



IES INDOOR REPORT

PHOTOMETRIC FILENAME : MCTG-24-L114-AMB-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-L114-AMB-SAF125-DIM-UNV

[LAMPCAT] HLM AMBER 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	10376
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	88
Total Luminaire Watts	118.2
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	5078	5094	5098
55	4446	4327	4410
65	3446	3359	3468
75	2205	2284	2113
85	436	826	672

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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	4416.709	4416.709	4416.709	4416.709	4416.709
5	4434.434	4406.185	4383.476	4372.952	4374.060
10	4357.997	4334.180	4314.794	4305.932	4294.300
15	4229.495	4207.339	4200.139	4184.076	4176.875
20	4047.265	4037.295	4036.188	3992.984	3999.631
25	3815.740	3810.755	3801.893	3776.968	3786.938
30	3548.766	3537.688	3513.871	3513.871	3523.287
35	3226.402	3216.986	3207.016	3196.492	3199.816
40	2875.791	2875.791	2879.668	2863.051	2863.051
45	2512.993	2519.640	2520.748	2498.038	2522.963
50	2148.535	2130.256	2136.349	2096.469	2150.196
55	1784.630	1748.073	1736.995	1739.765	1770.229
60	1393.030	1378.629	1350.935	1390.261	1400.785
65	1019.155	1033.556	993.677	1023.586	1025.802
70	695.130	692.361	684.607	677.960	666.882
75	399.354	383.845	413.755	392.153	382.737
80	159.520	157.858	189.984	194.415	178.906
85	26.587	34.341	50.404	54.281	40.988
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	1599.83	N.A.	15.40
0-30	3346.78	N.A.	32.30
0-40	5352.84	N.A.	51.60
0-60	8854.93	N.A.	85.30
0-80	10304.22	N.A.	99.30
0-90	10376.12	N.A.	100.00
10-90	9959.16	N.A.	96.00
20-40	3753.00	N.A.	36.20
20-50	5688.31	N.A.	54.80
40-70	4515.96	N.A.	43.50
60-80	1449.29	N.A.	14.00
70-80	435.42	N.A.	4.20
80-90	71.90	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	10376.12	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	416.96
10-20	1182.88
20-30	1746.94
30-40	2006.06
40-50	1935.3
50-60	1566.79
60-70	1013.87
70-80	435.42
80-90	71.90
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	166	166	166	166	162	162	162	162	155	155	155	148	148	148	142	142	142	140
1	154	148	142	138	150	144	140	135	139	135	131	133	130	127	128	126	123	120
2	141	130	122	114	137	128	120	113	123	116	110	118	113	108	114	110	106	103
3	129	116	105	97	126	113	104	96	109	101	94	106	98	92	102	96	91	88
4	119	103	92	83	116	101	91	82	98	89	81	95	87	80	92	85	79	76
5	110	93	81	72	107	91	80	72	88	78	71	86	77	70	83	76	69	67
6	102	84	72	63	99	83	71	63	80	70	63	78	69	62	76	68	62	59
7	94	76	65	56	92	75	64	56	73	63	56	71	62	55	69	61	55	52
8	88	70	58	51	86	69	58	50	67	57	50	65	56	50	64	56	50	47
9	82	64	53	46	80	63	53	46	62	52	45	60	52	45	59	51	45	43
10	77	59	49	42	76	59	49	42	57	48	41	56	47	41	55	47	41	39

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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	18.3	19.8	18.6	20.1	20.4	18.3	19.8	18.6	20.1	20.5
	3H	19.5	20.9	19.9	21.3	21.6	19.5	20.9	19.9	21.2	21.6
	4H	19.9	21.2	20.3	21.5	21.9	19.8	21.1	20.2	21.5	21.8
	6H	20.0	21.2	20.4	21.6	22.0	20.0	21.2	20.4	21.5	21.9
	8H	20.0	21.2	20.4	21.5	21.9	20.0	21.1	20.4	21.5	21.9
	12H	20.0	21.1	20.4	21.5	21.9	20.0	21.1	20.4	21.5	21.9

