

IES INDOOR REPORT

PHOTOMETRIC FILENAME : AT3-24-L100-940-D-(L85)-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN FROM BALLABS TEST NO. 19260.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUE DATE] 08-29-2023

[MANUFAC] WILLIAMS INDOOR

[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO 64836

[LUMINAIRE] 2x4' RECESSED LUMINAIRE

[MORE] WITH FROSTED ACRYLIC LENS

[LUMCAT] AT3-24-L100-940-(L85)-D-DIM-UNV

[LAMPCAT] HLM 90 CRI, 4000K CCT

[_SEARCH_SOURCETYPE]LED

[_SEARCH_APPLICATION]INDOOR,COMMERCIAL,DIRECT,OFFICE,ARCHITECTURAL

[_SEARCH_MOUNTING]RECESSED

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	7498
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	108
Total Luminaire Watts	69.24
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.12
Spacing Criterion (90-270)	1.22
Spacing Criterion (Diagonal)	1.30
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	3.76 ft
Luminous Width (90-270)	1.88 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	3415	3818	4072
55	2911	3373	3589
65	2642	3228	3467
75	2247	3073	3073
85	1991	1420	1327

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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	2987.403	2987.403	2987.403	2987.403	2987.403
5	2971.602	2972.655	2972.655	2973.709	2974.762
10	2911.559	2914.719	2922.093	2931.573	2937.893
15	2804.113	2811.487	2828.341	2853.623	2865.210
20	2642.945	2658.746	2698.775	2747.231	2767.245
25	2425.948	2445.962	2504.952	2570.262	2599.757
30	2197.363	2412.254	2278.474	2271.100	2436.482
35	1965.618	2001.433	2103.612	2203.683	2241.605
40	1743.354	1784.436	1906.629	2004.594	2036.195
45	1583.239	1633.802	1769.688	1859.226	1887.668
50	1332.533	1390.469	1516.876	1590.613	1609.574
55	1094.468	1154.511	1268.277	1328.320	1349.387
60	890.111	952.261	1049.172	1103.948	1121.856
65	732.103	800.573	894.325	945.941	960.688
70	554.081	626.765	712.089	753.171	760.545
75	381.326	454.009	521.426	527.746	521.426
80	246.492	320.229	313.909	218.051	198.037
85	113.766	130.620	81.111	76.897	75.844
90	0.000	0.000	0.000	0.000	0.000

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Zone	Lumens	%Lamp	%Fixt
0-20	1079.71	N.A.	14.40
0-30	2237.25	N.A.	29.80
0-40	3555.81	N.A.	47.40
0-60	6005.68	N.A.	80.10
0-80	7372.28	N.A.	98.30
0-90	7497.56	N.A.	100.00
10-90	7215.37	N.A.	96.20
20-40	2476.11	N.A.	33.00
20-50	3806.23	N.A.	50.80
40-70	3306.46	N.A.	44.10
60-80	1366.59	N.A.	18.20
70-80	510.00	N.A.	6.80
80-90	125.28	N.A.	1.70
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	7497.56	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	282.19
10-20	797.52
20-30	1157.55
30-40	1318.56
40-50	1330.12
50-60	1119.75
60-70	856.59
70-80	510.00
80-90	125.28
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	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84
2	99	91	85	79	97	89	83	78	86	81	76	83	78	74	80	76	73	71
3	91	80	72	66	88	79	71	65	76	69	64	73	68	63	71	66	62	60
4	83	71	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	51
5	77	64	55	49	75	63	55	48	61	53	48	59	52	47	57	51	47	45
6	71	58	49	43	69	57	49	43	55	48	42	53	47	42	52	46	41	39
7	66	53	44	38	64	52	44	38	50	43	37	49	42	37	47	41	37	35
8	61	48	40	34	60	47	39	34	46	39	34	45	38	33	44	38	33	31
9	57	44	36	31	56	44	36	31	43	35	30	41	35	30	40	34	30	28
10	54	41	33	28	53	40	33	28	39	32	28	38	32	28	38	32	27	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

X=2H	Y=2H	15.4	17.0	15.8	17.3	17.6	16.5	18.1	16.8	18.4	18.7
	3H	17.2	18.6	17.5	18.9	19.3	18.5	20.0	18.9	20.3	20.6
	4H	17.8	19.2	18.2	19.5	19.9	19.2	20.6	19.6	21.0	21.3
	6H	18.3	19.6	18.7	20.0	20.4	19.6	20.8	20.0	21.2	21.6
	8H	18.5	19.7	19.0	20.1	20.5	19.6	20.8	20.0	21.2	21.6
	12H	18.7	19.8	19.1	20.2	20.6	19.7	20.8	20.1	21.2	21.6

