



IES INDOOR REPORT

PHOTOMETRIC FILENAME : AT3-24-L40-835-D-(L31)-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] 06-21-2022

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] 4-56LED 22"ARRAYS 2x4' RECESSED LUMINAIRE

[MORE] WHITE REFLECTOR w/FROSTED ACRYLIC CONCAVE LENS

[MORE] SQUARE FLOATING CENTER SHIELD

[LUMCAT] AT3-24-L40-835-D-(L31)-DIM-UNV

[LAMPCAT] HLM 80 CRI 3500K 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	3124
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	123
Total Luminaire Watts	25.4
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	1423	1591	1697
55	1213	1405	1495
65	1101	1345	1445
75	936	1280	1280
85	830	591	553

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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	1244.684	1244.684	1244.684	1244.684	1244.684
5	1238.101	1238.540	1238.540	1238.979	1239.418
10	1213.084	1214.401	1217.473	1221.423	1224.057
15	1168.318	1171.390	1178.412	1188.946	1193.773
20	1101.168	1107.752	1124.429	1144.618	1152.957
25	1010.757	1019.096	1043.674	1070.885	1083.174
30	915.519	1005.052	949.313	946.241	1015.146
35	818.964	833.886	876.458	918.152	933.952
40	726.358	743.475	794.386	835.203	848.369
45	659.648	680.714	737.331	774.636	786.486
50	555.192	579.331	631.998	662.720	670.620
55	456.004	481.020	528.420	553.437	562.215
60	370.860	396.754	437.132	459.954	467.415
65	305.027	333.554	372.615	394.121	400.265
70	230.855	261.138	296.688	313.804	316.877
75	158.877	189.160	217.249	219.883	217.249
80	102.700	133.422	130.788	90.850	82.511
85	47.400	54.422	33.794	32.039	31.600
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	449.85	N.A.	14.40
0-30	932.14	N.A.	29.80
0-40	1481.51	N.A.	47.40
0-60	2502.23	N.A.	80.10
0-80	3071.62	N.A.	98.30
0-90	3123.82	N.A.	100.00
10-90	3006.24	N.A.	96.20
20-40	1031.66	N.A.	33.00
20-50	1585.84	N.A.	50.80
40-70	1377.62	N.A.	44.10
60-80	569.38	N.A.	18.20
70-80	212.49	N.A.	6.80
80-90	52.20	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	3123.82	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	117.57
10-20	332.28
20-30	482.29
30-40	549.37
40-50	554.19
50-60	466.54
60-70	356.89
70-80	212.49
80-90	52.20
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

