

IES INDOOR REPORT

PHOTOMETRIC FILENAME : CMR2AENG-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] CMR2AENG-L33-927-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	7199
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	92
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	8701	8343	8112
55	7827	7629	7426
65	6763	6688	6499
75	5266	5049	4705
85	3046	1379	873

IES INDOOR REPORT
PHOTOMETRIC FILENAME : CMR2AENG-L33-927-CA-DIM-UNV_.IES

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	3044.251	3044.251	3044.251	3044.251	3044.251	3044.251	3044.251	3044.251	3044.251	3044.251
5	3033.101	3023.489	3023.462	3014.947	3009.584	3013.133	3020.035	3018.248	3027.947	3018.594
10	2978.591	2967.549	2955.349	2937.434	2926.690	2933.892	2948.381	2957.328	2966.498	2956.550
15	2887.290	2869.975	2845.296	2813.450	2795.895	2808.181	2834.326	2853.391	2866.358	2851.462
20	2760.412	2738.214	2696.478	2654.362	2626.087	2647.366	2681.161	2714.172	2728.625	2710.746
25	2604.465	2576.383	2522.359	2467.780	2442.651	2459.056	2502.003	2543.531	2560.557	2538.838
30	2417.122	2386.888	2324.288	2271.984	2246.021	2261.676	2298.461	2344.764	2363.223	2339.553
35	2211.618	2179.301	2115.496	2065.660	2044.238	2054.028	2084.314	2129.951	2152.133	2125.546
40	1990.520	1958.386	1897.064	1856.630	1839.897	1844.048	1861.591	1905.753	1930.712	1902.528
45	1752.130	1727.302	1680.117	1648.480	1633.436	1635.005	1642.773	1674.865	1694.403	1672.645
50	1515.327	1497.766	1464.748	1435.121	1422.763	1421.099	1428.432	1448.957	1461.969	1447.408
55	1278.504	1268.726	1246.087	1219.399	1213.024	1205.406	1212.927	1225.477	1231.238	1224.345
60	1043.870	1045.327	1023.479	1006.785	1000.123	993.633	995.429	1008.714	1003.437	1007.816
65	813.949	824.320	804.979	788.586	782.223	777.153	782.893	795.101	780.884	794.335
70	593.054	607.003	585.964	568.890	561.431	560.534	570.655	585.791	567.688	585.198
75	388.136	397.777	372.126	354.013	346.757	349.676	363.586	384.343	370.446	383.920
80	210.529	210.047	180.689	158.637	147.895	157.509	177.729	203.692	199.994	203.439
85	75.610	60.856	34.223	22.941	21.670	22.898	33.898	59.658	71.398	59.543
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	3044.251	3044.251	3044.251	3044.251	3044.251	3044.251	3044.251
5	3020.151	3013.248	3009.699	3014.947	3022.771	3022.078	3033.101
10	2948.036	2933.777	2926.920	2937.376	2954.600	2965.966	2978.591
15	2833.404	2807.778	2796.039	2813.421	2844.547	2868.334	2887.290
20	2679.433	2646.732	2626.173	2654.132	2695.845	2736.601	2760.412
25	2499.383	2458.020	2442.766	2467.406	2521.381	2574.598	2604.465
30	2295.034	2260.266	2245.963	2271.552	2323.222	2384.872	2417.122
35	2080.139	2052.128	2043.979	2065.373	2114.114	2177.171	2211.618
40	1857.560	1841.860	1839.292	1856.572	1895.422	1955.852	1990.520
45	1639.577	1632.385	1632.918	1648.192	1678.418	1724.221	1752.130
50	1426.007	1418.393	1422.072	1434.632	1463.250	1494.656	1515.327
55	1211.341	1202.700	1212.390	1218.881	1244.418	1265.674	1278.504
60	994.332	991.166	999.692	1006.411	1021.838	1042.131	1043.870

IES INDOOR REPORT
PHOTOMETRIC FILENAME : CMR2AENG-L33-927-CA-DIM-UNV_.IES

CANDELA TABULATION - (Cont.)

