

IES INDOOR REPORT

PHOTOMETRIC FILENAME : CMR4AENG-L33-827-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-L33-827-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	12620
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	113
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	7000	6904	6856
55	6398	6400	6428
65	5514	5693	5764
75	3966	4313	4334
85	1585	1818	1722

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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	5013.413	5013.413	5013.413	5013.413	5013.413	5013.413	5013.413	5013.413	5013.413	5013.413
5	4995.089	4988.378	4982.722	4969.984	4990.475	4967.785	4978.567	4982.024	4988.840	4982.443
10	4911.275	4900.885	4890.864	4875.225	4885.651	4870.931	4882.416	4888.492	4896.613	4887.549
15	4771.172	4757.599	4738.394	4716.648	4724.593	4710.260	4725.093	4737.491	4745.792	4735.152
20	4578.801	4559.675	4532.489	4505.049	4499.878	4496.565	4513.916	4530.524	4540.260	4526.370
25	4339.606	4315.828	4281.457	4246.589	4242.980	4236.011	4256.775	4275.995	4286.367	4270.304
30	4058.706	4031.144	3990.813	3959.576	3947.775	3947.078	3959.498	3980.069	3993.352	3973.750
35	3739.829	3711.694	3672.468	3647.031	3634.972	3632.927	3634.659	3651.857	3667.703	3646.515
40	3389.425	3367.761	3333.376	3317.734	3300.924	3302.478	3290.366	3303.943	3316.909	3300.033
45	3020.392	3000.875	2978.966	2972.942	2958.224	2956.604	2933.686	2937.295	2950.399	2934.604
50	2638.509	2621.288	2613.826	2619.225	2610.320	2602.224	2569.793	2562.107	2573.813	2560.229
55	2239.287	2230.426	2240.152	2252.057	2250.077	2235.090	2199.945	2177.986	2181.977	2176.614
60	1830.670	1833.506	1856.601	1876.929	1882.189	1860.981	1822.590	1789.113	1781.645	1788.024
65	1422.122	1434.231	1468.153	1481.960	1486.534	1468.097	1441.373	1398.804	1382.031	1397.875
70	1009.432	1032.906	1068.821	1077.947	1078.670	1067.816	1050.259	1007.187	978.675	1006.468
75	626.364	654.572	681.183	682.226	684.603	676.968	670.828	638.282	604.915	637.769
80	303.229	328.849	341.094	331.599	326.983	330.230	337.505	321.145	290.455	320.837
85	84.286	98.805	96.690	91.519	91.593	91.466	96.295	97.353	79.178	97.213
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	5013.413	5013.413	5013.413	5013.413	5013.413	5013.413	5013.413
5	4978.707	4967.924	4990.615	4969.984	4981.884	4986.667	4995.089
10	4881.997	4870.791	4885.930	4875.155	4889.957	4898.965	4911.275
15	4723.976	4709.771	4724.768	4716.613	4737.487	4755.609	4771.172
20	4511.821	4495.797	4499.983	4504.769	4531.721	4557.720	4578.801
25	4253.598	4234.754	4243.119	4246.135	4280.270	4313.664	4339.606
30	3955.344	3945.367	3947.706	3959.052	3989.521	4028.700	4058.706
35	3629.597	3630.623	3634.658	3646.682	3670.792	3709.111	3739.829
40	3285.478	3299.825	3300.191	3317.664	3331.386	3364.688	3389.425
45	2929.811	2953.427	2957.596	2972.593	2976.906	2997.139	3020.392
50	2566.853	2598.942	2609.483	2618.632	2612.010	2617.518	2638.509
55	2198.021	2231.809	2249.309	2251.429	2238.127	2226.725	2239.287
60	1821.260	1857.989	1881.665	1876.475	1854.611	1829.631	1830.670

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CANDELA TABULATION - (Cont.)

65	1440.420	1465.684	1485.986	1481.436	1466.268	1430.496	1422.122
70	1049.630	1066.385	1078.199	1077.532	1066.963	1029.491	1009.432
75	670.455	676.326	684.478	682.027	679.702	651.520	626.364
80	337.337	330.049	327.057	331.557	340.214	326.465	303.229
85	96.267	91.473	91.667	91.595	96.477	97.883	84.286
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	1806.1	N.A.	14.30
0-30	3772.43	N.A.	29.90
0-40	6061.96	N.A.	48.00
0-60	10338.05	N.A.	81.90
0-80	12480.03	N.A.	98.90
0-90	12619.56	N.A.	100.00
10-90	12147.05	N.A.	96.30
20-40	4255.87	N.A.	33.70
20-50	6543.83	N.A.	51.90
40-70	5706.61	N.A.	45.20
60-80	2141.98	N.A.	17.00
70-80	711.46	N.A.	5.60
80-90	139.52	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	12619.56	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	472.51
10-20	1333.59
20-30	1966.33
30-40	2289.53
40-50	2287.96
50-60	1988.13
60-70	1430.53
70-80	711.46
80-90	139.52
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	47	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	64	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

