

IES INDOOR REPORT

PHOTOMETRIC FILENAME : CMR2AENG-L33-835-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-L33-835-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	8999
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	115
Total Luminaire Watts	78.2
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.20
Spacing Criterion (90-270)	1.12
Spacing Criterion (Diagonal)	1.26
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	10876	10429	10139
55	9784	9536	9283
65	8454	8361	8124
75	6582	6311	5881
85	3808	1724	1091

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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	3805.314	3805.314	3805.314	3805.314	3805.314	3805.314	3805.314	3805.314	3805.314	3805.314
5	3791.377	3779.361	3779.327	3768.683	3761.979	3766.416	3775.044	3772.810	3784.934	3773.242
10	3723.239	3709.436	3694.186	3671.792	3658.363	3667.365	3685.476	3696.660	3708.123	3695.688
15	3609.113	3587.469	3556.619	3516.812	3494.868	3510.226	3542.907	3566.739	3582.947	3564.327
20	3450.515	3422.767	3370.598	3317.953	3282.609	3309.207	3351.451	3392.715	3410.781	3388.432
25	3255.582	3220.479	3152.949	3084.725	3053.314	3073.820	3127.504	3179.414	3200.696	3173.547
30	3021.403	2983.610	2905.360	2839.980	2807.526	2827.096	2873.076	2930.955	2954.028	2924.441
35	2764.523	2724.127	2644.370	2582.076	2555.297	2567.535	2605.392	2662.439	2690.166	2656.932
40	2488.150	2447.982	2371.330	2320.788	2299.871	2305.060	2326.989	2382.192	2413.390	2378.161
45	2190.162	2159.127	2100.146	2060.600	2041.795	2043.756	2053.466	2093.581	2118.004	2090.806
50	1894.159	1872.207	1830.934	1793.901	1778.453	1776.374	1785.539	1811.196	1827.461	1809.260
55	1598.130	1585.907	1557.609	1524.249	1516.280	1506.758	1516.159	1531.846	1539.048	1530.431
60	1304.837	1306.659	1279.349	1258.482	1250.154	1242.041	1244.287	1260.893	1254.296	1259.770
65	1017.437	1030.399	1006.224	985.733	977.778	971.441	978.616	993.876	976.105	992.919
70	741.318	758.753	732.455	711.112	701.789	700.668	713.319	732.239	709.610	731.498
75	485.170	497.222	465.158	442.516	433.447	437.096	454.483	480.429	463.057	479.900
80	263.161	262.558	225.861	198.297	184.869	196.886	222.161	254.615	249.993	254.298
85	94.513	76.069	42.779	28.676	27.087	28.622	42.373	74.572	89.247	74.428
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	3805.314	3805.314	3805.314	3805.314	3805.314	3805.314	3805.314
5	3775.188	3766.560	3762.123	3768.683	3778.463	3777.597	3791.377
10	3685.044	3667.222	3658.650	3671.720	3693.250	3707.457	3723.239
15	3541.755	3509.722	3495.048	3516.776	3555.684	3585.418	3609.113
20	3349.292	3308.415	3282.717	3317.665	3369.806	3420.752	3450.515
25	3124.229	3072.525	3053.458	3084.258	3151.726	3218.247	3255.582
30	2868.793	2825.332	2807.454	2839.440	2904.028	2981.090	3021.403
35	2600.173	2565.160	2554.974	2581.716	2642.642	2721.463	2764.523
40	2321.950	2302.324	2299.115	2320.716	2369.278	2444.815	2488.150
45	2049.471	2040.481	2041.147	2060.240	2098.022	2155.276	2190.162
50	1782.509	1772.991	1777.590	1793.290	1829.063	1868.320	1894.159
55	1514.176	1503.374	1515.488	1523.601	1555.522	1582.092	1598.130
60	1242.916	1238.957	1249.614	1258.014	1277.297	1302.664	1304.837

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CANDELA TABULATION - (Cont.)

