

IES INDOOR REPORT

PHOTOMETRIC FILENAME : CMR4AENG-L33-840-CA-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

[IESNA:LM-63-2002

[TEST] GEN from UL #4792155668.03

[TESTLAB] UL, LLC

[ISSUEDATE] 2026-08-07

[TESTDATE] 3/17/2026

[MANUFAC] H E Williams Inc

[LUMCAT] CMR4AENG-L33-840-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	13400
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	120
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	7433	7331	7280
55	6793	6796	6826
65	5855	6045	6120
75	4211	4580	4603
85	1683	1930	1829

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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	5323.521	5323.521	5323.521	5323.521	5323.521	5323.521	5323.521	5323.521	5323.521	5323.521
5	5304.064	5296.938	5290.931	5277.406	5299.164	5275.070	5286.520	5290.191	5297.428	5290.636
10	5215.066	5204.033	5193.392	5176.785	5187.856	5172.225	5184.421	5190.873	5199.496	5189.872
15	5066.296	5051.884	5031.491	5008.400	5016.836	5001.616	5017.367	5030.531	5039.346	5028.048
20	4862.026	4841.717	4812.849	4783.711	4778.221	4774.703	4793.127	4810.763	4821.100	4806.352
25	4608.035	4582.787	4546.290	4509.264	4505.432	4498.032	4520.081	4540.489	4551.503	4534.447
30	4309.760	4280.493	4237.668	4204.498	4191.968	4191.227	4204.415	4226.259	4240.364	4219.549
35	3971.159	3941.283	3899.631	3872.621	3859.816	3857.644	3859.484	3877.745	3894.571	3872.073
40	3599.081	3576.076	3539.564	3522.955	3505.105	3506.755	3493.894	3508.311	3522.078	3504.159
45	3207.220	3186.496	3163.232	3156.836	3141.207	3139.487	3115.151	3118.983	3132.898	3116.125
50	2801.716	2783.430	2775.506	2781.239	2771.784	2763.186	2728.749	2720.588	2733.017	2718.594
55	2377.800	2368.390	2378.718	2391.360	2389.257	2373.343	2336.024	2312.707	2316.945	2311.250
60	1943.907	1946.919	1971.442	1993.027	1998.613	1976.094	1935.328	1899.780	1891.850	1898.624
65	1510.089	1522.947	1558.966	1573.627	1578.484	1558.907	1530.530	1485.328	1467.517	1484.342
70	1071.871	1096.797	1134.933	1144.625	1145.392	1133.867	1115.223	1069.487	1039.212	1068.723
75	665.108	695.061	723.318	724.425	726.950	718.843	712.323	677.764	642.332	677.219
80	321.986	349.191	362.192	352.110	347.209	350.657	358.381	341.009	308.422	340.683
85	89.499	104.917	102.671	97.179	97.259	97.124	102.252	103.375	84.076	103.226
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	5323.521	5323.521	5323.521	5323.521	5323.521	5323.521	5323.521
5	5286.668	5275.218	5299.312	5277.406	5290.042	5295.121	5304.064
10	5183.976	5172.077	5188.153	5176.711	5192.428	5201.994	5215.066
15	5016.181	5001.097	5017.021	5008.363	5030.527	5049.771	5066.296
20	4790.903	4773.888	4778.333	4783.415	4812.033	4839.641	4862.026
25	4516.708	4496.698	4505.580	4508.783	4545.029	4580.488	4608.035
30	4200.004	4189.410	4191.894	4203.942	4236.296	4277.898	4309.760
35	3854.109	3855.198	3859.482	3872.250	3897.852	3938.540	3971.159
40	3488.704	3503.937	3504.327	3522.880	3537.451	3572.813	3599.081
45	3111.037	3136.113	3140.540	3156.465	3161.045	3182.529	3207.220
50	2725.627	2759.701	2770.894	2780.609	2773.578	2779.426	2801.716
55	2333.981	2369.859	2388.442	2390.692	2376.568	2364.461	2377.800
60	1933.916	1972.917	1998.057	1992.545	1969.329	1942.804	1943.907

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CANDELA TABULATION - (Cont.)

65	1529.518	1556.345	1577.902	1573.071	1556.965	1518.980	1510.089
70	1114.556	1132.347	1144.891	1144.183	1132.961	1093.171	1071.871
75	711.926	718.161	726.817	724.214	721.746	691.821	665.108
80	358.203	350.464	347.287	352.066	361.258	346.659	321.986
85	102.222	97.131	97.337	97.261	102.444	103.938	89.499
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	1917.82	N.A.	14.30
0-30	4005.78	N.A.	29.90
0-40	6436.93	N.A.	48.00
0-60	10977.52	N.A.	81.90
0-80	13252.00	N.A.	98.90
0-90	13400.15	N.A.	100.00
10-90	12898.41	N.A.	96.30
20-40	4519.11	N.A.	33.70
20-50	6948.6	N.A.	51.90
40-70	6059.6	N.A.	45.20
60-80	2274.48	N.A.	17.00
70-80	755.46	N.A.	5.60
80-90	148.15	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	13400.15	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	501.74
10-20	1416.08
20-30	2087.96
30-40	2431.15
40-50	2429.48
50-60	2111.1
60-70	1519.01
70-80	755.46
80-90	148.15
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	18.7	20.3	19.0	20.6	20.9	18.7	20.3	19.1	20.7	21.0
	3H	20.2	21.6	20.6	21.9	22.3	20.4	21.8	20.7	22.1	22.5
	4H	20.7	22.0	21.1	22.4	22.7	20.9	22.2	21.3	22.6	23.0
	6H	20.9	22.2	21.3	22.5	22.9	21.2	22.4	21.6	22.8	23.2
	8H	21.0	22.2	21.4	22.6	23.0	21.2	22.4	21.7	22.8	23.2
	12H	21.0	22.1	21.4	22.5	22.9	21.2	22.4	21.7	22.8	23.2