UGR Viewed Endwise

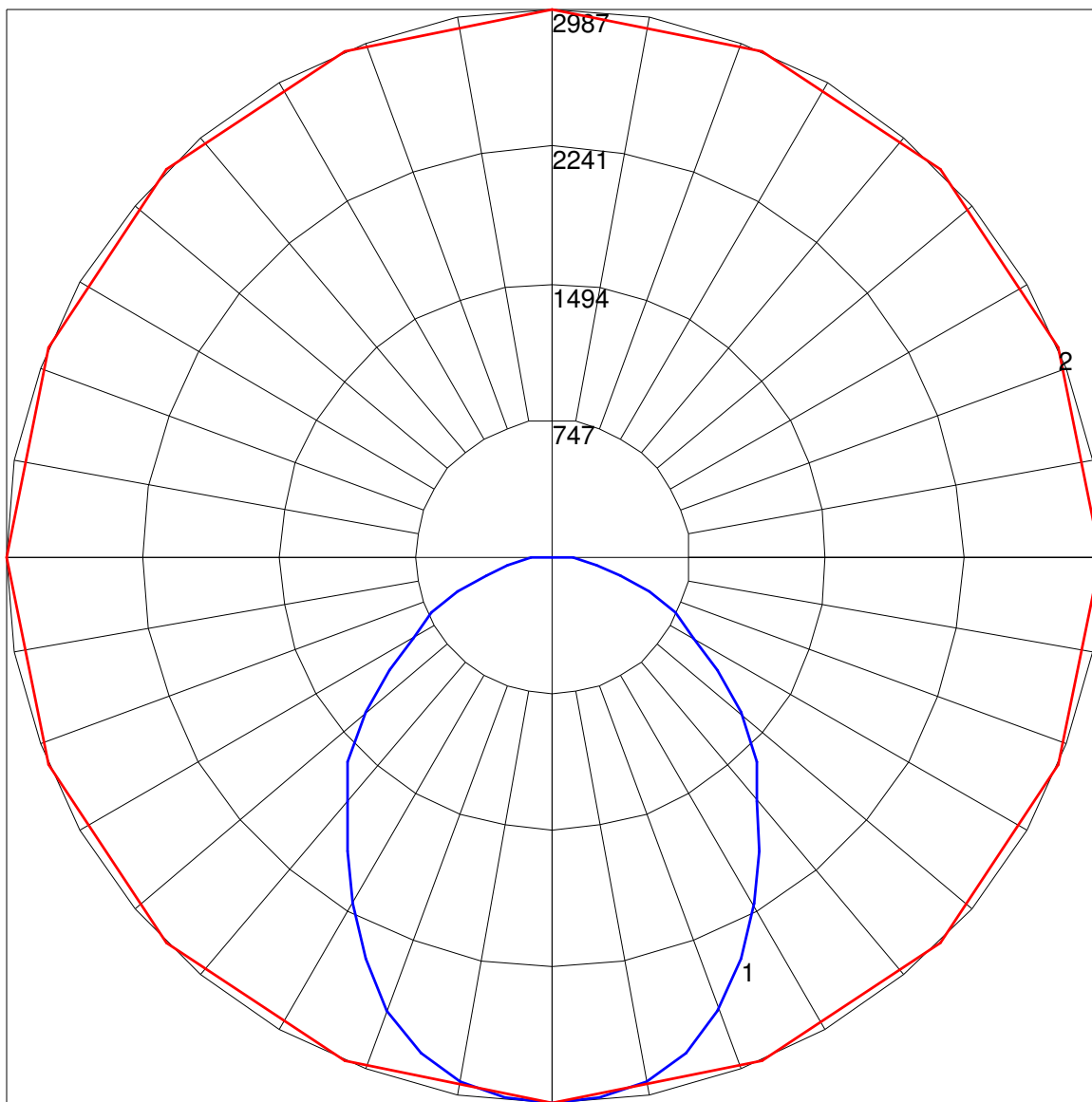
4H	2H	16.2	17.6	16.6	18.0	18.3	17.1	18.4	17.5	18.8	19.2
	3H	18.3	19.4	18.7	19.8	20.2	19.3	20.5	19.8	20.9	21.3
	4H	19.1	20.1	19.5	20.5	20.9	20.2	21.3	20.7	21.7	22.1
	6H	19.7	20.7	20.2	21.1	21.5	20.6	21.5	21.1	22.0	22.4
	8H	20.0	20.8	20.4	21.3	21.7	20.7	21.6	21.2	22.0	22.5
	12H	20.1	20.9	20.6	21.4	21.9	20.8	21.5	21.2	22.0	22.5

8H	4H	19.5	20.4	20.0	20.8	21.3	20.5	21.4	21.0	21.8	22.3
	6H	20.4	21.1	20.9	21.6	22.1	21.0	21.7	21.5	22.2	22.7
	8H	20.7	21.3	21.2	21.9	22.3	21.1	21.8	21.6	22.3	22.8
	12H	21.0	21.5	21.5	22.0	22.6	21.2	21.8	21.7	22.3	22.8

12H	4H	19.6	20.3	20.0	20.8	21.3	20.5	21.3	21.0	21.8	22.3
	6H	20.5	21.1	21.0	21.6	22.1	21.1	21.7	21.6	22.2	22.7
	8H	20.8	21.4	21.3	21.9	22.5	21.2	21.8	21.8	22.3	22.9

Maximum UGR = 22.9

POLAR GRAPH



Maximum Candela = 2987.403 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.)