



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4AR-L11-8TW-DIM-UNV-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] 11-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-L11-8TW-DIM-UNV-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	713
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	49
Total Luminaire Watts	14.6
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	451	361	722
55	445	445	445
65	453	151	151
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>	1385.700	1385.700	1385.700	1385.700	1385.700	1385.700	1385.700	1385.700	1385.700
<b>5</b>	1429.100	1426.000	1423.933	1421.350	1420.316	1422.383	1424.450	1429.616	1426.516
<b>10</b>	1477.150	1471.466	1467.333	1468.883	1471.983	1483.350	1489.550	1495.233	1496.266
<b>15</b>	1385.183	1369.166	1361.933	1364.516	1371.750	1400.166	1419.800	1422.900	1427.550
<b>20</b>	935.683	896.933	906.233	861.800	916.567	888.150	963.067	983.217	1026.100
<b>25</b>	349.267	339.450	355.467	374.067	377.167	369.933	358.567	355.983	352.367
<b>30</b>	93.000	96.100	88.867	74.917	93.000	98.683	84.217	76.467	89.383
<b>35</b>	10.850	10.333	10.850	12.400	16.533	17.567	15.500	14.983	15.500
<b>40</b>	4.133	4.133	4.133	6.200	7.233	7.750	6.717	6.717	6.717
<b>45</b>	2.583	2.583	2.067	2.067	4.133	4.650	3.617	3.617	3.617
<b>50</b>	3.617	2.067	1.550	2.583	2.583	3.617	2.067	2.583	2.583
<b>55</b>	2.067	2.067	2.067	1.033	2.067	1.550	1.550	1.550	1.550
<b>60</b>	1.550	1.033	0.517	1.033	1.033	0.517	0.517	0.517	1.033
<b>65</b>	1.550	1.550	0.517	0.517	0.517	0.000	0.000	0.000	0.000
<b>70</b>	1.033	0.517	1.033	0.000	0.517	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

