



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4DS-L11-9TC-DIM-LW-OF-WH.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002  
 [TEST]GEN FROM BALLABS TEST NO. 20316.0  
 [TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC  
 [ISSUE DATE] 16-APR-2018  
 [MANUFAC] WILLIAMS INDOOR  
 [OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO  
 [LUMINAIRE] 4"SHORT HEATSINK 4"SQ CAST HOUSING DOWNLIGHT  
 [MORE] WHITE MIXING CHAMBER & 4"CAST WHITE FLUSH w/SOLITE LENS  
 [LUMCAT] 4DS-L11-9TC-DIM-UNV-LW-OF-WH  
 [ \_SEARCH\_SOURCE TYPE] LED  
 [ \_SEARCH\_APPLICATION] Indoor, Classroom, Office, Downlight  
 [ \_SEARCH\_MOUNTING] Recessed

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	1106
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	46
Total Luminaire Watts	24
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.98
Spacing Criterion (90-270)	0.98
Spacing Criterion (Diagonal)	1.04
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	0.33 ft
Luminous Width (90-270)	0.33 ft
Luminous Height	0.00 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	23433	25429	23211
55	17497	17953	17406
65	12492	12121	12245
75	8482	8280	8482
85	2999	2399	3598

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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>
<b>0</b>	822.493	822.493	822.493	822.493	822.493
<b>5</b>	814.947	815.486	814.947	815.486	815.486
<b>10</b>	795.544	796.083	798.778	804.168	805.246
<b>15</b>	768.594	774.523	779.913	784.764	784.764
<b>20</b>	704.455	727.632	742.184	740.567	726.015
<b>25</b>	596.658	633.309	675.350	637.082	598.275
<b>30</b>	406.396	469.996	560.546	467.301	394.538
<b>35</b>	270.032	300.215	410.708	299.137	264.642
<b>40</b>	210.744	222.601	260.330	219.367	204.815
<b>45</b>	170.859	177.865	185.411	174.632	169.242
<b>50</b>	135.286	144.448	142.831	139.058	134.747
<b>55</b>	103.485	106.180	106.180	105.641	102.946
<b>60</b>	75.997	77.614	77.075	77.075	75.997
<b>65</b>	54.438	54.977	52.821	54.438	53.360
<b>70</b>	36.112	38.268	35.573	36.651	36.112
<b>75</b>	22.637	22.637	22.098	22.098	22.637
<b>80</b>	11.858	11.319	11.319	11.858	12.397
<b>85</b>	2.695	2.695	2.156	2.156	3.234
<b>90</b>	0.000	0.000	0.000	0.539	0.000

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	295.49	N.A.	26.70
0-30	579.40	N.A.	52.40
0-40	787.56	N.A.	71.20
0-60	1022.11	N.A.	92.40
0-80	1101.44	N.A.	99.60
0-90	1106.01	N.A.	100.00
10-90	1028.65	N.A.	93.00
20-40	492.07	N.A.	44.50
20-50	631.09	N.A.	57.10
40-70	289.36	N.A.	26.20
60-80	79.33	N.A.	7.20
70-80	24.53	N.A.	2.20
80-90	4.56	N.A.	0.40
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	1106.01	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	77.36
10-20	218.13
20-30	283.91
30-40	208.15
40-50	139.02
50-60	95.54
60-70	54.80
70-80	24.53
80-90	4.56
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

