



IES INDOOR REPORT

PHOTOMETRIC FILENAME : AXA-4-P7-835-S-LVRS-POE_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN FROM BALLABS TEST NO. 18640.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 14-JUL-2020

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] 2-56 LED 22" ARRAYS 4' SUSPEND BIDIRECT WHITE REFL LUMINAIRE

[MORE] 23 PER SIDE .125"X2"SLOTS w/WHT ACRYLIC OVERLAY & 24CELL

[MORE] 2" OC 1.25" DP WHT BLADE LVR w/OVERLAY

[LUMCAT] AXA-4-P7-835-S-LVRS-PoE

[LAMPCAT] HLM 80 CRI 3500K CCT

[_SEARCH_SOURCETYPE] LED

[_SEARCH_APPLICATION] Architectural, Classroom, Office, Direct-Indirect

[_SEARCH_MOUNTING] Suspended

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	2727
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	119
Total Luminaire Watts	23
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.10
Spacing Criterion (90-270)	1.14
Spacing Criterion (Diagonal)	1.20
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	3.84 ft
Luminous Width (90-270)	0.31 ft
Luminous Height	0.26 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	7865	4982	4579
55	6401	3400	2821
65	4874	1998	1472
75	3109	983	759
85	1882	368	307

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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	1275.157	1275.157	1275.157	1275.157	1275.157
5	1242.610	1242.029	1244.935	1249.003	1251.328
10	1204.250	1205.413	1212.969	1222.849	1228.661
15	1145.549	1149.617	1155.430	1169.378	1181.584
20	1072.899	1076.967	1082.198	1100.215	1119.395
25	983.975	984.556	989.206	1005.479	1026.984
30	919.462	917.718	919.462	933.410	958.402
35	818.332	816.008	814.845	825.307	849.717
40	731.733	728.246	721.853	726.502	749.751
45	664.314	656.758	644.553	641.066	663.151
50	549.236	541.099	524.244	511.458	524.825
55	450.432	439.389	416.141	392.311	395.799
60	344.653	333.029	306.293	278.396	275.490
65	263.866	251.079	223.182	198.771	193.540
70	179.591	167.967	149.369	134.839	129.608
75	112.753	106.941	95.898	90.668	90.086
80	72.069	67.419	59.864	59.283	59.283
85	32.547	29.060	29.641	30.804	31.385
90	2.906	4.650	8.137	9.299	11.043
95	0.000	3.487	6.393	8.718	9.299
100	1.162	4.650	6.974	9.299	10.462
105	1.162	4.650	6.974	10.462	10.462
110	2.906	6.393	9.299	11.043	11.624
115	3.487	6.393	10.462	11.043	11.624
120	4.650	8.137	11.043	13.368	13.368
125	4.650	8.718	12.786	13.368	13.368
130	6.393	10.462	12.786	13.368	13.368
135	8.137	11.043	14.530	14.530	15.111
140	11.043	13.368	15.111	16.855	16.855
145	11.624	13.368	15.111	16.855	15.111
150	13.368	14.530	16.274	17.436	16.855
155	13.368	15.111	16.274	17.436	16.855
160	14.530	15.692	17.436	18.017	17.436
165	15.692	18.598	19.761	20.923	19.761
170	16.855	16.855	16.855	19.180	17.436
175	17.436	17.436	17.436	17.436	16.274
180	16.274	16.274	16.274	16.274	16.274

