



IES INDOOR REPORT

PHOTOMETRIC FILENAME : MCTG-24-L121-840-SAF12125-(L115)-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] 09-18-2023

[MANUFAC] WILLIAMS INDOOR

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

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

[MORE] PAT12 ACRYLIC LENS w/CLEAR ACRYLIC LENS IN DOOR

[LUMCAT] MCTG-24-L121-840-SAF12125-(L115)-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	11948
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	127
Total Luminaire Watts	94.4
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	8084	8041	7822
55	6683	6551	6183
65	4846	4788	4443
75	2885	2970	2944
85	630	869	894

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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	5205.013	5205.013	5205.013	5205.013	5205.013
5	5230.837	5198.126	5167.711	5155.660	5156.808
10	5152.791	5117.211	5097.125	5083.926	5086.221
15	5025.965	4993.254	4984.072	4955.953	4970.299
20	4842.326	4815.928	4817.076	4777.479	4794.121
25	4591.544	4576.050	4568.016	4528.419	4550.226
30	4290.836	4282.802	4255.830	4205.329	4230.005
35	3916.098	3924.132	3874.205	3793.863	3839.773
40	3469.626	3508.075	3427.733	3338.209	3393.301
45	2987.574	3031.188	2971.506	2863.044	2890.590
50	2498.636	2476.255	2483.715	2363.202	2359.759
55	2003.385	1955.180	1963.788	1852.457	1853.604
60	1512.725	1478.866	1469.684	1368.683	1386.473
65	1070.270	1049.037	1057.645	980.746	981.320
70	700.123	679.464	704.140	673.151	657.657
75	390.232	386.215	401.710	416.057	398.267
80	165.275	159.536	180.769	206.594	184.787
85	28.694	32.137	39.597	58.535	40.745
90	0.000	0.000	0.000	0.000	0.000

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Zone	Lumens	%Lamp	%Fixt
0-20	1897.21	N.A.	15.90
0-30	3994.9	N.A.	33.40
0-40	6407.36	N.A.	53.60
0-60	10404.08	N.A.	87.10
0-80	11876.49	N.A.	99.40
0-90	11948.04	N.A.	100.00
10-90	11456.04	N.A.	95.90
20-40	4510.15	N.A.	37.70
20-50	6779.99	N.A.	56.70
40-70	5030.73	N.A.	42.10
60-80	1472.41	N.A.	12.30
70-80	438.40	N.A.	3.70
80-90	71.54	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	11948.04	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	492.00
10-20	1405.21
20-30	2097.69
30-40	2412.46
40-50	2269.85
50-60	1726.88
60-70	1034.01
70-80	438.40
80-90	71.54
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	18.1	19.6	18.5	19.9	20.3	17.6	19.2	18.0	19.5	19.8
	3H	19.2	20.6	19.6	20.9	21.2	18.8	20.1	19.1	20.4	20.8
	4H	19.5	20.7	19.9	21.1	21.5	19.1	20.4	19.5	20.7	21.1
	6H	19.6	20.8	20.0	21.1	21.5	19.3	20.4	19.7	20.8	21.2
	8H	19.6	20.7	20.0	21.1	21.5	19.3	20.4	19.7	20.8	21.2
	12H	19.6	20.6	20.0	21.0	21.4	19.3	20.3	19.7	20.7	21.2