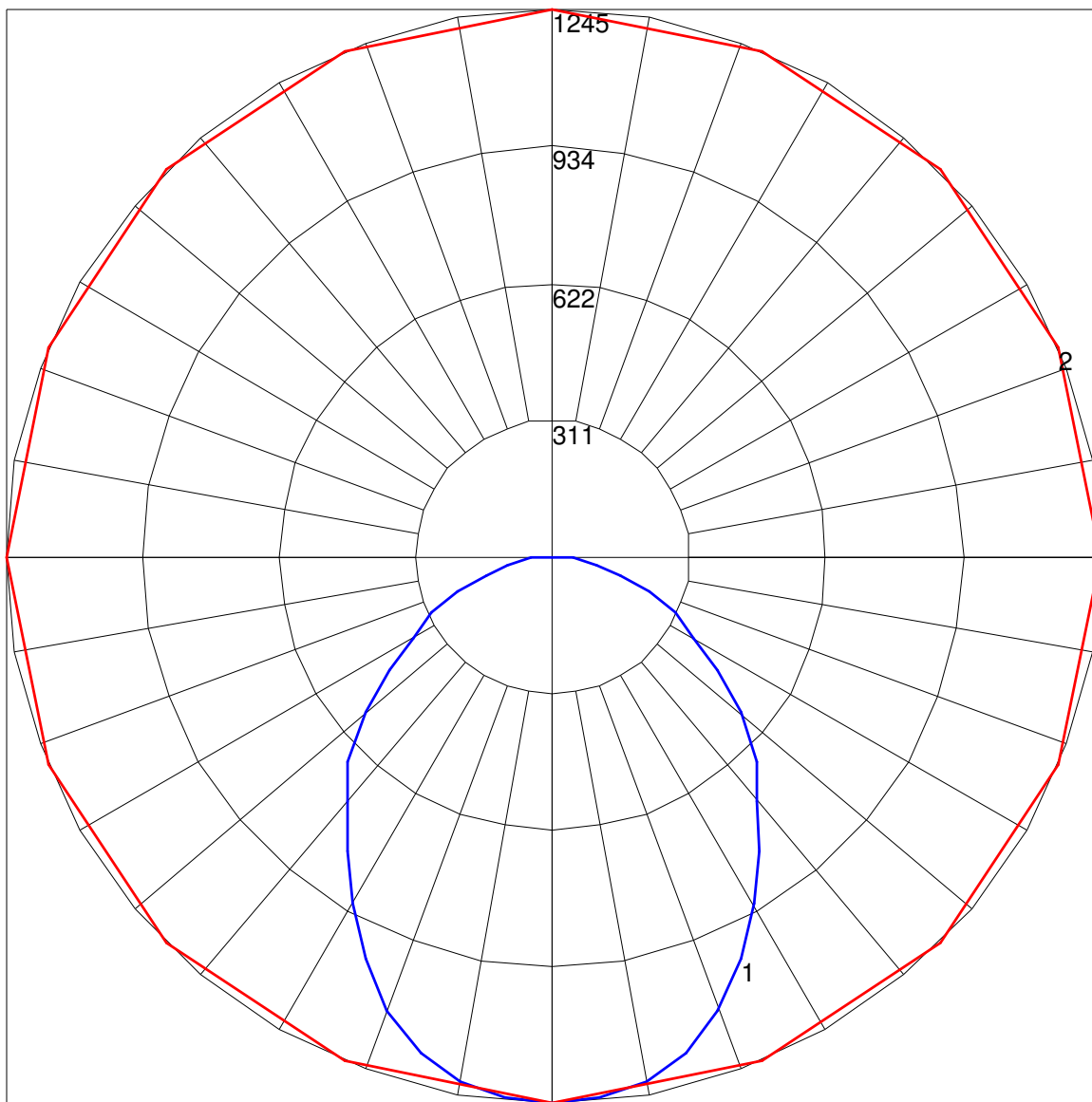
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UGR TABLE - CORRECTED

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					UGR Viewed Endwise				
X=2H	Y=2H	12.4	14.0	12.8	14.3	14.6	13.5	15.1	13.8	15.4	15.7
	3H	14.2	15.6	14.5	15.9	16.3	15.5	17.0	15.9	17.3	17.6
	4H	14.8	16.2	15.2	16.5	16.9	16.2	17.6	16.6	18.0	18.3
	6H	15.3	16.6	15.7	17.0	17.4	16.6	17.8	17.0	18.2	18.6
	8H	15.5	16.7	16.0	17.1	17.5	16.6	17.8	17.0	18.2	18.6
	12H	15.7	16.8	16.1	17.2	17.6	16.7	17.8	17.1	18.2	18.6
4H	2H	13.2	14.6	13.6	15.0	15.3	14.1	15.4	14.5	15.8	16.2
	3H	15.3	16.4	15.7	16.8	17.2	16.3	17.5	16.8	17.9	18.3
	4H	16.1	17.1	16.5	17.5	17.9	17.2	18.3	17.7	18.7	19.1
	6H	16.7	17.7	17.2	18.1	18.5	17.6	18.5	18.1	19.0	19.4
	8H	17.0	17.8	17.4	18.3	18.7	17.7	18.6	18.2	19.0	19.5
	12H	17.1	17.9	17.6	18.4	18.9	17.8	18.5	18.2	19.0	19.5
8H	4H	16.5	17.4	17.0	17.8	18.3	17.5	18.4	18.0	18.8	19.3
	6H	17.4	18.1	17.9	18.6	19.1	18.0	18.7	18.5	19.2	19.7
	8H	17.7	18.3	18.2	18.9	19.3	18.1	18.8	18.6	19.3	19.8
	12H	18.0	18.5	18.5	19.0	19.6	18.2	18.8	18.7	19.3	19.8
12H	4H	16.6	17.3	17.0	17.8	18.3	17.6	18.3	18.0	18.8	19.3
	6H	17.5	18.1	18.0	18.6	19.1	18.1	18.7	18.6	19.2	19.7
	8H	17.8	18.4	18.3	18.9	19.5	18.2	18.8	18.8	19.3	19.9

Maximum UGR = 19.9

POLAR GRAPH



Maximum Candela = 1244.684 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.)