



IES INDOOR REPORT

PHOTOMETRIC FILENAME : MCTG-24-L60-835-SAF125-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from BALLABS TEST NO. 19834.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 13-FEB-2020

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] 6-42 LED 22" ARRAYS 2x4' RECESSED WHITE REFL LUMINAIRE

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

[LUMCAT] MCTG-24-L60-835-SAF125-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	5464
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	117
Total Luminaire Watts	46.7
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.20
Spacing Criterion (90-270)	1.20
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	3581	3592	3595
55	3135	3051	3110
65	2430	2369	2446
75	1555	1611	1490
85	307	583	474

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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	2325.838	2325.838	2325.838	2325.838	2325.838
5	2335.172	2320.296	2308.337	2302.796	2303.379
10	2294.920	2282.378	2272.169	2267.503	2261.377
15	2227.251	2215.584	2211.792	2203.333	2199.542
20	2131.289	2126.039	2125.455	2102.705	2106.205
25	2009.368	2006.743	2002.076	1988.950	1994.201
30	1868.779	1862.946	1850.403	1850.403	1855.362
35	1699.023	1694.064	1688.814	1683.272	1685.022
40	1514.391	1514.391	1516.432	1507.682	1507.682
45	1323.342	1326.842	1327.425	1315.466	1328.592
50	1131.418	1121.792	1125.001	1104.000	1132.293
55	939.786	920.535	914.701	916.160	932.202
60	733.569	725.986	711.402	732.111	737.653
65	536.687	544.271	523.270	539.020	540.187
70	366.056	364.597	360.514	357.014	351.180
75	210.300	202.133	217.883	206.508	201.549
80	84.003	83.128	100.045	102.379	94.212
85	14.001	18.084	26.543	28.584	21.584
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	842.47	N.A.	15.40
0-30	1762.41	N.A.	32.30
0-40	2818.8	N.A.	51.60
0-60	4663.00	N.A.	85.30
0-80	5426.2	N.A.	99.30
0-90	5464.06	N.A.	100.00
10-90	5244.49	N.A.	96.00
20-40	1976.33	N.A.	36.20
20-50	2995.46	N.A.	54.80
40-70	2378.11	N.A.	43.50
60-80	763.20	N.A.	14.00
70-80	229.29	N.A.	4.20
80-90	37.86	N.A.	0.70
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	5464.06	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	219.57
10-20	622.90
20-30	919.94
30-40	1056.39
40-50	1019.13
50-60	825.07
60-70	533.91
70-80	229.29
80-90	37.86
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	35	35	35	35	34	34	34	34	32	32	32	31	31	31	30	30	30	29
1	32	31	30	29	31	30	29	28	29	28	27	28	27	27	27	26	26	25
2	29	27	25	24	29	27	25	24	26	24	23	25	24	23	24	23	22	21
3	27	24	22	20	26	24	22	20	23	21	20	22	21	19	21	20	19	18
4	25	22	19	17	24	21	19	17	20	19	17	20	18	17	19	18	17	16
5	23	19	17	15	22	19	17	15	18	16	15	18	16	15	17	16	15	14
6	21	18	15	13	21	17	15	13	17	15	13	16	14	13	16	14	13	12
7	20	16	14	12	19	16	13	12	15	13	12	15	13	12	14	13	12	11
8	18	15	12	11	18	14	12	11	14	12	10	14	12	10	13	12	10	10
9	17	13	11	10	17	13	11	10	13	11	9	13	11	9	12	11	9	9
10	16	12	10	9	16	12	10	9	12	10	9	12	10	9	11	10	9	8

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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

