



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : V6DR-L7-9DW-DIM-UNV-LW-OF-WH\_3000K.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from UL #12326812.07

[TESTLAB] UL Verification Services Inc.

[ISSUEDATE] 16 SEP 2021

[MANUFAC] WILLIAMS INDOOR

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

[LUMCAT] V6DR-L7-9DW-DIM-UNV-LW-OF-WH 3000k

[LUMINAIRE] Black formed aluminum housing, white reflector, clear glas

[MORE] s patterned lens enclosure

[LAMP] One white LED

[\_SEARCH\_SOURCETYPE] LED

[\_SEARCH\_APPLICATION] Indoor, Architectural, Classroom, Commercial, Healthcare, Office, Downlight

[\_SEARCH\_MOUNTING] Recessed

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	680
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	49
Total Luminaire Watts	14
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.08
Spacing Criterion (90-270)	1.08
Spacing Criterion (Diagonal)	0.98
Basic Luminous Shape	Circular
Luminous Length (0-180)	0.46 ft (Diameter)
Luminous Width (90-270)	0.46 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	11301	11301	11301
55	9408	9408	9408
65	7148	7148	7148
75	5183	5183	5183
85	3378	3378	3378

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CANDELA TABULATION

	<u>0</u>
0.0	432.423
0.5	432.335
1.0	431.987
1.5	431.465
2.0	430.812
2.5	429.941
3.0	429.070
3.5	428.069
4.0	427.155
4.5	426.241
5.0	425.588
5.5	424.978
6.0	424.412
6.5	423.846
7.0	423.237
7.5	422.671
8.0	422.105
8.5	421.583
9.0	421.060
9.5	420.625
10.0	420.189
10.5	419.841
11.0	419.536
11.5	419.362
12.0	419.058
12.5	418.753
13.0	418.318
13.5	417.752
14.0	417.055
14.5	416.271
15.0	415.444
15.5	414.399
16.0	413.268
16.5	412.136
17.0	411.004
17.5	409.828
18.0	408.566
18.5	407.129
19.0	405.519
19.5	403.734
20.0	401.688
20.5	399.467
21.0	396.725
21.5	393.460
22.0	389.759
22.5	385.580
23.0	381.009
23.5	376.046
24.0	370.561
24.5	364.640
25.0	358.241
25.5	351.580
26.0	344.484
26.5	337.083

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : V6DR-L7-9DW-DIM-UNV-LW-OF-WH\_3000K.IES****CANDELA TABULATION - (Cont.)**

27.0	329.204
27.5	321.106
28.0	312.574
28.5	303.562
29.0	294.202
29.5	284.364
30.0	274.264
30.5	263.859
31.0	253.455
31.5	242.963
32.0	232.776
32.5	223.024
33.0	213.665
33.5	204.914
34.0	196.860
34.5	189.547
35.0	183.017
35.5	177.009
36.0	171.741
36.5	166.909
37.0	162.599
37.5	158.725
38.0	155.198
38.5	151.977
39.0	148.930
39.5	146.187
40.0	143.531
40.5	141.050
41.0	138.743
41.5	136.479
42.0	134.302
42.5	132.300
43.0	130.254
43.5	128.251
44.0	126.292
44.5	124.376
45.0	122.417
45.5	120.545
46.0	118.630
46.5	116.714
47.0	114.755
47.5	112.840
48.0	110.881
48.5	108.922
49.0	106.963
49.5	104.917
50.0	102.958
50.5	100.955
51.0	98.953
51.5	96.907
52.0	94.860
52.5	92.814
53.0	90.768
53.5	88.722
54.0	86.763
54.5	84.761

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55.0	82.671
55.5	80.625
56.0	78.579
56.5	76.663
57.0	74.748
57.5	72.745
58.0	70.743
58.5	68.784
59.0	66.868
59.5	64.953
60.0	63.124
60.5	61.296
61.0	59.511
61.5	57.726
62.0	56.028
62.5	54.330
63.0	52.676
63.5	51.022
64.0	49.411
64.5	47.844
65.0	46.277
65.5	44.753
66.0	43.234
66.5	41.740
67.0	40.265
67.5	38.819
68.0	37.400
68.5	35.976
69.0	34.596
69.5	33.229
70.0	31.902
70.5	30.617
71.0	29.359
71.5	28.140
72.0	26.965
72.5	25.824
73.0	24.714
73.5	23.626
74.0	22.581
74.5	21.558
75.0	20.552
75.5	19.582
76.0	18.628
76.5	17.692
77.0	16.782
77.5	15.890
78.0	15.024
78.5	14.175
79.0	13.343
79.5	12.542
80.0	11.745
80.5	10.975
81.0	10.213
81.5	9.456
82.0	8.715
82.5	7.980

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CANDELA TABULATION - (Cont.)