65	977.633	968.954	977.213	985.193	1004.281	1026.548	1017.437
70	712.671	699.192	701.303	710.684	730.540	755.233	741.318
75	454.098	436.433	433.317	442.311	463.632	494.076	485.170
80	221.988	196.699	184.944	198.254	224.954	260.100	263.161
85	42.344	28.629	27.163	28.755	42.560	75.119	94.513
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	1355.65	N.A.	15.10
0-30	2800.62	N.A.	31.10
0-40	4447.62	N.A.	49.40
0-60	7435.59	N.A.	82.60
0-80	8910.07	N.A.	99.00
0-90	8999.26	N.A.	100.00
10-90	8641.75	N.A.	96.00
20-40	3091.96	N.A.	34.40
20-50	4703.82	N.A.	52.30
40-70	3970.3	N.A.	44.10
60-80	1474.48	N.A.	16.40
70-80	492.16	N.A.	5.50
80-90	89.19	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	8999.26	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	357.51
10-20	998.14
20-30	1444.97
30-40	1647.00
40-50	1611.86
50-60	1376.11
60-70	982.33
70-80	492.16
80-90	89.19
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	99	96	99	96	93	95	92	90	91	89	87	85
2	100	92	86	80	98	90	85	80	87	82	78	84	80	76	81	77	74	72
3	92	82	74	68	89	80	73	67	77	71	66	74	69	65	72	67	64	61
4	84	73	64	58	82	71	64	57	69	62	57	67	61	56	64	59	55	53
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46
6	72	59	50	44	70	58	50	44	56	49	44	55	48	43	53	47	43	41
7	67	54	45	39	65	53	45	39	51	44	39	50	43	38	49	43	38	36
8	62	49	41	35	61	48	41	35	47	40	35	46	39	35	45	39	34	33
9	58	45	37	32	57	45	37	32	43	36	32	42	36	31	41	36	31	29
10	55	42	34	29	53	41	34	29	40	33	29	39	33	29	38	33	28	27

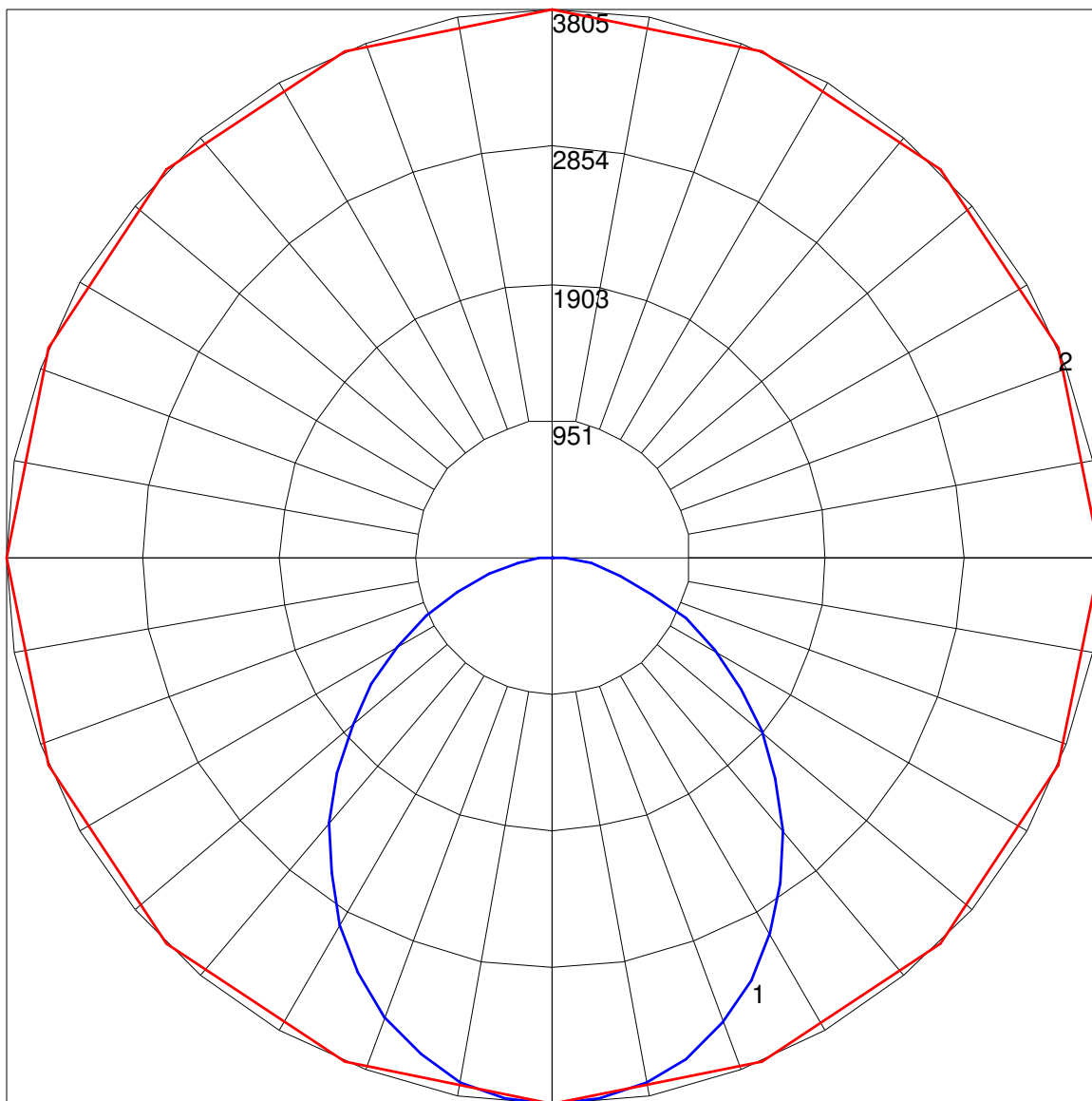
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UGR TABLE - CORRECTED

