

IES INDOOR REPORT

PHOTOMETRIC FILENAME : CMR4AENG-L33-940-CA-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from UL #4792155668.03

[TESTLAB] UL, LLC

[ISSUE DATE] 2026-08-07

[TEST DATE] 3/17/2026

[MANUFAC] H E Williams Inc

[LUMCAT] CMR4AENG-L33-940-CA-DIM-UNV (A,E&N)

[LUMINAIRE] 2' x 4' multi-function recessed troffer with door frame; door

[MORE] frame has arrangement of curved diffused acrylic lenses

[OTHER] This test was performed using the calibrated photodetector method

[MORE] of absolute photometry.

[OTHER] The reported results were measured in a facility that meets the

[MORE] requirements of ANSI/IES LM-75-19. The device under test emits no

[MORE] detectable uplight as defined by ANSI/IES LM-75-19.

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	11188
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	101
Total Luminaire Watts	111.3
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.22
Spacing Criterion (90-270)	1.18
Spacing Criterion (Diagonal)	1.30
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	3.75 ft
Luminous Width (90-270)	1.75 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	6206	6121	6078
55	5672	5674	5699
65	4889	5047	5110
75	3516	3824	3843
85	1405	1612	1527

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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>	<u>112.5</u>	<u>135.0</u>	<u>157.5</u>	<u>180.0</u>	<u>202.5</u>
0	4444.882	4444.882	4444.882	4444.882	4444.882	4444.882	4444.882	4444.882	4444.882	4444.882
5	4428.636	4422.686	4417.671	4406.377	4424.545	4404.428	4413.988	4417.053	4423.095	4417.424
10	4354.327	4345.115	4336.230	4322.364	4331.608	4318.557	4328.740	4334.127	4341.327	4333.291
15	4230.111	4218.078	4201.051	4181.771	4188.814	4176.106	4189.258	4200.249	4207.609	4198.176
20	4059.556	4042.599	4018.495	3994.167	3989.583	3986.646	4002.029	4016.754	4025.385	4013.070
25	3847.486	3826.404	3795.931	3765.017	3761.817	3755.638	3774.048	3791.088	3800.284	3786.043
30	3598.440	3574.004	3538.247	3510.552	3500.089	3499.471	3510.483	3528.721	3540.498	3523.119
35	3315.725	3290.780	3256.003	3233.450	3222.759	3220.946	3222.482	3237.729	3251.778	3232.993
40	3005.058	2985.850	2955.364	2941.496	2926.593	2927.970	2917.231	2929.269	2940.764	2925.803
45	2677.873	2660.569	2641.145	2635.805	2622.756	2621.319	2601.000	2604.200	2615.818	2601.813
50	2339.297	2324.029	2317.412	2322.200	2314.305	2307.126	2278.373	2271.559	2281.937	2269.894
55	1985.347	1977.491	1986.114	1996.669	1994.914	1981.627	1950.466	1930.998	1934.537	1929.782
60	1623.068	1625.583	1646.058	1664.081	1668.745	1649.942	1615.905	1586.224	1579.603	1585.259
65	1260.851	1271.586	1301.661	1313.902	1317.958	1301.611	1277.918	1240.176	1225.305	1239.353
70	894.960	915.772	947.614	955.706	956.347	946.724	931.157	892.970	867.691	892.332
75	555.333	580.342	603.935	604.860	606.968	600.199	594.755	565.900	536.316	565.445
80	268.843	291.557	302.413	293.995	289.903	292.782	299.231	284.726	257.517	284.454
85	74.727	87.600	85.725	81.140	81.207	81.094	85.375	86.313	70.199	86.189
90	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
95	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
100	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
105	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
110	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
115	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
120	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
125	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
130	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
135	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
140	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
145	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
150	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
155	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
160	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
165	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
175	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
180	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Vert. Angles **Horizontal Angles**

	<u>225.0</u>	<u>247.5</u>	<u>270.0</u>	<u>292.5</u>	<u>315.0</u>	<u>337.5</u>	<u>360.0</u>
0	4444.882	4444.882	4444.882	4444.882	4444.882	4444.882	4444.882
5	4414.111	4404.551	4424.669	4406.377	4416.928	4421.169	4428.636
10	4328.368	4318.433	4331.856	4322.302	4335.425	4343.412	4354.327
15	4188.268	4175.673	4188.969	4181.740	4200.246	4216.313	4230.111
20	4000.172	3985.965	3989.676	3993.919	4017.814	4040.865	4059.556
25	3771.232	3754.524	3761.941	3764.615	3794.879	3824.485	3847.486
30	3506.800	3497.954	3500.028	3510.087	3537.101	3571.837	3598.440
35	3217.994	3218.903	3222.480	3233.141	3254.517	3288.490	3315.725
40	2912.898	2925.618	2925.943	2941.434	2953.600	2983.126	3005.058
45	2597.565	2618.503	2622.199	2635.495	2639.319	2657.258	2677.873
50	2275.767	2304.217	2313.562	2321.674	2315.803	2320.686	2339.297
55	1948.761	1978.717	1994.233	1996.112	1984.319	1974.210	1985.347
60	1614.726	1647.290	1668.280	1663.679	1644.294	1622.147	1623.068

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CANDELA TABULATION - (Cont.)

