



IES INDOOR REPORT

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

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from UL #12316380.10

[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-LN-OF-WH 3000k

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

[MORE] tic optic, clear glass patterned 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	696
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)	0.44
Spacing Criterion (90-270)	0.44
Spacing Criterion (Diagonal)	0.44
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	4571	4571	4571
55	3428	3428	3428
65	2837	2837	2837
75	2308	2308	2308
85	1285	1285	1285

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CANDELA TABULATION

	<u>0</u>
0.0	2614.272
0.5	2611.234
1.0	2602.501
1.5	2588.831
2.0	2569.466
2.5	2545.545
3.0	2516.687
3.5	2483.273
4.0	2445.303
4.5	2403.535
5.0	2358.350
5.5	2309.368
6.0	2256.969
6.5	2200.393
7.0	2140.779
7.5	2078.507
8.0	2012.439
8.5	1944.471
9.0	1874.226
9.5	1802.462
10.0	1729.558
10.5	1655.516
11.0	1579.954
11.5	1504.393
12.0	1429.591
12.5	1355.169
13.0	1281.885
13.5	1209.741
14.0	1139.496
14.5	1071.529
15.0	1006.219
15.5	943.188
16.0	882.815
16.5	825.100
17.0	770.802
17.5	718.782
18.0	669.800
18.5	623.856
19.0	580.949
19.5	541.080
20.0	503.489
20.5	467.797
21.0	434.383
21.5	404.007
22.0	374.731
22.5	347.506
23.0	322.066
23.5	298.524
24.0	276.615
24.5	256.111
25.0	237.240
25.5	219.849
26.0	203.712
26.5	188.903

IES INDOOR REPORT**PHOTOMETRIC FILENAME : V4DR-L6-9DW-DIM-UNV-LN-OF-WH_3000K.IES****CANDELA TABULATION - (Cont.)**

27.0	175.234
27.5	162.704
28.0	151.237
28.5	140.719
29.0	131.074
29.5	122.189
30.0	114.101
30.5	106.659
31.0	99.825
31.5	93.597
32.0	87.940
32.5	82.662
33.0	77.840
33.5	73.397
34.0	69.372
34.5	65.651
35.0	62.272
35.5	59.196
36.0	56.310
36.5	53.690
37.0	51.298
37.5	49.058
38.0	47.045
38.5	45.185
39.0	43.438
39.5	41.806
40.0	40.287
40.5	38.882
41.0	37.591
41.5	36.376
42.0	35.237
42.5	34.173
43.0	33.148
43.5	32.199
44.0	31.288
44.5	30.414
45.0	29.579
45.5	28.820
46.0	28.060
46.5	27.339
47.0	26.655
47.5	25.972
48.0	25.326
48.5	24.681
49.0	24.073
49.5	23.466
50.0	22.896
50.5	22.365
51.0	21.795
51.5	21.301
52.0	20.770
52.5	20.276
53.0	19.821
53.5	19.327
54.0	18.871
54.5	18.454

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CANDELA TABULATION - (Cont.)

55.0	17.998
55.5	17.580
56.0	17.163
56.5	16.745
57.0	16.365
57.5	15.986
58.0	15.606
58.5	15.226
59.0	14.884
59.5	14.543
60.0	14.201
60.5	13.859
61.0	13.518
61.5	13.176
62.0	12.834
62.5	12.530
63.0	12.189
63.5	11.885
64.0	11.581
64.5	11.277
65.0	10.973
65.5	10.670
66.0	10.366
66.5	10.062
67.0	9.796
67.5	9.493
68.0	9.227
68.5	8.923
69.0	8.657
69.5	8.354
70.0	8.088
70.5	7.822
71.0	7.556
71.5	7.290
72.0	7.025
72.5	6.759
73.0	6.493
73.5	6.227
74.0	5.961
74.5	5.734
75.0	5.468
75.5	5.202
76.0	4.974
76.5	4.708
77.0	4.481
77.5	4.215
78.0	3.987
78.5	3.759
79.0	3.531
79.5	3.303
80.0	3.076
80.5	2.848
81.0	2.620
81.5	2.430
82.0	2.202
82.5	2.012

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CANDELA TABULATION - (Cont.)

