



IES INDOOR REPORT

PHOTOMETRIC FILENAME : AXA-4-L8-8TW-S-LVRS-DIM-UNV 4000K_.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 & 24 CELL

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

[LUMCAT] AXA-4-L8-8TW-S-LVRS-DIM-UNV 4000k

[_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	3148
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	102
Total Luminaire Watts	31
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	9079	5752	5286
55	7389	3925	3257
65	5626	2307	1699
75	3589	1134	876
85	2173	425	354

IES INDOOR REPORT
PHOTOMETRIC FILENAME : AXA-4-L8-8TW-S-LVRS-DIM-UNV 4000K_.IES

CANDELA TABULATION

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
0	1472.019	1472.019	1472.019	1472.019	1472.019
5	1434.447	1433.776	1437.130	1441.827	1444.511
10	1390.165	1391.507	1400.229	1411.635	1418.344
15	1322.401	1327.098	1333.807	1349.910	1363.999
20	1238.535	1243.232	1249.270	1270.069	1292.210
25	1135.883	1136.554	1141.921	1160.708	1185.532
30	1061.410	1059.397	1061.410	1077.512	1106.362
35	944.668	941.985	940.643	952.719	980.898
40	844.700	840.674	833.294	838.661	865.499
45	766.872	758.150	744.060	740.035	765.530
50	634.028	624.635	605.178	590.418	605.849
55	519.970	507.222	480.385	452.877	456.903
60	397.861	384.442	353.580	321.375	318.020
65	304.602	289.841	257.637	229.458	223.419
70	207.317	193.899	172.429	155.656	149.617
75	130.160	123.451	110.703	104.665	103.994
80	83.195	77.828	69.106	68.435	68.435
85	37.572	33.546	34.217	35.559	36.230
90	3.355	5.367	9.393	10.735	12.748
95	0.000	4.026	7.380	10.064	10.735
100	1.342	5.367	8.051	10.735	12.077
105	1.342	5.367	8.051	12.077	12.077
110	3.355	7.380	10.735	12.748	13.419
115	4.026	7.380	12.077	12.748	13.419
120	5.367	9.393	12.748	15.431	15.431
125	5.367	10.064	14.760	15.431	15.431
130	7.380	12.077	14.760	15.431	15.431
135	9.393	12.748	16.773	16.773	17.444
140	12.748	15.431	17.444	19.457	19.457
145	13.419	15.431	17.444	19.457	17.444
150	15.431	16.773	18.786	20.128	19.457
155	15.431	17.444	18.786	20.128	19.457
160	16.773	18.115	20.128	20.799	20.128
165	18.115	21.470	22.812	24.153	22.812
170	19.457	19.457	19.457	22.141	20.128
175	20.128	20.128	20.128	20.128	18.786
180	18.786	18.786	18.786	18.786	18.786

IES INDOOR REPORT
PHOTOMETRIC FILENAME : AXA-4-L8-8TW-S-LVRS-DIM-UNV 4000K_.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	512.85	N.A.	16.30
0-30	1046.3	N.A.	33.20
0-40	1642.67	N.A.	52.20
0-60	2643.93	N.A.	84.00
0-80	3029.1	N.A.	96.20
0-90	3070.3	N.A.	97.50
10-90	2933.92	N.A.	93.20
20-40	1129.82	N.A.	35.90
20-50	1700.21	N.A.	54.00
40-70	1260.9	N.A.	40.10
60-80	385.17	N.A.	12.20
70-80	125.54	N.A.	4.00
80-90	41.20	N.A.	1.30
90-110	16.94	N.A.	0.50
90-120	27.42	N.A.	0.90
90-130	38.79	N.A.	1.20
90-150	61.32	N.A.	1.90
90-180	77.78	N.A.	2.50
110-180	60.84	N.A.	1.90
0-180	3148.08	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	136.38
10-20	376.46
20-30	533.45
30-40	596.36
40-50	570.39
50-60	430.87
60-70	259.64
70-80	125.54
80-90	41.20
90-100	8.05
100-110	8.89
110-120	10.48
120-130	11.37
130-140	11.66
140-150	10.87
150-160	8.62
160-170	5.95
170-180	1.90

