



IES INDOOR REPORT

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

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-1995

[TEST] GEN from BALLABS TEST NO. 20884.0

[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

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

[LUMCAT] MCTG-24-L12/RED-L134/835-SAF125-DIM-UNV RED ONLY

CHARACTERISTICS

Lumens Per Lamp	5339 (1 lamp)
Total Lamp Lumens	5339
Luminaire Lumens	1237
Total Luminaire Efficiency	23 %
Luminaire Efficacy Rating (LER)	41
Total Luminaire Watts	30.3
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.20
Spacing Criterion (90-270)	1.20
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	824	815	823
55	707	696	701
65	544	542	545
75	325	333	325
85	77	77	72

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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	537.552	537.552	537.552	537.552	537.552
5	541.025	535.700	532.228	531.070	531.533
10	530.607	524.820	522.273	521.347	522.042
15	513.244	509.309	506.299	505.142	506.299
20	490.094	485.927	483.380	484.075	485.927
25	462.776	458.378	455.831	456.757	457.915
30	429.903	424.578	422.958	424.578	425.504
35	388.232	385.686	384.065	385.454	387.075
40	346.561	344.246	342.394	343.783	344.941
45	301.650	299.798	298.409	300.261	301.418
50	255.580	253.034	253.497	253.497	256.506
55	209.974	206.733	206.733	207.428	208.354
60	164.368	162.747	162.284	162.284	162.284
65	118.993	119.456	118.530	117.836	119.225
70	79.406	78.017	80.100	78.943	78.711
75	43.523	44.912	44.680	43.986	43.523
80	17.131	17.594	18.289	18.289	18.752
85	3.473	3.704	3.473	3.241	3.241
90	0.000	0.000	0.000	0.000	0.000

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Zone	Lumens	%Lamp	%Fixt
0-20	193.65	3.60	15.70
0-30	404.29	7.60	32.70
0-40	645.42	12.10	52.20
0-60	1062.54	19.90	85.90
0-80	1229.92	23.00	99.50
0-90	1236.7	23.20	100.00
10-90	1186.06	22.20	95.90
20-40	451.77	8.50	36.50
20-50	682.97	12.80	55.20
40-70	535.60	10.00	43.30
60-80	167.38	3.10	13.50
70-80	48.90	0.90	4.00
80-90	6.78	0.10	0.50
90-110	0.00	0.00	0.00
90-120	0.00	0.00	0.00
90-130	0.00	0.00	0.00
90-150	0.00	0.00	0.00
90-180	0.00	0.00	0.00
110-180	0.00	0.00	0.00
0-180	1236.7	23.20	100.00

Total Luminaire Efficiency = 23.20%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	50.64
10-20	143.01
20-30	210.64
30-40	241.13
40-50	231.20
50-60	185.92
60-70	118.48
70-80	48.90
80-90	6.78
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	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	28	28	28	28	27	27	27	27	26	26	26	25	25	25	24	24	24	23
1	26	25	24	23	25	24	23	23	23	22	22	22	22	21	21	21	21	20
2	23	22	20	19	23	21	20	19	20	19	18	20	19	18	19	18	18	17
3	21	19	18	16	21	19	17	16	18	17	16	18	16	15	17	16	15	15
4	20	17	15	14	19	17	15	14	16	15	14	16	14	13	15	14	13	13
5	18	15	14	12	18	15	13	12	15	13	12	14	13	12	14	13	12	11
6	17	14	12	11	16	14	12	11	13	12	10	13	12	10	13	11	10	10
7	16	13	11	9	15	13	11	9	12	11	9	12	10	9	12	10	9	9
8	15	12	10	8	14	12	10	8	11	10	8	11	9	8	11	9	8	8
9	14	11	9	8	13	11	9	8	10	9	8	10	9	8	10	9	8	7
10	13	10	8	7	13	10	8	7	10	8	7	9	8	7	9	8	7	6

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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

