



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : MCTG-22-L65-840-SAF12125-DIM-UNV\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from BALLABS TEST NO. 19833.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 03-16-2022

[MANUFAC] WILLIAMS INDOOR

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

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

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

[LUMCAT] MCTG-22-L65-840-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	6717
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	127
Total Luminaire Watts	52.9
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.20
Spacing Criterion (90-270)	1.22
Spacing Criterion (Diagonal)	1.28
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	1.57 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	10092	10066	10209
55	8029	7875	7912
65	5945	5626	5619
75	3996	3429	3523
85	1299	772	1264

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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>	2986.722	2986.722	2986.722	2986.722	2986.722
<b>5</b>	2978.977	2978.273	2976.160	2969.824	2969.824
<b>10</b>	2927.579	2936.028	2933.915	2929.691	2926.171
<b>15</b>	2848.017	2859.987	2858.579	2864.915	2859.987
<b>20</b>	2738.180	2752.262	2750.854	2778.313	2760.711
<b>25</b>	2585.394	2605.109	2620.598	2645.241	2618.486
<b>30</b>	2395.292	2431.200	2448.098	2457.955	2436.833
<b>35</b>	2170.689	2216.454	2224.903	2210.822	2203.077
<b>40</b>	1923.556	1943.974	1945.382	1936.229	1949.607
<b>45</b>	1641.922	1641.218	1637.698	1634.882	1660.933
<b>50</b>	1351.840	1331.422	1336.350	1325.085	1346.912
<b>55</b>	1059.645	1044.860	1039.227	1044.860	1044.156
<b>60</b>	792.798	777.308	776.604	787.165	785.053
<b>65</b>	578.052	568.195	547.073	566.787	546.369
<b>70</b>	388.654	387.246	352.042	383.725	352.746
<b>75</b>	237.980	228.827	204.184	225.307	209.817
<b>80</b>	107.725	105.613	87.306	96.459	102.092
<b>85</b>	26.051	28.163	15.490	19.714	25.347
<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	1089.00	N.A.	16.20
0-30	2292.75	N.A.	34.10
0-40	3669.66	N.A.	54.60
0-60	5874.51	N.A.	87.50
0-80	6678.41	N.A.	99.40
0-90	6717.34	N.A.	100.00
10-90	6434.78	N.A.	95.80
20-40	2580.66	N.A.	38.40
20-50	3845.39	N.A.	57.20
40-70	2768.1	N.A.	41.20
60-80	803.89	N.A.	12.00
70-80	240.65	N.A.	3.60
80-90	38.93	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	6717.34	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	282.55
10-20	806.45
20-30	1203.75
30-40	1376.91
40-50	1264.73
50-60	940.13
60-70	563.24
70-80	240.65
80-90	38.93
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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	106	103	99	108	104	101	98	100	97	95	96	94	92	92	91	89	87
2	102	94	88	83	99	92	87	82	89	84	80	86	82	79	83	80	77	75
3	93	84	77	71	91	82	76	70	80	74	69	77	72	68	74	70	67	65
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56
5	80	68	60	53	78	67	59	53	65	58	53	63	57	52	61	56	51	50
6	74	61	53	47	72	61	53	47	59	52	47	57	51	46	56	50	46	44
7	69	56	48	42	67	55	47	42	54	47	42	52	46	41	51	45	41	39
8	64	51	43	38	63	51	43	38	49	42	38	48	42	37	47	41	37	35
9	60	47	40	34	59	47	39	34	46	39	34	45	38	34	44	38	34	32
10	56	44	36	31	55	43	36	31	42	36	31	41	35	31	41	35	31	29

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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