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	444.26	N.A.	16.30
0-30	906.37	N.A.	33.20
0-40	1422.98	N.A.	52.20
0-60	2290.34	N.A.	84.00
0-80	2624.00	N.A.	96.20
0-90	2659.69	N.A.	97.50
10-90	2541.55	N.A.	93.20
20-40	978.72	N.A.	35.90
20-50	1472.83	N.A.	54.00
40-70	1092.27	N.A.	40.10
60-80	333.66	N.A.	12.20
70-80	108.75	N.A.	4.00
80-90	35.69	N.A.	1.30
90-110	14.68	N.A.	0.50
90-120	23.75	N.A.	0.90
90-130	33.60	N.A.	1.20
90-150	53.12	N.A.	1.90
90-180	67.38	N.A.	2.50
110-180	52.70	N.A.	1.90
0-180	2727.07	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	118.14
10-20	326.12
20-30	462.11
30-40	516.61
40-50	494.11
50-60	373.24
60-70	224.91
70-80	108.75
80-90	35.69
90-100	6.98
100-110	7.70
110-120	9.08
120-130	9.85
130-140	10.10
140-150	9.41
150-160	7.46
160-170	5.15
170-180	1.65

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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

Effective Floor Cavity Reflectance 0.20

RC RW	80				70				50			30			10			0
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	87	87	87	87	85	85	85	85	81	81	81	77	77	77	74	74	74	72
1	81	78	75	72	79	76	73	71	72	70	68	69	68	66	66	65	64	62
2	74	69	64	60	72	67	63	60	64	61	58	62	59	56	59	57	55	53
3	68	61	56	51	66	60	55	51	57	53	50	55	52	49	53	50	48	46
4	63	55	49	44	61	54	48	44	52	47	43	50	46	42	48	45	42	40
5	58	49	43	39	57	48	43	38	47	42	38	45	41	37	44	40	37	35
6	54	45	39	34	52	44	38	34	43	37	34	41	37	33	40	36	33	31
7	50	41	35	30	49	40	34	30	39	34	30	38	33	30	37	32	29	28
8	47	37	32	27	46	37	31	27	36	31	27	35	30	27	34	30	27	25
9	44	35	29	25	43	34	29	25	33	28	25	32	28	24	31	27	24	23
10	41	32	26	23	40	32	26	23	31	26	22	30	25	22	29	25	22	21

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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	16.3	17.8	16.7	18.2	18.5	UGR Viewed Endwise			
	3H	17.3	18.6	17.7	19.0	19.4	16.7	18.2	17.1	18.5
	4H	17.5	18.8	18.0	19.2	19.6	17.7	19.0	18.1	19.4
	6H	17.7	18.8	18.1	19.2	19.7	18.0	19.3	18.5	19.7
	8H	17.7	18.8	18.2	19.2	19.7	18.3	19.5	18.8	19.9
	12H	17.7	18.8	18.2	19.2	19.7	18.4	19.5	18.9	20.0

