

## IES INDOOR REPORT

PHOTOMETRIC FILENAME : V6DR-L12-9DW-DIM-UNV-RW-OF-WH\_3000K.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from UL #12326812.12

[TESTLAB] UL Verification Services Inc.

[ISSUE DATE] 15 SEP 2021

[MANUFAC] WILLIAMS INDOOR

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

[LUMCAT] V6DR-L12-9DW-DIM-UNV-RW-OF-WH

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

[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	1154
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	49
Total Luminaire Watts	23.4
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.04
Spacing Criterion (90-270)	1.04
Spacing Criterion (Diagonal)	0.94
Basic Luminous Shape	Circular
Luminous Length (0-180)	0.48 ft (Diameter)
Luminous Width (90-270)	0.48 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	15583	15583	15583
55	12995	12995	12995
65	9168	9168	9168
75	5616	5616	5616
85	4429	4429	4429

IES INDOOR REPORT  
PHOTOMETRIC FILENAME : V6DR-L12-9DW-DIM-UNV-RW-OF-WH\_3000K.IES

CANDELA TABULATION

	<u>0</u>
0.0	853.720
0.5	852.922
1.0	852.123
1.5	851.325
2.0	849.727
2.5	847.331
3.0	844.936
3.5	841.741
4.0	838.547
4.5	836.151
5.0	832.956
5.5	829.762
6.0	826.567
6.5	823.373
7.0	820.179
7.5	816.984
8.0	812.991
8.5	809.796
9.0	806.602
9.5	802.609
10.0	799.414
10.5	795.501
11.0	791.668
11.5	787.835
12.0	784.001
12.5	780.248
13.0	776.414
13.5	772.421
14.0	768.508
14.5	764.675
15.0	761.081
15.5	757.407
16.0	753.814
16.5	750.300
17.0	747.025
17.5	743.751
18.0	740.556
18.5	737.522
19.0	734.487
19.5	731.372
20.0	728.178
20.5	724.744
21.0	720.831
21.5	716.358
22.0	711.327
22.5	705.737
23.0	699.667
23.5	692.799
24.0	685.292
24.5	677.067
25.0	667.962
25.5	658.139
26.0	647.198
26.5	635.219

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : V6DR-L12-9DW-DIM-UNV-RW-OF-WH\_3000K.IES**

**CANDELA TABULATION - (Cont.)**

<b>27.0</b>	622.441
<b>27.5</b>	608.545
<b>28.0</b>	593.771
<b>28.5</b>	577.719
<b>29.0</b>	560.788
<b>29.5</b>	542.420
<b>30.0</b>	522.934
<b>30.5</b>	502.329
<b>31.0</b>	480.926
<b>31.5</b>	459.044
<b>32.0</b>	436.763
<b>32.5</b>	414.641
<b>33.0</b>	392.759
<b>33.5</b>	371.596
<b>34.0</b>	351.311
<b>34.5</b>	332.224
<b>35.0</b>	314.814
<b>35.5</b>	298.842
<b>36.0</b>	284.786
<b>36.5</b>	272.328
<b>37.0</b>	261.387
<b>37.5</b>	252.043
<b>38.0</b>	243.817
<b>38.5</b>	236.550
<b>39.0</b>	230.241
<b>39.5</b>	224.651
<b>40.0</b>	219.540
<b>40.5</b>	214.908
<b>41.0</b>	210.595
<b>41.5</b>	206.682
<b>42.0</b>	203.088
<b>42.5</b>	199.654
<b>43.0</b>	196.380
<b>43.5</b>	193.265
<b>44.0</b>	190.310
<b>44.5</b>	187.515
<b>45.0</b>	184.640
<b>45.5</b>	181.925
<b>46.0</b>	179.130
<b>46.5</b>	176.414
<b>47.0</b>	173.619
<b>47.5</b>	170.824
<b>48.0</b>	167.949
<b>48.5</b>	165.074
<b>49.0</b>	162.359
<b>49.5</b>	159.563
<b>50.0</b>	156.609
<b>50.5</b>	153.574
<b>51.0</b>	150.459
<b>51.5</b>	147.345
<b>52.0</b>	144.230
<b>52.5</b>	141.036
<b>53.0</b>	137.921
<b>53.5</b>	134.886
<b>54.0</b>	131.532
<b>54.5</b>	128.178

IES INDOOR REPORT  
PHOTOMETRIC FILENAME : V6DR-L12-9DW-DIM-UNV-RW-OF-WH\_3000K.IES

CANDELA TABULATION - (Cont.)

