

IES INDOOR REPORT

PHOTOMETRIC FILENAME : CMR2AENG-L17-827-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-L17-827-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	7173
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	108
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	8964	8282	7749
55	8021	7403	6828
65	6920	6306	5780
75	5456	4658	4104
85	3330	1300	787

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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	3173.110	3173.110	3173.110	3173.110	3173.110	3173.110	3173.110	3173.110	3173.110	3173.110
5	3161.531	3150.846	3150.425	3140.295	3132.628	3138.095	3146.270	3144.492	3155.282	3144.911
10	3103.780	3090.198	3074.047	3049.803	3035.224	3045.509	3065.598	3077.805	3089.118	3076.862
15	3007.824	2985.666	2950.502	2906.457	2883.425	2900.068	2937.201	2965.557	2982.443	2963.218
20	2873.774	2843.367	2784.614	2722.682	2688.787	2714.199	2766.041	2814.216	2835.232	2810.062
25	2708.166	2669.460	2589.792	2510.422	2475.490	2499.844	2565.110	2629.626	2654.927	2623.936
30	2508.370	2465.890	2370.585	2286.406	2248.135	2273.908	2339.270	2414.815	2443.017	2408.496
35	2290.628	2242.907	2140.514	2053.313	2017.831	2039.209	2102.705	2183.070	2218.502	2177.728
40	2057.277	2006.867	1901.664	1820.430	1788.305	1805.174	1858.654	1943.050	1984.760	1939.140
45	1805.093	1761.020	1667.719	1593.465	1560.479	1577.127	1622.440	1697.440	1735.100	1694.748
50	1556.775	1519.184	1438.210	1363.871	1333.753	1346.870	1394.177	1460.003	1492.078	1458.125
55	1310.178	1280.666	1209.173	1138.591	1115.339	1121.624	1168.966	1228.226	1252.869	1226.854
60	1067.787	1049.376	979.424	923.094	902.793	907.147	945.414	1004.983	1018.762	1003.894
65	832.839	824.303	758.924	711.884	695.631	698.021	732.144	788.875	792.747	787.947
70	609.377	604.733	545.018	507.222	493.658	497.090	526.456	579.014	578.621	578.295
75	402.163	394.917	343.326	313.039	302.477	307.782	332.971	378.627	380.713	378.114
80	222.283	208.969	166.543	141.843	131.729	140.475	162.955	201.264	209.509	200.957
85	82.655	61.525	32.260	20.559	19.542	20.507	31.866	60.073	77.548	59.933
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	3173.110	3173.110	3173.110	3173.110	3173.110	3173.110	3173.110
5	3146.410	3138.235	3132.767	3140.295	3149.587	3149.135	3161.531
10	3065.180	3045.369	3035.503	3049.733	3073.139	3088.278	3103.780
15	2936.084	2899.579	2883.600	2906.422	2949.595	2983.676	3007.824
20	2763.946	2713.431	2688.892	2722.403	2783.845	2841.412	2873.774
25	2561.933	2498.587	2475.629	2509.968	2588.605	2667.295	2708.166
30	2335.115	2272.198	2248.065	2285.883	2369.293	2463.446	2508.370
35	2097.643	2036.905	2017.517	2052.964	2138.838	2240.323	2290.628
40	1853.766	1802.521	1787.572	1820.360	1899.674	2003.795	2057.277
45	1618.565	1573.950	1559.850	1593.116	1665.659	1757.284	1805.093
50	1391.238	1343.588	1332.915	1363.278	1436.395	1515.414	1556.775
55	1167.043	1118.343	1114.571	1137.963	1207.149	1276.965	1310.178
60	944.083	904.155	902.269	922.640	977.434	1045.501	1067.787

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CANDELA TABULATION - (Cont.)

65	731.191	695.609	695.083	711.361	757.039	820.568	832.839
70	525.827	495.659	493.186	506.806	543.160	601.319	609.377
75	332.597	307.139	302.351	312.840	341.845	391.865	402.163
80	162.787	140.293	131.802	141.801	165.664	206.585	222.283
85	31.838	20.514	19.615	20.636	32.047	60.603	82.655
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	1124.89	N.A.	15.70
0-30	2310.52	N.A.	32.20
0-40	3641.92	N.A.	50.80
0-60	5988.23	N.A.	83.50
0-80	7104.68	N.A.	99.00
0-90	7173.35	N.A.	100.00
10-90	6875.61	N.A.	95.80
20-40	2517.04	N.A.	35.10
20-50	3795.55	N.A.	52.90
40-70	3092.54	N.A.	43.10
60-80	1116.44	N.A.	15.60
70-80	370.22	N.A.	5.20
80-90	68.68	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	7173.35	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	297.74
10-20	827.14
20-30	1185.63
30-40	1331.41
40-50	1278.52
50-60	1067.79
60-70	746.23
70-80	370.22
80-90	68.68
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