UGR Viewed Endwise

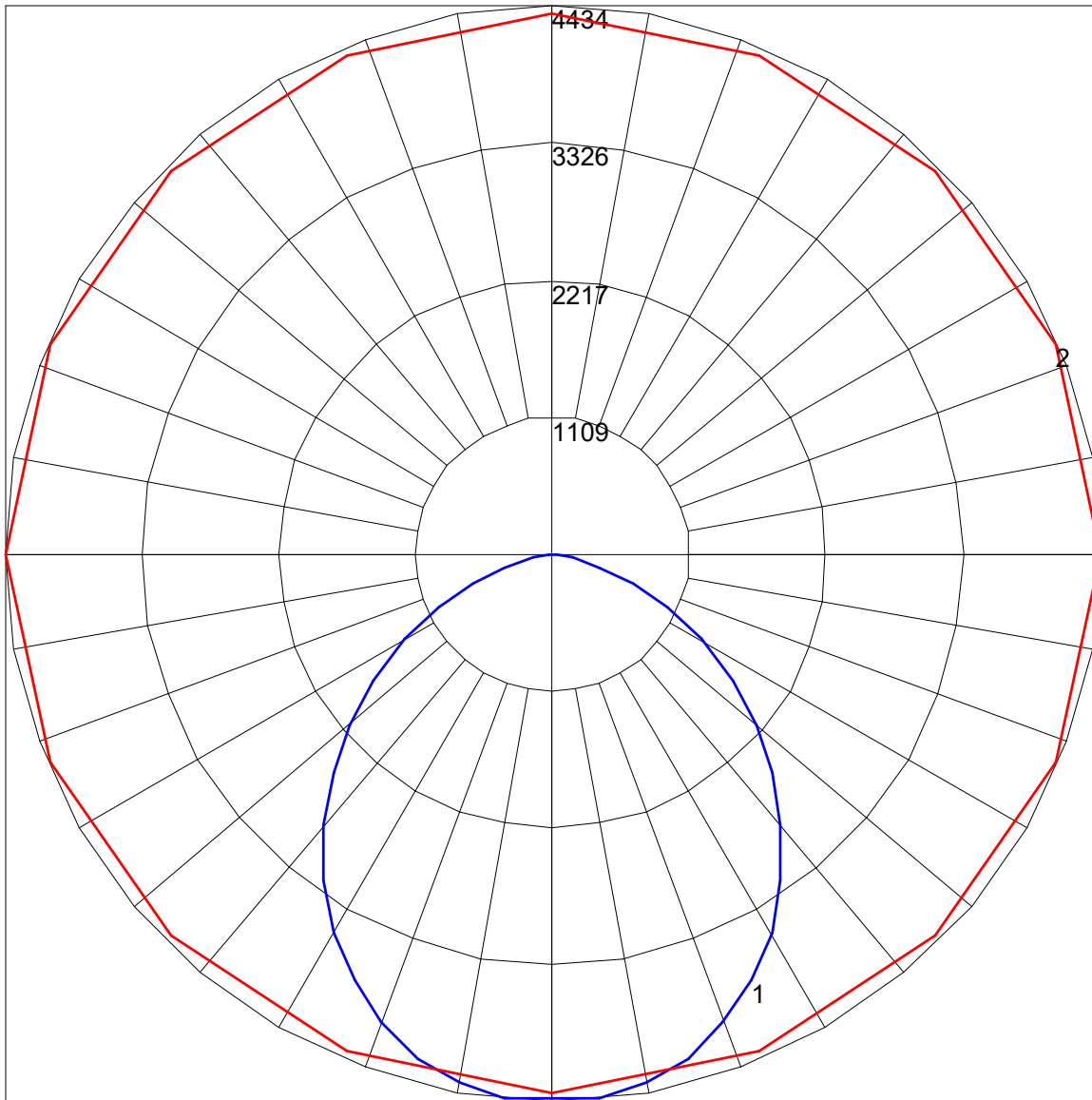
4H	2H	18.7	20.0	19.1	20.4	20.7	18.7	20.0	19.1	20.4	20.7
	3H	20.2	21.2	20.6	21.6	22.0	20.1	21.2	20.5	21.6	22.0
	4H	20.6	21.5	21.0	22.0	22.4	20.5	21.5	21.0	21.9	22.4
	6H	20.8	21.6	21.2	22.0	22.5	20.8	21.6	21.2	22.1	22.5
	8H	20.8	21.6	21.2	22.0	22.5	20.8	21.6	21.3	22.0	22.5
	12H	20.8	21.5	21.2	21.9	22.4	20.8	21.5	21.3	22.0	22.5

8H	4H	20.7	21.5	21.2	21.9	22.4	20.7	21.5	21.1	21.9	22.4
	6H	21.0	21.6	21.4	22.1	22.6	21.0	21.6	21.5	22.1	22.6
	8H	21.0	21.6	21.5	22.1	22.6	21.0	21.6	21.6	22.1	22.6
	12H	21.0	21.5	21.5	22.0	22.5	21.1	21.6	21.6	22.1	22.6

12H	4H	20.7	21.4	21.2	21.9	22.4	20.7	21.4	21.1	21.8	22.3
	6H	21.0	21.5	21.5	22.0	22.5	21.0	21.6	21.5	22.0	22.6
	8H	21.0	21.5	21.5	22.0	22.6	21.1	21.6	21.6	22.1	22.6

Maximum UGR = 22.6

POLAR GRAPH



Maximum Candela = 4434.434 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.)