



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : V6DR-L21-9DW-DIM-UNV-RM-OF-WH\_3000K.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from UL #12326812.14

[TESTLAB] UL Verification Services Inc.

[ISSUE DATE] 16 SEP 2021

[MANUFAC] WILLIAMS INDOOR

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

[LUMCAT] V6DR-L21-9DW-DIM-UNV-RM-OF-WH 3000k

[LUMINAIRE] Black formed aluminum housing, white reflector, frosted pl

[MORE] astic optic, clear glass 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	2048
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	54
Total Luminaire Watts	37.7
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.58
Spacing Criterion (90-270)	0.58
Spacing Criterion (Diagonal)	0.56
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	7362	7362	7362
55	4950	4950	4950
65	3684	3684	3684
75	2544	2544	2544
85	2125	2125	2125

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CANDELA TABULATION

	<u>0</u>
0.0	4956.802
0.5	4954.503
1.0	4947.608
1.5	4936.115
2.0	4920.025
2.5	4900.488
3.0	4876.353
3.5	4848.770
4.0	4818.889
4.5	4784.411
5.0	4747.635
5.5	4707.410
6.0	4662.589
6.5	4613.170
7.0	4560.304
7.5	4502.840
8.0	4440.780
8.5	4374.122
9.0	4302.867
9.5	4225.866
10.0	4145.417
10.5	4059.222
11.0	3967.280
11.5	3870.742
12.0	3769.606
12.5	3661.574
13.0	3551.244
13.5	3435.168
14.0	3315.644
14.5	3193.821
15.0	3067.402
15.5	2940.982
16.0	2812.264
16.5	2683.546
17.0	2557.126
17.5	2436.453
18.0	2312.331
18.5	2189.359
19.0	2068.686
19.5	1953.759
20.0	1844.578
20.5	1738.846
21.0	1635.411
21.5	1536.574
22.0	1441.185
22.5	1351.542
23.0	1266.496
23.5	1186.047
24.0	1110.425
24.5	1039.515
25.0	972.742
25.5	910.107
26.0	851.609
26.5	796.674

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**CANDELA TABULATION - (Cont.)**

27.0	745.531
27.5	697.722
28.0	652.900
28.5	611.297
29.0	572.222
29.5	535.675
30.0	501.312
30.5	469.247
31.0	439.251
31.5	411.094
32.0	384.776
32.5	360.066
33.0	336.851
33.5	315.130
34.0	294.673
34.5	275.710
35.0	258.011
35.5	241.462
36.0	226.061
36.5	211.810
37.0	198.594
37.5	186.412
38.0	175.149
38.5	164.805
39.0	155.266
39.5	146.532
40.0	138.602
40.5	131.362
41.0	124.696
41.5	118.605
42.0	112.973
42.5	107.802
43.0	102.975
43.5	98.607
44.0	94.470
44.5	90.792
45.0	87.230
45.5	84.012
46.0	80.909
46.5	78.035
47.0	75.392
47.5	72.979
48.0	70.680
48.5	68.496
49.0	66.428
49.5	64.359
50.0	62.520
50.5	60.796
51.0	59.072
51.5	57.464
52.0	55.969
52.5	54.360
53.0	52.981
53.5	51.602
54.0	50.223
54.5	48.844

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : V6DR-L21-9DW-DIM-UNV-RM-OF-WH\_3000K.IES****CANDELA TABULATION - (Cont.)**

55.0	47.580
55.5	46.316
56.0	45.166
56.5	43.902
57.0	42.753
57.5	41.604
58.0	40.454
58.5	39.305
59.0	38.271
59.5	37.121
60.0	36.087
60.5	35.053
61.0	34.018
61.5	32.984
62.0	31.950
62.5	30.915
63.0	29.996
63.5	28.962
64.0	28.042
64.5	27.008
65.0	26.088
65.5	25.169
66.0	24.250
66.5	23.330
67.0	22.411
67.5	21.606
68.0	20.687
68.5	19.882
69.0	19.078
69.5	18.158
70.0	17.469
70.5	16.664
71.0	15.975
71.5	15.170
72.0	14.481
72.5	13.791
73.0	13.217
73.5	12.642
74.0	12.067
74.5	11.493
75.0	11.033
75.5	10.458
76.0	9.999
76.5	9.654
77.0	9.194
77.5	8.734
78.0	8.390
78.5	7.930
79.0	7.585
79.5	7.240
80.0	6.781
80.5	6.436
81.0	5.976
81.5	5.631
82.0	5.287
82.5	4.942

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CANDELA TABULATION - (Cont.)

