



IES INDOOR REPORT

PHOTOMETRIC FILENAME : MCTG-24-L24-RED-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] 17-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 IN DOOR

[LUMCAT] MCTG-24-L24-RED-SAF125-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	2176
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	42
Total Luminaire Watts	51.4
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)	3.92 ft
Luminous Width (90-270)	1.92 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	1065	1068	1069
55	932	907	925
65	723	705	727
75	462	479	443
85	91	173	141

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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	926.249	926.249	926.249	926.249	926.249
5	929.966	924.042	919.279	917.072	917.304
10	913.936	908.941	904.875	903.017	900.578
15	886.987	882.341	880.831	877.462	875.952
20	848.771	846.680	846.448	837.387	838.781
25	800.217	799.171	797.313	792.085	794.176
30	744.228	741.905	736.910	736.910	738.885
35	676.624	674.649	672.558	670.351	671.048
40	603.095	603.095	603.909	600.424	600.424
45	527.012	528.405	528.638	523.875	529.102
50	450.579	446.746	448.024	439.660	450.928
55	374.263	366.597	364.273	364.854	371.243
60	292.139	289.119	283.311	291.558	293.765
65	213.732	216.752	208.389	214.661	215.126
70	145.779	145.198	143.572	142.178	139.855
75	83.750	80.498	86.770	82.240	80.266
80	33.454	33.105	39.842	40.772	37.519
85	5.576	7.202	10.570	11.384	8.596
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	335.51	N.A.	15.40
0-30	701.87	N.A.	32.30
0-40	1122.57	N.A.	51.60
0-60	1857.01	N.A.	85.30
0-80	2160.95	N.A.	99.30
0-90	2176.02	N.A.	100.00
10-90	2088.58	N.A.	96.00
20-40	787.06	N.A.	36.20
20-50	1192.92	N.A.	54.80
40-70	947.06	N.A.	43.50
60-80	303.94	N.A.	14.00
70-80	91.31	N.A.	4.20
80-90	15.08	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	2176.02	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	87.44
10-20	248.07
20-30	366.36
30-40	420.70
40-50	405.86
50-60	328.58
60-70	212.62
70-80	91.31
80-90	15.08
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	18	17	17	18	17	16	17	16	16	15
3	19	17	16	15	19	17	16	14	16	15	14	16	15	14	15	14	14	13
4	18	16	14	12	17	15	14	12	15	13	12	14	13	12	14	13	12	11
5	16	14	12	11	16	14	12	11	13	12	11	13	12	11	12	11	10	10
6	15	13	11	10	15	12	11	9	12	11	9	12	10	9	11	10	9	9
7	14	11	10	8	14	11	10	8	11	9	8	11	9	8	10	9	8	8
8	13	11	9	8	13	10	9	8	10	9	8	10	8	7	10	8	7	7
9	12	10	8	7	12	10	8	7	9	8	7	9	8	7	9	8	7	6
10	12	9	7	6	11	9	7	6	9	7	6	8	7	6	8	7	6	6