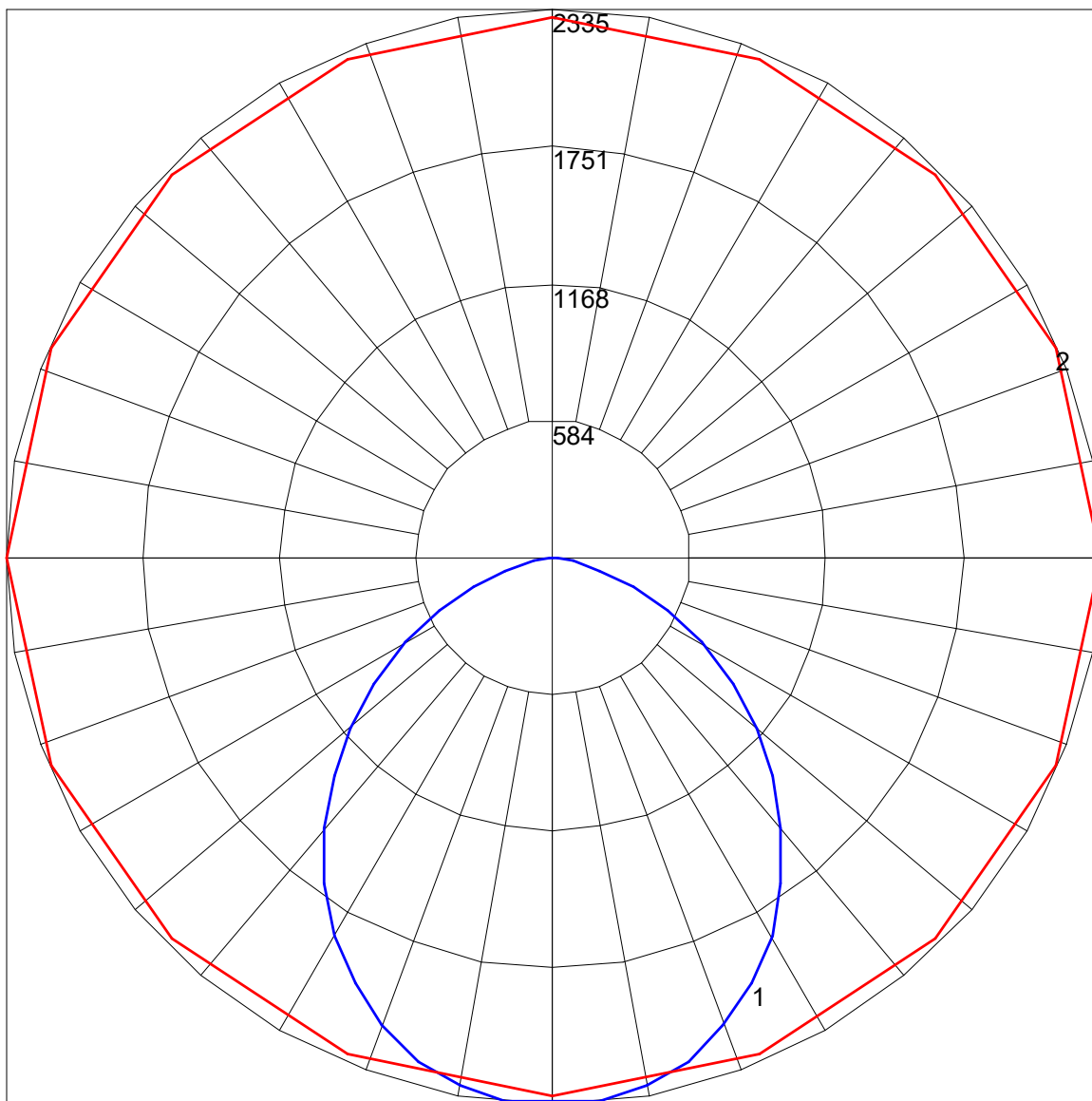
X=2H	Y=2H	20.0	21.6	20.4	21.9	22.2	20.0	21.6	20.4	21.9	22.2
	3H	21.3	22.7	21.7	23.0	23.4	21.2	22.6	21.6	23.0	23.3
	4H	21.6	22.9	22.0	23.3	23.6	21.6	22.9	22.0	23.2	23.6
	6H	21.7	22.9	22.2	23.3	23.7	21.7	22.9	22.1	23.3	23.7
	8H	21.7	22.9	22.2	23.3	23.7	21.7	22.9	22.2	23.3	23.7
	12H	21.7	22.8	22.2	23.2	23.6	21.7	22.8	22.2	23.2	23.6

UGR Viewed Endwise

4H	2H	20.4	21.7	20.8	22.1	22.5	20.5	21.8	20.9	22.1	22.5
	3H	21.9	23.0	22.3	23.4	23.8	21.9	22.9	22.3	23.3	23.7
	4H	22.3	23.3	22.7	23.7	24.1	22.3	23.2	22.7	23.6	24.1
	6H	22.5	23.3	22.9	23.8	24.2	22.5	23.3	23.0	23.8	24.2
	8H	22.5	23.3	23.0	23.7	24.2	22.5	23.3	23.0	23.8	24.2
	12H	22.5	23.2	23.0	23.7	24.2	22.5	23.2	23.0	23.7	24.2
8H	4H	22.4	23.2	22.9	23.7	24.1	22.4	23.2	22.9	23.6	24.1
	6H	22.7	23.3	23.2	23.8	24.3	22.7	23.4	23.2	23.8	24.3
	8H	22.7	23.3	23.2	23.8	24.3	22.8	23.4	23.3	23.9	24.4
	12H	22.7	23.2	23.2	23.7	24.3	22.8	23.3	23.3	23.8	24.4
12H	4H	22.4	23.1	22.9	23.6	24.1	22.4	23.1	22.9	23.6	24.0
	6H	22.7	23.3	23.2	23.7	24.3	22.7	23.3	23.2	23.7	24.3
	8H	22.7	23.2	23.2	23.7	24.3	22.8	23.3	23.3	23.8	24.4

Maximum UGR = 24.4

POLAR GRAPH



Maximum Candela = 2335.172 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.)