



IES INDOOR REPORT

PHOTOMETRIC FILENAME : AMD2AEG-P31-8TW-A-POE 4000K EXAM ONLY_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TESTLAB] GEN from Intertek
 [ISSUEDATE] 25-AUG-2020
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.64836
 [LUMINAIRE] 2X2' LED TROFFER
 [MORE] FROSTED ACRYLIC DIFFUSER
 [LUMCAT] AMD2AEG-P31-8TW-A-PoE 4000k EXAM ONLY
 [_SEARCH_SOURCE TYPE] LED
 [_SEARCH_APPLICATION] INDOOR, DIRECT, OFFICE, EDUCATION
 [_SEARCH_MOUNTING] RECESSED

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	3524
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	110
Total Luminaire Watts	32
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.18
Spacing Criterion (90-270)	1.16
Spacing Criterion (Diagonal)	1.26
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	1.92 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	3453	3451	3579
55	2867	3089	3202
65	2234	2570	2119
75	1661	1655	1230
85	1067	814	657

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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>
0.0	1535.979	1535.979	1535.979	1535.979	1535.979
2.5	1535.029	1532.180	1530.865	1534.225	1536.052
5.0	1530.792	1527.139	1524.364	1525.240	1526.993
7.5	1521.515	1516.182	1512.383	1511.360	1509.388
10.0	1506.977	1500.841	1493.682	1490.979	1488.714
12.5	1487.253	1480.825	1471.401	1465.411	1460.663
15.0	1461.393	1454.526	1442.911	1434.510	1428.593
17.5	1430.492	1421.872	1409.015	1399.519	1392.725
20.0	1393.894	1384.689	1370.079	1359.779	1351.962
22.5	1352.254	1341.954	1326.906	1316.825	1309.446
25.0	1307.036	1294.982	1278.546	1269.779	1263.205
27.5	1258.749	1245.161	1228.651	1222.296	1217.475
30.0	1208.416	1194.244	1178.392	1173.644	1170.576
32.5	1154.870	1140.551	1126.087	1124.553	1122.508
35.0	1097.086	1083.791	1071.518	1074.513	1074.221
37.5	1035.431	1023.742	1014.538	1020.747	1022.866
40.0	971.584	961.283	955.439	965.886	970.561
42.5	904.084	896.414	894.953	910.367	918.914
45.0	834.466	829.426	833.809	854.555	864.782
47.5	765.067	764.556	772.957	799.255	810.871
50.0	695.742	700.344	715.100	745.124	752.649
52.5	628.023	637.300	659.508	688.509	692.527
55.0	561.911	576.010	605.377	626.781	627.585
57.5	498.137	515.889	551.319	559.501	541.603
60.0	436.263	457.521	494.558	476.222	460.078
62.5	377.164	401.637	436.409	403.098	380.379
65.0	322.668	349.916	371.174	331.361	306.012
67.5	272.190	300.899	306.451	262.985	241.435
70.0	226.532	255.534	248.667	205.055	187.158
72.5	184.528	211.411	194.317	156.184	142.962
75.0	146.906	167.507	146.395	117.540	108.774
77.5	112.572	125.721	105.705	87.077	81.818
80.0	82.183	89.050	73.051	62.459	59.537
82.5	55.300	56.396	46.242	40.763	38.352
85.0	31.777	29.367	24.253	21.331	19.578
87.5	11.177	9.278	8.474	8.620	8.547
90.0	0.000	0.000	0.000	0.000	0.000
92.5	0.000	0.000	0.000	0.000	0.000
95.0	0.000	0.000	0.000	0.000	0.000
97.5	0.000	0.000	0.000	0.000	0.000
100.0	0.000	0.000	0.000	0.000	0.000
102.5	0.000	0.000	0.000	0.000	0.000
105.0	0.000	0.000	0.000	0.000	0.000
107.5	0.000	0.000	0.000	0.000	0.000
110.0	0.000	0.000	0.000	0.000	0.000
112.5	0.000	0.000	0.000	0.000	0.000
115.0	0.000	0.000	0.000	0.000	0.000
117.5	0.000	0.000	0.000	0.000	0.000
120.0	0.000	0.000	0.000	0.000	0.000
122.5	0.000	0.000	0.000	0.000	0.000
125.0	0.000	0.000	0.000	0.000	0.000
127.5	0.000	0.000	0.000	0.000	0.000
130.0	0.000	0.000	0.000	0.000	0.000
132.5	0.000	0.000	0.000	0.000	0.000

