

IES INDOOR REPORT

PHOTOMETRIC FILENAME : CMR2AENG-L17-840-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] CMR2AENG-L17-840-CA-DIM-UNV (A,E&N)

[LUMINAIRE] 2' x 2' 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	7617
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	114
Total Luminaire Watts	66.7
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.20
Spacing Criterion (90-270)	1.08
Spacing Criterion (Diagonal)	1.24
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	1.75 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	9518	8794	8229
55	8517	7860	7251
65	7348	6696	6137
75	5794	4946	4358
85	3536	1380	836

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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	3369.385	3369.385	3369.385	3369.385	3369.385	3369.385	3369.385	3369.385	3369.385	3369.385
5	3357.089	3345.743	3345.297	3334.540	3326.398	3332.204	3340.885	3338.996	3350.454	3339.441
10	3295.767	3281.344	3264.194	3238.450	3222.969	3233.891	3255.223	3268.184	3280.197	3267.183
15	3193.875	3170.346	3133.008	3086.238	3061.781	3079.454	3118.884	3148.993	3166.925	3146.510
20	3051.533	3019.245	2956.858	2891.096	2855.103	2882.088	2937.136	2988.291	3010.608	2983.880
25	2875.682	2834.581	2749.986	2665.705	2628.613	2654.473	2723.777	2792.284	2819.149	2786.241
30	2663.527	2618.419	2517.219	2427.834	2387.195	2414.562	2483.967	2564.185	2594.131	2557.475
35	2432.317	2381.643	2272.917	2180.322	2142.645	2165.346	2232.769	2318.105	2355.729	2312.433
40	2184.531	2131.003	2019.293	1933.034	1898.922	1916.834	1973.622	2063.239	2107.529	2059.087
45	1916.748	1869.949	1770.877	1692.030	1657.003	1674.681	1722.797	1802.436	1842.426	1799.578
50	1653.070	1613.154	1527.172	1448.235	1416.253	1430.181	1480.415	1550.313	1584.371	1548.318
55	1391.220	1359.882	1283.968	1209.019	1184.329	1191.003	1241.274	1304.199	1330.366	1302.742
60	1133.836	1114.286	1040.007	980.193	958.636	963.259	1003.893	1067.147	1081.778	1065.990
65	884.355	875.291	805.868	755.919	738.660	741.198	777.431	837.672	841.783	836.686
70	647.071	642.140	578.730	538.596	524.193	527.838	559.020	614.830	614.412	614.066
75	427.039	419.344	364.562	332.402	321.187	326.820	353.567	402.047	404.263	401.503
80	236.032	221.895	176.845	150.617	139.877	149.164	173.034	213.714	222.468	213.388
85	87.768	65.331	34.256	21.831	20.750	21.776	33.837	63.789	82.345	63.640
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	3369.385	3369.385	3369.385	3369.385	3369.385	3369.385	3369.385
5	3341.033	3332.352	3326.547	3334.540	3344.407	3343.927	3357.089
10	3254.778	3233.742	3223.266	3238.376	3263.230	3279.305	3295.767
15	3117.698	3078.935	3061.967	3086.201	3132.044	3168.233	3193.875
20	2934.912	2881.272	2855.215	2890.799	2956.042	3017.169	3051.533
25	2720.404	2653.139	2628.761	2665.223	2748.725	2832.283	2875.682
30	2479.556	2412.746	2387.120	2427.278	2515.847	2615.824	2663.527
35	2227.394	2162.899	2142.312	2179.951	2271.137	2378.900	2432.317
40	1968.432	1914.017	1898.144	1932.960	2017.180	2127.741	2184.531
45	1718.682	1671.308	1656.336	1691.660	1768.690	1865.982	1916.748
50	1477.293	1426.697	1415.363	1447.604	1525.244	1609.151	1653.070
55	1239.231	1187.519	1183.513	1208.352	1281.818	1355.953	1391.220
60	1002.480	960.082	958.080	979.711	1037.894	1110.171	1133.836

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CANDELA TABULATION - (Cont.)

