



IES INDOOR REPORT

PHOTOMETRIC FILENAME : MCTG-22-L18-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

[ISSUEDATE] 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-L18-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	1633
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	37
Total Luminaire Watts	44.6
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	1632	1637	1638
55	1428	1390	1417
65	1107	1079	1114
75	708	734	679
85	140	266	216

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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>
0	695.112	695.112	695.112	695.112	695.112
5	697.901	693.456	689.882	688.225	688.400
10	685.872	682.123	679.072	677.677	675.847
15	665.648	662.161	661.028	658.500	657.366
20	636.968	635.399	635.225	628.425	629.471
25	600.530	599.745	598.351	594.428	595.997
30	558.513	556.769	553.021	553.021	554.503
35	507.779	506.297	504.728	503.071	503.594
40	452.599	452.599	453.209	450.594	450.594
45	395.501	396.547	396.721	393.147	397.070
50	338.141	335.265	336.224	329.947	338.403
55	280.869	275.116	273.372	273.808	278.603
60	219.238	216.972	212.613	218.802	220.459
65	160.397	162.664	156.387	161.094	161.443
70	109.401	108.965	107.745	106.699	104.955
75	62.851	60.410	65.118	61.718	60.236
80	25.106	24.844	29.900	30.597	28.157
85	4.184	5.405	7.933	8.543	6.451
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	251.79	N.A.	15.40
0-30	526.72	N.A.	32.30
0-40	842.44	N.A.	51.60
0-60	1393.61	N.A.	85.30
0-80	1621.7	N.A.	99.30
0-90	1633.02	N.A.	100.00
10-90	1567.4	N.A.	96.00
20-40	590.66	N.A.	36.20
20-50	895.24	N.A.	54.80
40-70	710.73	N.A.	43.50
60-80	228.09	N.A.	14.00
70-80	68.53	N.A.	4.20
80-90	11.32	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	1633.02	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	65.62
10-20	186.16
20-30	274.94
30-40	315.72
40-50	304.58
50-60	246.58
60-70	159.57
70-80	68.53
80-90	11.32
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	192	192	192	192	188	188	188	188	180	180	180	172	172	172	165	165	165	162
1	178	171	165	159	174	167	162	157	161	156	152	154	151	147	149	146	143	140
2	163	151	141	133	159	148	139	131	142	135	128	137	131	125	132	127	122	119
3	150	134	122	112	146	131	120	111	127	117	109	122	114	107	118	111	105	102
4	138	120	106	96	134	117	105	95	113	103	94	110	100	93	106	98	92	88
5	127	107	94	84	124	106	93	83	102	91	82	99	89	81	96	88	81	77
6	118	97	83	74	115	96	83	73	93	81	73	90	80	72	88	79	71	68
7	109	88	75	65	107	87	74	65	85	73	65	82	72	64	80	71	64	61
8	102	81	68	59	100	80	67	59	78	66	58	76	65	58	74	65	57	55
9	95	75	62	53	93	74	61	53	72	61	53	70	60	52	68	59	52	49
10	90	69	57	48	88	68	56	48	67	56	48	65	55	48	64	54	48	45

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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	11.3	12.8	11.6	13.1	13.4	11.3	12.8	11.6	13.1	13.5
	3H	12.5	13.9	12.9	14.3	14.6	12.5	13.9	12.9	14.2	14.6
	4H	12.9	14.2	13.3	14.5	14.9	12.8	14.1	13.2	14.5	14.8
	6H	13.0	14.2	13.4	14.6	15.0	13.0	14.2	13.4	14.6	14.9
	8H	13.0	14.2	13.4	14.5	14.9	13.0	14.1	13.4	14.5	14.9
	12H	13.0	14.1	13.4	14.5	14.9	13.0	14.1	13.4	14.5	14.9

