



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4AR-P28-835-POE-ON-OF-CS\_0 DEGREE TILT\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from BALLABS TEST NO. 20451.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUE DATE] 11-MAR-2020

[MANUFAC] WILLIAMS INDOOR

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

[LUMCAT] 4AR-P28-835-POE-ON-OF-CS\_0 DEGREE TILT

[LUMINAIRE] GEN7 V13 LED 4" SHORT HEATSINK 4" RND ADJ DOWNLIGHT @ 0 TILT

[MORE] ACRYLIC NARROW TIR OPTIC & 4" OPEN ASYM SEMI-SPEC TRIM

[\_SEARCH\_SOURCETYPE] LED

[\_SEARCH\_APPLICATION] Indoor, Classroom, Commercial, Industrial, Direct, Downlight

[\_SEARCH\_MOUNTING] Recessed

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	3086
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	82
Total Luminaire Watts	37.5
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.38
Spacing Criterion (90-270)	0.40
Spacing Criterion (Diagonal)	0.38
Basic Luminous Shape	Circular
Luminous Length (0-180)	0.33 ft (Diameter)
Luminous Width (90-270)	0.33 ft (Diameter)
Luminous Height	0.00 ft

### LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	2392	2392	2392
55	0	0	0
65	0	0	0
75	0	0	0
85	0	0	0

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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>	17835.489	17835.489	17835.489	17835.489	17835.489	17835.489	17835.489	17835.489	17835.489
<b>5</b>	16180.869	15868.821	15905.353	16051.483	15922.097	16013.429	15529.372	15645.059	15642.014
<b>10</b>	10184.967	10151.479	10215.411	10757.310	10369.152	10229.110	9641.545	10046.448	9632.412
<b>15</b>	4310.839	4053.589	4595.489	4653.332	4807.073	4880.138	4645.721	4393.038	4179.931
<b>20</b>	1557.199	1427.813	1602.865	1647.009	1844.893	1761.173	1703.330	1706.374	1633.309
<b>25</b>	494.711	494.711	523.633	586.043	589.087	598.220	560.166	572.343	587.565
<b>30</b>	149.175	144.608	140.041	149.175	153.741	153.741	150.697	153.741	140.041
<b>35</b>	42.621	45.666	45.666	45.666	50.232	48.710	47.188	47.188	39.577
<b>40</b>	19.788	18.266	19.788	21.311	21.311	21.311	18.266	18.266	15.222
<b>45</b>	13.700	13.700	13.700	13.700	13.700	10.655	6.089	10.655	10.655
<b>50</b>	0.000	0.000	0.000	0.000	1.522	1.522	0.000	0.000	0.000
