



IES INDOOR REPORT

PHOTOMETRIC FILENAME : MCTG-24-L38-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] 6-42 LED 22" ARRAYS 2x4' RECESSED WHITE REFL LUMINAIRE

[MORE] FROSTED ACRYLIC LENS IN DOOR

[LUMCAT] MCTG-24-L38-RED-SAF125-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	3427
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	39
Total Luminaire Watts	87.8
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)	3.92 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	1677	1682	1684
55	1468	1429	1456
65	1138	1110	1145
75	728	754	698
85	144	273	222

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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	1458.756	1458.756	1458.756	1458.756	1458.756
5	1464.610	1455.281	1447.780	1444.304	1444.670
10	1439.365	1431.498	1425.096	1422.169	1418.327
15	1396.923	1389.605	1387.227	1381.922	1379.544
20	1336.736	1333.443	1333.077	1318.808	1321.003
25	1260.267	1258.621	1255.694	1247.462	1250.755
30	1172.091	1168.432	1160.566	1160.566	1163.676
35	1065.620	1062.510	1059.217	1055.742	1056.839
40	949.820	949.820	951.100	945.612	945.612
45	829.995	832.190	832.556	825.055	833.288
50	709.621	703.584	705.596	692.424	710.170
55	589.430	577.356	573.697	574.612	584.673
60	460.092	455.335	446.188	459.177	462.653
65	336.608	341.364	328.193	338.071	338.803
70	229.589	228.674	226.113	223.917	220.259
75	131.899	126.777	136.656	129.521	126.411
80	52.686	52.138	62.748	64.212	59.089
85	8.781	11.342	16.647	17.928	13.537
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	528.40	N.A.	15.40
0-30	1105.38	N.A.	32.30
0-40	1767.94	N.A.	51.60
0-60	2924.62	N.A.	85.30
0-80	3403.29	N.A.	99.30
0-90	3427.04	N.A.	100.00
10-90	3289.32	N.A.	96.00
20-40	1239.55	N.A.	36.20
20-50	1878.74	N.A.	54.80
40-70	1491.54	N.A.	43.50
60-80	478.67	N.A.	14.00
70-80	143.81	N.A.	4.20
80-90	23.75	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	3427.04	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	137.71
10-20	390.68
20-30	576.98
30-40	662.56
40-50	639.19
50-60	517.48
60-70	334.86
70-80	143.81
80-90	23.75
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	173	167	161	155	169	163	158	153	156	152	148	150	147	143	145	142	139	136
2	159	147	137	129	155	144	135	128	139	131	125	134	127	122	129	124	119	116
3	146	130	119	109	142	128	117	108	123	114	106	119	111	104	115	108	103	99
4	134	116	103	94	131	114	102	93	111	100	92	107	98	90	104	96	89	86
5	124	105	91	81	121	103	90	81	100	89	80	97	87	79	94	85	78	75
6	115	95	81	72	112	93	81	71	90	79	71	88	78	70	85	76	70	66
7	107	86	73	64	104	85	72	63	83	71	63	80	70	63	78	69	62	59
8	99	79	66	57	97	78	66	57	76	65	57	74	64	56	72	63	56	53
9	93	73	60	52	91	72	60	52	70	59	51	68	58	51	67	58	51	48
10	87	67	55	47	85	66	55	47	65	54	47	63	53	47	62	53	46	44