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135.0	0.000	0.000	0.000	0.000	0.000
137.5	0.000	0.000	0.000	0.000	0.000
140.0	0.000	0.000	0.000	0.000	0.000
142.5	0.000	0.000	0.000	0.000	0.000
145.0	0.000	0.000	0.000	0.000	0.000
147.5	0.000	0.000	0.000	0.000	0.000
150.0	0.000	0.000	0.073	0.000	0.073
152.5	0.000	0.000	0.073	0.000	0.000
155.0	0.000	0.000	0.000	0.000	0.000
157.5	0.146	0.073	0.000	0.292	0.073
160.0	0.073	0.000	0.219	0.146	0.073
162.5	0.292	0.073	0.073	0.073	0.219
165.0	0.073	0.073	0.219	0.146	0.292
167.5	0.292	0.073	0.146	0.146	0.073
170.0	0.073	0.073	0.219	0.146	0.146
172.5	0.000	0.073	0.292	0.365	0.000
175.0	0.219	0.000	0.146	0.219	0.292
177.5	0.219	0.146	0.219	0.219	0.073
180.0	0.219	0.219	0.219	0.219	0.219

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Zone	Lumens	%Lamp	%Fixt
0-20	551.23	N.A.	15.60
0-30	1141.45	N.A.	32.40
0-40	1815.17	N.A.	51.50
0-60	2999.6	N.A.	85.10
0-80	3491.8	N.A.	99.10
0-90	3524.08	N.A.	100.00
10-90	3379.35	N.A.	95.90
20-40	1263.94	N.A.	35.90
20-50	1913.58	N.A.	54.30
40-70	1524.73	N.A.	43.30
60-80	492.20	N.A.	14.00
70-80	151.90	N.A.	4.30
80-90	32.28	N.A.	0.90
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	0.08	N.A.	0.00
110-180	0.08	N.A.	0.00
0-180	3524.15	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	144.73
10-20	406.50
20-30	590.22
30-40	673.72
40-50	649.64
50-60	534.78
60-70	340.31
70-80	151.90
80-90	32.28
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	0.02
160-170	0.04
170-180	0.02

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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	103	103	103	103	101	101	101	101	97	97	97	92	92	92	89	89	89	87
1	96	92	88	85	93	90	87	84	86	84	81	83	81	79	80	78	77	75
2	88	81	76	71	85	79	74	70	76	72	69	74	70	67	71	68	66	64
3	80	72	65	60	78	71	64	60	68	63	58	66	61	57	63	60	57	55
4	74	64	57	52	72	63	56	51	61	55	51	59	54	50	57	53	49	47
5	68	58	50	45	66	57	50	45	55	49	44	53	48	44	52	47	43	41
6	63	52	45	40	62	51	44	39	50	44	39	48	43	39	47	42	38	37
7	59	48	40	35	57	47	40	35	46	39	35	44	39	35	43	38	34	33
8	55	44	36	32	53	43	36	31	42	36	31	41	35	31	40	35	31	29
9	51	40	33	29	50	40	33	28	39	33	28	38	32	28	37	32	28	27
10	48	37	30	26	47	37	30	26	36	30	26	35	30	26	34	29	26	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