65	776.419	738.636	738.078	755.362	803.866	871.324	884.355
70	558.352	526.318	523.693	538.155	576.758	638.514	647.071
75	353.170	326.137	321.053	332.191	362.990	416.105	427.039
80	172.856	148.971	139.955	150.573	175.911	219.363	236.032
85	33.807	21.783	20.828	21.913	34.030	64.352	87.768
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	1194.47	N.A.	15.70
0-30	2453.43	N.A.	32.20
0-40	3867.2	N.A.	50.80
0-60	6358.64	N.A.	83.50
0-80	7544.14	N.A.	99.00
0-90	7617.07	N.A.	100.00
10-90	7300.91	N.A.	95.80
20-40	2672.73	N.A.	35.10
20-50	4030.33	N.A.	52.90
40-70	3283.83	N.A.	43.10
60-80	1185.5	N.A.	15.60
70-80	393.12	N.A.	5.20
80-90	72.92	N.A.	1.00
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	7617.07	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	316.16
10-20	878.31
20-30	1258.97
30-40	1413.76
40-50	1357.6
50-60	1133.84
60-70	792.39
70-80	393.12
80-90	72.92
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	110	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88	86
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	73
3	92	82	74	68	90	81	73	68	78	72	67	75	70	65	72	68	64	62
4	85	73	65	59	82	72	64	58	70	63	57	67	61	57	65	60	56	54
5	78	66	57	51	76	65	57	51	63	56	50	61	55	50	59	53	49	47
6	72	60	51	45	71	59	51	45	57	50	44	55	49	44	54	48	44	42
7	67	54	46	40	66	54	46	40	52	45	40	51	44	39	49	43	39	37
8	63	50	42	36	61	49	41	36	48	41	36	47	40	35	45	40	35	33
9	59	46	38	33	57	45	38	32	44	37	32	43	37	32	42	36	32	30
10	55	42	35	30	54	42	35	30	41	34	29	40	34	29	39	33	29	27

