



IES INDOOR REPORT

PHOTOMETRIC FILENAME : ASMS-4-P23-835-A-POE_.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-P23/835-A-PoE

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	2300
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	133
Total Luminaire Watts	17.3
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	3621	3385	3320
55	2965	2837	2791
65	2327	2356	2325
75	1700	1903	1882
85	1106	1625	1731

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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	880.157	880.157	880.157	880.157	880.157
5	894.646	895.551	893.740	893.740	893.740
10	872.008	869.291	869.291	868.386	868.386
15	855.709	852.992	852.992	851.181	850.276
20	814.961	813.150	808.622	805.000	804.094
25	774.213	773.307	768.780	765.157	765.157
30	718.976	716.260	712.638	710.827	710.827
35	672.795	671.890	671.890	671.890	671.890
40	590.394	590.394	595.827	597.638	596.732
45	513.425	517.047	527.913	531.535	531.535
50	426.496	434.646	449.134	454.567	454.567
55	344.094	355.866	375.787	383.937	383.031
60	268.937	282.520	307.874	316.024	316.024
65	201.929	220.039	247.205	257.165	256.260
70	143.071	162.992	191.969	200.118	199.213
75	93.268	110.472	141.260	150.315	150.315
80	53.425	68.819	99.606	112.283	114.094
85	23.543	37.126	67.008	80.591	81.496
90	5.433	18.110	38.031	52.520	54.331
95	0.000	4.528	19.921	32.598	35.315
100	0.000	0.000	7.244	18.110	21.732
105	0.000	0.000	0.000	9.961	11.772
110	0.000	0.000	0.000	5.433	6.339
115	0.000	0.000	0.000	0.000	0.000
120	0.000	0.000	0.000	1.811	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	323.38	N.A.	14.10
0-30	676.58	N.A.	29.40
0-40	1091.91	N.A.	47.50
0-60	1826.87	N.A.	79.40
0-80	2205.12	N.A.	95.90
0-90	2271.72	N.A.	98.80
10-90	2187.42	N.A.	95.10
20-40	768.53	N.A.	33.40
20-50	1171.63	N.A.	50.90
40-70	972.10	N.A.	42.30
60-80	378.25	N.A.	16.40
70-80	141.11	N.A.	6.10
80-90	66.60	N.A.	2.90
90-110	27.21	N.A.	1.20
90-120	27.87	N.A.	1.20
90-130	27.97	N.A.	1.20
90-150	27.97	N.A.	1.20
90-180	27.97	N.A.	1.20
110-180	0.76	N.A.	0.00
0-180	2299.69	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	84.30
10-20	239.08
20-30	353.20
30-40	415.33
40-50	403.10
50-60	331.86
60-70	237.14
70-80	141.11
80-90	66.60
90-100	22.13
100-110	5.08
110-120	0.65
120-130	0.10
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	104	104	104	104	102	102	102	102	97	97	97	93	93	93	89	89	89	87
1	95	91	87	84	93	89	86	83	85	82	80	82	79	77	78	76	75	73
2	87	80	74	69	85	78	73	68	75	70	66	72	68	65	69	66	63	61
3	80	71	63	58	77	69	63	57	66	61	56	64	59	55	61	57	54	52
4	73	63	55	49	71	62	54	49	59	53	48	57	52	47	55	50	47	45
5	67	56	49	43	65	55	48	43	53	47	42	51	46	41	50	45	41	39
6	62	51	43	38	61	50	43	37	48	42	37	47	41	37	45	40	36	34
7	58	46	39	33	56	45	38	33	44	38	33	43	37	33	41	36	32	31
8	54	42	35	30	53	42	35	30	40	34	29	39	33	29	38	33	29	27
9	51	39	32	27	49	38	32	27	37	31	27	36	31	26	35	30	26	25
10	47	36	29	25	46	35	29	24	35	28	24	34	28	24	33	28	24	22

