



IES INDOOR REPORT

PHOTOMETRIC FILENAME : MCTG-24-L121-840-SAF12125-(L90)-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] 09-08-2022

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] 2' x 4' RECESSED LED CLEANROOM LUMINAIRE

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

[LUMCAT] MCTG-24-L121-840-SAF12125-(L90)-DIM-UNV

[LAMP] SIX 22" LED ARRAYS

[LAMPCAT] HLM 80 CRI 4000K 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	9401
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	132
Total Luminaire Watts	71.3
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	6361	6327	6154
55	5258	5154	4865
65	3813	3768	3496
75	2270	2337	2317
85	496	684	704

IES INDOOR REPORT
 PHOTOMETRIC FILENAME : MCTG-24-L121-840-SAF12125-(L90)-DIM-UNV_.IES

CANDELA TABULATION

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
0	4095.441	4095.441	4095.441	4095.441	4095.441
5	4115.760	4090.022	4066.091	4056.609	4057.512
10	4054.351	4026.356	4010.552	4000.166	4001.973
15	3954.561	3928.824	3921.599	3899.474	3910.762
20	3810.069	3789.299	3790.202	3759.046	3772.140
25	3612.748	3600.556	3594.235	3563.079	3580.237
30	3376.142	3369.821	3348.598	3308.863	3328.279
35	3081.289	3087.610	3048.326	2985.111	3021.234
40	2729.993	2760.246	2697.031	2626.591	2669.938
45	2350.702	2385.019	2338.059	2252.718	2274.392
50	1965.992	1948.382	1954.252	1859.429	1856.720
55	1576.316	1538.387	1545.160	1457.561	1458.465
60	1190.252	1163.611	1156.386	1076.916	1090.913
65	842.117	825.410	832.183	771.677	772.128
70	550.875	534.620	554.036	529.653	517.461
75	307.045	303.884	316.076	327.364	313.367
80	130.043	125.527	142.234	162.553	145.395
85	22.577	25.286	31.156	46.057	32.059
90	0.000	0.000	0.000	0.000	0.000

IES INDOOR REPORT**PHOTOMETRIC FILENAME : MCTG-24-L121-840-SAF12125-(L90)-DIM-UNV_.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	1492.77	N.A.	15.90
0-30	3143.29	N.A.	33.40
0-40	5041.48	N.A.	53.60
0-60	8186.2	N.A.	87.10
0-80	9344.74	N.A.	99.40
0-90	9401.03	N.A.	100.00
10-90	9013.91	N.A.	95.90
20-40	3548.7	N.A.	37.70
20-50	5334.68	N.A.	56.70
40-70	3958.31	N.A.	42.10
60-80	1158.53	N.A.	12.30
70-80	344.95	N.A.	3.70
80-90	56.29	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	9401.03	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	387.12
10-20	1105.65
20-30	1650.52
30-40	1898.19
40-50	1785.97
50-60	1358.75
60-70	813.59
70-80	344.95
80-90	56.29
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

IES INDOOR REPORT
PHOTOMETRIC FILENAME : MCTG-24-L121-840-SAF12125-(L90)-DIM-UNV_.IES

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

IES INDOOR REPORT

PHOTOMETRIC FILENAME : MCTG-24-L121-840-SAF12125-(L90)-DIM-UNV_.IES

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	17.3	18.8	17.7	19.1	19.5	16.8	18.4	17.2	18.7	19.0
	3H	18.4	19.8	18.8	20.1	20.4	18.0	19.3	18.3	19.6	20.0
	4H	18.7	19.9	19.1	20.3	20.7	18.3	19.6	18.7	19.9	20.3
	6H	18.8	20.0	19.2	20.3	20.7	18.5	19.6	18.9	20.0	20.4
	8H	18.8	19.9	19.2	20.3	20.7	18.5	19.6	18.9	20.0	20.4
	12H	18.8	19.8	19.2	20.2	20.6	18.5	19.5	18.9	19.9	20.4

