



IES INDOOR REPORT

PHOTOMETRIC FILENAME : AT1-14-P16-835-D-POE_.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-P16-835-D-PoE

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	1649
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	115
Total Luminaire Watts	14.4
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	2040	2002	1975
55	1712	1708	1665
65	1509	1509	1210
75	1190	993	890
85	946	584	417

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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	748.357	748.357	748.357	748.357	748.357
5	754.239	753.586	753.586	753.586	752.932
10	732.671	731.364	730.057	728.749	728.749
15	703.913	703.913	699.992	697.377	697.377
20	675.155	673.195	668.619	663.391	662.084
25	612.411	610.450	603.914	601.300	598.032
30	556.856	554.242	547.706	542.477	541.170
35	508.491	505.876	499.994	495.419	492.805
40	443.132	439.864	435.289	430.714	428.753
45	388.884	384.309	381.695	378.427	376.466
50	330.061	327.447	324.833	323.526	322.872
55	264.703	264.703	264.049	261.435	257.513
60	215.684	216.337	216.337	207.187	200.651
65	171.893	173.201	171.893	150.325	137.907
70	125.489	127.449	117.646	96.731	94.770
75	83.006	86.273	69.280	63.398	62.091
80	49.019	46.405	39.215	32.679	30.065
85	22.222	18.300	13.725	10.457	9.804
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	268.72	N.A.	16.30
0-30	548.30	N.A.	33.30
0-40	858.90	N.A.	52.10
0-60	1390.84	N.A.	84.30
0-80	1630.31	N.A.	98.90
0-90	1649.01	N.A.	100.00
10-90	1577.98	N.A.	95.70
20-40	590.18	N.A.	35.80
20-50	884.42	N.A.	53.60
40-70	692.78	N.A.	42.00
60-80	239.48	N.A.	14.50
70-80	78.64	N.A.	4.80
80-90	18.70	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	1649.01	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	71.04
10-20	197.69
20-30	279.57
30-40	310.60
40-50	294.25
50-60	237.69
60-70	160.84
70-80	78.64
80-90	18.70
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	51	51	51	51	50	50	50	50	48	48	48	46	46	46	44	44	44	43
1	47	46	44	42	46	45	43	42	43	42	40	41	40	39	40	39	38	37
2	44	40	38	35	42	39	37	35	38	36	34	37	35	33	35	34	33	32
3	40	36	32	30	39	35	32	30	34	31	29	33	30	29	32	30	28	27
4	37	32	28	26	36	31	28	25	30	27	25	29	27	25	28	26	24	24
5	34	29	25	22	33	28	25	22	27	24	22	27	24	22	26	23	22	21
6	32	26	22	20	31	26	22	20	25	22	19	24	21	19	24	21	19	18
7	29	24	20	18	29	23	20	18	23	20	17	22	19	17	22	19	17	16
8	27	22	18	16	27	21	18	16	21	18	16	20	18	16	20	17	16	15
9	26	20	17	14	25	20	17	14	19	16	14	19	16	14	18	16	14	13
10	24	19	15	13	24	18	15	13	18	15	13	18	15	13	17	15	13	12

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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	16.6	18.1	16.9	18.4	18.7	16.4	17.9	16.7	18.2	18.5
	3H	18.2	19.6	18.6	19.9	20.3	17.5	18.9	17.9	19.2	19.5
	4H	18.8	20.1	19.2	20.4	20.8	17.8	19.1	18.2	19.5	19.9
	6H	19.1	20.3	19.6	20.7	21.1	18.1	19.3	18.5	19.6	20.0
	8H	19.3	20.4	19.7	20.8	21.2	18.1	19.2	18.5	19.6	20.0
	12H	19.4	20.4	19.8	20.8	21.3	18.1	19.2	18.5	19.6	20.0

