



IES INDOOR REPORT

PHOTOMETRIC FILENAME : MCTG-24-L176-AMB-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-L176-AMB-SAF125-DIM-UNV

[LAMPCAT] HLM AMBER 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	15777
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	58
Total Luminaire Watts	270.6
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	7721	7745	7752
55	6760	6579	6705
65	5239	5108	5273
75	3352	3473	3213
85	663	1256	1022

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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	6715.731	6715.731	6715.731	6715.731	6715.731
5	6742.681	6699.729	6665.198	6649.197	6650.881
10	6626.457	6590.242	6560.765	6547.290	6529.604
15	6431.066	6397.378	6386.429	6362.005	6351.057
20	6153.981	6138.821	6137.137	6071.445	6081.551
25	5801.940	5794.360	5780.885	5742.986	5758.145
30	5395.998	5379.154	5342.939	5342.939	5357.256
35	4905.835	4891.518	4876.358	4860.356	4865.410
40	4372.721	4372.721	4378.616	4353.350	4353.350
45	3821.077	3831.184	3832.868	3798.338	3836.237
50	3266.907	3239.115	3248.379	3187.740	3269.434
55	2713.580	2657.994	2641.150	2645.361	2691.682
60	2118.142	2096.245	2054.134	2113.931	2129.933
65	1549.654	1571.552	1510.913	1556.392	1559.761
70	1056.965	1052.754	1040.964	1030.857	1014.013
75	607.229	583.647	629.126	596.280	581.963
80	242.555	240.028	288.876	295.613	272.032
85	40.426	52.217	76.641	82.536	62.323
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	2432.59	N.A.	15.40
0-30	5088.87	N.A.	32.30
0-40	8139.14	N.A.	51.60
0-60	13464.16	N.A.	85.30
0-80	15667.85	N.A.	99.30
0-90	15777.18	N.A.	100.00
10-90	15143.18	N.A.	96.00
20-40	5706.54	N.A.	36.20
20-50	8649.23	N.A.	54.80
40-70	6866.65	N.A.	43.50
60-80	2203.69	N.A.	14.00
70-80	662.07	N.A.	4.20
80-90	109.33	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	15777.18	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	633.99
10-20	1798.6
20-30	2656.27
30-40	3050.27
40-50	2942.68
50-60	2382.34
60-70	1541.62
70-80	662.07
80-90	109.33
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	181	181	181	181	177	177	177	177	169	169	169	162	162	162	155	155	155	152
1	167	161	155	150	163	157	152	147	151	147	143	145	142	138	140	137	134	131
2	153	142	133	125	150	139	130	123	134	127	120	129	123	118	124	119	115	112
3	141	126	114	105	137	124	113	104	119	110	103	115	107	101	111	105	99	96
4	129	112	100	90	126	110	99	90	107	97	89	103	94	87	100	92	86	83
5	119	101	88	79	116	99	87	78	96	86	77	93	84	77	91	82	76	73
6	111	91	78	69	108	90	78	69	87	76	68	85	75	68	82	74	67	64
7	103	83	70	62	100	82	70	61	80	69	61	78	68	60	76	67	60	57
8	96	76	64	55	94	75	63	55	73	62	55	71	62	54	70	61	54	51
9	90	70	58	50	88	69	58	50	67	57	50	66	56	49	64	56	49	46
10	84	65	53	45	82	64	53	45	63	52	45	61	52	45	60	51	45	42

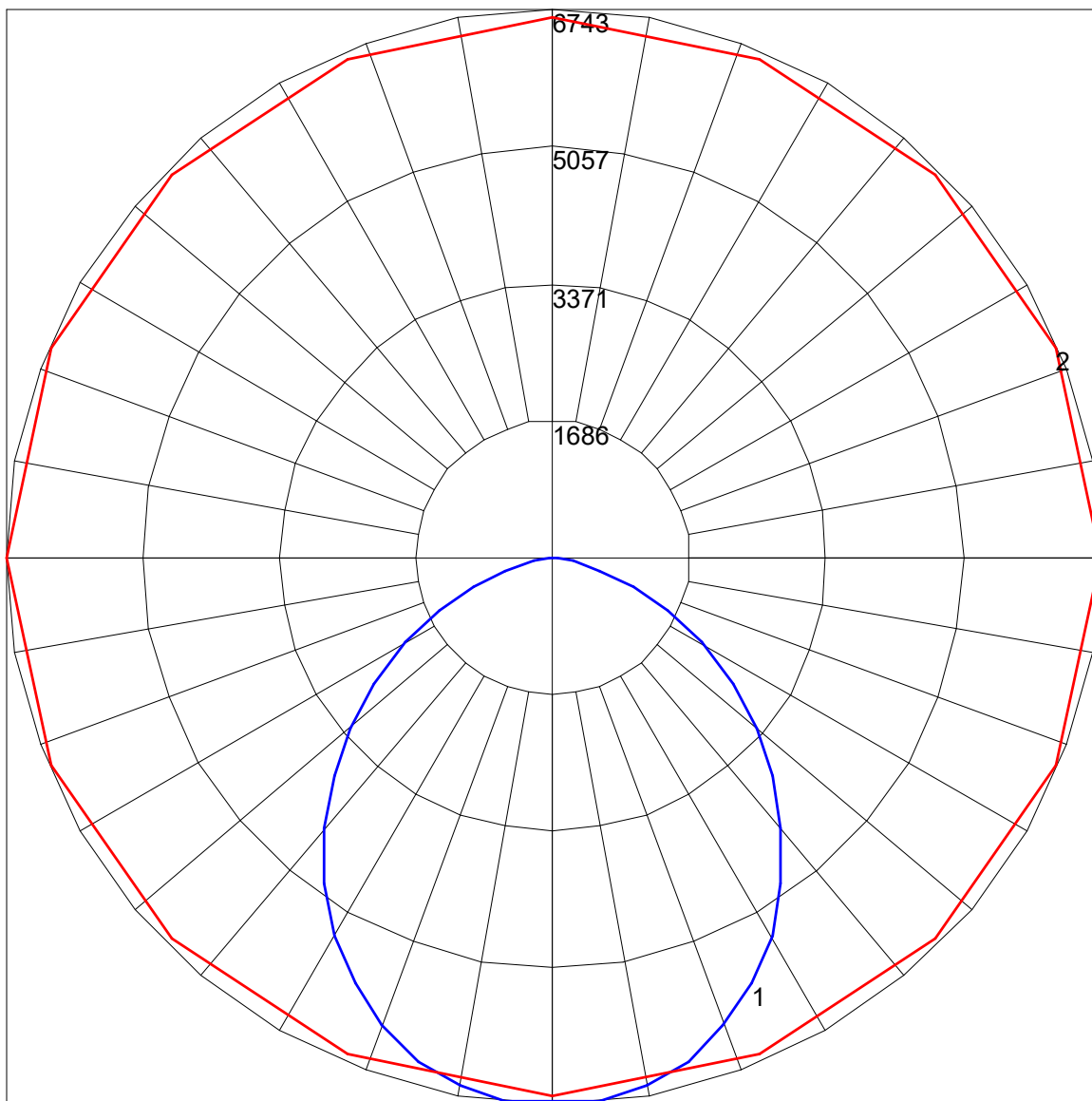
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UGR TABLE - CORRECTED

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 = 6742.681 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.)