



IES INDOOR REPORT

PHOTOMETRIC FILENAME : AT3-24-L55-840-D-(L45)-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

[ISSUEDATE] 11/08/2022

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] 2x4 RECESSED LED LUMINAIRE

[MORE] FROSTED ACRYLIC CONCAVE LENS IN DOOR

[MORE] SECONDARY CENTER SHIELDING MEDIA

[LUMCAT] AT3-24-L55-840-D-(L45)-DIM-UNV

[LAMPCAT] HLM 80 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	4712
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	128
Total Luminaire Watts	36.8
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	2146	2399	2559
55	1829	2120	2255
65	1661	2029	2179
75	1412	1931	1931
85	1251	892	834

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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	1877.386	1877.386	1877.386	1877.386	1877.386
5	1867.456	1868.118	1868.118	1868.780	1869.442
10	1829.723	1831.709	1836.343	1842.301	1846.273
15	1762.201	1766.835	1777.426	1793.314	1800.596
20	1660.917	1670.847	1696.002	1726.454	1739.031
25	1524.549	1537.126	1574.197	1615.240	1633.776
30	1380.898	1515.943	1431.871	1427.237	1531.168
35	1235.262	1257.769	1321.982	1384.870	1408.701
40	1095.583	1121.400	1198.191	1259.755	1279.615
45	994.962	1026.737	1112.133	1168.401	1186.275
50	837.409	873.819	953.257	999.595	1011.511
55	687.801	725.534	797.028	834.761	848.001
60	559.376	598.433	659.336	693.759	705.013
65	460.079	503.108	562.024	594.461	603.729
70	348.203	393.880	447.501	473.318	477.952
75	239.638	285.315	327.682	331.654	327.682
80	154.904	201.243	197.271	137.031	124.453
85	71.494	82.086	50.973	48.325	47.663
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	678.52	N.A.	14.40
0-30	1405.97	N.A.	29.80
0-40	2234.59	N.A.	47.40
0-60	3774.18	N.A.	80.10
0-80	4632.99	N.A.	98.30
0-90	4711.72	N.A.	100.00
10-90	4534.39	N.A.	96.20
20-40	1556.07	N.A.	33.00
20-50	2391.96	N.A.	50.80
40-70	2077.89	N.A.	44.10
60-80	858.81	N.A.	18.20
70-80	320.50	N.A.	6.80
80-90	78.73	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	4711.72	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	177.34
10-20	501.19
20-30	727.44
30-40	828.63
40-50	835.89
50-60	703.69
60-70	538.31
70-80	320.50
80-90	78.73
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

