

IES INDOOR REPORT

PHOTOMETRIC FILENAME : AT1-22-L42-RGB835-D-DMX-UNV WHITE ONLY_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from BALLABS TEST NO. 18872.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 1-DEC 2023

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] 2x2' RECESSED LUMINAIRE

[MORE] WITH FROST CONCAVE ACRYLIC LENS w/SHALLOW ACRYLIC CENTER

[MORE] DIFFUSER

[LUMCAT] AT1-22-L42-RGB835-D-DMX-UNV white onlyT

[_SEARCH_SOURCETYPE] LED

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

[_SEARCH_MOUNTING] Ceiling, Recessed

[_SEARCH_CERTIFICATION] DLC

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	4163
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	93
Total Luminaire Watts	44.6
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.16
Spacing Criterion (90-270)	1.30
Spacing Criterion (Diagonal)	1.32
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	1.76 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	4153	4689	5212
55	3659	4407	4836
65	3159	4092	4663
75	2665	3921	4359
85	1752	2148	1922

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	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
0	1572.096	1572.096	1572.096	1572.096	1572.096
5	1573.520	1567.824	1566.400	1564.976	1564.976
10	1540.768	1539.344	1537.920	1545.040	1552.160
15	1483.808	1488.080	1500.896	1512.288	1526.528
20	1405.488	1418.304	1443.936	1469.568	1495.200
25	1308.656	1328.592	1367.040	1409.760	1443.936
30	1208.976	1233.184	1280.176	1344.256	1379.856
35	1100.752	1117.840	1183.344	1264.512	1295.840
40	976.864	999.648	1072.272	1166.256	1190.464
45	848.704	877.184	958.352	1046.640	1065.152
50	723.392	754.720	844.432	917.056	934.144
55	606.624	639.376	730.512	788.896	801.712
60	489.856	532.576	615.168	666.432	684.944
65	385.904	428.624	499.824	542.544	569.600
70	291.920	323.248	400.144	427.200	451.408
75	199.360	229.264	293.344	301.888	326.096
80	113.920	138.128	176.576	140.976	142.400
85	44.144	48.416	54.112	45.568	48.416
90	0.000	0.000	0.000	0.000	0.000

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Zone	Lumens	%Lamp	%Fxt
0-20	572.20	N.A.	13.70
0-30	1203.97	N.A.	28.90
0-40	1948.00	N.A.	46.80
0-60	3330.35	N.A.	80.00
0-80	4096.76	N.A.	98.40
0-90	4162.93	N.A.	100.00
10-90	4014.17	N.A.	96.40
20-40	1375.8	N.A.	33.00
20-50	2116.47	N.A.	50.80
40-70	1866.46	N.A.	44.80
60-80	766.41	N.A.	18.40
70-80	282.30	N.A.	6.80
80-90	66.17	N.A.	1.60
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	4162.93	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	148.76
10-20	423.44
20-30	631.77
30-40	744.03
40-50	740.68
50-60	641.67
60-70	484.11
70-80	282.30
80-90	66.17
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	164	164	164	164	160	160	160	160	153	153	153	146	146	146	140	140	140	137
1	150	143	138	132	146	140	135	130	134	130	126	129	126	122	124	121	119	116
2	136	125	116	108	133	123	114	107	118	111	104	113	107	102	109	104	100	97
3	125	110	99	90	121	108	98	89	104	95	88	100	93	86	97	90	85	82
4	114	98	86	77	111	96	85	76	93	83	75	89	81	74	86	79	73	70
5	105	88	75	66	102	86	75	66	83	73	65	80	72	65	78	70	64	61
6	97	79	67	58	95	78	66	58	75	65	57	73	64	57	71	63	56	53
7	90	72	60	51	88	71	59	51	69	58	51	67	57	50	65	56	50	47
8	84	66	54	46	82	65	54	46	63	53	46	61	52	45	59	51	45	42
9	79	60	49	41	77	59	49	41	58	48	41	56	47	41	55	47	41	38
10	74	56	45	38	72	55	45	38	54	44	37	52	43	37	51	43	37	35

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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

