



IES INDOOR REPORT

PHOTOMETRIC FILENAME : MCTG-22-L95-835-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] 3-42 LED 22" ARRAYS 2x2' RECESSED WHITE REFL LUMINAIRE

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

[LUMCAT] MCTG-22-L95-835-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	8571
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	107
Total Luminaire Watts	80.1
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	8564	8590	8598
55	7498	7297	7437
65	5811	5666	5849
75	3718	3852	3563
85	735	1394	1133

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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	3648.382	3648.382	3648.382	3648.382	3648.382
5	3663.024	3639.689	3620.930	3612.237	3613.152
10	3599.884	3580.210	3564.196	3556.875	3547.267
15	3493.736	3475.434	3469.486	3456.218	3450.270
20	3343.207	3334.971	3334.056	3298.368	3303.859
25	3151.957	3147.839	3140.519	3119.930	3128.165
30	2931.425	2922.275	2902.601	2902.601	2910.379
35	2665.140	2657.362	2649.126	2640.433	2643.178
40	2375.521	2375.521	2378.723	2364.997	2364.997
45	2075.835	2081.326	2082.241	2063.482	2084.071
50	1774.777	1759.679	1764.712	1731.769	1776.150
55	1474.177	1443.980	1434.829	1437.117	1462.281
60	1150.700	1138.804	1115.927	1148.412	1157.105
65	841.864	853.760	820.817	845.524	847.354
70	574.206	571.918	565.513	560.023	550.872
75	329.883	317.072	341.778	323.935	316.157
80	131.770	130.397	156.934	160.595	147.784
85	21.962	28.367	41.636	44.838	33.858
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	1321.53	N.A.	15.40
0-30	2764.57	N.A.	32.30
0-40	4421.66	N.A.	51.60
0-60	7314.53	N.A.	85.30
0-80	8511.71	N.A.	99.30
0-90	8571.1	N.A.	100.00
10-90	8226.67	N.A.	96.00
20-40	3100.13	N.A.	36.20
20-50	4698.77	N.A.	54.80
40-70	3730.37	N.A.	43.50
60-80	1197.17	N.A.	14.00
70-80	359.67	N.A.	4.20
80-90	59.39	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	8571.1	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	344.42
10-20	977.11
20-30	1443.05
30-40	1657.09
40-50	1598.64
50-60	1294.23
60-70	837.50
70-80	359.67
80-90	59.39
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	329	329	329	329	321	321	321	321	307	307	307	294	294	294	282	282	282	276
1	304	292	282	272	297	286	276	268	274	267	259	264	257	251	254	249	244	239
2	279	258	241	226	272	253	237	224	243	230	219	234	223	214	226	217	209	203
3	256	229	208	191	249	224	205	190	216	200	186	209	195	183	202	190	180	174
4	235	204	181	164	229	201	179	163	194	175	161	188	172	159	182	168	157	151
5	217	184	160	143	211	180	158	142	175	155	140	169	152	139	164	150	138	132
6	201	166	143	126	196	163	141	125	159	139	124	154	136	123	150	134	122	117
7	187	151	128	112	182	149	127	111	145	125	111	141	123	110	137	121	109	104
8	174	138	116	100	170	136	115	100	133	113	99	130	112	99	126	110	98	93
9	163	127	105	91	159	126	105	90	123	103	90	120	102	90	117	101	89	84
10	153	118	97	83	150	116	96	82	114	95	82	111	94	82	109	93	81	77

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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	15.2	16.7	15.5	17.0	17.3	UGR Viewed Endwise	15.2	16.7	15.5	17.0	17.4
	3H	16.4	17.8	16.8	18.2	18.5		16.4	17.8	16.8	18.1	18.5
	4H	16.8	18.1	17.2	18.4	18.8		16.7	18.0	17.1	18.4	18.7
	6H	16.9	18.1	17.3	18.5	18.9		16.9	18.1	17.3	18.5	18.8
	8H	16.9	18.1	17.3	18.4	18.8		16.9	18.0	17.3	18.4	18.8
	12H	16.9	18.0	17.3	18.4	18.8		16.9	18.0	17.3	18.4	18.8

