

IES INDOOR REPORT

PHOTOMETRIC FILENAME : CMR4AENG-L33-830-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-L33-830-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	12880
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	116
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	7144	7046	6997
55	6529	6532	6561
65	5628	5810	5883
75	4048	4402	4424
85	1617	1855	1758

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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	5116.782	5116.782	5116.782	5116.782	5116.782	5116.782	5116.782	5116.782	5116.782	5116.782
5	5098.081	5091.231	5085.458	5072.458	5093.371	5070.213	5081.218	5084.746	5091.703	5085.174
10	5012.539	5001.934	4991.707	4975.745	4986.386	4971.362	4983.084	4989.285	4997.574	4988.323
15	4869.547	4855.694	4836.093	4813.899	4822.007	4807.378	4822.518	4835.171	4843.643	4832.784
20	4673.209	4653.689	4625.942	4597.936	4592.659	4589.278	4606.987	4623.937	4633.873	4619.697
25	4429.082	4404.814	4369.735	4334.147	4330.464	4323.351	4344.544	4364.160	4374.745	4358.352
30	4142.390	4114.260	4073.098	4041.216	4029.173	4028.461	4041.137	4062.133	4075.690	4055.683
35	3816.939	3788.224	3748.189	3722.228	3709.920	3707.833	3709.601	3727.153	3743.326	3721.701
40	3459.310	3437.199	3402.105	3386.141	3368.984	3370.570	3358.208	3372.066	3385.298	3368.075
45	3082.668	3062.749	3040.388	3034.240	3019.219	3017.565	2994.175	2997.858	3011.232	2995.111
50	2692.912	2675.335	2667.719	2673.230	2664.141	2655.878	2622.778	2614.934	2626.881	2613.017
55	2285.458	2276.414	2286.340	2298.491	2296.471	2281.175	2245.304	2222.893	2226.966	2221.493
60	1868.416	1871.310	1894.881	1915.628	1920.997	1899.352	1860.170	1826.002	1818.380	1824.891
65	1451.444	1463.803	1498.424	1512.516	1517.184	1498.367	1471.092	1427.645	1410.526	1426.697
70	1030.245	1054.203	1090.858	1100.173	1100.911	1089.833	1071.913	1027.953	998.854	1027.219
75	639.279	668.068	695.228	696.292	698.719	690.926	684.660	651.443	617.387	650.919
80	309.482	335.630	348.127	338.436	333.725	337.039	344.464	327.766	296.444	327.453
85	86.023	100.842	98.683	93.406	93.482	93.352	98.281	99.360	80.811	99.218
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	5116.782	5116.782	5116.782	5116.782	5116.782	5116.782	5116.782
5	5081.361	5070.356	5093.514	5072.458	5084.603	5089.485	5098.081
10	4982.657	4971.220	4986.671	4975.673	4990.781	4999.975	5012.539
15	4821.378	4806.880	4822.186	4813.863	4835.167	4853.663	4869.547
20	4604.849	4588.494	4592.766	4597.651	4625.158	4651.694	4673.209
25	4341.301	4322.069	4330.606	4333.684	4368.523	4402.605	4429.082
30	4036.897	4026.715	4029.102	4040.682	4071.780	4111.766	4142.390
35	3704.434	3705.481	3709.599	3721.871	3746.479	3785.587	3816.939
40	3353.220	3367.862	3368.236	3386.070	3400.074	3434.063	3459.310
45	2990.220	3014.323	3018.577	3033.884	3038.286	3058.936	3082.668
50	2619.778	2652.529	2663.286	2672.624	2665.866	2671.487	2692.912
55	2243.341	2277.825	2295.687	2297.850	2284.274	2272.637	2285.458
60	1858.812	1896.299	1920.462	1915.165	1892.850	1867.355	1868.416

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CANDELA TABULATION - (Cont.)

65	1470.119	1495.905	1516.624	1511.981	1496.500	1459.991	1451.444
70	1071.272	1088.372	1100.430	1099.749	1088.963	1050.718	1030.245
75	684.278	690.271	698.591	696.089	693.717	664.954	639.279
80	344.293	336.854	333.800	338.393	347.229	333.196	309.482
85	98.252	93.359	93.557	93.484	98.466	99.902	86.023
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	1843.34	N.A.	14.30
0-30	3850.21	N.A.	29.90
0-40	6186.95	N.A.	48.00
0-60	10551.21	N.A.	81.90
0-80	12737.35	N.A.	98.90
0-90	12879.75	N.A.	100.00
10-90	12397.5	N.A.	96.30
20-40	4343.61	N.A.	33.70
20-50	6678.75	N.A.	51.90
40-70	5824.28	N.A.	45.20
60-80	2186.15	N.A.	17.00
70-80	726.13	N.A.	5.60
80-90	142.40	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	12879.75	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	482.25
10-20	1361.09
20-30	2006.87
30-40	2336.74
40-50	2335.14
50-60	2029.12
60-70	1460.02
70-80	726.13
80-90	142.40
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	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