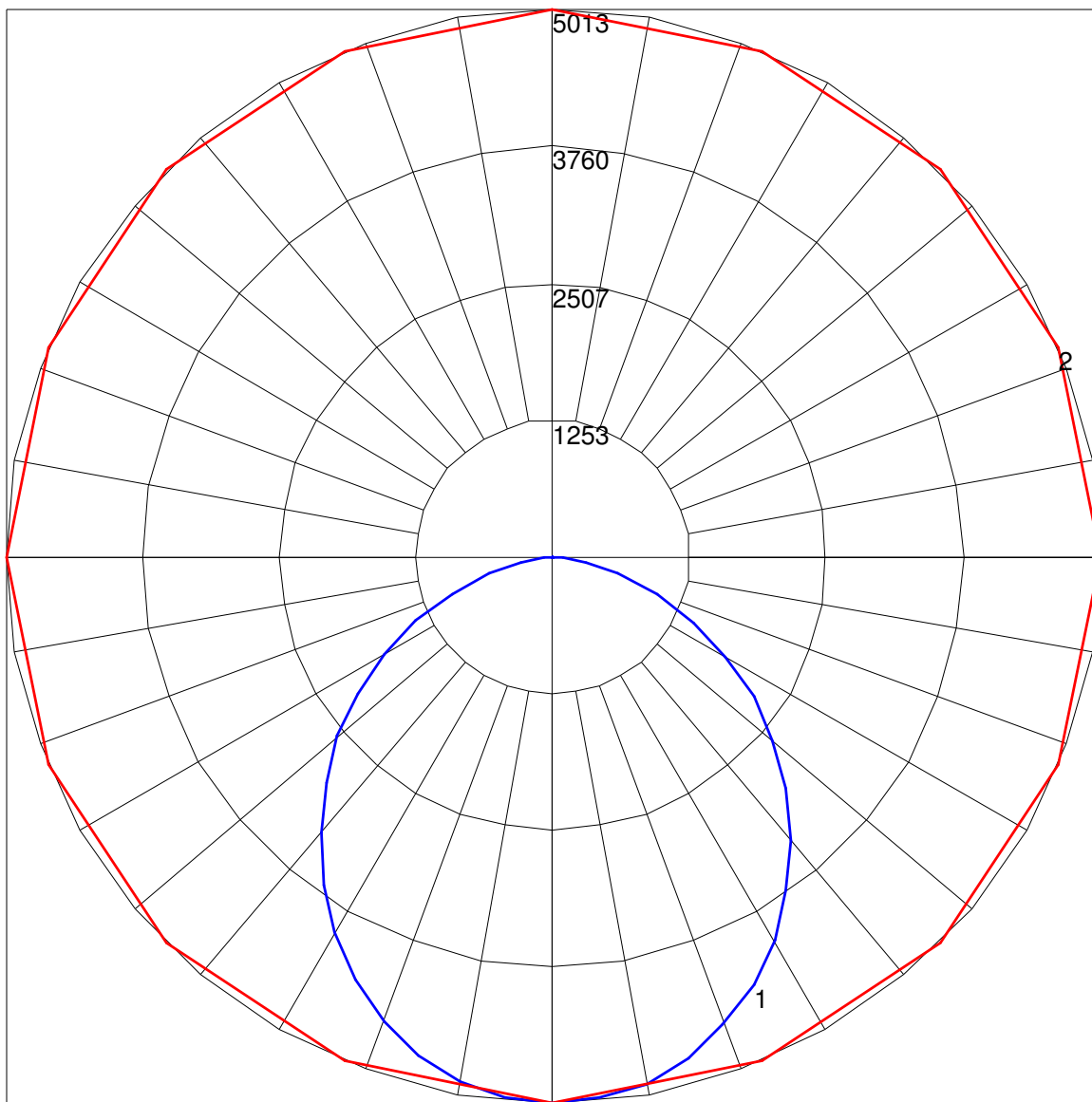
Reflectances

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					UGR Viewed Endwise				
X=2H	Y=2H	18.4	20.1	18.8	20.4	20.7	18.5	20.1	18.9	20.5	20.8
	3H	20.0	21.4	20.4	21.7	22.1	20.2	21.6	20.5	21.9	22.3
	4H	20.5	21.8	20.9	22.2	22.5	20.7	22.0	21.1	22.4	22.8
	6H	20.7	22.0	21.1	22.3	22.7	21.0	22.2	21.4	22.6	23.0
	8H	20.8	22.0	21.2	22.4	22.8	21.0	22.2	21.5	22.6	23.0
	12H	20.8	21.9	21.2	22.3	22.7	21.0	22.2	21.5	22.6	23.0
4H	2H	19.1	20.4	19.5	20.8	21.1	19.1	20.5	19.5	20.8	21.2
	3H	20.8	21.9	21.2	22.3	22.7	20.9	22.1	21.3	22.5	22.9
	4H	21.4	22.4	21.8	22.8	23.2	21.5	22.6	22.0	23.0	23.4
	6H	21.7	22.6	22.2	23.0	23.5	21.9	22.8	22.4	23.2	23.7
	8H	21.8	22.6	22.2	23.1	23.5	22.0	22.8	22.5	23.3	23.7
	12H	21.8	22.6	22.3	23.0	23.5	22.0	22.8	22.5	23.3	23.7
8H	4H	21.6	22.4	22.0	22.9	23.3	21.8	22.6	22.2	23.0	23.5
	6H	22.0	22.7	22.5	23.2	23.7	22.2	22.9	22.7	23.4	23.9
	8H	22.1	22.8	22.6	23.3	23.7	22.3	22.9	22.8	23.4	23.9
	12H	22.2	22.7	22.7	23.2	23.8	22.4	22.9	22.9	23.4	24.0
12H	4H	21.6	22.3	22.1	22.8	23.3	21.8	22.5	22.2	23.0	23.5
	6H	22.0	22.7	22.6	23.1	23.7	22.2	22.8	22.7	23.3	23.8
	8H	22.2	22.7	22.7	23.2	23.8	22.4	22.9	22.9	23.4	24.0

Maximum UGR = 24.0

POLAR GRAPH



Maximum Candela = 5013.413 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.)