55.0	124.904
55.5	121.549
56.0	118.275
56.5	115.001
57.0	111.726
57.5	108.452
58.0	105.337
58.5	102.143
59.0	99.028
59.5	95.994
60.0	92.959
60.5	89.924
61.0	86.969
61.5	84.094
62.0	81.219
62.5	78.424
63.0	75.629
63.5	72.834
64.0	70.198
64.5	67.483
65.0	64.927
65.5	62.292
66.0	59.816
66.5	57.341
67.0	54.945
67.5	52.549
68.0	50.233
68.5	47.917
69.0	45.761
69.5	43.525
70.0	41.448
70.5	39.372
71.0	37.375
71.5	35.459
72.0	33.542
72.5	31.785
73.0	30.108
73.5	28.590
74.0	27.073
74.5	25.715
75.0	24.358
75.5	23.160
76.0	21.962
76.5	20.924
77.0	19.965
77.5	19.007
78.0	18.049
78.5	17.090
79.0	16.212
79.5	15.333
80.0	14.455
80.5	13.576
81.0	12.698
81.5	11.899
82.0	11.021
82.5	10.222

IES INDOOR REPORT  
PHOTOMETRIC FILENAME : V6DR-L12-9DW-DIM-UNV-RW-OF-WH\_3000K.IES

CANDELA TABULATION - (Cont.)

83.0	9.424
83.5	8.705
84.0	7.906
84.5	7.188
85.0	6.469
85.5	5.750
86.0	5.031
86.5	4.313
87.0	3.674
87.5	2.955
88.0	2.396
88.5	1.917
89.0	1.517
89.5	1.118
90.0	0.799
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 : V6DR-L12-9DW-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 : V6DR-L12-9DW-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 : V6DR-L12-9DW-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 : V6DR-L12-9DW-DIM-UNV-RW-OF-WH\_3000K.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	293.36	N.A.	25.40
0-30	593.05	N.A.	51.40
0-40	800.40	N.A.	69.40
0-60	1054.86	N.A.	91.40
0-80	1146.71	N.A.	99.40
0-90	1154.08	N.A.	100.00
10-90	1075.66	N.A.	93.20
20-40	507.05	N.A.	43.90
20-50	650.11	N.A.	56.30
40-70	319.29	N.A.	27.70
60-80	91.86	N.A.	8.00
70-80	27.03	N.A.	2.30
80-90	7.37	N.A.	0.60
90-110	0.02	N.A.	0.00
90-120	0.02	N.A.	0.00
90-130	0.02	N.A.	0.00
90-150	0.02	N.A.	0.00
90-180	0.02	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	1154.1	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	78.42
10-20	214.93
20-30	299.70
30-40	207.35
40-50	143.06
50-60	111.39
60-70	64.83
70-80	27.03
80-90	7.37
90-100	0.02
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 : V6DR-L12-9DW-DIM-UNV-RW-OF-WH\_3000K.IES

## 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	110	110	110	110	107	107	107	107	102	102	102	98	98	98	94	94	94	92
1	103	99	96	94	100	97	95	92	93	91	89	90	88	87	87	85	84	82
2	96	90	85	81	93	88	84	80	85	81	78	82	79	76	80	77	75	73
3	89	82	76	71	87	80	75	70	78	73	69	75	71	68	73	70	67	65
4	83	74	68	63	81	73	67	63	71	66	62	69	65	61	67	63	60	59
5	78	68	62	57	76	67	61	56	66	60	56	64	59	55	62	58	55	53
6	73	63	56	51	72	62	56	51	61	55	51	59	54	50	58	53	50	48
7	69	58	52	47	67	58	51	47	56	51	46	55	50	46	54	49	46	44
8	65	54	48	43	63	54	47	43	53	47	43	51	46	43	50	46	42	41
9	61	51	44	40	60	50	44	40	49	43	40	48	43	39	47	43	39	38
10	58	47	41	37	57	47	41	37	46	41	37	45	40	37	45	40	36	35

# IES INDOOR REPORT

PHOTOMETRIC FILENAME : V6DR-L12-9DW-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	18.7	20.0	19.0	20.3	20.6	18.7	20.0	19.0	20.3	20.6
	3H	19.6	20.8	20.0	21.1	21.5	19.6	20.8	20.0	21.1	21.5
	4H	19.9	21.0	20.3	21.3	21.7	19.9	21.0	20.3	21.3	21.7
	6H	20.0	21.1	20.5	21.4	21.8	20.0	21.1	20.5	21.4	21.8
	8H	20.1	21.1	20.5	21.5	21.9	20.1	21.1	20.5	21.5	21.9
	12H	20.1	21.0	20.6	21.4	21.9	20.1	21.0	20.6	21.4	21.9

