



IES INDOOR REPORT

PHOTOMETRIC FILENAME : MCTG-24-L24-RED-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] 17-FEB-2020

[MANUFAC] WILLIAMS INDOOR

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

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

[MORE] PAT12 FROSTED PRISMATIC ACRYLIC LENS IN DOOR

[LUMCAT] MCTG-24-L24-RED-SAF12125-DIM-UNV

[LAMPCAT] HLM RED LED

[_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	2421
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	47
Total Luminaire Watts	51.4
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	1638	1629	1585
55	1354	1327	1253
65	982	970	900
75	585	602	597
85	128	176	181

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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	1054.681	1054.681	1054.681	1054.681	1054.681
5	1059.914	1053.286	1047.123	1044.681	1044.914
10	1044.100	1036.890	1032.820	1030.146	1030.611
15	1018.401	1011.773	1009.913	1004.215	1007.122
20	981.191	975.842	976.074	968.051	971.423
25	930.376	927.236	925.608	917.584	922.003
30	869.444	867.816	862.350	852.117	857.118
35	793.511	795.139	785.023	768.743	778.046
40	703.043	710.834	694.555	676.415	687.578
45	605.366	614.204	602.110	580.133	585.714
50	506.294	501.759	503.270	478.851	478.153
55	405.942	396.174	397.918	375.360	375.592
60	306.520	299.660	297.799	277.334	280.938
65	216.867	212.564	214.308	198.727	198.843
70	141.865	137.678	142.679	136.399	133.260
75	79.072	78.258	81.398	84.305	80.700
80	33.489	32.327	36.629	41.862	37.443
85	5.814	6.512	8.023	11.861	8.256
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	384.43	N.A.	15.90
0-30	809.48	N.A.	33.40
0-40	1298.31	N.A.	53.60
0-60	2108.16	N.A.	87.10
0-80	2406.51	N.A.	99.40
0-90	2421.01	N.A.	100.00
10-90	2321.31	N.A.	95.90
20-40	913.88	N.A.	37.70
20-50	1373.82	N.A.	56.70
40-70	1019.37	N.A.	42.10
60-80	298.35	N.A.	12.30
70-80	88.83	N.A.	3.70
80-90	14.50	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	2421.01	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	99.69
10-20	284.73
20-30	425.05
30-40	488.83
40-50	459.93
50-60	349.91
60-70	209.52
70-80	88.83
80-90	14.50
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	25	25	25	25	24	24	24	24	23	23	23	22	22	22	21	21	21	21
1	23	22	21	21	23	22	21	20	21	20	20	20	20	19	19	19	19	18
2	21	20	18	17	21	19	18	17	19	18	17	18	17	16	17	17	16	16
3	20	18	16	15	19	17	16	15	17	15	14	16	15	14	16	15	14	13
4	18	16	14	13	18	15	14	13	15	14	12	14	13	12	14	13	12	12
5	17	14	12	11	16	14	12	11	13	12	11	13	12	11	13	12	11	10
6	15	13	11	10	15	13	11	10	12	11	10	12	11	10	12	10	10	9
7	14	12	10	9	14	12	10	9	11	10	9	11	10	9	11	9	9	8
8	13	11	9	8	13	11	9	8	10	9	8	10	9	8	10	9	8	7
9	13	10	8	7	12	10	8	7	9	8	7	9	8	7	9	8	7	7
10	12	9	8	6	12	9	7	6	9	7	6	9	7	6	8	7	6	6

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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	18.0	19.5	18.4	19.8	20.2	17.5	19.1	17.9	19.4	19.7
	3H	19.1	20.5	19.5	20.8	21.1	18.7	20.0	19.0	20.3	20.7
	4H	19.4	20.6	19.8	21.0	21.4	19.0	20.3	19.4	20.6	21.0
	6H	19.5	20.7	19.9	21.0	21.4	19.2	20.3	19.6	20.7	21.1
	8H	19.5	20.6	19.9	21.0	21.4	19.2	20.3	19.6	20.7	21.1
	12H	19.5	20.5	19.9	20.9	21.3	19.2	20.2	19.6	20.6	21.1

