



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : ASMS-4-P23-8TW-A-POE 4000K\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from BALLABS TEST NO. 18639.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 03-MAR-2020

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

[LUMINAIRE] 2-56 LED 22" ARRAYS 4' DIRECT/INDIRECT PENDANT MOUNT LUMINAIRE

[MORE] WHITE REFLECTOR w/FROSTED CURVED LINEAR RIBBED ACRYLIC LENS

[LUMCAT] ASMS-4-P23/8TW-A-PoE

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	2329
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	132
Total Luminaire Watts	17.6
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.22
Spacing Criterion (90-270)	1.22
Spacing Criterion (Diagonal)	1.32
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	3.90 ft
Luminous Width (90-270)	0.54 ft
Luminous Height	0.08 ft



### LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	3666	3427	3362
55	3002	2873	2826
65	2356	2385	2354
75	1721	1927	1906
85	1120	1645	1753

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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	891.255	891.255	891.255	891.255	891.255
5	905.926	906.843	905.009	905.009	905.009
10	883.003	880.252	880.252	879.335	879.335
15	866.498	863.747	863.747	861.913	860.996
20	825.236	823.402	818.818	815.150	814.233
25	783.974	783.057	778.473	774.805	774.805
30	728.042	725.291	721.623	719.789	719.789
35	681.278	680.361	680.361	680.361	680.361
40	597.838	597.838	603.339	605.173	604.256
45	519.899	523.567	534.570	538.237	538.237
50	431.874	440.126	454.797	460.298	460.298
55	348.433	360.353	380.526	388.778	387.861
60	272.328	286.082	311.756	320.008	320.008
65	204.475	222.814	250.322	260.408	259.491
70	144.875	165.047	194.389	202.641	201.724
75	94.444	111.865	143.041	152.210	152.210
80	54.099	69.687	100.862	113.699	115.533
85	23.840	37.594	67.853	81.607	82.524
90	5.502	18.339	38.511	53.182	55.016
95	0.000	4.585	20.172	33.009	35.760
100	0.000	0.000	7.335	18.339	22.006
105	0.000	0.000	0.000	10.086	11.920
110	0.000	0.000	0.000	5.502	6.419
115	0.000	0.000	0.000	0.000	0.000
120	0.000	0.000	0.000	1.834	0.000
125	0.000	0.000	0.000	0.000	0.000
130	0.000	0.000	0.000	0.000	0.000
135	0.000	0.000	0.000	0.000	0.000
140	0.000	0.000	0.000	0.000	0.000
145	0.000	0.000	0.000	0.000	0.000
150	0.000	0.000	0.000	0.000	0.000
155	0.000	0.000	0.000	0.000	0.000
160	0.000	0.000	0.000	0.000	0.000
165	0.000	0.000	0.000	0.000	0.000
170	0.000	0.000	0.000	0.000	0.000
175	0.000	0.000	0.000	0.000	0.000
180	0.000	0.000	0.000	0.000	0.000

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	327.46	N.A.	14.10
0-30	685.11	N.A.	29.40
0-40	1105.67	N.A.	47.50
0-60	1849.9	N.A.	79.40
0-80	2232.92	N.A.	95.90
0-90	2300.36	N.A.	98.80
10-90	2215.00	N.A.	95.10
20-40	778.22	N.A.	33.40
20-50	1186.4	N.A.	50.90
40-70	984.36	N.A.	42.30
60-80	383.02	N.A.	16.40
70-80	142.89	N.A.	6.10
80-90	67.44	N.A.	2.90
90-110	27.56	N.A.	1.20
90-120	28.22	N.A.	1.20
90-130	28.33	N.A.	1.20
90-150	28.33	N.A.	1.20
90-180	28.33	N.A.	1.20
110-180	0.77	N.A.	0.00
0-180	2328.69	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	85.37
10-20	242.09
20-30	357.65
30-40	420.57
40-50	408.19
50-60	336.04
60-70	240.13
70-80	142.89
80-90	67.44
90-100	22.41
100-110	5.14
110-120	0.66
120-130	0.11
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	106	106	106	106	103	103	103	103	98	98	98	94	94	94	90	90	90	88
1	97	92	89	85	94	90	87	84	86	83	81	83	80	78	79	77	76	74
2	88	81	75	70	86	79	74	69	76	71	67	73	69	65	70	67	64	62
3	81	71	64	59	78	70	63	58	67	61	57	65	60	56	62	58	55	53
4	74	64	56	50	72	62	55	50	60	54	49	58	52	48	56	51	47	45
5	68	57	49	43	66	56	49	43	54	47	42	52	46	42	50	45	41	39
6	63	51	44	38	61	51	43	38	49	42	37	47	41	37	46	41	37	35
7	59	47	39	34	57	46	39	34	45	38	33	43	37	33	42	37	33	31
8	55	43	35	30	53	42	35	30	41	34	30	40	34	30	39	33	29	28
9	51	39	32	27	50	39	32	27	38	31	27	37	31	27	36	30	27	25
10	48	36	29	25	47	36	29	25	35	29	25	34	28	24	33	28	24	23