UGR Viewed Endwise

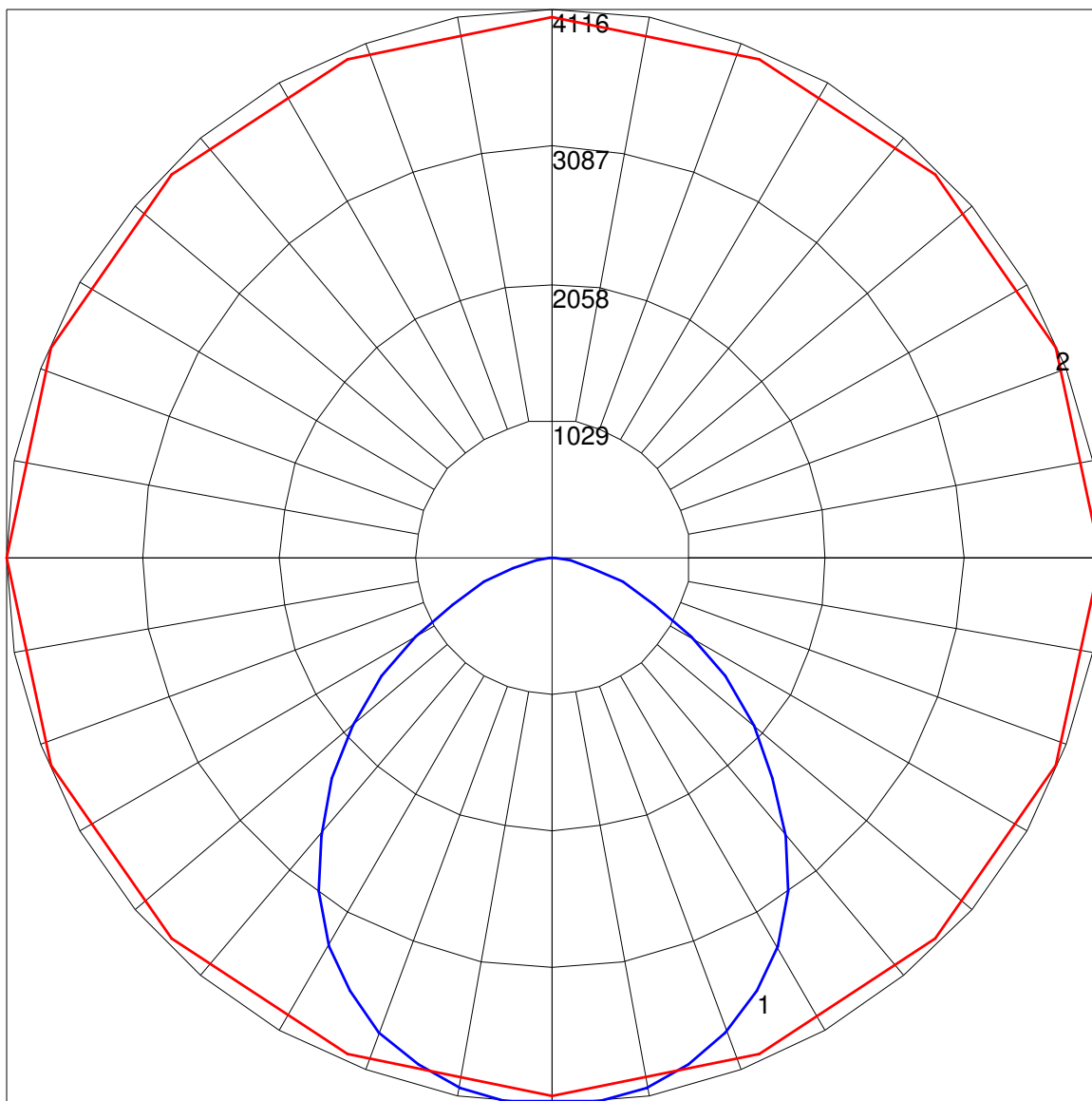
4H	2H	17.7	19.0	18.1	19.3	19.7	17.3	18.6	17.7	18.9	19.3
	3H	19.0	20.0	19.4	20.4	20.8	18.6	19.7	19.0	20.1	20.5
	4H	19.3	20.3	19.8	20.7	21.1	19.1	20.0	19.5	20.4	20.8
	6H	19.5	20.3	20.0	20.7	21.2	19.3	20.1	19.8	20.6	21.0
	8H	19.5	20.3	20.0	20.7	21.2	19.3	20.1	19.8	20.5	21.0
	12H	19.5	20.2	20.0	20.6	21.1	19.3	20.0	19.8	20.5	21.0

8H	4H	19.4	20.2	19.9	20.6	21.1	19.2	19.9	19.6	20.4	20.8
	6H	19.6	20.3	20.1	20.7	21.2	19.5	20.1	20.0	20.6	21.1
	8H	19.7	20.2	20.2	20.7	21.2	19.6	20.1	20.1	20.6	21.1
	12H	19.7	20.1	20.2	20.6	21.2	19.6	20.1	20.1	20.6	21.1

12H	4H	19.4	20.1	19.9	20.6	21.0	19.2	19.8	19.6	20.3	20.8
	6H	19.6	20.2	20.2	20.7	21.2	19.5	20.0	20.0	20.5	21.0
	8H	19.7	20.2	20.2	20.7	21.2	19.6	20.1	20.1	20.6	21.1

Maximum UGR = 21.2

POLAR GRAPH



Maximum Candela = 4115.76 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.)