



IES INDOOR REPORT

PHOTOMETRIC FILENAME : MCTG-22-L34-835-SAF12125-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from BALLABS TEST NO. 19833.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 13-MAY-2020

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] 3-42 LED 22" ARRAYS 2x2' RECESSED WHITE REFLECTOR LUMINAIRE

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

[LUMCAT] MCTG-22-L34-835-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	3452
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	121
Total Luminaire Watts	28.6
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.20
Spacing Criterion (90-270)	1.22
Spacing Criterion (Diagonal)	1.28
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	1.57 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	5186	5173	5246
55	4126	4046	4066
65	3055	2891	2887
75	2054	1762	1811
85	668	397	650

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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	1534.785	1534.785	1534.785	1534.785	1534.785
5	1530.805	1530.443	1529.358	1526.102	1526.102
10	1504.393	1508.735	1507.649	1505.479	1503.669
15	1463.509	1469.660	1468.936	1472.192	1469.660
20	1407.067	1414.303	1413.580	1427.690	1418.645
25	1328.555	1338.686	1346.645	1359.309	1345.560
30	1230.867	1249.319	1258.003	1263.068	1252.214
35	1115.451	1138.968	1143.310	1136.074	1132.094
40	988.456	998.949	999.672	994.969	1001.843
45	843.734	843.372	841.563	840.116	853.502
50	694.669	684.177	686.709	680.921	692.137
55	544.519	536.921	534.027	536.921	536.560
60	407.395	399.435	399.073	404.500	403.415
65	297.043	291.978	281.124	291.255	280.762
70	199.717	198.994	180.903	197.185	181.265
75	122.291	117.587	104.924	115.778	107.818
80	55.356	54.271	44.864	49.568	52.462
85	13.387	14.472	7.960	10.131	13.025
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	559.60	N.A.	16.20
0-30	1178.17	N.A.	34.10
0-40	1885.73	N.A.	54.60
0-60	3018.73	N.A.	87.50
0-80	3431.83	N.A.	99.40
0-90	3451.83	N.A.	100.00
10-90	3306.64	N.A.	95.80
20-40	1326.12	N.A.	38.40
20-50	1976.03	N.A.	57.20
40-70	1422.44	N.A.	41.20
60-80	413.09	N.A.	12.00
70-80	123.66	N.A.	3.60
80-90	20.01	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	3451.83	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	145.20
10-20	414.41
20-30	618.57
30-40	707.55
40-50	649.90
50-60	483.10
60-70	289.43
70-80	123.66
80-90	20.01
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 RW	80				70				50			30			10			0
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	43	43	43	43	42	42	42	42	40	40	40	38	38	38	37	37	37	36
1	40	38	37	36	39	38	36	35	36	35	34	35	34	33	33	33	32	32
2	37	34	32	30	36	33	31	30	32	31	29	31	30	28	30	29	28	27
3	34	30	28	26	33	30	27	25	29	27	25	28	26	25	27	25	24	23
4	31	27	24	22	30	27	24	22	26	24	22	25	23	21	24	23	21	20
5	29	25	22	19	28	24	21	19	23	21	19	23	21	19	22	20	19	18
6	27	22	19	17	26	22	19	17	21	19	17	21	18	17	20	18	17	16
7	25	20	17	15	24	20	17	15	19	17	15	19	17	15	18	16	15	14
8	23	19	16	14	23	18	16	14	18	15	14	17	15	13	17	15	13	13
9	22	17	14	12	21	17	14	12	17	14	12	16	14	12	16	14	12	12
10	20	16	13	11	20	16	13	11	15	13	11	15	13	11	15	13	11	11

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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	19.8	21.3	20.1	21.6	21.9	19.8	21.3	20.2	21.6	21.9
	3H	20.9	22.3	21.3	22.6	23.0	20.9	22.2	21.2	22.5	22.9
	4H	21.3	22.6	21.7	22.9	23.3	21.2	22.4	21.6	22.8	23.2
	6H	21.5	22.6	21.9	23.0	23.4	21.3	22.5	21.7	22.8	23.2
	8H	21.5	22.6	21.9	23.0	23.4	21.3	22.4	21.7	22.8	23.2
	12H	21.5	22.5	21.9	22.9	23.4	21.3	22.4	21.8	22.8	23.2

