



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : AMD4AERNG-P43-8TW-A-POE 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-P43-8TW-A-PoE 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	6034
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	120
Total Luminaire Watts	50.3
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	2936	2995	3004
55	2462	2692	2645
65	2112	2357	1987
75	1687	1582	1161
85	1438	1240	1091

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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>
<b>0</b>	2589.557	2589.557	2589.557	2589.557	2589.557	2589.557	2589.557	2589.557	2589.557
<b>5</b>	2542.776	2540.512	2539.003	2535.230	2532.212	2531.458	2535.230	2535.230	2535.230
<b>10</b>	2526.931	2523.158	2509.576	2497.504	2490.713	2495.995	2505.804	2509.576	2512.594
<b>15</b>	2406.960	2403.187	2381.306	2357.915	2352.633	2360.933	2374.515	2393.378	2400.169
<b>20</b>	2366.215	2350.370	2311.889	2277.935	2266.617	2274.162	2296.044	2333.770	2346.597
<b>25</b>	2119.483	2102.883	2065.156	2032.712	2016.112	2020.639	2053.838	2091.565	2101.374
<b>30</b>	1969.331	1951.977	1912.741	1875.769	1855.396	1864.451	1904.441	1935.377	1946.695
<b>35</b>	1811.633	1801.825	1769.380	1736.935	1722.599	1734.671	1760.325	1780.698	1788.997
<b>40</b>	1613.191	1613.191	1599.610	1583.765	1579.992	1585.274	1583.765	1591.310	1587.537
<b>45</b>	1449.458	1463.039	1478.884	1483.412	1483.412	1478.884	1456.248	1441.158	1421.540
<b>50</b>	1195.180	1220.834	1260.824	1279.688	1267.615	1263.088	1243.470	1201.971	1171.790
<b>55</b>	986.174	1021.638	1078.227	1081.246	1059.364	1066.155	1066.155	1000.511	962.029
<b>60</b>	774.151	820.177	872.240	826.213	785.469	826.213	860.167	800.559	754.533
<b>65</b>	623.244	676.061	695.679	619.471	586.272	626.262	678.325	654.935	603.626
<b>70</b>	457.247	504.782	474.601	402.921	371.985	401.411	461.020	491.201	439.893
<b>75</b>	304.831	328.222	285.968	232.396	209.760	224.851	278.423	318.413	291.250
<b>80</b>	189.388	192.406	157.697	132.798	123.743	129.025	154.679	180.333	178.070
<b>85</b>	87.526	80.735	75.453	69.417	66.399	68.662	70.926	70.926	79.226
<b>90</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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Zone	Lumens	%Lamp	%Fixt
0-20	917.69	N.A.	15.20
0-30	1878.3	N.A.	31.10
0-40	2978.67	N.A.	49.40
0-60	5018.47	N.A.	83.20
0-80	5951.8	N.A.	98.60
0-90	6034.36	N.A.	100.00
10-90	5792.7	N.A.	96.00
20-40	2060.98	N.A.	34.20
20-50	3173.67	N.A.	52.60
40-70	2671.1	N.A.	44.30
60-80	933.33	N.A.	15.50
70-80	302.04	N.A.	5.00
80-90	82.56	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	6034.36	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	241.66
10-20	676.03
20-30	960.61
30-40	1100.36
40-50	1112.69
50-60	927.11
60-70	631.29
70-80	302.04
80-90	82.56
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 RW	80				70				50			30			10			0
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	89	89	89	89	87	87	87	87	83	83	83	79	79	79	76	76	76	74
1	81	78	75	73	79	76	74	71	73	71	69	70	69	67	68	66	65	63
2	75	69	64	60	73	67	63	59	65	61	58	62	59	57	60	58	55	54
3	68	61	55	50	66	60	54	50	57	53	49	55	52	48	54	50	47	46
4	63	54	48	43	61	53	47	43	51	46	42	50	45	42	48	44	41	40
5	58	49	42	37	56	48	42	37	46	41	37	45	40	36	43	39	36	35
6	54	44	38	33	52	43	37	33	42	37	32	41	36	32	40	35	32	30
7	50	40	34	29	48	39	33	29	38	33	29	37	32	29	36	32	29	27
8	46	37	30	26	45	36	30	26	35	30	26	34	29	26	33	29	26	24
9	43	34	28	24	42	33	28	24	32	27	24	32	27	23	31	26	23	22
10	41	31	25	22	40	31	25	22	30	25	21	29	25	21	29	24	21	20

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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