IES INDOOR REPORT

PHOTOMETRIC FILENAME : AXA-4-L8-8TW-S-LVRS-DIM-UNV 4000K_.IES

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	101	101	101	101	98	98	98	98	93	93	93	89	89	89	85	85	85	83
1	93	90	86	83	91	87	85	82	84	81	79	80	78	76	77	75	74	72
2	86	79	74	70	83	78	73	69	74	70	67	71	68	65	68	66	63	61
3	79	71	64	59	77	69	63	59	66	61	57	64	60	56	61	58	55	53
4	73	63	56	51	71	62	56	51	60	54	50	57	53	49	55	51	48	46
5	67	57	50	45	65	56	49	44	54	48	44	52	47	43	50	46	42	41
6	62	52	45	39	61	51	44	39	49	43	39	47	42	38	46	41	38	36
7	58	47	40	35	56	46	40	35	45	39	35	44	38	34	42	37	34	32
8	54	43	36	32	53	43	36	32	41	35	31	40	35	31	39	34	31	29
9	51	40	33	29	49	39	33	29	38	32	28	37	32	28	36	31	28	26
10	48	37	30	26	46	36	30	26	35	30	26	35	29	26	34	29	26	24

IES INDOOR REPORT

PHOTOMETRIC FILENAME : AXA-4-L8-8TW-S-LVRS-DIM-UNV 4000K_.IES

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

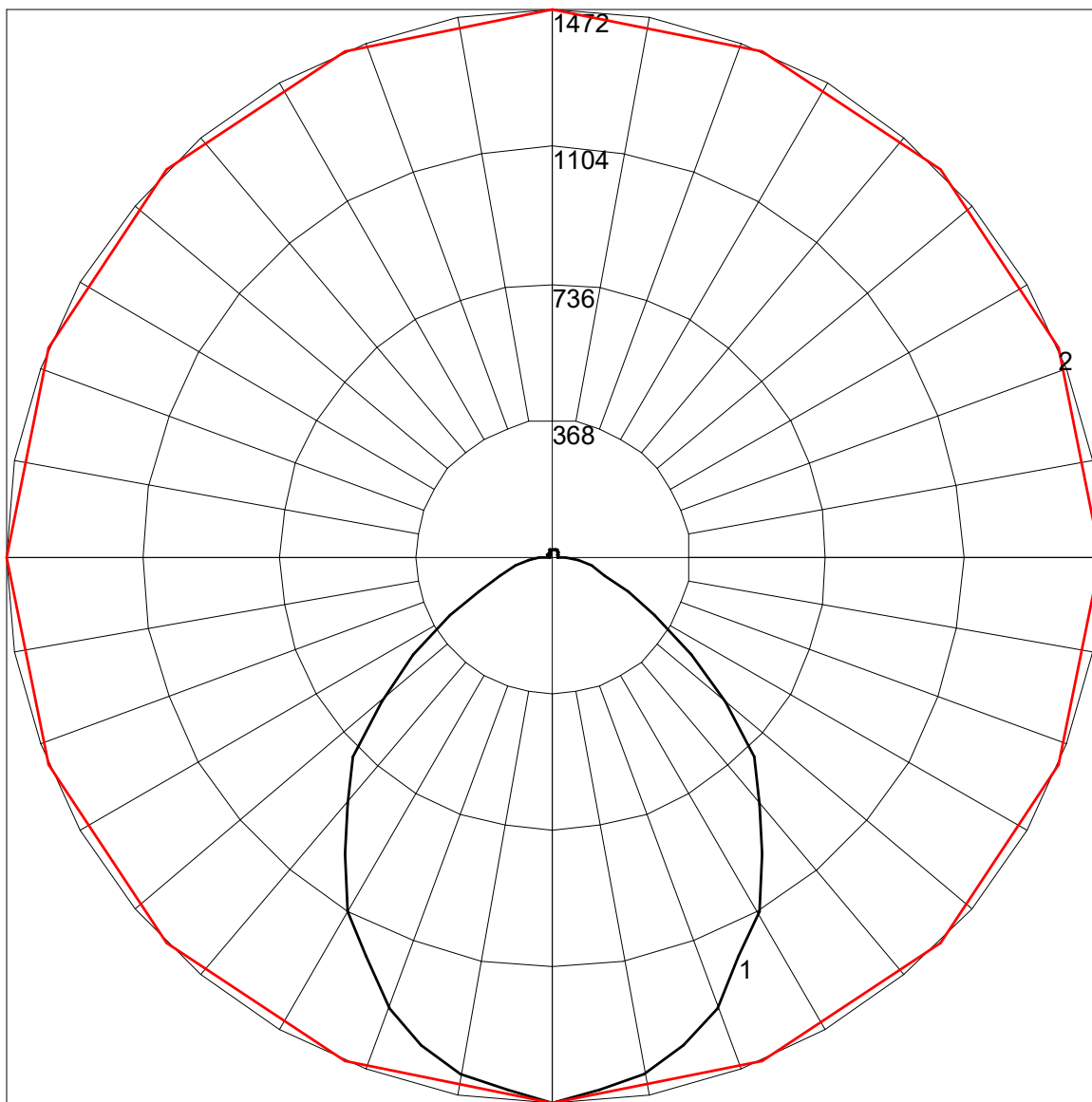
X=2H	Y=2H	16.3	17.8	16.7	18.2	18.5	16.7	18.2	17.1	18.5	18.9
	3H	17.3	18.6	17.7	19.0	19.4	17.7	19.0	18.1	19.4	19.8
