



IES INDOOR REPORT

PHOTOMETRIC FILENAME : AT1-24-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

[ISSUEDATE] 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] AT1-24-P27-835-D-PoE

[_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	2743
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	126
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	1249	1397	1490
55	1065	1234	1313
65	967	1181	1268
75	822	1124	1124
85	728	519	486

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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	1092.884	1092.884	1092.884	1092.884	1092.884
5	1087.103	1087.489	1087.489	1087.874	1088.259
10	1065.138	1066.294	1068.991	1072.460	1074.772
15	1025.831	1028.528	1034.694	1043.943	1048.182
20	966.871	972.651	987.295	1005.021	1012.343
25	887.486	894.808	916.388	940.281	951.071
30	803.863	882.477	833.536	830.838	891.340
35	719.084	732.186	769.566	806.175	820.048
40	637.772	652.802	697.503	733.342	744.903
45	579.198	597.695	647.406	680.162	690.567
50	487.482	508.677	554.920	581.895	588.832
55	400.390	422.356	463.975	485.940	493.647
60	325.630	348.366	383.820	403.858	410.409
65	267.826	292.874	327.171	346.054	351.449
70	202.700	229.290	260.504	275.533	278.231
75	139.501	166.091	190.754	193.066	190.754
80	90.174	117.150	114.838	79.770	72.448
85	41.619	47.785	29.673	28.131	27.746
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	394.99	N.A.	14.40
0-30	818.46	N.A.	29.80
0-40	1300.83	N.A.	47.40
0-60	2197.06	N.A.	80.10
0-80	2697.01	N.A.	98.30
0-90	2742.84	N.A.	100.00
10-90	2639.61	N.A.	96.20
20-40	905.84	N.A.	33.00
20-50	1392.44	N.A.	50.80
40-70	1209.61	N.A.	44.10
60-80	499.94	N.A.	18.20
70-80	186.57	N.A.	6.80
80-90	45.83	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	2742.84	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	103.23
10-20	291.76
20-30	423.47
30-40	482.37
40-50	486.60
50-60	409.64
60-70	313.37
70-80	186.57
80-90	45.83
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	11.9	13.5	12.3	13.8	14.1	UGR Viewed Endwise			
	3H	13.7	15.1	14.0	15.4	15.8	13.0	14.6	13.3	14.9
	4H	14.3	15.7	14.7	16.0	16.4	15.0	16.5	15.4	16.8
	6H	14.8	16.1	15.2	16.5	16.9	15.7	17.1	16.1	17.5
	8H	15.0	16.2	15.5	16.6	17.0	16.1	17.3	16.5	17.7
	12H	15.2	16.3	15.6	16.7	17.1	16.1	17.3	16.5	17.7
							16.2	17.3	16.6	17.7

