



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : V4DR-L6-9DW-DIM-UNV-RW-OF-WH\_3000K.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from UL #12316380.12

[TESTLAB] UL Verification Services Inc.

[ISSUEDATE] 17 SEP 2021

[MANUFAC] WILLIAMS INDOOR

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

[LUMCAT] V4DR-L6-9DW-DIM-UNV-RW-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, Classroom, Commercial, Corridor, Hotel, Industrial, Office, Downlight

[\_SEARCH\_MOUNTING] Recessed

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	617
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	44
Total Luminaire Watts	14
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.98
Spacing Criterion (90-270)	0.98
Spacing Criterion (Diagonal)	0.88
Basic Luminous Shape	Circular
Luminous Length (0-180)	0.38 ft (Diameter)
Luminous Width (90-270)	0.38 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	14276	14276	14276
55	11527	11527	11527
65	7457	7457	7457
75	4158	4158	4158
85	2136	2136	2136

IES INDOOR REPORT  
PHOTOMETRIC FILENAME : V4DR-L6-9DW-DIM-UNV-RW-OF-WH\_3000K.IES

CANDELA TABULATION

	<u>0</u>
0.0	495.745
0.5	495.745
1.0	495.279
1.5	494.346
2.0	493.413
2.5	492.481
3.0	491.082
3.5	489.683
4.0	488.283
4.5	486.418
5.0	485.019
5.5	483.153
6.0	481.288
6.5	479.422
7.0	477.557
7.5	475.692
8.0	473.826
8.5	471.494
9.0	469.629
9.5	467.763
10.0	465.991
10.5	464.079
11.0	462.120
11.5	460.208
12.0	458.389
12.5	456.571
13.0	454.752
13.5	452.886
14.0	451.021
14.5	449.155
15.0	447.243
15.5	445.285
16.0	443.233
16.5	441.181
17.0	439.082
17.5	436.843
18.0	434.465
18.5	431.900
19.0	429.428
19.5	426.770
20.0	423.879
20.5	420.567
21.0	416.743
21.5	412.592
22.0	407.836
22.5	402.566
23.0	396.596
23.5	389.881
24.0	382.512
24.5	374.164
25.0	364.837
25.5	354.530
26.0	343.384
26.5	331.538

IES INDOOR REPORT  
PHOTOMETRIC FILENAME : V4DR-L6-9DW-DIM-UNV-RW-OF-WH\_3000K.IES

CANDELA TABULATION - (Cont.)

27.0	319.086
27.5	306.448
28.0	293.203
28.5	280.098
29.0	267.040
29.5	253.982
30.0	241.157
30.5	228.565
31.0	216.673
31.5	205.154
32.0	194.287
32.5	184.167
33.0	174.793
33.5	166.352
34.0	158.750
34.5	152.128
35.0	146.298
35.5	141.355
36.0	137.018
36.5	133.380
37.0	130.162
37.5	127.411
38.0	124.892
38.5	122.654
39.0	120.648
39.5	118.830
40.0	117.197
40.5	115.658
41.0	114.166
41.5	112.814
42.0	111.461
42.5	110.202
43.0	108.943
43.5	107.637
44.0	106.331
44.5	105.025
45.0	103.673
45.5	102.274
46.0	100.828
46.5	99.336
47.0	97.797
47.5	96.211
48.0	94.625
48.5	92.946
49.0	91.221
49.5	89.402
50.0	87.583
50.5	85.718
51.0	83.759
51.5	81.847
52.0	79.888
52.5	77.929
53.0	76.064
53.5	74.012
54.0	71.960
54.5	69.908

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : V4DR-L6-9DW-DIM-UNV-RW-OF-WH\_3000K.IES****CANDELA TABULATION - (Cont.)**

55.0	67.903
55.5	65.851
56.0	63.845
56.5	61.887
57.0	59.928
57.5	57.969
58.0	56.057
58.5	54.192
59.0	52.326
59.5	50.507
60.0	48.688
60.5	46.916
61.0	45.191
61.5	43.465
62.0	41.833
62.5	40.154
63.0	38.568
63.5	36.936
64.0	35.397
64.5	33.858
65.0	32.366
65.5	30.873
66.0	29.428
66.5	28.028
67.0	26.676
67.5	25.324
68.0	24.018
68.5	22.712
69.0	21.453
69.5	20.240
70.0	19.121
70.5	18.048
71.0	17.069
71.5	16.136
72.0	15.250
72.5	14.411
73.0	13.618
73.5	12.918
74.0	12.219
74.5	11.612
75.0	11.053
75.5	10.540
76.0	9.980
76.5	9.467
77.0	8.954
77.5	8.441
78.0	7.975
78.5	7.462
79.0	6.995
79.5	6.529
80.0	6.063
80.5	5.596
81.0	5.177
81.5	4.757
82.0	4.291
82.5	3.917

IES INDOOR REPORT  
PHOTOMETRIC FILENAME : V4DR-L6-9DW-DIM-UNV-RW-OF-WH\_3000K.IES

CANDELA TABULATION - (Cont.)

