



IES INDOOR REPORT

PHOTOMETRIC FILENAME : AT3-24-P27-835-D-POE_.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] 16-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-P27-835-D-PoE

[_SEARCH_SOURCE TYPE] 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	2633
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	121
Total Luminaire Watts	21.7
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	1199	1341	1430
55	1022	1184	1260
65	928	1134	1218
75	789	1079	1079
85	699	498	466

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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	1049.057	1049.057	1049.057	1049.057	1049.057
5	1043.508	1043.878	1043.878	1044.248	1044.618
10	1022.424	1023.533	1026.123	1029.452	1031.671
15	984.693	987.282	993.201	1002.079	1006.148
20	928.097	933.646	947.702	964.718	971.746
25	851.896	858.925	879.639	902.574	912.931
30	771.626	847.087	800.109	797.520	855.595
35	690.247	702.824	738.705	773.846	787.163
40	612.196	626.623	669.532	703.933	715.031
45	555.971	573.726	621.444	652.886	662.874
50	467.933	488.278	532.666	558.560	565.218
55	384.334	405.418	445.368	466.453	473.851
60	312.572	334.396	368.428	387.663	393.951
65	257.086	281.129	314.051	332.177	337.355
70	194.571	220.095	250.057	264.484	267.073
75	133.906	159.430	183.104	185.324	183.104
80	86.558	112.452	110.232	76.571	69.543
85	39.950	45.868	28.483	27.003	26.633
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	379.15	N.A.	14.40
0-30	785.63	N.A.	29.80
0-40	1248.66	N.A.	47.40
0-60	2108.96	N.A.	80.10
0-80	2588.85	N.A.	98.30
0-90	2632.84	N.A.	100.00
10-90	2533.75	N.A.	96.20
20-40	869.51	N.A.	33.00
20-50	1336.6	N.A.	50.80
40-70	1161.1	N.A.	44.10
60-80	479.89	N.A.	18.20
70-80	179.09	N.A.	6.80
80-90	43.99	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	2632.84	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	99.09
10-20	280.06
20-30	406.48
30-40	463.03
40-50	467.09
50-60	393.21
60-70	300.80
70-80	179.09
80-90	43.99
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

