

IES INDOOR REPORT

PHOTOMETRIC FILENAME : CMR2AENG-L33-930-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-L33-930-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	7379
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	94
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	8919	8552	8314
55	8023	7819	7612
65	6932	6856	6662
75	5398	5175	4822
85	3122	1413	895

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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	3120.358	3120.358	3120.358	3120.358	3120.358	3120.358	3120.358	3120.358	3120.358	3120.358
5	3108.929	3099.076	3099.048	3090.320	3084.823	3088.461	3095.536	3093.705	3103.646	3094.059
10	3053.056	3041.738	3029.233	3010.870	2999.857	3007.240	3022.091	3031.261	3040.661	3030.464
15	2959.472	2941.725	2916.428	2883.786	2865.792	2878.385	2905.184	2924.726	2938.017	2922.748
20	2829.422	2806.669	2763.890	2720.721	2691.739	2713.550	2748.190	2782.026	2796.840	2778.514
25	2669.577	2640.793	2585.418	2529.475	2503.717	2520.533	2564.553	2607.119	2624.571	2602.309
30	2477.550	2446.560	2382.395	2328.784	2302.171	2318.218	2355.922	2403.383	2422.303	2398.042
35	2266.909	2233.784	2168.383	2117.302	2095.344	2105.379	2136.421	2183.200	2205.936	2178.684
40	2040.283	2007.346	1944.490	1903.046	1885.894	1890.149	1908.131	1953.397	1978.980	1950.092
45	1795.933	1770.484	1722.119	1689.692	1674.272	1675.880	1683.842	1716.737	1736.764	1714.461
50	1553.210	1535.210	1501.366	1470.999	1458.332	1456.627	1464.142	1485.181	1498.518	1483.593
55	1310.467	1300.444	1277.240	1249.884	1243.349	1235.541	1243.250	1256.114	1262.019	1254.954
60	1069.967	1071.460	1049.066	1031.955	1025.127	1018.474	1020.315	1033.932	1028.522	1033.012
65	834.298	844.928	825.104	808.301	801.778	796.582	802.465	814.978	800.406	814.193
70	607.881	622.178	600.613	583.112	575.467	574.548	584.922	600.436	581.880	599.828
75	397.839	407.722	381.429	362.863	355.426	358.418	372.676	393.951	379.707	393.518
80	215.792	215.298	185.206	162.603	151.592	161.446	182.172	208.784	204.994	208.525
85	77.501	62.377	35.079	23.514	22.211	23.470	34.746	61.149	73.183	61.031
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	3120.358	3120.358	3120.358	3120.358	3120.358	3120.358	3120.358
5	3095.654	3088.579	3084.941	3090.320	3098.340	3097.630	3108.929
10	3021.736	3007.122	3000.093	3010.811	3028.465	3040.115	3053.056
15	2904.239	2877.972	2865.940	2883.756	2915.661	2940.043	2959.472
20	2746.419	2712.901	2691.828	2720.485	2763.241	2805.016	2829.422
25	2561.868	2519.470	2503.835	2529.091	2584.415	2638.963	2669.577
30	2352.410	2316.772	2302.112	2328.341	2381.303	2444.494	2477.550
35	2132.142	2103.431	2095.078	2117.007	2166.967	2231.600	2266.909
40	1903.999	1887.906	1885.274	1902.987	1942.808	2004.748	2040.283
45	1680.566	1673.195	1673.741	1689.397	1720.378	1767.327	1795.933
50	1461.657	1453.853	1457.623	1470.497	1499.832	1532.023	1553.210
55	1241.624	1232.767	1242.700	1249.353	1275.528	1297.316	1310.467
60	1019.191	1015.945	1024.684	1031.571	1047.384	1068.184	1069.967

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CANDELA TABULATION - (Cont.)

65	801.659	794.542	801.315	807.858	823.510	841.770	834.298
70	584.390	573.338	575.069	582.761	599.043	619.291	607.881
75	372.360	357.875	355.320	362.695	380.178	405.143	397.839
80	182.031	161.293	151.654	162.568	184.462	213.282	215.792
85	34.722	23.476	22.273	23.579	34.899	61.598	77.501
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	1111.64	N.A.	15.10
0-30	2296.51	N.A.	31.10
0-40	3647.04	N.A.	49.40
0-60	6097.18	N.A.	82.60
0-80	7306.26	N.A.	99.00
0-90	7379.39	N.A.	100.00
10-90	7086.24	N.A.	96.00
20-40	2535.41	N.A.	34.40
20-50	3857.13	N.A.	52.30
40-70	3255.65	N.A.	44.10
60-80	1209.08	N.A.	16.40
70-80	403.57	N.A.	5.50
80-90	73.14	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	7379.39	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	293.16
10-20	818.48
20-30	1184.87
30-40	1350.54
40-50	1321.73
50-60	1128.41
60-70	805.51
70-80	403.57
80-90	73.14
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

