



IES INDOOR REPORT

PHOTOMETRIC FILENAME : AT3-14-L54-8TW-D-DALI-UNV 4000K_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from BALLABS TEST NO. 19434.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 3-JAN-2020

[MANUFAC] WILLIAMS INDOOR

[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO

[LUMINAIRE] 2-42 LED 22" ARRAYS 1x4' RECESSED LUMINAIRE

[MORE] WHITE REFLECTOR w/2 PIECE FROSTED ACRYLIC LENS IN DOOR

[LUMCAT] AT3-14-L54-8TW-D-DALI-UNV 4000k

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	5059
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	91
Total Luminaire Watts	55.39
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.12
Spacing Criterion (90-270)	1.06
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	6548	6323	6265
55	5569	5436	5226
65	4949	4796	3543
75	3932	2807	2568
85	3240	2227	1654

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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	2306.682	2306.682	2306.682	2306.682	2306.682
5	2282.101	2278.929	2275.757	2271.792	2270.206
10	2255.140	2246.418	2232.145	2221.044	2217.872
15	2160.780	2152.057	2130.648	2113.996	2104.481
20	2059.283	2039.459	2005.362	1975.230	1963.336
25	1845.980	1825.363	1791.267	1762.721	1754.791
30	1697.699	1671.532	1632.677	1609.682	1602.545
35	1537.524	1512.942	1478.846	1461.401	1455.850
40	1370.212	1346.423	1319.463	1309.948	1304.397
45	1248.098	1221.931	1205.279	1196.557	1194.178
50	1045.897	1026.866	1015.765	1008.628	1003.871
55	861.140	845.281	840.523	826.250	808.013
60	692.242	681.934	678.762	639.115	601.054
65	563.785	557.442	546.340	448.808	403.610
70	413.125	411.539	359.205	271.188	264.051
75	274.360	277.531	195.858	183.171	179.206
80	168.105	147.488	122.114	115.770	111.805
85	76.123	59.471	52.334	42.026	38.854
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	816.32	N.A.	16.10
0-30	1649.99	N.A.	32.60
0-40	2580.46	N.A.	51.00
0-60	4251.14	N.A.	84.00
0-80	4994.19	N.A.	98.70
0-90	5058.7	N.A.	100.00
10-90	4842.59	N.A.	95.70
20-40	1764.14	N.A.	34.90
20-50	2685.01	N.A.	53.10
40-70	2171.56	N.A.	42.90
60-80	743.05	N.A.	14.70
70-80	242.16	N.A.	4.80
80-90	64.51	N.A.	1.30
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	5058.7	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	216.11
10-20	600.22
20-30	833.66
30-40	930.48
40-50	920.87
50-60	749.81
60-70	500.89
70-80	242.16
80-90	64.51
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	318	318	318	318	310	310	310	310	296	296	296	284	284	284	272	272	272	267
1	293	281	271	261	286	275	266	257	264	256	249	253	247	241	244	239	234	229
2	268	248	231	217	261	243	227	214	234	221	209	225	214	205	217	208	200	194
3	246	220	199	183	240	216	197	181	208	192	178	201	187	175	194	182	172	167
4	226	196	174	157	220	193	172	156	186	168	154	180	165	152	174	161	150	144
5	209	177	154	137	204	174	152	136	168	149	135	163	146	133	158	144	132	127
6	194	160	137	121	189	157	136	120	153	133	119	148	131	118	144	129	117	112
7	180	146	123	108	176	144	122	107	140	120	106	136	119	106	132	117	105	100
8	168	134	112	97	164	132	111	96	128	109	96	125	108	95	122	106	95	90
9	158	123	102	88	154	121	101	87	118	100	87	116	99	87	113	97	86	81
10	148	114	94	80	145	113	93	80	110	92	79	107	91	79	105	90	79	74

