



IES INDOOR REPORT

PHOTOMETRIC FILENAME : V4DR-L18-9DW-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-L82-9DW-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	1752
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	46
Total Luminaire Watts	37.7
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	48337	48337	48337
55	39718	39718	39718
65	29057	29057	29057
75	20115	20115	20115
85	10966	10966	10966

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CANDELA TABULATION

	<u>0</u>
0.0	1230.417
0.5	1230.028
1.0	1229.251
1.5	1228.214
2.0	1227.178
2.5	1226.011
3.0	1224.456
3.5	1223.549
4.0	1222.901
4.5	1222.512
5.0	1221.994
5.5	1221.476
6.0	1221.087
6.5	1220.569
7.0	1220.180
7.5	1219.921
8.0	1219.791
8.5	1219.402
9.0	1219.014
9.5	1218.236
10.0	1217.718
10.5	1216.811
11.0	1215.904
11.5	1214.737
12.0	1213.441
12.5	1211.886
13.0	1210.072
13.5	1207.999
14.0	1205.407
14.5	1202.297
15.0	1198.539
15.5	1194.004
16.0	1188.950
16.5	1182.989
17.0	1176.510
17.5	1169.253
18.0	1160.700
18.5	1151.888
19.0	1142.299
19.5	1131.543
20.0	1119.751
20.5	1106.922
21.0	1093.056
21.5	1078.154
22.0	1061.696
22.5	1044.202
23.0	1025.412
23.5	1005.197
24.0	983.427
24.5	960.231
25.0	935.091
25.5	908.785
26.0	880.665
26.5	850.860

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CANDELA TABULATION - (Cont.)

27.0	820.019
27.5	787.882
28.0	755.226
28.5	722.441
29.0	690.304
29.5	658.814
30.0	628.491
30.5	599.982
31.0	573.288
31.5	548.925
32.0	526.766
32.5	506.810
33.0	489.057
33.5	473.247
34.0	459.122
34.5	446.682
35.0	435.408
35.5	425.171
36.0	416.100
36.5	407.547
37.0	399.772
37.5	392.515
38.0	385.777
38.5	379.298
39.0	373.337
39.5	367.505
40.0	362.063
40.5	356.620
41.0	351.437
41.5	346.383
42.0	341.588
42.5	336.794
43.0	331.999
43.5	327.204
44.0	322.409
44.5	317.615
45.0	312.820
45.5	308.025
46.0	303.231
46.5	298.436
47.0	293.382
47.5	288.328
48.0	283.275
48.5	278.091
49.0	272.778
49.5	267.465
50.0	262.282
50.5	256.969
51.0	251.656
51.5	246.343
52.0	241.159
52.5	235.976
53.0	230.663
53.5	225.220
54.0	219.648
54.5	214.076

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CANDELA TABULATION - (Cont.)

55.0	208.504
55.5	202.931
56.0	197.489
56.5	192.176
57.0	186.863
57.5	181.550
58.0	176.366
58.5	171.312
59.0	166.259
59.5	161.334
60.0	156.540
60.5	151.745
61.0	147.080
61.5	142.544
62.0	138.009
62.5	133.473
63.0	129.145
63.5	124.843
64.0	120.618
64.5	116.459
65.0	112.390
65.5	108.424
66.0	104.511
66.5	100.701
67.0	96.982
67.5	93.328
68.0	89.790
68.5	86.330
69.0	82.870
69.5	79.527
70.0	76.274
70.5	73.073
71.0	69.950
71.5	66.905
72.0	63.964
72.5	61.061
73.0	58.236
73.5	55.489
74.0	52.793
74.5	50.189
75.0	47.649
75.5	45.187
76.0	42.776
76.5	40.431
77.0	38.189
77.5	35.960
78.0	33.809
78.5	31.723
79.0	29.675
79.5	27.705
80.0	25.775
80.5	23.896
81.0	22.043
81.5	20.241
82.0	18.479
82.5	16.768

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CANDELA TABULATION - (Cont.)

