



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : MCTG-24-L208-835-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

[ISSUEDATE] 13-FEB-2020

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] 6-42 LED 22" ARRAYS 2x4' RECESSED WHITE REFL LUMINAIRE

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

[LUMCAT] MCTG-24-L208-835-SAF125-DIM-UNV

[\_SEARCH\_SOURCETYPE] 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	18704
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	111
Total Luminaire Watts	169.2
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)	3.57 ft
Luminous Width (90-270)	1.57 ft
Luminous Height	0.00 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	12258	12296	12306
55	10732	10445	10645
65	8318	8110	8372
75	5322	5514	5100
85	1052	1995	1622

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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>	7961.655	7961.655	7961.655	7961.655	7961.655
<b>5</b>	7993.606	7942.685	7901.748	7882.778	7884.775
<b>10</b>	7855.819	7812.886	7777.940	7761.965	7740.997
<b>15</b>	7624.179	7584.241	7571.261	7542.306	7529.326
<b>20</b>	7295.688	7277.716	7275.719	7197.840	7209.821
<b>25</b>	6878.335	6869.349	6853.374	6808.443	6826.416
<b>30</b>	6397.081	6377.112	6334.179	6334.179	6351.152
<b>35</b>	5815.982	5799.009	5781.036	5762.066	5768.057
<b>40</b>	5183.962	5183.962	5190.951	5160.998	5160.998
<b>45</b>	4529.976	4541.958	4543.955	4503.018	4547.948
<b>50</b>	3872.995	3840.046	3851.029	3779.140	3875.990
<b>55</b>	3217.012	3151.114	3131.145	3136.137	3191.052
<b>60</b>	2511.106	2485.147	2435.224	2506.114	2525.085
<b>65</b>	1837.151	1863.111	1791.223	1845.139	1849.133
<b>70</b>	1253.057	1248.065	1234.087	1222.105	1202.136
<b>75</b>	719.884	691.927	745.844	706.904	689.930
<b>80</b>	287.554	284.559	342.469	350.457	322.500
<b>85</b>	47.926	61.904	90.859	97.848	73.885
<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	2883.9	N.A.	15.40
0-30	6032.97	N.A.	32.30
0-40	9649.14	N.A.	51.60
0-60	15962.08	N.A.	85.30
0-80	18574.61	N.A.	99.30
0-90	18704.21	N.A.	100.00
10-90	17952.6	N.A.	96.00
20-40	6765.24	N.A.	36.20
20-50	10253.86	N.A.	54.80
40-70	8140.57	N.A.	43.50
60-80	2612.53	N.A.	14.00
70-80	784.89	N.A.	4.20
80-90	129.61	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	18704.21	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	751.62
10-20	2132.28
20-30	3149.07
30-40	3616.17
40-50	3488.62
50-60	2824.32
60-70	1827.63
70-80	784.89
80-90	129.61
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	408	408	408	408	398	398	398	398	380	380	380	364	364	364	349	349	349	342
1	377	362	349	337	368	354	343	332	340	330	321	327	319	312	315	308	302	296
2	345	320	298	281	337	313	294	277	301	285	271	290	277	265	280	269	259	252
3	317	283	258	237	309	278	254	235	268	248	231	259	242	227	250	236	223	216
4	291	253	225	203	284	249	222	202	240	217	199	232	213	197	225	208	194	187
5	269	227	198	177	262	224	196	176	217	193	174	210	189	172	204	185	170	164
6	249	206	177	156	243	203	175	155	197	172	154	191	169	152	186	166	151	144
7	232	187	159	138	226	185	157	138	179	155	137	175	152	136	170	150	135	129
8	216	171	143	124	211	169	142	124	165	140	123	160	138	122	157	137	122	115
9	202	158	131	112	197	156	130	112	152	128	111	148	127	111	145	125	110	104
10	190	146	120	102	185	144	119	102	141	118	102	138	116	101	135	115	101	95

