



IES INDOOR REPORT

PHOTOMETRIC FILENAME : MCTG-24-L28-RED-L74-850-XX-XAF12125-XXX-XXX_WHITE ONLY.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-NOV-2023

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] 2x4' RECESSED LED LUMINAIRE

[MORE] PAT12 ACRYLIC LENS w/CLEAR ACRYLIC LENS

[LUMCAT] MCTx-24-L28-RED-L74-850-xx-xAF12125-xxx-xxx

[LAMPCAT] HLM 80 CRI 5000K CCT

[_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	7905
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	127
Total Luminaire Watts	62.4
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	5349	5320	5175
55	4422	4334	4091
65	3206	3168	2940
75	1909	1965	1948
85	417	575	592

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	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
0	3443.879	3443.879	3443.879	3443.879	3443.879
5	3460.966	3439.323	3419.199	3411.225	3411.984
10	3409.326	3385.785	3372.495	3363.762	3365.281
15	3325.413	3303.770	3297.695	3279.089	3288.582
20	3203.909	3186.442	3187.202	3161.003	3172.014
25	3037.980	3027.728	3022.412	2996.213	3010.641
30	2839.017	2833.701	2815.855	2782.442	2798.769
35	2591.073	2596.389	2563.355	2510.197	2540.573
40	2295.666	2321.106	2267.948	2208.715	2245.166
45	1976.718	2005.575	1966.087	1894.323	1912.549
50	1653.214	1638.406	1643.342	1563.605	1561.326
55	1325.533	1293.638	1299.333	1225.672	1226.431
60	1000.889	978.487	972.412	905.585	917.355
65	708.141	694.092	699.787	648.907	649.287
70	463.234	449.565	465.892	445.388	435.136
75	258.196	255.538	265.790	275.283	263.512
80	109.354	105.557	119.606	136.692	122.263
85	18.985	21.263	26.199	38.729	26.959
90	0.000	0.000	0.000	0.000	0.000

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Zone	Lumens	%Lamp	%Fixt
0-20	1255.28	N.A.	15.90
0-30	2643.21	N.A.	33.40
0-40	4239.41	N.A.	53.60
0-60	6883.82	N.A.	87.10
0-80	7858.04	N.A.	99.40
0-90	7905.38	N.A.	100.00
10-90	7579.85	N.A.	95.90
20-40	2984.12	N.A.	37.70
20-50	4485.96	N.A.	56.70
40-70	3328.57	N.A.	42.10
60-80	974.22	N.A.	12.30
70-80	290.07	N.A.	3.70
80-90	47.34	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	7905.38	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	325.53
10-20	929.75
20-30	1387.93
30-40	1596.19
40-50	1501.84
50-60	1142.58
60-70	684.15
70-80	290.07
80-90	47.34
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	102	99	108	104	101	98	100	97	94	96	94	92	92	91	89	87
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75
3	93	84	76	70	91	82	75	70	79	73	69	77	72	67	74	70	66	64
4	86	75	67	61	84	74	66	60	71	65	59	69	63	59	67	62	58	56
5	79	67	59	53	77	66	58	53	64	57	52	62	56	52	61	55	51	49
6	74	61	53	47	72	60	52	46	58	51	46	57	50	46	55	50	45	43
7	68	56	47	42	67	55	47	41	53	46	41	52	46	41	51	45	41	39
8	64	51	43	37	62	50	43	37	49	42	37	48	41	37	47	41	37	35
9	60	47	39	34	58	46	39	34	45	38	34	44	38	33	43	37	33	31
10	56	43	36	31	55	43	36	31	42	35	31	41	35	30	40	34	30	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	16.7	18.2	17.1	18.5	18.9	16.2	17.8	16.6	18.1	18.4
	3H	17.8	19.2	18.2	19.5	19.8	17.4	18.7	17.7	19.0	19.4
	4H	18.1	19.3	18.5	19.7	20.1	17.7	19.0	18.1	19.3	19.7
	6H	18.2	19.4	18.6	19.7	20.1	17.9	19.0	18.3	19.4	19.8
	8H	18.2	19.3	18.6	19.7	20.1	17.9	19.0	18.3	19.4	19.8
	12H	18.2	19.2	18.6	19.6	20.0	17.9	18.9	18.3	19.3	19.8

UGR Viewed Endwise

4H	2H	17.1	18.4	17.5	18.7	19.1	16.7	18.0	17.1	18.3	18.7
	3H	18.4	19.4	18.8	19.8	20.2	18.0	19.1	18.4	19.5	19.9
	4H	18.7	19.7	19.2	20.1	20.5	18.5	19.4	18.9	19.8	20.2
	6H	18.9	19.7	19.4	20.1	20.6	18.7	19.5	19.2	20.0	20.4
	8H	18.9	19.7	19.3	20.1	20.6	18.7	19.5	19.2	19.9	20.4
	12H	18.9	19.6	19.4	20.0	20.5	18.7	19.4	19.2	19.9	20.4

