

IES INDOOR REPORT

PHOTOMETRIC FILENAME : CMR4AENG-L33-850-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] CMR4AENG-L33-850-CA-DIM-UNV (A,E&N)

[LUMINAIRE] 2' x 4' 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	13790
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	124
Total Luminaire Watts	111.3
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.22
Spacing Criterion (90-270)	1.18
Spacing Criterion (Diagonal)	1.30
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	3.75 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	7649	7544	7492
55	6991	6994	7025
65	6026	6221	6299
75	4334	4713	4737
85	1732	1987	1882

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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	5478.575	5478.575	5478.575	5478.575	5478.575	5478.575	5478.575	5478.575	5478.575	5478.575
5	5458.551	5451.217	5445.036	5431.116	5453.509	5428.713	5440.496	5444.274	5451.722	5444.732
10	5366.961	5355.606	5344.656	5327.565	5338.959	5322.873	5335.424	5342.063	5350.938	5341.033
15	5213.858	5199.026	5178.039	5154.275	5162.957	5147.294	5163.504	5177.052	5186.123	5174.496
20	5003.638	4982.738	4953.029	4923.043	4917.393	4913.772	4932.733	4950.882	4961.521	4946.343
25	4742.250	4716.266	4678.706	4640.602	4636.658	4629.043	4651.734	4672.737	4684.071	4666.518
30	4435.287	4405.168	4361.095	4326.959	4314.064	4313.301	4326.874	4349.354	4363.870	4342.449
35	4086.823	4056.078	4013.212	3985.416	3972.237	3970.003	3971.896	3990.689	4008.005	3984.852
40	3703.908	3680.233	3642.658	3625.565	3607.195	3608.893	3595.657	3610.495	3624.663	3606.222
45	3300.634	3279.307	3255.365	3248.782	3232.699	3230.928	3205.884	3209.828	3224.147	3206.886
50	2883.320	2864.500	2856.346	2862.246	2852.515	2843.667	2808.227	2799.828	2812.620	2797.776
55	2447.056	2437.373	2448.001	2461.011	2458.847	2442.470	2404.063	2380.067	2384.429	2378.568
60	2000.526	2003.625	2028.863	2051.077	2056.825	2033.650	1991.697	1955.114	1946.952	1953.923
65	1554.072	1567.304	1604.373	1619.461	1624.459	1604.312	1575.108	1528.590	1510.260	1527.575
70	1103.090	1128.742	1167.990	1177.963	1178.753	1166.892	1147.705	1100.637	1069.480	1099.851
75	684.481	715.305	744.385	745.525	748.123	739.780	733.070	697.504	661.041	696.943
80	331.364	359.361	372.742	362.366	357.322	360.870	368.820	350.942	317.405	350.606
85	92.106	107.973	105.661	100.010	100.092	99.953	105.230	106.386	86.524	106.233
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	5478.575	5478.575	5478.575	5478.575	5478.575	5478.575	5478.575
5	5440.649	5428.866	5453.661	5431.116	5444.120	5449.348	5458.551
10	5334.966	5322.720	5339.264	5327.489	5343.664	5353.508	5366.961
15	5162.283	5146.760	5163.148	5154.237	5177.047	5196.852	5213.858
20	4930.444	4912.933	4917.507	4922.738	4952.190	4980.601	5003.638
25	4648.262	4627.669	4636.811	4640.106	4677.409	4713.900	4742.250
30	4322.334	4311.432	4313.987	4326.387	4359.683	4402.497	4435.287
35	3966.364	3967.485	3971.894	3985.034	4011.381	4053.255	4086.823
40	3590.316	3605.994	3606.394	3625.489	3640.484	3676.876	3703.908
45	3201.649	3227.457	3232.012	3248.401	3253.114	3275.224	3300.634
50	2805.015	2840.081	2851.599	2861.598	2854.362	2860.380	2883.320
55	2401.961	2438.884	2458.008	2460.324	2445.788	2433.329	2447.056
60	1990.243	2030.380	2056.252	2050.581	2026.688	1999.391	2000.526

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CANDELA TABULATION - (Cont.)