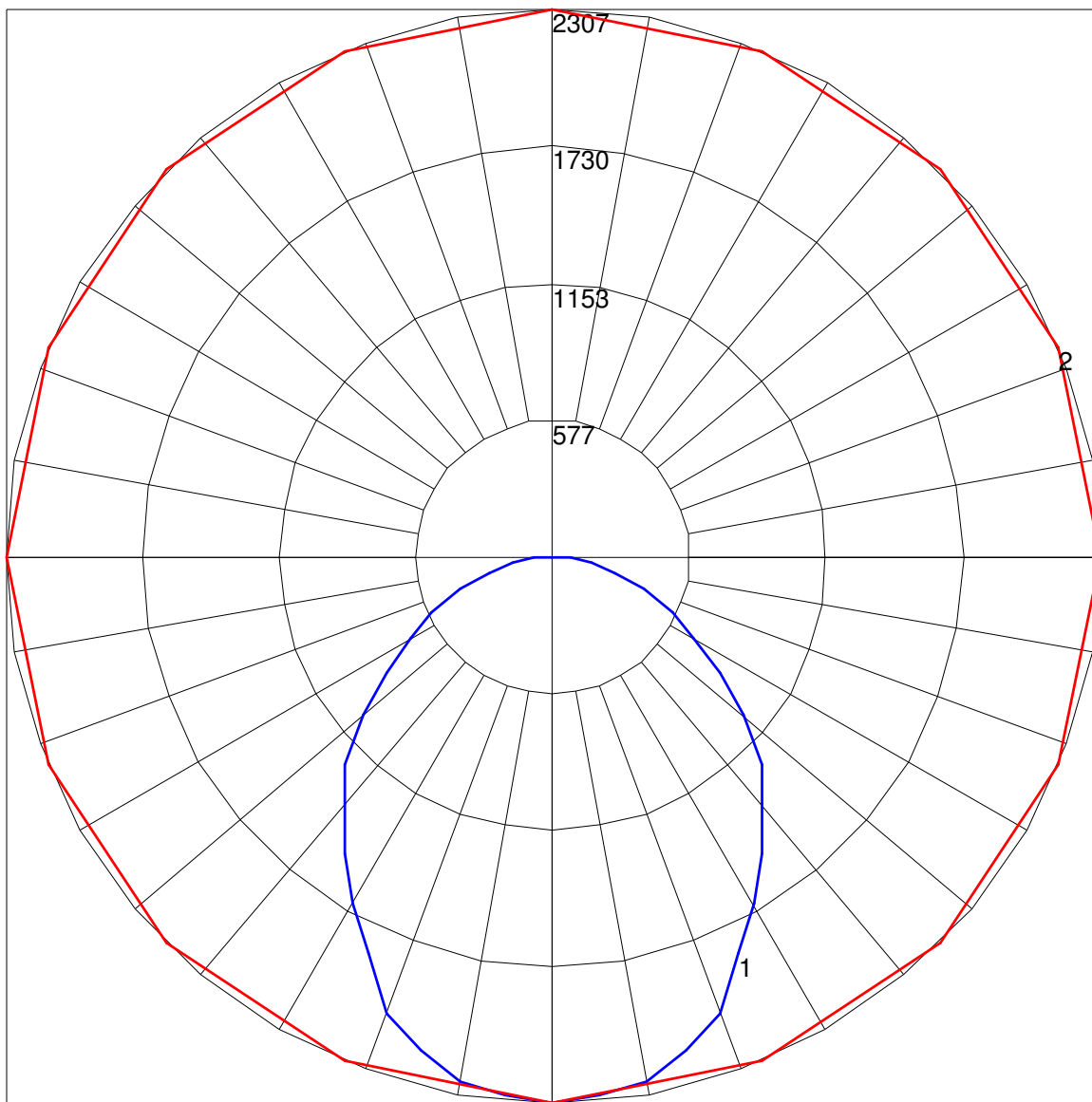
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UGR TABLE - CORRECTED

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	14.3	15.9	14.7	16.2	16.5	14.0	15.5	14.3	15.8	16.1
	3H	16.0	17.4	16.4	17.7	18.1	14.9	16.3	15.3	16.6	17.0
	4H	16.6	17.9	17.0	18.2	18.6	15.2	16.5	15.6	16.9	17.3
	6H	17.0	18.2	17.4	18.6	19.0	15.5	16.7	15.9	17.1	17.5
	8H	17.1	18.3	17.6	18.7	19.1	15.6	16.7	16.0	17.1	17.5
	12H	17.2	18.3	17.7	18.7	19.2	15.6	16.7	16.0	17.1	17.5
4H	2H	14.9	16.2	15.3	16.6	16.9	14.6	15.9	15.0	16.3	16.6
	3H	16.7	17.8	17.2	18.2	18.6	15.7	16.8	16.1	17.2	17.6
	4H	17.5	18.4	17.9	18.8	19.3	16.1	17.1	16.5	17.5	17.9
	6H	18.0	18.8	18.4	19.3	19.7	16.5	17.3	16.9	17.8	18.2
	8H	18.2	18.9	18.6	19.4	19.9	16.6	17.4	17.1	17.8	18.3
	12H	18.3	19.0	18.8	19.5	19.9	16.7	17.4	17.1	17.8	18.3
8H	4H	17.6	18.4	18.0	18.8	19.3	16.4	17.1	16.8	17.6	18.1
	6H	18.2	18.8	18.7	19.3	19.8	16.8	17.5	17.3	18.0	18.4
	8H	18.4	19.0	18.9	19.5	20.0	17.0	17.6	17.5	18.1	18.6
	12H	18.6	19.1	19.1	19.6	20.2	17.1	17.6	17.6	18.1	18.7
12H	4H	17.6	18.3	18.1	18.8	19.2	16.4	17.1	16.9	17.6	18.0
	6H	18.2	18.8	18.7	19.3	19.8	16.9	17.5	17.4	17.9	18.5
	8H	18.5	19.0	19.0	19.5	20.1	17.1	17.6	17.6	18.1	18.6

Maximum UGR = 20.2

POLAR GRAPH



Maximum Candela = 2306.682 Located At Horizontal Angle = 0, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)