



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4AR-P22-8TW-POE-OW-OF-CS 4000K_0 DEGREE TILT_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN FROM BALLABS TEST NO. 20445.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 12-MAR-2020

[MANUFAC] WILLAIMS INDOOR

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

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

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

[LUMCAT] 4AR-P22-8TW-PoE-OW-OF-CS 4000k_0 DEGREE TILT

[_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	1330
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	53
Total Luminaire Watts	25
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.76
Spacing Criterion (90-270)	0.76
Spacing Criterion (Diagonal)	0.64
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	842	673	1346
55	830	830	830
65	845	282	282
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>
0	2584.826	2584.826	2584.826	2584.826	2584.826	2584.826	2584.826	2584.826	2584.826
5	2665.783	2660.000	2656.145	2651.326	2649.399	2653.254	2657.109	2666.746	2660.964
10	2755.413	2744.812	2737.101	2739.993	2745.775	2766.978	2778.544	2789.145	2791.072
15	2583.862	2553.986	2540.493	2545.312	2558.804	2611.812	2648.435	2654.217	2662.891
20	1745.384	1673.101	1690.449	1607.565	1709.725	1656.717	1796.464	1834.051	1914.043
25	651.507	633.196	663.072	697.768	703.551	690.058	668.855	664.036	657.290
30	173.478	179.261	165.768	139.746	173.478	184.080	157.094	142.638	166.732
35	20.239	19.275	20.239	23.130	30.841	32.768	28.913	27.949	28.913
40	7.710	7.710	7.710	11.565	13.493	14.457	12.529	12.529	12.529
45	4.819	4.819	3.855	3.855	7.710	8.674	6.746	6.746	6.746
50	6.746	3.855	2.891	4.819	4.819	6.746	3.855	4.819	4.819
55	3.855	3.855	3.855	1.928	3.855	2.891	2.891	2.891	2.891
60	2.891	1.928	0.964	1.928	1.928	0.964	0.964	0.964	1.928
65	2.891	2.891	0.964	0.964	0.964	0.000	0.000	0.000	0.000
70	1.928	0.964	1.928	0.000	0.964	0.000	0.000	0.000	0.000
75	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
80	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
85	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
90	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	929.65	N.A.	69.90
0-30	1286.79	N.A.	96.70
0-40	1320.97	N.A.	99.30
0-60	1329.14	N.A.	99.90
0-80	1330.27	N.A.	100.00
0-90	1330.27	N.A.	100.00
10-90	1073.83	N.A.	80.70
20-40	391.33	N.A.	29.40
20-50	396.69	N.A.	29.80
40-70	9.14	N.A.	0.70
60-80	1.12	N.A.	0.10
70-80	0.16	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	1330.27	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	256.44
10-20	673.21
20-30	357.14
30-40	34.19
40-50	5.37
50-60	2.80
60-70	0.97
70-80	0.16
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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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

