



IES INDOOR REPORT

PHOTOMETRIC FILENAME : MCTG-14-L79-840-SAF12125-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-14-L79-840-SAF12125-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	8201
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	124
Total Luminaire Watts	66.1
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)	3.98 ft
Luminous Width (90-270)	0.98 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	7951	7908	7693
55	6573	6443	6081
65	4766	4710	4370
75	2837	2921	2896
85	620	855	880

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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	3572.613	3572.613	3572.613	3572.613	3572.613
5	3590.338	3567.886	3547.010	3538.738	3539.526
10	3536.769	3512.347	3498.561	3489.502	3491.077
15	3449.718	3427.266	3420.964	3401.663	3411.511
20	3323.672	3305.553	3306.341	3279.162	3290.585
25	3151.541	3140.906	3135.391	3108.213	3123.181
30	2945.141	2939.626	2921.113	2886.451	2903.388
35	2687.928	2693.443	2659.174	2604.029	2635.541
40	2381.479	2407.870	2352.725	2291.278	2329.092
45	2050.609	2080.545	2039.580	1965.134	1984.041
50	1715.012	1699.650	1704.771	1622.053	1619.690
55	1375.082	1341.995	1347.903	1271.488	1272.276
60	1038.303	1015.063	1008.761	939.436	951.646
65	734.611	720.037	725.946	673.164	673.558
70	480.550	466.370	483.307	462.037	451.402
75	267.848	265.090	275.725	285.573	273.362
80	113.441	109.502	124.076	141.802	126.834
85	19.695	22.058	27.179	40.177	27.966
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	1302.2	N.A.	15.90
0-30	2742.02	N.A.	33.40
0-40	4397.88	N.A.	53.60
0-60	7141.15	N.A.	87.10
0-80	8151.78	N.A.	99.40
0-90	8200.89	N.A.	100.00
10-90	7863.19	N.A.	95.90
20-40	3095.67	N.A.	37.70
20-50	4653.65	N.A.	56.70
40-70	3452.99	N.A.	42.10
60-80	1010.63	N.A.	12.30
70-80	300.91	N.A.	3.70
80-90	49.11	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	8200.89	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	337.70
10-20	964.51
20-30	1439.81
30-40	1655.86
40-50	1557.98
50-60	1185.29
60-70	709.72
70-80	300.91
80-90	49.11
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

