



IES INDOOR REPORT

PHOTOMETRIC FILENAME : AT3-24-L55-835-D-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] 3-JAN-2020

[MANUFAC] WILLIAMS INDOOR

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

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

[MORE] WHITE REFLECTOR w/FROSTED ACRYLIC CONCAVE LX4 LENS IN DOOR

[LUMCAT] AT3-24-L55-835-D-DIM-UNV

[_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	5302
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	110
Total Luminaire Watts	48.04
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	2415	2699	2879
55	2058	2385	2538
65	1868	2283	2452
75	1589	2173	2173
85	1408	1004	939

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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	2112.457	2112.457	2112.457	2112.457	2112.457
5	2101.284	2102.029	2102.029	2102.774	2103.519
10	2058.826	2061.061	2066.275	2072.979	2077.448
15	1982.850	1988.064	1999.982	2017.859	2026.052
20	1868.884	1880.057	1908.362	1942.626	1956.779
25	1715.440	1729.593	1771.306	1817.488	1838.344
30	1553.803	1705.757	1611.158	1605.944	1722.889
35	1389.931	1415.257	1487.510	1558.272	1585.088
40	1232.763	1261.813	1348.218	1417.492	1439.838
45	1119.543	1155.297	1251.385	1314.699	1334.811
50	942.263	983.231	1072.616	1124.757	1138.165
55	773.922	816.380	896.826	939.284	954.181
60	629.417	673.364	741.893	780.626	793.289
65	517.686	566.103	632.396	668.895	679.323
70	391.803	443.199	503.534	532.584	537.798
75	269.644	321.040	368.712	373.181	368.712
80	174.300	226.441	221.972	154.189	140.036
85	80.446	92.364	57.355	54.376	53.631
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	763.48	N.A.	14.40
0-30	1582.01	N.A.	29.80
0-40	2514.39	N.A.	47.40
0-60	4246.75	N.A.	80.10
0-80	5213.1	N.A.	98.30
0-90	5301.69	N.A.	100.00
10-90	5102.15	N.A.	96.20
20-40	1750.91	N.A.	33.00
20-50	2691.47	N.A.	50.80
40-70	2338.07	N.A.	44.10
60-80	966.35	N.A.	18.20
70-80	360.63	N.A.	6.80
80-90	88.59	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	5301.69	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	199.54
10-20	563.94
20-30	818.53
30-40	932.38
40-50	940.56
50-60	791.80
60-70	605.72
70-80	360.63
80-90	88.59
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	163	163	163	163	159	159	159	159	152	152	152	146	146	146	140	140	140	137
1	149	143	137	132	145	140	134	130	134	130	126	129	125	122	124	121	118	115
2	136	125	116	108	132	122	114	107	117	110	104	113	107	102	109	104	100	97
3	124	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	76	67	102	86	75	66	83	73	66	81	72	65	78	70	64	61
6	97	79	67	58	95	78	66	58	75	65	58	73	64	57	71	63	57	54
7	90	72	60	52	88	71	60	52	69	59	51	67	58	51	65	57	51	48
8	84	66	54	46	82	65	54	46	63	53	46	61	52	46	60	52	45	43
9	79	61	49	42	77	60	49	42	58	48	42	57	48	41	55	47	41	39
10	74	56	45	38	72	55	45	38	54	44	38	53	44	38	51	43	38	35

