



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4AR-L7-9DW-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-L7-9DW-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	466
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	33
Total Luminaire Watts	14
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	295	236	472
55	291	291	291
65	296	99	99
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	905.661	905.661	905.661	905.661	905.661	905.661	905.661	905.661	905.661
5	934.026	932.000	930.649	928.961	928.285	929.636	930.987	934.364	932.338
10	965.430	961.716	959.014	960.027	962.053	969.482	973.535	977.249	977.925
15	905.323	894.855	890.127	891.816	896.543	915.116	927.948	929.974	933.013
20	611.540	586.214	592.293	563.252	599.046	580.474	629.438	642.607	670.635
25	228.272	221.856	232.325	244.481	246.507	241.780	234.351	232.662	230.299
30	60.783	62.809	58.081	48.964	60.783	64.497	55.042	49.977	58.419
35	7.091	6.754	7.091	8.104	10.806	11.481	10.130	9.793	10.130
40	2.701	2.701	2.701	4.052	4.728	5.065	4.390	4.390	4.390
45	1.688	1.688	1.351	1.351	2.701	3.039	2.364	2.364	2.364
50	2.364	1.351	1.013	1.688	1.688	2.364	1.351	1.688	1.688
55	1.351	1.351	1.351	0.675	1.351	1.013	1.013	1.013	1.013
60	1.013	0.675	0.338	0.675	0.675	0.338	0.338	0.338	0.675
65	1.013	1.013	0.338	0.338	0.338	0.000	0.000	0.000	0.000
70	0.675	0.338	0.675	0.000	0.338	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

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 4AR-L7-9DW-DIM-UNV-OW-OF-CS_0 DEGREE TILT_.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	325.73	N.A.	69.90
0-30	450.86	N.A.	96.70
0-40	462.84	N.A.	99.30
0-60	465.70	N.A.	99.90
0-80	466.09	N.A.	100.00
0-90	466.09	N.A.	100.00
10-90	376.24	N.A.	80.70
20-40	137.11	N.A.	29.40
20-50	138.99	N.A.	29.80
40-70	3.20	N.A.	0.70
60-80	0.39	N.A.	0.10
70-80	0.06	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	466.09	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	89.85
10-20	235.88
20-30	125.13
30-40	11.98
40-50	1.88
50-60	0.98
60-70	0.34
70-80	0.06
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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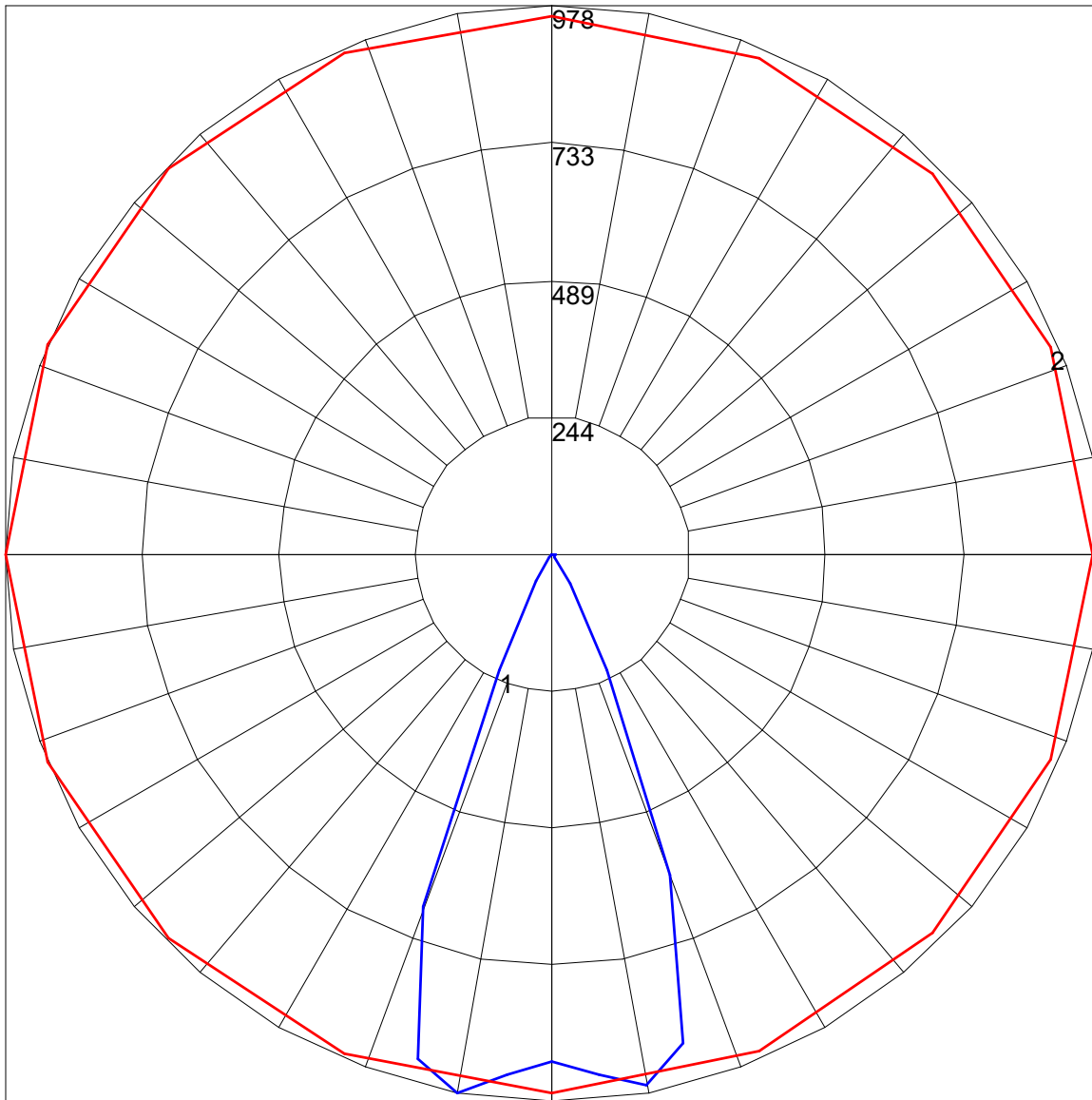
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

Effective Floor Cavity Reflectance 0.20

RC 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	84	84	84	84	82	82	82	82	78	78	78	75	75	75	72	72	72	70
1	81	79	78	76	79	77	76	75	75	74	73	72	71	71	70	69	69	67
2	78	75	73	71	76	74	72	70	71	70	68	69	68	67	68	66	66	64
3	75	71	68	66	73	70	68	66	68	66	65	67	65	64	65	64	63	62
4	72	68	65	63	71	67	64	62	66	63	61	64	62	61	63	61	60	59
5	70	65	62	59	69	64	61	59	63	61	59	62	60	58	61	59	58	57
6	67	62	59	57	66	62	59	56	61	58	56	60	57	56	59	57	55	55
7	65	60	56	54	64	59	56	54	58	56	54	58	55	53	57	55	53	52
8	63	57	54	52	62	57	54	52	56	54	52	56	53	51	55	53	51	50
9	60	55	52	50	60	55	52	50	54	52	50	54	51	49	53	51	49	49
10	59	53	50	48	58	53	50	48	52	50	48	52	49	48	51	49	47	47

POLAR GRAPH



Maximum Candela = 977.925 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.)