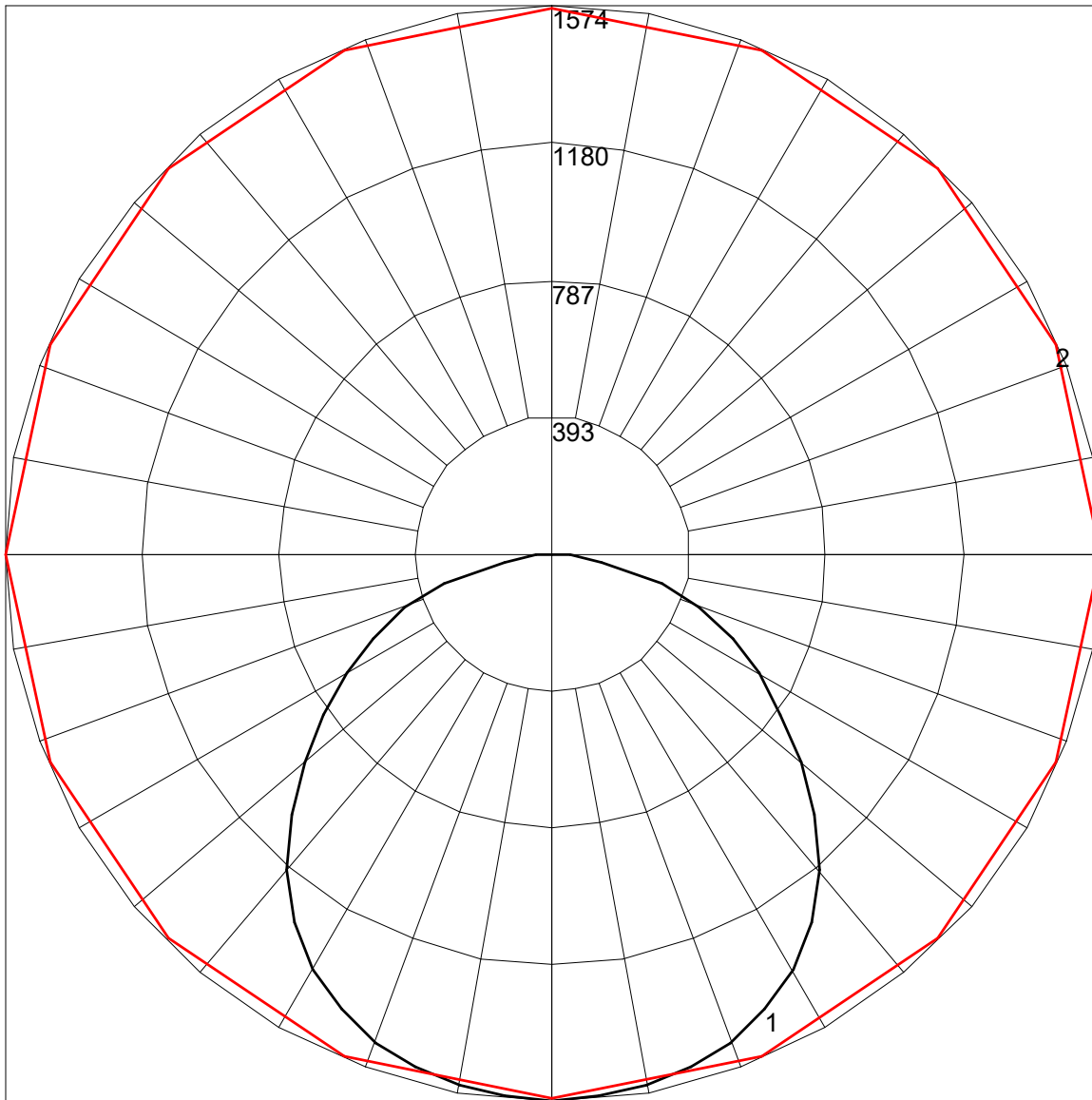
X=2H	Y=2H	15.1	16.7	15.5	17.0	17.4	16.7	18.4	17.1	18.7	19.0
	3H	16.7	18.2	17.1	18.5	18.9	18.7	20.1	19.1	20.5	20.8
	4H	17.3	18.7	17.7	19.1	19.4	19.4	20.8	19.8	21.2	21.5
	6H	17.7	19.0	18.2	19.4	19.8	19.8	21.1	20.2	21.5	21.9
	8H	17.9	19.1	18.3	19.5	19.9	19.9	21.1	20.4	21.5	21.9
	12H	17.9	19.1	18.3	19.5	19.9	19.9	21.1	20.4	21.5	21.9

UGR Viewed Endwise

4H	2H	16.0	17.4	16.4	17.7	18.1	17.3	18.6	17.7	19.0	19.4
	3H	17.9	19.0	18.3	19.4	19.8	19.4	20.6	19.9	21.0	21.4
	4H	18.6	19.6	19.0	20.0	20.5	20.3	21.4	20.8	21.8	22.2
	6H	19.1	20.0	19.5	20.4	20.9	20.8	21.7	21.3	22.2	22.6
	8H	19.2	20.1	19.7	20.5	21.0	20.9	21.8	21.4	22.2	22.7
	12H	19.3	20.1	19.8	20.6	21.0	21.0	21.8	21.5	22.2	22.7
8H	4H	19.1	19.9	19.5	20.4	20.8	20.6	21.4	21.1	21.9	22.4
	6H	19.7	20.4	20.2	20.9	21.4	21.2	21.9	21.7	22.4	22.9
	8H	19.9	20.6	20.4	21.1	21.6	21.3	22.0	21.9	22.5	23.0
	12H	20.1	20.6	20.6	21.1	21.7	21.5	22.0	22.0	22.5	23.1
12H	4H	19.1	19.9	19.6	20.4	20.8	20.6	21.4	21.1	21.9	22.3
	6H	19.8	20.5	20.3	20.9	21.5	21.2	21.9	21.8	22.3	22.9
	8H	20.1	20.7	20.6	21.1	21.7	21.4	22.0	21.9	22.5	23.1

Maximum UGR = 23.1

POLAR GRAPH



Maximum Candela = 1573.52 Located At Horizontal Angle = 0, Vertical Angle = 5
1 - Vertical Plane Through Horizontal Angles (90 - 270)
2 - Horizontal Cone Through Vertical Angle (5) (Through Max. Cd.)