



IES INDOOR REPORT

PHOTOMETRIC FILENAME : MCTG-24-L12-RED-L134-835-SAF125 WHITE ONLY_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from BALLABS TEST NO. 20883.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUE DATE] 24-FEB-2020

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

[LUMINAIRE] 4-56 LED 35K & 2/56 LED RED 22"ARRAY 2X4' RECESSED TROFFER

[MORE] WHITE REFL w/.15"FROST ACRYLIC LENS/.085"CLEAR ACRYLIC LENS

[LUMCAT] MCTG-24-L14/RED-L134/835-SAF125-DRV-UNV WHITE ONLY

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	12133
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	119
Total Luminaire Watts	101.7
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.20
Spacing Criterion (90-270)	1.18
Spacing Criterion (Diagonal)	1.28
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	3.56 ft
Luminous Width (90-270)	1.56 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	8214	7951	7860
55	7030	6856	6647
65	5676	5324	5065
75	3405	3314	3117
85	719	809	697

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	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
0	5247.088	5247.088	5247.088	5247.088	5247.088
5	5266.356	5236.946	5207.537	5190.297	5190.297
10	5175.085	5148.717	5113.223	5103.082	5105.110
15	5020.938	4996.599	4961.104	4950.963	4943.864
20	4808.985	4783.632	4758.279	4734.954	4736.982
25	4539.228	4519.959	4486.493	4462.154	4466.211
30	4218.764	4198.481	4167.044	4133.577	4129.521
35	3853.679	3822.241	3786.746	3759.365	3737.054
40	3440.929	3428.760	3378.054	3343.573	3319.234
45	3007.898	2972.403	2911.556	2901.414	2878.089
50	2565.739	2530.244	2472.439	2447.086	2428.832
55	2088.085	2088.085	2036.365	1981.602	1974.503
60	1609.418	1624.630	1573.923	1540.457	1551.613
65	1242.304	1197.683	1165.231	1154.075	1108.440
70	827.527	788.990	795.075	769.722	737.270
75	456.357	450.272	444.187	431.004	417.820
80	178.486	178.486	185.585	178.486	172.401
85	32.452	38.537	36.509	30.424	31.438
90	0.000	1.014	0.000	0.000	0.000

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Zone	Lumens	%Lamp	%Fixt
0-20	1896.44	N.A.	15.60
0-30	3963.22	N.A.	32.70
0-40	6332.13	N.A.	52.20
0-60	10414.76	N.A.	85.80
0-80	12065.62	N.A.	99.40
0-90	12133.2	N.A.	100.00
10-90	11638.15	N.A.	95.90
20-40	4435.69	N.A.	36.60
20-50	6699.87	N.A.	55.20
40-70	5247.44	N.A.	43.20
60-80	1650.86	N.A.	13.60
70-80	486.04	N.A.	4.00
80-90	67.58	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	12133.2	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	495.05
10-20	1401.39
20-30	2066.78
30-40	2368.91
40-50	2264.18
50-60	1818.45
60-70	1164.81
70-80	486.04
80-90	67.58
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	121	121	121	121	118	118	118	118	113	113	113	108	108	108	103	103	103	101
1	112	107	104	100	109	105	102	99	101	98	95	97	95	93	93	92	90	88
2	102	95	89	83	100	93	87	82	90	85	81	86	82	79	83	80	77	75
3	94	84	77	71	92	83	76	70	80	74	69	77	72	68	74	70	66	64
4	87	75	67	61	84	74	66	60	71	65	59	69	63	59	67	62	58	56
5	80	68	59	53	78	67	59	53	64	57	52	63	56	51	61	55	51	49
6	74	61	53	47	72	60	52	46	59	51	46	57	50	46	55	50	45	43
7	69	56	47	41	67	55	47	41	53	46	41	52	46	41	51	45	40	38
8	64	51	43	37	63	50	43	37	49	42	37	48	41	37	47	41	36	35
9	60	47	39	34	59	46	39	34	45	38	33	44	38	33	43	37	33	31
10	56	43	36	31	55	43	36	31	42	35	30	41	35	30	40	34	30	28

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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	18.5	20.1	18.9	20.4	20.7	18.2	19.7	18.5	20.0	20.3
	3H	19.8	21.2	20.2	21.5	21.8	19.4	20.8	19.7	21.1	21.4
	4H	20.1	21.4	20.5	21.7	22.1	19.7	21.0	20.1	21.3	21.7
	6H	20.2	21.4	20.6	21.8	22.2	19.8	21.0	20.2	21.4	21.8
	8H	20.2	21.4	20.7	21.7	22.2	19.8	20.9	20.2	21.3	21.7
	12H	20.2	21.3	20.6	21.7	22.1	19.8	20.9	20.2	21.3	21.7