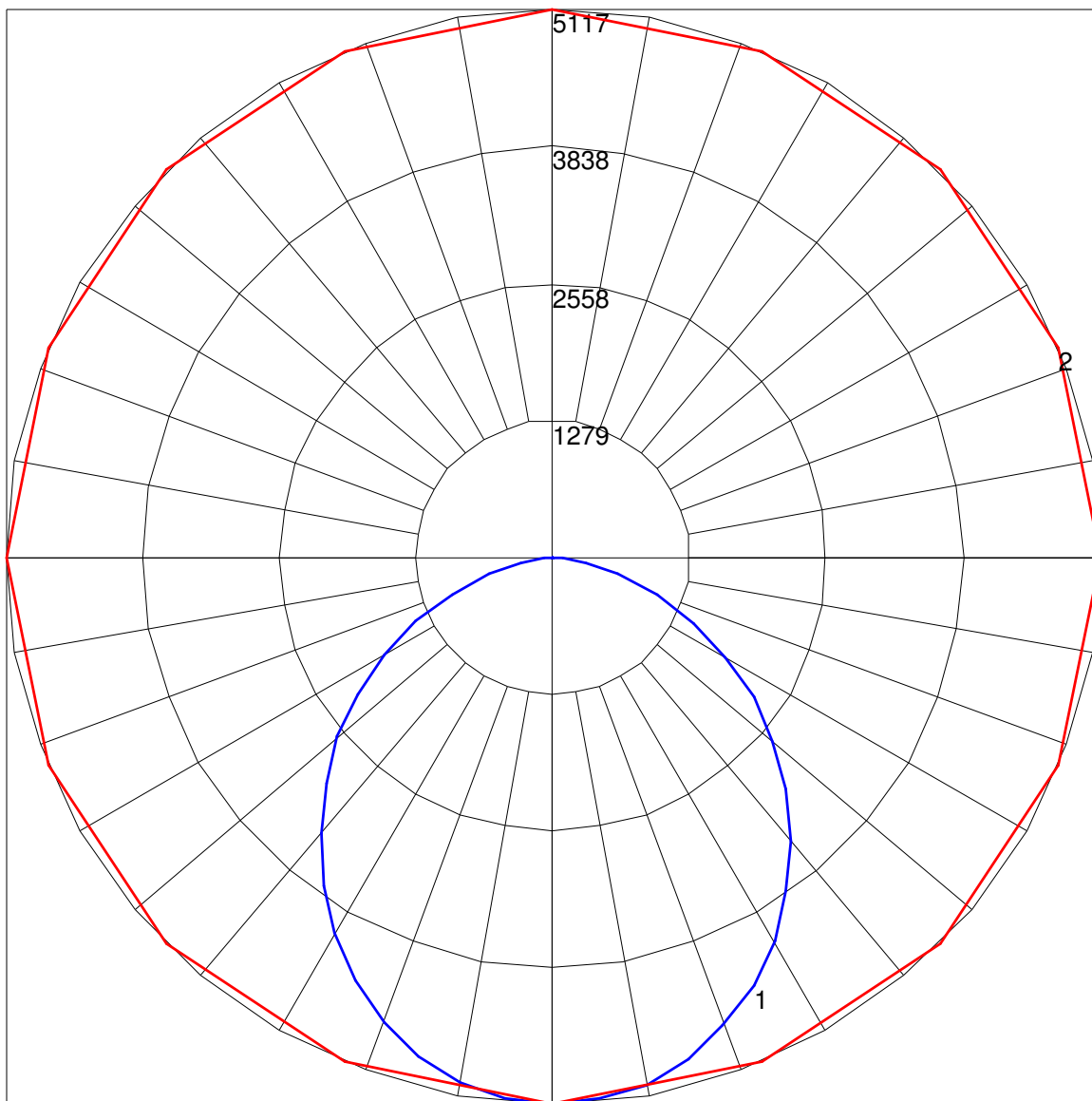
Reflectances

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					UGR Viewed Endwise				
X=2H	Y=2H	18.6	20.2	18.9	20.5	20.8	18.6	20.2	19.0	20.6	20.9
	3H	20.1	21.5	20.5	21.8	22.2	20.3	21.7	20.6	22.0	22.4
	4H	20.6	21.9	21.0	22.3	22.6	20.8	22.1	21.2	22.5	22.9
	6H	20.8	22.1	21.2	22.4	22.8	21.1	22.3	21.5	22.7	23.1
	8H	20.9	22.1	21.3	22.5	22.9	21.1	22.3	21.6	22.7	23.1
	12H	20.9	22.0	21.3	22.4	22.8	21.1	22.3	21.6	22.7	23.1
4H	2H	19.2	20.5	19.6	20.9	21.2	19.2	20.6	19.6	20.9	21.3
	3H	20.9	22.0	21.3	22.4	22.8	21.0	22.2	21.4	22.6	23.0
	4H	21.5	22.5	21.9	22.9	23.3	21.6	22.7	22.1	23.1	23.5
	6H	21.8	22.7	22.3	23.1	23.6	22.0	22.9	22.5	23.3	23.8
	8H	21.9	22.7	22.3	23.2	23.6	22.1	22.9	22.6	23.4	23.8
	12H	21.9	22.7	22.4	23.1	23.6	22.1	22.9	22.6	23.4	23.8
8H	4H	21.7	22.5	22.1	23.0	23.4	21.9	22.7	22.3	23.1	23.6
	6H	22.1	22.8	22.6	23.3	23.8	22.3	23.0	22.8	23.5	24.0
	8H	22.2	22.9	22.7	23.4	23.8	22.4	23.0	22.9	23.5	24.0
	12H	22.3	22.8	22.8	23.3	23.9	22.5	23.0	23.0	23.5	24.1
12H	4H	21.7	22.4	22.2	22.9	23.4	21.9	22.6	22.3	23.1	23.6
	6H	22.1	22.8	22.7	23.2	23.8	22.3	22.9	22.8	23.4	23.9
	8H	22.3	22.8	22.8	23.3	23.9	22.5	23.0	23.0	23.5	24.1

Maximum UGR = 24.1

POLAR GRAPH



Maximum Candela = 5116.782 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.)