

IES INDOOR REPORT

PHOTOMETRIC FILENAME : CMR2AENG-L33-935-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-L33-935-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	7469
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	96
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	9027	8656	8416
55	8121	7915	7705
65	7017	6939	6743
75	5463	5238	4881
85	3161	1431	906

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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	3158.411	3158.411	3158.411	3158.411	3158.411	3158.411	3158.411	3158.411	3158.411	3158.411
5	3146.843	3136.869	3136.841	3128.007	3122.443	3126.125	3133.287	3131.433	3141.495	3131.791
10	3090.288	3078.832	3066.174	3047.588	3036.441	3043.913	3058.945	3068.228	3077.742	3067.421
15	2995.564	2977.600	2951.994	2918.954	2900.741	2913.487	2940.613	2960.393	2973.846	2958.392
20	2863.927	2840.897	2797.596	2753.901	2724.565	2746.642	2781.704	2815.953	2830.948	2812.399
25	2702.133	2672.997	2616.948	2560.322	2534.251	2551.271	2595.828	2638.913	2656.578	2634.044
30	2507.764	2476.396	2411.448	2357.184	2330.246	2346.489	2384.653	2432.693	2451.843	2427.286
35	2294.554	2261.025	2194.827	2143.123	2120.897	2131.054	2162.475	2209.824	2232.838	2205.254
40	2065.164	2031.825	1968.204	1926.254	1908.893	1913.200	1931.401	1977.219	2003.114	1973.873
45	1817.834	1792.076	1743.121	1710.298	1694.690	1696.318	1704.377	1737.672	1757.944	1735.369
50	1572.152	1553.932	1519.676	1488.938	1476.116	1474.390	1481.998	1503.293	1516.792	1501.686
55	1326.448	1316.303	1292.816	1265.127	1258.512	1250.609	1258.412	1271.432	1277.410	1270.258
60	1083.015	1084.527	1061.860	1044.540	1037.628	1030.894	1032.758	1046.541	1041.065	1045.609
65	844.472	855.232	835.166	818.158	811.556	806.296	812.251	824.917	810.167	824.123
70	615.294	629.765	607.938	590.223	582.485	581.554	592.055	607.758	588.976	607.143
75	402.691	412.694	386.081	367.288	359.761	362.789	377.221	398.756	384.337	398.317
80	218.424	217.923	187.465	164.586	153.441	163.415	184.394	211.330	207.494	211.068
85	78.446	63.138	35.507	23.801	22.482	23.756	35.169	61.895	74.075	61.775
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	3158.411	3158.411	3158.411	3158.411	3158.411	3158.411	3158.411
5	3133.406	3126.245	3122.562	3128.007	3136.125	3135.406	3146.843
10	3058.587	3043.794	3036.680	3047.528	3065.398	3077.189	3090.288
15	2939.657	2913.069	2900.890	2918.924	2951.217	2975.897	2995.564
20	2779.912	2745.985	2724.655	2753.662	2796.939	2839.224	2863.927
25	2593.110	2550.195	2534.370	2559.934	2615.932	2671.145	2702.133
30	2381.098	2345.026	2330.187	2356.736	2410.343	2474.305	2507.764
35	2158.144	2129.083	2120.628	2142.824	2193.393	2258.814	2294.554
40	1927.219	1910.929	1908.266	1926.194	1966.501	2029.197	2065.164
45	1701.061	1693.599	1694.152	1709.999	1741.358	1788.879	1817.834
50	1479.482	1471.582	1475.399	1488.430	1518.122	1550.706	1572.152
55	1256.766	1247.801	1257.855	1264.589	1291.083	1313.137	1326.448
60	1031.620	1028.334	1037.180	1044.152	1060.157	1081.211	1083.015

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CANDELA TABULATION - (Cont.)

65	811.436	804.232	811.087	817.710	833.553	852.035	844.472
70	591.517	580.330	582.082	589.868	606.349	626.844	615.294
75	376.901	362.240	359.653	367.118	384.814	410.083	402.691
80	184.250	163.260	153.504	164.550	186.712	215.883	218.424
85	35.145	23.762	22.545	23.867	35.325	62.349	78.446
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	1125.19	N.A.	15.10
0-30	2324.51	N.A.	31.10
0-40	3691.52	N.A.	49.40
0-60	6171.54	N.A.	82.60
0-80	7395.36	N.A.	99.00
0-90	7469.39	N.A.	100.00
10-90	7172.65	N.A.	96.00
20-40	2566.33	N.A.	34.40
20-50	3904.17	N.A.	52.30
40-70	3295.35	N.A.	44.10
60-80	1223.82	N.A.	16.40
70-80	408.49	N.A.	5.50
80-90	74.03	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	7469.39	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	296.73
10-20	828.46
20-30	1199.32
30-40	1367.01
40-50	1337.84
50-60	1142.17
60-70	815.33
70-80	408.49
80-90	74.03
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

