



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : ASMS-4-P33-8TW-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-P33/8TW-A-PoE 4000k

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	3312
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	127
Total Luminaire Watts	26
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	5214	4874	4781
55	4270	4085	4018
65	3351	3392	3347
75	2448	2741	2710
85	1593	2340	2493

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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>
<b>0</b>	1267.427	1267.427	1267.427	1267.427	1267.427
<b>5</b>	1288.290	1289.594	1286.986	1286.986	1286.986
<b>10</b>	1255.691	1251.779	1251.779	1250.476	1250.476
<b>15</b>	1232.220	1228.309	1228.309	1225.701	1224.397
<b>20</b>	1173.543	1170.935	1164.416	1159.200	1157.896
<b>25</b>	1114.866	1113.562	1107.042	1101.827	1101.827
<b>30</b>	1035.326	1031.414	1026.198	1023.591	1023.591
<b>35</b>	968.825	967.521	967.521	967.521	967.521
<b>40</b>	850.167	850.167	857.991	860.598	859.294
<b>45</b>	739.332	744.548	760.195	765.411	765.411
<b>50</b>	614.154	625.890	646.753	654.576	654.576
<b>55</b>	495.496	512.447	541.134	552.869	551.565
<b>60</b>	387.269	406.828	443.339	455.074	455.074
<b>65</b>	290.778	316.857	355.975	370.318	369.014
<b>70</b>	206.022	234.709	276.435	288.170	286.866
<b>75</b>	134.306	159.080	203.414	216.454	216.454
<b>80</b>	76.932	99.099	143.433	161.688	164.296
<b>85</b>	33.902	53.461	96.491	116.050	117.354
<b>90</b>	7.824	26.079	54.765	75.628	78.236
<b>95</b>	0.000	6.520	28.687	46.942	50.854
<b>100</b>	0.000	0.000	10.431	26.079	31.294
<b>105</b>	0.000	0.000	0.000	14.343	16.951
<b>110</b>	0.000	0.000	0.000	7.824	9.128
<b>115</b>	0.000	0.000	0.000	0.000	0.000
<b>120</b>	0.000	0.000	0.000	2.608	0.000
<b>125</b>	0.000	0.000	0.000	0.000	0.000
<b>130</b>	0.000	0.000	0.000	0.000	0.000
<b>135</b>	0.000	0.000	0.000	0.000	0.000
<b>140</b>	0.000	0.000	0.000	0.000	0.000
<b>145</b>	0.000	0.000	0.000	0.000	0.000
<b>150</b>	0.000	0.000	0.000	0.000	0.000
<b>155</b>	0.000	0.000	0.000	0.000	0.000
<b>160</b>	0.000	0.000	0.000	0.000	0.000
<b>165</b>	0.000	0.000	0.000	0.000	0.000
<b>170</b>	0.000	0.000	0.000	0.000	0.000
<b>175</b>	0.000	0.000	0.000	0.000	0.000
<b>180</b>	0.000	0.000	0.000	0.000	0.000

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	465.67	N.A.	14.10
0-30	974.27	N.A.	29.40
0-40	1572.35	N.A.	47.50
0-60	2630.69	N.A.	79.40
0-80	3175.37	N.A.	95.90
0-90	3271.27	N.A.	98.80
10-90	3149.88	N.A.	95.10
20-40	1106.68	N.A.	33.40
20-50	1687.15	N.A.	50.90
40-70	1399.83	N.A.	42.30
60-80	544.68	N.A.	16.40
70-80	203.20	N.A.	6.10
80-90	95.90	N.A.	2.90
90-110	39.19	N.A.	1.20
90-120	40.13	N.A.	1.20
90-130	40.28	N.A.	1.20
90-150	40.28	N.A.	1.20
90-180	40.28	N.A.	1.20
110-180	1.09	N.A.	0.00
0-180	3311.55	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	121.40
10-20	344.27
20-30	508.60
30-40	598.08
40-50	580.47
50-60	477.87
60-70	341.49
70-80	203.20
80-90	95.90
90-100	31.87
100-110	7.32
110-120	0.94
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	169	169	169	169	165	165	165	165	157	157	157	150	150	150	144	144	144	140
1	154	147	141	136	150	144	138	133	138	133	129	132	128	125	126	123	121	118
2	141	129	120	112	137	126	118	110	121	114	107	116	110	105	112	106	102	99
3	129	114	103	93	125	112	101	93	107	98	91	103	95	89	99	93	87	84
4	118	101	89	80	115	99	88	79	96	86	78	92	84	77	89	82	75	72
5	109	91	78	69	106	89	78	69	86	76	68	83	74	67	80	72	66	63
6	101	82	70	61	98	81	69	60	78	68	60	75	66	59	73	65	58	56
7	94	75	62	54	91	73	62	54	71	61	53	69	60	53	67	59	52	49
8	87	68	56	48	85	67	56	48	65	55	48	63	54	47	62	53	47	44
9	82	63	51	44	80	62	51	43	60	50	43	59	49	43	57	49	42	40
10	77	58	47	40	75	57	47	40	56	46	39	54	45	39	53	45	39	36

