



IES INDOOR REPORT

PHOTOMETRIC FILENAME : AT1-14-P52-8TW-D-POE 4000K_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] GEN from BALLABS TEST NO. 19432.0
 [TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
 [ISSUEDATE] 26-JUN-2020
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
 [LUMINAIRE] 22" LED ARRAYS 1x4' RECESSED LUMINAIRE
 [MORE] WHITE REFLECTOR w/2 PIECE FROSTED ACRLIC LENS IN DOOR
 [LUMCAT] AT1-14-P52-8TW-D-PoE 4000k

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	5224
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	104
Total Luminaire Watts	50.1
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.14
Spacing Criterion (90-270)	1.10
Spacing Criterion (Diagonal)	1.22
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	3.76 ft
Luminous Width (90-270)	0.77 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	6463	6344	6257
55	5423	5410	5276
65	4780	4780	3835
75	3769	3146	2819
85	2996	1851	1322

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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	2370.781	2370.781	2370.781	2370.781	2370.781
5	2389.416	2387.345	2387.345	2387.345	2385.275
10	2321.088	2316.946	2312.805	2308.664	2308.664
15	2229.983	2229.983	2217.560	2209.278	2209.278
20	2138.879	2132.667	2118.174	2101.609	2097.468
25	1940.106	1933.895	1913.189	1904.907	1894.554
30	1764.109	1755.827	1735.122	1718.557	1714.416
35	1610.889	1602.606	1583.971	1569.478	1561.195
40	1403.834	1393.481	1378.987	1364.493	1358.281
45	1231.978	1217.484	1209.202	1198.849	1192.637
50	1045.628	1037.346	1029.064	1024.923	1022.852
55	838.573	838.573	836.503	828.220	815.797
60	683.282	685.352	685.352	656.365	635.659
65	544.555	548.696	544.555	476.227	436.886
70	397.546	403.757	372.699	306.442	300.230
75	262.960	273.313	219.478	200.843	196.702
80	155.291	147.009	124.233	103.528	95.245
85	70.399	57.975	43.482	33.129	31.058
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	851.31	N.A.	16.30
0-30	1736.99	N.A.	33.20
0-40	2720.98	N.A.	52.10
0-60	4406.14	N.A.	84.30
0-80	5164.81	N.A.	98.90
0-90	5224.05	N.A.	100.00
10-90	4999.01	N.A.	95.70
20-40	1869.66	N.A.	35.80
20-50	2801.83	N.A.	53.60
40-70	2194.7	N.A.	42.00
60-80	758.66	N.A.	14.50
70-80	249.13	N.A.	4.80
80-90	59.24	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	5224.05	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	225.04
10-20	626.27
20-30	885.68
30-40	983.99
40-50	932.17
50-60	753.00
60-70	509.53
70-80	249.13
80-90	59.24
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	387	387	387	387	378	378	378	378	362	362	362	346	346	346	332	332	332	325
1	357	343	331	319	349	336	325	314	322	313	304	310	302	295	298	292	286	280
2	328	303	283	266	319	297	278	262	286	270	256	275	262	251	265	255	245	238
3	301	269	244	225	293	264	241	223	254	235	219	246	229	215	237	223	211	205
4	277	240	214	193	270	236	211	192	228	207	189	221	202	187	214	198	184	178
5	256	216	189	169	249	213	187	168	206	183	166	200	180	164	194	176	162	156
6	237	196	169	149	231	193	167	148	187	164	147	182	161	146	177	159	144	138
7	221	179	152	133	215	176	150	132	171	148	131	167	146	130	162	144	129	123
8	206	164	138	119	201	162	137	119	158	135	118	154	133	118	150	131	117	111
9	193	151	126	108	189	149	125	108	146	123	107	142	122	107	139	120	106	101
10	181	140	115	99	177	138	115	99	135	113	98	132	112	98	129	111	97	92