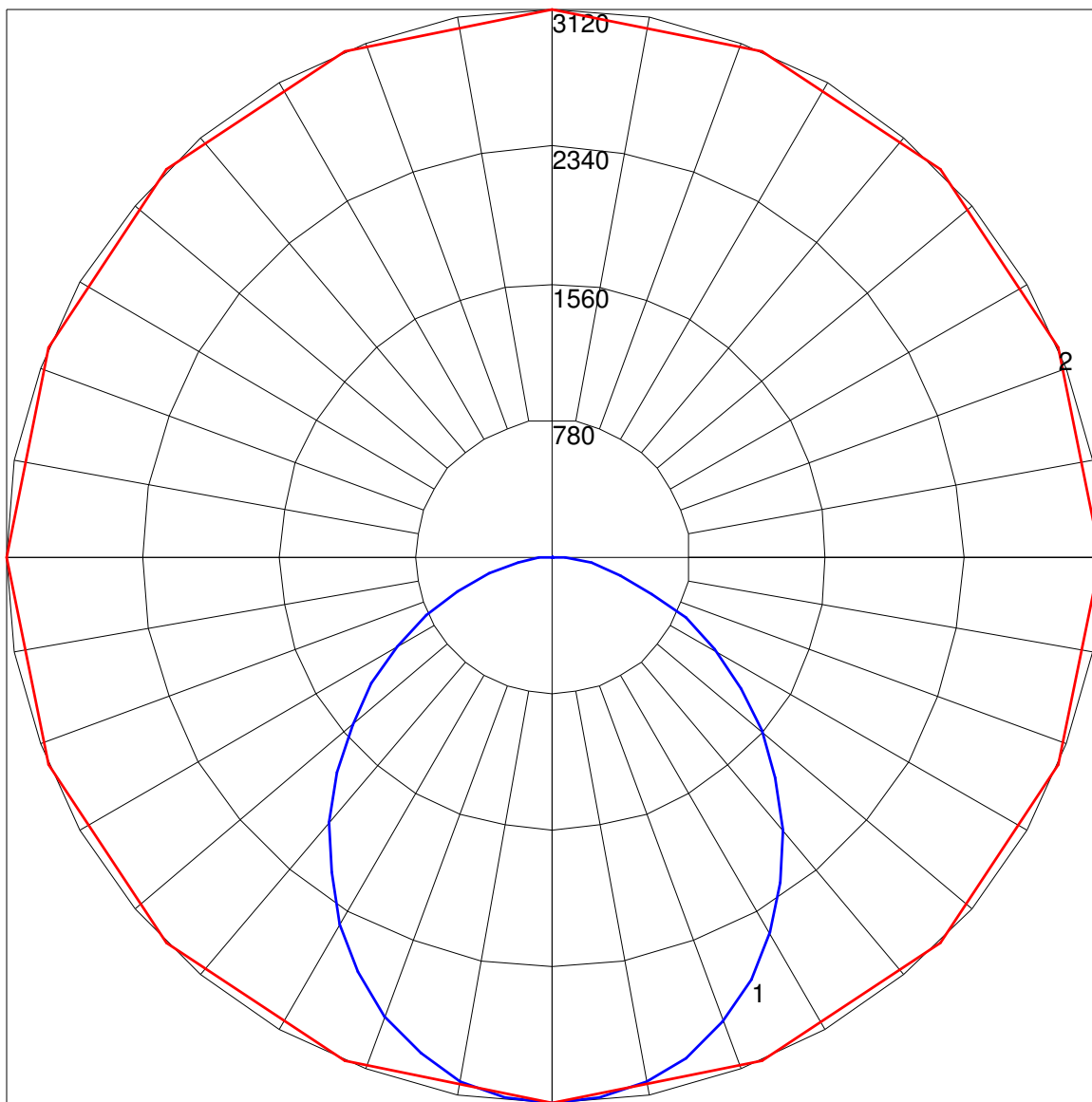
Reflectances

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	19.2	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 = 3120.358 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.)