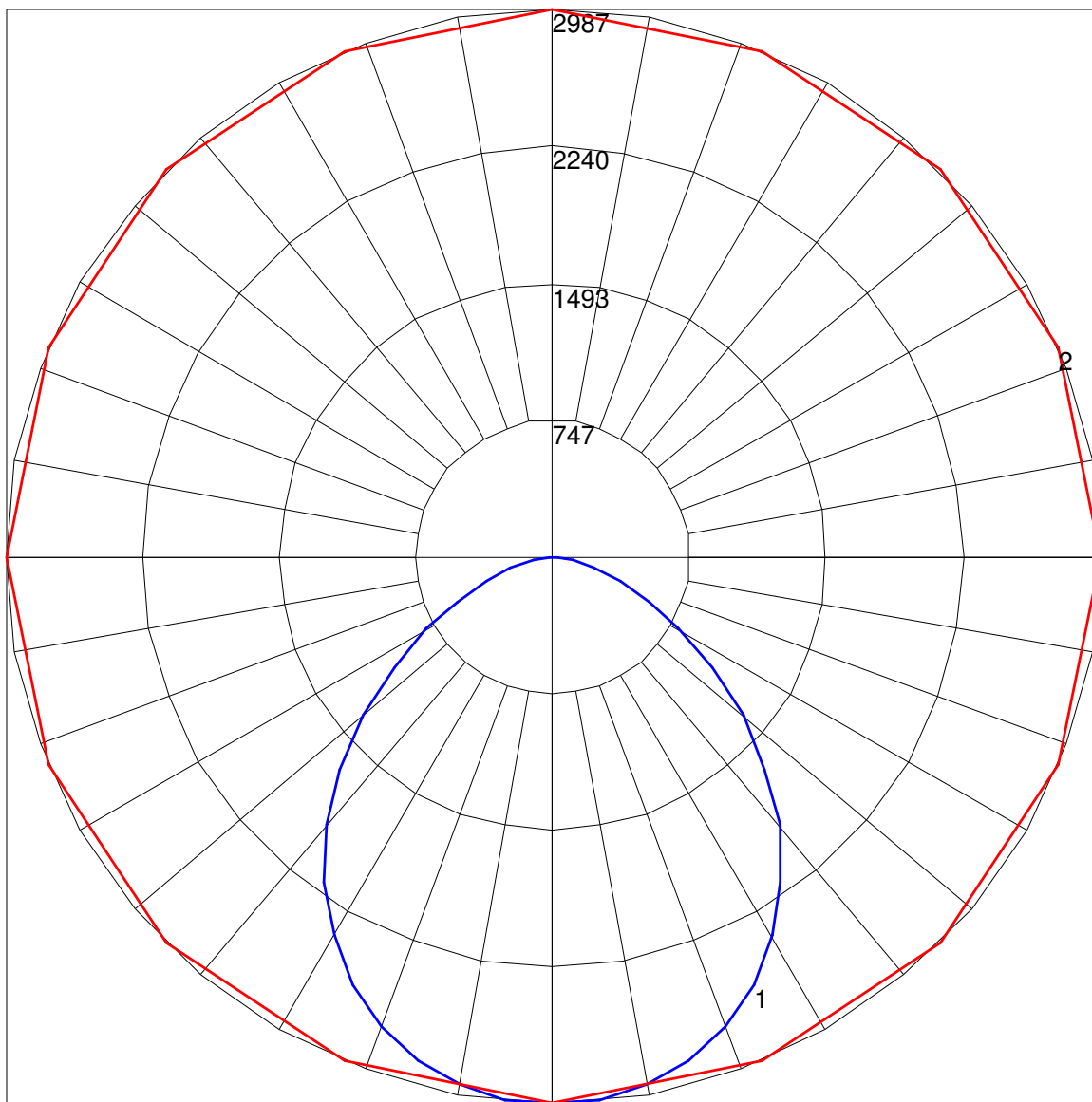
X=2H	Y=2H	18.6	20.1	18.9	20.4	20.7	18.6	20.1	19.0	20.4	20.7
	3H	19.7	21.1	20.1	21.4	21.8	19.7	21.0	20.0	21.3	21.7
	4H	20.1	21.4	20.5	21.7	22.1	20.0	21.2	20.4	21.6	22.0
	6H	20.3	21.4	20.7	21.8	22.2	20.1	21.3	20.5	21.6	22.0
	8H	20.3	21.4	20.7	21.8	22.2	20.1	21.2	20.5	21.6	22.0
	12H	20.3	21.3	20.7	21.7	22.2	20.1	21.2	20.6	21.6	22.0

### UGR Viewed Endwise

4H	2H	18.9	20.2	19.3	20.6	20.9	19.0	20.2	19.4	20.6	20.9
	3H	20.3	21.3	20.7	21.7	22.1	20.2	21.3	20.7	21.7	22.1
	4H	20.7	21.7	21.2	22.1	22.5	20.6	21.6	21.0	22.0	22.4
	6H	21.0	21.8	21.4	22.2	22.7	20.8	21.6	21.3	22.1	22.6
	8H	21.0	21.8	21.5	22.2	22.7	20.9	21.6	21.3	22.1	22.5
	12H	21.0	21.7	21.5	22.2	22.6	20.9	21.5	21.4	22.0	22.5
8H	4H	20.8	21.6	21.3	22.0	22.5	20.7	21.5	21.2	21.9	22.4
	6H	21.1	21.7	21.6	22.2	22.7	21.0	21.6	21.5	22.1	22.6
	8H	21.2	21.7	21.7	22.2	22.7	21.0	21.6	21.5	22.1	22.6
	12H	21.2	21.7	21.7	22.2	22.8	21.0	21.5	21.5	22.0	22.6
12H	4H	20.8	21.5	21.3	22.0	22.4	20.7	21.4	21.2	21.9	22.3
	6H	21.1	21.7	21.6	22.1	22.7	21.0	21.5	21.5	22.0	22.5
	8H	21.2	21.7	21.7	22.2	22.7	21.0	21.5	21.5	22.0	22.6

Maximum UGR = 22.8

POLAR GRAPH



Maximum Candela = 2986.722 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)