



IES INDOOR REPORT

PHOTOMETRIC FILENAME : AMD4AERNG-L27-8TW-A-DALI-UNV 4000K AMBIENT 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
 [ISSUE DATE] 25-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-L27-8TW-A-DALI-UNV 4000k AMBIENT ONLY
 [_SEARCH_SOURCE TYPE] LED
 [_SEARCH_APPLICATION] INDOOR, DIRECT, MEDICAL
 [_SEARCH_MOUNTING] RECESSED

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	2730
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	98
Total Luminaire Watts	28
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.12
Spacing Criterion (90-270)	1.22
Spacing Criterion (Diagonal)	1.32
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	1167	1313	1440
55	940	1131	1242
65	751	967	890
75	559	642	521
85	451	410	318

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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	1131.571	1131.571	1131.571	1131.571	1131.571	1131.571	1131.571	1131.571	1131.571
5	1125.953	1123.457	1123.457	1124.081	1127.826	1129.698	1131.571	1132.195	1133.443
10	1087.881	1089.753	1094.746	1102.236	1109.101	1115.343	1120.336	1121.584	1121.584
15	1031.708	1036.701	1048.560	1064.787	1076.022	1084.136	1088.505	1090.377	1090.377
20	993.635	999.876	1019.849	1040.446	1057.922	1068.532	1072.277	1069.156	1066.036
25	901.886	911.872	934.966	959.307	980.528	991.763	991.763	984.273	978.656
30	823.868	836.351	868.182	901.886	926.228	940.583	939.335	927.476	916.865
35	747.723	765.199	800.775	838.223	859.444	875.672	873.175	855.699	843.841
40	654.726	677.819	717.140	756.461	778.306	788.292	782.051	758.333	740.857
45	576.084	601.673	648.484	685.309	710.898	718.388	704.033	675.946	651.605
50	473.100	498.066	547.373	580.453	605.418	611.660	596.056	562.977	537.387
55	376.358	403.196	453.128	482.462	497.442	511.173	500.562	461.866	436.276
60	290.850	317.689	362.627	377.606	376.982	396.955	407.565	367.620	340.782
65	221.571	249.657	285.233	276.495	262.764	290.850	322.058	288.978	262.764
70	157.284	181.625	197.853	169.767	163.525	181.001	220.322	210.336	184.746
75	101.111	118.587	116.091	97.990	94.246	103.608	126.701	137.936	115.466
80	60.542	69.904	63.038	53.052	49.931	54.925	66.783	74.897	64.287
85	27.462	29.959	24.966	21.221	19.348	19.348	23.093	24.966	23.717
90	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

IES INDOOR REPORT**PHOTOMETRIC FILENAME : AMD4AERNG-L27-8TW-A-DALI-UNV 4000K AMBIENT ONLY_.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	410.22	N.A.	15.00
0-30	856.46	N.A.	31.40
0-40	1375.04	N.A.	50.40
0-60	2301.44	N.A.	84.30
0-80	2700.36	N.A.	98.90
0-90	2730.02	N.A.	100.00
10-90	2623.06	N.A.	96.10
20-40	964.82	N.A.	35.30
20-50	1475.89	N.A.	54.10
40-70	1200.16	N.A.	44.00
60-80	398.92	N.A.	14.60
70-80	125.15	N.A.	4.60
80-90	29.66	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	2730.02	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	106.96
10-20	303.26
20-30	446.24
30-40	518.58
40-50	511.07
50-60	415.33
60-70	273.77
70-80	125.15
80-90	29.66
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	104	104	104	104	102	102	102	102	97	97	97	93	93	93	89	89	89	87
1	96	92	89	86	94	90	87	84	86	84	82	83	81	79	80	78	77	75
2	88	81	76	71	86	80	74	70	76	72	69	74	70	67	71	68	66	64
3	81	72	65	60	78	71	64	59	68	63	58	66	61	57	63	60	56	54
4	74	64	57	51	72	63	56	51	61	55	50	59	54	50	57	53	49	47
5	68	58	50	45	66	57	50	44	55	49	44	53	48	43	51	47	43	41
6	63	52	45	39	62	51	44	39	50	43	39	48	43	38	47	42	38	36
7	59	47	40	35	57	47	40	35	45	39	34	44	38	34	43	38	34	32
8	55	43	36	31	53	43	36	31	42	35	31	40	35	31	39	34	31	29
9	51	40	33	28	50	39	33	28	38	32	28	37	32	28	37	31	28	26
10	48	37	30	26	47	36	30	26	36	30	25	35	29	25	34	29	25	24

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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	11.7	13.3	12.1	13.6	13.9	13.2	14.8	13.6	15.1	15.4
	3H	13.1	14.5	13.5	14.9	15.2	14.3	15.7	14.7	16.0	16.4
	4H	13.6	14.9	14.0	15.3	15.6	14.5	15.9	14.9	16.2	16.6
	6H	13.9	15.1	14.3	15.5	15.9	14.7	15.9	15.1	16.3	16.7
	8H	14.0	15.2	14.4	15.6	16.0	14.7	15.9	15.2	16.3	16.7
	12H	14.1	15.2	14.5	15.6	16.0	14.7	15.9	15.2	16.2	16.7