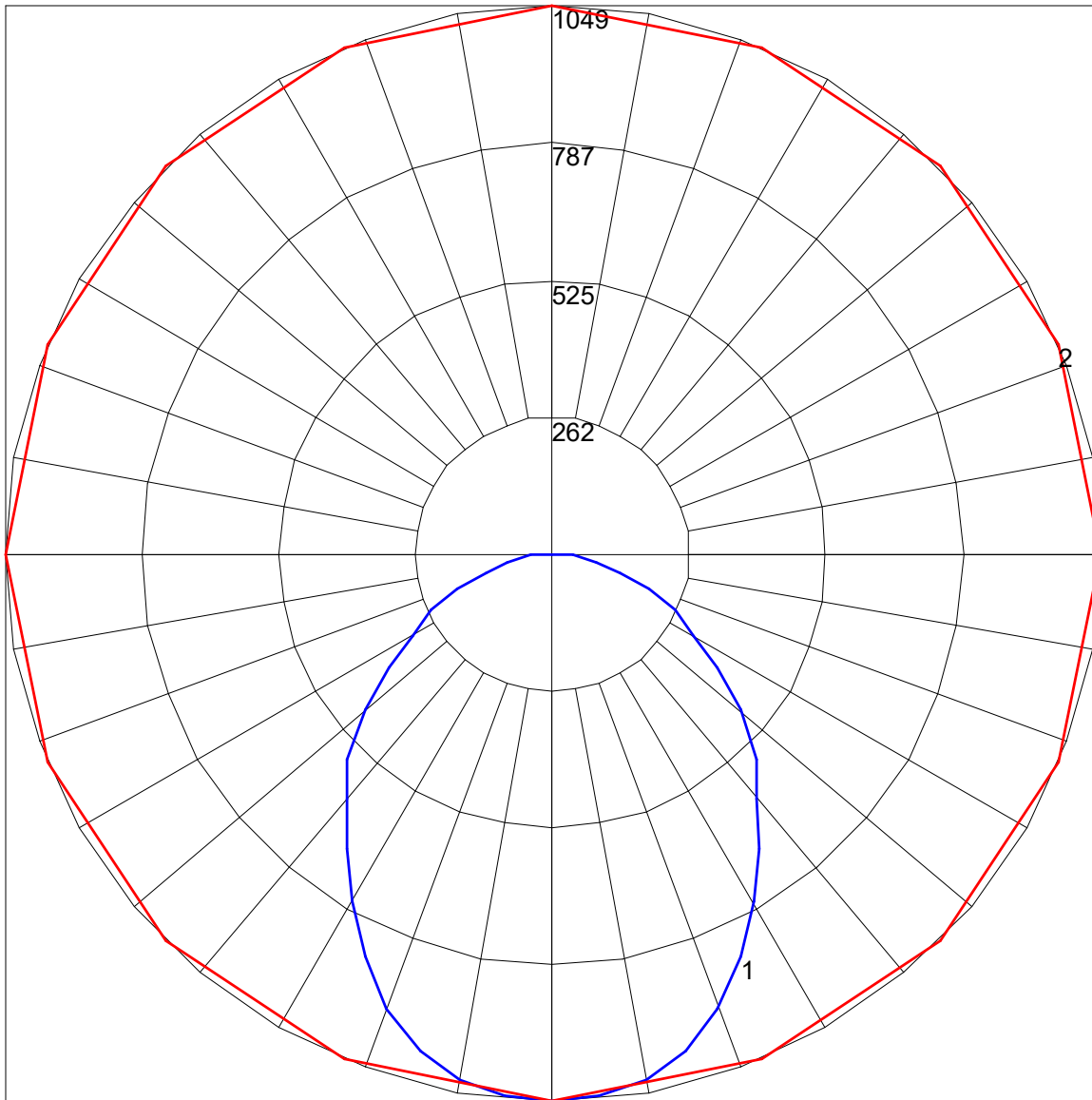
Reflectances

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	11.8	13.4	12.2	13.7	14.0	12.9	14.5	13.2	14.8	15.1
	3H	13.6	15.0	13.9	15.3	15.7	14.9	16.4	15.3	16.7	17.0
	4H	14.2	15.6	14.6	15.9	16.3	15.6	17.0	16.0	17.4	17.7
	6H	14.7	16.0	15.1	16.4	16.8	16.0	17.2	16.4	17.6	18.0
	8H	14.9	16.1	15.4	16.5	16.9	16.0	17.2	16.4	17.6	18.0
	12H	15.1	16.2	15.5	16.6	17.0	16.1	17.2	16.5	17.6	18.0
4H	2H	12.6	14.0	13.0	14.4	14.7	13.5	14.8	13.9	15.2	15.6
	3H	14.7	15.8	15.1	16.2	16.6	15.7	16.9	16.2	17.3	17.7
	4H	15.5	16.5	15.9	16.9	17.3	16.6	17.7	17.1	18.1	18.5
	6H	16.1	17.1	16.6	17.5	17.9	17.0	17.9	17.5	18.4	18.8
	8H	16.4	17.2	16.8	17.7	18.1	17.1	18.0	17.6	18.4	18.9
	12H	16.5	17.3	17.0	17.8	18.3	17.2	17.9	17.6	18.4	18.9
8H	4H	15.9	16.8	16.4	17.2	17.7	16.9	17.8	17.4	18.2	18.7
	6H	16.8	17.5	17.3	18.0	18.5	17.4	18.1	17.9	18.6	19.1
	8H	17.1	17.7	17.6	18.3	18.7	17.5	18.2	18.0	18.7	19.2
	12H	17.4	17.9	17.9	18.4	19.0	17.6	18.2	18.1	18.7	19.2
12H	4H	16.0	16.7	16.4	17.2	17.7	17.0	17.7	17.4	18.2	18.7
	6H	16.9	17.5	17.4	18.0	18.5	17.5	18.1	18.0	18.6	19.1
	8H	17.2	17.8	17.7	18.3	18.9	17.7	18.2	18.2	18.7	19.3

Maximum UGR = 19.3

POLAR GRAPH



Maximum Candela = 1049.057 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.)