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UGR TABLE - CORRECTED

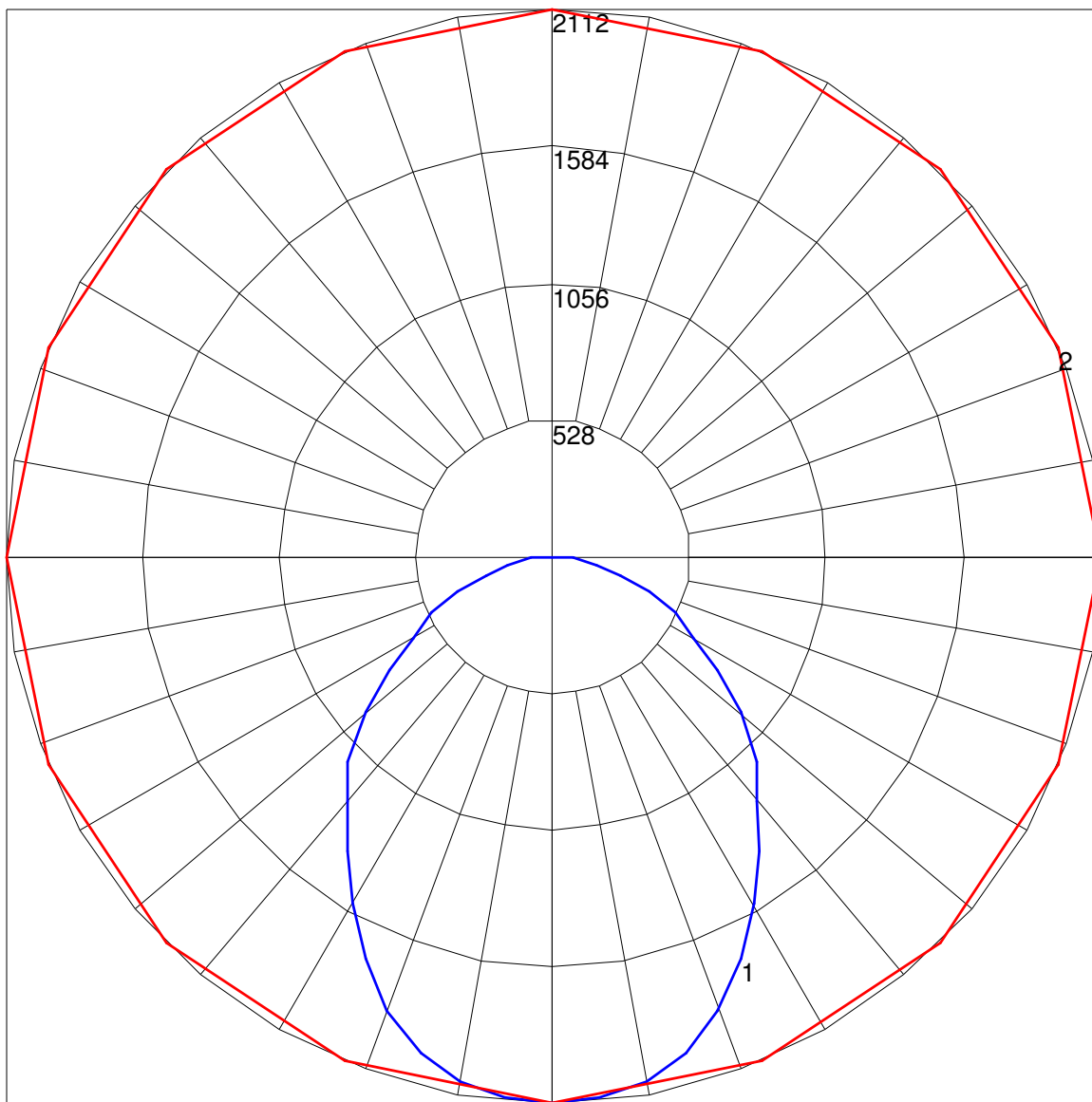
Reflectances

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					UGR Viewed Endwise				
X=2H	Y=2H	13.1	14.7	13.5	15.0	15.3	14.2	15.8	14.5	16.1	16.4
	3H	14.9	16.3	15.2	16.6	17.0	16.2	17.7	16.6	18.0	18.3
	4H	15.5	16.9	15.9	17.2	17.6	16.9	18.3	17.3	18.7	19.0
	6H	16.0	17.3	16.4	17.7	18.1	17.3	18.5	17.7	18.9	19.3
	8H	16.2	17.4	16.7	17.8	18.2	17.3	18.5	17.7	18.9	19.3
	12H	16.4	17.5	16.8	17.9	18.3	17.4	18.5	17.8	18.9	19.3
4H	2H	13.9	15.3	14.3	15.7	16.0	14.8	16.1	15.2	16.5	16.9
	3H	16.0	17.1	16.4	17.5	17.9	17.0	18.2	17.5	18.6	19.0
	4H	16.8	17.8	17.2	18.2	18.6	17.9	19.0	18.4	19.4	19.8
	6H	17.4	18.4	17.9	18.8	19.2	18.3	19.2	18.8	19.7	20.1
	8H	17.7	18.5	18.1	19.0	19.4	18.4	19.3	18.9	19.7	20.2
	12H	17.8	18.6	18.3	19.1	19.6	18.5	19.2	18.9	19.7	20.2
8H	4H	17.2	18.1	17.7	18.5	19.0	18.2	19.1	18.7	19.5	20.0
	6H	18.1	18.8	18.6	19.3	19.8	18.7	19.4	19.2	19.9	20.4
	8H	18.4	19.0	18.9	19.6	20.0	18.8	19.5	19.3	20.0	20.5
	12H	18.7	19.2	19.2	19.7	20.3	18.9	19.5	19.4	20.0	20.5
12H	4H	17.3	18.0	17.7	18.5	19.0	18.2	19.0	18.7	19.5	20.0
	6H	18.2	18.8	18.7	19.3	19.8	18.8	19.4	19.3	19.9	20.4
	8H	18.5	19.1	19.0	19.6	20.2	18.9	19.5	19.5	20.0	20.6

Maximum UGR = 20.6

POLAR GRAPH



Maximum Candela = 2112.457 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.)