65	1277.073	1299.473	1317.472	1313.438	1299.990	1268.275	1260.851
70	930.600	945.455	955.929	955.338	945.968	912.745	894.960
75	594.424	599.629	606.857	604.684	602.623	577.637	555.333
80	299.082	292.621	289.968	293.958	301.633	289.443	268.843
85	85.350	81.100	81.272	81.208	85.536	86.783	74.727
90	0.000	0.000	0.000	0.000	0.000	0.000	0.000
95	0.000	0.000	0.000	0.000	0.000	0.000	0.000
100	0.000	0.000	0.000	0.000	0.000	0.000	0.000
105	0.000	0.000	0.000	0.000	0.000	0.000	0.000
110	0.000	0.000	0.000	0.000	0.000	0.000	0.000
115	0.000	0.000	0.000	0.000	0.000	0.000	0.000
120	0.000	0.000	0.000	0.000	0.000	0.000	0.000
125	0.000	0.000	0.000	0.000	0.000	0.000	0.000
130	0.000	0.000	0.000	0.000	0.000	0.000	0.000
135	0.000	0.000	0.000	0.000	0.000	0.000	0.000
140	0.000	0.000	0.000	0.000	0.000	0.000	0.000
145	0.000	0.000	0.000	0.000	0.000	0.000	0.000
150	0.000	0.000	0.000	0.000	0.000	0.000	0.000
155	0.000	0.000	0.000	0.000	0.000	0.000	0.000
160	0.000	0.000	0.000	0.000	0.000	0.000	0.000
165	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170	0.000	0.000	0.000	0.000	0.000	0.000	0.000
175	0.000	0.000	0.000	0.000	0.000	0.000	0.000
180	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	1601.28	N.A.	14.30
0-30	3344.63	N.A.	29.90
0-40	5374.53	N.A.	48.00
0-60	9165.7	N.A.	81.90
0-80	11064.77	N.A.	98.90
0-90	11188.47	N.A.	100.00
10-90	10769.55	N.A.	96.30
20-40	3773.24	N.A.	33.70
20-50	5801.74	N.A.	51.90
40-70	5059.47	N.A.	45.20
60-80	1899.08	N.A.	17.00
70-80	630.78	N.A.	5.60
80-90	123.70	N.A.	1.10
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	11188.47	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	418.93
10-20	1182.36
20-30	1743.35
30-40	2029.9
40-50	2028.5
50-60	1762.67
60-70	1268.3
70-80	630.78
80-90	123.70
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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	105	101	97	107	103	99	96	98	95	93	95	92	90	91	89	87	85
2	100	92	85	80	97	90	84	79	87	81	77	83	79	75	80	77	74	72
3	91	81	73	67	89	80	72	66	77	70	65	74	69	64	71	67	63	61
4	84	72	64	57	81	71	63	57	68	61	56	66	60	55	64	59	54	52
5	77	65	56	49	75	63	55	49	61	54	49	59	53	48	58	52	48	45
6	71	58	50	43	69	57	49	43	56	48	43	54	47	42	52	46	42	40
7	66	53	44	38	65	52	44	38	51	43	38	49	43	38	48	42	37	35
8	62	48	40	34	60	48	40	34	46	39	34	45	39	34	44	38	34	32
9	58	44	36	31	56	44	36	31	43	36	31	42	35	31	41	35	30	29
10	54	41	33	28	53	41	33	28	40	33	28	39	32	28	38	32	28	26

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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	18.0	19.7	18.4	20.0	20.3	18.1	19.7	18.5	20.1	20.4
	3H	19.6	21.0	20.0	21.3	21.7	19.8	21.2	20.1	21.5	21.9
	4H	20.1	21.4	20.5	21.8	22.1	20.3	21.6	20.7	22.0	22.4
	6H	20.3	21.6	20.7	21.9	22.3	20.6	21.8	21.0	22.2	22.6
	8H	20.4	21.6	20.8	22.0	22.4	20.6	21.8	21.1	22.2	22.6
	12H	20.4	21.5	20.8	21.9	22.3	20.6	21.8	21.1	22.2	22.6