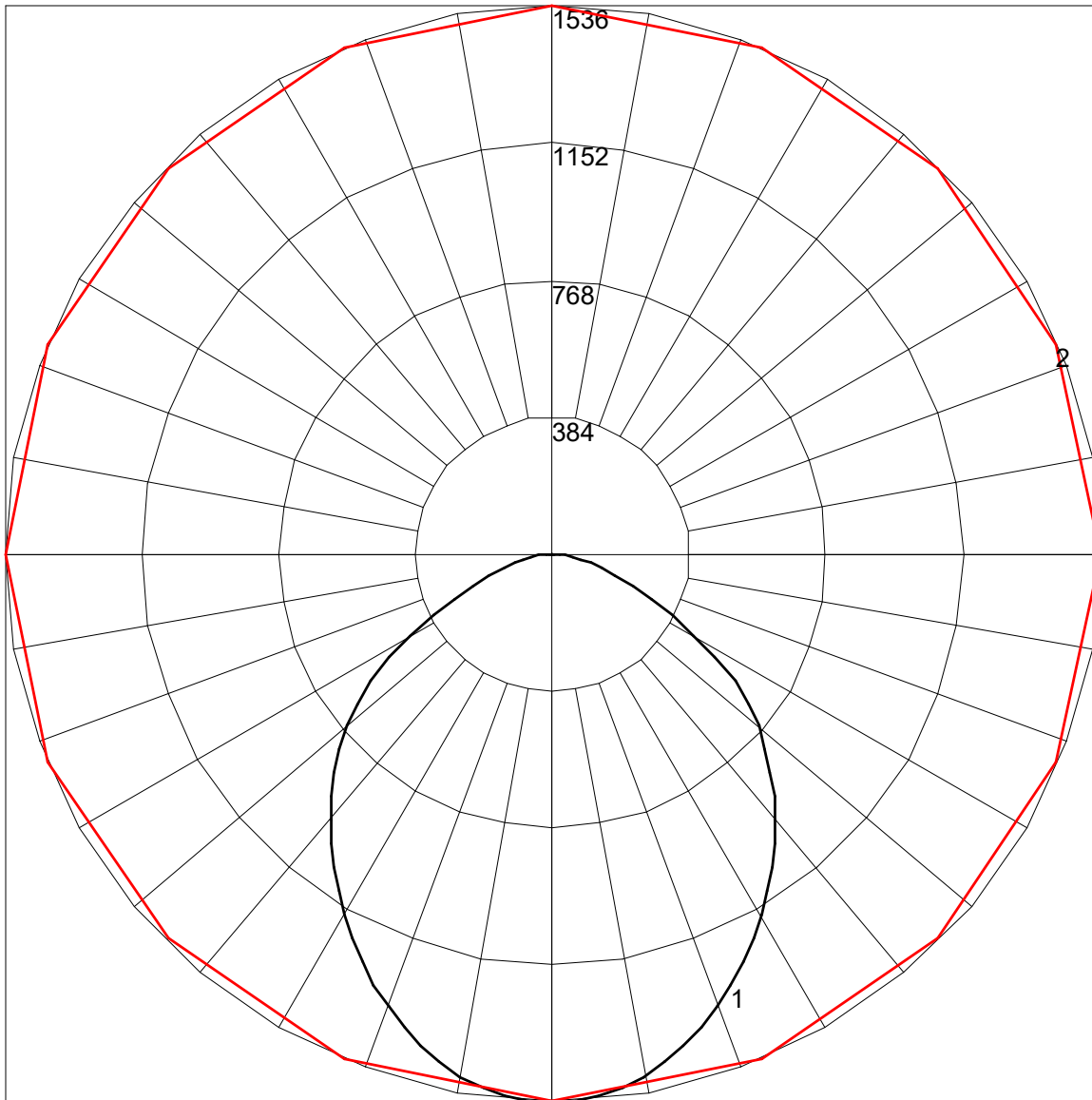
X=2H	Y=2H	15.9	17.5	16.3	17.8	18.1	16.5	18.0	16.8	18.3	18.6
	3H	17.3	18.7	17.6	19.0	19.3	17.3	18.7	17.7	19.0	19.4
	4H	17.7	19.0	18.1	19.4	19.7	17.5	18.8	17.9	19.2	19.6
	6H	18.0	19.2	18.4	19.6	20.0	17.7	18.9	18.1	19.2	19.6
	8H	18.1	19.2	18.5	19.6	20.0	17.7	18.8	18.1	19.2	19.6
	12H	18.1	19.2	18.5	19.6	20.0	17.7	18.8	18.1	19.2	19.6

UGR Viewed Endwise

4H	2H	16.5	17.8	16.9	18.2	18.6	17.0	18.3	17.4	18.6	19.0
	3H	18.1	19.1	18.5	19.5	20.0	18.0	19.1	18.4	19.5	19.9
	4H	18.6	19.6	19.1	20.0	20.5	18.3	19.3	18.7	19.7	20.1
	6H	19.0	19.9	19.5	20.3	20.8	18.5	19.3	18.9	19.8	20.2
	8H	19.1	19.9	19.6	20.4	20.8	18.5	19.3	19.0	19.8	20.2
	12H	19.2	19.9	19.7	20.4	20.8	18.5	19.3	19.0	19.7	20.2
8H	4H	18.8	19.6	19.2	20.0	20.5	18.5	19.3	18.9	19.7	20.2
	6H	19.2	19.9	19.7	20.4	20.9	18.7	19.4	19.2	19.9	20.3
	8H	19.4	20.0	19.9	20.5	21.0	18.8	19.4	19.3	19.9	20.4
	12H	19.5	20.0	20.0	20.5	21.1	18.8	19.4	19.4	19.9	20.4
12H	4H	18.8	19.5	19.3	20.0	20.4	18.5	19.2	19.0	19.7	20.1
	6H	19.3	19.8	19.8	20.3	20.9	18.8	19.3	19.3	19.8	20.3
	8H	19.4	20.0	19.9	20.4	21.0	18.9	19.4	19.4	19.9	20.4

Maximum UGR = 21.1

POLAR GRAPH



Maximum Candela = 1536.052 Located At Horizontal Angle = 90, Vertical Angle = 2.5
1 - Vertical Plane Through Horizontal Angles (90 - 270)
2 - Horizontal Cone Through Vertical Angle (2.5) (Through Max. Cd.)