



IES INDOOR REPORT

PHOTOMETRIC FILENAME : MCTG-24-L38-RED-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] 17-FEB-2020

[MANUFAC] WILLIAMS INDOOR

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

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

[MORE] PAT12 FROSTED PRISMATIC ACRYLIC LENS IN DOOR

[LUMCAT] MCTG-24-L38-RED-SAF12125-DIM-UNV

[LAMPCAT] HLM RED LED

[_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	3812
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	43
Total Luminaire Watts	87.8
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	2579	2565	2496
55	2132	2090	1973
65	1546	1528	1417
75	920	947	939
85	201	277	285

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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	1660.654	1660.654	1660.654	1660.654	1660.654
5	1668.894	1658.457	1648.753	1644.908	1645.275
10	1643.993	1632.641	1626.233	1622.022	1622.754
15	1603.529	1593.093	1590.164	1581.192	1585.769
20	1544.940	1536.517	1536.883	1524.250	1529.560
25	1464.928	1459.984	1457.421	1444.788	1451.745
30	1368.987	1366.424	1357.818	1341.706	1349.579
35	1249.427	1251.991	1236.062	1210.428	1225.076
40	1106.981	1119.248	1093.615	1065.053	1082.630
45	953.183	967.098	948.056	913.451	922.240
50	797.187	790.047	792.427	753.977	752.879
55	639.178	623.798	626.545	591.025	591.391
60	482.633	471.831	468.901	436.677	442.353
65	341.469	334.694	337.441	312.906	313.089
70	223.374	216.782	224.655	214.768	209.825
75	124.503	123.222	128.165	132.742	127.067
80	52.731	50.900	57.674	65.914	58.956
85	9.155	10.253	12.633	18.675	13.000
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	605.30	N.A.	15.90
0-30	1274.57	N.A.	33.40
0-40	2044.26	N.A.	53.60
0-60	3319.41	N.A.	87.10
0-80	3789.18	N.A.	99.40
0-90	3812.01	N.A.	100.00
10-90	3655.04	N.A.	95.90
20-40	1438.96	N.A.	37.70
20-50	2163.15	N.A.	56.70
40-70	1605.05	N.A.	42.10
60-80	469.77	N.A.	12.30
70-80	139.87	N.A.	3.70
80-90	22.83	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	3812.01	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	156.97
10-20	448.33
20-30	669.27
30-40	769.69
40-50	724.19
50-60	550.96
60-70	329.90
70-80	139.87
80-90	22.83
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	187	187	187	187	183	183	183	183	175	175	175	168	168	168	161	161	161	157
1	174	167	161	156	170	164	158	154	157	153	149	151	147	144	145	143	140	137
2	160	148	139	131	156	145	136	129	140	132	126	135	129	123	130	125	121	117
3	147	132	120	111	143	129	119	110	125	116	108	121	113	106	117	110	104	101
4	135	118	105	95	132	116	104	95	112	102	94	108	100	92	105	97	91	88
5	125	106	93	83	122	104	92	83	101	90	82	98	89	81	95	87	80	77
6	116	96	83	73	113	95	82	73	92	81	73	89	79	72	87	78	71	68
7	108	88	75	65	105	86	74	65	84	73	65	82	72	64	80	71	64	61
8	100	80	68	59	98	79	67	59	77	66	58	75	65	58	73	64	58	55
9	94	74	62	53	92	73	61	53	71	60	53	70	60	53	68	59	52	50
10	88	68	56	48	86	68	56	48	66	55	48	65	55	48	63	54	48	45

