



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : ASMS-4-P33-835-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-P33/835-A-PoE

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	3340
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	134
Total Luminaire Watts	25
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	5258	4915	4821
55	4306	4120	4052
65	3379	3421	3376
75	2469	2764	2733
85	1607	2359	2514

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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	1278.142	1278.142	1278.142	1278.142	1278.142
5	1299.181	1300.496	1297.866	1297.866	1297.866
10	1266.307	1262.363	1262.363	1261.048	1261.048
15	1242.638	1238.693	1238.693	1236.063	1234.748
20	1183.465	1180.835	1174.260	1169.000	1167.685
25	1124.292	1122.977	1116.402	1111.142	1111.142
30	1044.079	1040.134	1034.874	1032.244	1032.244
35	977.016	975.701	975.701	975.701	975.701
40	857.355	857.355	865.244	867.874	866.559
45	745.583	750.843	766.622	771.882	771.882
50	619.347	631.181	652.221	660.110	660.110
55	499.685	516.780	545.709	557.543	556.228
60	390.543	410.268	447.087	458.921	458.921
65	293.236	319.536	358.984	373.449	372.134
70	207.764	236.693	278.772	290.606	289.291
75	135.441	160.425	205.134	218.284	218.284
80	77.583	99.937	144.646	163.055	165.685
85	34.189	53.913	97.307	117.032	118.346
90	7.890	26.299	55.228	76.268	78.898
95	0.000	6.575	28.929	47.339	51.283
100	0.000	0.000	10.520	26.299	31.559
105	0.000	0.000	0.000	14.465	17.094
110	0.000	0.000	0.000	7.890	9.205
115	0.000	0.000	0.000	0.000	0.000
120	0.000	0.000	0.000	2.630	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	469.61	N.A.	14.10
0-30	982.51	N.A.	29.40
0-40	1585.64	N.A.	47.50
0-60	2652.93	N.A.	79.40
0-80	3202.22	N.A.	95.90
0-90	3298.93	N.A.	98.80
10-90	3176.51	N.A.	95.10
20-40	1116.03	N.A.	33.40
20-50	1701.41	N.A.	50.90
40-70	1411.66	N.A.	42.30
60-80	549.29	N.A.	16.40
70-80	204.91	N.A.	6.10
80-90	96.71	N.A.	2.90
90-110	39.52	N.A.	1.20
90-120	40.47	N.A.	1.20
90-130	40.62	N.A.	1.20
90-150	40.62	N.A.	1.20
90-180	40.62	N.A.	1.20
110-180	1.10	N.A.	0.00
0-180	3339.55	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	122.42
10-20	347.18
20-30	512.90
30-40	603.13
40-50	585.38
50-60	481.91
60-70	344.37
70-80	204.91
80-90	96.71
90-100	32.14
100-110	7.38
110-120	0.95
120-130	0.15
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	172	172	172	172	168	168	168	168	160	160	160	153	153	153	147	147	147	143
1	157	151	144	139	153	147	141	136	141	136	132	135	131	127	129	126	123	120
2	144	132	122	114	140	129	120	112	124	116	109	119	112	107	114	109	104	101
3	131	116	105	95	128	114	103	95	109	100	93	105	97	91	101	95	89	86
4	121	104	91	82	117	102	90	81	98	88	80	94	85	78	91	83	77	74
5	111	93	80	71	108	91	79	70	88	77	69	85	76	68	82	74	67	64
6	103	84	71	62	100	82	70	62	80	69	61	77	68	60	75	66	60	57
7	96	76	64	55	93	75	63	55	73	62	54	70	61	54	68	60	53	50
8	89	70	58	49	87	69	57	49	67	56	49	65	55	48	63	54	48	45
9	83	64	52	45	81	63	52	44	61	51	44	60	50	44	58	50	43	41
10	78	59	48	40	76	58	48	40	57	47	40	55	46	40	54	46	40	37

