



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : MCTG-22-L11-RED-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] 17-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-L11-RED-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	1010
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	39
Total Luminaire Watts	25.6
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	1009	1012	1013
55	884	860	876
65	685	668	689
75	438	454	420
85	87	164	134

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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>	429.922	429.922	429.922	429.922	429.922
<b>5</b>	431.647	428.898	426.687	425.663	425.771
<b>10</b>	424.207	421.889	420.002	419.139	418.007
<b>15</b>	411.699	409.542	408.841	407.278	406.577
<b>20</b>	393.961	392.990	392.882	388.677	389.324
<b>25</b>	371.424	370.939	370.076	367.650	368.620
<b>30</b>	345.437	344.358	342.040	342.040	342.956
<b>35</b>	314.058	313.141	312.171	311.146	311.470
<b>40</b>	279.929	279.929	280.307	278.689	278.689
<b>45</b>	244.615	245.262	245.369	243.159	245.585
<b>50</b>	209.138	207.359	207.952	204.070	209.300
<b>55</b>	173.716	170.157	169.079	169.349	172.314
<b>60</b>	135.597	134.196	131.500	135.328	136.352
<b>65</b>	99.205	100.606	96.724	99.636	99.852
<b>70</b>	67.664	67.394	66.640	65.993	64.914
<b>75</b>	38.873	37.363	40.275	38.172	37.256
<b>80</b>	15.528	15.366	18.493	18.924	17.415
<b>85</b>	2.588	3.343	4.906	5.284	3.990
<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	155.73	N.A.	15.40
0-30	325.78	N.A.	32.30
0-40	521.04	N.A.	51.60
0-60	861.94	N.A.	85.30
0-80	1003.01	N.A.	99.30
0-90	1010.01	N.A.	100.00
10-90	969.42	N.A.	96.00
20-40	365.32	N.A.	36.20
20-50	553.70	N.A.	54.80
40-70	439.58	N.A.	43.50
60-80	141.07	N.A.	14.00
70-80	42.38	N.A.	4.20
80-90	7.00	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	1010.01	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	40.59
10-20	115.14
20-30	170.05
30-40	195.27
40-50	188.38
50-60	152.51
60-70	98.69
70-80	42.38
80-90	7.00
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 RW	80				70				50			30			10			0
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	39	39	39	39	38	38	38	38	36	36	36	35	35	35	33	33	33	33
1	36	34	33	32	35	34	33	32	32	31	31	31	30	30	30	29	29	28
2	33	30	28	27	32	30	28	26	29	27	26	28	26	25	27	26	25	24
3	30	27	24	23	29	26	24	22	26	24	22	25	23	22	24	22	21	21
4	28	24	21	19	27	24	21	19	23	21	19	22	20	19	21	20	18	18
5	26	22	19	17	25	21	19	17	21	18	17	20	18	16	19	18	16	16
6	24	20	17	15	23	19	17	15	19	16	15	18	16	14	18	16	14	14
7	22	18	15	13	21	18	15	13	17	15	13	17	15	13	16	14	13	12
8	21	16	14	12	20	16	14	12	16	13	12	15	13	12	15	13	12	11
9	19	15	12	11	19	15	12	11	14	12	11	14	12	11	14	12	10	10
10	18	14	11	10	18	14	11	10	13	11	10	13	11	10	13	11	10	9