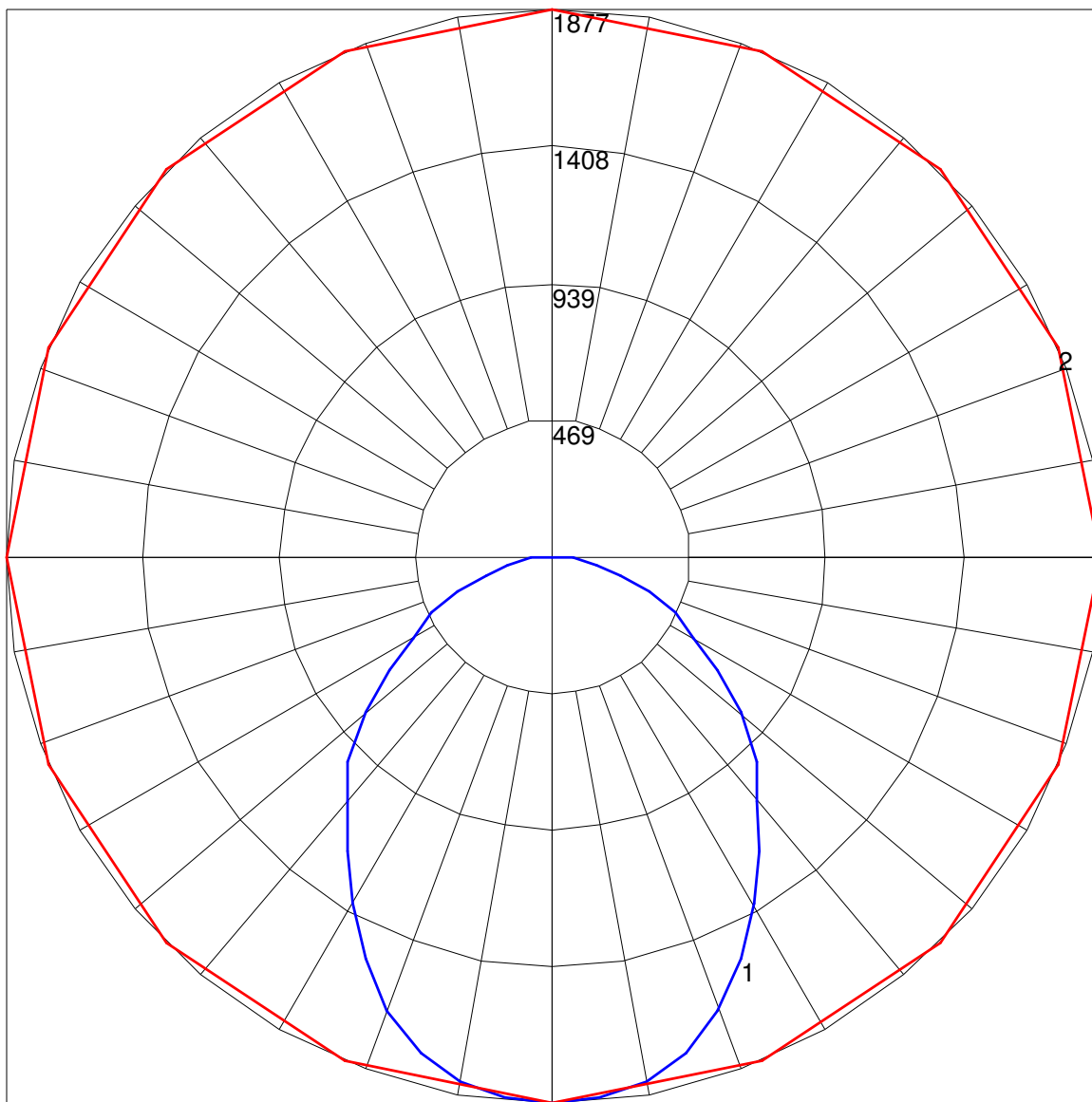
X=2H	Y=2H	13.8	15.4	14.2	15.7	16.0	14.9	16.5	15.2	16.8	17.1
	3H	15.6	17.0	15.9	17.3	17.7	16.9	18.4	17.3	18.7	19.0
	4H	16.2	17.6	16.6	17.9	18.3	17.6	19.0	18.0	19.4	19.7
	6H	16.7	18.0	17.1	18.4	18.8	18.0	19.2	18.4	19.6	20.0
	8H	16.9	18.1	17.3	18.5	18.9	18.0	19.2	18.4	19.6	20.0
	12H	17.1	18.2	17.5	18.6	19.0	18.1	19.2	18.5	19.6	20.0

UGR Viewed Endwise

4H	2H	14.6	16.0	15.0	16.4	16.7	15.5	16.8	15.9	17.2	17.6
	3H	16.7	17.8	17.1	18.2	18.6	17.7	18.9	18.2	19.3	19.7
	4H	17.5	18.5	17.9	18.9	19.3	18.6	19.7	19.1	20.1	20.5
	6H	18.1	19.1	18.6	19.5	19.9	19.0	19.9	19.5	20.4	20.8
	8H	18.4	19.2	18.8	19.7	20.1	19.1	20.0	19.6	20.4	20.9
	12H	18.5	19.3	19.0	19.8	20.3	19.1	19.9	19.6	20.4	20.9
8H	4H	17.9	18.8	18.4	19.2	19.7	18.9	19.8	19.4	20.2	20.7
	6H	18.8	19.5	19.3	20.0	20.5	19.4	20.1	19.9	20.6	21.1
	8H	19.1	19.7	19.6	20.3	20.7	19.5	20.2	20.0	20.7	21.2
	12H	19.4	19.9	19.9	20.4	21.0	19.6	20.2	20.1	20.7	21.2
12H	4H	18.0	18.7	18.4	19.2	19.7	18.9	19.7	19.4	20.2	20.7
	6H	18.9	19.5	19.4	20.0	20.5	19.5	20.1	20.0	20.6	21.1
	8H	19.2	19.8	19.7	20.3	20.9	19.6	20.2	20.2	20.7	21.3

Maximum UGR = 21.3

POLAR GRAPH



Maximum Candela = 1877.386 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.)