65	1574.067	1601.676	1623.860	1618.889	1602.313	1563.222	1554.072
70	1147.018	1165.328	1178.238	1177.509	1165.960	1125.011	1103.090
75	732.662	739.078	747.986	745.308	742.768	711.971	684.481
80	368.637	360.672	357.402	362.320	371.780	356.756	331.364
85	105.199	99.960	100.172	100.094	105.428	106.965	92.106
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	1973.68	N.A.	14.30
0-30	4122.45	N.A.	29.90
0-40	6624.41	N.A.	48.00
0-60	11297.25	N.A.	81.90
0-80	13637.98	N.A.	98.90
0-90	13790.44	N.A.	100.00
10-90	13274.09	N.A.	96.30
20-40	4650.74	N.A.	33.70
20-50	7150.99	N.A.	51.90
40-70	6236.09	N.A.	45.20
60-80	2340.72	N.A.	17.00
70-80	777.47	N.A.	5.60
80-90	152.47	N.A.	1.10
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	13790.44	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	516.35
10-20	1457.32
20-30	2148.78
30-40	2501.96
40-50	2500.25
50-60	2172.59
60-70	1563.26
70-80	777.47
80-90	152.47
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	109	105	101	97	107	103	99	96	98	95	93	95	92	90	91	89	87	85
2	100	92	85	80	97	90	84	79	87	81	77	83	79	75	80	77	74	72
3	91	81	73	67	89	80	72	66	77	70	65	74	69	64	71	67	63	61
4	84	72	64	57	81	71	63	57	68	61	56	66	60	55	64	59	54	52
5	77	65	56	49	75	63	55	49	61	54	49	59	53	48	58	52	48	45
6	71	58	50	43	69	57	49	43	56	48	43	54	47	42	52	46	42	40
7	66	53	44	38	65	52	44	38	51	43	38	49	43	38	48	42	37	35
8	62	48	40	34	60	48	40	34	46	39	34	45	39	34	44	38	34	32
9	58	44	36	31	56	44	36	31	43	36	31	42	35	31	41	35	30	29
10	54	41	33	28	53	41	33	28	40	33	28	39	32	28	38	32	28	26

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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

X=2H	Y=2H	18.7	20.4	19.1	20.7	21.0	UGR Viewed Endwise			
	3H	20.3	21.7	20.7	22.0	22.4	18.8	20.4	19.2	20.8
	4H	20.8	22.1	21.2	22.5	22.8	20.5	21.9	20.8	22.2
	6H	21.0	22.3	21.4	22.6	23.0	21.0	22.3	21.4	22.7
	8H	21.1	22.3	21.5	22.7	23.1	21.3	22.5	21.7	22.9
	12H	21.1	22.2	21.5	22.6	23.0	21.3	22.5	21.8	22.9