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UGR TABLE - CORRECTED

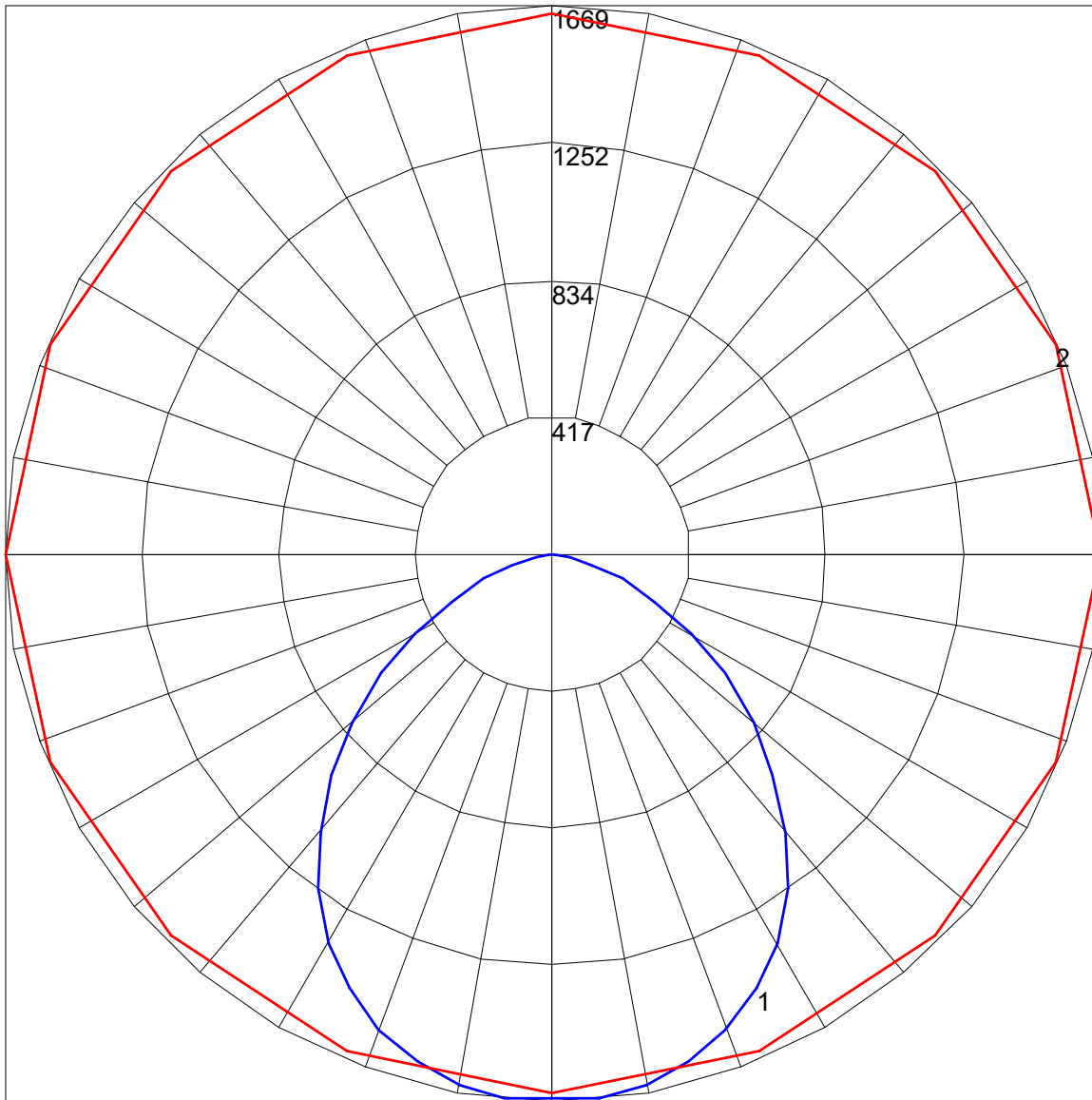
Reflectances

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					UGR Viewed Endwise				
X=2H	Y=2H	12.6	14.1	13.0	14.4	14.8	12.1	13.7	12.5	14.0	14.3
	3H	13.7	15.1	14.1	15.4	15.7	13.3	14.6	13.6	14.9	15.3
	4H	14.0	15.2	14.4	15.6	16.0	13.6	14.9	14.0	15.2	15.6
	6H	14.1	15.3	14.5	15.6	16.0	13.8	14.9	14.2	15.3	15.7
	8H	14.1	15.2	14.5	15.6	16.0	13.8	14.9	14.2	15.3	15.7
	12H	14.1	15.1	14.5	15.5	15.9	13.8	14.8	14.2	15.2	15.7
4H	2H	13.0	14.3	13.4	14.6	15.0	12.6	13.9	13.0	14.2	14.6
	3H	14.3	15.3	14.7	15.7	16.1	13.9	15.0	14.3	15.4	15.8
	4H	14.6	15.6	15.1	16.0	16.4	14.4	15.3	14.8	15.7	16.1
	6H	14.8	15.6	15.3	16.0	16.5	14.6	15.4	15.1	15.9	16.3
	8H	14.8	15.6	15.3	16.0	16.5	14.6	15.4	15.1	15.8	16.3
	12H	14.8	15.5	15.3	15.9	16.4	14.6	15.3	15.1	15.8	16.3
8H	4H	14.7	15.5	15.2	15.9	16.4	14.5	15.2	14.9	15.7	16.1
	6H	14.9	15.6	15.4	16.0	16.5	14.8	15.4	15.3	15.9	16.4
	8H	15.0	15.5	15.5	16.0	16.5	14.9	15.4	15.4	15.9	16.4
	12H	15.0	15.4	15.5	15.9	16.5	14.9	15.4	15.4	15.9	16.4
12H	4H	14.7	15.4	15.2	15.9	16.3	14.5	15.1	14.9	15.6	16.1
	6H	14.9	15.5	15.5	16.0	16.5	14.8	15.3	15.3	15.8	16.3
	8H	15.0	15.5	15.5	16.0	16.5	14.9	15.4	15.4	15.9	16.4

Maximum UGR = 16.5

POLAR GRAPH



Maximum Candela = 1668.894 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.)