83.0	1.785
83.5	1.595
84.0	1.405
84.5	1.215
85.0	1.025
85.5	0.873
86.0	0.759
86.5	0.608
87.0	0.494
87.5	0.418
88.0	0.304
88.5	0.228
89.0	0.152
89.5	0.114
90.0	0.076
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
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

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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
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

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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	481.81	N.A.	69.20
0-30	597.23	N.A.	85.80
0-40	638.51	N.A.	91.70
0-60	677.97	N.A.	97.40
0-80	694.68	N.A.	99.80
0-90	696.02	N.A.	100.00
10-90	491.30	N.A.	70.60
20-40	156.70	N.A.	22.50
20-50	179.93	N.A.	25.90
40-70	50.37	N.A.	7.20
60-80	16.71	N.A.	2.40
70-80	5.80	N.A.	0.80
80-90	1.34	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	696.02	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	204.71
10-20	277.09
20-30	115.42
30-40	41.28
40-50	23.23
50-60	16.23
60-70	10.90
70-80	5.80
80-90	1.34
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	73	73	73	73	72	72	72	72	68	68	68	66	66	66	63	63	63	62
1	70	69	67	66	69	67	66	65	65	64	63	63	62	61	61	60	60	58
2	67	65	63	61	66	64	62	60	62	60	59	60	59	58	58	57	56	56
3	65	61	59	57	64	61	58	56	59	57	55	58	56	55	56	55	54	53
4	62	59	56	53	61	58	55	53	57	54	53	55	54	52	54	53	51	51
5	60	56	53	51	59	55	53	51	54	52	50	53	51	50	52	51	49	49
6	58	54	51	48	57	53	50	48	52	50	48	51	49	48	51	49	47	47
7	56	52	49	46	55	51	48	46	50	48	46	50	48	46	49	47	46	45
8	54	50	47	45	54	49	47	45	49	46	44	48	46	44	48	46	44	43
9	53	48	45	43	52	48	45	43	47	45	43	47	44	43	46	44	43	42
10	51	46	44	42	51	46	43	42	46	43	42	45	43	41	45	43	41	41

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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	11.0	12.0	11.4	12.3	12.7	UGR Viewed Endwise			
	3H	12.5	13.4	12.9	13.7	14.1	11.0	12.0	11.4	12.3
	4H	13.0	13.8	13.4	14.2	14.6	12.5	13.4	12.9	13.7
	6H	13.3	14.1	13.7	14.4	14.8	13.0	13.8	13.4	14.2
	8H	13.4	14.1	13.8	14.5	14.9	13.3	14.1	13.7	14.4
	12H	13.4	14.1	13.9	14.5	14.9	13.4	14.1	13.8	14.5

