



IES INDOOR REPORT

PHOTOMETRIC FILENAME : MCTG-24-L121-835-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] 13-MAY-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-L121-835-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	12124
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	132
Total Luminaire Watts	91.8
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	8203	8159	7937
55	6781	6647	6274
65	4917	4859	4508
75	2927	3013	2988
85	639	882	908

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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	5281.684	5281.684	5281.684	5281.684	5281.684
5	5307.889	5274.696	5243.833	5231.604	5232.769
10	5228.693	5192.589	5172.207	5158.814	5161.143
15	5099.999	5066.807	5057.489	5028.955	5043.514
20	4913.655	4886.868	4888.033	4847.852	4864.740
25	4659.179	4643.457	4635.304	4595.124	4617.252
30	4354.041	4345.889	4318.519	4267.275	4292.315
35	3973.783	3981.936	3931.274	3849.748	3896.334
40	3520.735	3559.750	3478.225	3387.382	3443.286
45	3031.582	3075.839	3015.277	2905.218	2933.169
50	2535.441	2512.731	2520.301	2398.013	2394.519
55	2032.895	1983.980	1992.715	1879.744	1880.909
60	1535.008	1500.651	1491.333	1388.844	1406.896
65	1086.035	1064.489	1073.224	995.193	995.775
70	710.436	689.472	714.512	683.067	667.344
75	395.981	391.904	407.627	422.185	404.133
80	167.709	161.886	183.432	209.637	187.509
85	29.116	32.610	40.180	59.397	41.345
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	1925.15	N.A.	15.90
0-30	4053.74	N.A.	33.40
0-40	6501.74	N.A.	53.60
0-60	10557.34	N.A.	87.10
0-80	12051.44	N.A.	99.40
0-90	12124.04	N.A.	100.00
10-90	11624.79	N.A.	95.90
20-40	4576.58	N.A.	37.70
20-50	6879.87	N.A.	56.70
40-70	5104.84	N.A.	42.10
60-80	1494.1	N.A.	12.30
70-80	444.86	N.A.	3.70
80-90	72.60	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	12124.04	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	499.25
10-20	1425.91
20-30	2128.59
30-40	2447.99
40-50	2303.28
50-60	1752.32
60-70	1049.24
70-80	444.86
80-90	72.60
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	237	237	237	237	232	232	232	232	222	222	222	212	212	212	204	204	204	199
1	220	212	204	198	215	207	201	195	199	193	188	191	187	183	184	181	177	173
2	202	188	176	165	197	184	173	163	177	168	160	171	163	156	165	158	153	149
3	186	167	152	140	181	164	150	139	158	146	137	153	143	134	148	139	132	128
4	171	149	133	121	167	147	132	120	142	129	119	137	126	117	133	124	115	111
5	158	134	118	106	154	132	117	105	128	114	104	124	112	103	121	110	102	98
6	147	122	105	93	143	120	104	93	116	102	92	113	101	91	110	99	90	87
7	136	111	94	83	133	109	94	83	106	92	82	104	91	82	101	90	81	77
8	127	102	86	74	124	100	85	74	98	84	74	95	83	73	93	82	73	69
9	119	94	78	67	116	92	77	67	90	77	67	88	76	67	86	75	66	63
10	112	87	71	61	109	86	71	61	84	70	61	82	69	61	80	69	61	57

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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	15.8	17.3	16.2	17.6	18.0	UGR Viewed Endwise	15.3	16.9	15.7	17.2	17.5
	3H	16.9	18.3	17.3	18.6	18.9		16.5	17.8	16.8	18.1	18.5
	4H	17.2	18.4	17.6	18.8	19.2		16.8	18.1	17.2	18.4	18.8
	6H	17.3	18.5	17.7	18.8	19.2		17.0	18.1	17.4	18.5	18.9
	8H	17.3	18.4	17.7	18.8	19.2		17.0	18.1	17.4	18.5	18.9
	12H	17.3	18.3	17.7	18.7	19.1		17.0	18.0	17.4	18.4	18.9