<b>55</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>60</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>65</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>70</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>75</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>80</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>85</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<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	2716.14	N.A.	88.00
0-30	3038.36	N.A.	98.40
0-40	3078.11	N.A.	99.70
0-60	3086.45	N.A.	100.00
0-80	3086.45	N.A.	100.00
0-90	3086.45	N.A.	100.00
10-90	1752.83	N.A.	56.80
20-40	361.97	N.A.	11.70
20-50	370.23	N.A.	12.00
40-70	8.34	N.A.	0.30
60-80	0.00	N.A.	0.00
70-80	0.00	N.A.	0.00
80-90	0.00	N.A.	0.00
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	3086.45	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	1333.62
10-20	1382.52
20-30	322.23
30-40	39.75
40-50	8.26
50-60	0.08
60-70	0.00
70-80	0.00
80-90	0.00
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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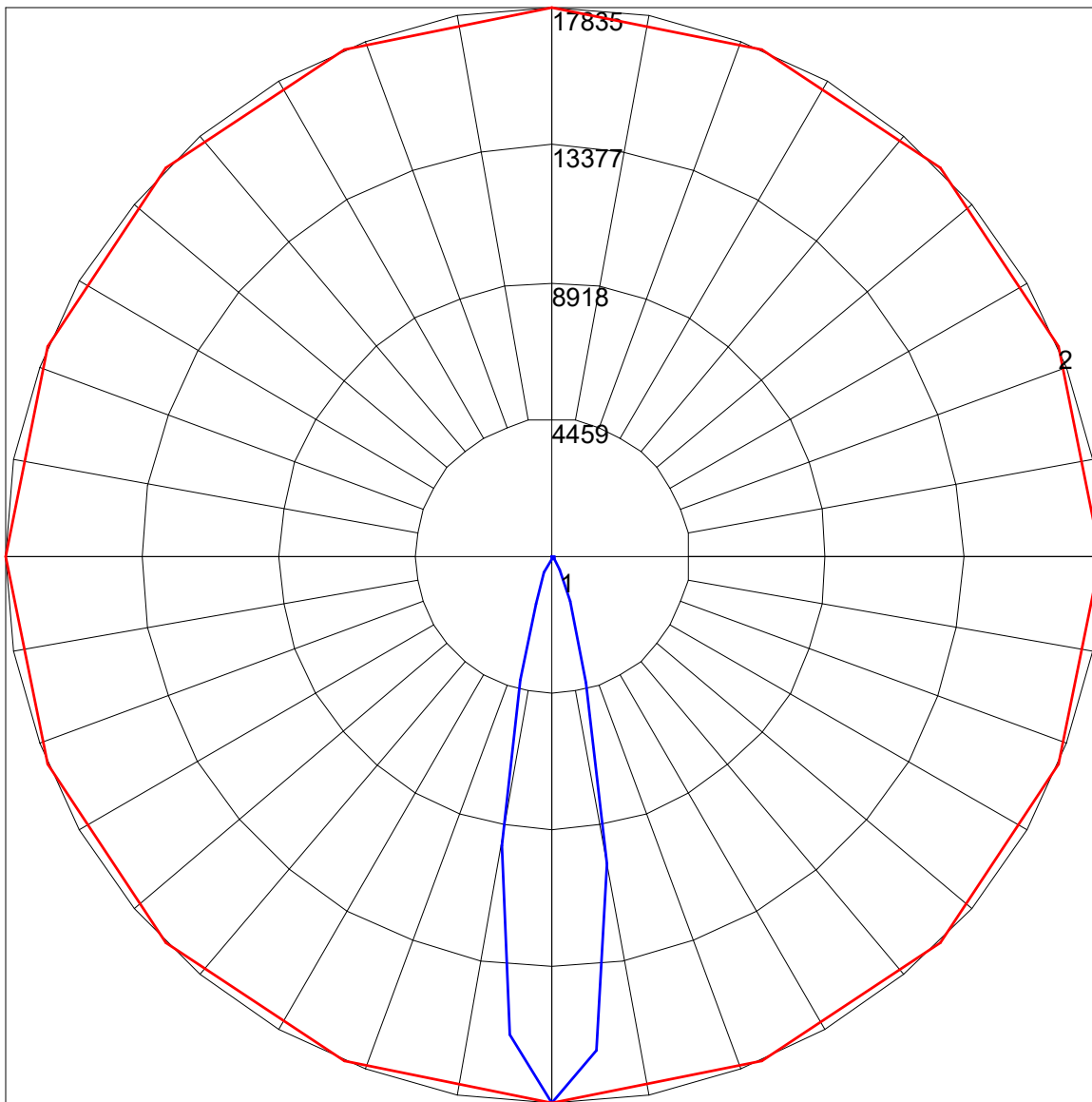
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## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	327	327	327	327	320	320	320	320	305	305	305	292	292	292	280	280	280	275
1	317	312	307	302	311	306	302	298	295	292	289	285	282	280	276	274	272	268
2	308	299	291	285	302	294	287	282	286	280	276	278	274	270	271	267	264	261
3	299	288	279	271	294	284	276	269	277	271	265	271	266	261	265	261	257	254
4	291	278	268	261	287	275	266	259	270	262	256	265	258	253	260	255	251	248
5	284	269	259	252	280	267	258	250	263	255	248	259	252	246	255	249	244	242
6	277	261	251	244	274	260	250	243	256	248	241	253	246	240	250	243	239	236
7	270	254	244	237	268	253	243	236	250	241	235	247	240	234	245	238	233	231
8	264	248	238	231	262	247	237	230	244	236	230	242	234	229	240	233	228	225
9	258	242	232	225	256	241	231	225	239	230	224	237	229	224	235	228	223	221
10	253	236	227	220	251	235	226	220	234	225	219	232	224	219	230	223	218	216

POLAR GRAPH



Maximum Candela = 17835.489 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.)