UGR Viewed Endwise

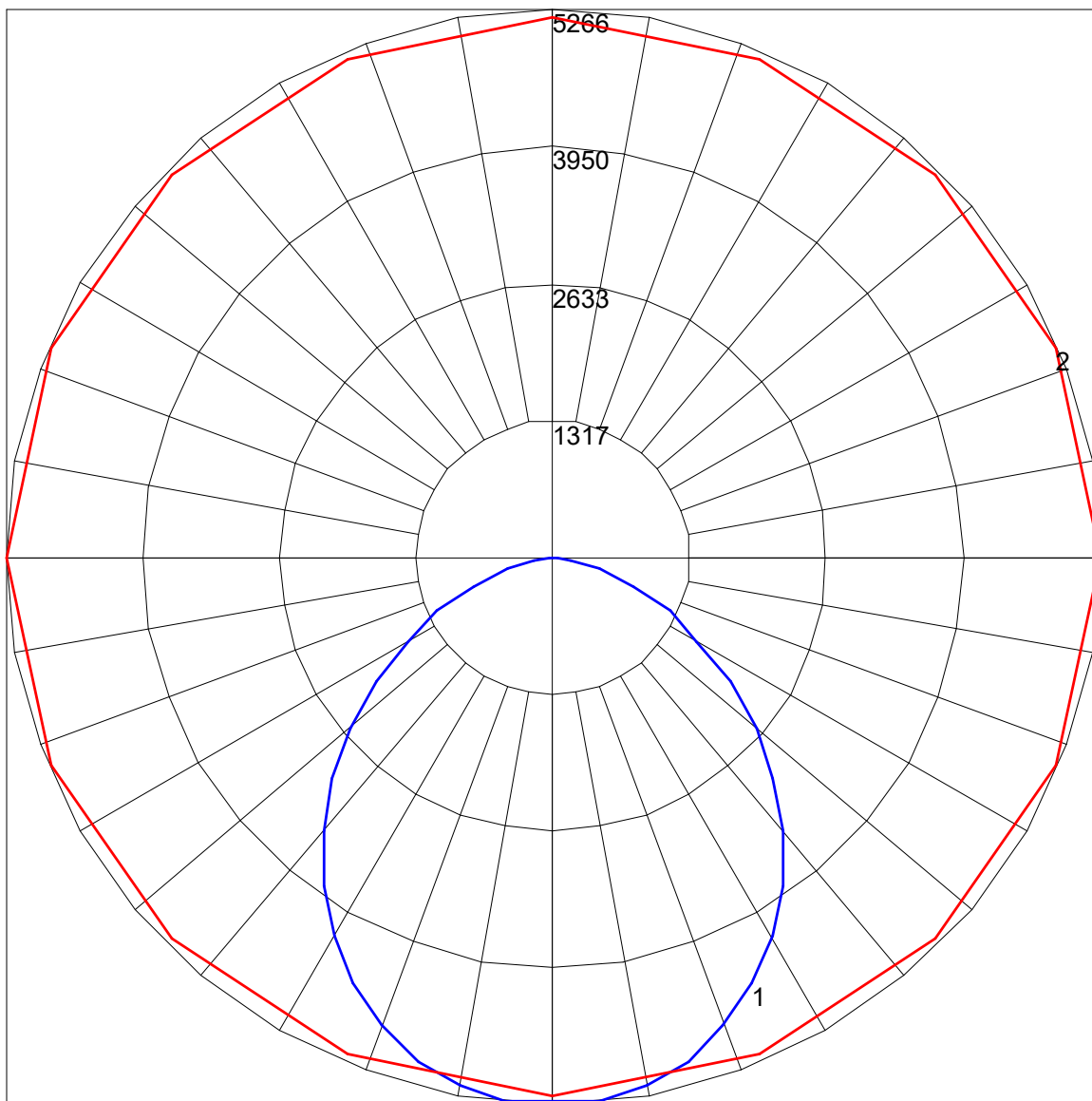
4H	2H	18.9	20.2	19.3	20.6	21.0	18.7	20.0	19.1	20.3	20.7
	3H	20.4	21.4	20.8	21.8	22.2	20.0	21.1	20.5	21.5	21.9
	4H	20.8	21.7	21.2	22.1	22.6	20.4	21.4	20.9	21.8	22.2
	6H	21.0	21.8	21.4	22.2	22.7	20.6	21.4	21.1	21.9	22.3
	8H	21.0	21.7	21.4	22.2	22.7	20.6	21.4	21.1	21.8	22.3
	12H	21.0	21.6	21.4	22.1	22.6	20.6	21.3	21.1	21.8	22.3

8H	4H	20.9	21.7	21.4	22.1	22.6	20.6	21.3	21.0	21.8	22.2
	6H	21.1	21.7	21.6	22.2	22.7	20.8	21.4	21.3	21.9	22.4
	8H	21.1	21.7	21.6	22.2	22.7	20.8	21.4	21.3	21.9	22.4
	12H	21.1	21.6	21.6	22.1	22.7	20.8	21.3	21.3	21.8	22.4

12H	4H	20.9	21.6	21.4	22.0	22.5	20.6	21.2	21.0	21.7	22.2
	6H	21.1	21.7	21.6	22.1	22.7	20.8	21.3	21.3	21.8	22.3
	8H	21.1	21.6	21.7	22.1	22.7	20.8	21.3	21.3	21.8	22.4

Maximum UGR = 22.7

POLAR GRAPH



Maximum Candela = 5266.356 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.)