



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : V4DR-L12-9DW-DIM-UNV-LW-OF-WH\_3000K.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from UL #12316380.07

[TESTLAB] UL Verification Services Inc.

[ISSUE DATE] 17 SEP 2021

[MANUFAC] WILLIAMS INDOOR - CARTHAGE, MO.

[LUMCAT] V4DR-L12-9DW-DIM-UNV-LW-OF-WH 3000k

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

[MORE] erved glass 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	1069
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	46
Total Luminaire Watts	23.4
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.00
Spacing Criterion (90-270)	1.00
Spacing Criterion (Diagonal)	0.90
Basic Luminous Shape	Circular
Luminous Length (0-180)	0.35 ft (Diameter)
Luminous Width (90-270)	0.35 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	29493	29493	29493
55	24234	24234	24234
65	17729	17729	17729
75	12273	12273	12273
85	6691	6691	6691

IES INDOOR REPORT  
PHOTOMETRIC FILENAME : V4DR-L12-9DW-DIM-UNV-LW-OF-WH\_3000K.IES

CANDELA TABULATION

	<u>0</u>
0.0	750.751
0.5	750.514
1.0	750.039
1.5	749.407
2.0	748.774
2.5	748.063
3.0	747.114
3.5	746.560
4.0	746.165
4.5	745.928
5.0	745.612
5.5	745.295
6.0	745.058
6.5	744.742
7.0	744.505
7.5	744.347
8.0	744.267
8.5	744.030
9.0	743.793
9.5	743.319
10.0	743.002
10.5	742.449
11.0	741.895
11.5	741.184
12.0	740.393
12.5	739.444
13.0	738.337
13.5	737.072
14.0	735.491
14.5	733.593
15.0	731.300
15.5	728.533
16.0	725.449
16.5	721.812
17.0	717.859
17.5	713.431
18.0	708.212
18.5	702.836
19.0	696.985
19.5	690.422
20.0	683.227
20.5	675.399
21.0	666.939
21.5	657.846
22.0	647.804
22.5	637.130
23.0	625.665
23.5	613.331
24.0	600.047
24.5	585.894
25.0	570.555
25.5	554.504
26.0	537.346
26.5	519.161

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : V4DR-L12-9DW-DIM-UNV-LW-OF-WH\_3000K.IES**

**CANDELA TABULATION - (Cont.)**

<b>27.0</b>	500.343
<b>27.5</b>	480.734
<b>28.0</b>	460.809
<b>28.5</b>	440.804
<b>29.0</b>	421.195
<b>29.5</b>	401.982
<b>30.0</b>	383.480
<b>30.5</b>	366.085
<b>31.0</b>	349.797
<b>31.5</b>	334.932
<b>32.0</b>	321.412
<b>32.5</b>	309.235
<b>33.0</b>	298.403
<b>33.5</b>	288.756
<b>34.0</b>	280.138
<b>34.5</b>	272.548
<b>35.0</b>	265.669
<b>35.5</b>	259.422
<b>36.0</b>	253.887
<b>36.5</b>	248.669
<b>37.0</b>	243.925
<b>37.5</b>	239.497
<b>38.0</b>	235.386
<b>38.5</b>	231.432
<b>39.0</b>	227.795
<b>39.5</b>	224.237
<b>40.0</b>	220.916
<b>40.5</b>	217.595
<b>41.0</b>	214.433
<b>41.5</b>	211.349
<b>42.0</b>	208.423
<b>42.5</b>	205.498
<b>43.0</b>	202.572
<b>43.5</b>	199.647
<b>44.0</b>	196.721
<b>44.5</b>	193.796
<b>45.0</b>	190.870
<b>45.5</b>	187.945
<b>46.0</b>	185.019
<b>46.5</b>	182.094
<b>47.0</b>	179.010
<b>47.5</b>	175.926
<b>48.0</b>	172.843
<b>48.5</b>	169.680
<b>49.0</b>	166.438
<b>49.5</b>	163.196
<b>50.0</b>	160.034
<b>50.5</b>	156.792
<b>51.0</b>	153.550
<b>51.5</b>	150.308
<b>52.0</b>	147.146
<b>52.5</b>	143.983
<b>53.0</b>	140.741
<b>53.5</b>	137.420
<b>54.0</b>	134.020
<b>54.5</b>	130.620

IES INDOOR REPORT  
PHOTOMETRIC FILENAME : V4DR-L12-9DW-DIM-UNV-LW-OF-WH\_3000K.IES

CANDELA TABULATION - (Cont.)

