



IES INDOOR REPORT

PHOTOMETRIC FILENAME : V4DR-L6-9DW-DIM-UNV-RM-OF-WH_3000K.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from UL #12316380.14

[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-RM-OF-WH 3000k

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

[MORE] tic optic, clear glass 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	694
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	50
Total Luminaire Watts	14
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.52
Spacing Criterion (90-270)	0.52
Spacing Criterion (Diagonal)	0.52
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	3982	3982	3982
55	2770	2770	2770
65	1977	1977	1977
75	1323	1323	1323
85	1080	1080	1080

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CANDELA TABULATION

	<u>0</u>
0.0	2001.194
0.5	1999.648
1.0	1995.008
1.5	1987.662
2.0	1977.610
2.5	1964.851
3.0	1949.773
3.5	1931.988
4.0	1911.496
4.5	1889.458
5.0	1865.101
5.5	1838.037
6.0	1809.039
6.5	1778.109
7.0	1744.859
7.5	1709.289
8.0	1672.173
8.5	1632.736
9.0	1592.140
9.5	1549.998
10.0	1506.309
10.5	1461.459
11.0	1415.451
11.5	1368.668
12.0	1321.113
12.5	1273.944
13.0	1226.775
13.5	1179.220
14.0	1131.278
14.5	1083.336
15.0	1036.167
15.5	989.385
16.0	942.603
16.5	896.980
17.0	851.745
17.5	807.282
18.0	763.593
18.5	721.064
19.0	680.468
19.5	640.645
20.0	601.982
20.5	565.252
21.0	529.682
21.5	495.659
22.0	463.569
22.5	433.025
23.0	404.414
23.5	377.041
24.0	351.137
24.5	326.741
25.0	303.929
25.5	282.703
26.0	262.908
26.5	244.350

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CANDELA TABULATION - (Cont.)

27.0	227.106
27.5	211.138
28.0	196.292
28.5	182.450
29.0	169.769
29.5	157.938
30.0	146.997
30.5	136.944
31.0	127.665
31.5	119.082
32.0	111.156
32.5	103.887
33.0	97.160
33.5	90.897
34.0	85.174
34.5	79.839
35.0	74.929
35.5	70.405
36.0	66.191
36.5	62.325
37.0	58.729
37.5	55.481
38.0	52.466
38.5	49.759
39.0	47.246
39.5	44.965
40.0	42.916
40.5	40.983
41.0	39.243
41.5	37.619
42.0	36.111
42.5	34.719
43.0	33.405
43.5	32.168
44.0	31.008
44.5	29.925
45.0	28.920
45.5	27.992
46.0	27.103
46.5	26.252
47.0	25.440
47.5	24.706
48.0	24.010
48.5	23.314
49.0	22.656
49.5	22.038
50.0	21.458
50.5	20.878
51.0	20.337
51.5	19.757
52.0	19.254
52.5	18.713
53.0	18.249
53.5	17.746
54.0	17.244
54.5	16.780

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CANDELA TABULATION - (Cont.)

55.0	16.316
55.5	15.852
56.0	15.427
56.5	15.001
57.0	14.576
57.5	14.151
58.0	13.725
58.5	13.339
59.0	12.952
59.5	12.565
60.0	12.179
60.5	11.792
61.0	11.406
61.5	11.058
62.0	10.671
62.5	10.323
63.0	9.936
63.5	9.588
64.0	9.240
64.5	8.892
65.0	8.583
65.5	8.235
66.0	7.926
66.5	7.578
67.0	7.269
67.5	6.959
68.0	6.650
68.5	6.379
69.0	6.070
69.5	5.799
70.0	5.529
70.5	5.297
71.0	5.065
71.5	4.833
72.0	4.601
72.5	4.408
73.0	4.214
73.5	4.021
74.0	3.866
74.5	3.673
75.0	3.518
75.5	3.364
76.0	3.209
76.5	3.093
77.0	2.938
77.5	2.784
78.0	2.668
78.5	2.513
79.0	2.397
79.5	2.281
80.0	2.126
80.5	2.010
81.0	1.894
81.5	1.778
82.0	1.624
82.5	1.508

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CANDELA TABULATION - (Cont.)

