



IES INDOOR REPORT

PHOTOMETRIC FILENAME : AMD4AERNG-L44-8TW-A-DALI-UNV 4000K EXAM ONLY_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] GEN from BALLABS TEST NO. 18938.0
 [TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
 [ISSUEDATE] 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-L44-8TW-A-DALI-UNV 4000k EXAM ONLY
 [_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	6351
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	113
Total Luminaire Watts	56.1
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.16
Spacing Criterion (90-270)	1.10
Spacing Criterion (Diagonal)	1.26
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	3090	3153	3162
55	2592	2834	2784
65	2223	2481	2091
75	1775	1666	1222
85	1514	1305	1148

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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	2725.601	2725.601	2725.601	2725.601	2725.601	2725.601	2725.601	2725.601	2725.601
5	2676.362	2673.980	2672.392	2668.421	2665.244	2664.450	2668.421	2668.421	2668.421
10	2659.685	2655.714	2641.419	2628.712	2621.564	2627.124	2637.448	2641.419	2644.596
15	2533.411	2529.440	2506.409	2481.790	2476.231	2484.967	2499.262	2519.116	2526.264
20	2490.526	2473.848	2433.346	2397.608	2385.695	2393.637	2416.668	2456.377	2469.877
25	2230.831	2213.360	2173.651	2139.502	2122.030	2126.795	2161.738	2201.447	2211.771
30	2072.791	2054.525	2013.228	1974.314	1952.871	1962.401	2004.492	2037.053	2048.966
35	1906.809	1896.485	1862.335	1828.186	1813.097	1825.803	1852.805	1874.248	1882.984
40	1697.941	1697.941	1683.646	1666.969	1662.998	1668.557	1666.969	1674.910	1670.940
45	1525.606	1539.901	1556.579	1561.344	1561.344	1556.579	1532.754	1516.870	1496.222
50	1257.970	1284.972	1327.063	1346.917	1334.210	1329.445	1308.797	1265.117	1233.350
55	1037.984	1075.310	1134.873	1138.050	1115.019	1122.166	1122.166	1053.073	1012.570
60	814.821	863.266	918.064	869.619	826.734	869.619	905.357	842.617	794.173
65	655.987	711.579	732.227	652.016	617.072	659.163	713.961	689.342	635.338
70	481.269	531.302	499.535	424.088	391.527	422.500	485.240	517.007	463.003
75	320.846	345.465	300.992	244.605	220.780	236.664	293.050	335.141	306.551
80	199.337	202.514	165.982	139.774	130.244	135.804	162.805	189.807	187.425
85	92.124	84.976	79.417	73.064	69.887	72.270	74.652	74.652	83.388
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-L44-8TW-A-DALI-UNV 4000K EXAM ONLY_.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	965.90	N.A.	15.20
0-30	1976.98	N.A.	31.10
0-40	3135.15	N.A.	49.40
0-60	5282.12	N.A.	83.20
0-80	6264.49	N.A.	98.60
0-90	6351.38	N.A.	100.00
10-90	6097.03	N.A.	96.00
20-40	2169.25	N.A.	34.20
20-50	3340.4	N.A.	52.60
40-70	2811.43	N.A.	44.30
60-80	982.37	N.A.	15.50
70-80	317.91	N.A.	5.00
80-90	86.90	N.A.	1.40
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	6351.38	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	254.36
10-20	711.55
20-30	1011.08
30-40	1158.17
40-50	1171.15
50-60	975.82
60-70	664.46
70-80	317.91
80-90	86.90
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	125	125	125	125	122	122	122	122	117	117	117	112	112	112	107	107	107	105
1	115	111	106	103	112	108	104	101	104	101	98	100	97	95	96	94	92	90
2	105	97	91	85	103	95	89	84	92	86	82	88	84	80	85	81	78	76
3	97	86	78	71	94	84	77	71	81	75	69	78	73	68	76	71	67	65
4	89	77	68	61	86	75	67	61	73	65	60	70	64	59	68	63	58	56
5	82	69	60	53	80	68	59	53	65	58	52	63	57	52	61	56	51	49
6	76	62	53	47	74	61	53	46	59	52	46	58	51	46	56	50	45	43
7	70	57	48	41	69	56	47	41	54	46	41	53	46	41	51	45	40	38
8	66	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34
9	61	48	39	34	60	47	39	33	46	38	33	45	38	33	44	37	33	31
10	58	44	36	31	56	44	36	30	43	35	30	42	35	30	41	34	30	28

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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	15.0	16.6	15.3	16.9	17.2	UGR Viewed Endwise	15.2	16.8	15.6	17.1	17.4
	3H	16.6	18.0	17.0	18.4	18.7		16.4	17.8	16.7	18.1	18.5
	4H	17.1	18.5	17.5	18.8	19.2		16.6	18.0	17.0	18.3	18.7
	6H	17.5	18.8	18.0	19.1	19.5		16.8	18.1	17.2	18.4	18.8
	8H	17.7	18.9	18.1	19.2	19.6		16.9	18.1	17.3	18.4	18.8
	12H	17.8	18.9	18.2	19.3	19.7		16.9	18.1	17.4	18.4	18.9