UGR Viewed Endwise

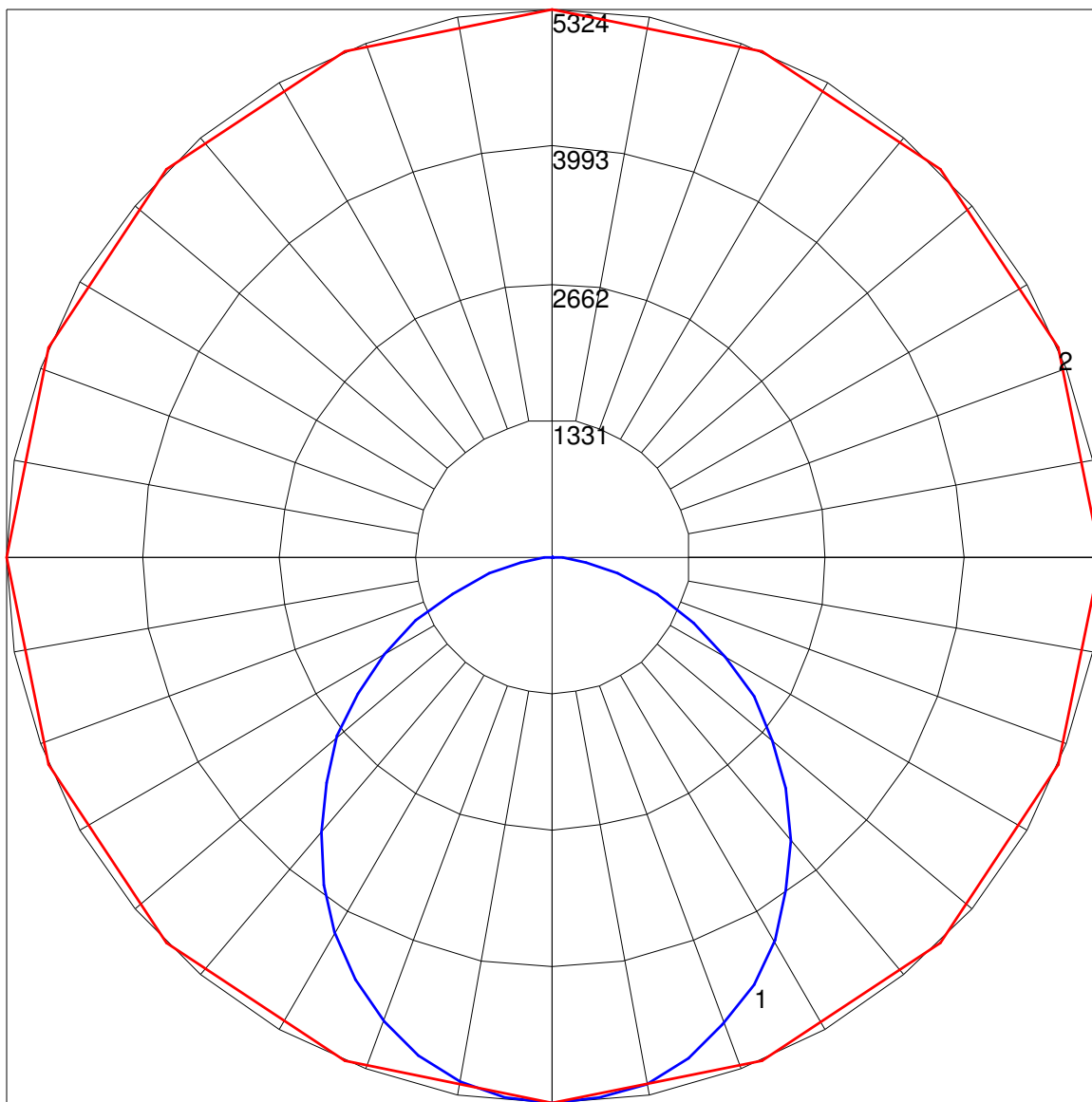
4H	2H	19.3	20.6	19.7	21.0	21.3	19.3	20.7	19.7	21.0	21.4
	3H	21.0	22.1	21.4	22.5	22.9	21.1	22.3	21.5	22.7	23.1
	4H	21.6	22.6	22.0	23.0	23.4	21.7	22.8	22.2	23.2	23.6
	6H	21.9	22.8	22.4	23.2	23.7	22.1	23.0	22.6	23.4	23.9
	8H	22.0	22.8	22.4	23.3	23.7	22.2	23.0	22.7	23.5	23.9
	12H	22.0	22.8	22.5	23.2	23.7	22.2	23.0	22.7	23.5	23.9

8H	4H	21.8	22.6	22.2	23.1	23.5	22.0	22.8	22.4	23.2	23.7
	6H	22.2	22.9	22.7	23.4	23.9	22.4	23.1	22.9	23.6	24.1
	8H	22.3	23.0	22.8	23.5	23.9	22.5	23.1	23.0	23.6	24.1
	12H	22.4	22.9	22.9	23.4	24.0	22.6	23.1	23.1	23.6	24.2

12H	4H	21.8	22.5	22.3	23.0	23.5	22.0	22.7	22.4	23.2	23.7
	6H	22.2	22.9	22.8	23.3	23.9	22.4	23.0	22.9	23.5	24.0
	8H	22.4	22.9	22.9	23.4	24.0	22.6	23.1	23.1	23.6	24.2

Maximum UGR = 24.2

POLAR GRAPH



Maximum Candela = 5323.521 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.)