UGR Viewed Endwise

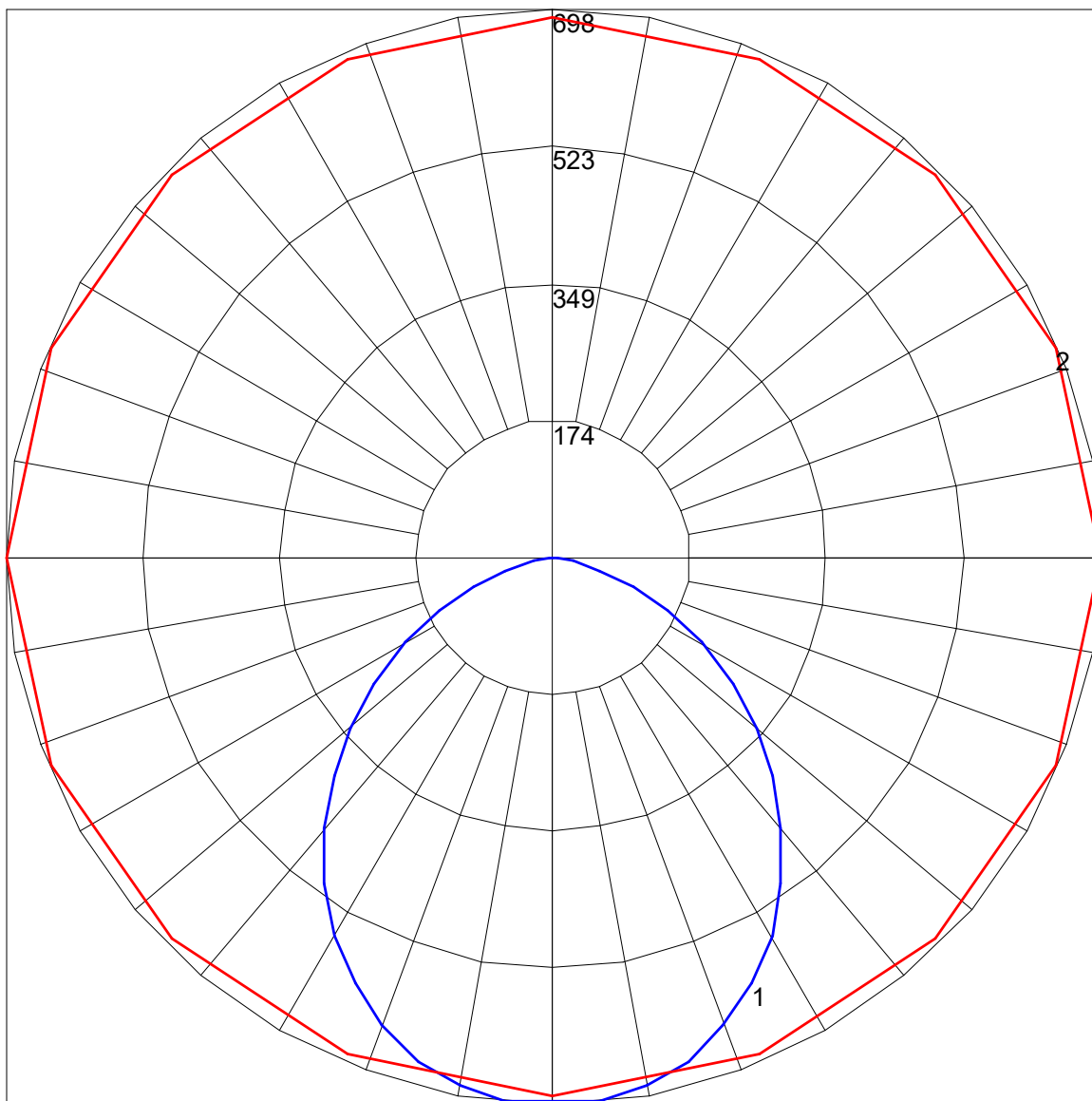
4H	2H	11.7	13.0	12.1	13.4	13.7	11.7	13.0	12.1	13.4	13.7
	3H	13.2	14.2	13.6	14.6	15.0	13.1	14.2	13.5	14.6	15.0
	4H	13.6	14.5	14.0	15.0	15.4	13.5	14.5	14.0	14.9	15.4
	6H	13.8	14.6	14.2	15.0	15.5	13.8	14.6	14.2	15.1	15.5
	8H	13.8	14.6	14.2	15.0	15.5	13.8	14.6	14.3	15.0	15.5
	12H	13.8	14.5	14.2	14.9	15.4	13.8	14.5	14.3	15.0	15.5

8H	4H	13.7	14.5	14.2	14.9	15.4	13.7	14.5	14.1	14.9	15.4
	6H	14.0	14.6	14.5	15.1	15.6	14.0	14.6	14.5	15.1	15.6
	8H	14.0	14.6	14.5	15.1	15.6	14.0	14.6	14.6	15.1	15.6
	12H	14.0	14.5	14.5	15.0	15.5	14.1	14.6	14.6	15.1	15.6

12H	4H	13.7	14.4	14.2	14.9	15.4	13.7	14.4	14.1	14.8	15.3
	6H	14.0	14.5	14.5	15.0	15.5	14.0	14.6	14.5	15.0	15.6
	8H	14.0	14.5	14.5	15.0	15.6	14.1	14.6	14.6	15.1	15.6

Maximum UGR = 15.6

POLAR GRAPH



Maximum Candela = 697.901 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.)