



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : MCTG-22-L34-835-SAF125-DIM-UNV\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN FROM BALLABS TEST NO. 19834.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUE DATE] 13-FEB-2020

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] 3-42 LED 22" ARRAYS 2x2' RECESSED WHITE REFL LUMINAIRE

[MORE] FROSTED ACRYLIC LENS w/CLEAR ACRYLIC LENS IN DOOR

[LUMCAT] MCTG-22-L34-835-SAF125-DIM-UNV

[\_SEARCH\_SOURCE TYPE] LED

[\_SEARCH\_APPLICATION] Indoor, Classroom, Commercial, Healthcare, Institutional, Office, Direct, Clean Room

[\_SEARCH\_MOUNTING] Recessed

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	3103
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	108
Total Luminaire Watts	28.6
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.20
Spacing Criterion (90-270)	1.20
Spacing Criterion (Diagonal)	1.30
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	1.92 ft
Luminous Width (90-270)	1.92 ft
Luminous Height	0.00 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	3100	3110	3113
55	2714	2642	2692
65	2104	2051	2118
75	1346	1395	1290
85	266	505	410

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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>	1320.841	1320.841	1320.841	1320.841	1320.841
<b>5</b>	1326.142	1317.694	1310.903	1307.755	1308.087
<b>10</b>	1303.283	1296.160	1290.363	1287.713	1284.234
<b>15</b>	1264.854	1258.228	1256.075	1251.271	1249.118
<b>20</b>	1210.357	1207.375	1207.044	1194.124	1196.112
<b>25</b>	1141.118	1139.627	1136.977	1129.523	1132.505
<b>30</b>	1061.278	1057.965	1050.842	1050.842	1053.658
<b>35</b>	964.873	962.057	959.076	955.929	956.922
<b>40</b>	860.021	860.021	861.181	856.211	856.211
<b>45</b>	751.525	753.512	753.844	747.052	754.506
<b>50</b>	642.531	637.065	638.887	626.961	643.028
<b>55</b>	533.703	522.771	519.458	520.286	529.397
<b>60</b>	416.593	412.287	404.004	415.765	418.912
<b>65</b>	304.784	309.091	297.164	306.109	306.772
<b>70</b>	207.883	207.054	204.735	202.748	199.435
<b>75</b>	119.429	114.791	123.736	117.276	114.460
<b>80</b>	47.705	47.208	56.816	58.141	53.503
<b>85</b>	7.951	10.270	15.074	16.233	12.258
<b>90</b>	0.000	0.000	0.000	0.000	0.000

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	478.44	N.A.	15.40
0-30	1000.87	N.A.	32.30
0-40	1600.8	N.A.	51.60
0-60	2648.11	N.A.	85.30
0-80	3081.53	N.A.	99.30
0-90	3103.04	N.A.	100.00
10-90	2978.34	N.A.	96.00
20-40	1122.36	N.A.	36.20
20-50	1701.12	N.A.	54.80
40-70	1350.52	N.A.	43.50
60-80	433.42	N.A.	14.00
70-80	130.21	N.A.	4.20
80-90	21.50	N.A.	0.70
90-110	0.00	N.A.	0.00
90-120	0.00	N.A.	0.00
90-130	0.00	N.A.	0.00
90-150	0.00	N.A.	0.00
90-180	0.00	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	3103.04	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	124.69
10-20	353.75
20-30	522.43
30-40	599.92
40-50	578.76
50-60	468.56
60-70	303.20
70-80	130.21
80-90	21.50
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
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	138	138	138	138	135	135	135	135	129	129	129	123	123	123	118	118	118	116
1	127	122	118	114	124	120	116	112	115	112	109	111	108	105	106	104	102	100
2	117	108	101	95	114	106	99	94	102	96	92	98	94	90	95	91	88	85
3	107	96	87	80	104	94	86	79	91	84	78	88	82	77	85	80	75	73
4	99	86	76	69	96	84	75	68	81	74	67	79	72	67	76	70	66	63
5	91	77	67	60	89	76	66	60	73	65	59	71	64	58	69	63	58	55
6	84	70	60	53	82	69	59	52	66	58	52	65	57	52	63	56	51	49
7	78	63	54	47	76	62	53	47	61	52	46	59	52	46	58	51	46	43
8	73	58	49	42	71	57	48	42	56	47	42	54	47	41	53	46	41	39
9	68	53	44	38	67	53	44	38	51	43	38	50	43	38	49	42	37	35
10	64	49	40	35	63	49	40	35	48	40	34	47	39	34	46	39	34	32

