



IES INDOOR REPORT

PHOTOMETRIC FILENAME : AXA-8-L8-840-LVRX-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] GEN FROM BALLABS TEST NO. 18640.0
 [TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
 [ISSUE DATE] 08-24-2021
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
 [LUMINAIRE] 8' SUSPENDED BIDIRECT WHITE REFL LUMINAIRE
 [MORE] 23PER SIDE w/WHT ACRYLIC OVERLAY & 24CELL
 [MORE] 2"OC 1.25"DP WHT BLADE LVR w/OVERLAY EVERLINE #D21CC80UNV
 [LUMCAT] AXA-8-L8-840-LVRx-DIM-UNV
 [LAMPCAT] HLM 80 CRI 4000K 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	11201
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	110
Total Luminaire Watts	101.8
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)	8.00 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	16051	9985	9037
55	13238	6838	5568
65	10296	4035	2904
75	6854	1994	1498
85	4803	752	605

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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	5237.637	5237.637	5237.637	5237.637	5237.637
5	5103.951	5101.564	5113.500	5130.211	5139.760
10	4946.392	4951.167	4982.201	5022.784	5046.657
15	4705.280	4721.990	4745.863	4803.157	4853.289
20	4406.873	4423.583	4445.069	4519.074	4597.853
25	4041.623	4044.010	4063.108	4129.951	4218.280
30	3776.637	3769.476	3776.637	3833.931	3936.583
35	3361.255	3351.706	3346.931	3389.902	3490.167
40	3005.554	2991.230	2964.971	2984.069	3079.559
45	2728.632	2697.598	2647.466	2633.142	2723.858
50	2255.956	2222.534	2153.304	2100.784	2155.691
55	1850.123	1804.765	1709.275	1611.397	1625.721
60	1415.642	1367.897	1258.083	1143.495	1131.559
65	1083.814	1031.294	916.706	816.441	794.956
70	737.662	689.917	613.525	553.843	532.358
75	463.127	439.255	393.897	372.412	370.025
80	296.020	276.922	245.887	243.500	243.500
85	133.686	119.363	121.750	126.525	128.912
90	11.936	19.098	33.422	38.196	45.358
95	0.000	14.324	26.260	35.809	38.196
100	4.775	19.098	28.647	38.196	42.971
105	4.775	19.098	28.647	42.971	42.971
110	11.936	26.260	38.196	45.358	47.745
115	14.324	26.260	42.971	45.358	47.745
120	19.098	33.422	45.358	54.907	54.907
125	19.098	35.809	52.520	54.907	54.907
130	26.260	42.971	52.520	54.907	54.907
135	33.422	45.358	59.681	59.681	62.069
140	45.358	54.907	62.069	69.230	69.230
145	47.745	54.907	62.069	69.230	62.069
150	54.907	59.681	66.843	71.618	69.230
155	54.907	62.069	66.843	71.618	69.230
160	59.681	64.456	71.618	74.005	71.618
165	64.456	76.392	81.167	85.941	81.167
170	69.230	69.230	69.230	78.779	71.618
175	71.618	71.618	71.618	71.618	66.843
180	66.843	66.843	66.843	66.843	66.843

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	1824.78	N.A.	16.30
0-30	3722.88	N.A.	33.20
0-40	5844.82	N.A.	52.20
0-60	9407.44	N.A.	84.00
0-80	10777.94	N.A.	96.20
0-90	10924.53	N.A.	97.50
10-90	10439.26	N.A.	93.20
20-40	4020.04	N.A.	35.90
20-50	6049.58	N.A.	54.00
40-70	4486.44	N.A.	40.10
60-80	1370.5	N.A.	12.20
70-80	446.68	N.A.	4.00
80-90	146.60	N.A.	1.30
90-110	60.28	N.A.	0.50
90-120	97.56	N.A.	0.90
90-130	138.02	N.A.	1.20
90-150	218.18	N.A.	1.90
90-180	276.75	N.A.	2.50
110-180	216.47	N.A.	1.90
0-180	11201.28	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	485.27
10-20	1339.51
20-30	1898.1
30-40	2121.94
40-50	2029.53
50-60	1533.08
60-70	923.82
70-80	446.68
80-90	146.60
90-100	28.65
100-110	31.62
110-120	37.28
120-130	40.46
130-140	41.49
140-150	38.67
150-160	30.66
160-170	21.15
170-180	6.76

