



IES INDOOR REPORT

PHOTOMETRIC FILENAME : MCTG-22-L52-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] 3-42 LED 22" ARRAYS 2x2' RECESSED WHITE REFL LUMINAIRE

[MORE] FROSTED ACRYLIC LENS IN DOOR

[LUMCAT] MCTG-22-L52-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	4684
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	85
Total Luminaire Watts	55.4
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)	1.92 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	4680	4695	4699
55	4097	3988	4064
65	3176	3096	3196
75	2032	2105	1947
85	402	762	619

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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	1993.819	1993.819	1993.819	1993.819	1993.819
5	2001.820	1989.068	1978.817	1974.066	1974.566
10	1967.315	1956.563	1947.812	1943.811	1938.560
15	1909.305	1899.304	1896.053	1888.802	1885.552
20	1827.042	1822.542	1822.041	1802.538	1805.539
25	1722.526	1720.275	1716.275	1705.023	1709.523
30	1602.006	1597.005	1586.254	1586.254	1590.504
35	1456.483	1452.232	1447.732	1442.981	1444.481
40	1298.208	1298.208	1299.958	1292.457	1292.457
45	1134.431	1137.432	1137.932	1127.680	1138.932
50	969.905	961.654	964.404	946.401	970.655
55	805.629	789.126	784.125	785.376	799.128
60	628.851	622.350	609.848	627.600	632.351
65	460.074	466.575	448.572	462.074	463.074
70	313.800	312.550	309.049	306.049	301.048
75	180.279	173.278	186.780	177.028	172.778
80	72.012	71.261	85.764	87.764	80.763
85	12.002	15.502	22.754	24.504	18.503
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	722.21	N.A.	15.40
0-30	1510.82	N.A.	32.30
0-40	2416.41	N.A.	51.60
0-60	3997.35	N.A.	85.30
0-80	4651.6	N.A.	99.30
0-90	4684.05	N.A.	100.00
10-90	4495.83	N.A.	96.00
20-40	1694.2	N.A.	36.20
20-50	2567.85	N.A.	54.80
40-70	2038.63	N.A.	43.50
60-80	654.25	N.A.	14.00
70-80	196.56	N.A.	4.20
80-90	32.46	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	4684.05	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	188.23
10-20	533.98
20-30	788.62
30-40	905.59
40-50	873.65
50-60	707.29
60-70	457.69
70-80	196.56
80-90	32.46
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	107	107	107	107	105	105	105	105	100	100	100	96	96	96	92	92	92	90
1	99	95	92	89	97	93	90	87	89	87	85	86	84	82	83	81	80	78
2	91	84	79	74	89	82	77	73	79	75	71	76	73	70	74	71	68	66
3	83	75	68	62	81	73	67	62	71	65	61	68	64	60	66	62	59	57
4	77	67	59	54	75	65	59	53	63	57	52	61	56	52	59	55	51	49
5	71	60	52	47	69	59	52	46	57	51	46	55	50	45	54	49	45	43
6	66	54	46	41	64	53	46	41	52	45	40	50	44	40	49	44	40	38
7	61	49	42	36	59	49	41	36	47	41	36	46	40	36	45	40	36	34
8	57	45	38	33	55	45	37	33	43	37	32	42	36	32	41	36	32	30
9	53	42	34	30	52	41	34	29	40	34	29	39	33	29	38	33	29	27
10	50	38	32	27	49	38	31	27	37	31	27	36	31	27	35	30	27	25

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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

