



IES INDOOR REPORT

PHOTOMETRIC FILENAME : AMD4AERNG-L44-835-A-DIM-UNV AMBIENT AND EXAM ONLY.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] GEN from BALLABS TEST NO. 18937.0
 [TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
 [ISSUEDATE] 19-AUG-2020
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO 64836
 [LUMINAIRE] 2x4' MULTI COMPARTMENT LED TROFFER
 [MORE] FROSTED ACRYLIC DIFFUSER
 [LUMCAT] AMD4AERNG-L44-835-A-DIM-UNV AMBIENT AND EXAM ONLY
 [LAMPCAT] HLM 80 CRI, 3500K CCT
 [SEARCH_SOURCETYPE] LED
 [SEARCH_APPLICATION] INDOOR,DIRECT,MEDICAL
 [SEARCH_MOUNTING] RECESSED

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	12676
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	126
Total Luminaire Watts	100.3
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.10
Spacing Criterion (90-270)	1.18
Spacing Criterion (Diagonal)	1.28
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	3.92 ft
Luminous Width (90-270)	1.92 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	5972	6202	6332
55	5112	5493	5368
65	3915	4770	4314
75	2487	3191	3131
85	2214	2346	2460

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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>
0	5355.683	5355.683	5355.683	5355.683	5355.683	5355.683	5355.683	5355.683	5355.683
5	5269.293	5269.214	5274.285	5277.348	5286.595	5286.654	5287.728	5283.691	5281.702
10	5150.431	5162.662	5187.162	5217.828	5234.274	5239.543	5229.559	5215.399	5206.271
15	4871.757	4887.129	4938.218	4994.517	5018.202	5026.573	5004.398	4976.058	4968.959
20	4693.053	4718.608	4797.340	4883.191	4933.444	4929.724	4884.201	4833.389	4813.005
25	4204.313	4243.172	4325.045	4416.087	4473.558	4469.858	4419.145	4363.123	4331.503
30	3859.019	3907.085	4009.521	4118.102	4181.758	4182.214	4127.404	4058.059	4013.095
35	3554.354	3602.579	3705.133	3810.790	3859.134	3872.834	3825.085	3752.518	3713.600
40	3208.584	3251.916	3338.361	3421.764	3457.956	3474.501	3445.904	3385.310	3351.285
45	2948.467	2990.864	3062.333	3102.044	3126.184	3156.849	3154.365	3113.918	3073.589
50	2487.770	2545.360	2601.695	2602.745	2609.623	2654.448	2682.352	2652.903	2594.278
55	2047.555	2121.433	2200.102	2172.633	2149.781	2220.200	2278.691	2218.635	2146.825
60	1537.714	1636.948	1773.271	1728.104	1665.201	1760.160	1847.723	1719.674	1620.439
65	1155.169	1246.329	1407.711	1366.863	1273.116	1390.647	1468.721	1311.476	1223.418
70	760.612	842.525	965.765	959.802	885.564	978.415	1002.991	890.092	806.111
75	449.481	508.863	576.739	603.549	565.903	612.856	594.318	540.919	473.265
80	266.642	294.324	316.420	346.531	337.303	349.633	322.624	302.597	272.846
85	134.753	142.947	142.788	143.684	149.710	140.581	139.686	134.674	128.549
90	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
100	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
110	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
120	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
130	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
140	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
150	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
160	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
170	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
180	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

IES INDOOR REPORT**PHOTOMETRIC FILENAME : AMD4AERNG-L44-835-A-DIM-UNV AMBIENT AND EXAM ONLY.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	1914.81	N.A.	15.10
0-30	3948.92	N.A.	31.20
0-40	6292.09	N.A.	49.60
0-60	10585.19	N.A.	83.50
0-80	12513.01	N.A.	98.70
0-90	12676.02	N.A.	100.00
10-90	12173.67	N.A.	96.00
20-40	4377.27	N.A.	34.50
20-50	6727.52	N.A.	53.10
40-70	5602.01	N.A.	44.20
60-80	1927.82	N.A.	15.20
70-80	618.91	N.A.	4.90
80-90	163.01	N.A.	1.30
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	12676.02	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	502.34
10-20	1412.47
20-30	2034.11
30-40	2343.17
40-50	2350.24
50-60	1942.86
60-70	1308.91
70-80	618.91
80-90	163.01
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	88	85
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	72
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62
4	84	73	65	58	82	72	64	58	69	62	57	67	61	56	65	60	55	53
5	78	65	57	50	76	64	56	50	62	55	50	60	54	49	59	53	49	47
6	72	59	51	44	70	58	50	44	56	49	44	55	48	43	53	48	43	41
7	67	54	45	39	65	53	45	39	52	44	39	50	44	39	49	43	38	37
8	62	49	41	35	61	49	41	35	47	40	35	46	40	35	45	39	35	33
9	58	45	37	32	57	45	37	32	44	37	32	43	36	32	42	36	31	30
10	55	42	34	29	54	41	34	29	40	34	29	39	33	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

X=2H	Y=2H	17.4	18.9	17.7	19.3	19.6	17.7	19.3	18.1	19.6	19.9
	3H	18.6	20.0	19.0	20.3	20.7	19.1	20.5	19.5	20.9	21.2
	4H	18.9	20.3	19.3	20.6	21.0	19.6	20.9	20.0	21.2	21.6
	6H	19.1	20.4	19.6	20.7	21.1	19.9	21.1	20.3	21.5	21.9
	8H	19.2	20.4	19.7	20.8	21.2	20.0	21.1	20.4	21.5	21.9
	12H	19.3	20.4	19.7	20.8	21.2	20.0	21.2	20.5	21.5	22.0

