

IES INDOOR REPORT

PHOTOMETRIC FILENAME : CMR4AENG-L33-927-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-L33-927-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	10408
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	94
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	5773	5694	5654
55	5276	5278	5302
65	4548	4695	4754
75	3271	3557	3575
85	1307	1499	1420

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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	4134.774	4134.774	4134.774	4134.774	4134.774	4134.774	4134.774	4134.774	4134.774	4134.774
5	4119.661	4114.126	4109.461	4098.956	4115.856	4097.142	4106.035	4108.886	4114.507	4109.232
10	4050.536	4041.967	4033.703	4020.804	4029.403	4017.262	4026.735	4031.746	4038.443	4030.968
15	3934.987	3923.793	3907.954	3890.019	3896.572	3884.750	3896.984	3907.209	3914.055	3905.280
20	3776.331	3760.557	3738.135	3715.504	3711.240	3708.507	3722.817	3736.515	3744.544	3733.089
25	3579.056	3559.446	3531.099	3502.341	3499.365	3493.617	3510.743	3526.594	3535.148	3521.900
30	3347.386	3324.655	3291.392	3265.629	3255.897	3255.322	3265.565	3282.531	3293.487	3277.320
35	3084.395	3061.191	3028.840	3007.861	2997.915	2996.229	2997.657	3011.841	3024.910	3007.435
40	2795.402	2777.534	2749.176	2736.275	2722.412	2723.693	2713.704	2724.902	2735.595	2721.677
45	2491.045	2474.948	2456.879	2451.911	2439.773	2438.436	2419.535	2422.511	2433.319	2420.292
50	2176.090	2161.887	2155.732	2160.186	2152.842	2146.164	2119.417	2113.078	2122.732	2111.529
55	1846.835	1839.526	1847.548	1857.367	1855.734	1843.373	1814.387	1796.277	1799.569	1795.146
60	1509.831	1512.170	1531.217	1547.982	1552.320	1534.830	1503.167	1475.558	1469.398	1474.659
65	1172.884	1182.871	1210.848	1222.235	1226.007	1210.801	1188.761	1153.652	1139.819	1152.887
70	832.521	851.881	881.502	889.029	889.625	880.673	866.193	830.669	807.155	830.076
75	516.589	539.853	561.800	562.661	564.621	558.324	553.260	526.418	498.899	525.995
80	250.086	271.216	281.314	273.484	269.677	272.355	278.354	264.862	239.551	264.608
85	69.514	81.489	79.744	75.479	75.541	75.436	79.419	80.291	65.302	80.176
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	4134.774	4134.774	4134.774	4134.774	4134.774	4134.774	4134.774
5	4106.150	4097.257	4115.971	4098.956	4108.770	4112.715	4119.661
10	4026.389	4017.147	4029.633	4020.746	4032.954	4040.383	4050.536
15	3896.063	3884.347	3896.716	3889.990	3907.206	3922.152	3934.987
20	3721.090	3707.874	3711.326	3715.274	3737.502	3758.944	3776.331
25	3508.122	3492.581	3499.480	3501.967	3530.120	3557.661	3579.056
30	3262.139	3253.911	3255.840	3265.198	3290.327	3322.639	3347.386
35	2993.482	2994.328	2997.656	3007.573	3027.458	3059.060	3084.395
40	2709.673	2721.505	2721.807	2736.218	2747.535	2775.001	2795.402
45	2416.339	2435.816	2439.254	2451.623	2455.180	2471.868	2491.045
50	2116.992	2143.457	2152.151	2159.696	2154.235	2158.777	2176.090
55	1812.801	1840.667	1855.100	1856.848	1845.878	1836.474	1846.835
60	1502.070	1532.362	1551.889	1547.608	1529.576	1508.974	1509.831

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CANDELA TABULATION - (Cont.)

65	1187.975	1208.812	1225.555	1221.803	1209.293	1179.790	1172.884
70	865.674	879.493	889.236	888.686	879.970	849.065	832.521
75	552.952	557.795	564.518	562.496	560.579	537.336	516.589
80	278.216	272.205	269.737	273.449	280.589	269.250	250.086
85	79.396	75.442	75.601	75.543	79.569	80.729	69.514
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	1489.57	N.A.	14.30
0-30	3111.28	N.A.	29.90
0-40	4999.56	N.A.	48.00
0-60	8526.23	N.A.	81.90
0-80	10292.81	N.A.	98.90
0-90	10407.88	N.A.	100.00
10-90	10018.18	N.A.	96.30
20-40	3509.99	N.A.	33.70
20-50	5396.97	N.A.	51.90
40-70	4706.49	N.A.	45.20
60-80	1766.58	N.A.	17.00
70-80	586.77	N.A.	5.60
80-90	115.07	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	10407.88	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	389.70
10-20	1099.87
20-30	1621.72
30-40	1888.27
40-50	1886.98
50-60	1639.69
60-70	1179.82
70-80	586.77
80-90	115.07
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

X=2H	Y=2H	17.8	19.4	18.1	19.7	20.0	UGR Viewed Endwise			
	3H	19.3	20.7	19.7	21.0	21.4	17.8	19.4	18.2	19.8
	4H	19.8	21.1	20.2	21.5	21.8	19.5	20.9	19.8	21.2
	6H	20.0	21.3	20.4	21.6	22.0	20.0	21.3	20.4	21.7
	8H	20.1	21.3	20.5	21.7	22.1	20.3	21.5	20.7	21.9
	12H	20.1	21.2	20.5	21.6	22.0	20.3	21.5	20.8	21.9