### UGR Viewed Endwise

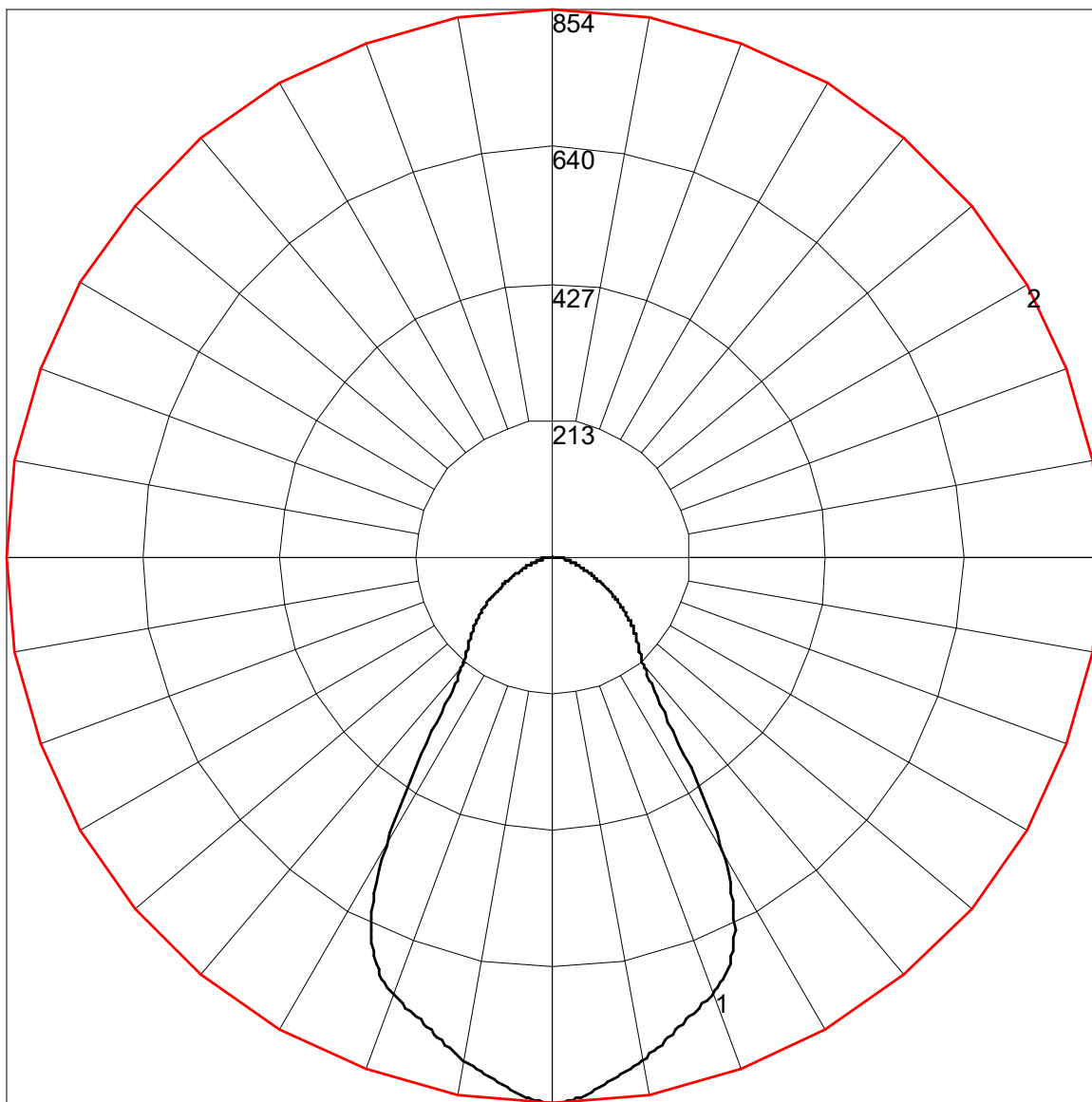
4H	2H	19.0	20.1	19.4	20.4	20.8	19.0	20.1	19.4	20.4	20.8
	3H	20.1	21.0	20.5	21.4	21.8	20.1	21.0	20.5	21.4	21.8
	4H	20.5	21.3	20.9	21.7	22.1	20.5	21.3	20.9	21.7	22.1
	6H	20.7	21.4	21.2	21.9	22.3	20.7	21.4	21.2	21.9	22.3
	8H	20.8	21.4	21.3	21.9	22.4	20.8	21.4	21.3	21.9	22.4
	12H	20.9	21.4	21.3	21.9	22.4	20.9	21.4	21.3	21.9	22.4

8H	4H	20.5	21.2	21.0	21.6	22.1	20.5	21.2	21.0	21.6	22.1
	6H	20.9	21.4	21.4	21.9	22.4	20.9	21.4	21.4	21.9	22.4
	8H	21.0	21.5	21.5	22.0	22.5	21.0	21.5	21.5	22.0	22.5
	12H	21.1	21.5	21.6	22.0	22.6	21.1	21.5	21.6	22.0	22.6

12H	4H	20.5	21.1	21.0	21.6	22.1	20.5	21.1	21.0	21.6	22.1
	6H	20.9	21.4	21.4	21.8	22.4	20.9	21.4	21.4	21.8	22.4
	8H	21.0	21.5	21.6	22.0	22.5	21.0	21.5	21.6	22.0	22.5

Maximum UGR = 22.6

POLAR GRAPH



Maximum Candela = 853.72 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.)