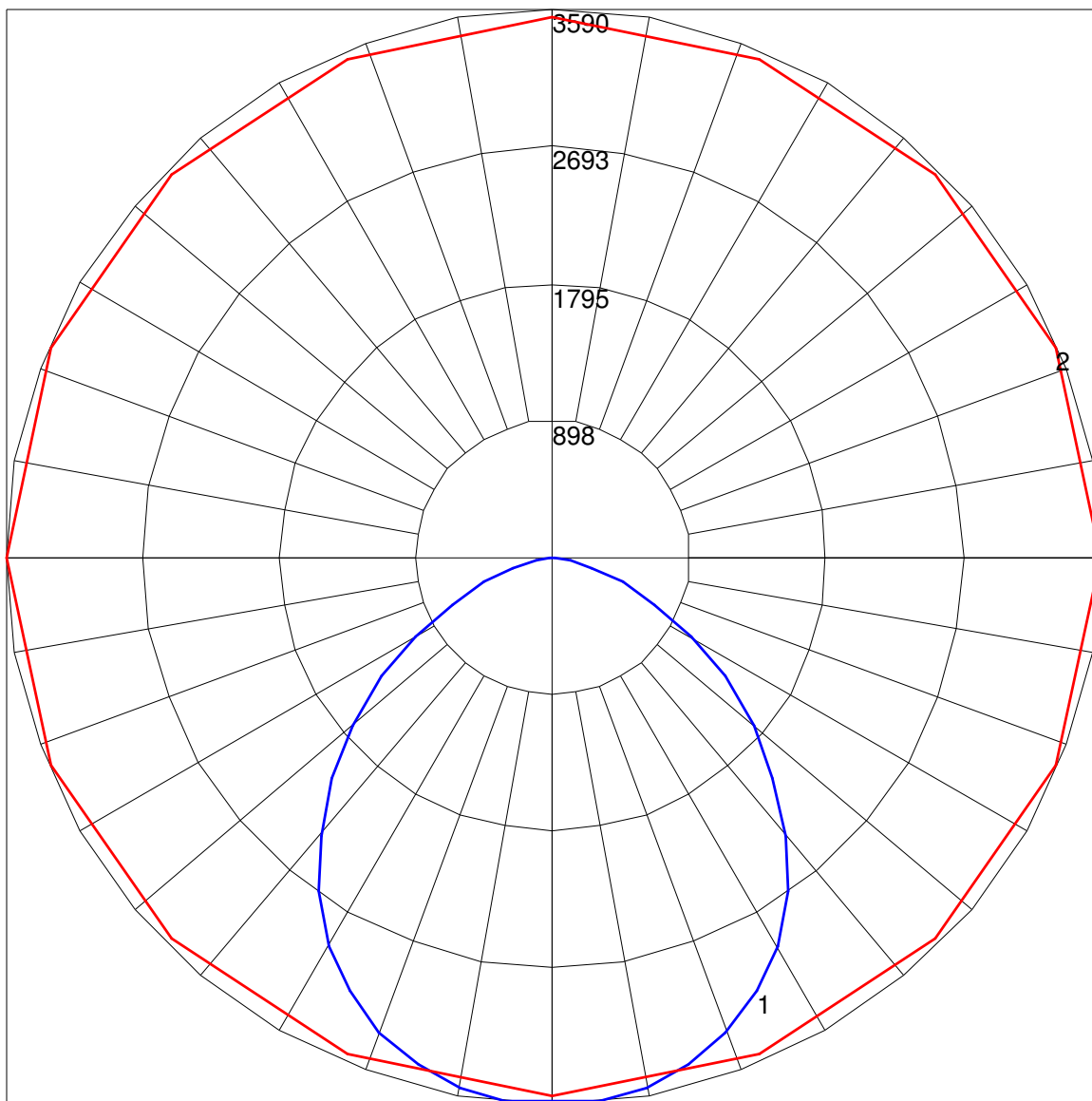
Reflectances

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					UGR Viewed Endwise				
X=2H	Y=2H	18.1	19.6	18.4	19.9	20.2	17.6	19.1	18.0	19.4	19.7
	3H	19.1	20.5	19.5	20.8	21.2	18.7	20.1	19.1	20.4	20.8
	4H	19.4	20.7	19.8	21.0	21.4	19.0	20.3	19.4	20.7	21.0
	6H	19.5	20.7	19.9	21.1	21.5	19.2	20.4	19.6	20.8	21.1
	8H	19.5	20.7	20.0	21.0	21.4	19.2	20.4	19.7	20.7	21.1
	12H	19.5	20.6	19.9	21.0	21.4	19.2	20.3	19.7	20.7	21.1
4H	2H	18.5	19.7	18.9	20.1	20.5	18.1	19.3	18.5	19.7	20.1
	3H	19.7	20.8	20.1	21.2	21.6	19.4	20.4	19.8	20.8	21.2
	4H	20.1	21.0	20.5	21.4	21.9	19.8	20.7	20.2	21.2	21.6
	6H	20.2	21.1	20.7	21.5	22.0	20.1	20.9	20.5	21.3	21.8
	8H	20.2	21.0	20.7	21.4	21.9	20.1	20.9	20.5	21.3	21.8
	12H	20.2	20.9	20.7	21.4	21.9	20.1	20.8	20.6	21.3	21.7
8H	4H	20.2	20.9	20.6	21.4	21.8	19.9	20.7	20.4	21.1	21.6
	6H	20.4	21.0	20.9	21.5	22.0	20.2	20.9	20.7	21.4	21.8
	8H	20.4	21.0	20.9	21.5	22.0	20.3	20.9	20.8	21.4	21.9
	12H	20.4	20.9	20.9	21.4	22.0	20.3	20.8	20.9	21.3	21.9
12H	4H	20.2	20.8	20.6	21.3	21.8	19.9	20.6	20.4	21.1	21.5
	6H	20.4	20.9	20.9	21.4	21.9	20.2	20.8	20.8	21.3	21.8
	8H	20.4	20.9	20.9	21.4	22.0	20.3	20.8	20.8	21.3	21.9

Maximum UGR = 22.0

POLAR GRAPH



Maximum Candela = 3590.338 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.)