83.0	7.261
83.5	6.556
84.0	5.860
84.5	5.176
85.0	4.510
85.5	3.866
86.0	3.243
86.5	2.643
87.0	2.059
87.5	1.572
88.0	1.202
88.5	0.879
89.0	0.609
89.5	0.383
90.0	0.244
90.5	0.000
91.0	0.000
91.5	0.000
92.0	0.000
92.5	0.000
93.0	0.000
93.5	0.000
94.0	0.000
94.5	0.000
95.0	0.000
95.5	0.000
96.0	0.000
96.5	0.000
97.0	0.000
97.5	0.000
98.0	0.000
98.5	0.000
99.0	0.000
99.5	0.000
100.0	0.000
100.5	0.000
101.0	0.000
101.5	0.000
102.0	0.000
102.5	0.000
103.0	0.000
103.5	0.000
104.0	0.000
104.5	0.000
105.0	0.000
105.5	0.000
106.0	0.000
106.5	0.000
107.0	0.000
107.5	0.000
108.0	0.000
108.5	0.000
109.0	0.000
109.5	0.000
110.0	0.000
110.5	0.000

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CANDELA TABULATION - (Cont.)

111.0	0.000
111.5	0.000
112.0	0.000
112.5	0.000
113.0	0.000
113.5	0.000
114.0	0.000
114.5	0.000
115.0	0.000
115.5	0.000
116.0	0.000
116.5	0.000
117.0	0.000
117.5	0.000
118.0	0.000
118.5	0.000
119.0	0.000
119.5	0.000
120.0	0.000
120.5	0.000
121.0	0.000
121.5	0.000
122.0	0.000
122.5	0.000
123.0	0.000
123.5	0.000
124.0	0.000
124.5	0.000
125.0	0.000
125.5	0.000
126.0	0.000
126.5	0.000
127.0	0.000
127.5	0.000
128.0	0.000
128.5	0.000
129.0	0.000
129.5	0.000
130.0	0.000
130.5	0.000
131.0	0.000
131.5	0.000
132.0	0.000
132.5	0.000
133.0	0.000
133.5	0.000
134.0	0.000
134.5	0.000
135.0	0.000
135.5	0.000
136.0	0.000
136.5	0.000
137.0	0.000
137.5	0.000
138.0	0.000
138.5	0.000

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139.0	0.000
139.5	0.000
140.0	0.000
140.5	0.000
141.0	0.000
141.5	0.000
142.0	0.000
142.5	0.000
143.0	0.000
143.5	0.000
144.0	0.000
144.5	0.000
145.0	0.000
145.5	0.000
146.0	0.000
146.5	0.000
147.0	0.000
147.5	0.000
148.0	0.000
148.5	0.000
149.0	0.000
149.5	0.000
150.0	0.000
150.5	0.000
151.0	0.000
151.5	0.000
152.0	0.000
152.5	0.000
153.0	0.000
153.5	0.000
154.0	0.000
154.5	0.000
155.0	0.000
155.5	0.000
156.0	0.000
156.5	0.000
157.0	0.000
157.5	0.000
158.0	0.000
158.5	0.000
159.0	0.000
159.5	0.000
160.0	0.000
160.5	0.000
161.0	0.000
161.5	0.000
162.0	0.000
162.5	0.000
163.0	0.000
163.5	0.000
164.0	0.000
164.5	0.000
165.0	0.000
165.5	0.000
166.0	0.000
166.5	0.000

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**CANDELA TABULATION - (Cont.)**

167.0	0.000
167.5	0.000
168.0	0.000
168.5	0.000
169.0	0.000
169.5	0.000
170.0	0.000
170.5	0.000
171.0	0.000
171.5	0.000
172.0	0.000
172.5	0.000
173.0	0.000
173.5	0.000
174.0	0.000
174.5	0.000
175.0	0.000
175.5	0.000
176.0	0.000
176.5	0.000
177.0	0.000
177.5	0.000
178.0	0.000
178.5	0.000
179.0	0.000
179.5	0.000
180.0	0.000