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**UGR TABLE - CORRECTED**

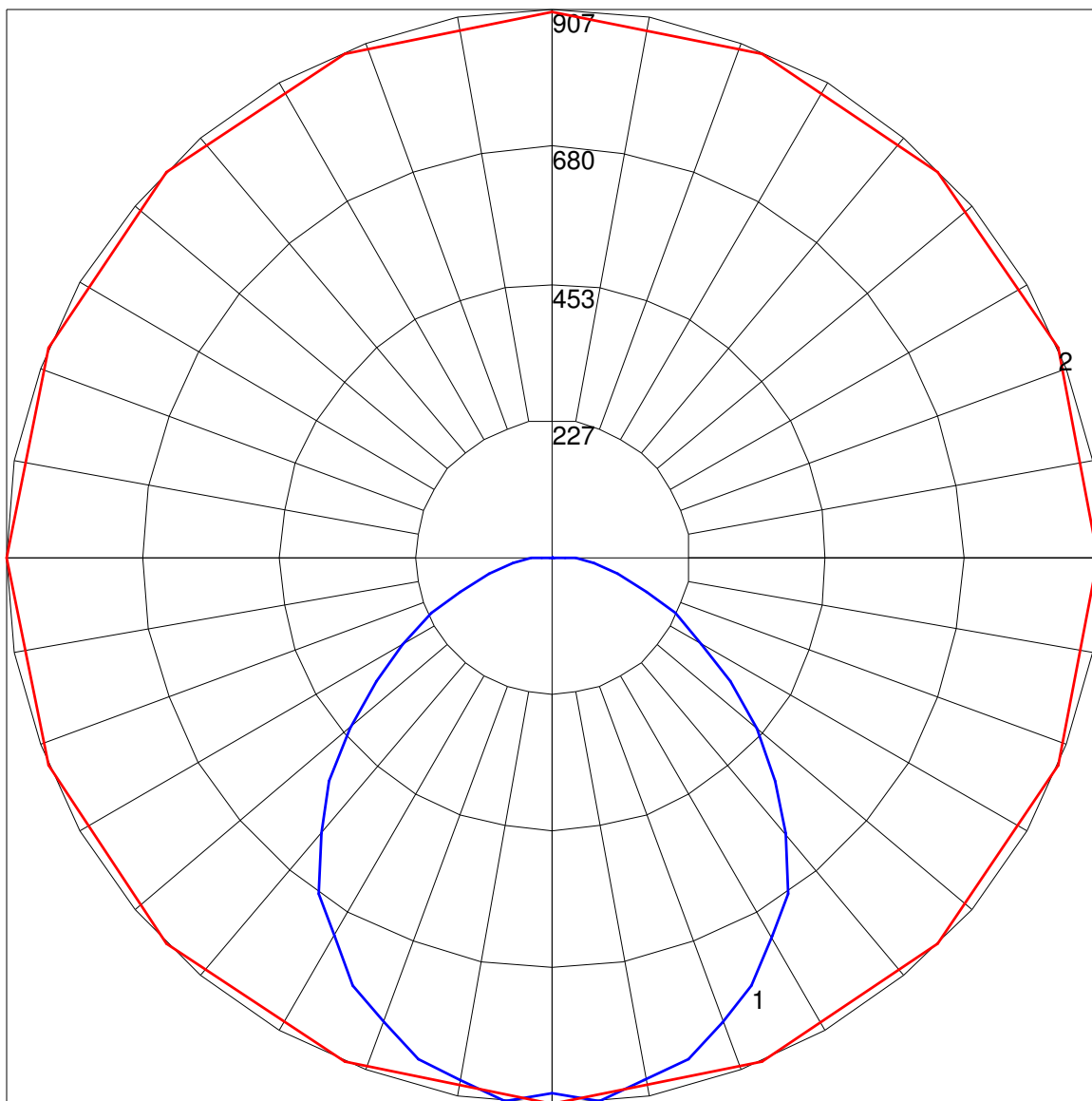
Reflectances

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					UGR Viewed Endwise				
X=2H	Y=2H	15.0	16.6	15.4	16.9	17.3	16.1	17.7	16.5	18.0	18.4
	3H	16.3	17.7	16.7	18.1	18.4	17.9	19.3	18.3	19.6	20.0
	4H	16.7	18.0	17.1	18.4	18.8	18.6	20.0	19.0	20.3	20.7
	6H	16.9	18.2	17.3	18.5	19.0	19.3	20.6	19.7	20.9	21.4
	8H	17.0	18.2	17.4	18.6	19.0	19.7	20.8	20.1	21.3	21.7
	12H	17.0	18.1	17.4	18.5	19.0	20.0	21.2	20.5	21.6	22.0
4H	2H	15.7	17.1	16.1	17.4	17.8	16.6	17.9	17.0	18.3	18.7
	3H	17.2	18.3	17.6	18.8	19.2	18.6	19.7	19.0	20.1	20.5
	4H	17.7	18.7	18.2	19.2	19.6	19.4	20.5	19.9	20.9	21.4
	6H	18.0	18.9	18.5	19.4	19.9	20.3	21.2	20.8	21.7	22.2
	8H	18.1	19.0	18.6	19.4	19.9	20.8	21.6	21.2	22.1	22.5
	12H	18.2	18.9	18.7	19.4	19.9	21.2	22.0	21.7	22.5	23.0
8H	4H	18.1	19.0	18.6	19.4	19.9	19.7	20.5	20.1	21.0	21.5
	6H	18.6	19.3	19.1	19.8	20.3	20.7	21.4	21.2	21.9	22.4
	8H	18.8	19.4	19.3	19.9	20.4	21.3	21.9	21.8	22.4	22.9
	12H	18.9	19.4	19.4	19.9	20.5	21.8	22.4	22.4	22.9	23.5
12H	4H	18.2	19.0	18.7	19.5	20.0	19.7	20.4	20.2	20.9	21.4
	6H	18.8	19.4	19.3	19.9	20.4	20.8	21.4	21.3	21.9	22.4
	8H	19.0	19.5	19.5	20.0	20.6	21.3	21.9	21.9	22.4	23.0

Maximum UGR = 23.5

POLAR GRAPH



Maximum Candela = 906.843 Located At Horizontal Angle = 22.5, Vertical Angle = 5  
# 1 - Vertical Plane Through Horizontal Angles (22.5 - 202.5) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (5) (Through Max. Cd.)