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UGR TABLE - CORRECTED

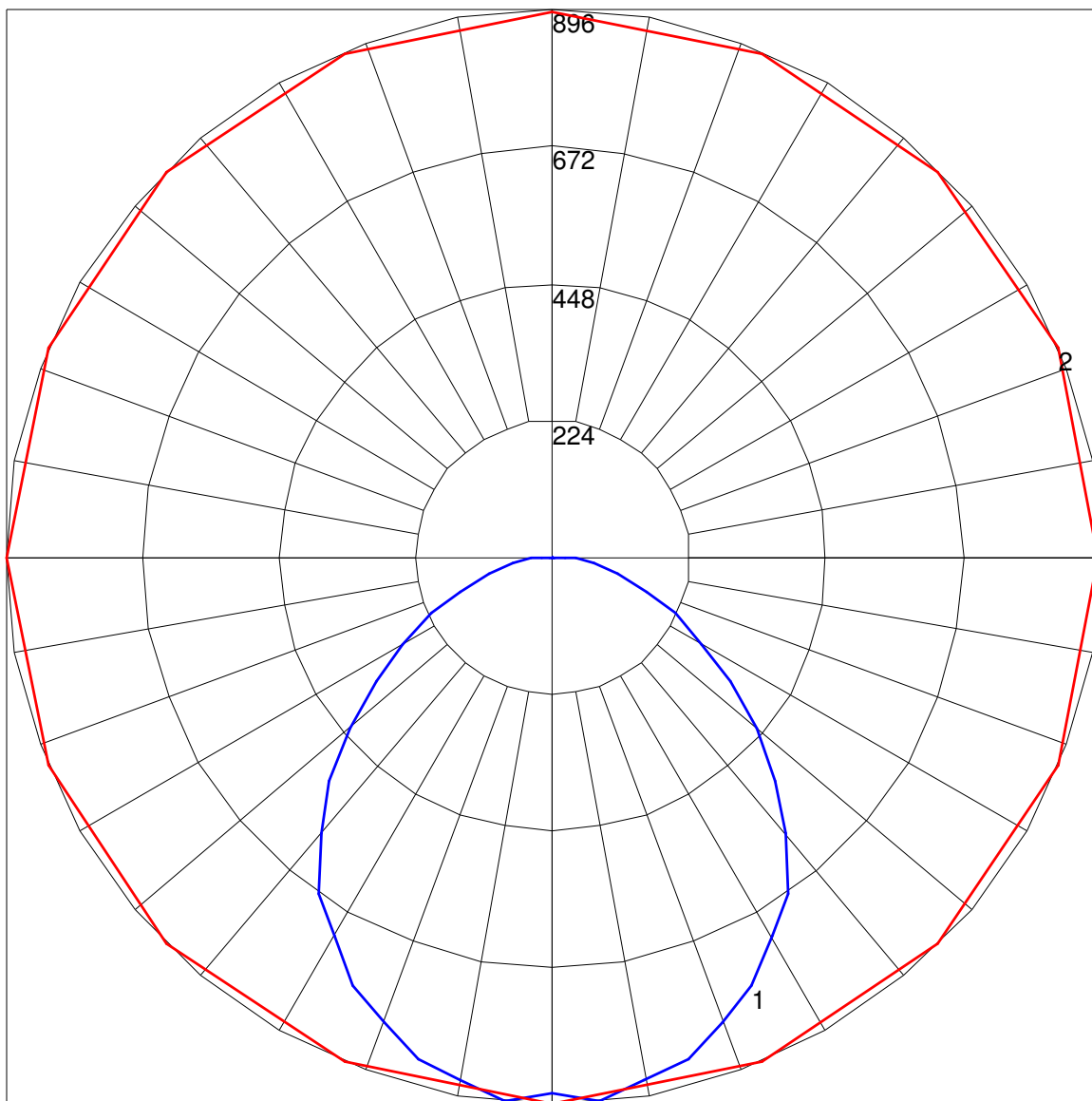
Reflectances

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 = 895.551 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.)