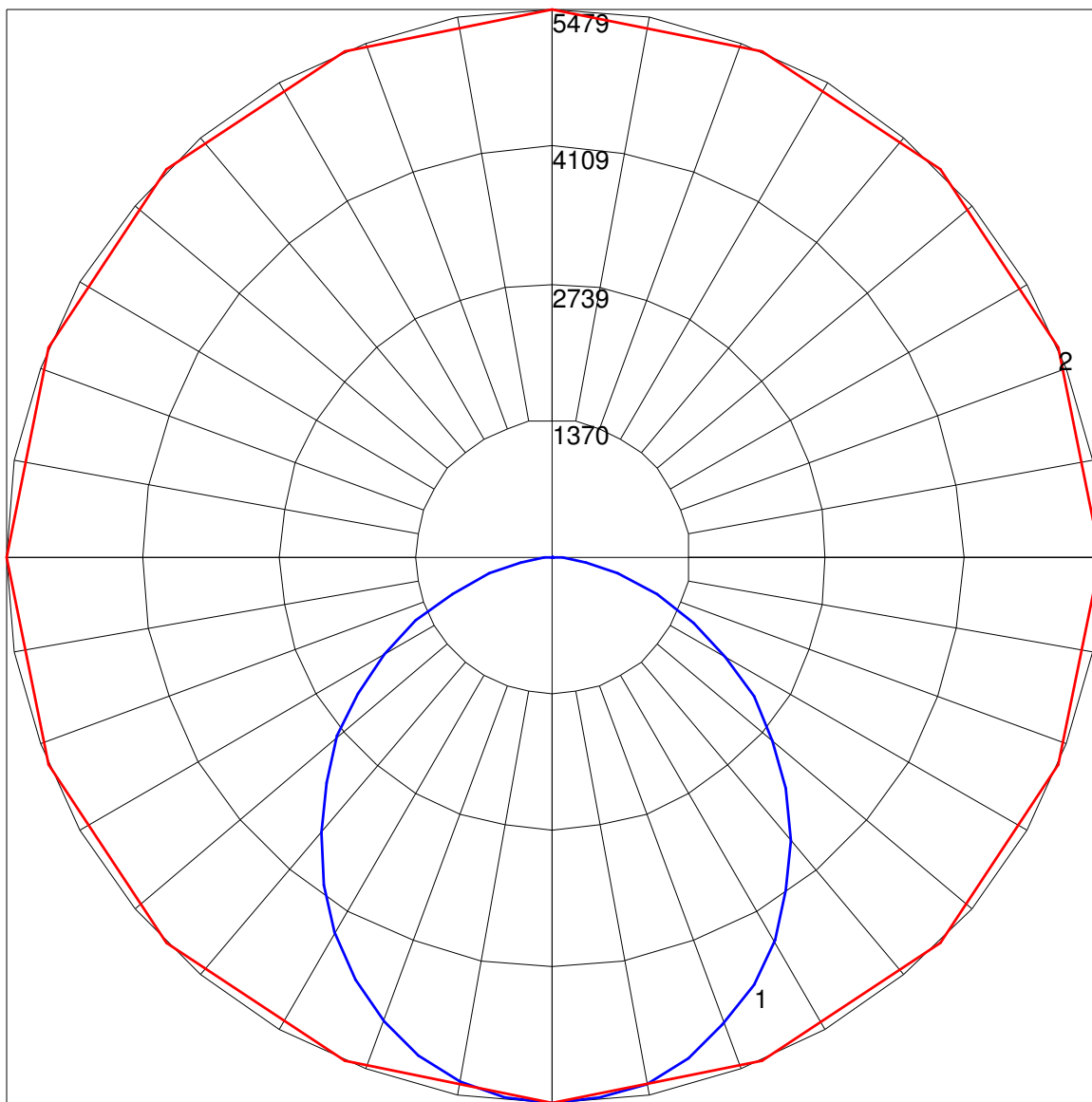
4H	2H	19.4	20.7	19.8	21.1	21.4	19.4	20.8	19.8	21.1
	3H	21.1	22.2	21.5	22.6	23.0	21.2	22.4	21.6	22.8
	4H	21.7	22.7	22.1	23.1	23.5	21.8	22.9	22.3	23.3
	6H	22.0	22.9	22.5	23.3	23.8	22.2	23.1	22.7	23.5
	8H	22.1	22.9	22.5	23.4	23.8	22.3	23.1	22.8	23.6
	12H	22.1	22.9	22.6	23.3	23.8	22.3	23.1	22.8	23.6

8H	4H	21.9	22.7	22.3	23.2	23.6	22.1	22.9	22.5	23.3
	6H	22.3	23.0	22.8	23.5	24.0	22.5	23.2	23.0	23.7
	8H	22.4	23.1	22.9	23.6	24.0	22.6	23.2	23.1	23.7
	12H	22.5	23.0	23.0	23.5	24.1	22.7	23.2	23.2	23.7

12H	4H	21.9	22.6	22.4	23.1	23.6	22.1	22.8	22.5	23.3
	6H	22.3	23.0	22.9	23.4	24.0	22.5	23.1	23.0	23.6
	8H	22.5	23.0	23.0	23.5	24.1	22.7	23.2	23.2	23.7

Maximum UGR = 24.3

POLAR GRAPH



Maximum Candela = 5478.575 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.)