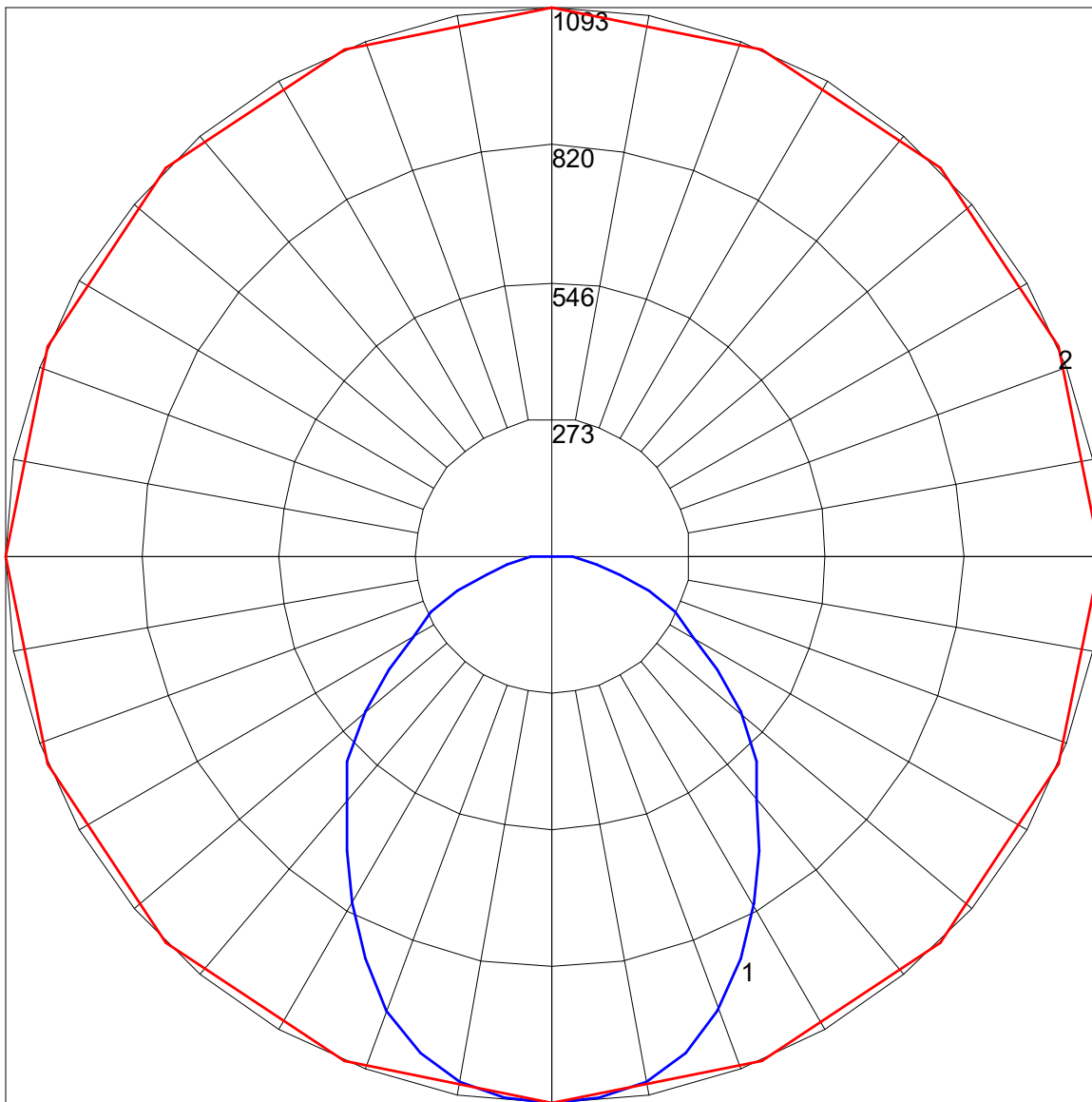
4H	2H	12.7	14.1	13.1	14.5	14.8	13.6	14.9	14.0	15.3
	3H	14.8	15.9	15.2	16.3	16.7	15.8	17.0	16.3	17.4
	4H	15.6	16.6	16.0	17.0	17.4	16.7	17.8	17.2	18.2
	6H	16.2	17.2	16.7	17.6	18.0	17.1	18.0	17.6	18.5
	8H	16.5	17.3	16.9	17.8	18.2	17.2	18.1	17.7	18.5
	12H	16.6	17.4	17.1	17.9	18.4	17.2	18.1	17.7	18.5

8H	4H	16.0	16.9	16.5	17.3	17.8	17.0	17.9	17.5	18.3
	6H	16.9	17.6	17.4	18.1	18.6	17.5	18.2	18.0	18.7
	8H	17.2	17.8	17.7	18.4	18.8	17.6	18.3	18.1	18.8
	12H	17.5	18.0	18.0	18.5	19.1	17.6	18.3	18.1	18.8

12H	4H	16.1	16.8	16.5	17.3	17.8	17.7	18.3	18.2	18.8
	6H	17.0	17.6	17.5	18.1	18.6	17.1	17.8	17.5	18.3
	8H	17.3	17.9	17.8	18.4	19.0	17.6	18.2	18.1	18.7

Maximum UGR = 19.4

POLAR GRAPH



Maximum Candela = 1092.884 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.)