83.0	15.071
83.5	13.425
84.0	11.818
84.5	10.250
85.0	8.747
85.5	7.296
86.0	5.909
86.5	4.600
87.0	3.447
87.5	2.488
88.0	1.736
88.5	1.101
89.0	0.687
89.5	0.467
90.0	0.324
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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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
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152.0	0.000
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158.0	0.000
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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	451.96	N.A.	25.80
0-30	866.90	N.A.	49.50
0-40	1149.55	N.A.	65.60
0-60	1576.81	N.A.	90.00
0-80	1740.59	N.A.	99.40
0-90	1751.55	N.A.	100.00
10-90	1635.00	N.A.	93.30
20-40	697.59	N.A.	39.80
20-50	938.51	N.A.	53.60
40-70	539.64	N.A.	30.80
60-80	163.78	N.A.	9.40
70-80	51.41	N.A.	2.90
80-90	10.95	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	1751.56	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	116.54
10-20	335.41
20-30	414.95
30-40	282.65
40-50	240.91
50-60	186.35
60-70	112.38
70-80	51.41
80-90	10.95
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	182	176	171	166	178	173	168	163	166	162	158	159	156	153	154	151	149	146
2	169	159	150	142	165	156	148	141	150	143	138	145	139	134	140	136	132	128
3	158	144	133	124	154	141	131	123	137	128	121	132	125	119	128	122	117	114
4	147	131	119	110	144	129	118	109	125	115	108	121	113	107	118	111	105	102
5	137	120	108	99	134	118	107	98	115	105	97	112	103	96	109	101	95	92
6	129	110	98	89	126	109	97	89	106	96	88	104	94	87	101	93	87	84
7	121	102	90	81	118	101	89	81	98	88	80	96	87	80	94	86	79	77
8	114	95	83	75	112	94	82	74	92	81	74	90	81	74	88	80	73	71
9	107	88	77	69	105	88	76	69	86	76	68	84	75	68	83	74	68	65
10	102	83	71	64	100	82	71	64	81	71	64	79	70	63	78	69	63	61

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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	20.8	22.2	21.2	22.5	22.8	20.8	22.2	21.2	22.5	22.8
	3H	21.9	23.1	22.3	23.5	23.8	21.9	23.1	22.3	23.5	23.8
	4H	22.3	23.4	22.7	23.8	24.1	22.3	23.4	22.7	23.8	24.1
	6H	22.5	23.5	22.9	23.9	24.3	22.5	23.5	22.9	23.9	24.3
	8H	22.5	23.5	23.0	23.9	24.3	22.5	23.5	23.0	23.9	24.3
	12H	22.5	23.5	23.0	23.9	24.3	22.5	23.5	23.0	23.9	24.3