UGR Viewed Endwise

4H	2H	12.5	13.8	12.9	14.2	14.6	13.8	15.1	14.2	15.4	15.8
	3H	14.1	15.2	14.5	15.6	16.0	15.0	16.1	15.4	16.5	16.9
	4H	14.7	15.6	15.1	16.1	16.5	15.3	16.3	15.8	16.7	17.2
	6H	15.1	15.9	15.5	16.4	16.8	15.6	16.4	16.0	16.9	17.3
	8H	15.2	16.0	15.7	16.5	16.9	15.6	16.4	16.1	16.9	17.3
	12H	15.3	16.0	15.8	16.5	17.0	15.7	16.4	16.1	16.8	17.3

8H	4H	14.9	15.7	15.3	16.1	16.6	15.5	16.3	16.0	16.8	17.2
	6H	15.4	16.1	15.9	16.6	17.0	15.8	16.5	16.3	17.0	17.4
	8H	15.6	16.2	16.1	16.7	17.2	15.9	16.5	16.4	17.0	17.5
	12H	15.8	16.3	16.3	16.8	17.4	16.0	16.5	16.5	17.0	17.6

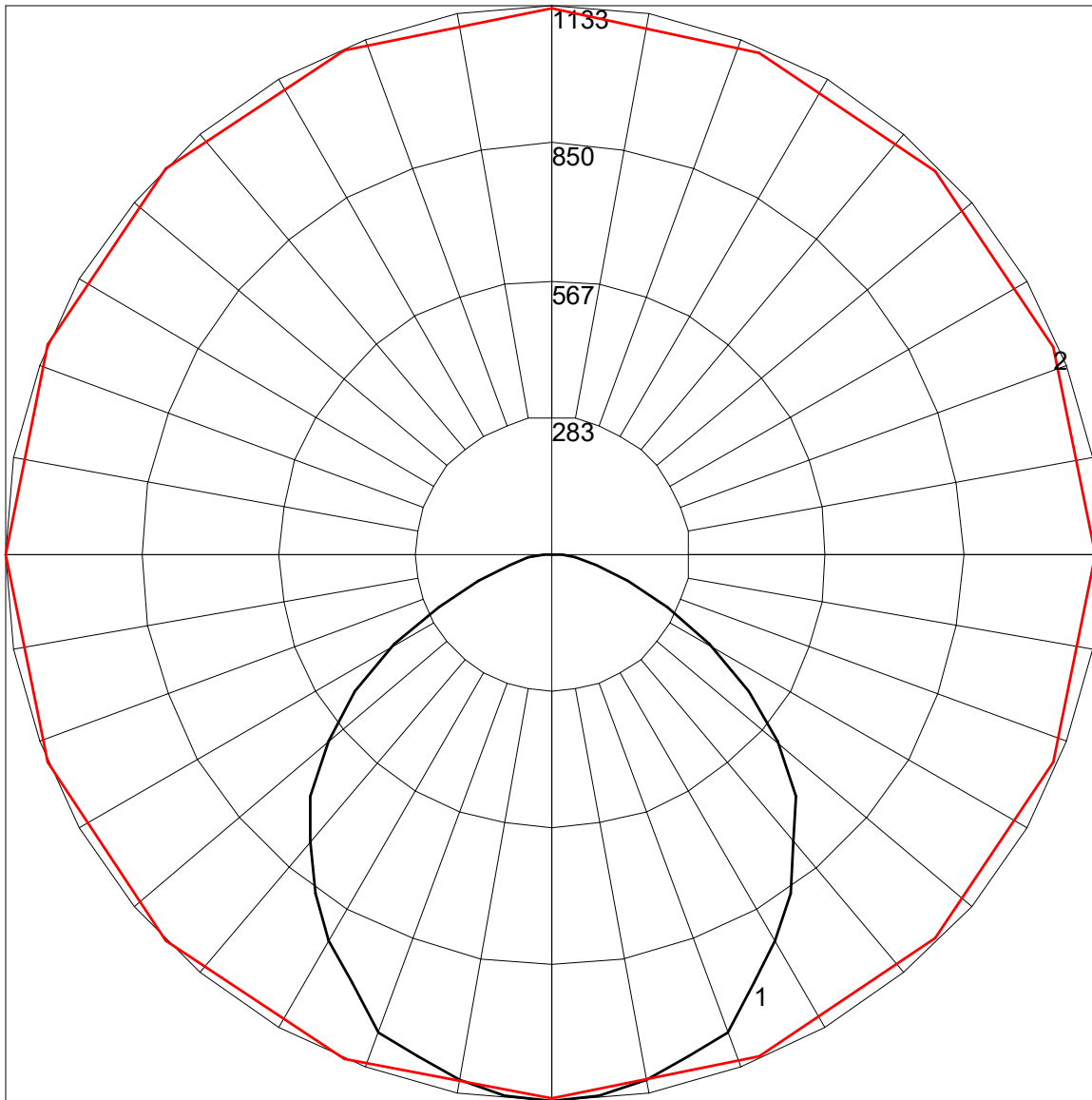
12H	4H	14.9	15.6	15.4	16.1	16.5	15.5	16.3	16.0	16.7	17.2
	6H	15.4	16.0	16.0	16.5	17.0	15.8	16.4	16.4	16.9	17.4
	8H	15.7	16.2	16.2	16.7	17.3	16.0	16.5	16.5	17.0	17.6

Maximum UGR = 17.6

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POLAR GRAPH



Maximum Candela = 1133.443 Located At Horizontal Angle = 180, Vertical Angle = 5

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

2 - Horizontal Cone Through Vertical Angle (5) (Through Max. Cd.)