	4H	17.5	18.8	18.0	19.2	19.6	18.0	19.3	18.5	19.7	20.1
	6H	17.7	18.8	18.1	19.2	19.7	18.3	19.5	18.8	19.9	20.3
	8H	17.7	18.8	18.2	19.2	19.7	18.4	19.5	18.9	20.0	20.4
	12H	17.7	18.8	18.2	19.2	19.7	18.5	19.6	19.0	20.0	20.5

UGR Viewed Endwise

4H	2H	16.6	17.9	17.1	18.3	18.7	17.0	18.2	17.4	18.6	19.0
	3H	17.8	18.8	18.2	19.2	19.7	18.1	19.1	18.5	19.6	20.0
	4H	18.1	19.0	18.5	19.5	19.9	18.5	19.4	19.0	19.9	20.4
	6H	18.3	19.1	18.8	19.6	20.1	18.9	19.7	19.4	20.2	20.7
	8H	18.3	19.1	18.8	19.6	20.1	19.0	19.8	19.5	20.3	20.8
	12H	18.4	19.0	18.9	19.5	20.1	19.1	19.8	19.6	20.3	20.8
8H	4H	18.1	18.9	18.6	19.4	19.9	18.6	19.3	19.1	19.8	20.3
	6H	18.4	19.0	18.9	19.6	20.1	19.0	19.6	19.5	20.1	20.7
	8H	18.5	19.1	19.0	19.6	20.1	19.2	19.7	19.7	20.3	20.8
	12H	18.5	19.0	19.1	19.6	20.2	19.3	19.8	19.8	20.3	20.9
12H	4H	18.1	18.8	18.7	19.3	19.8	18.6	19.2	19.1	19.7	20.3
	6H	18.4	19.0	19.0	19.5	20.1	19.0	19.5	19.5	20.0	20.6
	8H	18.5	19.0	19.1	19.5	20.2	19.2	19.7	19.7	20.2	20.8

Maximum UGR = 20.9

POLAR GRAPH



Maximum Candela = 1472.019 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.)