UGR Viewed Endwise

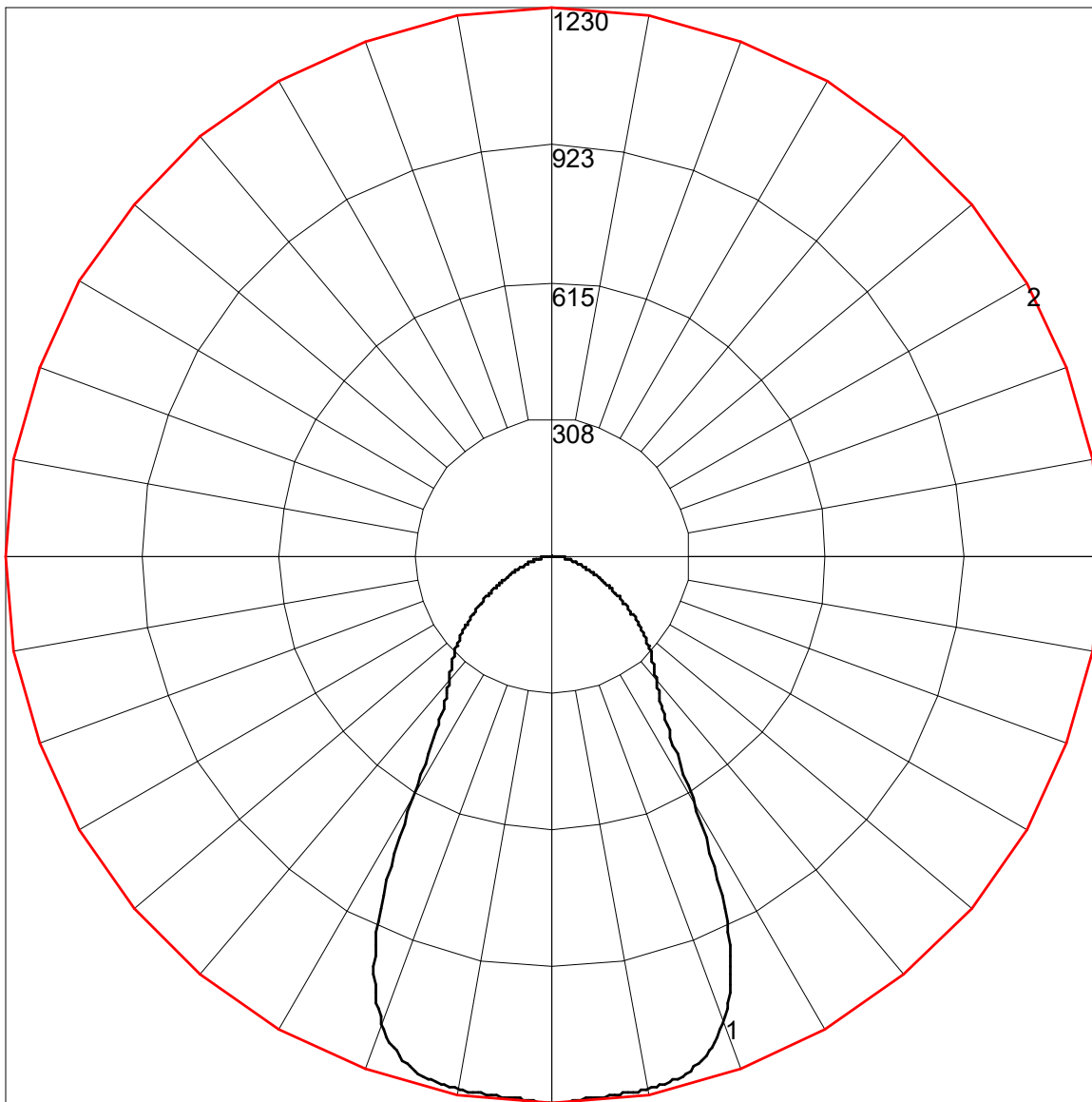
4H	2H	21.2	22.3	21.6	22.7	23.0	21.2	22.3	21.6	22.7	23.0
	3H	22.5	23.4	22.9	23.8	24.2	22.5	23.4	22.9	23.8	24.2
	4H	22.9	23.8	23.3	24.2	24.6	22.9	23.8	23.3	24.2	24.6
	6H	23.2	24.0	23.7	24.4	24.9	23.2	24.0	23.7	24.4	24.9
	8H	23.3	24.0	23.8	24.4	24.9	23.3	24.0	23.8	24.4	24.9
	12H	23.3	23.9	23.8	24.4	24.9	23.3	23.9	23.8	24.4	24.9

8H	4H	23.0	23.7	23.5	24.2	24.6	23.0	23.7	23.5	24.2	24.6
	6H	23.4	24.0	23.9	24.5	25.0	23.4	24.0	23.9	24.5	25.0
	8H	23.5	24.0	24.1	24.6	25.0	23.5	24.0	24.1	24.6	25.0
	12H	23.6	24.1	24.1	24.5	25.1	23.6	24.1	24.1	24.5	25.1

12H	4H	23.0	23.6	23.5	24.1	24.6	23.0	23.6	23.5	24.1	24.6
	6H	23.4	23.9	24.0	24.4	24.9	23.4	23.9	24.0	24.4	24.9
	8H	23.6	24.0	24.1	24.5	25.1	23.6	24.0	24.1	24.5	25.1

Maximum UGR = 25.1

POLAR GRAPH



Maximum Candela = 1230.417 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.)