



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : MCTG-24-L208-835-SAF12125-DIM-UNV\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from BALLABS TEST NO. 19835.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 13-MAY-2020

[MANUFAC] WILLIAMS INDOOR

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

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

[MORE] PAT12 ACRYLIC LENS w/CLEAR ACRYLIC LENS IN DOOR

[LUMCAT] MCTG-24-L208-835-SAF12125-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	20805
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	123
Total Luminaire Watts	169.2
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.24
Spacing Criterion (90-270)	1.22
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	14077	14001	13620
55	11637	11407	10767
65	8438	8338	7736
75	5023	5171	5127
85	1097	1514	1558

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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>	9063.465	9063.465	9063.465	9063.465	9063.465
<b>5</b>	9108.433	9051.474	8998.512	8977.527	8979.526
<b>10</b>	8972.531	8910.575	8875.601	8852.617	8856.614
<b>15</b>	8751.690	8694.731	8678.742	8629.778	8654.760
<b>20</b>	8431.920	8385.954	8387.952	8319.002	8347.981
<b>25</b>	7995.235	7968.255	7954.265	7885.315	7923.287
<b>30</b>	7471.613	7457.623	7410.657	7322.720	7365.689
<b>35</b>	6819.083	6833.073	6746.136	6606.237	6686.179
<b>40</b>	6041.644	6108.596	5968.696	5812.809	5908.740
<b>45</b>	5202.249	5278.194	5174.269	4985.405	5033.371
<b>50</b>	4350.863	4311.891	4324.882	4115.033	4109.037
<b>55</b>	3488.485	3404.545	3419.534	3225.674	3227.673
<b>60</b>	2634.101	2575.143	2559.155	2383.282	2414.259
<b>65</b>	1863.656	1826.683	1841.672	1707.769	1708.768
<b>70</b>	1219.121	1183.147	1226.116	1172.155	1145.174
<b>75</b>	679.510	672.515	699.496	724.478	693.500
<b>80</b>	287.792	277.800	314.773	359.741	321.768
<b>85</b>	49.964	55.960	68.950	101.927	70.949
<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	3303.6	N.A.	15.90
0-30	6956.3	N.A.	33.40
0-40	11157.1	N.A.	53.60
0-60	18116.58	N.A.	87.10
0-80	20680.48	N.A.	99.40
0-90	20805.06	N.A.	100.00
10-90	19948.34	N.A.	95.90
20-40	7853.5	N.A.	37.70
20-50	11805.97	N.A.	56.70
40-70	8759.99	N.A.	42.10
60-80	2563.91	N.A.	12.30
70-80	763.39	N.A.	3.70
80-90	124.58	N.A.	0.60
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	20805.06	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	856.72
10-20	2446.88
20-30	3652.7
30-40	4200.8
40-50	3952.47
50-60	3007.00
60-70	1800.52
70-80	763.39
80-90	124.58
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	378	363	351	339	368	356	344	334	341	332	323	328	321	314	316	310	304	297
2	347	322	301	284	338	316	297	280	304	288	274	293	280	268	283	272	262	255
3	319	286	261	241	311	281	258	239	271	251	235	262	245	231	254	239	227	220
4	294	256	229	208	286	252	226	206	244	221	203	236	216	201	229	212	198	191
5	272	231	202	181	265	227	200	180	220	196	178	213	193	176	207	189	175	168
6	252	209	180	160	245	206	179	159	200	176	158	194	173	156	189	170	155	148
7	234	190	162	142	228	188	161	142	183	158	141	178	156	140	173	154	139	132
8	218	174	147	128	213	172	146	127	168	144	127	164	142	126	160	140	125	119
9	204	161	134	116	200	159	133	115	155	131	115	151	130	114	148	128	114	108
10	192	149	123	105	188	147	122	105	144	121	105	140	119	104	137	118	104	98