55.0	127.220
55.5	123.821
56.0	120.500
56.5	117.258
57.0	114.016
57.5	110.774
58.0	107.612
58.5	104.528
59.0	101.444
59.5	98.440
60.0	95.514
60.5	92.589
61.0	89.742
61.5	86.975
62.0	84.207
62.5	81.440
63.0	78.799
63.5	76.174
64.0	73.597
64.5	71.058
65.0	68.576
65.5	66.156
66.0	63.768
66.5	61.444
67.0	59.175
67.5	56.945
68.0	54.786
68.5	52.675
69.0	50.564
69.5	48.524
70.0	46.539
70.5	44.586
71.0	42.681
71.5	40.823
72.0	39.028
72.5	37.257
73.0	35.533
73.5	33.857
74.0	32.212
74.5	30.623
75.0	29.073
75.5	27.571
76.0	26.100
76.5	24.669
77.0	23.301
77.5	21.941
78.0	20.629
78.5	19.356
79.0	18.107
79.5	16.905
80.0	15.727
80.5	14.580
81.0	13.449
81.5	12.350
82.0	11.275
82.5	10.231

IES INDOOR REPORT  
PHOTOMETRIC FILENAME : V4DR-L12-9DW-DIM-UNV-LW-OF-WH\_3000K.IES

CANDELA TABULATION - (Cont.)

83.0	9.196
83.5	8.191
84.0	7.211
84.5	6.254
85.0	5.337
85.5	4.452
86.0	3.606
86.5	2.807
87.0	2.103
87.5	1.518
88.0	1.060
88.5	0.672
89.0	0.419
89.5	0.285
90.0	0.198
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-L12-9DW-DIM-UNV-LW-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-L12-9DW-DIM-UNV-LW-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

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-L12-9DW-DIM-UNV-LW-OF-WH\_3000K.IES**

**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	275.77	N.A.	25.80
0-30	528.95	N.A.	49.50
0-40	701.41	N.A.	65.60
0-60	962.10	N.A.	90.00
0-80	1062.04	N.A.	99.40
0-90	1068.72	N.A.	100.00
10-90	997.61	N.A.	93.30
20-40	425.64	N.A.	39.80
20-50	572.64	N.A.	53.60
40-70	329.26	N.A.	30.80
60-80	99.93	N.A.	9.40
70-80	31.37	N.A.	2.90
80-90	6.68	N.A.	0.60
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	1068.73	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	71.11
10-20	204.66
20-30	253.18
30-40	172.46
40-50	147.00
50-60	113.70
60-70	68.57
70-80	31.37
80-90	6.68
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

# IES INDOOR REPORT

PHOTOMETRIC FILENAME : V4DR-L12-9DW-DIM-UNV-LW-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	108	108	108	108	106	106	106	106	101	101	101	97	97	97	93	93	93	91
1	101	98	95	92	99	96	93	91	92	90	88	89	87	85	85	84	83	81
2	94	88	83	79	92	86	82	78	83	80	76	81	77	75	78	75	73	71
3	88	80	74	69	85	78	73	68	76	71	67	73	69	66	71	68	65	63
4	82	73	66	61	80	71	65	61	69	64	60	67	63	59	66	62	58	57
5	76	67	60	55	75	66	59	54	64	58	54	62	57	53	61	56	53	51
6	71	61	54	49	70	60	54	49	59	53	49	57	52	49	56	52	48	47
7	67	57	50	45	66	56	50	45	55	49	45	53	48	44	52	48	44	43
8	63	53	46	41	62	52	46	41	51	45	41	50	45	41	49	44	41	39
9	60	49	43	38	59	49	42	38	48	42	38	47	42	38	46	41	38	36
10	56	46	40	36	55	46	40	35	45	39	35	44	39	35	43	38	35	34

# IES INDOOR REPORT

PHOTOMETRIC FILENAME : V4DR-L12-9DW-DIM-UNV-LW-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