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**UGR TABLE - CORRECTED**

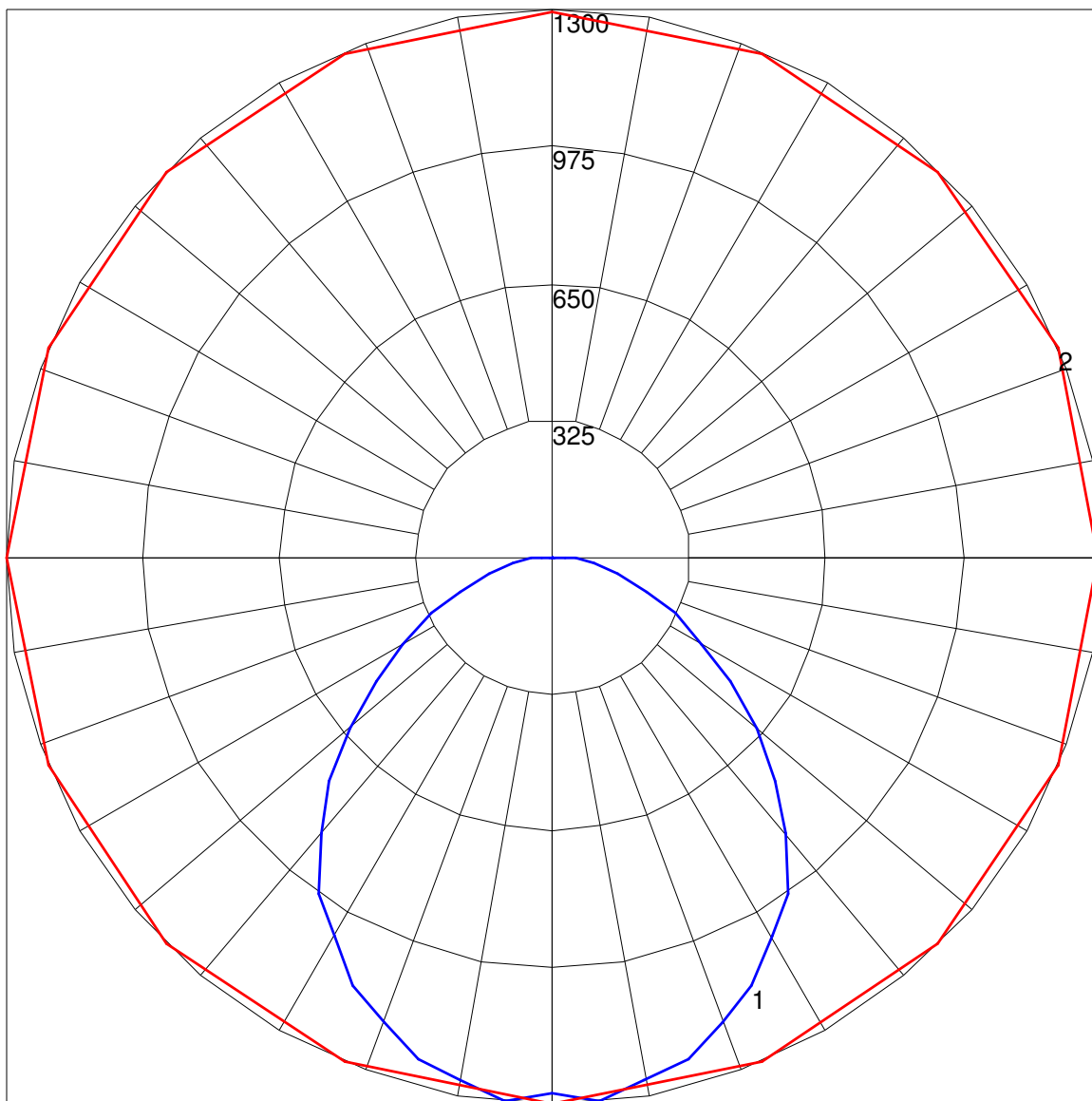
Reflectances

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	14.6	16.2	15.0	16.5	16.9	15.7	17.3	16.1	17.6	18.0
	3H	15.9	17.3	16.3	17.7	18.0	17.5	18.9	17.9	19.2	19.6
	4H	16.3	17.6	16.7	18.0	18.4	18.2	19.6	18.6	19.9	20.3
	6H	16.5	17.8	16.9	18.1	18.6	18.9	20.2	19.3	20.5	21.0
	8H	16.6	17.8	17.0	18.2	18.6	19.3	20.4	19.7	20.9	21.3
	12H	16.6	17.7	17.0	18.1	18.6	19.6	20.8	20.1	21.2	21.6
4H	2H	15.3	16.7	15.7	17.0	17.4	16.2	17.5	16.6	17.9	18.3
	3H	16.8	17.9	17.2	18.4	18.8	18.2	19.3	18.6	19.7	20.1
	4H	17.3	18.3	17.8	18.8	19.2	19.0	20.1	19.5	20.5	21.0
	6H	17.6	18.5	18.1	19.0	19.5	19.9	20.8	20.4	21.3	21.8
	8H	17.7	18.6	18.2	19.0	19.5	20.4	21.2	20.8	21.7	22.1
	12H	17.8	18.5	18.3	19.0	19.5	20.8	21.6	21.3	22.1	22.6
8H	4H	17.7	18.6	18.2	19.0	19.5	19.3	20.1	19.7	20.6	21.1
	6H	18.2	18.9	18.7	19.4	19.9	20.3	21.0	20.8	21.5	22.0
	8H	18.4	19.0	18.9	19.5	20.0	20.9	21.5	21.4	22.0	22.5
	12H	18.5	19.0	19.0	19.5	20.1	21.4	22.0	22.0	22.5	23.1
12H	4H	17.8	18.6	18.3	19.1	19.6	19.3	20.0	19.8	20.5	21.0
	6H	18.4	19.0	18.9	19.5	20.0	20.4	21.0	20.9	21.5	22.0
	8H	18.6	19.1	19.1	19.6	20.2	20.9	21.5	21.5	22.0	22.6

Maximum UGR = 23.1

POLAR GRAPH



Maximum Candela = 1300.496 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.)