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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	118	118	118	118	115	115	115	115	110	110	110	105	105	105	100	100	100	98
1	109	105	101	98	107	103	99	96	98	95	93	94	91	89	90	88	86	84
2	101	93	87	82	98	91	85	81	87	83	78	84	80	76	80	77	74	72
3	92	83	75	70	90	81	74	69	78	72	67	75	70	66	72	68	64	62
4	85	74	66	60	83	73	65	59	70	64	58	67	62	57	65	60	56	54
5	79	67	59	52	77	66	58	52	63	56	51	61	55	50	59	54	50	48
6	73	61	52	46	71	60	52	46	58	51	45	56	50	45	54	49	44	42
7	68	55	47	41	66	54	47	41	53	46	41	51	45	40	50	44	40	38
8	64	51	43	37	62	50	42	37	48	42	37	47	41	36	46	40	36	34
9	59	47	39	34	58	46	39	34	45	38	33	44	37	33	42	37	33	31
10	56	43	36	31	55	43	36	31	42	35	30	41	34	30	39	34	30	28

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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	17.7	19.2	18.1	19.5	19.9	18.2	19.7	18.6	20.0	20.4
	3H	18.7	20.0	19.1	20.4	20.8	19.2	20.5	19.6	20.9	21.3
	4H	18.9	20.2	19.3	20.5	21.0	19.5	20.8	20.0	21.2	21.6
	6H	19.0	20.2	19.5	20.6	21.1	19.9	21.0	20.3	21.4	21.9
	8H	19.1	20.2	19.5	20.6	21.1	20.0	21.1	20.4	21.5	22.0
	12H	19.1	20.1	19.5	20.6	21.0	20.1	21.1	20.5	21.5	22.0