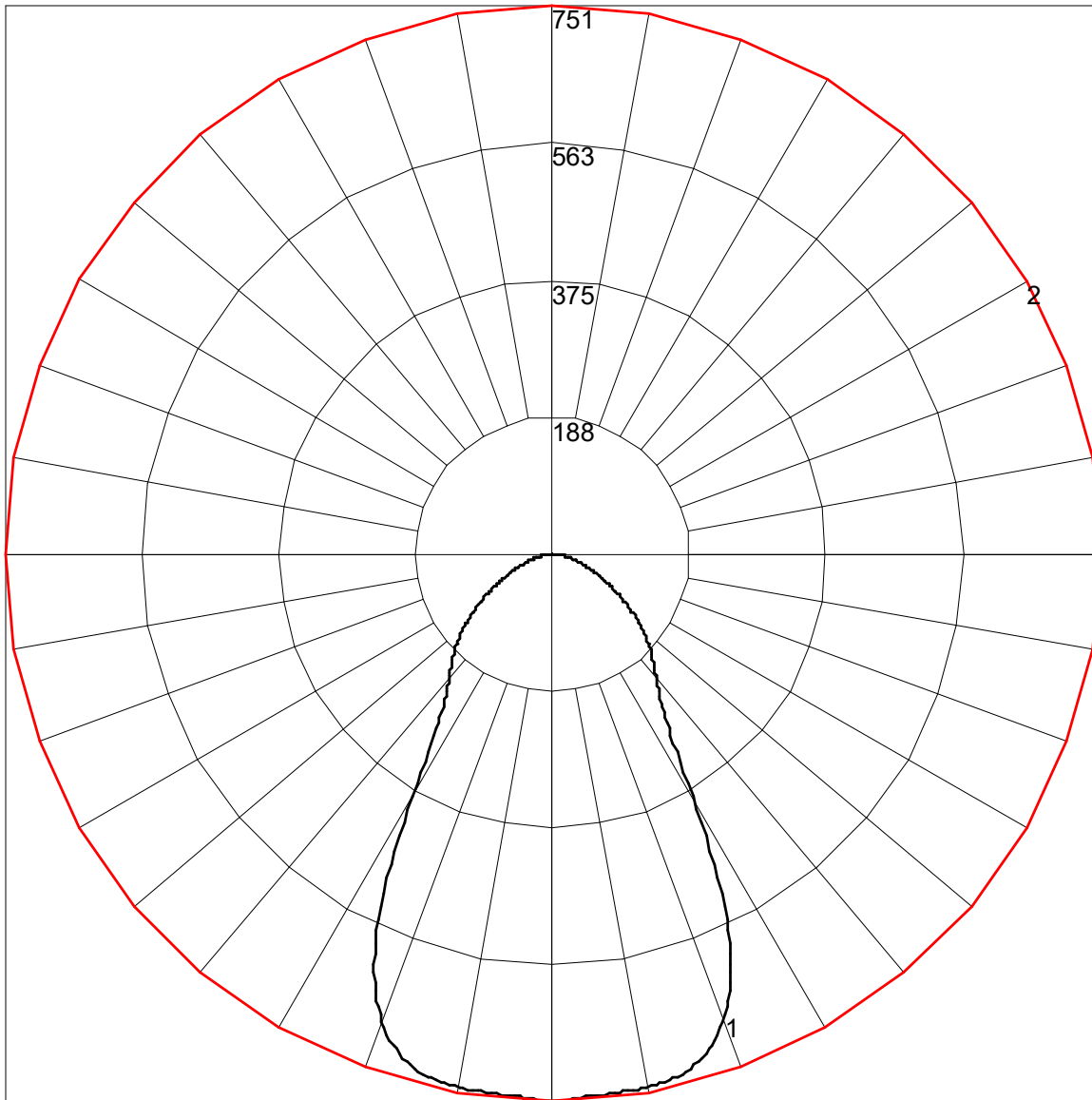
X=2H	Y=2H	21.2	22.6	21.6	22.9	23.2	21.2	22.6	21.6	22.9	23.2
	3H	22.3	23.5	22.7	23.9	24.2	22.3	23.5	22.7	23.9	24.2
	4H	22.7	23.8	23.1	24.1	24.5	22.7	23.8	23.1	24.1	24.5
	6H	22.9	23.9	23.3	24.3	24.7	22.9	23.9	23.3	24.3	24.7
	8H	22.9	23.9	23.4	24.3	24.7	22.9	23.9	23.4	24.3	24.7
	12H	22.9	23.9	23.4	24.3	24.7	22.9	23.9	23.4	24.3	24.7

### UGR Viewed Endwise

4H	2H	21.6	22.7	22.0	23.1	23.4	21.6	22.7	22.0	23.1	23.4
	3H	22.9	23.8	23.3	24.2	24.6	22.9	23.8	23.3	24.2	24.6
	4H	23.3	24.2	23.7	24.6	25.0	23.3	24.2	23.7	24.6	25.0
	6H	23.6	24.4	24.1	24.8	25.3	23.6	24.4	24.1	24.8	25.3
	8H	23.7	24.4	24.2	24.8	25.3	23.7	24.4	24.2	24.8	25.3
	12H	23.7	24.3	24.2	24.8	25.3	23.7	24.3	24.2	24.8	25.3
8H	4H	23.4	24.1	23.9	24.6	25.0	23.4	24.1	23.9	24.6	25.0
	6H	23.8	24.4	24.3	24.9	25.4	23.8	24.4	24.3	24.9	25.4
	8H	23.9	24.4	24.5	25.0	25.4	23.9	24.4	24.5	25.0	25.4
	12H	24.0	24.4	24.5	24.9	25.5	24.0	24.4	24.5	24.9	25.5
12H	4H	23.4	24.0	23.9	24.5	25.0	23.4	24.0	23.9	24.5	25.0
	6H	23.8	24.3	24.4	24.8	25.3	23.8	24.3	24.4	24.8	25.3
	8H	24.0	24.4	24.5	24.9	25.5	24.0	24.4	24.5	24.9	25.5

Maximum UGR = 25.5

POLAR GRAPH



Maximum Candela = 750.751 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.)