



IES INDOOR REPORT

PHOTOMETRIC FILENAME : MCTG-14-L29-AMB-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] 13-FEB-2020

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] 2-56 LED 22" ARRAYS 1x4' RECESSED WHITE REFLECTOR LUMINAIRE

[MORE] PAT12 ACRYLIC LENS w/FROSTED PRISMATIC ACRYLIC LENS IN DOOR

[LUMCAT] MCTG-14-L29-AMB-SAF12125-DIM-UNV

[LAMPCAT] HLM AMBER

[_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	2970
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	92
Total Luminaire Watts	32.3
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)	3.98 ft
Luminous Width (90-270)	0.98 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	2879	2864	2786
55	2380	2333	2202
65	1726	1706	1582
75	1028	1058	1049
85	224	310	319

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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	1293.846	1293.846	1293.846	1293.846	1293.846
5	1300.266	1292.135	1284.574	1281.578	1281.864
10	1280.865	1272.021	1267.028	1263.747	1264.318
15	1249.339	1241.208	1238.926	1231.936	1235.502
20	1203.691	1197.129	1197.414	1187.571	1191.708
25	1141.352	1137.501	1135.504	1125.661	1131.081
30	1066.603	1064.606	1057.901	1045.348	1051.482
35	973.452	975.449	963.038	943.067	954.479
40	862.469	872.027	852.056	829.802	843.497
45	742.642	753.484	738.648	711.687	718.534
50	621.103	615.540	617.394	587.438	586.582
55	497.995	486.013	488.152	460.478	460.763
60	376.029	367.612	365.330	340.223	344.645
65	266.044	260.766	262.906	243.791	243.934
70	174.034	168.899	175.033	167.330	163.478
75	97.003	96.004	99.856	103.422	99.000
80	41.084	39.657	44.935	51.354	45.934
85	7.133	7.988	9.843	14.550	10.128
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	471.60	N.A.	15.90
0-30	993.04	N.A.	33.40
0-40	1592.72	N.A.	53.60
0-60	2586.22	N.A.	87.10
0-80	2952.22	N.A.	99.40
0-90	2970.01	N.A.	100.00
10-90	2847.71	N.A.	95.90
20-40	1121.12	N.A.	37.70
20-50	1685.35	N.A.	56.70
40-70	1250.52	N.A.	42.10
60-80	366.01	N.A.	12.30
70-80	108.98	N.A.	3.70
80-90	17.78	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	2970.01	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	122.30
10-20	349.30
20-30	521.44
30-40	599.68
40-50	564.23
50-60	429.26
60-70	257.03
70-80	108.98
80-90	17.78
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 RW	80				70				50			30			10			0
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	65	65	65	65	64	64	64	64	61	61	61	58	58	58	56	56	56	55
1	60	58	56	54	59	57	55	53	54	53	52	52	51	50	50	49	49	47
2	55	51	48	45	54	50	47	45	48	46	44	47	45	43	45	43	42	41
3	51	46	42	38	50	45	41	38	43	40	37	42	39	37	40	38	36	35
4	47	41	36	33	46	40	36	33	39	35	32	38	35	32	36	34	32	31
5	43	37	32	29	42	36	32	29	35	31	28	34	31	28	33	30	28	27
6	40	33	29	25	39	33	29	25	32	28	25	31	28	25	30	27	25	24
7	37	30	26	23	36	30	26	23	29	25	22	28	25	22	28	25	22	21
8	35	28	23	20	34	27	23	20	27	23	20	26	23	20	25	22	20	19
9	33	26	21	18	32	25	21	18	25	21	18	24	21	18	24	20	18	17
10	31	24	20	17	30	23	19	17	23	19	17	22	19	17	22	19	17	16

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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	16.7	18.2	17.0	18.5	18.8	16.2	17.7	16.6	18.0	18.3
	3H	17.7	19.1	18.1	19.4	19.8	17.3	18.7	17.7	19.0	19.4
	4H	18.0	19.3	18.4	19.6	20.0	17.6	18.9	18.0	19.3	19.6
	6H	18.1	19.3	18.5	19.7	20.1	17.8	19.0	18.2	19.4	19.7
	8H	18.1	19.3	18.6	19.6	20.0	17.8	19.0	18.3	19.3	19.7
	12H	18.1	19.2	18.5	19.6	20.0	17.8	18.9	18.3	19.3	19.7