65	782.107	775.163	781.770	788.154	803.425	821.239	813.949
70	570.137	559.354	561.043	568.547	584.432	604.187	593.054
75	363.278	349.147	346.654	353.848	370.905	395.261	388.136
80	177.591	157.359	147.956	158.603	179.963	208.080	210.529
85	33.875	22.904	21.730	23.004	34.048	60.095	75.610
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

IES INDOOR REPORT
PHOTOMETRIC FILENAME : CMR2AENG-L33-927-CA-DIM-UNV_.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	1084.52	N.A.	15.10
0-30	2240.5	N.A.	31.10
0-40	3558.09	N.A.	49.40
0-60	5948.47	N.A.	82.60
0-80	7128.06	N.A.	99.00
0-90	7199.41	N.A.	100.00
10-90	6913.4	N.A.	96.00
20-40	2473.57	N.A.	34.40
20-50	3763.06	N.A.	52.30
40-70	3176.24	N.A.	44.10
60-80	1179.59	N.A.	16.40
70-80	393.73	N.A.	5.50
80-90	71.35	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	7199.41	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	286.01
10-20	798.52
20-30	1155.97
30-40	1317.6
40-50	1289.49
50-60	1100.89
60-70	785.86
70-80	393.73
80-90	71.35
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

IES INDOOR REPORT
PHOTOMETRIC FILENAME : CMR2AENG-L33-927-CA-DIM-UNV_.IES

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

IES INDOOR REPORT
PHOTOMETRIC FILENAME : CMR2AENG-L33-927-CA-DIM-UNV_.IES

UGR TABLE - CORRECTED