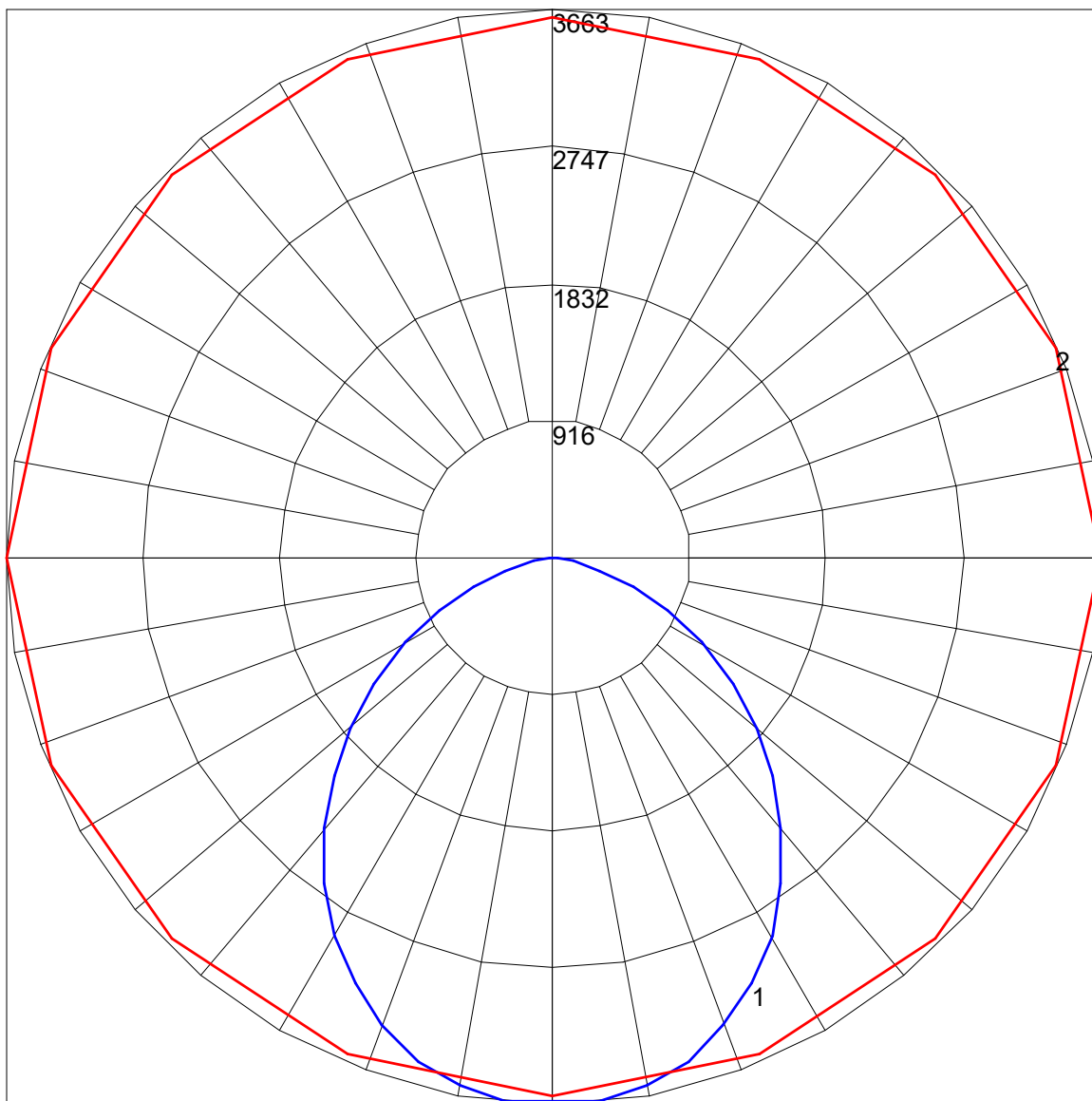
4H	2H	15.6	16.9	16.0	17.3	17.6	15.6	16.9	16.0	17.3	17.6
	3H	17.1	18.1	17.5	18.5	18.9	17.0	18.1	17.4	18.5	18.9
	4H	17.5	18.4	17.9	18.9	19.3	17.4	18.4	17.9	18.8	19.3
	6H	17.7	18.5	18.1	18.9	19.4	17.7	18.5	18.1	19.0	19.4
	8H	17.7	18.5	18.1	18.9	19.4	17.7	18.5	18.2	18.9	19.4
	12H	17.7	18.4	18.1	18.8	19.3	17.7	18.4	18.2	18.9	19.4

8H	4H	17.6	18.4	18.1	18.8	19.3	17.6	18.4	18.0	18.8	19.3
	6H	17.9	18.5	18.4	19.0	19.5	17.9	18.5	18.4	19.0	19.5
	8H	17.9	18.5	18.4	19.0	19.5	17.9	18.5	18.5	19.0	19.5
	12H	17.9	18.4	18.4	18.9	19.4	18.0	18.5	18.5	19.0	19.5

12H	4H	17.6	18.3	18.1	18.8	19.3	17.6	18.3	18.0	18.7	19.2
	6H	17.9	18.4	18.4	18.9	19.4	17.9	18.5	18.4	18.9	19.5
	8H	17.9	18.4	18.4	18.9	19.5	18.0	18.5	18.5	19.0	19.5

Maximum UGR = 19.5

POLAR GRAPH



Maximum Candela = 3663.024 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.)