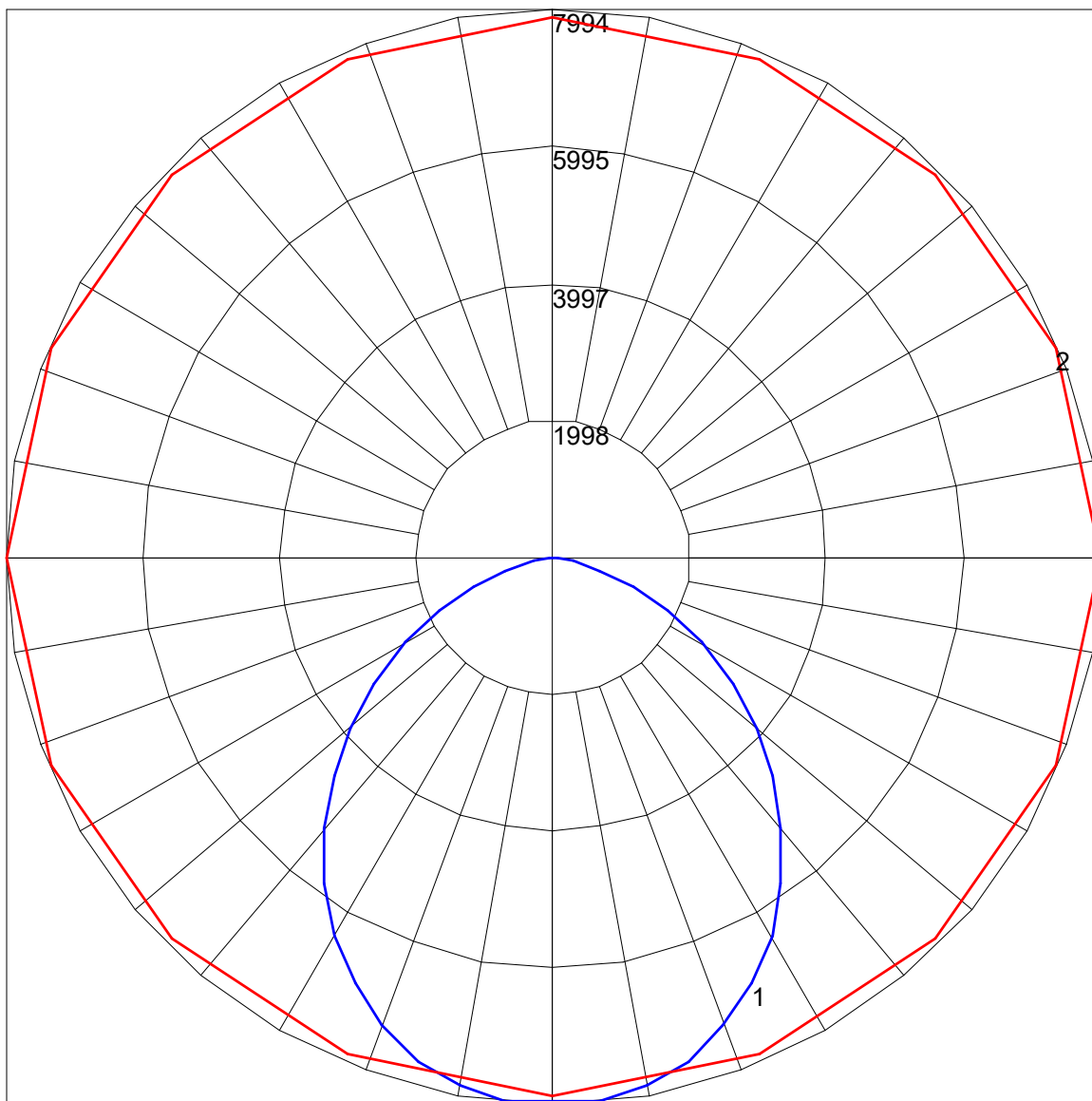
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**UGR TABLE - CORRECTED**

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	15.7	17.3	16.1	17.6	17.9	15.7	17.3	16.1	17.6	17.9
	3H	17.0	18.4	17.4	18.7	19.1	16.9	18.3	17.3	18.7	19.0
	4H	17.3	18.6	17.7	19.0	19.3	17.3	18.6	17.7	18.9	19.3
	6H	17.4	18.6	17.9	19.0	19.4	17.4	18.6	17.8	19.0	19.4
	8H	17.4	18.6	17.9	19.0	19.4	17.4	18.6	17.9	19.0	19.4
	12H	17.4	18.5	17.9	18.9	19.3	17.4	18.5	17.9	18.9	19.3
4H	2H	16.1	17.4	16.5	17.8	18.2	16.2	17.5	16.6	17.8	18.2
	3H	17.6	18.7	18.0	19.1	19.5	17.6	18.6	18.0	19.0	19.4
	4H	18.0	19.0	18.4	19.4	19.8	18.0	18.9	18.4	19.3	19.8
	6H	18.2	19.0	18.6	19.5	19.9	18.2	19.0	18.7	19.5	19.9
	8H	18.2	19.0	18.7	19.4	19.9	18.2	19.0	18.7	19.5	19.9
	12H	18.2	18.9	18.7	19.4	19.9	18.2	18.9	18.7	19.4	19.9
8H	4H	18.1	18.9	18.6	19.4	19.8	18.1	18.9	18.6	19.3	19.8
	6H	18.4	19.0	18.9	19.5	20.0	18.4	19.1	18.9	19.5	20.0
	8H	18.4	19.0	18.9	19.5	20.0	18.5	19.1	19.0	19.6	20.1
	12H	18.4	18.9	18.9	19.4	20.0	18.5	19.0	19.0	19.5	20.1
12H	4H	18.1	18.8	18.6	19.3	19.8	18.1	18.8	18.6	19.3	19.7
	6H	18.4	19.0	18.9	19.4	20.0	18.4	19.0	18.9	19.4	20.0
	8H	18.4	18.9	18.9	19.4	20.0	18.5	19.0	19.0	19.5	20.1

Maximum UGR = 20.1

POLAR GRAPH



Maximum Candela = 7993.606 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.)