83.0	4.597
83.5	4.137
84.0	3.793
84.5	3.448
85.0	3.103
85.5	2.758
86.0	2.528
86.5	2.184
87.0	1.839
87.5	1.494
88.0	1.149
88.5	0.919
89.0	0.804
89.5	0.575
90.0	0.460
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  
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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
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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  
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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
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157.5	0.000
158.0	0.000
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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



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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	1260.12	N.A.	61.50
0-30	1722.96	N.A.	84.10
0-40	1893.31	N.A.	92.40
0-60	2006.37	N.A.	98.00
0-80	2044.37	N.A.	99.80
0-90	2047.92	N.A.	100.00
10-90	1613.55	N.A.	78.80
20-40	633.18	N.A.	30.90
20-50	703.28	N.A.	34.30
40-70	139.06	N.A.	6.80
60-80	38.01	N.A.	1.90
70-80	12.01	N.A.	0.60
80-90	3.55	N.A.	0.20
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	2047.93	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	434.37
10-20	825.75
20-30	462.83
30-40	170.35
40-50	70.09
50-60	42.96
60-70	26.00
70-80	12.01
80-90	3.55
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	195	195	195	195	191	191	191	191	182	182	182	174	174	174	167	167	167	164
1	187	183	179	175	183	179	176	173	172	170	167	166	164	162	161	159	158	155
2	179	171	166	160	175	169	163	159	163	159	155	159	155	152	154	151	149	146
3	171	162	155	149	168	160	153	148	155	150	145	151	147	143	148	144	141	138
4	164	153	145	139	161	151	144	138	148	142	137	145	140	135	142	137	134	131
5	158	146	137	131	155	144	136	131	141	135	129	139	133	128	136	131	127	125
6	151	139	130	124	149	138	130	124	135	128	123	133	127	122	131	126	121	119
7	146	133	124	118	144	132	124	118	130	122	117	128	121	117	126	120	116	114
8	140	127	119	113	138	126	118	113	124	117	112	123	116	112	121	116	111	109
9	135	122	114	108	134	121	113	108	120	112	107	118	112	107	117	111	107	105
10	131	117	109	104	129	116	109	103	115	108	103	114	108	103	113	107	103	101

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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	8.4	9.4	8.8	9.7	10.0	8.4	9.4	8.8	9.7	10.0
	3H	9.5	10.4	9.9	10.7	11.1	9.5	10.4	9.9	10.7	11.1
	4H	9.8	10.6	10.2	11.0	11.4	9.8	10.6	10.2	11.0	11.4
	6H	10.1	10.8	10.5	11.2	11.6	10.1	10.8	10.5	11.2	11.6
	8H	10.1	10.8	10.6	11.2	11.6	10.1	10.8	10.6	11.2	11.6
	12H	10.2	10.8	10.6	11.2	11.6	10.2	10.8	10.6	11.2	11.6