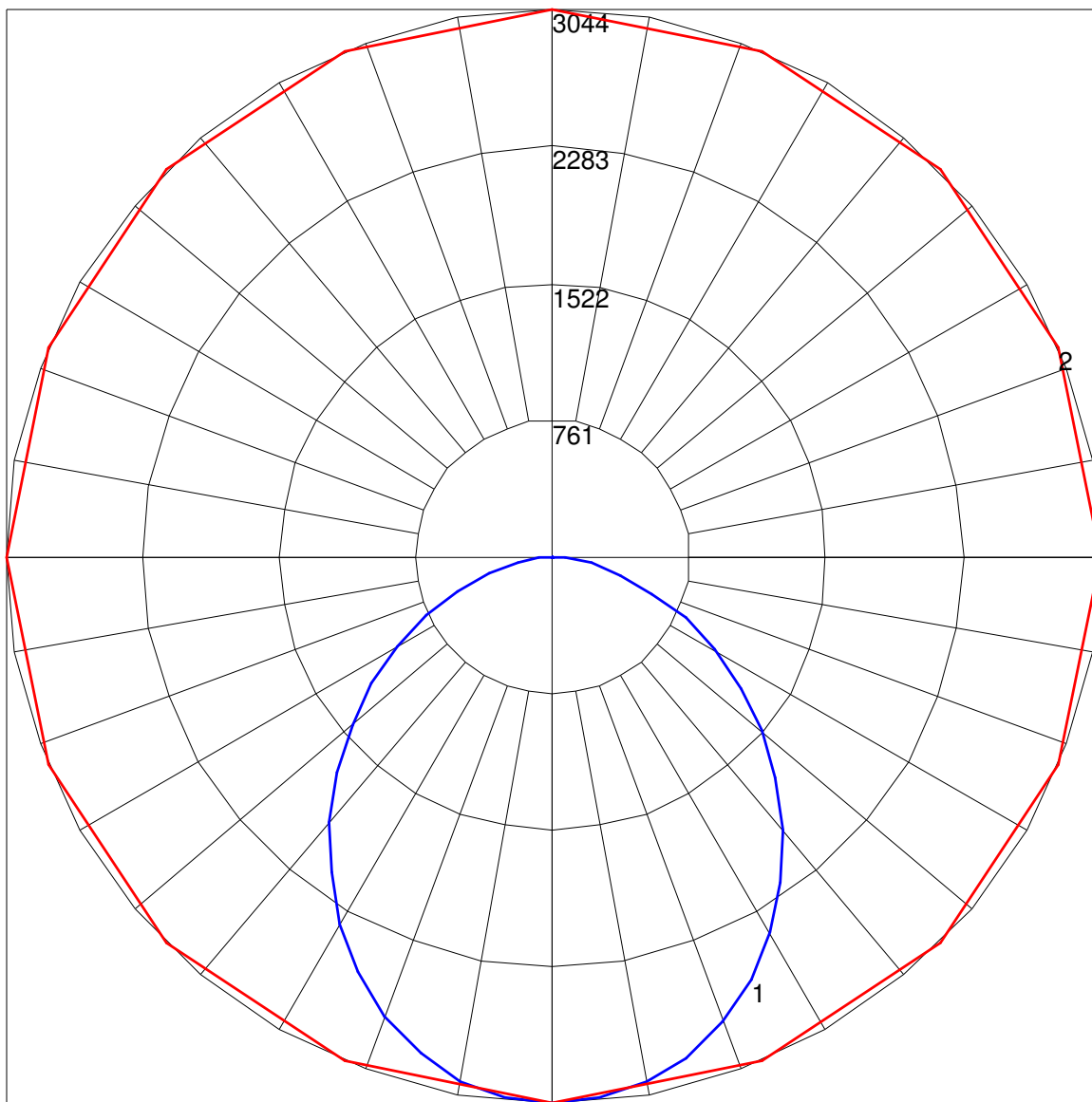
Reflectances

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	19.2	20.8	19.6	21.1	21.4	18.9	20.5	19.3	20.8	21.1
	3H	20.8	22.2	21.2	22.5	22.9	20.5	21.9	20.8	22.2	22.6
	4H	21.3	22.7	21.7	23.0	23.4	20.9	22.3	21.3	22.6	23.0
	6H	21.7	22.9	22.1	23.3	23.7	21.2	22.4	21.6	22.8	23.2
	8H	21.8	22.9	22.2	23.3	23.7	21.2	22.4	21.6	22.8	23.2
	12H	21.8	22.9	22.2	23.3	23.7	21.2	22.3	21.6	22.7	23.1
4H	2H	19.8	21.1	20.2	21.4	21.8	19.5	20.8	19.9	21.2	21.6
	3H	21.6	22.7	22.0	23.1	23.5	21.2	22.4	21.7	22.8	23.2
	4H	22.2	23.2	22.6	23.6	24.1	21.8	22.8	22.3	23.2	23.7
	6H	22.7	23.5	23.1	24.0	24.4	22.1	23.0	22.6	23.4	23.9
	8H	22.8	23.6	23.2	24.0	24.5	22.2	23.0	22.6	23.4	23.9
	12H	22.8	23.6	23.3	24.0	24.5	22.2	22.9	22.6	23.4	23.8
8H	4H	22.4	23.2	22.9	23.7	24.1	22.0	22.9	22.5	23.3	23.8
	6H	22.9	23.6	23.4	24.1	24.6	22.4	23.1	22.9	23.6	24.0
	8H	23.1	23.7	23.6	24.2	24.7	22.5	23.1	23.0	23.6	24.1
	12H	23.2	23.7	23.7	24.2	24.8	22.5	23.0	23.0	23.5	24.1
12H	4H	22.4	23.1	22.9	23.6	24.1	22.1	22.8	22.5	23.3	23.7
	6H	23.0	23.6	23.5	24.0	24.6	22.4	23.0	23.0	23.5	24.0
	8H	23.1	23.7	23.6	24.2	24.7	22.5	23.1	23.0	23.5	24.1

Maximum UGR = 24.8

POLAR GRAPH



Maximum Candela = 3044.251 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.)