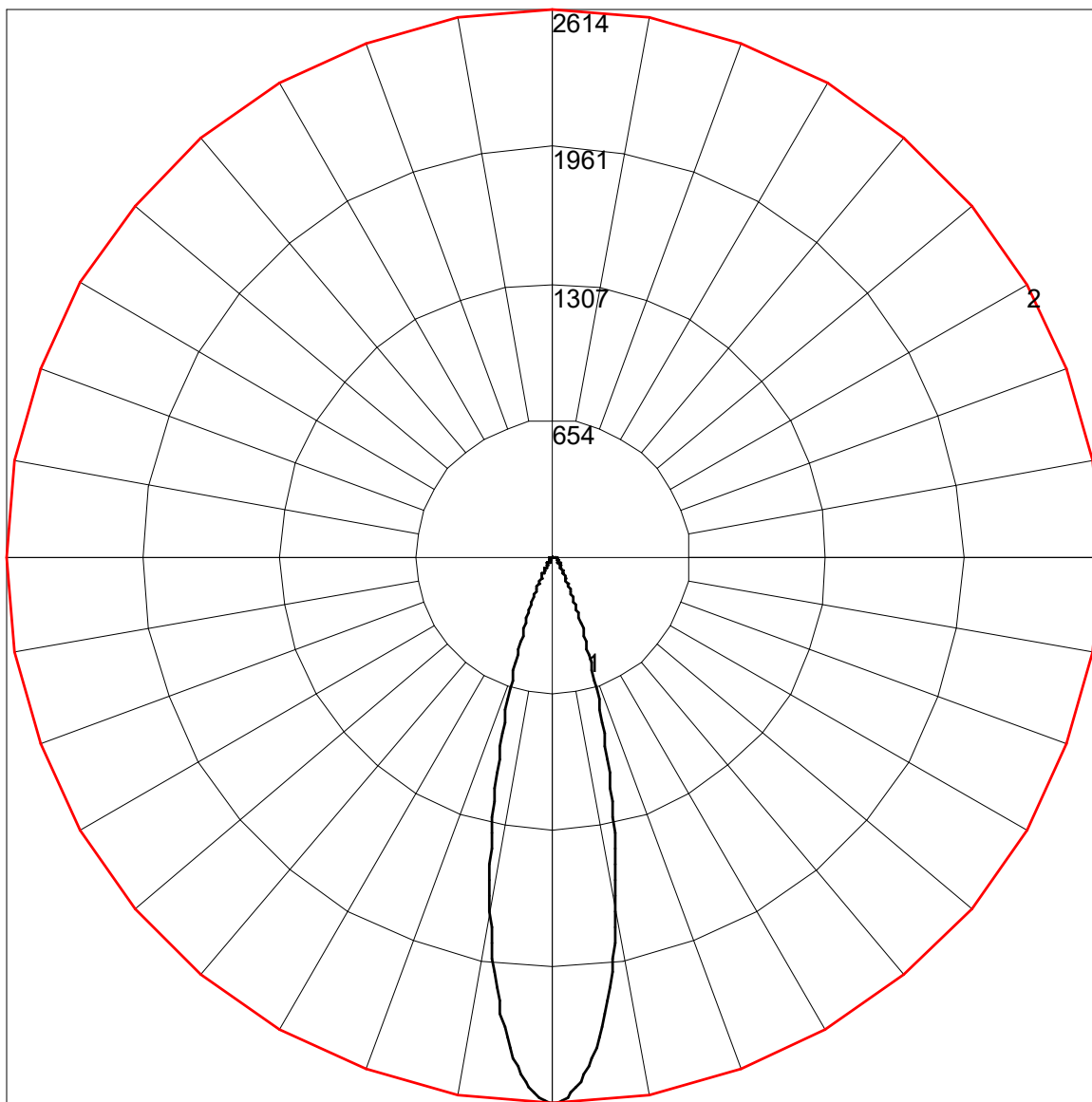
4H	2H	11.5	12.3	11.9	12.6	13.0	11.0	12.0	11.4	12.3
	3H	13.1	13.8	13.5	14.2	14.6	12.5	13.4	12.9	13.7
	4H	13.7	14.3	14.2	14.7	15.2	13.0	13.8	13.4	14.2
	6H	14.2	14.7	14.6	15.1	15.6	13.3	14.1	13.7	14.4
	8H	14.3	14.7	14.8	15.2	15.7	13.4	14.1	13.8	14.5
	12H	14.3	14.7	14.8	15.2	15.7	13.4	14.1	13.9	14.5

8H	4H	13.9	14.4	14.4	14.8	15.3	11.0	12.0	11.4	12.3
	6H	14.4	14.8	15.0	15.3	15.8	12.5	13.4	12.9	13.7
	8H	14.6	14.9	15.1	15.4	15.9	13.0	13.8	13.4	14.2
	12H	14.7	15.0	15.2	15.5	16.0	13.3	14.1	13.7	14.4

12H	4H	13.9	14.3	14.4	14.8	15.2	11.0	12.0	11.4	12.3
	6H	14.5	14.8	15.0	15.2	15.8	12.5	13.4	12.9	13.7
	8H	14.6	14.9	15.2	15.4	16.0	13.0	13.8	13.4	14.2

Maximum UGR = 16.0

POLAR GRAPH



Maximum Candela = 2614.272 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.)