UGR Viewed Endwise

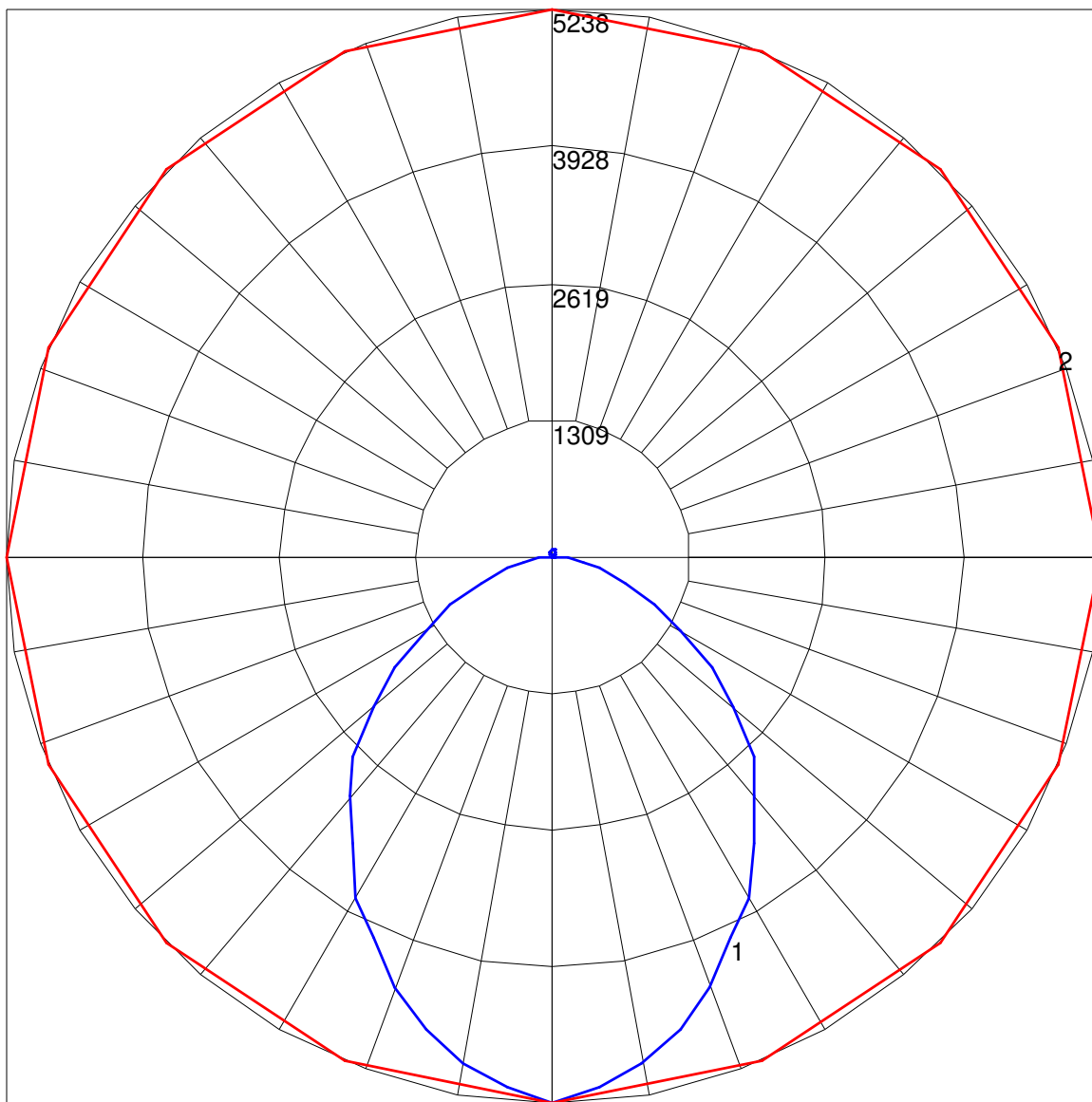
4H	2H	18.0	19.3	18.5	19.7	20.1	18.4	19.7	18.9	20.1	20.5
	3H	19.1	20.2	19.6	20.6	21.1	19.6	20.6	20.0	21.1	21.5
	4H	19.4	20.4	19.9	20.8	21.3	20.0	20.9	20.5	21.4	21.9
	6H	19.7	20.5	20.2	21.0	21.5	20.4	21.2	20.9	21.7	22.2
	8H	19.7	20.5	20.2	21.0	21.5	20.6	21.3	21.0	21.8	22.3
	12H	19.7	20.4	20.3	20.9	21.4	20.7	21.4	21.2	21.9	22.4

8H	4H	19.5	20.3	20.0	20.8	21.3	20.1	20.8	20.6	21.3	21.8
	6H	19.8	20.4	20.3	21.0	21.5	20.5	21.1	21.0	21.7	22.2
	8H	19.9	20.4	20.4	21.0	21.5	20.7	21.3	21.2	21.8	22.3
	12H	19.9	20.4	20.5	21.0	21.6	20.9	21.4	21.4	21.9	22.5

12H	4H	19.5	20.2	20.1	20.7	21.2	20.1	20.7	20.6	21.2	21.8
	6H	19.8	20.4	20.4	20.9	21.5	20.5	21.1	21.1	21.6	22.1
	8H	19.9	20.4	20.4	20.9	21.5	20.7	21.2	21.2	21.7	22.3

Maximum UGR = 22.5

POLAR GRAPH



Maximum Candela = 5237.637 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.)