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	19.9	21.5	20.3	21.8	22.1	19.6	21.2	20.0	21.5	21.8
	3H	21.5	22.9	21.9	23.2	23.6	21.2	22.6	21.5	22.9	23.3
	4H	22.0	23.4	22.4	23.7	24.1	21.6	23.0	22.0	23.3	23.7
	6H	22.4	23.6	22.8	24.0	24.4	21.9	23.1	22.3	23.5	23.9
	8H	22.5	23.6	22.9	24.0	24.4	21.9	23.1	22.3	23.5	23.9
	12H	22.5	23.6	22.9	24.0	24.4	21.9	23.0	22.3	23.4	23.8
4H	2H	20.5	21.8	20.9	22.1	22.5	20.2	21.5	20.6	21.9	22.3
	3H	22.3	23.4	22.7	23.8	24.2	21.9	23.1	22.4	23.5	23.9
	4H	22.9	23.9	23.3	24.3	24.8	22.5	23.5	23.0	23.9	24.4
	6H	23.4	24.2	23.8	24.7	25.1	22.8	23.7	23.3	24.1	24.6
	8H	23.5	24.3	23.9	24.7	25.2	22.9	23.7	23.3	24.1	24.6
	12H	23.5	24.3	24.0	24.7	25.2	22.9	23.6	23.3	24.1	24.5
8H	4H	23.1	23.9	23.6	24.4	24.8	22.7	23.6	23.2	24.0	24.5
	6H	23.6	24.3	24.1	24.8	25.3	23.1	23.8	23.6	24.3	24.7
	8H	23.8	24.4	24.3	24.9	25.4	23.2	23.8	23.7	24.3	24.8
	12H	23.9	24.4	24.4	24.9	25.5	23.2	23.7	23.7	24.2	24.8
12H	4H	23.1	23.8	23.6	24.3	24.8	22.8	23.5	23.2	24.0	24.4
	6H	23.7	24.3	24.2	24.7	25.3	23.1	23.7	23.7	24.2	24.7
	8H	23.8	24.4	24.3	24.9	25.4	23.2	23.8	23.7	24.2	24.8

Maximum UGR = 25.5

POLAR GRAPH



Maximum Candela = 3805.314 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.)