83.0	3.498
83.5	3.078
84.0	2.705
84.5	2.285
85.0	1.912
85.5	1.586
86.0	1.259
86.5	1.026
87.0	0.793
87.5	0.606
88.0	0.420
88.5	0.280
89.0	0.140
89.5	0.047
90.0	0.000
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

IES INDOOR REPORT  
PHOTOMETRIC FILENAME : V4DR-L6-9DW-DIM-UNV-RW-OF-WH\_3000K.IES

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

IES INDOOR REPORT  
PHOTOMETRIC FILENAME : V4DR-L6-9DW-DIM-UNV-RW-OF-WH\_3000K.IES

CANDELA TABULATION - (Cont.)

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

IES INDOOR REPORT  
PHOTOMETRIC FILENAME : V4DR-L6-9DW-DIM-UNV-RW-OF-WH\_3000K.IES

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



**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : V4DR-L6-9DW-DIM-UNV-RW-OF-WH\_3000K.IES**

**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	171.59	N.A.	27.80
0-30	332.06	N.A.	53.80
0-40	429.84	N.A.	69.60
0-60	570.03	N.A.	92.40
0-80	614.64	N.A.	99.60
0-90	617.16	N.A.	100.00
10-90	571.50	N.A.	92.60
20-40	258.25	N.A.	41.80
20-50	337.81	N.A.	54.70
40-70	172.62	N.A.	28.00
60-80	44.61	N.A.	7.20
70-80	12.18	N.A.	2.00
80-90	2.52	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	617.16	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	45.66
10-20	125.94
20-30	160.46
30-40	97.78
40-50	79.56
50-60	60.63
60-70	32.42
70-80	12.18
80-90	2.52
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

# IES INDOOR REPORT

PHOTOMETRIC FILENAME : V4DR-L6-9DW-DIM-UNV-RW-OF-WH\_3000K.IES

## 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	68	68	68	68	66	66	66	66	63	63	63	61	61	61	58	58	58	57
1	64	62	60	58	62	61	59	57	58	57	56	56	55	54	54	53	52	51
2	60	56	53	51	58	55	52	50	53	51	49	51	49	48	50	48	47	46
3	56	51	47	45	54	50	47	44	49	46	43	47	45	43	46	44	42	41
4	52	47	43	40	51	46	42	39	45	41	39	43	41	38	42	40	38	37
5	49	43	39	36	48	42	38	36	41	38	35	40	37	35	39	37	35	34
6	46	40	35	32	45	39	35	32	38	35	32	37	34	32	36	34	32	31
7	43	37	33	30	42	36	32	30	36	32	29	35	32	29	34	31	29	28
8	41	34	30	27	40	34	30	27	33	30	27	33	29	27	32	29	27	26
9	38	32	28	25	38	32	28	25	31	28	25	31	27	25	30	27	25	24
10	36	30	26	24	36	30	26	24	29	26	24	29	26	23	28	25	23	23

# IES INDOOR REPORT

PHOTOMETRIC FILENAME : V4DR-L6-9DW-DIM-UNV-RW-OF-WH\_3000K.IES

## 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	19.9	21.2	20.3	21.5	21.8	19.9	21.2	20.3	21.5	21.8
	3H	20.7	21.8	21.0	22.2	22.5	20.7	21.8	21.0	22.2	22.5
	4H	20.8	21.9	21.2	22.3	22.6	20.8	21.9	21.2	22.3	22.6
	6H	20.9	21.9	21.4	22.3	22.7	20.9	21.9	21.4	22.3	22.7
	8H	21.0	21.9	21.4	22.3	22.7	21.0	21.9	21.4	22.3	22.7
	12H	20.9	21.8	21.4	22.2	22.7	20.9	21.8	21.4	22.2	22.7