UGR Viewed Endwise

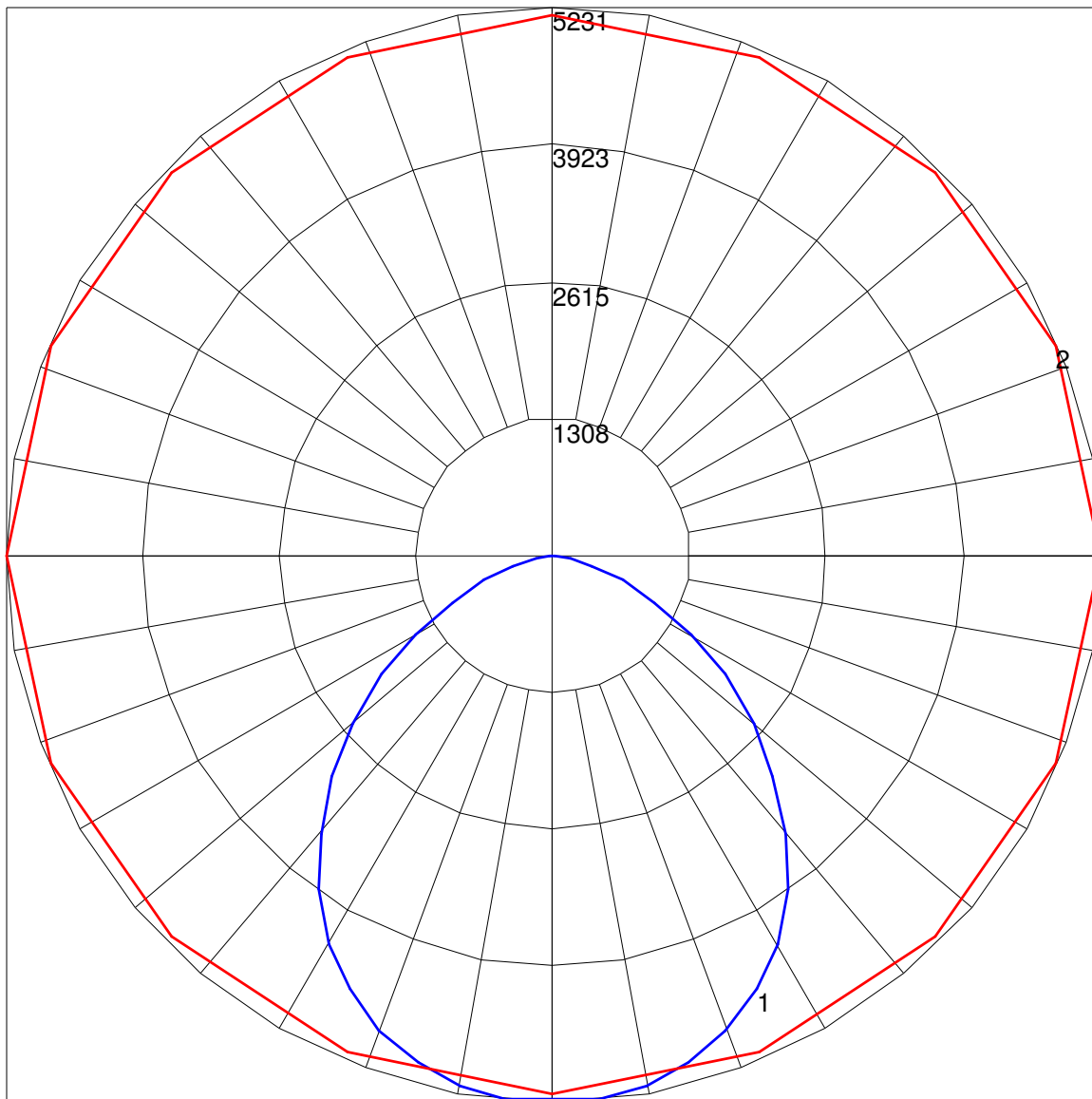
4H	2H	18.5	19.8	18.9	20.1	20.5	18.1	19.4	18.5	19.7	20.1
	3H	19.8	20.8	20.2	21.2	21.6	19.4	20.5	19.8	20.9	21.3
	4H	20.1	21.1	20.6	21.5	21.9	19.9	20.8	20.3	21.2	21.6
	6H	20.3	21.1	20.8	21.5	22.0	20.1	20.9	20.6	21.4	21.8
	8H	20.3	21.1	20.8	21.5	22.0	20.1	20.9	20.6	21.3	21.8
	12H	20.3	21.0	20.8	21.4	21.9	20.1	20.8	20.6	21.3	21.8

8H	4H	20.2	21.0	20.7	21.4	21.9	20.0	20.7	20.4	21.2	21.6
	6H	20.4	21.1	20.9	21.5	22.0	20.3	20.9	20.8	21.4	21.9
	8H	20.5	21.0	21.0	21.5	22.0	20.4	20.9	20.9	21.4	21.9
	12H	20.5	20.9	21.0	21.4	22.0	20.4	20.9	20.9	21.4	21.9

12H	4H	20.2	20.9	20.7	21.4	21.8	20.0	20.6	20.4	21.1	21.6
	6H	20.4	21.0	21.0	21.5	22.0	20.3	20.8	20.8	21.3	21.8
	8H	20.5	21.0	21.0	21.5	22.0	20.4	20.9	20.9	21.4	21.9

Maximum UGR = 22.0

POLAR GRAPH



Maximum Candela = 5230.837 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.)