



IES INDOOR REPORT

PHOTOMETRIC FILENAME : AMD4AERNG-L27-835-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-L27-835-A-DIM-UNV AMBIENT & 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	10928
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	127
Total Luminaire Watts	86.1
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	5225	5361	5410
55	4511	4769	4572
65	3434	4151	3744
75	2129	2780	2797
85	1925	2084	2256

IES INDOOR REPORT

PHOTOMETRIC FILENAME : AMD4AERNG-L27-835-A-DIM-UNV AMBIENT AND EXAM ONLY_.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>
0	4631.146	4631.146	4631.146	4631.146	4631.146	4631.146	4631.146	4631.146	4631.146
5	4548.353	4549.872	4554.943	4557.606	4564.456	4563.316	4563.191	4558.754	4555.966
10	4453.868	4464.900	4486.204	4512.073	4524.123	4525.396	4512.215	4497.256	4488.128
15	4211.161	4223.336	4266.832	4312.741	4329.232	4332.408	4307.436	4277.897	4270.798
20	4056.836	4078.394	4144.337	4217.000	4256.064	4245.550	4197.629	4148.816	4130.430
25	3626.842	3659.306	3726.393	3801.849	3845.733	3834.839	3784.126	3732.900	3704.877
30	3331.502	3371.575	3453.630	3540.630	3588.701	3579.965	3525.955	3464.202	3426.032
35	3075.592	3112.627	3192.403	3274.081	3308.837	3312.147	3265.997	3204.619	3173.294
40	2789.368	2817.913	2879.181	2937.407	2959.612	2969.763	2945.162	2899.755	2876.919
45	2579.605	2605.617	2647.113	2663.245	2671.000	2696.870	2703.578	2681.114	2656.371
50	2184.847	2226.452	2251.216	2231.085	2221.978	2262.807	2300.701	2292.433	2250.193
55	1806.576	1863.270	1909.967	1863.716	1831.273	1892.900	1958.184	1922.906	1867.481
60	1351.484	1433.534	1541.083	1486.326	1423.822	1505.993	1586.762	1484.289	1402.239
65	1013.299	1086.476	1225.078	1189.825	1104.870	1204.417	1262.509	1126.445	1055.171
70	659.904	726.231	839.081	851.102	780.859	862.521	861.920	755.415	687.819
75	384.741	432.932	502.407	540.807	505.558	546.516	513.192	452.600	399.333
80	227.878	249.565	276.057	312.562	305.332	314.465	279.863	254.641	231.684
85	117.169	123.764	126.803	130.096	137.321	128.193	124.899	118.689	113.363
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-L27-835-A-DIM-UNV AMBIENT AND EXAM ONLY_.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	1652.15	N.A.	15.10
0-30	3400.54	N.A.	31.10
0-40	5411.66	N.A.	49.50
0-60	9111.59	N.A.	83.40
0-80	10783.99	N.A.	98.70
0-90	10928.01	N.A.	100.00
10-90	10494.15	N.A.	96.00
20-40	3759.5	N.A.	34.40
20-50	5782.51	N.A.	52.90
40-70	4833.56	N.A.	44.20
60-80	1672.4	N.A.	15.30
70-80	538.78	N.A.	4.90
80-90	144.01	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	10928.01	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	433.86
10-20	1218.29
20-30	1748.38
30-40	2011.12
40-50	2023.01
50-60	1676.93
60-70	1133.62
70-80	538.78
80-90	144.01
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

IES INDOOR REPORT

PHOTOMETRIC FILENAME : AMD4AERNG-L27-835-A-DIM-UNV AMBIENT AND EXAM ONLY_.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	81	98	91	85	80	87	82	78	84	80	76	81	77	74	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	58	53	49	47
6	72	59	51	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	44	39	49	43	38	36
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	31	42	36	31	30
10	55	42	34	29	54	41	34	29	40	34	29	39	33	29	39	33	29	27

IES INDOOR REPORT

PHOTOMETRIC FILENAME : AMD4AERNG-L27-835-A-DIM-UNV AMBIENT AND EXAM ONLY_.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

X=2H	Y=2H	17.0	18.6	17.4	18.9	19.2	17.2	18.8	17.5	19.1	19.4
	3H	18.2	19.6	18.6	19.9	20.3	18.6	20.1	19.0	20.4	20.7
	4H	18.5	19.8	18.9	20.2	20.6	19.1	20.4	19.5	20.8	21.2
	6H	18.7	20.0	19.1	20.3	20.7	19.4	20.7	19.8	21.0	21.4
	8H	18.8	20.0	19.2	20.4	20.8	19.5	20.7	20.0	21.1	21.5
	12H	18.9	20.0	19.3	20.4	20.8	19.6	20.7	20.1	21.1	21.6

UGR Viewed Endwise

4H	2H	17.6	19.0	18.0	19.3	19.7	17.8	19.1	18.2	19.5	19.9
	3H	19.0	20.1	19.4	20.5	20.9	19.5	20.6	19.9	21.0	21.4
	4H	19.4	20.4	19.9	20.8	21.3	20.0	21.0	20.5	21.4	21.9
	6H	19.7	20.6	20.2	21.0	21.5	20.5	21.3	20.9	21.8	22.2
	8H	19.8	20.6	20.3	21.1	21.6	20.6	21.4	21.1	21.9	22.3
	12H	19.9	20.7	20.4	21.1	21.6	20.7	21.5	21.2	21.9	22.4