83.0	1.392
83.5	1.276
84.0	1.160
84.5	1.044
85.0	0.967
85.5	0.851
86.0	0.735
86.5	0.619
87.0	0.541
87.5	0.464
88.0	0.387
88.5	0.309
89.0	0.271
89.5	0.193
90.0	0.155
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
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130.0	0.000
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132.0	0.000
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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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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
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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
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157.0	0.000
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158.0	0.000
158.5	0.000
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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	447.80	N.A.	64.50
0-30	593.12	N.A.	85.40
0-40	642.99	N.A.	92.60
0-60	680.69	N.A.	98.10
0-80	693.06	N.A.	99.80
0-90	694.16	N.A.	100.00
10-90	527.68	N.A.	76.00
20-40	195.19	N.A.	28.10
20-50	218.18	N.A.	31.40
40-70	46.25	N.A.	6.70
60-80	12.38	N.A.	1.80
70-80	3.82	N.A.	0.60
80-90	1.10	N.A.	0.20
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	694.17	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	166.48
10-20	281.32
20-30	145.33
30-40	49.87
40-50	22.99
50-60	14.70
60-70	8.55
70-80	3.82
80-90	1.10
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

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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	65	64	62	61	64	62	61	60	60	59	58	58	57	57	56	56	55	54
2	62	60	58	56	61	59	57	56	57	56	54	55	54	53	54	53	52	51
3	60	57	54	52	59	56	54	52	54	53	51	53	52	50	52	51	49	49
4	57	54	51	49	57	53	51	49	52	50	48	51	49	48	50	48	47	46
5	55	51	48	46	54	51	48	46	50	47	46	49	47	45	48	46	45	44
6	53	49	46	44	52	48	46	44	48	45	44	47	45	43	46	44	43	42
7	51	47	44	42	51	46	44	42	46	43	42	45	43	41	45	43	41	41
8	49	45	42	40	49	45	42	40	44	42	40	44	41	40	43	41	40	39
9	48	43	40	39	47	43	40	38	42	40	38	42	40	38	42	40	38	37
10	46	42	39	37	46	41	39	37	41	39	37	41	38	37	40	38	37	36

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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	10.1	11.1	10.5	11.4	11.7	10.1	11.1	10.5	11.4	11.7
	3H	11.1	12.0	11.5	12.3	12.7	11.1	12.0	11.5	12.3	12.7
	4H	11.4	12.2	11.8	12.5	12.9	11.4	12.2	11.8	12.5	12.9
	6H	11.6	12.3	12.0	12.7	13.1	11.6	12.3	12.0	12.7	13.1
	8H	11.6	12.3	12.1	12.7	13.1	11.6	12.3	12.1	12.7	13.1
	12H	11.7	12.3	12.1	12.7	13.1	11.7	12.3	12.1	12.7	13.1