8H	4H	18.8	19.6	19.3	20.0	20.5	18.6	19.3	19.0	19.8	20.2
	6H	19.0	19.7	19.5	20.1	20.6	18.9	19.5	19.4	20.0	20.5
	8H	19.1	19.6	19.6	20.1	20.6	19.0	19.5	19.5	20.0	20.5
	12H	19.1	19.5	19.6	20.0	20.6	19.0	19.5	19.5	20.0	20.5

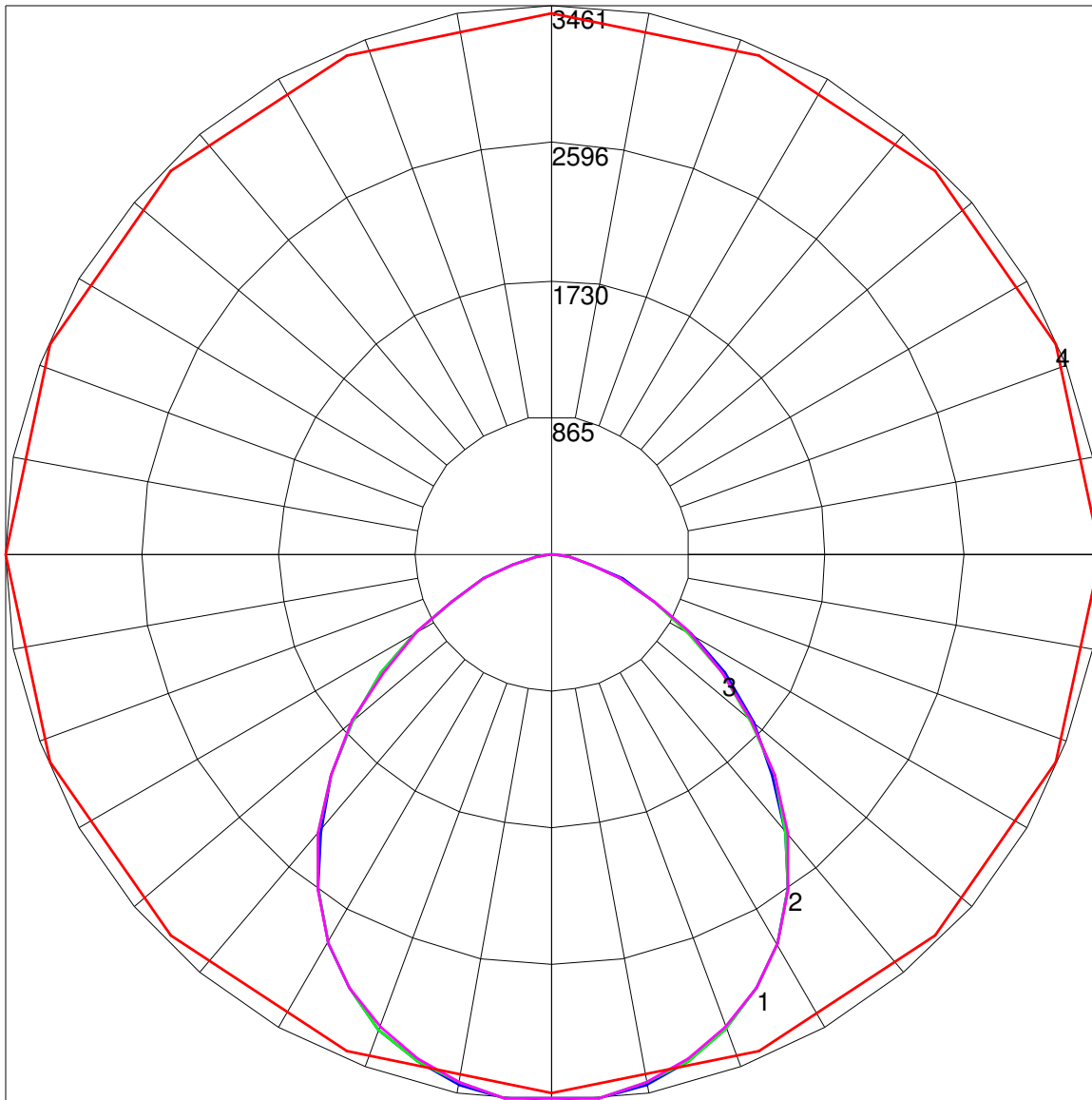
12H	4H	18.8	19.5	19.3	20.0	20.4	18.6	19.2	19.0	19.7	20.2
	6H	19.0	19.6	19.6	20.1	20.6	18.9	19.4	19.4	19.9	20.4
	8H	19.1	19.6	19.6	20.1	20.6	19.0	19.5	19.5	20.0	20.5

Maximum UGR = 20.6

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POLAR GRAPH



Maximum Candela = 3460.966 Located At Horizontal Angle = 0, Vertical Angle = 5

1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)

2 - Vertical Plane Through Horizontal Angles (5 - 185)

3 - Vertical Plane Through Horizontal Angles (10 - 190)

4 - Horizontal Cone Through Vertical Angle (5) (Through Max. Cd.)