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

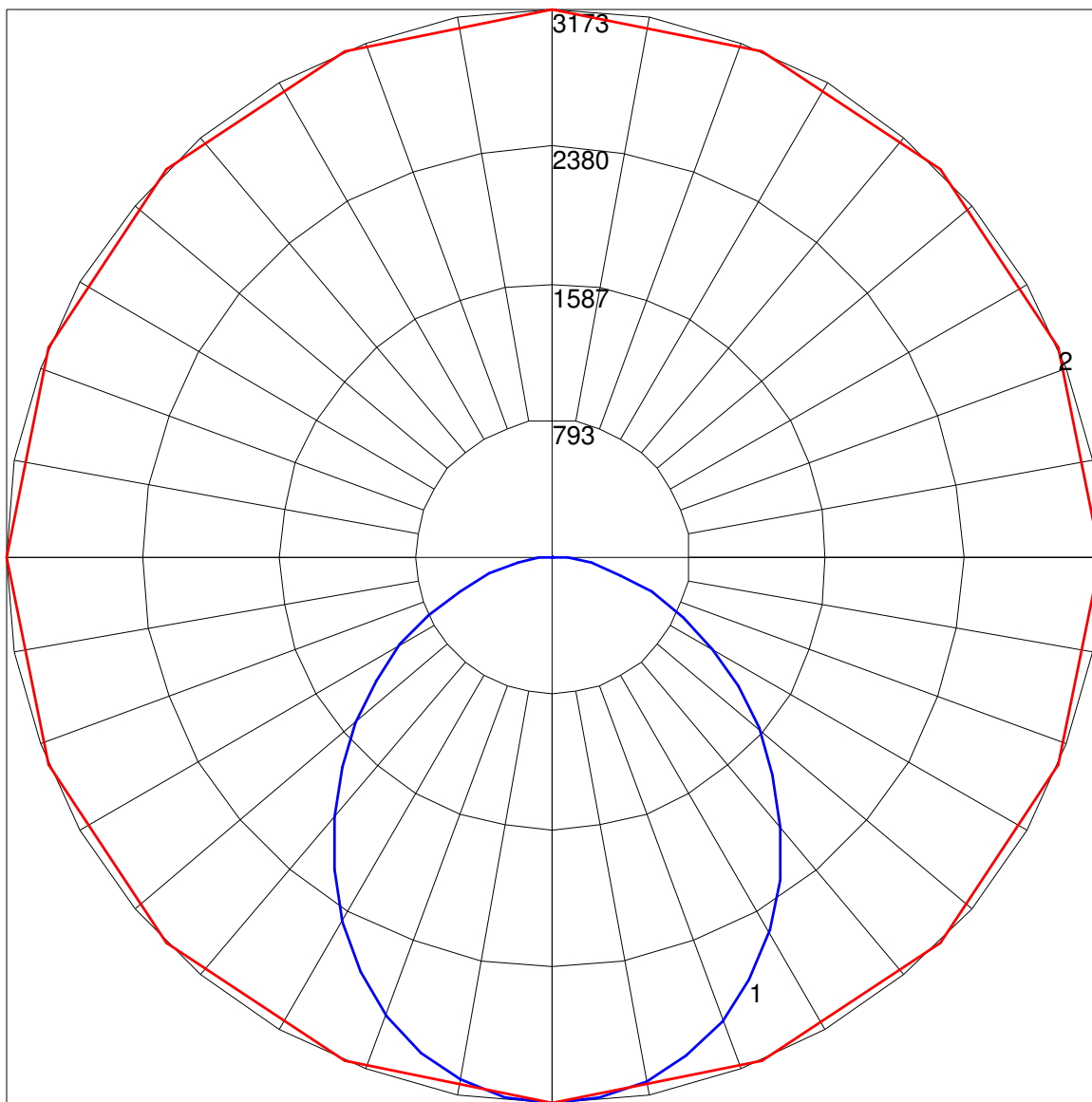
Reflectances

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	19.2	20.8	19.6	21.1	21.4	18.3	19.8	18.6	20.2	20.5
	3H	20.8	22.2	21.2	22.6	22.9	19.7	21.1	20.1	21.5	21.8
	4H	21.4	22.7	21.8	23.0	23.4	20.2	21.5	20.6	21.8	22.2
	6H	21.7	22.9	22.1	23.3	23.7	20.4	21.6	20.8	22.0	22.4
	8H	21.8	23.0	22.2	23.4	23.8	20.4	21.6	20.9	22.0	22.4
	12H	21.9	23.0	22.3	23.4	23.8	20.4	21.5	20.8	21.9	22.3
4H	2H	19.7	21.0	20.1	21.4	21.7	18.9	20.2	19.3	20.6	20.9
	3H	21.5	22.6	21.9	23.0	23.4	20.6	21.6	21.0	22.0	22.4
	4H	22.2	23.1	22.6	23.6	24.0	21.1	22.1	21.5	22.5	22.9
	6H	22.6	23.5	23.1	23.9	24.4	21.4	22.2	21.8	22.7	23.1
	8H	22.7	23.5	23.2	24.0	24.5	21.4	22.2	21.8	22.6	23.1
	12H	22.8	23.5	23.3	24.0	24.5	21.4	22.1	21.9	22.6	23.1
8H	4H	22.3	23.1	22.8	23.6	24.0	21.3	22.1	21.8	22.6	23.0
	6H	22.9	23.5	23.3	24.0	24.5	21.7	22.3	22.2	22.8	23.3
	8H	23.0	23.6	23.5	24.1	24.6	21.7	22.3	22.2	22.8	23.3
	12H	23.2	23.7	23.7	24.2	24.7	21.7	22.3	22.3	22.8	23.3
12H	4H	22.3	23.0	22.8	23.5	24.0	21.3	22.1	21.8	22.5	23.0
	6H	22.8	23.4	23.4	23.9	24.4	21.7	22.3	22.2	22.8	23.3
	8H	23.1	23.6	23.6	24.1	24.6	21.8	22.3	22.3	22.8	23.4

Maximum UGR = 24.7

POLAR GRAPH



Maximum Candela = 3173.11 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.)