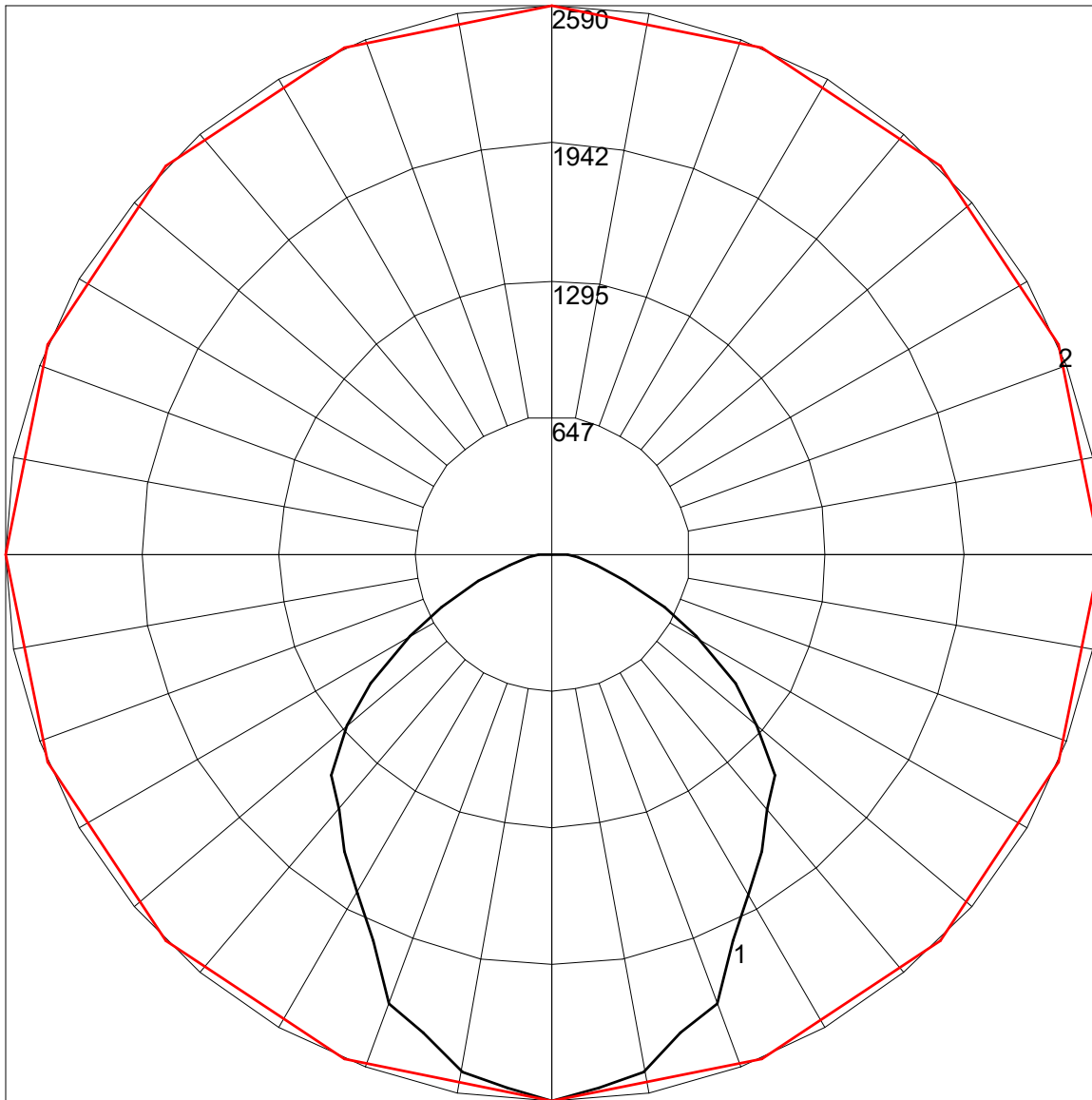
X=2H	Y=2H	16.1	17.7	16.4	18.0	18.3	16.3	17.9	16.7	18.2	18.5
	3H	17.7	19.1	18.1	19.5	19.8	17.5	18.9	17.8	19.2	19.6
	4H	18.2	19.6	18.6	19.9	20.3	17.7	19.1	18.1	19.4	19.8
	6H	18.6	19.9	19.1	20.2	20.6	17.9	19.2	18.3	19.5	19.9
	8H	18.8	20.0	19.2	20.3	20.7	18.0	19.2	18.4	19.5	19.9
	12H	18.9	20.0	19.3	20.4	20.8	18.0	19.2	18.5	19.5	20.0

### UGR Viewed Endwise

4H	2H	16.8	18.1	17.2	18.4	18.8	16.9	18.2	17.3	18.6	19.0
	3H	18.6	19.7	19.0	20.1	20.5	18.2	19.3	18.6	19.7	20.1
	4H	19.2	20.2	19.7	20.6	21.1	18.6	19.6	19.0	20.0	20.4
	6H	19.7	20.6	20.2	21.1	21.5	18.9	19.7	19.3	20.2	20.6
	8H	19.9	20.7	20.4	21.2	21.6	19.0	19.8	19.4	20.2	20.7
	12H	20.1	20.8	20.5	21.3	21.7	19.0	19.8	19.5	20.2	20.7
8H	4H	19.4	20.2	19.9	20.7	21.1	18.8	19.6	19.3	20.1	20.6
	6H	20.0	20.7	20.5	21.2	21.7	19.2	19.8	19.7	20.3	20.8
	8H	20.3	20.9	20.8	21.4	21.9	19.3	19.9	19.8	20.4	20.9
	12H	20.5	21.0	21.0	21.5	22.1	19.5	20.0	20.0	20.5	21.1
12H	4H	19.4	20.1	19.9	20.6	21.1	18.9	19.6	19.3	20.1	20.5
	6H	20.1	20.7	20.6	21.1	21.7	19.2	19.8	19.8	20.3	20.8
	8H	20.3	20.9	20.9	21.4	21.9	19.4	20.0	19.9	20.4	21.0

Maximum UGR = 22.1

POLAR GRAPH



Maximum Candela = 2589.557 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.)