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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	157.52	N.A.	23.20
0-30	318.41	N.A.	46.80
0-40	437.71	N.A.	64.40
0-60	606.16	N.A.	89.20
0-80	674.39	N.A.	99.20
0-90	679.78	N.A.	100.00
10-90	639.32	N.A.	94.00
20-40	280.19	N.A.	41.20
20-50	374.73	N.A.	55.10
40-70	214.58	N.A.	31.60
60-80	68.23	N.A.	10.00
70-80	22.10	N.A.	3.30
80-90	5.39	N.A.	0.80
90-110	0.01	N.A.	0.00
90-120	0.01	N.A.	0.00
90-130	0.01	N.A.	0.00
90-150	0.01	N.A.	0.00
90-180	0.01	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	679.79	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	40.47
10-20	117.05
20-30	160.89
30-40	119.30
40-50	94.53
50-60	73.92
60-70	46.13
70-80	22.10
80-90	5.39
90-100	0.01
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	68	68	68	68	66	66	66	66	63	63	63	61	61	61	58	58	58	57
1	63	61	59	57	62	60	58	56	57	56	55	55	54	53	53	52	51	50
2	59	55	52	49	57	54	51	48	52	49	47	50	48	46	48	47	45	44
3	55	50	46	43	53	49	45	42	47	44	42	46	43	41	44	42	40	39
4	51	45	41	38	50	44	40	37	43	40	37	42	39	36	41	38	36	35
5	47	41	37	34	46	40	36	33	39	36	33	38	35	33	37	35	32	31
6	44	38	33	30	43	37	33	30	36	33	30	35	32	30	35	32	29	28
7	41	35	30	27	41	34	30	27	34	30	27	33	29	27	32	29	27	26
8	39	32	28	25	38	32	28	25	31	28	25	31	27	25	30	27	25	24
9	37	30	26	23	36	30	26	23	29	25	23	29	25	23	28	25	23	22
10	35	28	24	21	34	28	24	21	27	24	21	27	23	21	26	23	21	20

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## UGR TABLE - CORRECTED

### Reflectances

Ceiling Cavity	70	70	50	50	30	70	70	50	50	30
Walls	50	30	50	30	30	50	30	50	30	30
Floor Cavity	20	20	20	20	20	20	20	20	20	20

### Room Size UGR Viewed Crosswise

X=2H	Y=2H	19.6	21.0	20.0	21.3	21.6	19.6	21.0	20.0	21.3	21.6
	3H	20.8	22.1	21.2	22.4	22.7	20.8	22.1	21.2	22.4	22.7
	4H	21.2	22.4	21.6	22.7	23.1	21.2	22.4	21.6	22.7	23.1
	6H	21.5	22.5	21.9	22.9	23.3	21.5	22.5	21.9	22.9	23.3
	8H	21.6	22.6	22.0	23.0	23.4	21.6	22.6	22.0	23.0	23.4
	12H	21.6	22.6	22.0	22.9	23.4	21.6	22.6	22.0	22.9	23.4

