



IES INDOOR REPORT

PHOTOMETRIC FILENAME : MCTG-24-L121-840-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] 12-30-2020

[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-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	12486
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	133
Total Luminaire Watts	94
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	8448	8403	8174
55	6984	6846	6462
65	5064	5004	4643
75	3015	3103	3077
85	658	908	935

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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	5439.386	5439.386	5439.386	5439.386	5439.386
5	5466.373	5432.189	5400.405	5387.811	5389.010
10	5384.812	5347.630	5326.640	5312.847	5315.245
15	5252.276	5218.092	5208.497	5179.111	5194.104
20	5060.368	5032.781	5033.981	4992.601	5009.992
25	4798.294	4782.102	4773.706	4732.326	4755.115
30	4484.045	4475.649	4447.463	4394.688	4420.475
35	4092.433	4100.829	4048.654	3964.695	4012.671
40	3625.857	3666.038	3582.078	3488.523	3546.096
45	3122.100	3167.678	3105.308	2991.962	3020.748
50	2611.145	2587.756	2595.553	2469.613	2466.015
55	2093.594	2043.218	2052.214	1935.870	1937.069
60	1580.840	1545.457	1535.862	1430.313	1448.904
65	1118.462	1096.273	1105.269	1024.907	1025.507
70	731.648	710.059	735.846	703.462	687.270
75	407.804	403.606	419.798	434.791	416.200
80	172.717	166.720	188.909	215.896	193.107
85	29.986	33.584	41.380	61.171	42.580
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	1982.64	N.A.	15.90
0-30	4174.78	N.A.	33.40
0-40	6695.87	N.A.	53.60
0-60	10872.56	N.A.	87.10
0-80	12411.27	N.A.	99.40
0-90	12486.04	N.A.	100.00
10-90	11971.88	N.A.	95.90
20-40	4713.23	N.A.	37.70
20-50	7085.29	N.A.	56.70
40-70	5257.26	N.A.	42.10
60-80	1538.71	N.A.	12.30
70-80	458.14	N.A.	3.70
80-90	74.76	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	12486.04	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	514.15
10-20	1468.48
20-30	2192.15
30-40	2521.09
40-50	2372.05
50-60	1804.64
60-70	1080.57
70-80	458.14
80-90	74.76
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