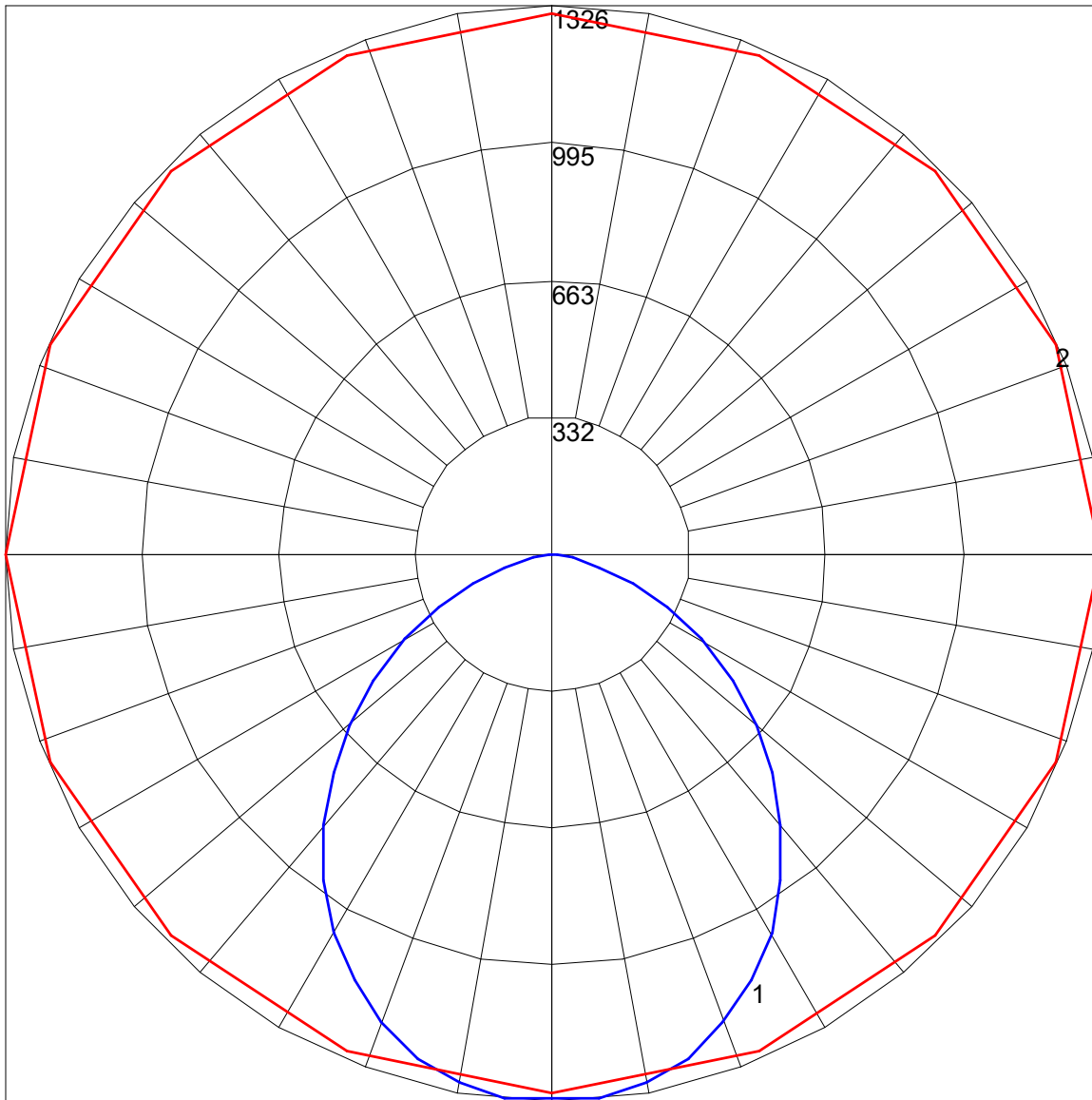
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**UGR TABLE - CORRECTED**

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	14.7	16.2	15.0	16.5	16.8	14.7	16.2	15.0	16.5	16.9
	3H	15.9	17.3	16.3	17.7	18.0	15.9	17.3	16.3	17.6	18.0
	4H	16.3	17.6	16.7	17.9	18.3	16.2	17.5	16.6	17.9	18.2
	6H	16.4	17.6	16.8	18.0	18.4	16.4	17.6	16.8	18.0	18.3
	8H	16.4	17.6	16.8	17.9	18.3	16.4	17.5	16.8	17.9	18.3
	12H	16.4	17.5	16.8	17.9	18.3	16.4	17.5	16.8	17.9	18.3
4H	2H	15.1	16.4	15.5	16.8	17.1	15.1	16.4	15.5	16.8	17.1
	3H	16.6	17.6	17.0	18.0	18.4	16.5	17.6	16.9	18.0	18.4
	4H	17.0	17.9	17.4	18.4	18.8	16.9	17.9	17.4	18.3	18.8
	6H	17.2	18.0	17.6	18.4	18.9	17.2	18.0	17.6	18.5	18.9
	8H	17.2	18.0	17.6	18.4	18.9	17.2	18.0	17.7	18.4	18.9
	12H	17.2	17.9	17.6	18.3	18.8	17.2	17.9	17.7	18.4	18.9
8H	4H	17.1	17.9	17.6	18.3	18.8	17.1	17.9	17.5	18.3	18.8
	6H	17.4	18.0	17.9	18.5	19.0	17.4	18.0	17.9	18.5	19.0
	8H	17.4	18.0	17.9	18.5	19.0	17.4	18.0	18.0	18.5	19.0
	12H	17.4	17.9	17.9	18.4	18.9	17.5	18.0	18.0	18.5	19.0
12H	4H	17.1	17.8	17.6	18.3	18.8	17.1	17.8	17.5	18.2	18.7
	6H	17.4	17.9	17.9	18.4	18.9	17.4	18.0	17.9	18.4	19.0
	8H	17.4	17.9	17.9	18.4	19.0	17.5	18.0	18.0	18.5	19.0

Maximum UGR = 19.0

POLAR GRAPH



Maximum Candela = 1326.142 Located At Horizontal Angle = 0, Vertical Angle = 5  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (5) (Through Max. Cd.)