UGR Viewed Endwise

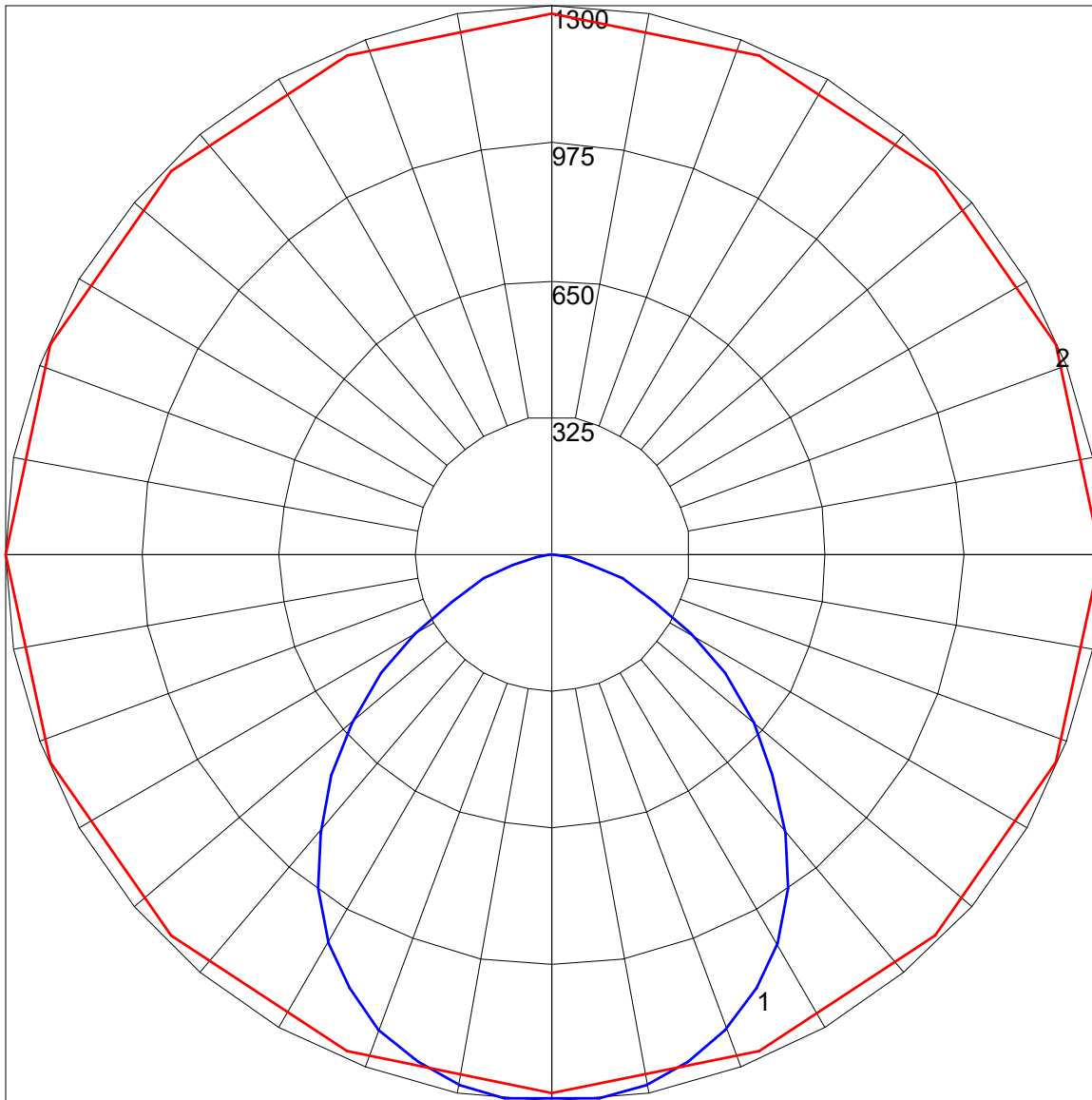
4H	2H	17.1	18.3	17.5	18.7	19.1	16.7	17.9	17.1	18.3	18.7
	3H	18.3	19.4	18.7	19.8	20.2	18.0	19.0	18.4	19.4	19.8
	4H	18.7	19.6	19.1	20.0	20.5	18.4	19.3	18.8	19.8	20.2
	6H	18.8	19.7	19.3	20.1	20.6	18.7	19.5	19.1	19.9	20.4
	8H	18.8	19.6	19.3	20.1	20.5	18.7	19.5	19.1	19.9	20.4
	12H	18.8	19.5	19.3	20.0	20.5	18.7	19.4	19.2	19.9	20.3

8H	4H	18.8	19.5	19.2	20.0	20.4	18.5	19.3	19.0	19.7	20.2
	6H	19.0	19.6	19.5	20.1	20.6	18.8	19.5	19.3	20.0	20.4
	8H	19.0	19.6	19.5	20.1	20.6	18.9	19.5	19.4	20.0	20.5
	12H	19.0	19.5	19.5	20.0	20.6	18.9	19.4	19.5	19.9	20.5

12H	4H	18.8	19.4	19.2	19.9	20.4	18.5	19.2	19.0	19.7	20.1
	6H	19.0	19.5	19.5	20.0	20.5	18.8	19.4	19.4	19.9	20.4
	8H	19.0	19.5	19.5	20.0	20.6	18.9	19.4	19.4	19.9	20.5

Maximum UGR = 20.6

POLAR GRAPH



Maximum Candela = 1300.266 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.)