



IES INDOOR REPORT

PHOTOMETRIC FILENAME : AXA-4-P7-8TW-S-LVRS-POE 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 & 24CELL

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

[LUMCAT] AXA-4-P7-8TW-S-LVRS-PoE 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	2737
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	110
Total Luminaire Watts	24.8
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)	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	7894	5001	4596
55	6424	3413	2831
65	4891	2005	1477
75	3120	986	762
85	1889	369	308

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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	1279.833	1279.833	1279.833	1279.833	1279.833
5	1247.167	1246.583	1249.500	1253.583	1255.917
10	1208.667	1209.833	1217.417	1227.333	1233.167
15	1149.750	1153.833	1159.667	1173.667	1185.917
20	1076.833	1080.917	1086.167	1104.250	1123.500
25	987.583	988.167	992.833	1009.167	1030.750
30	922.833	921.083	922.833	936.833	961.917
35	821.333	819.000	817.833	828.333	852.833
40	734.417	730.917	724.500	729.167	752.500
45	666.750	659.167	646.917	643.417	665.583
50	551.250	543.083	526.167	513.333	526.750
55	452.083	441.000	417.667	393.750	397.250
60	345.917	334.250	307.417	279.417	276.500
65	264.833	252.000	224.000	199.500	194.250
70	180.250	168.583	149.917	135.333	130.083
75	113.167	107.333	96.250	91.000	90.417
80	72.333	67.667	60.083	59.500	59.500
85	32.667	29.167	29.750	30.917	31.500
90	2.917	4.667	8.167	9.333	11.083
95	0.000	3.500	6.417	8.750	9.333
100	1.167	4.667	7.000	9.333	10.500
105	1.167	4.667	7.000	10.500	10.500
110	2.917	6.417	9.333	11.083	11.667
115	3.500	6.417	10.500	11.083	11.667
120	4.667	8.167	11.083	13.417	13.417
125	4.667	8.750	12.833	13.417	13.417
130	6.417	10.500	12.833	13.417	13.417
135	8.167	11.083	14.583	14.583	15.167
140	11.083	13.417	15.167	16.917	16.917
145	11.667	13.417	15.167	16.917	15.167
150	13.417	14.583	16.333	17.500	16.917
155	13.417	15.167	16.333	17.500	16.917
160	14.583	15.750	17.500	18.083	17.500
165	15.750	18.667	19.833	21.000	19.833
170	16.917	16.917	16.917	19.250	17.500
175	17.500	17.500	17.500	17.500	16.333
180	16.333	16.333	16.333	16.333	16.333

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Zone	Lumens	%Lamp	%Fixt
0-20	445.89	N.A.	16.30
0-30	909.70	N.A.	33.20
0-40	1428.2	N.A.	52.20
0-60	2298.74	N.A.	84.00
0-80	2633.62	N.A.	96.20
0-90	2669.44	N.A.	97.50
10-90	2550.87	N.A.	93.20
20-40	982.31	N.A.	35.90
20-50	1478.23	N.A.	54.00
40-70	1096.27	N.A.	40.10
60-80	334.89	N.A.	12.20
70-80	109.15	N.A.	4.00
80-90	35.82	N.A.	1.30
90-110	14.73	N.A.	0.50
90-120	23.84	N.A.	0.90
90-130	33.73	N.A.	1.20
90-150	53.31	N.A.	1.90
90-180	67.62	N.A.	2.50
110-180	52.90	N.A.	1.90
0-180	2737.07	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	118.58
10-20	327.31
20-30	463.81
30-40	518.50
40-50	495.92
50-60	374.61
60-70	225.74
70-80	109.15
80-90	35.82
90-100	7.00
100-110	7.73
110-120	9.11
120-130	9.89
130-140	10.14
140-150	9.45
150-160	7.49
160-170	5.17
170-180	1.65

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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	110	110	110	105	105	105	100	100	100	98
1	110	106	102	98	107	103	100	96	98	96	93	94	92	90	90	88	87	84
2	101	93	87	82	98	91	86	81	88	83	79	84	80	77	81	77	75	72
3	93	83	76	70	90	81	75	69	78	72	68	75	70	66	72	68	65	63
4	86	74	66	60	83	73	65	60	70	64	59	68	62	58	65	61	57	54
5	79	67	59	53	77	66	58	52	64	57	51	61	55	51	59	54	50	48
6	73	61	52	46	71	60	52	46	58	51	46	56	50	45	54	49	44	42
7	68	56	47	41	66	55	47	41	53	46	41	51	45	40	50	44	40	38
8	64	51	43	37	62	50	42	37	49	42	37	47	41	36	46	40	36	34
9	60	47	39	34	58	46	39	34	45	38	33	44	38	33	43	37	33	31
10	56	43	36	31	55	43	36	31	42	35	31	41	35	30	40	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	15.3	16.8	15.7	17.1	17.5	UGR Viewed Endwise			
	3H	16.3	17.6	16.7	18.0	18.4	15.7	17.1	16.1	17.5
	4H	16.5	17.7	16.9	18.1	18.6	16.7	18.0	17.1	18.4
	6H	16.6	17.8	17.1	18.2	18.7	17.0	18.2	17.5	18.6
	8H	16.7	17.7	17.2	18.2	18.7	17.3	18.4	17.8	18.9
	12H	16.7	17.7	17.2	18.1	18.6	17.4	18.5	17.9	18.9