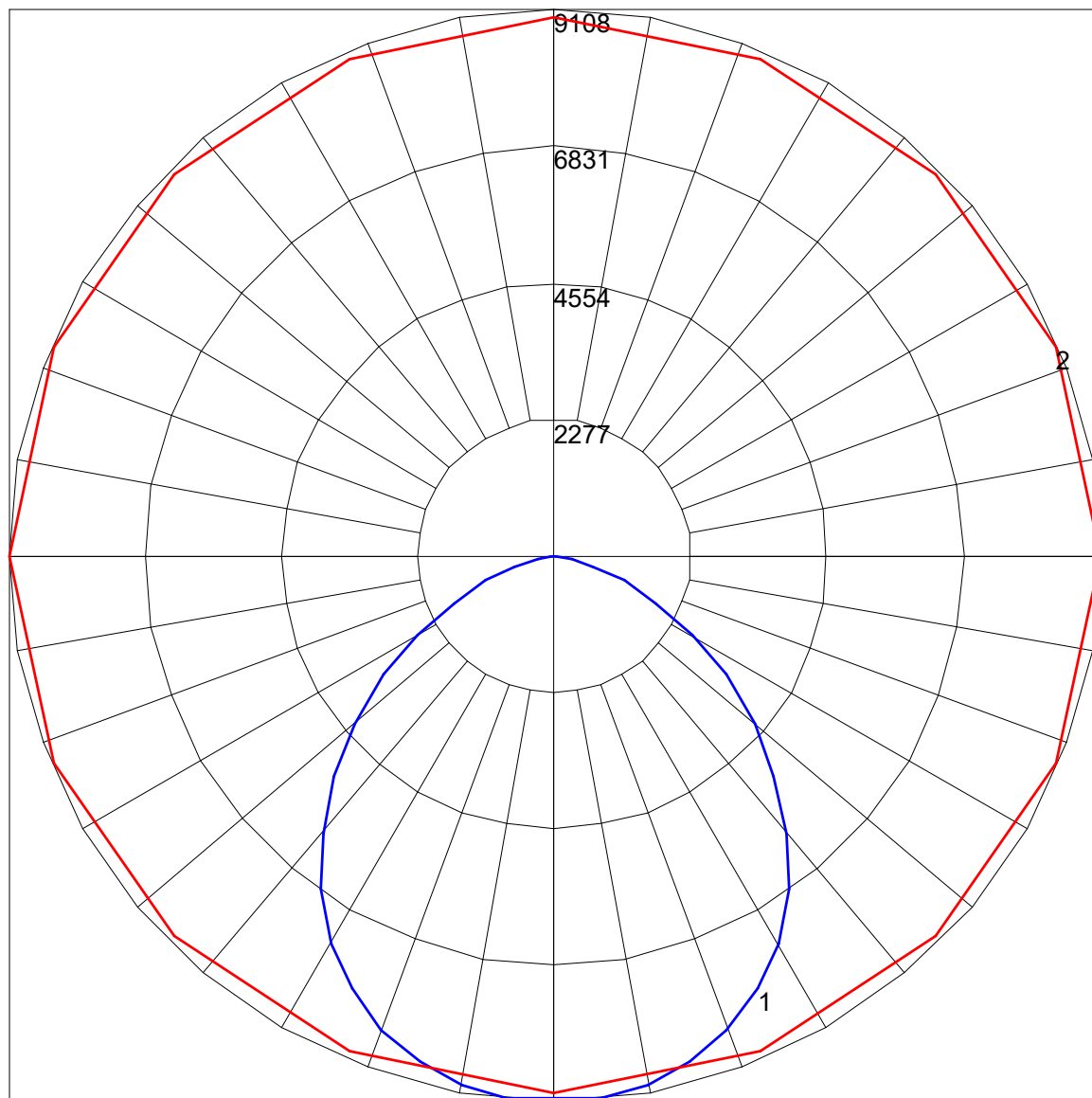
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**UGR TABLE - CORRECTED**

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	15.8	17.3	16.2	17.6	18.0	15.3	16.9	15.7	17.2	17.5
	3H	16.9	18.3	17.3	18.6	18.9	16.5	17.8	16.8	18.1	18.5
	4H	17.2	18.4	17.6	18.8	19.2	16.8	18.1	17.2	18.4	18.8
	6H	17.3	18.5	17.7	18.8	19.2	17.0	18.1	17.4	18.5	18.9
	8H	17.3	18.4	17.7	18.8	19.2	17.0	18.1	17.4	18.5	18.9
	12H	17.3	18.3	17.7	18.7	19.1	17.0	18.0	17.4	18.4	18.9
4H	2H	16.2	17.5	16.6	17.8	18.2	15.8	17.1	16.2	17.4	17.8
	3H	17.5	18.5	17.9	18.9	19.3	17.1	18.2	17.5	18.6	19.0
	4H	17.8	18.8	18.3	19.2	19.6	17.6	18.5	18.0	18.9	19.3
	6H	18.0	18.8	18.5	19.2	19.7	17.8	18.6	18.3	19.1	19.5
	8H	18.0	18.8	18.4	19.2	19.7	17.8	18.6	18.3	19.0	19.5
	12H	18.0	18.7	18.5	19.1	19.6	17.8	18.5	18.3	19.0	19.5
8H	4H	17.9	18.7	18.4	19.1	19.6	17.7	18.4	18.1	18.9	19.3
	6H	18.1	18.8	18.6	19.2	19.7	18.0	18.6	18.5	19.1	19.6
	8H	18.2	18.7	18.7	19.2	19.7	18.1	18.6	18.6	19.1	19.6
	12H	18.2	18.6	18.7	19.1	19.7	18.1	18.6	18.6	19.1	19.6
12H	4H	17.9	18.6	18.4	19.1	19.5	17.7	18.3	18.1	18.8	19.3
	6H	18.1	18.7	18.7	19.2	19.7	18.0	18.5	18.5	19.0	19.5
	8H	18.2	18.7	18.7	19.2	19.7	18.1	18.6	18.6	19.1	19.6

Maximum UGR = 19.7

POLAR GRAPH



Maximum Candela = 9108.433 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.)