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UGR TABLE - CORRECTED

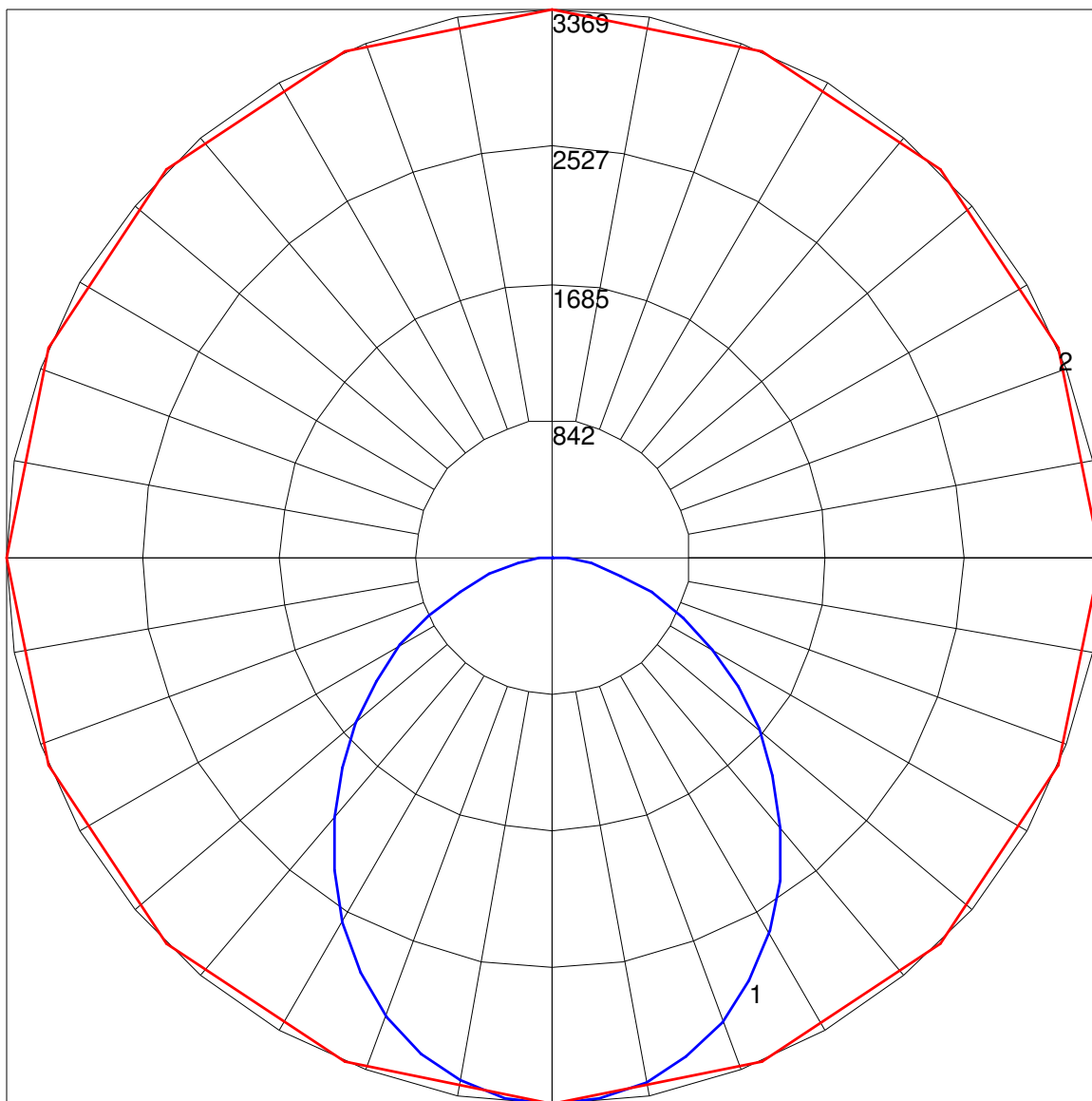
Reflectances

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	19.5	21.1	19.9	21.4	21.7	18.6	20.1	18.9	20.5	20.8
	3H	21.1	22.5	21.5	22.9	23.2	20.0	21.4	20.4	21.8	22.1
	4H	21.7	23.0	22.1	23.3	23.7	20.5	21.8	20.9	22.2	22.5
	6H	22.0	23.2	22.4	23.6	24.0	20.7	21.9	21.1	22.3	22.7
	8H	22.1	23.3	22.5	23.7	24.1	20.7	21.9	21.2	22.3	22.7
	12H	22.2	23.3	22.6	23.7	24.1	20.7	21.8	21.1	22.2	22.6
4H	2H	20.0	21.3	20.4	21.7	22.0	19.2	20.5	19.6	20.9	21.2
	3H	21.8	22.9	22.2	23.3	23.7	20.9	21.9	21.3	22.3	22.7
	4H	22.5	23.4	22.9	23.9	24.3	21.4	22.4	21.8	22.8	23.2
	6H	22.9	23.8	23.4	24.2	24.7	21.7	22.5	22.1	23.0	23.4
	8H	23.1	23.8	23.5	24.3	24.8	21.7	22.5	22.2	22.9	23.4
	12H	23.1	23.8	23.6	24.3	24.8	21.7	22.4	22.2	22.9	23.4
8H	4H	22.6	23.4	23.1	23.9	24.3	21.6	22.4	22.1	22.9	23.3
	6H	23.2	23.8	23.6	24.3	24.8	22.0	22.6	22.5	23.1	23.6
	8H	23.3	23.9	23.8	24.4	24.9	22.0	22.6	22.5	23.1	23.6
	12H	23.5	24.0	24.0	24.5	25.0	22.0	22.6	22.6	23.1	23.6
12H	4H	22.6	23.3	23.1	23.8	24.3	21.6	22.4	22.1	22.8	23.3
	6H	23.1	23.7	23.7	24.2	24.7	22.0	22.6	22.5	23.1	23.6
	8H	23.4	23.9	23.9	24.4	24.9	22.1	22.6	22.6	23.1	23.7

Maximum UGR = 25.0

POLAR GRAPH



Maximum Candela = 3369.385 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.)