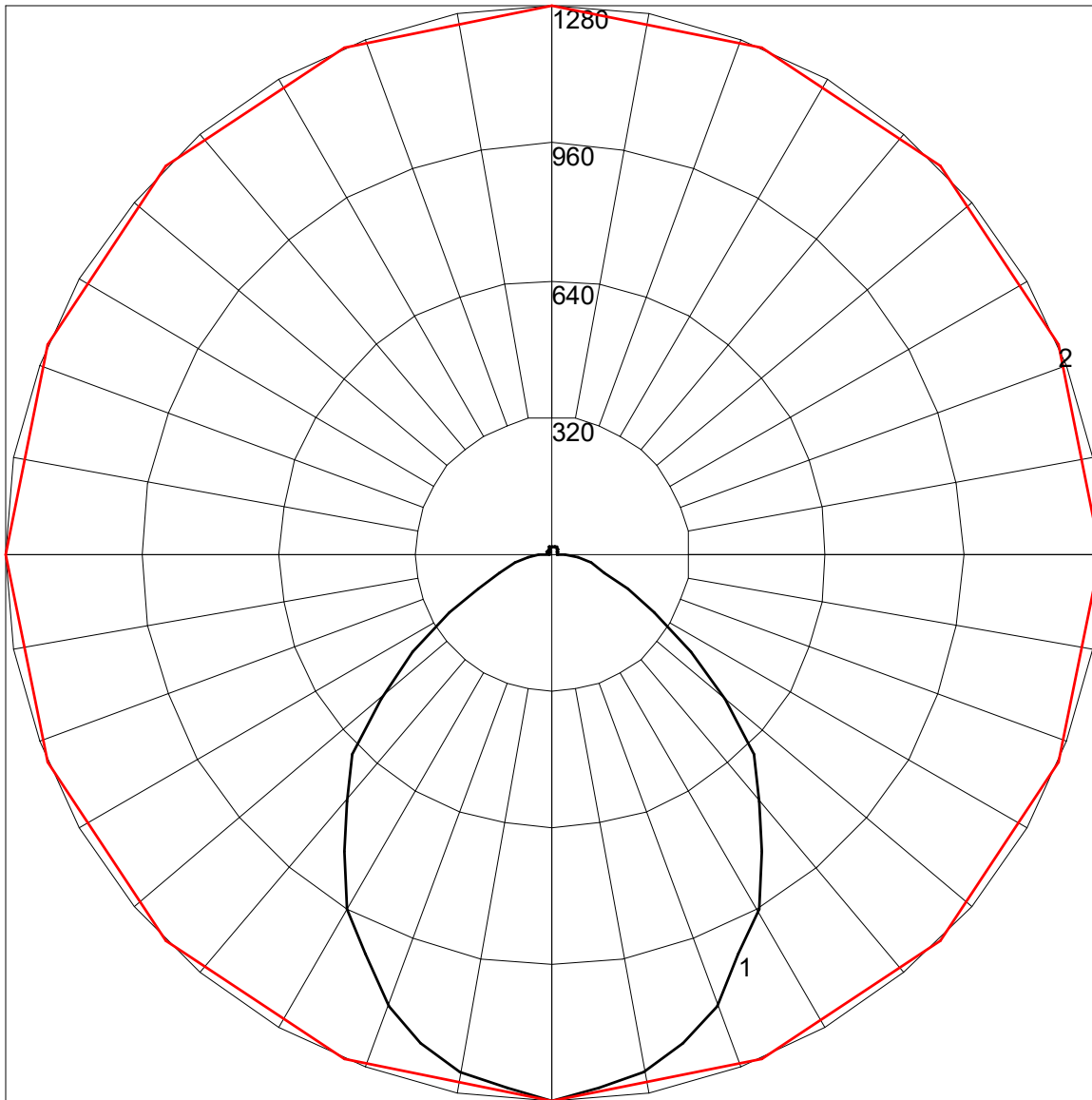
4H	2H	15.6	16.8	16.1	17.2	17.7	15.9	17.2	16.4	17.6
	3H	16.7	17.7	17.2	18.2	18.7	17.1	18.1	17.5	18.5
	4H	17.0	17.9	17.5	18.4	18.9	17.5	18.4	18.0	18.9
	6H	17.3	18.0	17.8	18.5	19.1	17.9	18.6	18.4	19.1
	8H	17.3	18.0	17.8	18.5	19.1	18.0	18.7	18.5	19.2
	12H	17.3	18.0	17.9	18.5	19.1	18.1	18.7	18.6	19.3

8H	4H	17.1	17.9	17.6	18.4	18.9	17.5	18.3	18.1	18.8
	6H	17.4	18.0	17.9	18.5	19.1	18.0	18.6	18.5	19.1
	8H	17.5	18.0	18.0	18.6	19.1	18.1	18.7	18.7	19.2
	12H	17.5	18.0	18.1	18.5	19.2	18.3	18.8	18.8	19.3

12H	4H	17.1	17.8	17.7	18.3	18.8	17.5	18.2	18.1	18.7
	6H	17.4	17.9	18.0	18.5	19.1	18.0	18.5	18.5	19.0
	8H	17.5	18.0	18.1	18.5	19.1	18.1	18.6	18.7	19.2

Maximum UGR = 19.9

POLAR GRAPH



Maximum Candela = 1279.833 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.)