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UGR TABLE - CORRECTED

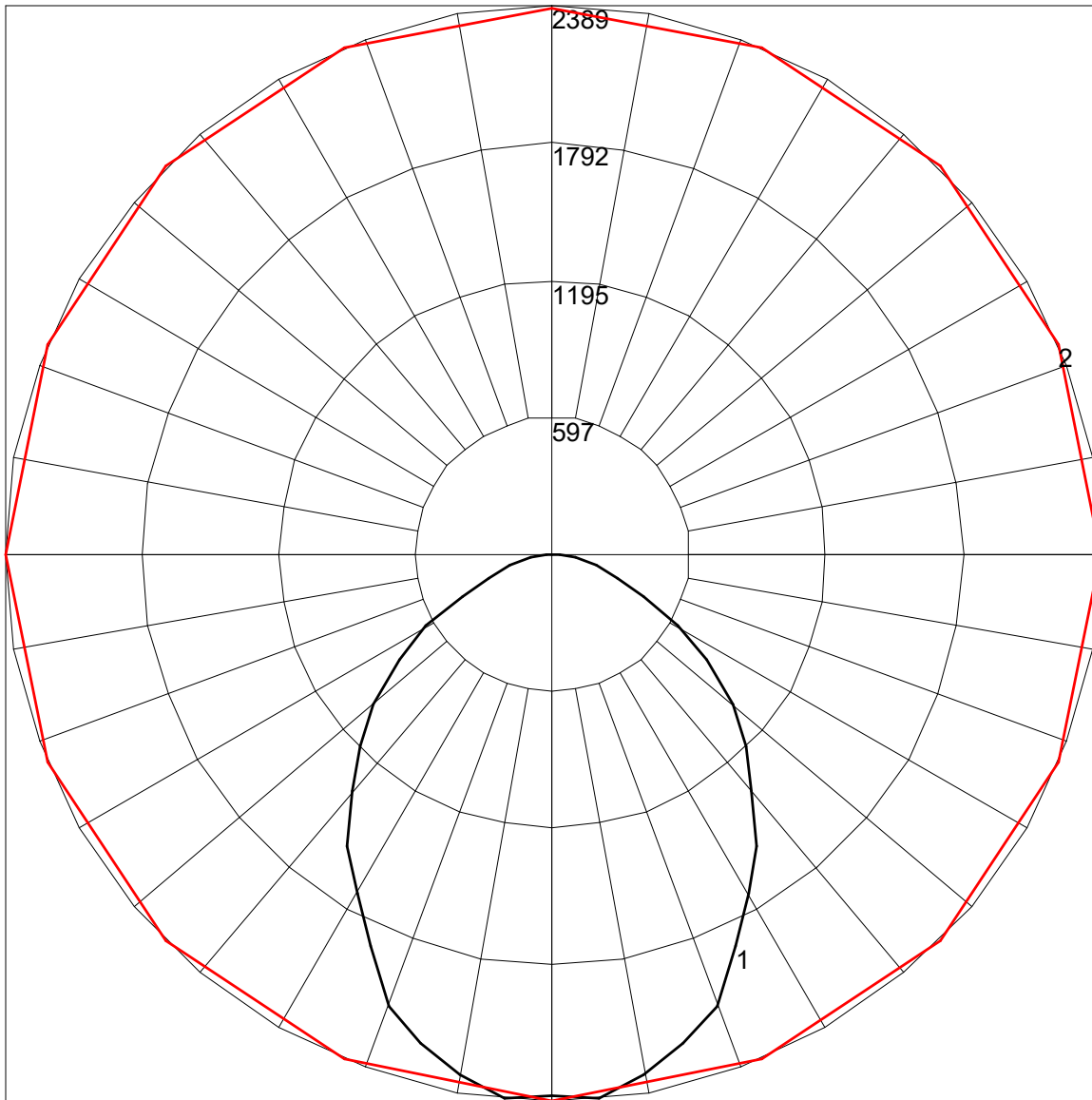
Reflectances

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					UGR Viewed Endwise				
X=2H	Y=2H	13.5	15.0	13.8	15.3	15.6	13.3	14.8	13.6	15.1	15.4
	3H	15.1	16.5	15.5	16.8	17.2	14.4	15.8	14.8	16.1	16.4
	4H	15.7	17.0	16.1	17.3	17.7	14.7	16.0	15.1	16.4	16.8
	6H	16.0	17.2	16.5	17.6	18.0	15.0	16.2	15.4	16.5	16.9
	8H	16.2	17.3	16.6	17.7	18.1	15.0	16.1	15.4	16.5	16.9
	12H	16.3	17.3	16.7	17.7	18.2	15.0	16.1	15.4	16.5	16.9
4H	2H	14.1	15.4	14.5	15.7	16.1	13.9	15.2	14.3	15.5	15.9
	3H	15.9	16.9	16.3	17.3	17.7	15.2	16.3	15.6	16.7	17.1
	4H	16.5	17.5	17.0	17.9	18.4	15.6	16.6	16.1	17.0	17.4
	6H	17.0	17.9	17.5	18.3	18.8	15.9	16.8	16.4	17.2	17.7
	8H	17.2	18.0	17.7	18.4	18.9	16.0	16.8	16.4	17.2	17.7
	12H	17.3	18.0	17.8	18.5	19.0	16.0	16.7	16.5	17.2	17.7
8H	4H	16.7	17.5	17.2	17.9	18.4	15.9	16.7	16.3	17.1	17.6
	6H	17.3	17.9	17.8	18.4	18.9	16.2	16.9	16.7	17.4	17.9
	8H	17.5	18.1	18.0	18.6	19.1	16.3	16.9	16.9	17.4	17.9
	12H	17.7	18.2	18.2	18.7	19.3	16.4	16.9	16.9	17.4	18.0
12H	4H	16.7	17.4	17.2	17.9	18.3	15.9	16.6	16.4	17.1	17.5
	6H	17.3	17.9	17.8	18.3	18.9	16.3	16.9	16.8	17.3	17.9
	8H	17.6	18.1	18.1	18.6	19.1	16.4	16.9	16.9	17.4	18.0

Maximum UGR = 19.3

POLAR GRAPH



Maximum Candela = 2389.416 Located At Horizontal Angle = 0, Vertical Angle = 5
1 - Vertical Plane Through Horizontal Angles (90 - 270)
2 - Horizontal Cone Through Vertical Angle (5) (Through Max. Cd.)