UGR Viewed Endwise

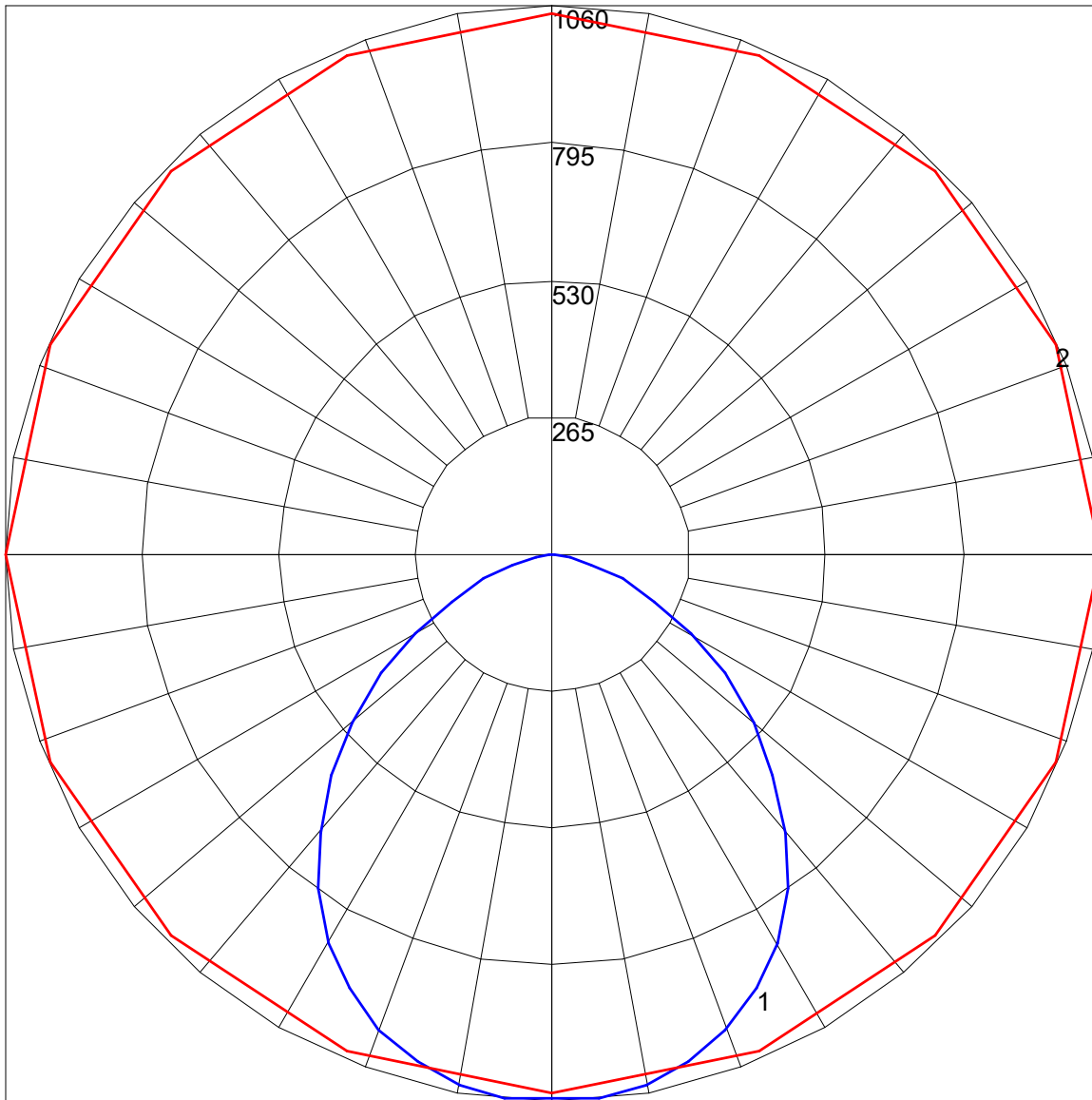
4H	2H	18.4	19.7	18.8	20.0	20.4	18.0	19.3	18.4	19.6	20.0
	3H	19.7	20.7	20.1	21.1	21.5	19.3	20.4	19.7	20.8	21.2
	4H	20.0	21.0	20.5	21.4	21.8	19.8	20.7	20.2	21.1	21.5
	6H	20.2	21.0	20.7	21.4	21.9	20.0	20.8	20.5	21.3	21.7
	8H	20.2	21.0	20.6	21.4	21.9	20.0	20.8	20.5	21.2	21.7
	12H	20.2	20.9	20.7	21.3	21.8	20.0	20.7	20.5	21.2	21.7

8H	4H	20.1	20.9	20.6	21.3	21.8	19.9	20.6	20.3	21.1	21.5
	6H	20.3	21.0	20.8	21.4	21.9	20.2	20.8	20.7	21.3	21.8
	8H	20.4	20.9	20.9	21.4	21.9	20.3	20.8	20.8	21.3	21.8
	12H	20.4	20.8	20.9	21.3	21.9	20.3	20.8	20.8	21.3	21.8

12H	4H	20.1	20.8	20.6	21.3	21.7	19.9	20.5	20.3	21.0	21.5
	6H	20.3	20.9	20.9	21.4	21.9	20.2	20.7	20.7	21.2	21.7
	8H	20.4	20.9	20.9	21.4	21.9	20.3	20.8	20.8	21.3	21.8

Maximum UGR = 21.9

POLAR GRAPH



Maximum Candela = 1059.914 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.)