



IES INDOOR REPORT

PHOTOMETRIC FILENAME : AT3-24-P100-8TW-D-POE 4000K_.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] 4-22" LED ARRAYS 2x4' LUMINAIRE

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

[LUMCAT] AT3-24-P100-8TW-D-PoE 4000k

[_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	9666
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	101
Total Luminaire Watts	95.24
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	4403	4922	5250
55	3753	4349	4627
65	3407	4162	4470
75	2897	3962	3962
85	2567	1830	1711

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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	3851.589	3851.589	3851.589	3851.589	3851.589
5	3831.217	3832.575	3832.575	3833.933	3835.291
10	3753.805	3757.879	3767.386	3779.609	3787.758
15	3615.278	3624.785	3646.515	3679.109	3694.048
20	3407.488	3427.860	3479.468	3541.940	3567.745
25	3127.718	3153.522	3229.576	3313.779	3351.806
30	2833.009	3110.063	2937.583	2928.077	3141.299
35	2534.226	2580.401	2712.138	2841.158	2890.050
40	2247.665	2300.632	2458.172	2584.476	2625.219
45	2041.233	2106.422	2281.618	2397.057	2433.726
50	1718.004	1792.700	1955.673	2050.740	2075.186
55	1411.072	1488.484	1635.160	1712.572	1739.734
60	1147.600	1227.728	1352.674	1423.295	1446.383
65	943.884	1032.161	1153.032	1219.579	1238.593
70	714.364	808.073	918.080	971.046	980.553
75	491.634	585.344	672.262	680.411	672.262
80	317.797	412.864	404.716	281.128	255.324
85	146.675	168.405	104.574	99.142	97.784
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	1392.04	N.A.	14.40
0-30	2884.44	N.A.	29.80
0-40	4584.43	N.A.	47.40
0-60	7742.99	N.A.	80.10
0-80	9504.91	N.A.	98.30
0-90	9666.43	N.A.	100.00
10-90	9302.62	N.A.	96.20
20-40	3192.39	N.A.	33.00
20-50	4907.28	N.A.	50.80
40-70	4262.95	N.A.	44.10
60-80	1761.92	N.A.	18.20
70-80	657.53	N.A.	6.80
80-90	161.52	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	9666.43	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	363.82
10-20	1028.22
20-30	1492.4
30-40	1699.99
40-50	1714.89
50-60	1443.67
60-70	1104.39
70-80	657.53
80-90	161.52
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	441	441	441	441	431	431	431	431	412	412	412	394	394	394	378	378	378	371
1	404	387	371	357	394	378	364	351	362	351	340	348	339	330	335	327	320	312
2	368	338	313	292	358	331	308	289	318	299	282	306	290	276	295	281	270	262
3	336	298	268	245	327	292	265	242	281	258	238	271	251	234	262	244	230	222
4	309	265	233	208	300	260	230	207	251	225	204	242	220	201	234	215	199	191
5	284	237	205	180	277	233	202	179	225	198	177	218	194	176	211	190	174	166
6	263	214	182	158	256	211	180	158	204	177	156	198	174	155	192	170	153	146
7	244	195	163	140	238	192	162	140	186	159	139	181	156	138	176	154	137	130
8	228	178	147	126	222	176	146	125	171	144	125	166	142	124	162	140	123	116
9	213	164	134	114	208	162	133	113	158	131	113	154	129	112	150	128	112	105
10	200	152	123	103	195	150	122	103	146	120	103	143	119	102	139	118	102	95

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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	11.7	13.3	12.1	13.6	13.9	12.8	14.4	13.1	14.7	15.0
	3H	13.5	14.9	13.8	15.2	15.6	14.8	16.3	15.2	16.6	16.9
	4H	14.1	15.5	14.5	15.8	16.2	15.5	16.9	15.9	17.3	17.6
	6H	14.6	15.9	15.0	16.3	16.7	15.9	17.1	16.3	17.5	17.9
	8H	14.8	16.0	15.3	16.4	16.8	15.9	17.1	16.3	17.5	17.9
	12H	15.0	16.1	15.4	16.5	16.9	16.0	17.1	16.4	17.5	17.9