UGR Viewed Endwise

4H	2H	18.0	19.4	18.4	19.7	20.1	18.3	19.7	18.7	20.0	20.4
	3H	19.4	20.5	19.8	20.9	21.3	19.9	21.0	20.3	21.4	21.8
	4H	19.9	20.9	20.3	21.3	21.7	20.5	21.5	20.9	21.9	22.3
	6H	20.2	21.0	20.6	21.5	21.9	20.9	21.8	21.3	22.2	22.7
	8H	20.3	21.1	20.7	21.5	22.0	21.0	21.8	21.5	22.3	22.7
	12H	20.4	21.1	20.9	21.6	22.1	21.1	21.8	21.6	22.3	22.8

8H	4H	20.1	20.9	20.6	21.3	21.8	20.7	21.5	21.1	21.9	22.4
	6H	20.5	21.2	21.0	21.7	22.1	21.2	21.8	21.7	22.3	22.8
	8H	20.7	21.3	21.2	21.8	22.3	21.4	22.0	21.9	22.5	23.0
	12H	20.8	21.4	21.3	21.9	22.4	21.5	22.1	22.0	22.5	23.1

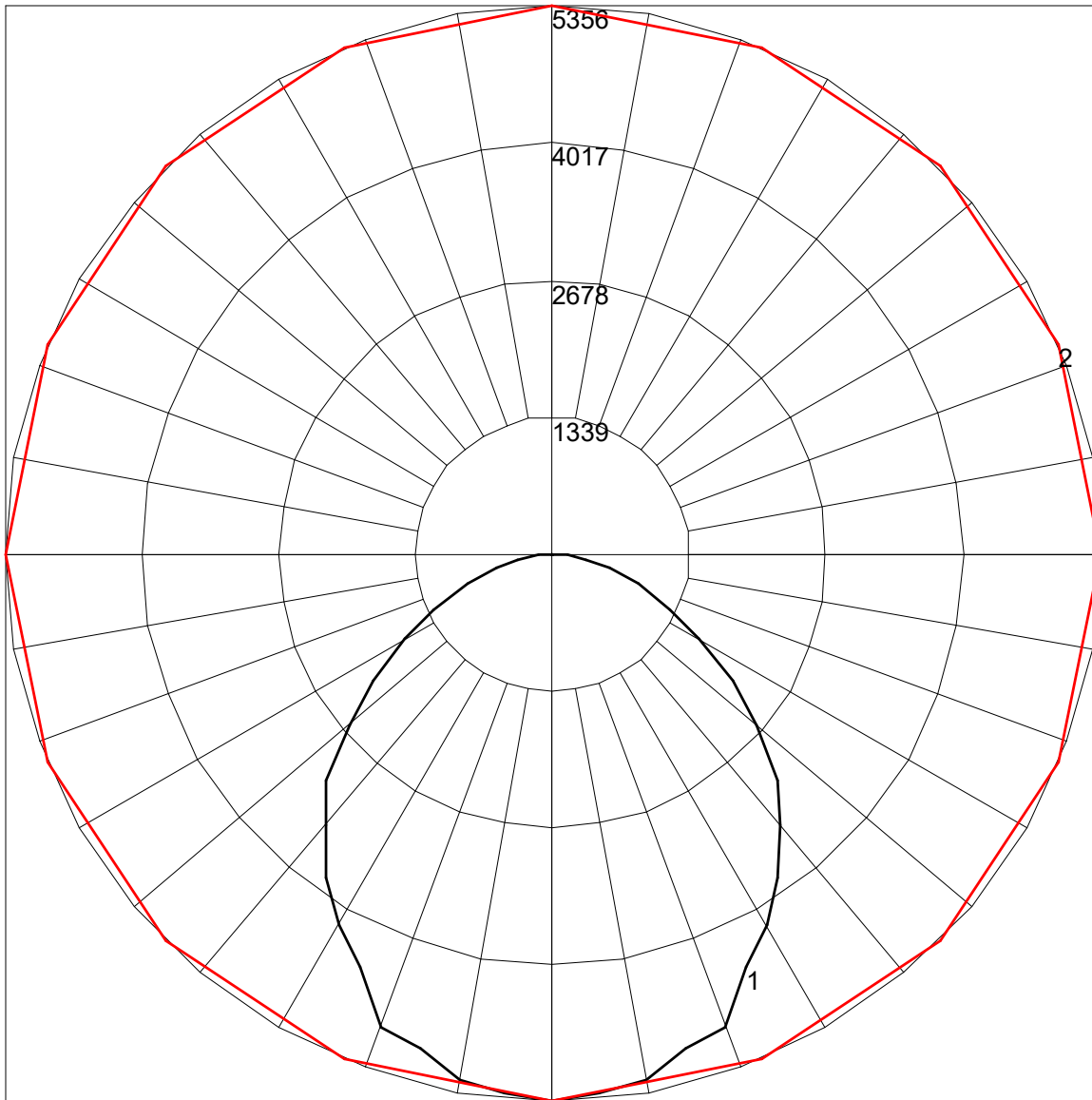
12H	4H	20.1	20.8	20.6	21.3	21.8	20.7	21.4	21.1	21.9	22.3
	6H	20.6	21.2	21.1	21.6	22.2	21.2	21.8	21.7	22.3	22.8
	8H	20.8	21.3	21.3	21.8	22.3	21.4	22.0	21.9	22.4	23.0

Maximum UGR = 23.1

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POLAR GRAPH



Maximum Candela = 5355.683 Located At Horizontal Angle = 0, Vertical Angle = 0

1 - Vertical Plane Through Horizontal Angles (90 - 270)

2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)