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : 4AR-L11-8TW-DIM-UNV-OW-OF-CS\_0 DEGREE TILT\_.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	498.37	N.A.	69.90
0-30	689.83	N.A.	96.70
0-40	708.16	N.A.	99.30
0-60	712.54	N.A.	99.90
0-80	713.14	N.A.	100.00
0-90	713.14	N.A.	100.00
10-90	575.67	N.A.	80.70
20-40	209.79	N.A.	29.40
20-50	212.66	N.A.	29.80
40-70	4.90	N.A.	0.70
60-80	0.60	N.A.	0.10
70-80	0.08	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	713.14	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	137.47
10-20	360.90
20-30	191.46
30-40	18.33
40-50	2.88
50-60	1.50
60-70	0.52
70-80	0.08
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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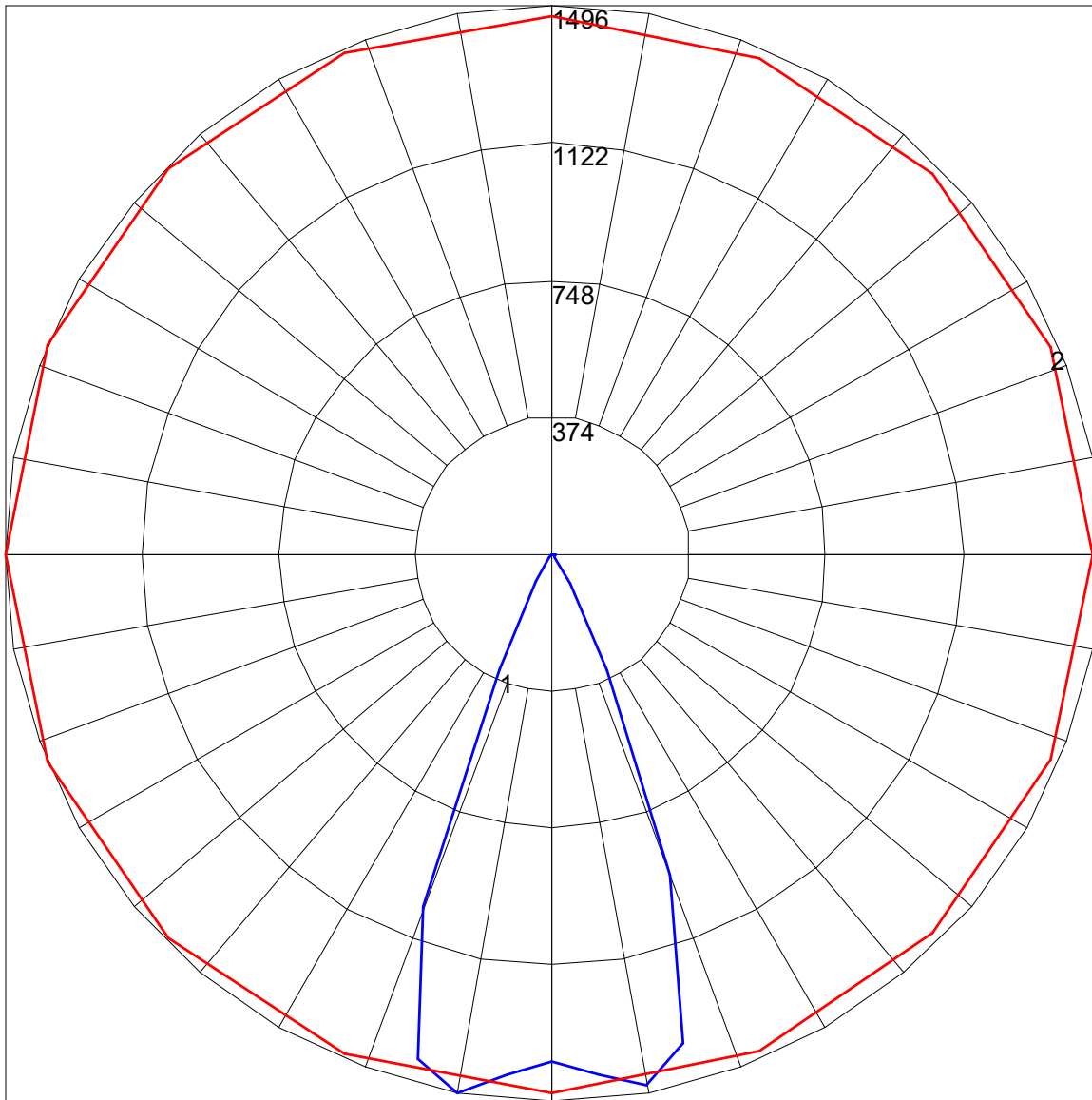
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## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	104	104	104	104	101	101	101	101	97	97	97	93	93	93	89	89	89	87
1	100	98	96	95	98	96	94	93	93	91	90	89	88	88	86	86	85	84
2	96	93	90	88	94	91	89	87	89	87	85	86	84	83	84	82	81	80
3	93	88	85	82	91	87	84	81	85	82	80	83	81	79	81	79	78	77
4	89	84	80	78	88	83	80	77	82	79	76	80	77	75	78	76	75	73
5	86	81	77	74	85	80	76	73	78	75	73	77	74	72	76	73	71	70
6	83	77	73	70	82	77	73	70	75	72	69	74	71	69	73	71	69	68
7	80	74	70	67	79	74	70	67	72	69	67	72	69	66	71	68	66	65
8	78	71	67	64	77	71	67	64	70	66	64	69	66	64	68	66	63	62
9	75	68	64	62	74	68	64	62	67	64	61	67	64	61	66	63	61	60
10	73	66	62	59	72	66	62	59	65	62	59	64	61	59	64	61	59	58

POLAR GRAPH



Maximum Candela = 1496.266 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.)