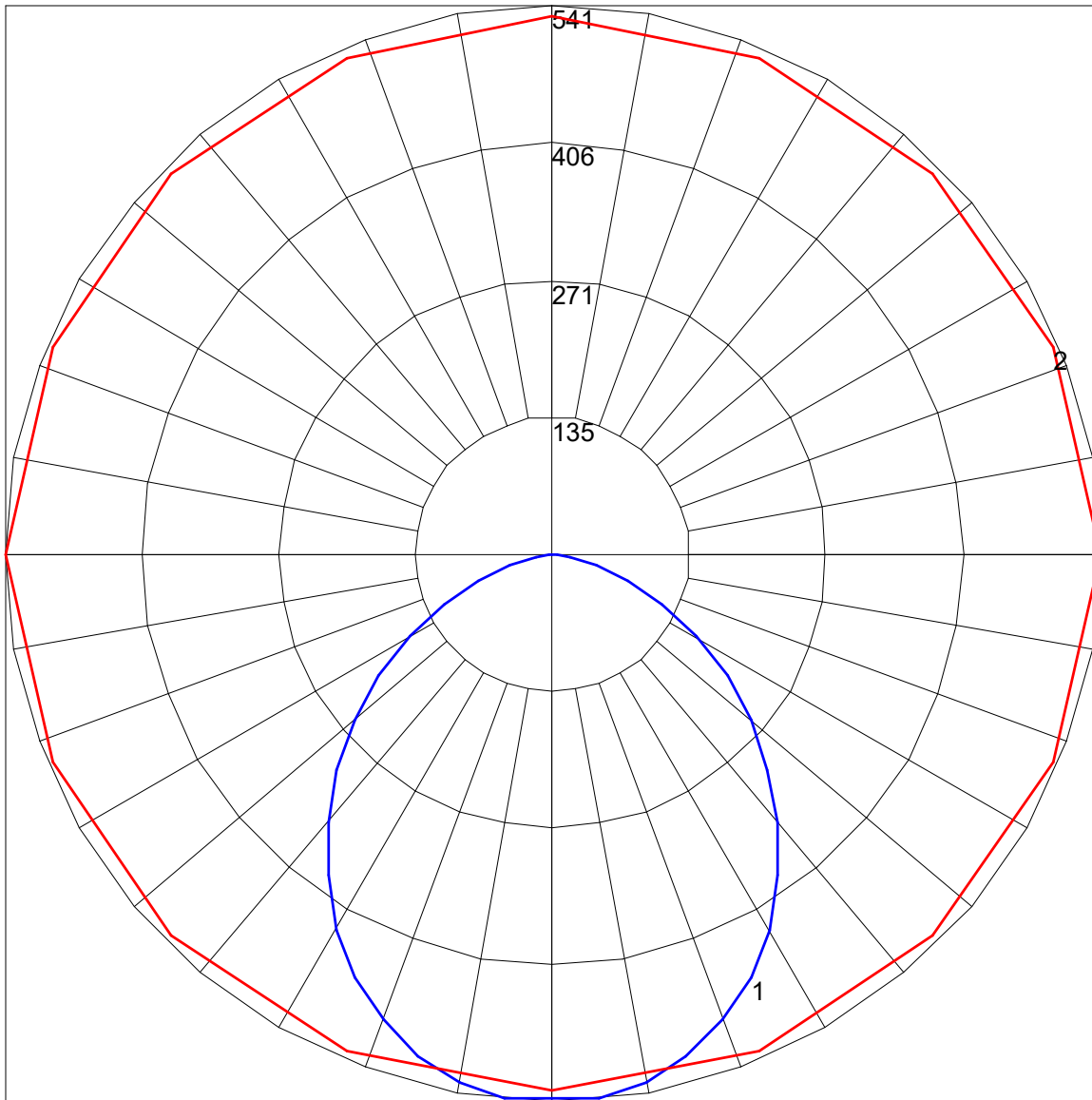
X=2H	Y=2H	15.6	17.1	16.0	17.4	17.8	15.6	17.1	16.0	17.4	17.8
	3H	16.8	18.2	17.2	18.5	18.9	16.8	18.2	17.2	18.5	18.8
	4H	17.1	18.4	17.5	18.7	19.1	17.1	18.4	17.5	18.7	19.1
	6H	17.2	18.4	17.6	18.8	19.2	17.2	18.4	17.6	18.8	19.2
	8H	17.2	18.3	17.6	18.7	19.1	17.2	18.3	17.6	18.7	19.1
	12H	17.2	18.3	17.6	18.7	19.1	17.2	18.3	17.6	18.7	19.1

UGR Viewed Endwise

4H	2H	16.1	17.3	16.5	17.7	18.1	16.0	17.3	16.4	17.7	18.1
	3H	17.4	18.5	17.8	18.9	19.3	17.4	18.5	17.8	18.9	19.3
	4H	17.8	18.7	18.2	19.2	19.6	17.8	18.7	18.2	19.2	19.6
	6H	18.0	18.8	18.4	19.2	19.7	18.0	18.8	18.4	19.2	19.7
	8H	18.0	18.7	18.4	19.2	19.7	18.0	18.8	18.4	19.2	19.7
	12H	18.0	18.7	18.5	19.1	19.6	18.0	18.7	18.5	19.1	19.6
8H	4H	17.9	18.7	18.4	19.1	19.6	17.9	18.7	18.4	19.1	19.6
	6H	18.1	18.7	18.6	19.2	19.7	18.1	18.8	18.6	19.2	19.7
	8H	18.1	18.7	18.6	19.2	19.7	18.1	18.7	18.7	19.2	19.7
	12H	18.1	18.6	18.7	19.1	19.7	18.2	18.6	18.7	19.1	19.7
12H	4H	17.9	18.6	18.4	19.1	19.5	17.9	18.6	18.4	19.1	19.5
	6H	18.1	18.7	18.6	19.1	19.7	18.1	18.7	18.6	19.1	19.7
	8H	18.2	18.6	18.7	19.1	19.7	18.2	18.7	18.7	19.1	19.7

Maximum UGR = 19.7

POLAR GRAPH



Maximum Candela = 541.025 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.)