



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4AR-P22-835-POE-OW-OF-CS\_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-P22-835-PoE-OW-OF-CS\_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	1570
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	63
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	993	795	1589
55	980	980	980
65	997	332	332
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>	3051.260	3051.260	3051.260	3051.260	3051.260	3051.260	3051.260	3051.260	3051.260
<b>5</b>	3146.826	3140.000	3135.449	3129.760	3127.485	3132.036	3136.587	3147.963	3141.137
<b>10</b>	3252.630	3240.116	3231.014	3234.427	3241.253	3266.282	3279.934	3292.449	3294.724
<b>15</b>	3050.123	3014.855	2998.927	3004.616	3020.543	3083.116	3126.347	3133.173	3143.413
<b>20</b>	2060.340	1975.014	1995.492	1897.652	2018.246	1955.674	2120.637	2165.007	2259.434
<b>25</b>	769.072	747.456	782.725	823.681	830.507	814.580	789.551	783.862	775.898
<b>30</b>	204.783	211.609	195.681	164.964	204.783	217.297	185.442	168.377	196.819
<b>35</b>	23.891	22.754	23.891	27.304	36.406	38.681	34.130	32.993	34.130
<b>40</b>	9.101	9.101	9.101	13.652	15.928	17.065	14.790	14.790	14.790
<b>45</b>	5.688	5.688	4.551	4.551	9.101	10.239	7.964	7.964	7.964
<b>50</b>	7.964	4.551	3.413	5.688	5.688	7.964	4.551	5.688	5.688
<b>55</b>	4.551	4.551	4.551	2.275	4.551	3.413	3.413	3.413	3.413
<b>60</b>	3.413	2.275	1.138	2.275	2.275	1.138	1.138	1.138	2.275
<b>65</b>	3.413	3.413	1.138	1.138	1.138	0.000	0.000	0.000	0.000
<b>70</b>	2.275	1.138	2.275	0.000	1.138	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	1097.4	N.A.	69.90
0-30	1518.99	N.A.	96.70
0-40	1559.35	N.A.	99.30
0-60	1568.99	N.A.	99.90
0-80	1570.32	N.A.	100.00
0-90	1570.32	N.A.	100.00
10-90	1267.61	N.A.	80.70
20-40	461.94	N.A.	29.40
20-50	468.28	N.A.	29.80
40-70	10.78	N.A.	0.70
60-80	1.33	N.A.	0.10
70-80	0.19	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	1570.32	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	302.71
10-20	794.69
20-30	421.59
30-40	40.36
40-50	6.34
50-60	3.31
60-70	1.14
70-80	0.19
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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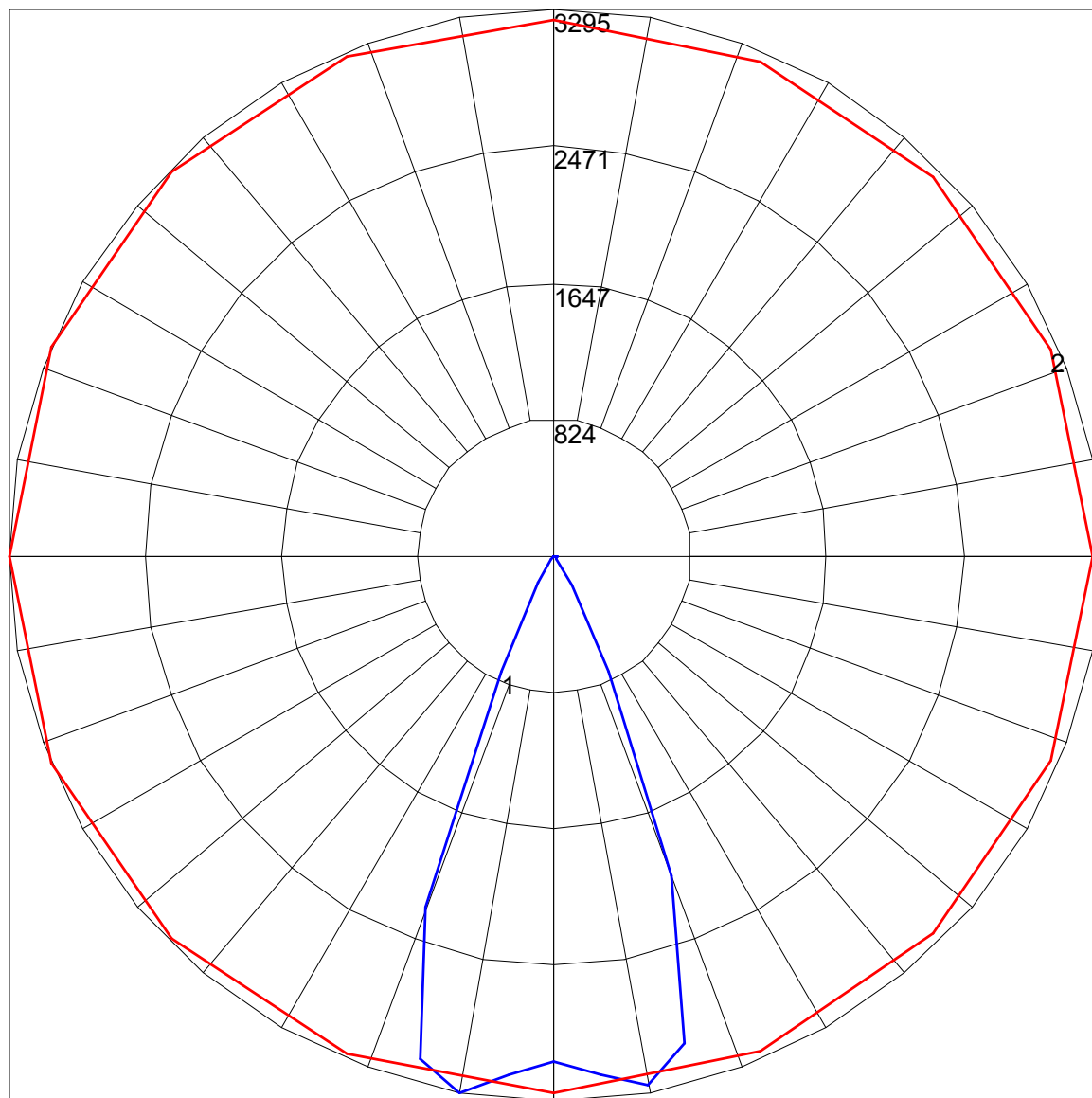
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## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	245	245	245	245	239	239	239	239	228	228	228	219	219	219	210	210	210	206
1	236	231	227	223	231	227	223	219	218	215	213	211	208	206	204	202	200	197
2	227	219	212	207	223	215	209	204	209	204	200	203	199	196	197	194	192	189
3	219	208	200	194	215	205	198	192	200	194	189	196	190	186	191	187	183	181
4	211	199	190	183	207	196	188	182	192	185	180	188	182	178	185	180	176	173
5	203	190	180	174	200	188	179	173	185	177	171	181	175	170	179	173	169	166
6	196	182	172	165	194	180	171	165	178	170	164	175	168	163	172	166	162	159
7	189	175	165	158	187	173	164	158	171	163	157	169	162	156	167	160	155	153
8	183	168	158	152	181	167	158	151	165	157	151	163	155	150	161	154	150	147
9	177	161	152	146	175	160	151	145	159	151	145	157	150	144	156	149	144	142
10	171	155	146	140	169	155	146	140	153	145	139	152	144	139	150	144	139	137

POLAR GRAPH



Maximum Candela = 3294.724 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.)