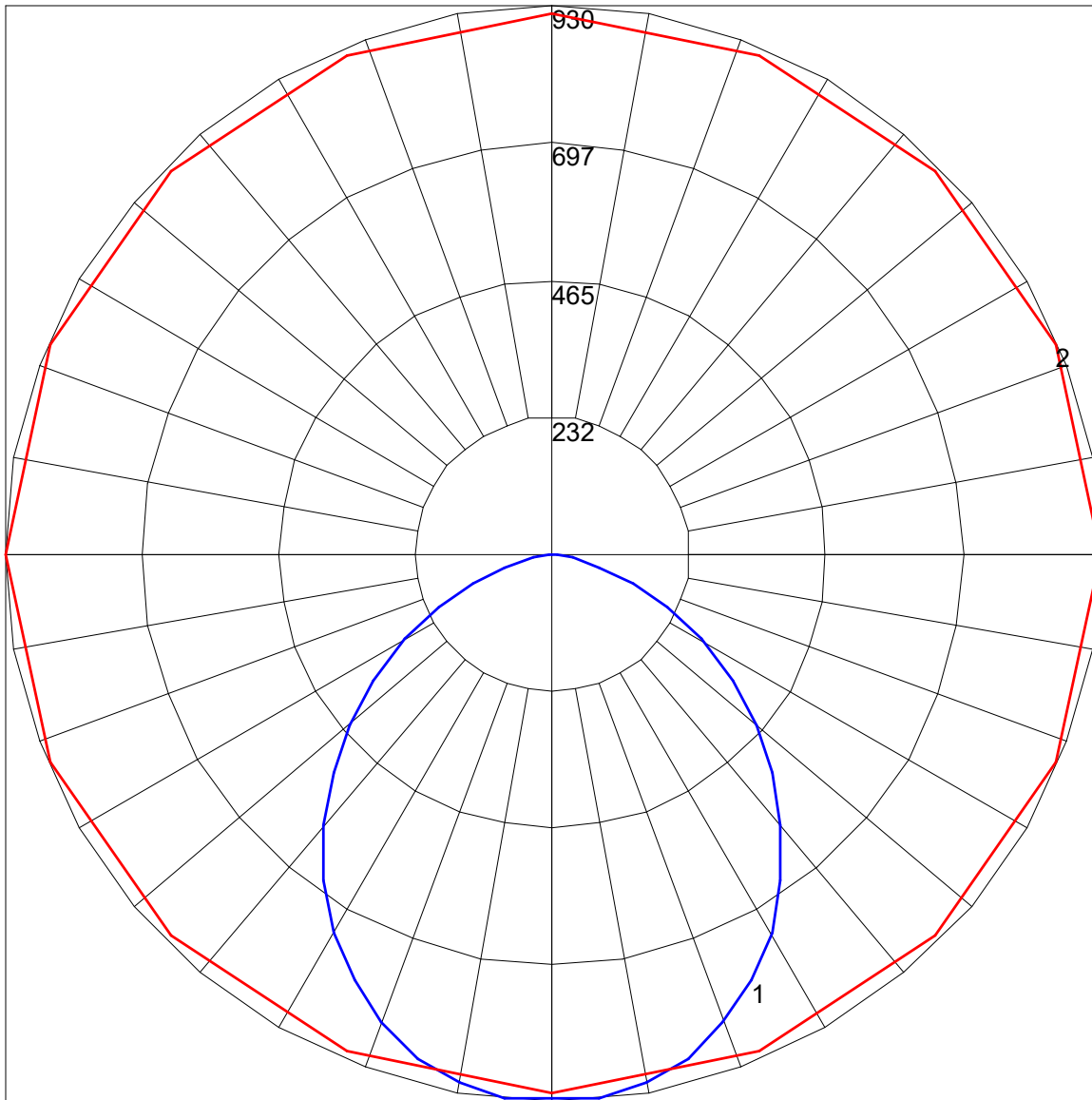
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UGR TABLE - CORRECTED

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					UGR Viewed Endwise				
X=2H	Y=2H	16.9	18.4	17.3	18.8	19.1	16.9	18.4	17.3	18.8	19.1
	3H	18.2	19.6	18.5	19.9	20.2	18.1	19.5	18.5	19.8	20.2
	4H	18.5	19.8	18.9	20.1	20.5	18.4	19.7	18.8	20.1	20.5
	6H	18.6	19.8	19.0	20.2	20.6	18.6	19.8	19.0	20.2	20.6
	8H	18.6	19.8	19.1	20.2	20.6	18.6	19.8	19.0	20.2	20.6
	12H	18.6	19.7	19.0	20.1	20.5	18.6	19.7	19.0	20.1	20.5
4H	2H	17.3	18.6	17.7	19.0	19.4	17.3	18.6	17.7	19.0	19.4
	3H	18.8	19.9	19.2	20.3	20.7	18.8	19.8	19.2	20.2	20.6
	4H	19.2	20.2	19.6	20.6	21.0	19.2	20.1	19.6	20.5	21.0
	6H	19.4	20.2	19.8	20.7	21.1	19.4	20.2	19.8	20.7	21.1
	8H	19.4	20.2	19.9	20.6	21.1	19.4	20.2	19.9	20.7	21.1
	12H	19.4	20.1	19.9	20.6	21.0	19.4	20.1	19.9	20.6	21.1
8H	4H	19.3	20.1	19.8	20.6	21.0	19.3	20.1	19.8	20.5	21.0
	6H	19.6	20.2	20.1	20.7	21.2	19.6	20.2	20.1	20.7	21.2
	8H	19.6	20.2	20.1	20.7	21.2	19.7	20.2	20.2	20.7	21.2
	12H	19.6	20.1	20.1	20.6	21.2	19.7	20.2	20.2	20.7	21.3
12H	4H	19.3	20.0	19.8	20.5	21.0	19.3	20.0	19.8	20.5	20.9
	6H	19.6	20.1	20.1	20.6	21.2	19.6	20.2	20.1	20.6	21.2
	8H	19.6	20.1	20.1	20.6	21.2	19.7	20.2	20.2	20.7	21.2

Maximum UGR = 21.3

POLAR GRAPH



Maximum Candela = 929.966 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.)