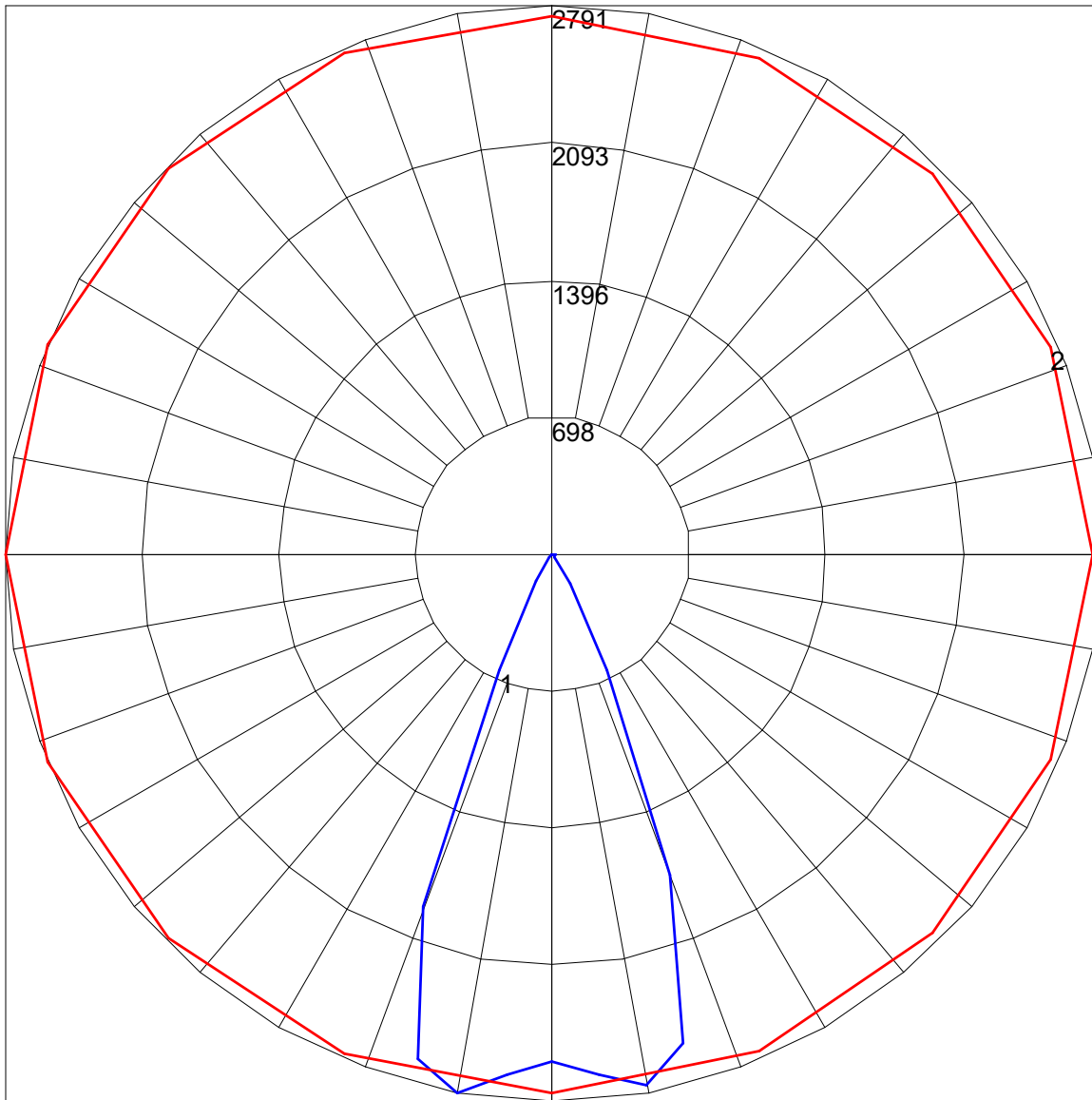
Effective Floor Cavity Reflectance 0.20

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	224	224	224	224	218	218	218	218	209	209	209	200	200	200	192	192	192	188
1	215	211	207	204	211	207	204	201	200	197	194	193	191	189	186	185	183	180
2	207	200	194	189	203	197	191	187	191	187	183	186	182	179	181	178	175	172
3	200	190	183	177	196	188	181	176	183	177	173	179	174	170	175	171	168	165
4	193	181	173	167	190	179	172	166	176	169	164	172	167	162	169	164	161	158
5	186	174	165	159	183	172	164	158	169	162	157	166	160	155	163	158	154	152
6	179	166	158	151	177	165	157	151	162	155	150	160	154	149	158	152	148	146
7	173	160	151	145	171	158	150	144	156	149	144	154	148	143	152	147	142	140
8	167	153	145	139	165	152	144	138	151	143	138	149	142	137	147	141	137	135
9	162	148	139	133	160	147	138	133	145	138	132	144	137	132	142	136	132	130
10	156	142	134	128	155	141	133	128	140	133	127	139	132	127	138	131	127	125

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POLAR GRAPH



Maximum Candela = 2791.072 Located At Horizontal Angle = 180, Vertical Angle = 10

1 - Vertical Plane Through Horizontal Angles (180 - 0) (Through Max. Cd.)

2 - Horizontal Cone Through Vertical Angle (10) (Through Max. Cd.)