UGR Viewed Endwise

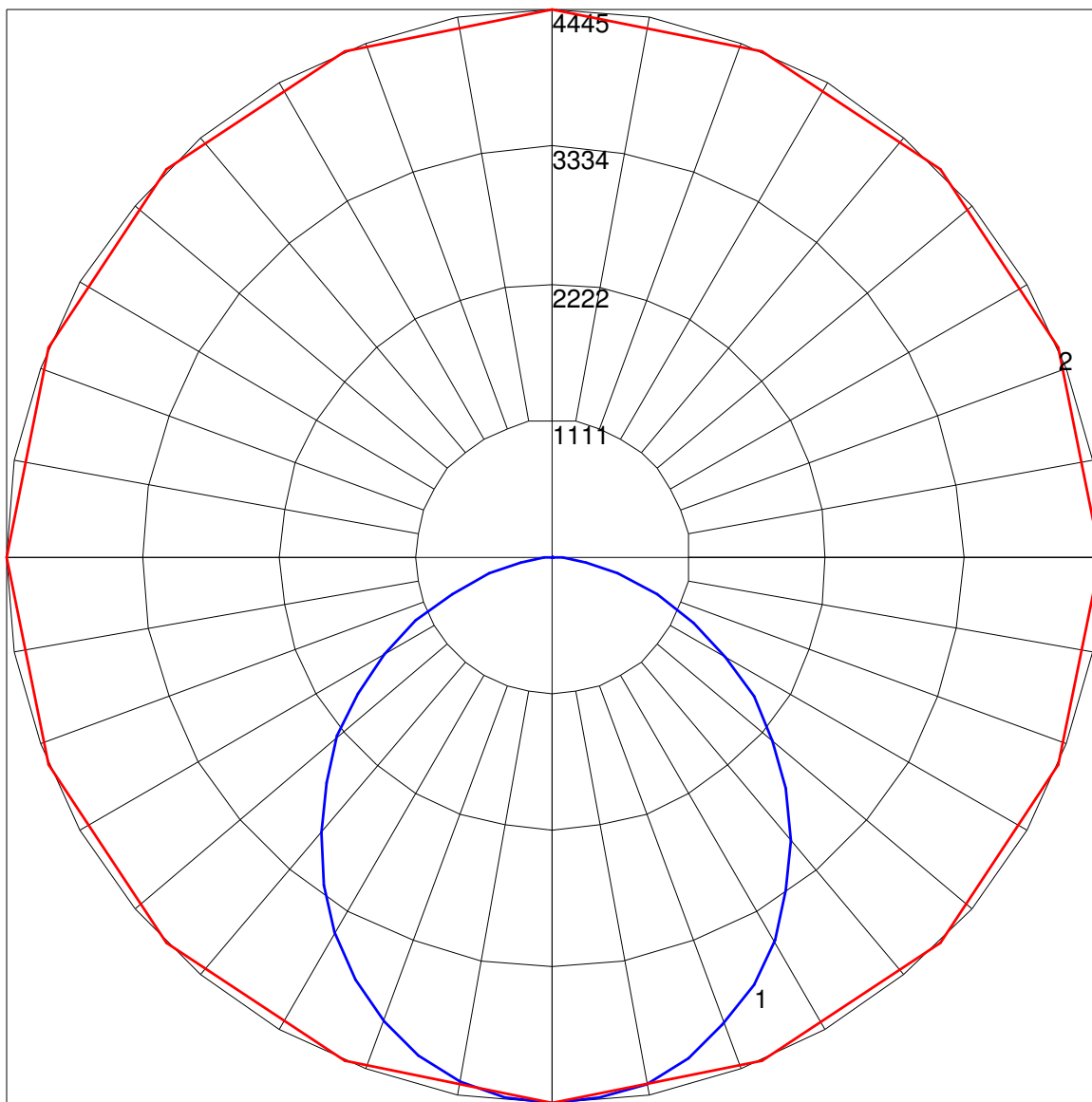
4H	2H	18.7	20.0	19.1	20.4	20.7	18.7	20.1	19.1	20.4	20.8
	3H	20.4	21.5	20.8	21.9	22.3	20.5	21.7	20.9	22.1	22.5
	4H	21.0	22.0	21.4	22.4	22.8	21.1	22.2	21.6	22.6	23.0
	6H	21.3	22.2	21.8	22.6	23.1	21.5	22.4	22.0	22.8	23.3
	8H	21.4	22.2	21.8	22.7	23.1	21.6	22.4	22.1	22.9	23.3
	12H	21.4	22.2	21.9	22.6	23.1	21.6	22.4	22.1	22.9	23.3

8H	4H	21.2	22.0	21.6	22.5	22.9	21.4	22.2	21.8	22.6	23.1
	6H	21.6	22.3	22.1	22.8	23.3	21.8	22.5	22.3	23.0	23.5
	8H	21.7	22.4	22.2	22.9	23.3	21.9	22.5	22.4	23.0	23.5
	12H	21.8	22.3	22.3	22.8	23.4	22.0	22.5	22.5	23.0	23.6

12H	4H	21.2	21.9	21.7	22.4	22.9	21.4	22.1	21.8	22.6	23.1
	6H	21.6	22.3	22.2	22.7	23.3	21.8	22.4	22.3	22.9	23.4
	8H	21.8	22.3	22.3	22.8	23.4	22.0	22.5	22.5	23.0	23.6

Maximum UGR = 23.6

POLAR GRAPH



Maximum Candela = 4444.882 Located At Horizontal Angle = 0, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)