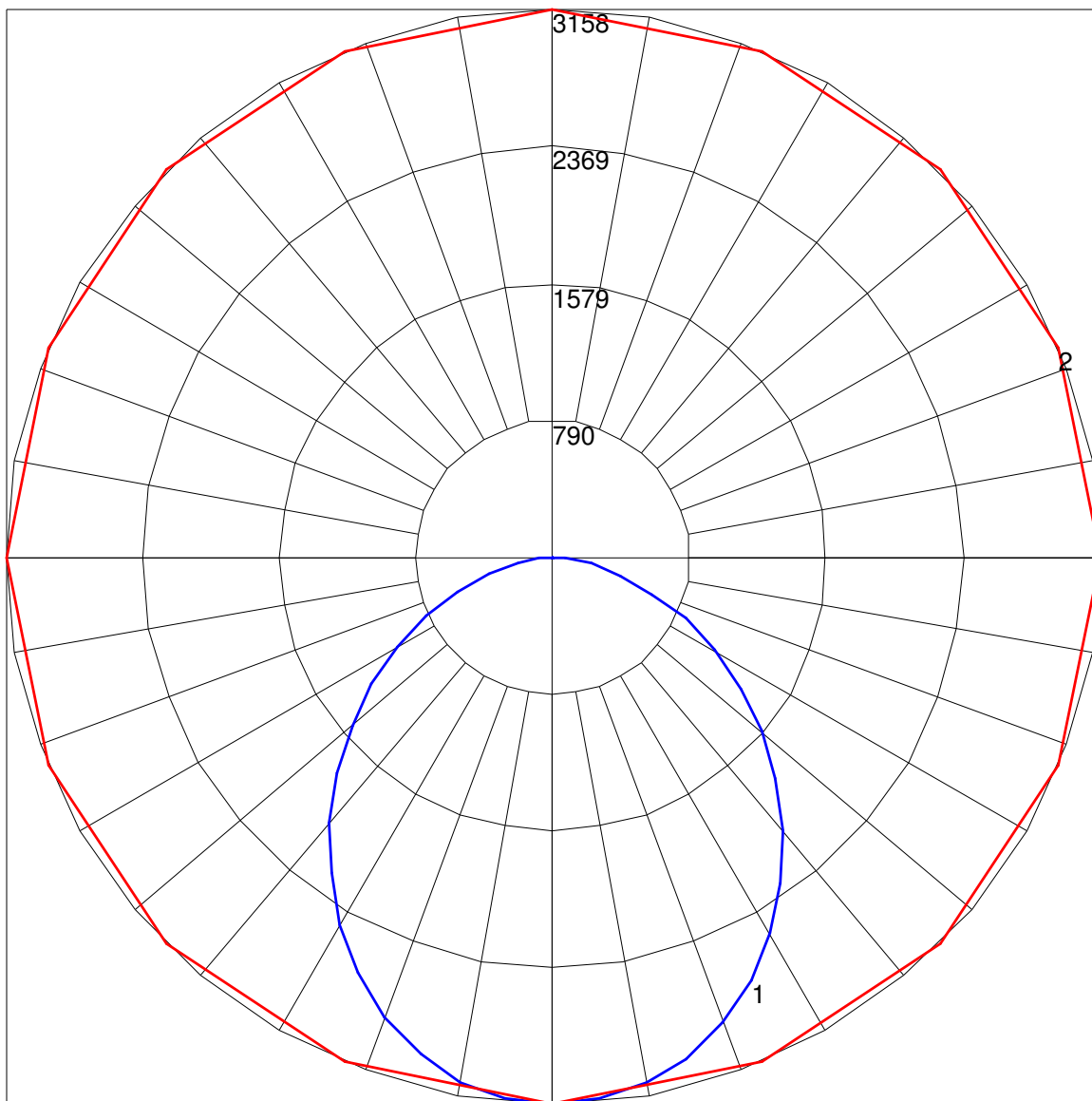
Reflectances

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	19.3	20.9	19.7	21.2	21.5	19.0	20.6	19.4	20.9	21.2
	3H	20.9	22.3	21.3	22.6	23.0	20.6	22.0	20.9	22.3	22.7
	4H	21.4	22.8	21.8	23.1	23.5	21.0	22.4	21.4	22.7	23.1
	6H	21.8	23.0	22.2	23.4	23.8	21.3	22.5	21.7	22.9	23.3
	8H	21.9	23.0	22.3	23.4	23.8	21.3	22.5	21.7	22.9	23.3
	12H	21.9	23.0	22.3	23.4	23.8	21.3	22.4	21.7	22.8	23.2
4H	2H	19.9	21.2	20.3	21.5	21.9	19.6	20.9	20.0	21.3	21.7
	3H	21.7	22.8	22.1	23.2	23.6	21.3	22.5	21.8	22.9	23.3
	4H	22.3	23.3	22.7	23.7	24.2	21.9	22.9	22.4	23.3	23.8
	6H	22.8	23.6	23.2	24.1	24.5	22.2	23.1	22.7	23.5	24.0
	8H	22.9	23.7	23.3	24.1	24.6	22.3	23.1	22.7	23.5	24.0
	12H	22.9	23.7	23.4	24.1	24.6	22.3	23.0	22.7	23.5	23.9
8H	4H	22.5	23.3	23.0	23.8	24.2	22.1	23.0	22.6	23.4	23.9
	6H	23.0	23.7	23.5	24.2	24.7	22.5	23.2	23.0	23.7	24.1
	8H	23.2	23.8	23.7	24.3	24.8	22.6	23.2	23.1	23.7	24.2
	12H	23.3	23.8	23.8	24.3	24.9	22.6	23.1	23.1	23.6	24.2
12H	4H	22.5	23.2	23.0	23.7	24.2	22.2	22.9	22.6	23.4	23.8
	6H	23.1	23.7	23.6	24.1	24.7	22.5	23.1	23.1	23.6	24.1
	8H	23.2	23.8	23.7	24.3	24.8	22.6	23.2	23.1	23.6	24.2

Maximum UGR = 24.9

POLAR GRAPH



Maximum Candela = 3158.411 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.)