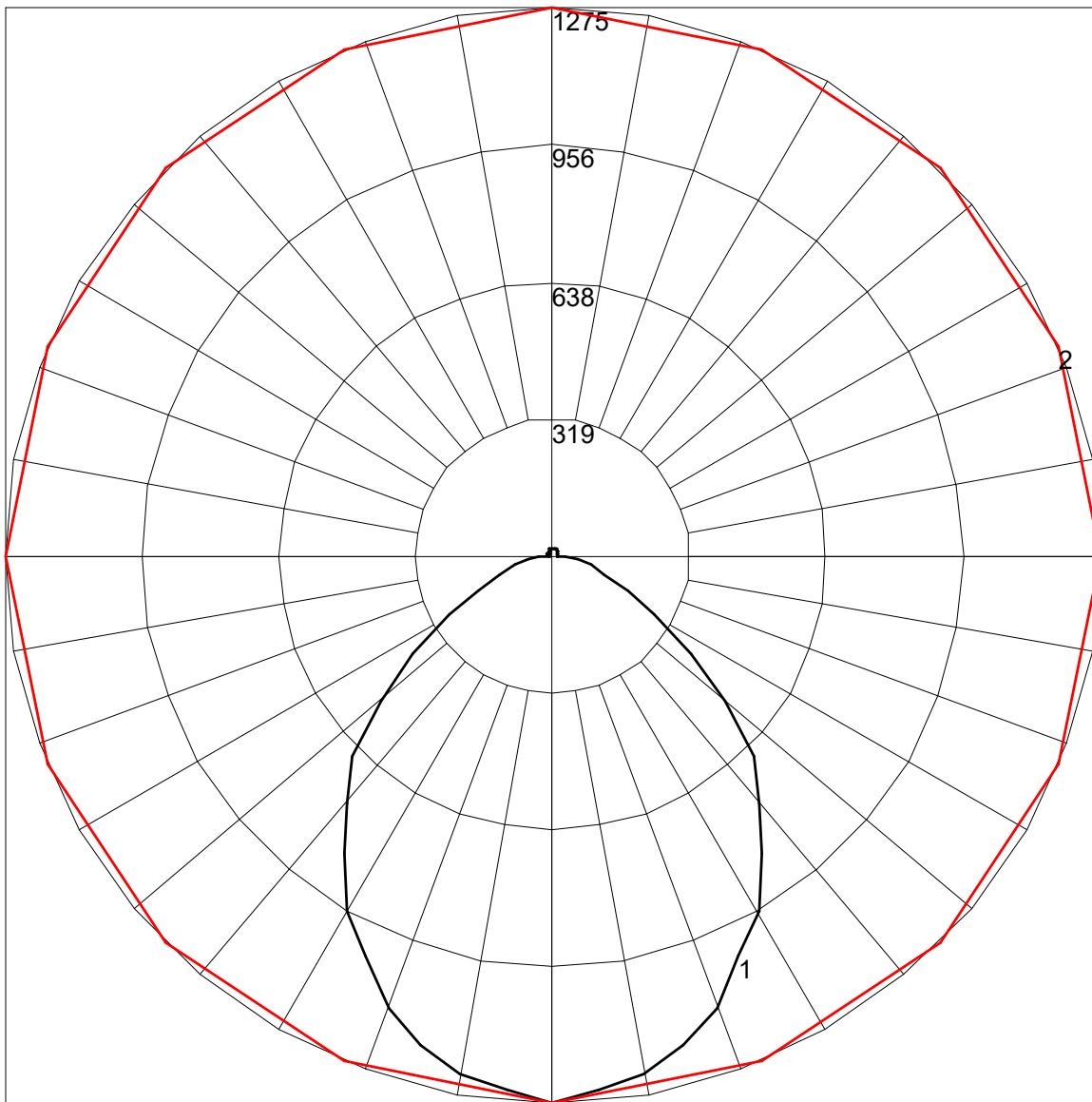
4H	2H	16.6	17.9	17.1	18.3	18.7	18.5	19.6	19.0	20.1
	3H	17.8	18.8	18.2	19.2	19.7	17.0	18.2	17.4	18.6
	4H	18.1	19.0	18.5	19.5	19.9	18.1	19.1	18.5	19.6
	6H	18.3	19.1	18.8	19.6	20.1	18.5	19.4	19.0	19.9
	8H	18.3	19.1	18.8	19.6	20.1	18.9	19.7	19.4	20.2
	12H	18.4	19.0	18.9	19.5	20.1	19.0	19.8	19.5	20.3

8H	4H	18.1	18.9	18.6	19.4	19.9	19.1	19.8	20.3	20.8
	6H	18.4	19.0	18.9	19.6	20.1	18.6	19.3	19.1	19.8
	8H	18.5	19.1	19.0	19.6	20.1	19.0	19.6	19.5	20.1
	12H	18.5	19.0	19.1	19.6	20.2	19.2	19.7	19.7	20.3

12H	4H	18.1	18.8	18.7	19.3	19.8	20.3	20.8	20.9	20.9
	6H	18.4	19.0	19.0	19.5	20.1	18.6	19.2	19.1	19.7
	8H	18.5	19.0	19.1	19.5	20.2	19.0	19.5	19.5	20.0

Maximum UGR = 20.9

POLAR GRAPH



Maximum Candela = 1275.157 Located At Horizontal Angle = 0, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (90 - 270)
2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)