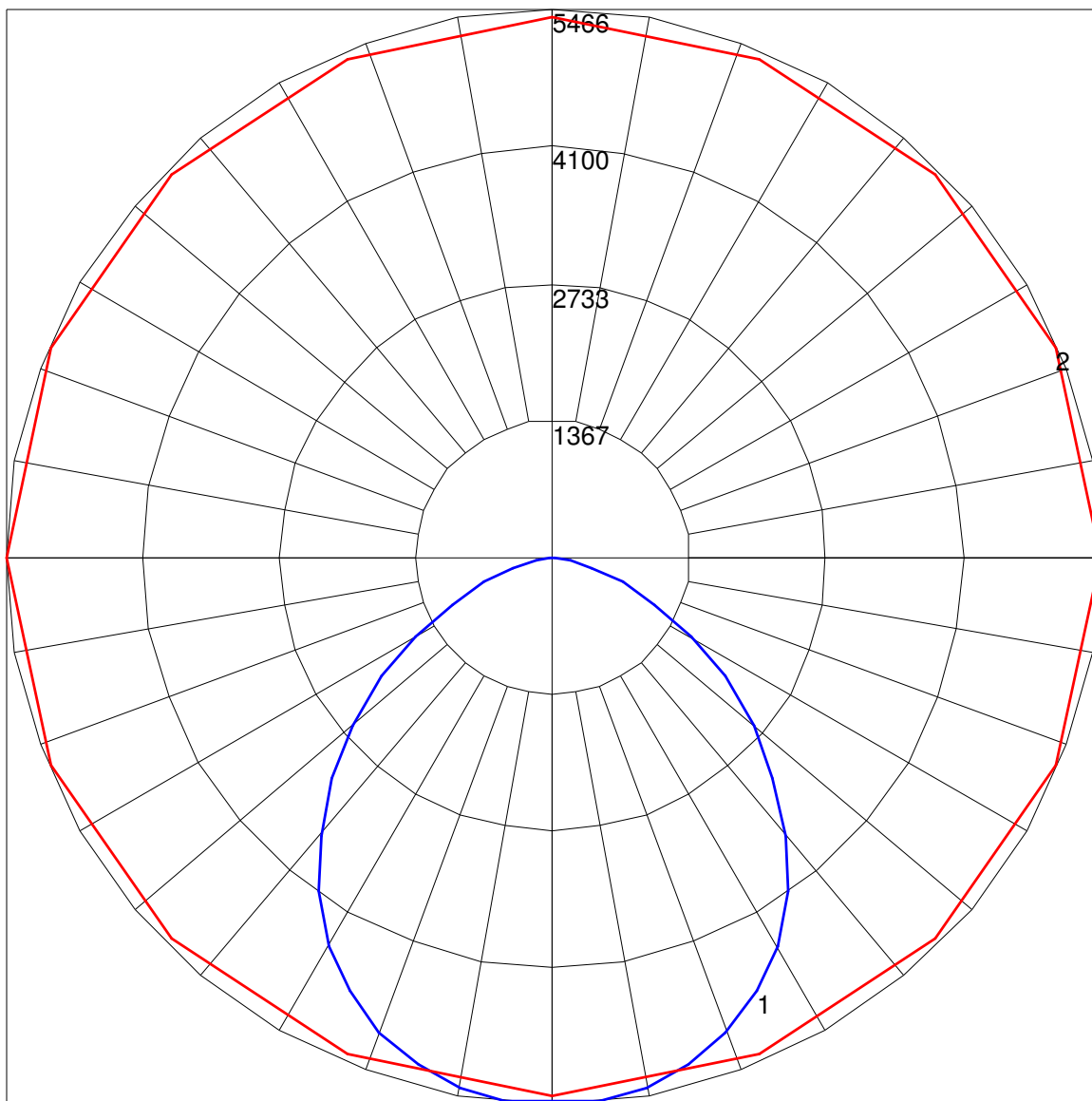
X=2H	Y=2H	18.3	19.8	18.7	20.1	20.5	17.8	19.4	18.2	19.7	20.0
	3H	19.4	20.8	19.8	21.1	21.4	19.0	20.3	19.3	20.6	21.0
	4H	19.7	20.9	20.1	21.3	21.7	19.3	20.6	19.7	20.9	21.3
	6H	19.8	21.0	20.2	21.3	21.7	19.5	20.6	19.9	21.0	21.4
	8H	19.8	20.9	20.2	21.3	21.7	19.5	20.6	19.9	21.0	21.4
	12H	19.8	20.8	20.2	21.2	21.6	19.5	20.5	19.9	20.9	21.4

UGR Viewed Endwise

4H	2H	18.7	20.0	19.1	20.3	20.7	18.3	19.6	18.7	19.9	20.3
	3H	20.0	21.0	20.4	21.4	21.8	19.6	20.7	20.0	21.1	21.5
	4H	20.3	21.3	20.8	21.7	22.1	20.1	21.0	20.5	21.4	21.8
	6H	20.5	21.3	21.0	21.7	22.2	20.3	21.1	20.8	21.6	22.0
	8H	20.5	21.3	21.0	21.7	22.2	20.3	21.1	20.8	21.5	22.0
	12H	20.5	21.2	21.0	21.6	22.1	20.3	21.0	20.8	21.5	22.0
8H	4H	20.4	21.2	20.9	21.6	22.1	20.2	20.9	20.6	21.4	21.8
	6H	20.6	21.3	21.1	21.7	22.2	20.5	21.1	21.0	21.6	22.1
	8H	20.7	21.2	21.2	21.7	22.2	20.6	21.1	21.1	21.6	22.1
	12H	20.7	21.1	21.2	21.6	22.2	20.6	21.1	21.1	21.6	22.1
12H	4H	20.4	21.1	20.9	21.6	22.0	20.2	20.8	20.6	21.3	21.8
	6H	20.6	21.2	21.2	21.7	22.2	20.5	21.0	21.0	21.5	22.0
	8H	20.7	21.2	21.2	21.7	22.2	20.6	21.1	21.1	21.6	22.1

Maximum UGR = 22.2

POLAR GRAPH



Maximum Candela = 5466.373 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.)