8H	4H	19.7	20.5	20.1	20.9	21.4	20.2	21.0	20.7	21.5	21.9
	6H	20.0	20.7	20.5	21.2	21.7	20.7	21.4	21.2	21.9	22.4
	8H	20.2	20.8	20.7	21.3	21.8	21.0	21.6	21.5	22.1	22.6
	12H	20.4	20.9	20.9	21.4	22.0	21.1	21.7	21.6	22.2	22.7

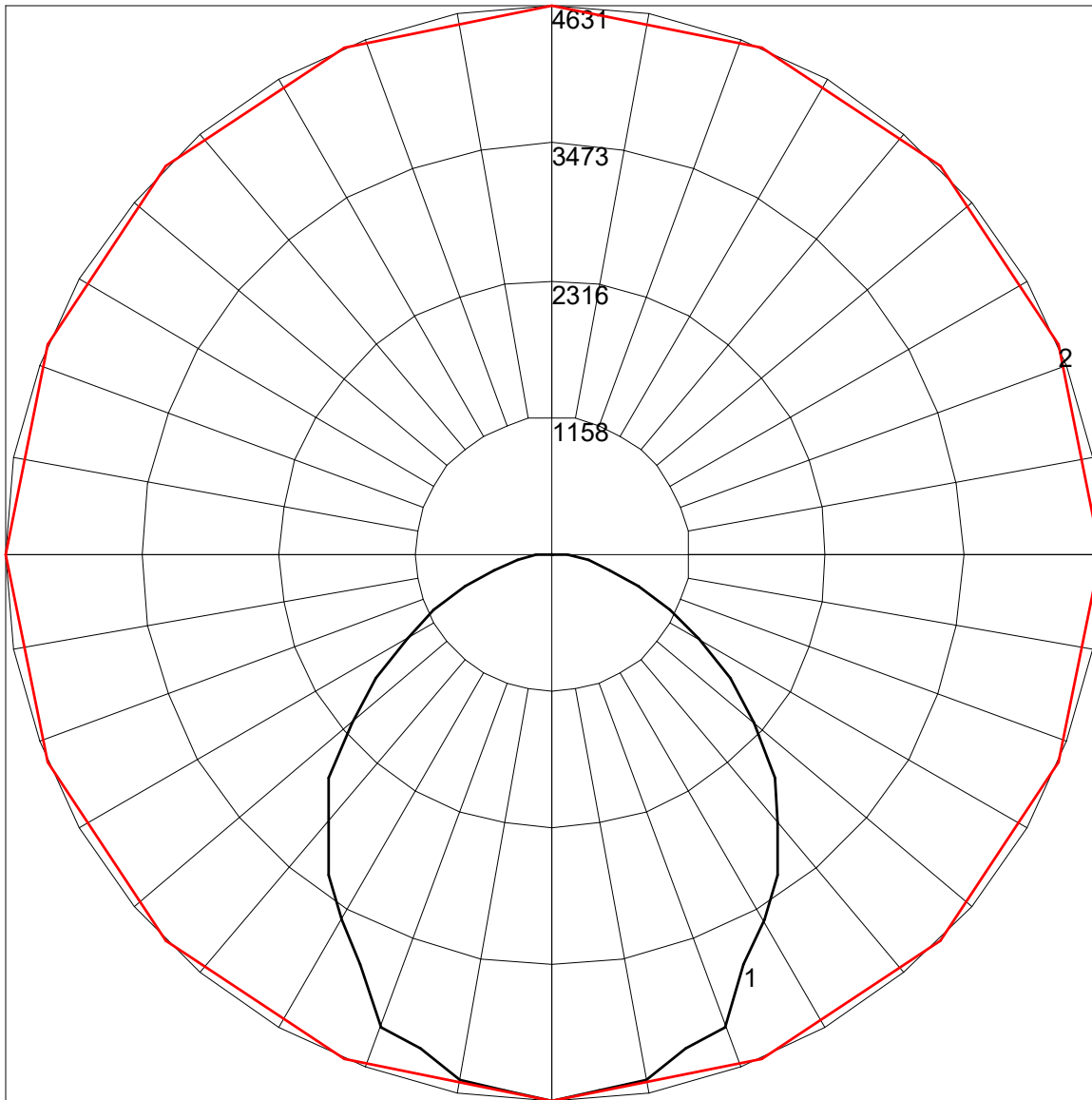
12H	4H	19.7	20.4	20.2	20.9	21.4	20.2	21.0	20.7	21.4	21.9
	6H	20.1	20.7	20.6	21.2	21.7	20.8	21.4	21.3	21.9	22.4
	8H	20.3	20.8	20.8	21.3	21.9	21.0	21.6	21.5	22.1	22.6

Maximum UGR = 22.7

IES INDOOR REPORT

PHOTOMETRIC FILENAME : AMD4AERNG-L27-835-A-DIM-UNV AMBIENT AND EXAM ONLY_.IES

POLAR GRAPH



Maximum Candela = 4631.146 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.)