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UGR TABLE - CORRECTED

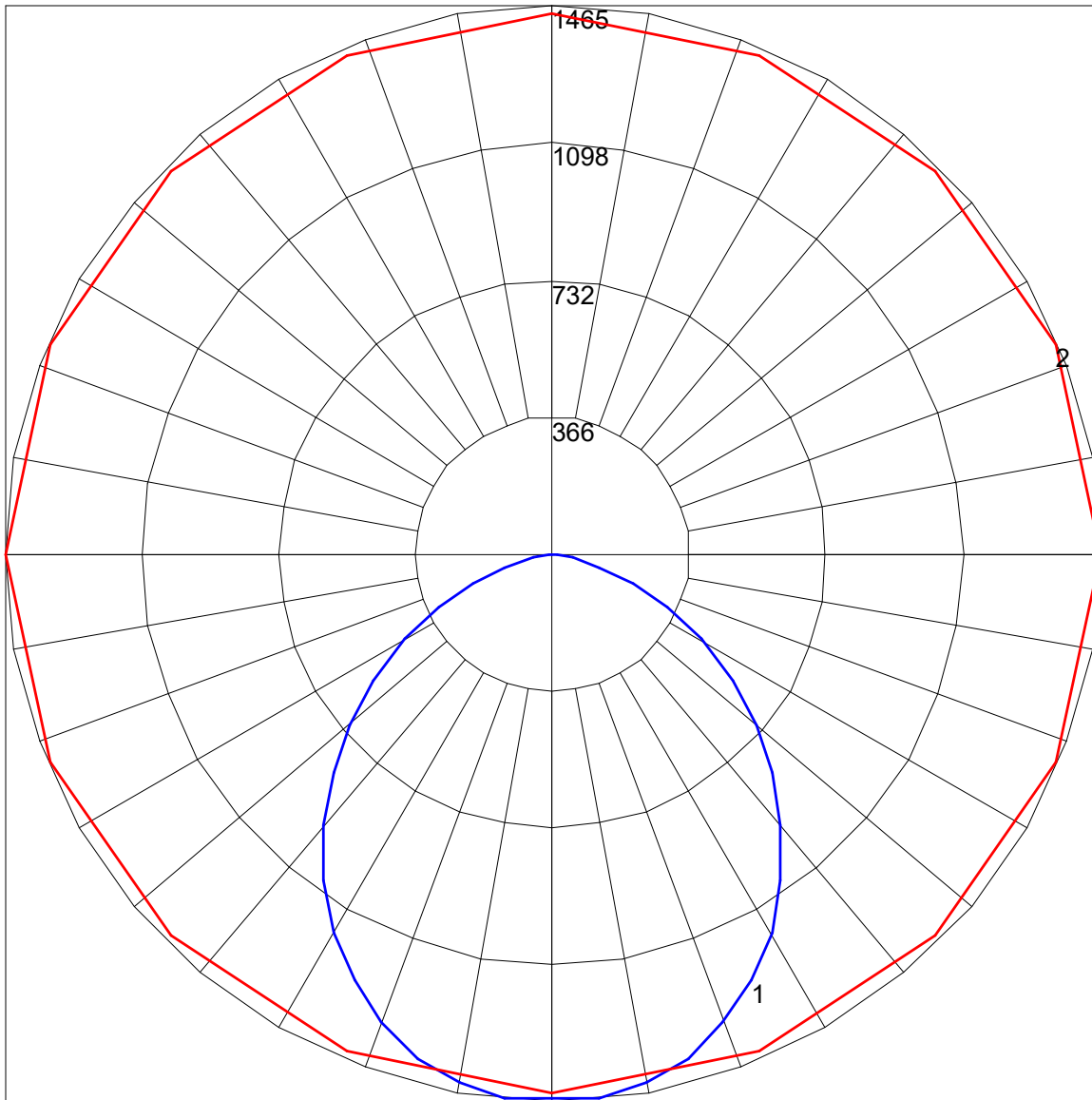
Reflectances

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	11.5	13.0	11.9	13.4	13.7	11.5	13.0	11.9	13.4	13.7
	3H	12.8	14.2	13.1	14.5	14.8	12.7	14.1	13.1	14.4	14.8
	4H	13.1	14.4	13.5	14.7	15.1	13.0	14.3	13.4	14.7	15.1
	6H	13.2	14.4	13.6	14.8	15.2	13.2	14.4	13.6	14.8	15.2
	8H	13.2	14.4	13.7	14.8	15.2	13.2	14.4	13.6	14.8	15.2
	12H	13.2	14.3	13.7	14.7	15.1	13.2	14.3	13.6	14.7	15.1
4H	2H	11.9	13.2	12.3	13.6	14.0	11.9	13.2	12.3	13.6	14.0
	3H	13.4	14.5	13.8	14.9	15.3	13.4	14.4	13.8	14.8	15.2
	4H	13.8	14.8	14.2	15.2	15.6	13.8	14.7	14.2	15.1	15.6
	6H	14.0	14.8	14.4	15.3	15.7	14.0	14.8	14.4	15.3	15.7
	8H	14.0	14.8	14.5	15.2	15.7	14.0	14.8	14.5	15.3	15.7
	12H	14.0	14.7	14.5	15.2	15.6	14.0	14.7	14.5	15.2	15.7
8H	4H	13.9	14.7	14.4	15.2	15.6	13.9	14.7	14.4	15.1	15.6
	6H	14.2	14.8	14.7	15.3	15.8	14.2	14.8	14.7	15.3	15.8
	8H	14.2	14.8	14.7	15.3	15.8	14.3	14.8	14.8	15.4	15.8
	12H	14.2	14.7	14.7	15.2	15.8	14.3	14.8	14.8	15.3	15.9
12H	4H	13.9	14.6	14.4	15.1	15.6	13.9	14.6	14.4	15.1	15.5
	6H	14.2	14.8	14.7	15.2	15.8	14.2	14.8	14.7	15.2	15.8
	8H	14.2	14.7	14.7	15.2	15.8	14.3	14.8	14.8	15.3	15.8

Maximum UGR = 15.9

POLAR GRAPH



Maximum Candela = 1464.61 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.)