UGR Viewed Endwise

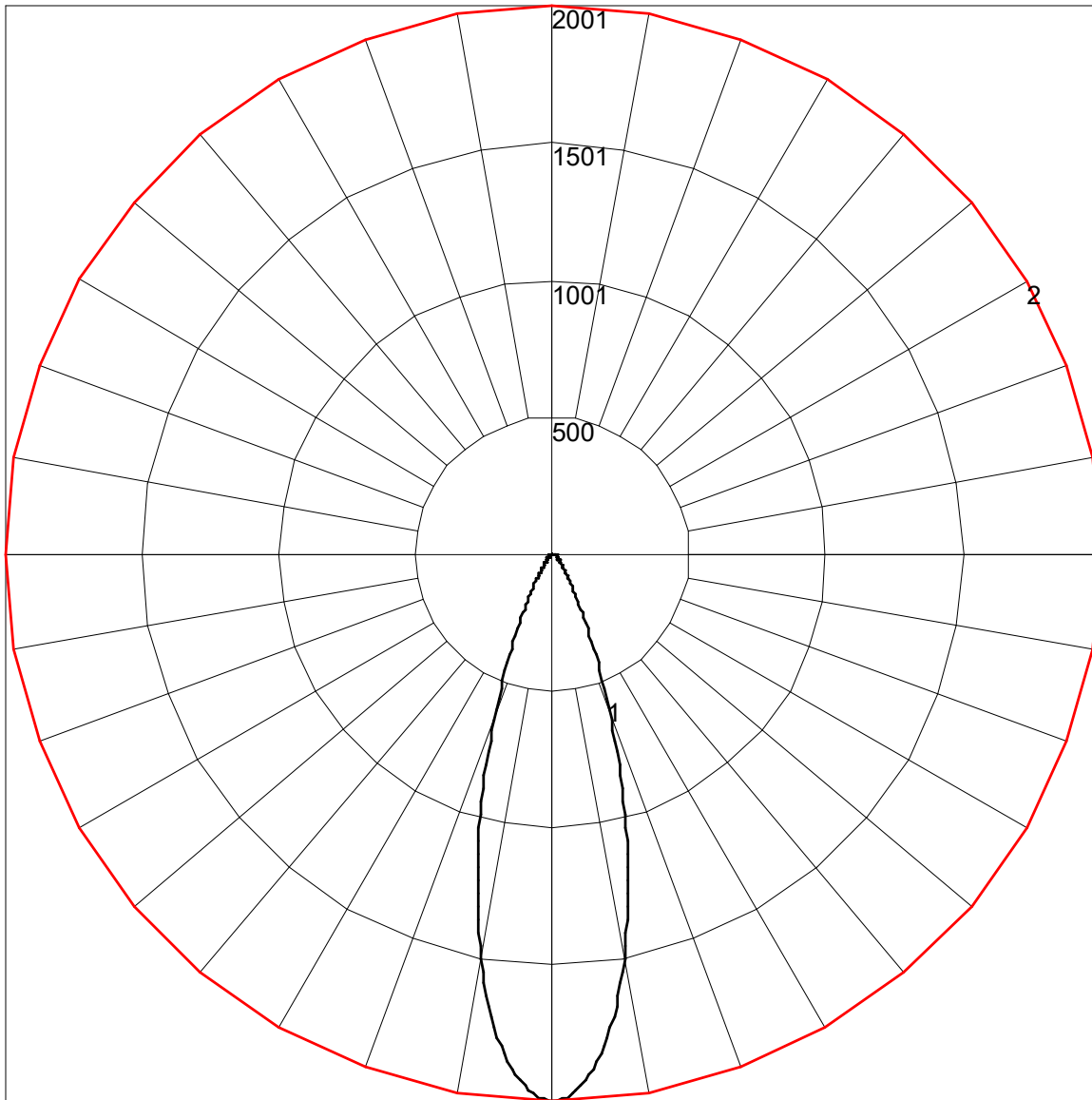
4H	2H	10.4	11.2	10.8	11.6	11.9	10.4	11.2	10.8	11.6	11.9
	3H	11.5	12.2	11.9	12.6	13.0	11.5	12.2	11.9	12.6	13.0
	4H	11.9	12.5	12.3	12.9	13.3	11.9	12.5	12.3	12.9	13.3
	6H	12.2	12.7	12.7	13.2	13.6	12.2	12.7	12.7	13.2	13.6
	8H	12.3	12.8	12.8	13.2	13.7	12.3	12.8	12.8	13.2	13.7
	12H	12.3	12.7	12.8	13.2	13.7	12.3	12.7	12.8	13.2	13.7

8H	4H	12.0	12.4	12.4	12.9	13.4	12.0	12.4	12.4	12.9	13.4
	6H	12.4	12.7	12.9	13.2	13.7	12.4	12.7	12.9	13.2	13.7
	8H	12.5	12.9	13.1	13.4	13.9	12.5	12.9	13.1	13.4	13.9
	12H	12.7	12.9	13.2	13.4	14.0	12.7	12.9	13.2	13.4	14.0

12H	4H	11.9	12.3	12.4	12.8	13.3	11.9	12.3	12.4	12.8	13.3
	6H	12.4	12.7	12.9	13.2	13.7	12.4	12.7	12.9	13.2	13.7
	8H	12.6	12.8	13.1	13.3	13.9	12.6	12.8	13.1	13.3	13.9

Maximum UGR = 14.0

POLAR GRAPH



Maximum Candela = 2001.194 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.)