64	57	81	71	63	57	68	61	56	66	60	55	64	59	54	52
5	77	65	56	49	75	64	55	49	61	54	49	60	53	48	58	52	48	46
6	71	58	50	43	70	58	49	43	56	48	43	54	48	43	53	47	42	40
7	66	53	45	39	65	52	44	38	51	44	38	49	43	38	48	42	38	36
8	62	49	40	35	60	48	40	35	47	39	34	45	39	34	44	38	34	32
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31	29
10	54	41	34	29	53	41	33	28	40	33	28	39	33	28	38	32	28	26

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UGR TABLE - CORRECTED

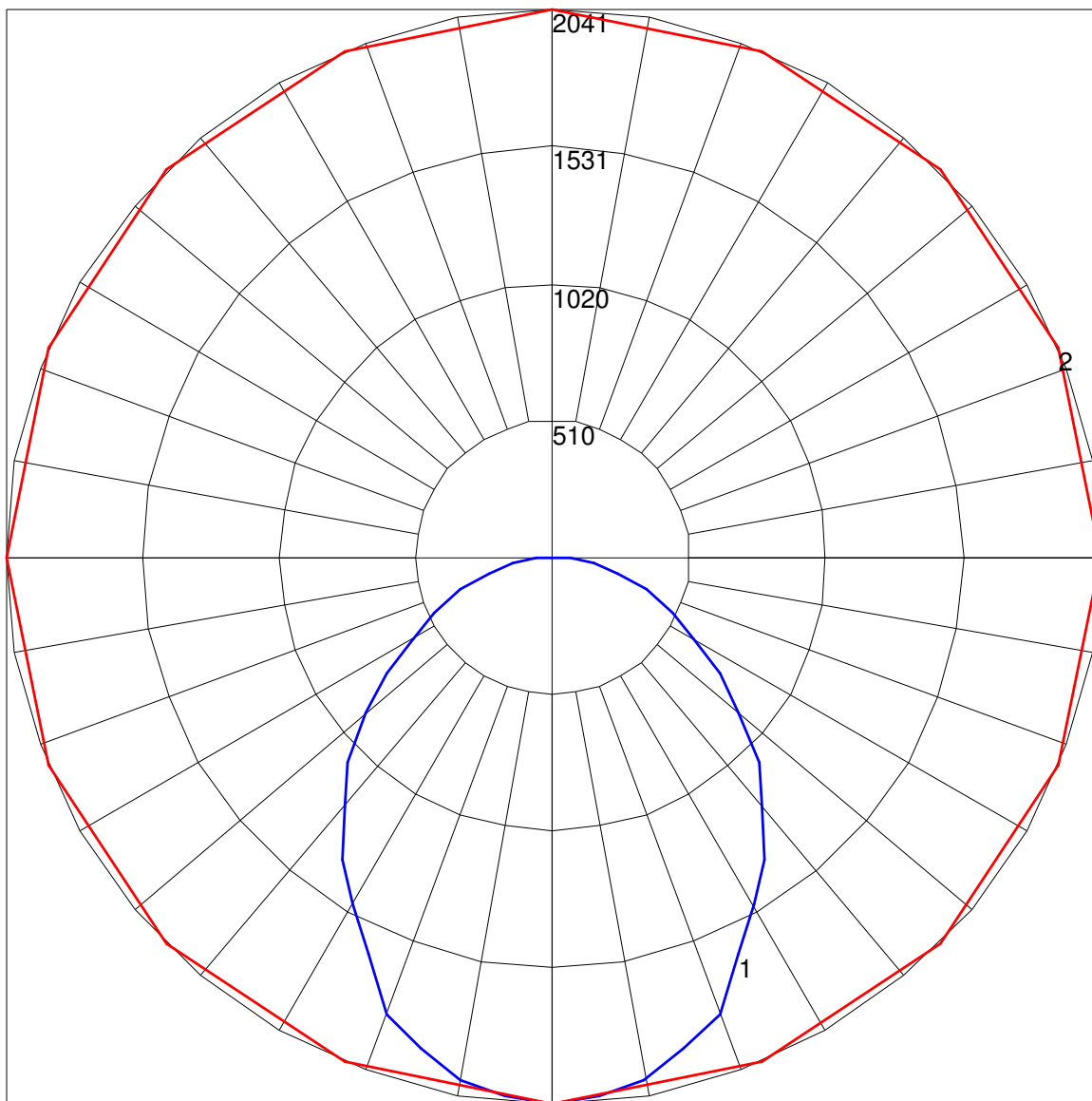
Reflectances

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	14.3	15.9	14.7	16.2	16.5	15.0	16.5	15.3	16.9	17.2
	3H	16.0	17.4	16.4	17.7	18.1	16.8	18.2	17.2	18.5	18.9
	4H	16.6	17.9	17.0	18.3	18.6	17.5	18.8	17.9	19.2	19.5
	6H	17.0	18.3	17.4	18.6	19.0	18.0	19.2	18.4	19.6	20.0
	8H	17.2	18.4	17.6	18.7	19.1	18.2	19.3	18.6	19.7	20.1
	12H	17.3	18.4	17.7	18.8	19.2	18.2	19.4	18.7	19.8	20.2
4H	2H	15.0	16.4	15.4	16.7	17.1	15.5	16.9	15.9	17.2	17.6
	3H	16.9	18.0	17.3	18.4	18.8	17.6	18.7	18.0	19.1	19.5
	4H	17.6	18.6	18.1	19.0	19.5	18.4	19.4	18.8	19.8	20.3
	6H	18.2	19.1	18.7	19.5	20.0	19.1	20.0	19.5	20.4	20.9
	8H	18.4	19.2	18.9	19.7	20.1	19.3	20.1	19.7	20.6	21.0
	12H	18.5	19.3	19.0	19.8	20.2	19.4	20.2	19.9	20.6	21.1
8H	4H	18.0	18.8	18.5	19.3	19.7	18.7	19.5	19.2	20.0	20.4
	6H	18.7	19.4	19.2	19.9	20.4	19.5	20.2	20.0	20.7	21.1
	8H	19.0	19.6	19.5	20.1	20.6	19.8	20.4	20.3	20.9	21.4
	12H	19.2	19.8	19.7	20.3	20.8	20.0	20.5	20.5	21.0	21.6
12H	4H	18.1	18.8	18.5	19.3	19.7	18.7	19.5	19.2	19.9	20.4
	6H	18.8	19.4	19.3	19.9	20.4	19.6	20.2	20.1	20.6	21.2
	8H	19.1	19.7	19.7	20.2	20.8	19.9	20.4	20.4	20.9	21.5

Maximum UGR = 21.6

POLAR GRAPH



Maximum Candela = 2040.985 Located At Horizontal Angle = 0, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)