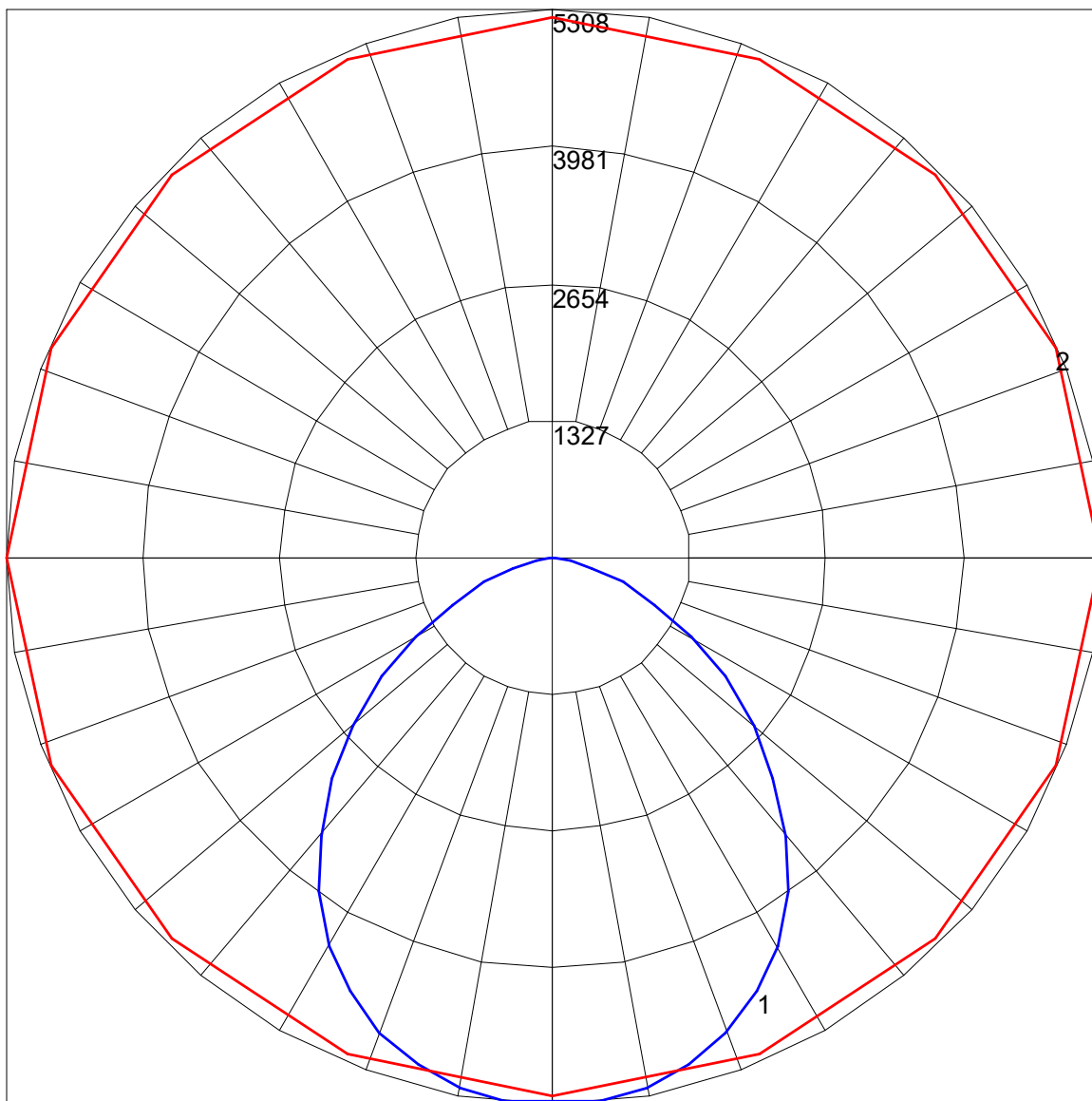
4H	2H	16.2	17.5	16.6	17.8	18.2	15.8	17.1	16.2	17.4	17.8
	3H	17.5	18.5	17.9	18.9	19.3	17.1	18.2	17.5	18.6	19.0
	4H	17.8	18.8	18.3	19.2	19.6	17.6	18.5	18.0	18.9	19.3
	6H	18.0	18.8	18.5	19.2	19.7	17.8	18.6	18.3	19.1	19.5
	8H	18.0	18.8	18.4	19.2	19.7	17.8	18.6	18.3	19.0	19.5
	12H	18.0	18.7	18.5	19.1	19.6	17.8	18.5	18.3	19.0	19.5

8H	4H	17.9	18.7	18.4	19.1	19.6	17.7	18.4	18.1	18.9	19.3
	6H	18.1	18.8	18.6	19.2	19.7	18.0	18.6	18.5	19.1	19.6
	8H	18.2	18.7	18.7	19.2	19.7	18.1	18.6	18.6	19.1	19.6
	12H	18.2	18.6	18.7	19.1	19.7	18.1	18.6	18.6	19.1	19.6

12H	4H	17.9	18.6	18.4	19.1	19.5	17.7	18.3	18.1	18.8	19.3
	6H	18.1	18.7	18.7	19.2	19.7	18.0	18.5	18.5	19.0	19.5
	8H	18.2	18.7	18.7	19.2	19.7	18.1	18.6	18.6	19.1	19.6

Maximum UGR = 19.7

POLAR GRAPH



Maximum Candela = 5307.889 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.)