UGR Viewed Endwise

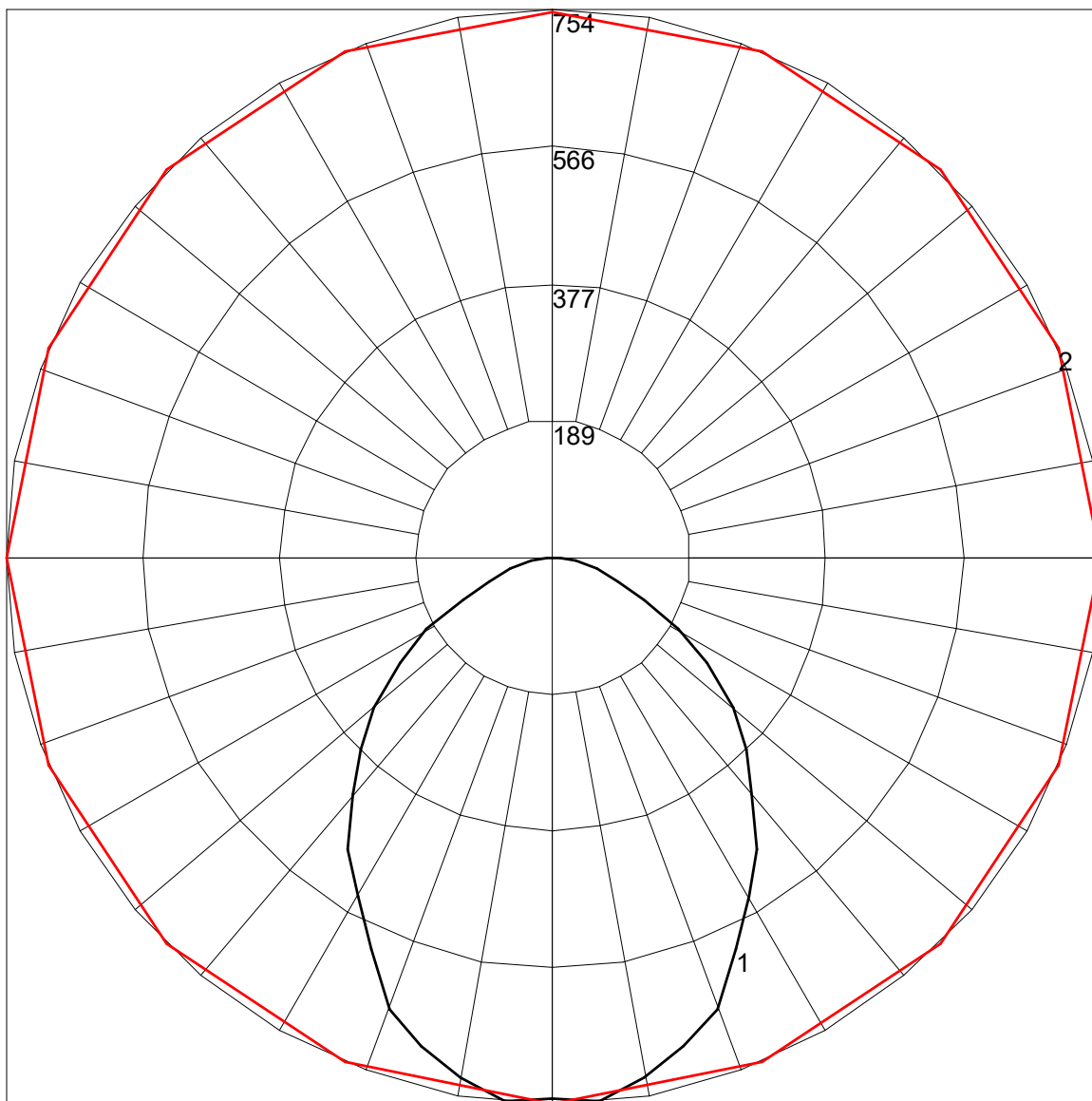
4H	2H	17.2	18.5	17.6	18.8	19.2	17.0	18.3	17.4	18.6	19.0
	3H	19.0	20.0	19.4	20.4	20.8	18.3	19.4	18.7	19.8	20.2
	4H	19.6	20.6	20.1	21.0	21.5	18.7	19.7	19.2	20.1	20.5
	6H	20.1	21.0	20.6	21.4	21.9	19.0	19.9	19.5	20.3	20.8
	8H	20.3	21.1	20.8	21.5	22.0	19.1	19.9	19.5	20.3	20.8
	12H	20.4	21.1	20.9	21.6	22.1	19.1	19.8	19.6	20.3	20.8

8H	4H	19.8	20.6	20.3	21.0	21.5	19.0	19.8	19.4	20.2	20.7
	6H	20.4	21.0	20.9	21.5	22.0	19.3	20.0	19.8	20.5	21.0
	8H	20.6	21.2	21.1	21.7	22.2	19.4	20.0	20.0	20.5	21.0
	12H	20.8	21.3	21.3	21.8	22.4	19.5	20.0	20.0	20.5	21.1

12H	4H	19.8	20.5	20.3	21.0	21.4	19.0	19.7	19.5	20.2	20.6
	6H	20.4	21.0	20.9	21.4	22.0	19.4	20.0	19.9	20.4	21.0
	8H	20.7	21.2	21.2	21.7	22.2	19.5	20.0	20.0	20.5	21.1

Maximum UGR = 22.4

POLAR GRAPH



Maximum Candela = 754.239 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.)