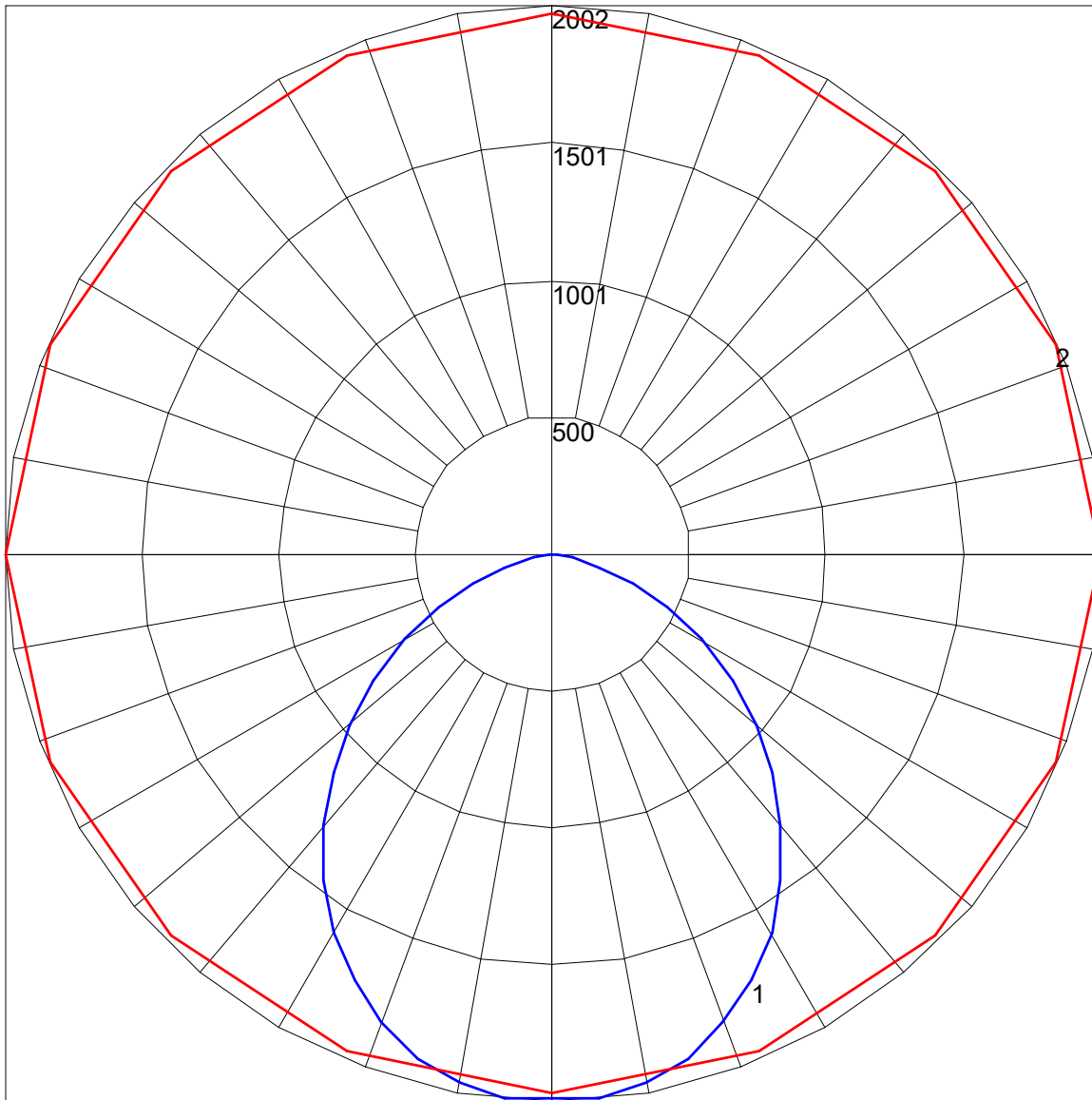
X=2H	Y=2H	17.0	18.5	17.3	18.8	19.1	17.0	18.5	17.3	18.8	19.2
	3H	18.2	19.6	18.6	20.0	20.3	18.2	19.6	18.6	19.9	20.3
	4H	18.6	19.9	19.0	20.2	20.6	18.5	19.8	18.9	20.2	20.5
	6H	18.7	19.9	19.1	20.3	20.7	18.7	19.9	19.1	20.2	20.6
	8H	18.7	19.9	19.1	20.2	20.6	18.7	19.8	19.1	20.2	20.6
	12H	18.7	19.8	19.1	20.2	20.6	18.7	19.8	19.1	20.2	20.6

UGR Viewed Endwise

4H	2H	17.4	18.7	17.8	19.1	19.4	17.4	18.7	17.8	19.1	19.4
	3H	18.9	19.9	19.3	20.3	20.7	18.8	19.9	19.2	20.3	20.7
	4H	19.3	20.2	19.7	20.7	21.1	19.2	20.2	19.7	20.6	21.1
	6H	19.5	20.3	19.9	20.7	21.2	19.5	20.3	19.9	20.7	21.2
	8H	19.5	20.3	19.9	20.7	21.2	19.5	20.3	20.0	20.7	21.2
	12H	19.5	20.2	19.9	20.6	21.1	19.5	20.2	20.0	20.7	21.2
8H	4H	19.4	20.2	19.9	20.6	21.1	19.4	20.2	19.8	20.6	21.1
	6H	19.7	20.3	20.1	20.8	21.3	19.7	20.3	20.2	20.8	21.3
	8H	19.7	20.3	20.2	20.8	21.3	19.7	20.3	20.3	20.8	21.3
	12H	19.7	20.2	20.2	20.7	21.2	19.8	20.3	20.3	20.8	21.3
12H	4H	19.4	20.1	19.9	20.6	21.0	19.4	20.1	19.8	20.5	21.0
	6H	19.7	20.2	20.2	20.7	21.2	19.7	20.3	20.2	20.7	21.3
	8H	19.7	20.2	20.2	20.7	21.3	19.8	20.3	20.3	20.8	21.3

Maximum UGR = 21.3

POLAR GRAPH



Maximum Candela = 2001.82 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.)