UGR Viewed Endwise

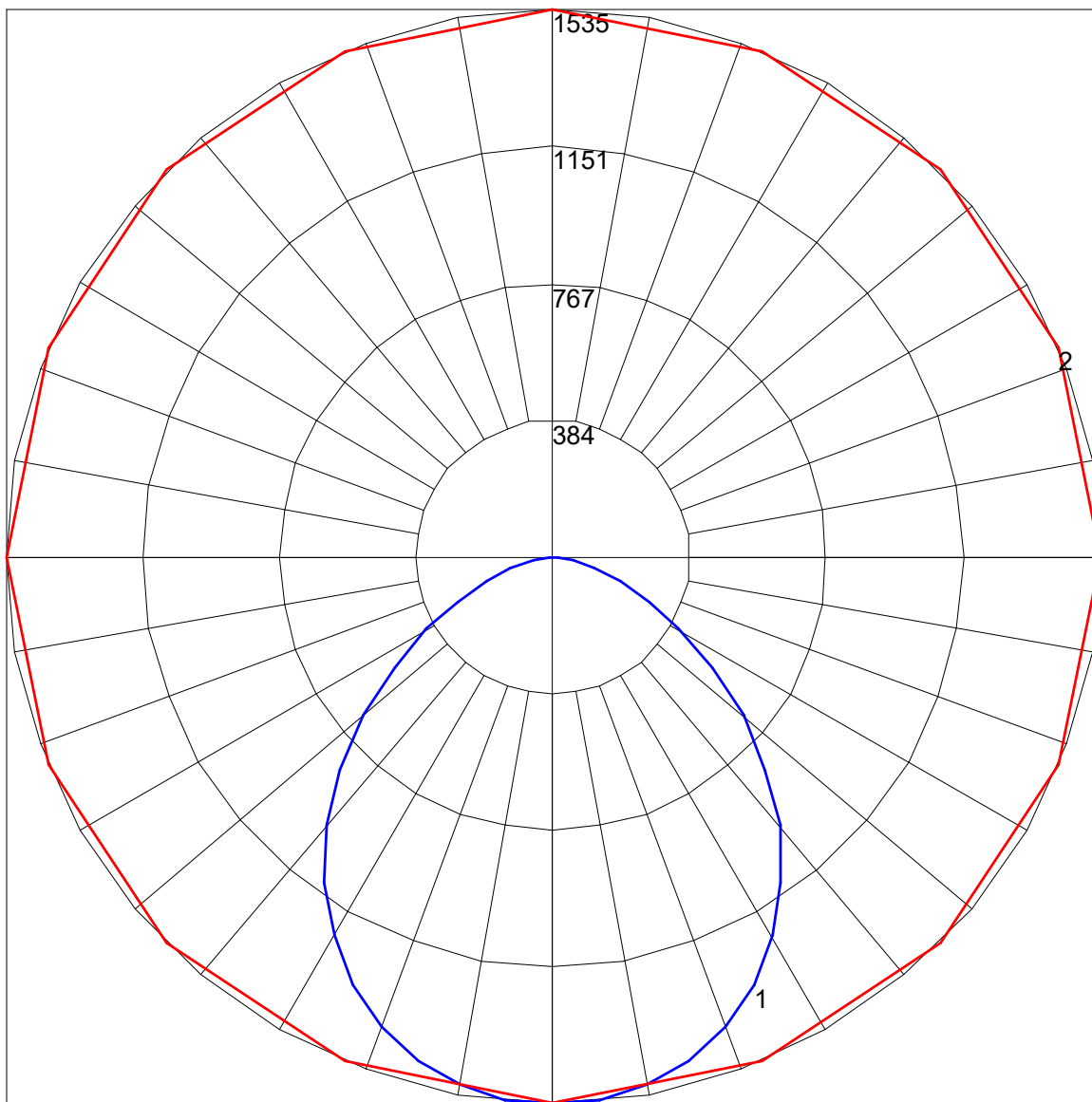
4H	2H	20.1	21.4	20.5	21.8	22.1	20.2	21.4	20.6	21.8	22.1
	3H	21.5	22.5	21.9	22.9	23.3	21.4	22.5	21.9	22.9	23.3
	4H	21.9	22.9	22.4	23.3	23.7	21.8	22.8	22.2	23.2	23.6
	6H	22.2	23.0	22.6	23.4	23.9	22.0	22.8	22.5	23.3	23.7
	8H	22.2	23.0	22.7	23.4	23.9	22.1	22.8	22.5	23.3	23.7
	12H	22.2	22.9	22.7	23.4	23.8	22.1	22.7	22.6	23.2	23.7

8H	4H	22.0	22.8	22.5	23.2	23.7	21.9	22.7	22.4	23.1	23.6
	6H	22.3	22.9	22.8	23.4	23.9	22.2	22.8	22.7	23.3	23.8
	8H	22.4	22.9	22.9	23.4	23.9	22.2	22.8	22.7	23.3	23.8
	12H	22.4	22.9	22.9	23.4	24.0	22.2	22.7	22.7	23.2	23.8

12H	4H	22.0	22.7	22.5	23.2	23.6	21.9	22.6	22.4	23.1	23.5
	6H	22.3	22.9	22.8	23.3	23.9	22.2	22.7	22.7	23.2	23.7
	8H	22.4	22.9	22.9	23.4	23.9	22.2	22.7	22.7	23.2	23.8

Maximum UGR = 24.0

POLAR GRAPH



Maximum Candela = 1534.785 Located At Horizontal Angle = 0, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)