UGR Viewed Endwise

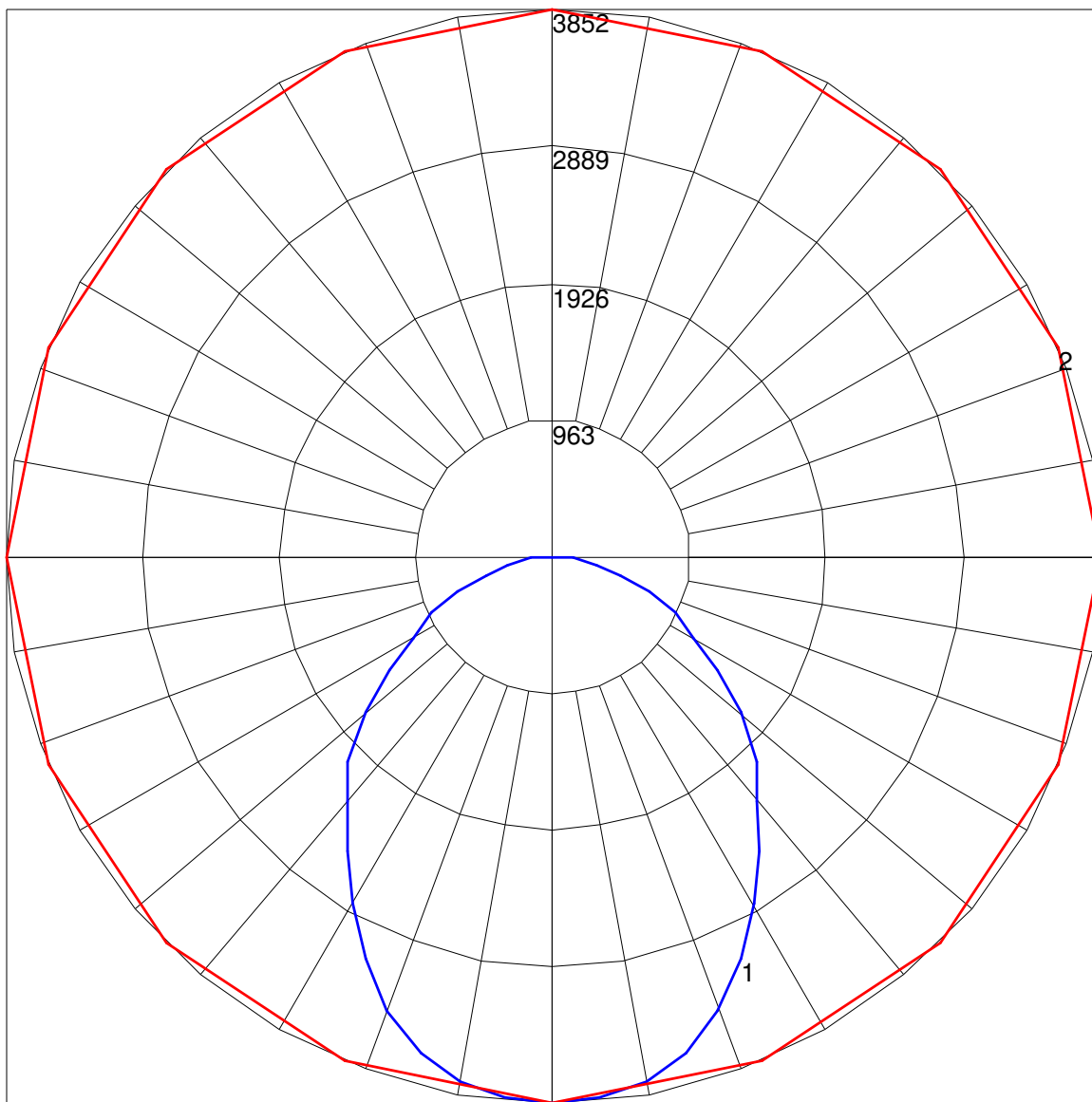
4H	2H	12.5	13.9	12.9	14.3	14.6	13.4	14.7	13.8	15.1	15.5
	3H	14.6	15.7	15.0	16.1	16.5	15.6	16.8	16.1	17.2	17.6
	4H	15.4	16.4	15.8	16.8	17.2	16.5	17.6	17.0	18.0	18.4
	6H	16.0	17.0	16.5	17.4	17.8	16.9	17.8	17.4	18.3	18.7
	8H	16.3	17.1	16.7	17.6	18.0	17.0	17.9	17.5	18.3	18.8
	12H	16.4	17.2	16.9	17.7	18.2	17.1	17.8	17.5	18.3	18.8

8H	4H	15.8	16.7	16.3	17.1	17.6	16.8	17.7	17.3	18.1	18.6
	6H	16.7	17.4	17.2	17.9	18.4	17.3	18.0	17.8	18.5	19.0
	8H	17.0	17.6	17.5	18.2	18.6	17.4	18.1	17.9	18.6	19.1
	12H	17.3	17.8	17.8	18.3	18.9	17.5	18.1	18.0	18.6	19.1

12H	4H	15.9	16.6	16.3	17.1	17.6	16.9	17.6	17.3	18.1	18.6
	6H	16.8	17.4	17.3	17.9	18.4	17.4	18.0	17.9	18.5	19.0
	8H	17.1	17.7	17.6	18.2	18.8	17.6	18.1	18.1	18.6	19.2

Maximum UGR = 19.2

POLAR GRAPH



Maximum Candela = 3851.589 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.)