### UGR Viewed Endwise

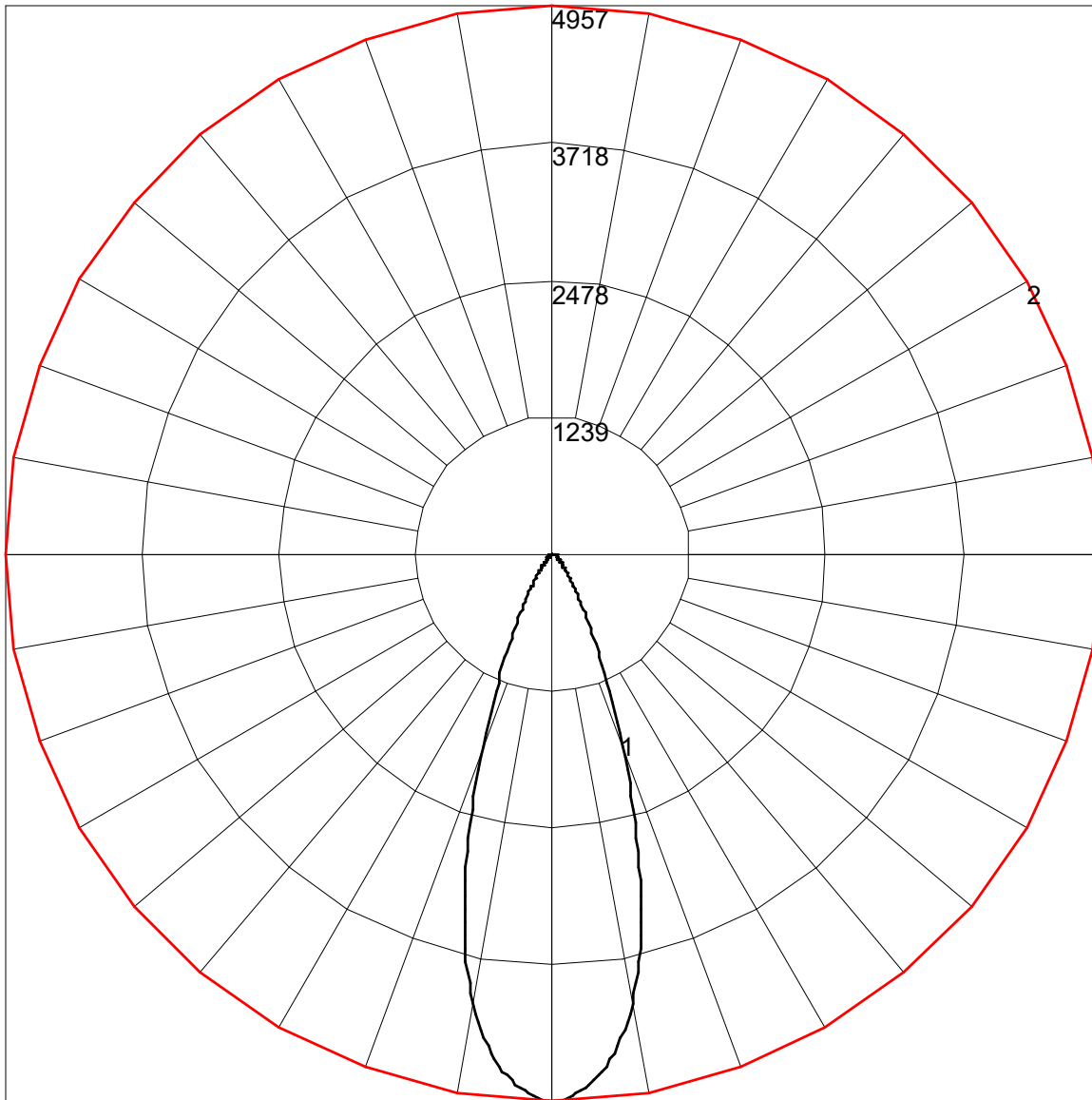
4H	2H	8.7	9.5	9.1	9.9	10.3	8.7	9.5	9.1	9.9	10.3
	3H	10.0	10.6	10.4	11.1	11.5	10.0	10.6	10.4	11.1	11.5
	4H	10.4	11.0	10.8	11.4	11.9	10.4	11.0	10.8	11.4	11.9
	6H	10.7	11.2	11.2	11.7	12.2	10.7	11.2	11.2	11.7	12.2
	8H	10.9	11.3	11.3	11.8	12.2	10.9	11.3	11.3	11.8	12.2
	12H	10.9	11.3	11.4	11.8	12.3	10.9	11.3	11.4	11.8	12.3

8H	4H	10.5	10.9	11.0	11.4	11.9	10.5	10.9	11.0	11.4	11.9
	6H	10.9	11.3	11.5	11.8	12.3	10.9	11.3	11.5	11.8	12.3
	8H	11.1	11.4	11.7	12.0	12.5	11.1	11.4	11.7	12.0	12.5
	12H	11.3	11.5	11.8	12.0	12.6	11.3	11.5	11.8	12.0	12.6

12H	4H	10.5	10.9	11.0	11.3	11.8	10.5	10.9	11.0	11.3	11.8
	6H	10.9	11.3	11.5	11.7	12.3	10.9	11.3	11.5	11.7	12.3
	8H	11.2	11.4	11.7	11.9	12.5	11.2	11.4	11.7	11.9	12.5

Maximum UGR = 12.6

POLAR GRAPH



Maximum Candela = 4956.802 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.)