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**UGR TABLE - CORRECTED**

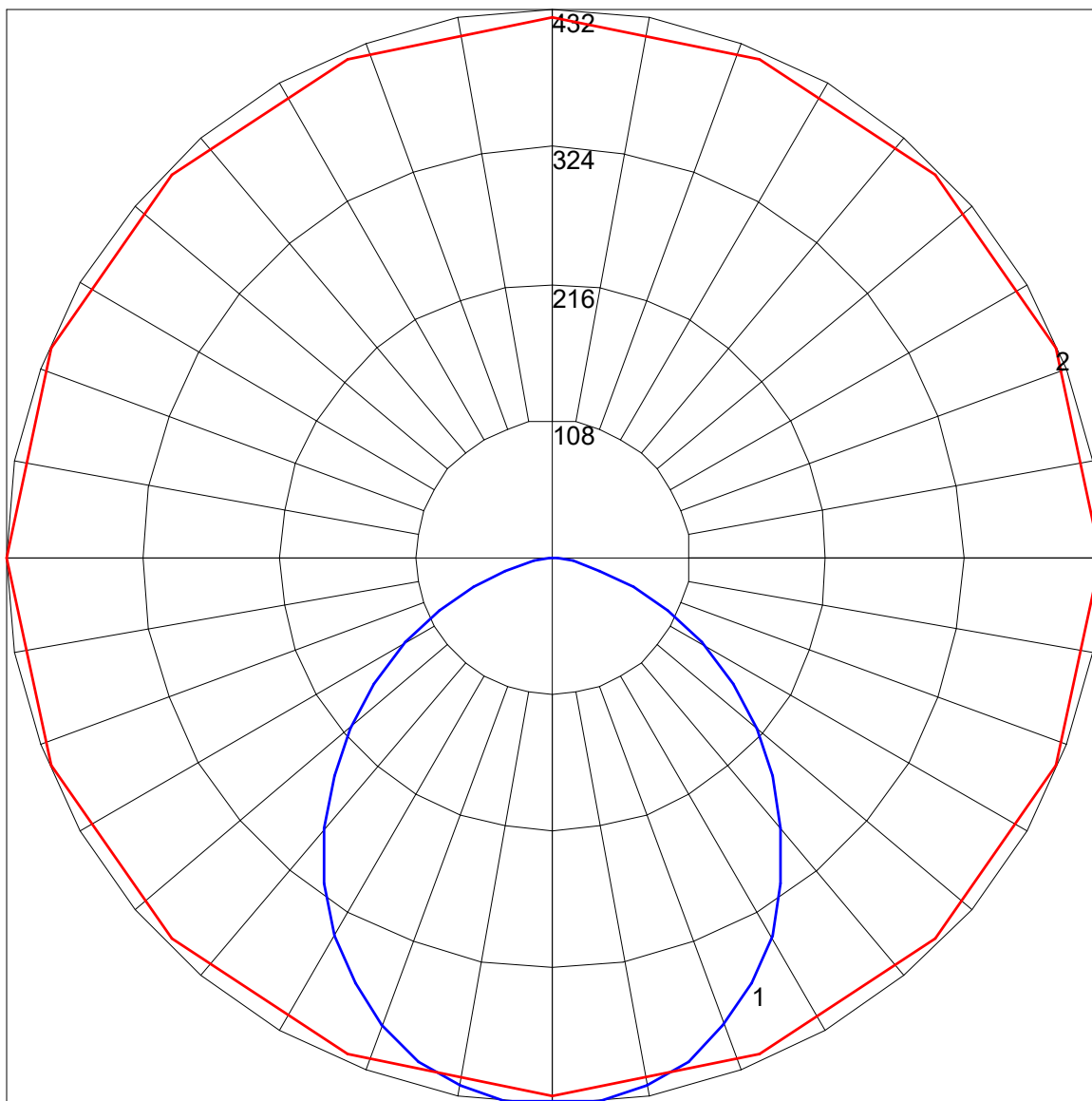
Reflectances

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	15.2	16.7	15.5	17.0	17.3	15.2	16.7	15.5	17.0	17.4
	3H	16.4	17.8	16.8	18.2	18.5	16.4	17.8	16.8	18.1	18.5
	4H	16.8	18.1	17.2	18.4	18.8	16.7	18.0	17.1	18.4	18.7
	6H	16.9	18.1	17.3	18.5	18.9	16.9	18.1	17.3	18.5	18.8
	8H	16.9	18.1	17.3	18.4	18.8	16.9	18.0	17.3	18.4	18.8
	12H	16.9	18.0	17.3	18.4	18.8	16.9	18.0	17.3	18.4	18.8
4H	2H	15.6	16.9	16.0	17.3	17.6	15.6	16.9	16.0	17.3	17.6
	3H	17.1	18.1	17.5	18.5	18.9	17.0	18.1	17.4	18.5	18.9
	4H	17.5	18.4	17.9	18.9	19.3	17.4	18.4	17.9	18.8	19.3
	6H	17.7	18.5	18.1	18.9	19.4	17.7	18.5	18.1	19.0	19.4
	8H	17.7	18.5	18.1	18.9	19.4	17.7	18.5	18.2	18.9	19.4
	12H	17.7	18.4	18.1	18.8	19.3	17.7	18.4	18.2	18.9	19.4
8H	4H	17.6	18.4	18.1	18.8	19.3	17.6	18.4	18.0	18.8	19.3
	6H	17.9	18.5	18.4	19.0	19.5	17.9	18.5	18.4	19.0	19.5
	8H	17.9	18.5	18.4	19.0	19.5	17.9	18.5	18.5	19.0	19.5
	12H	17.9	18.4	18.4	18.9	19.4	18.0	18.5	18.5	19.0	19.5
12H	4H	17.6	18.3	18.1	18.8	19.3	17.6	18.3	18.0	18.7	19.2
	6H	17.9	18.4	18.4	18.9	19.4	17.9	18.5	18.4	18.9	19.5
	8H	17.9	18.4	18.4	18.9	19.5	18.0	18.5	18.5	19.0	19.5

Maximum UGR = 19.5

POLAR GRAPH



Maximum Candela = 431.647 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.)