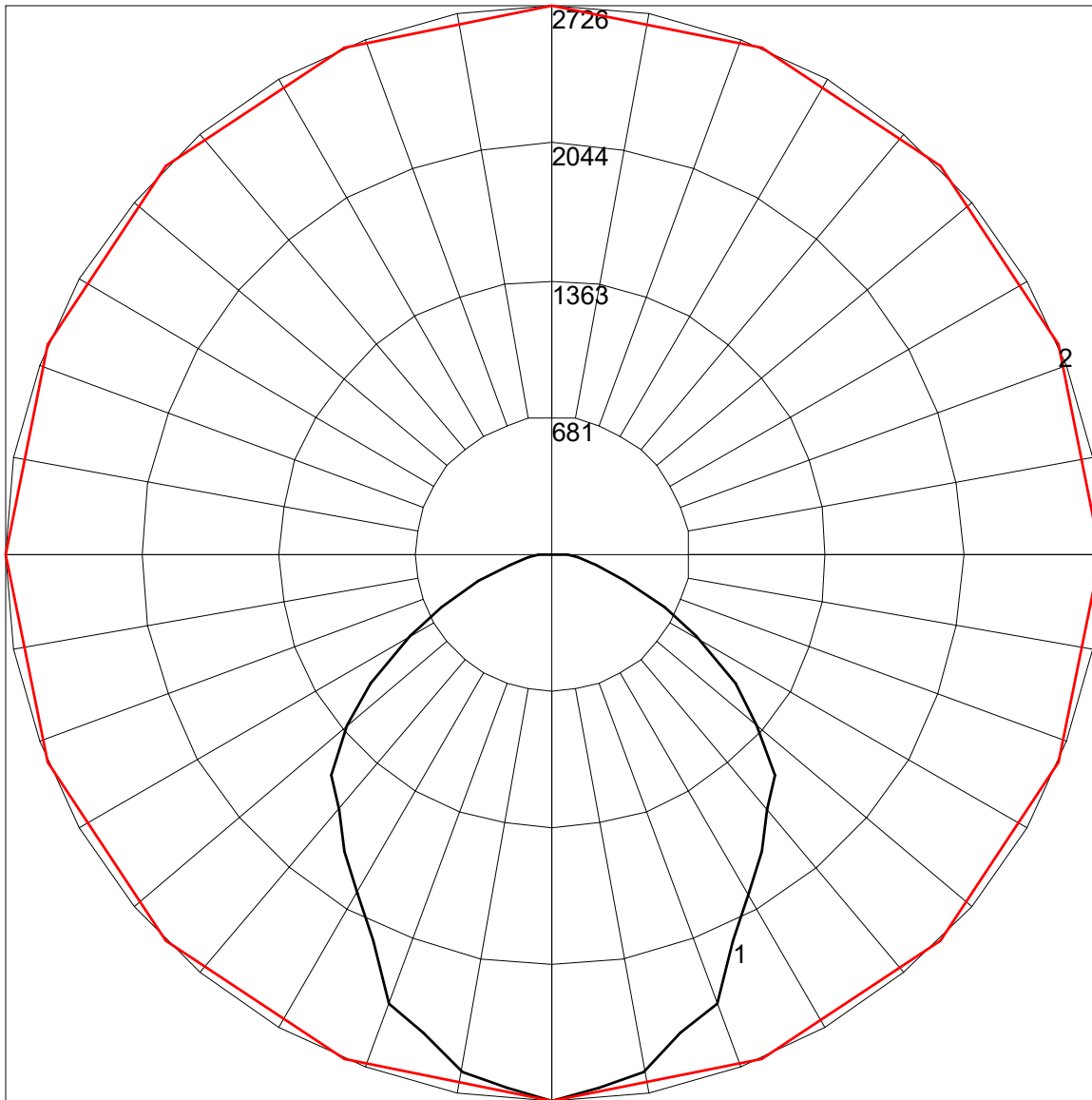
4H	2H	15.7	17.0	16.1	17.3	17.7	15.8	17.1	16.2	17.5	17.9
	3H	17.5	18.6	17.9	19.0	19.4	17.1	18.2	17.5	18.6	19.0
	4H	18.1	19.1	18.6	19.5	20.0	17.5	18.5	17.9	18.9	19.3
	6H	18.6	19.5	19.1	20.0	20.4	17.8	18.6	18.2	19.1	19.5
	8H	18.8	19.6	19.3	20.1	20.5	17.9	18.7	18.3	19.1	19.6
	12H	19.0	19.7	19.4	20.2	20.6	17.9	18.7	18.4	19.1	19.6

8H	4H	18.3	19.1	18.8	19.6	20.0	17.7	18.5	18.2	19.0	19.5
	6H	18.9	19.6	19.4	20.1	20.6	18.1	18.7	18.6	19.2	19.7
	8H	19.2	19.8	19.7	20.3	20.8	18.2	18.8	18.7	19.3	19.8
	12H	19.4	19.9	19.9	20.4	21.0	18.4	18.9	18.9	19.4	20.0

12H	4H	18.3	19.0	18.8	19.5	20.0	17.8	18.5	18.2	19.0	19.4
	6H	19.0	19.6	19.5	20.0	20.6	18.1	18.7	18.7	19.2	19.7
	8H	19.2	19.8	19.8	20.3	20.8	18.3	18.9	18.8	19.3	19.9

Maximum UGR = 21.0

POLAR GRAPH



Maximum Candela = 2725.601 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.)