### UGR Viewed Endwise

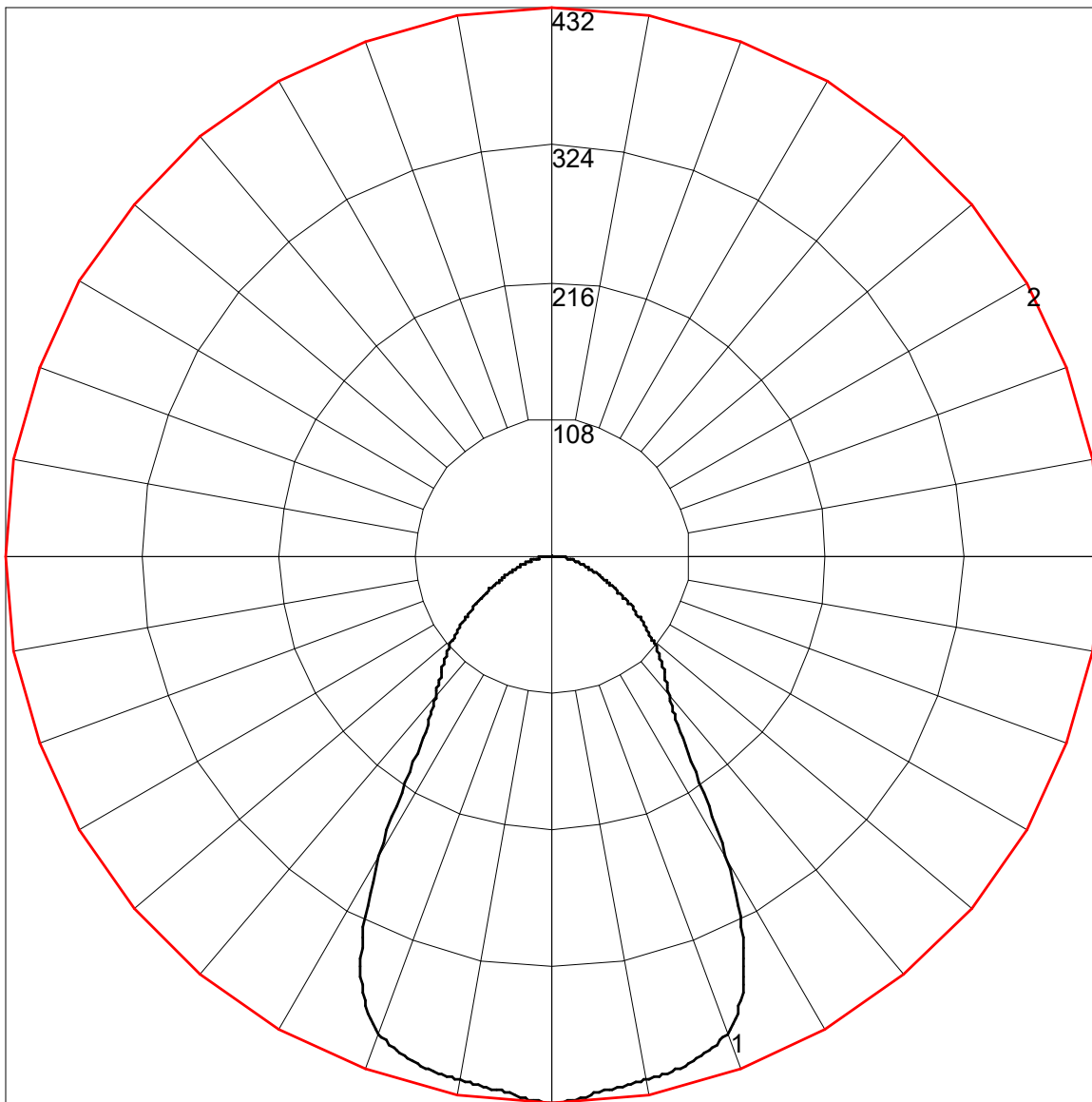
4H	2H	20.0	21.2	20.4	21.5	21.9	20.0	21.2	20.4	21.5	21.9
	3H	21.4	22.4	21.8	22.8	23.2	21.4	22.4	21.8	22.8	23.2
	4H	21.9	22.8	22.4	23.2	23.6	21.9	22.8	22.4	23.2	23.6
	6H	22.3	23.0	22.8	23.5	23.9	22.3	23.0	22.8	23.5	23.9
	8H	22.4	23.1	22.8	23.5	24.0	22.4	23.1	22.8	23.5	24.0
	12H	22.5	23.1	22.9	23.6	24.0	22.5	23.1	22.9	23.6	24.0

8H	4H	22.1	22.8	22.5	23.2	23.7	22.1	22.8	22.5	23.2	23.7
	6H	22.5	23.1	23.0	23.6	24.1	22.5	23.1	23.0	23.6	24.1
	8H	22.7	23.2	23.2	23.7	24.2	22.7	23.2	23.2	23.7	24.2
	12H	22.8	23.3	23.3	23.8	24.3	22.8	23.3	23.3	23.8	24.3

12H	4H	22.1	22.7	22.6	23.2	23.6	22.1	22.7	22.6	23.2	23.6
	6H	22.6	23.1	23.1	23.5	24.1	22.6	23.1	23.1	23.5	24.1
	8H	22.8	23.2	23.3	23.7	24.3	22.8	23.2	23.3	23.7	24.3

Maximum UGR = 24.3

POLAR GRAPH



Maximum Candela = 432.423 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)  
# 2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)