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**UGR TABLE - CORRECTED**

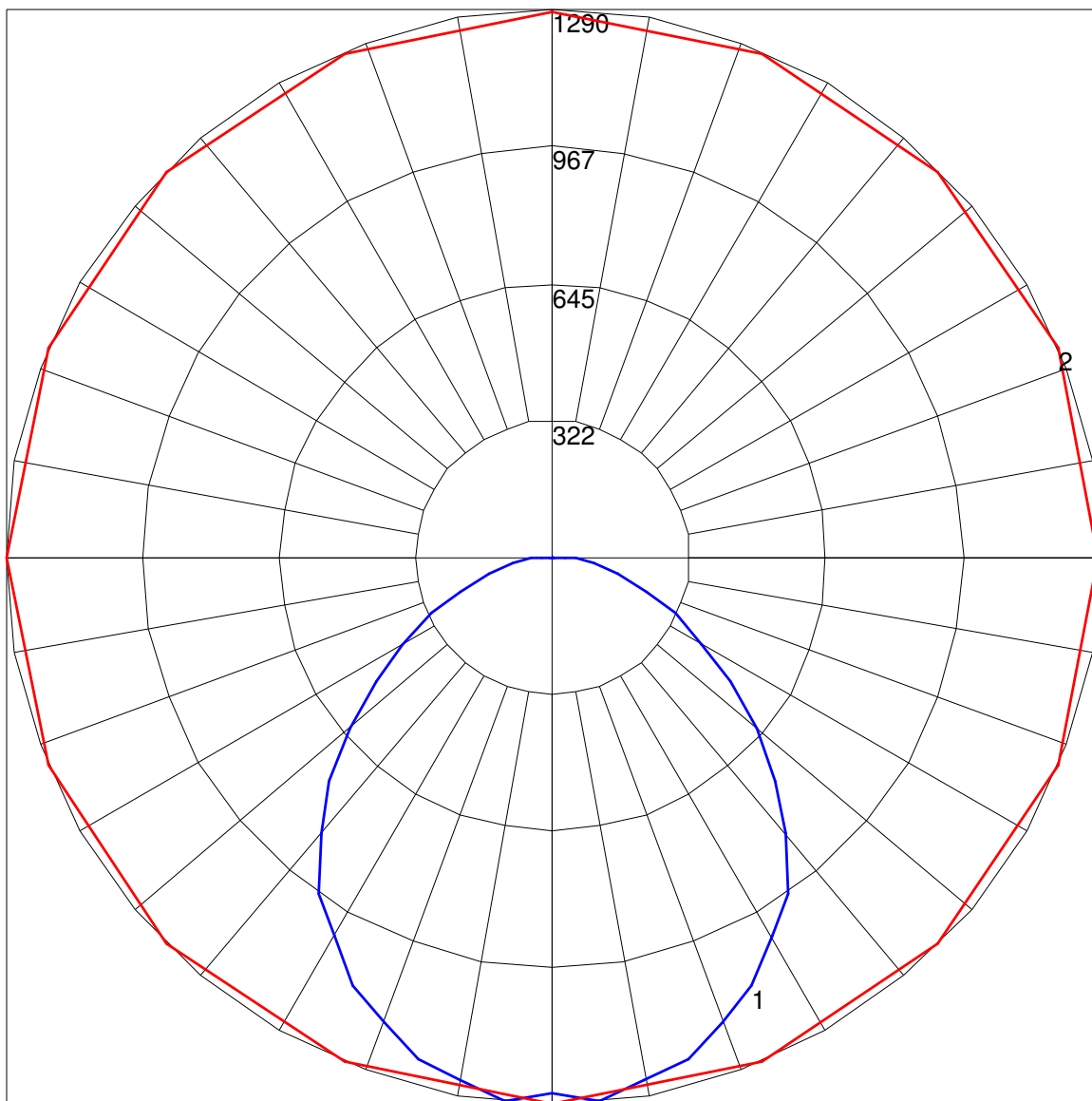
Reflectances

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 = 1289.594 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.)