### UGR Viewed Endwise

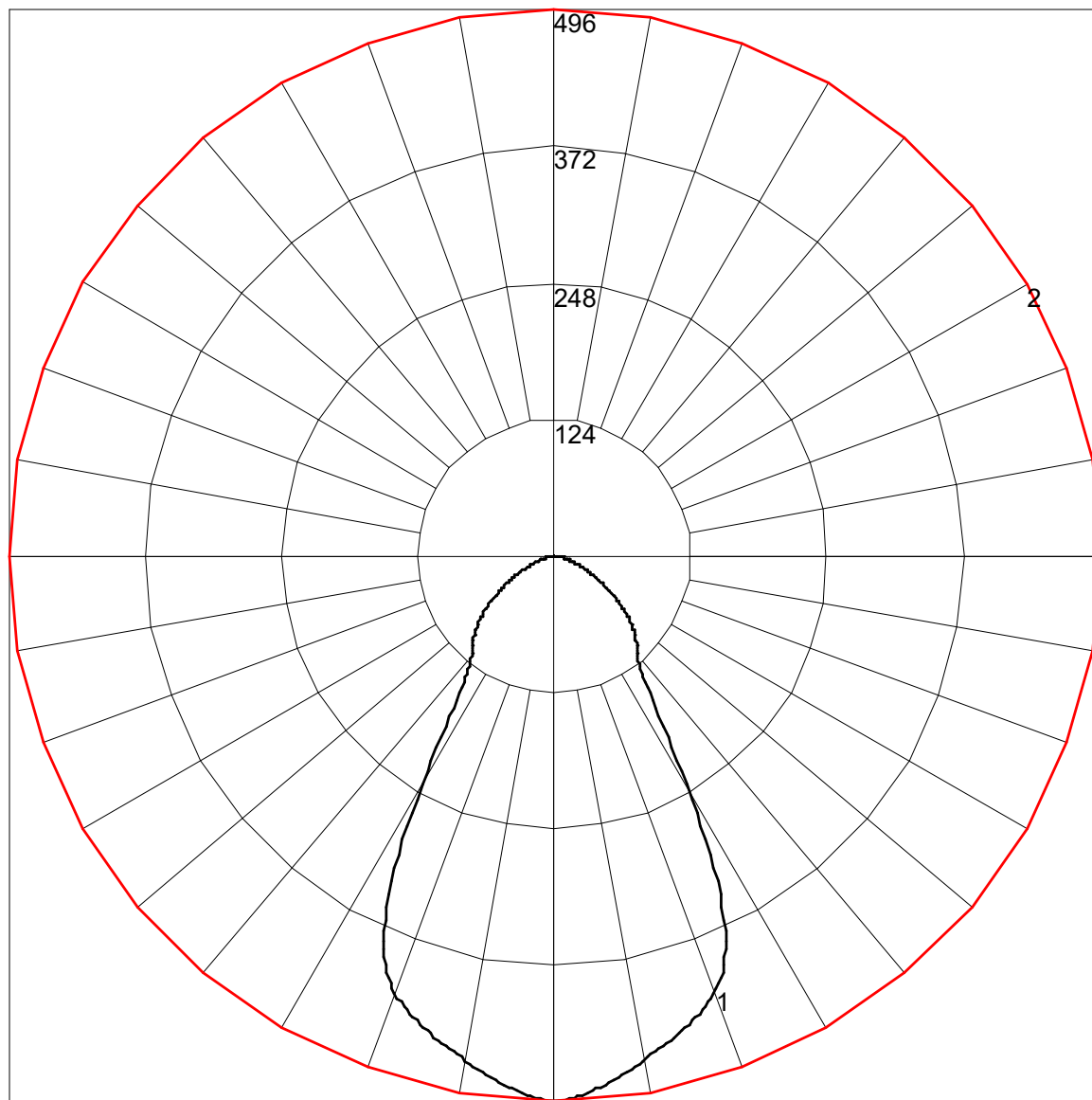
4H	2H	20.2	21.3	20.6	21.6	22.0	20.2	21.3	20.6	21.6	22.0
	3H	21.1	22.0	21.5	22.4	22.8	21.1	22.0	21.5	22.4	22.8
	4H	21.3	22.1	21.7	22.5	23.0	21.3	22.1	21.7	22.5	23.0
	6H	21.5	22.2	21.9	22.6	23.1	21.5	22.2	21.9	22.6	23.1
	8H	21.5	22.1	22.0	22.6	23.1	21.5	22.1	22.0	22.6	23.1
	12H	21.5	22.1	22.0	22.6	23.0	21.5	22.1	22.0	22.6	23.0

8H	4H	21.4	22.0	21.8	22.4	22.9	21.4	22.0	21.8	22.4	22.9
	6H	21.6	22.1	22.1	22.6	23.1	21.6	22.1	22.1	22.6	23.1
	8H	21.6	22.1	22.2	22.6	23.1	21.6	22.1	22.2	22.6	23.1
	12H	21.7	22.1	22.2	22.6	23.1	21.7	22.1	22.2	22.6	23.1

12H	4H	21.3	21.9	21.8	22.4	22.8	21.3	21.9	21.8	22.4	22.8
	6H	21.6	22.0	22.1	22.5	23.0	21.6	22.0	22.1	22.5	23.0
	8H	21.6	22.1	22.2	22.5	23.1	21.6	22.1	22.2	22.5	23.1

Maximum UGR = 23.1

POLAR GRAPH



Maximum Candela = 495.745 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.)