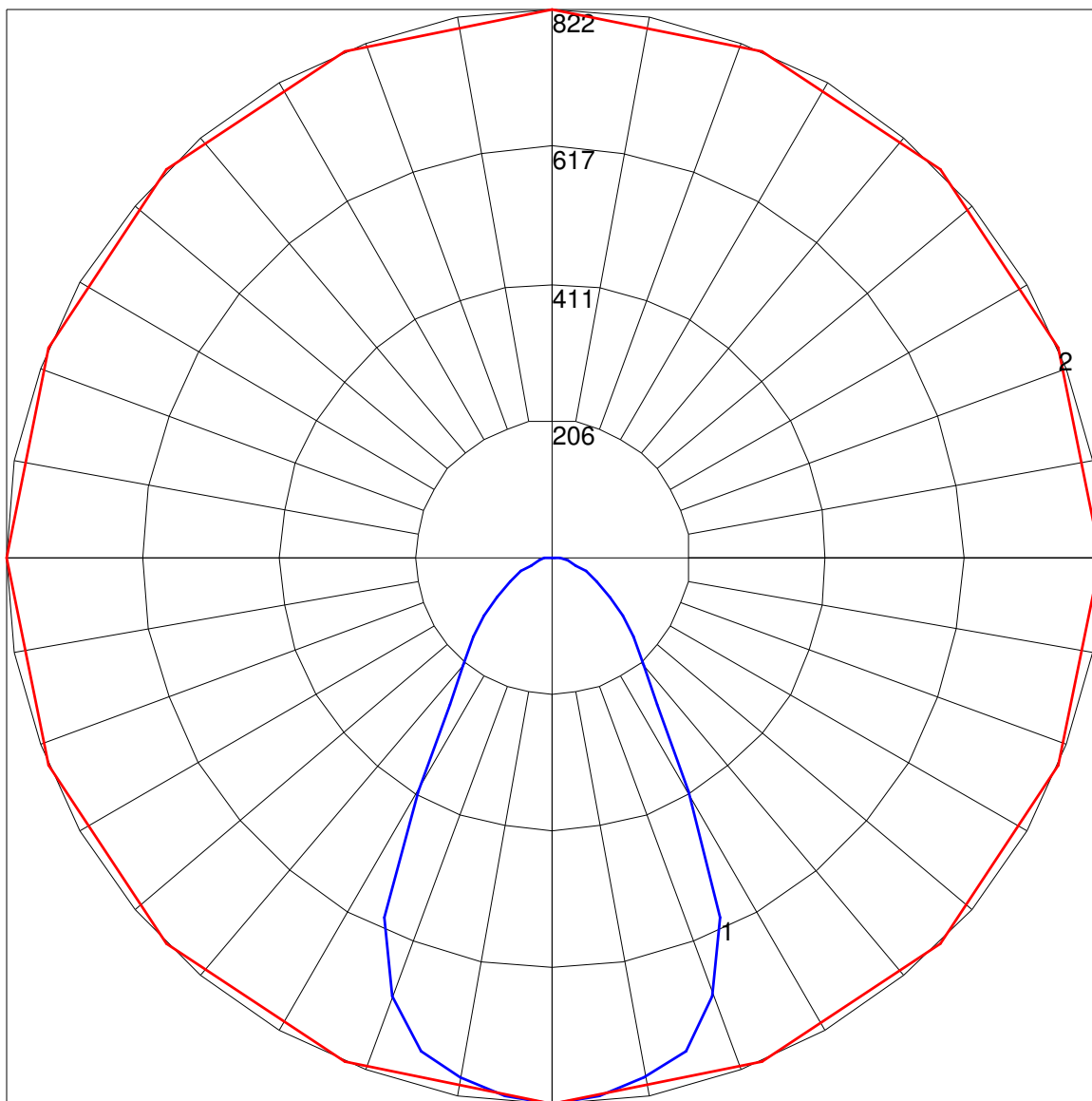
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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	78	78	78	78	76	76	76	76	73	73	73	70	70	70	67	67	67	65
1	73	71	69	67	71	69	67	66	67	65	64	64	63	62	62	61	60	59
2	68	64	61	58	67	63	60	57	61	58	56	59	57	55	57	55	54	52
3	64	58	54	51	62	57	54	51	56	52	50	54	51	49	52	50	48	47
4	60	53	49	45	58	53	48	45	51	48	45	50	47	44	48	46	44	42
5	56	49	44	41	55	48	44	41	47	43	40	46	43	40	45	42	40	38
6	52	45	41	37	51	45	40	37	44	40	37	43	39	36	42	39	36	35
7	49	42	37	34	48	42	37	34	41	37	34	40	36	33	39	36	33	32
8	46	39	34	31	46	39	34	31	38	34	31	37	34	31	36	33	31	30
9	44	37	32	29	43	36	32	29	36	32	29	35	31	29	34	31	29	28
10	42	34	30	27	41	34	30	27	33	29	27	33	29	27	32	29	27	26

POLAR GRAPH



Maximum Candela = 822.493 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.)