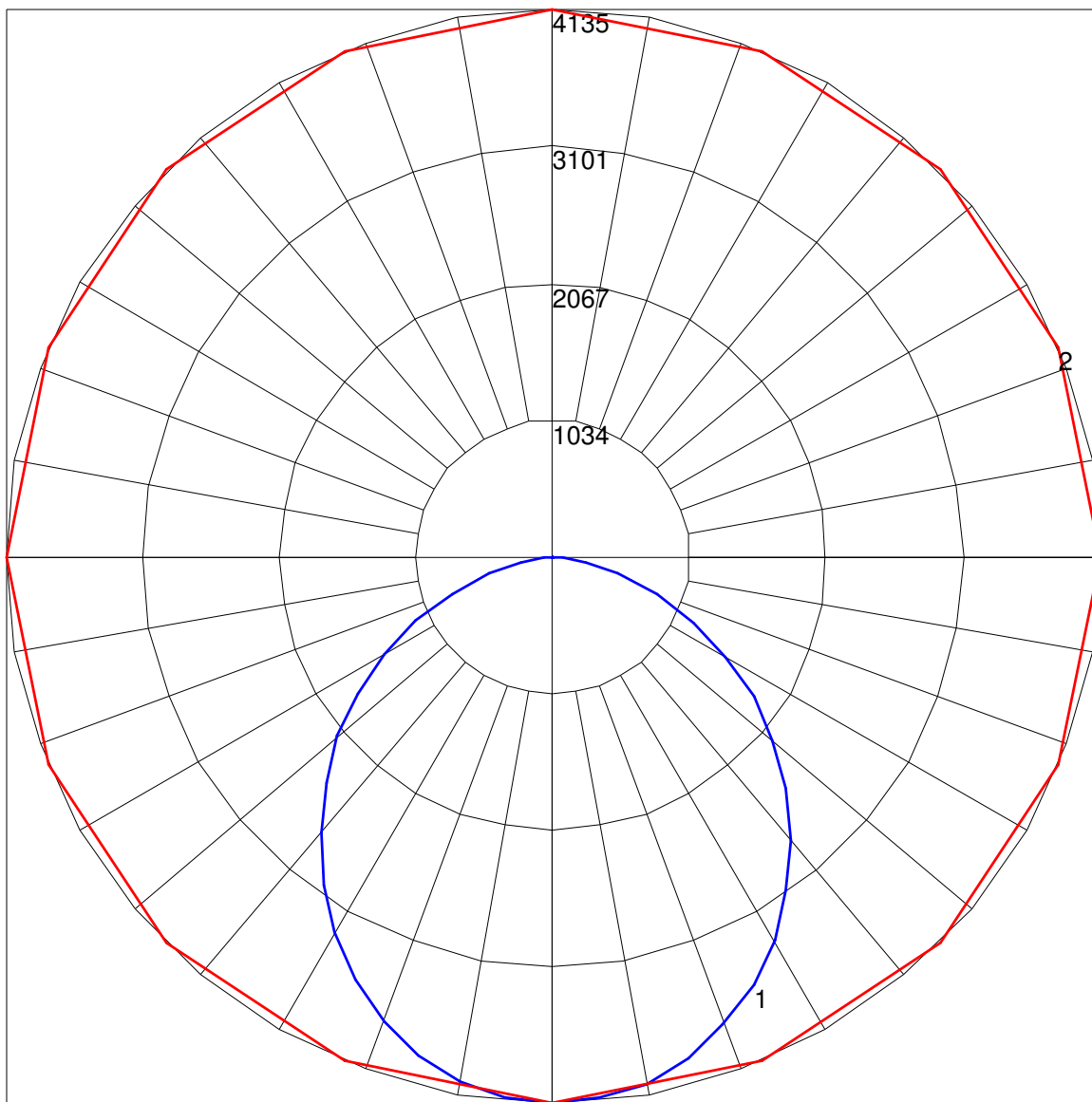
4H	2H	18.4	19.7	18.8	20.1	20.4	18.4	19.8	18.8	20.1
	3H	20.1	21.2	20.5	21.6	22.0	20.2	21.4	20.6	21.8
	4H	20.7	21.7	21.1	22.1	22.5	20.8	21.9	21.3	22.3
	6H	21.0	21.9	21.5	22.3	22.8	21.2	22.1	21.7	22.5
	8H	21.1	21.9	21.5	22.4	22.8	21.3	22.1	21.8	22.6
	12H	21.1	21.9	21.6	22.3	22.8	21.3	22.1	21.8	22.6

8H	4H	20.9	21.7	21.3	22.2	22.6	21.1	21.9	21.5	22.3
	6H	21.3	22.0	21.8	22.5	23.0	21.5	22.2	22.0	22.7
	8H	21.4	22.1	21.9	22.6	23.0	21.6	22.2	22.1	22.7
	12H	21.5	22.0	22.0	22.5	23.1	21.7	22.2	22.2	22.7

12H	4H	20.9	21.6	21.4	22.1	22.6	21.1	21.8	21.5	22.3
	6H	21.3	22.0	21.9	22.4	23.0	21.5	22.1	22.0	22.6
	8H	21.5	22.0	22.0	22.5	23.1	21.7	22.2	22.2	22.7

Maximum UGR = 23.3

POLAR GRAPH



Maximum Candela = 4134.774 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.)