



IES INDOOR REPORT

PHOTOMETRIC FILENAME : V4DR-L6-9DW-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-L6-9DW-DIM-UNV-LW-OF-WH 3000k

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

[MORE] erned 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	610
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	44
Total Luminaire Watts	14
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	16830	16830	16830
55	13829	13829	13829
65	10117	10117	10117
75	7004	7004	7004
85	3817	3817	3817

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CANDELA TABULATION

	<u>0</u>
0.0	428.399
0.5	428.263
1.0	427.993
1.5	427.632
2.0	427.271
2.5	426.865
3.0	426.323
3.5	426.007
4.0	425.782
4.5	425.646
5.0	425.466
5.5	425.285
6.0	425.150
6.5	424.970
7.0	424.834
7.5	424.744
8.0	424.699
8.5	424.564
9.0	424.428
9.5	424.158
10.0	423.977
10.5	423.661
11.0	423.345
11.5	422.939
12.0	422.488
12.5	421.947
13.0	421.315
13.5	420.593
14.0	419.691
14.5	418.608
15.0	417.300
15.5	415.720
16.0	413.961
16.5	411.885
17.0	409.629
17.5	407.103
18.0	404.125
18.5	401.057
19.0	397.718
19.5	393.973
20.0	389.868
20.5	385.401
21.0	380.573
21.5	375.385
22.0	369.655
22.5	363.564
23.0	357.021
23.5	349.983
24.0	342.403
24.5	334.327
25.0	325.574
25.5	316.415
26.0	306.624
26.5	296.247

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CANDELA TABULATION - (Cont.)

27.0	285.509
27.5	274.320
28.0	262.950
28.5	251.535
29.0	240.345
29.5	229.382
30.0	218.824
30.5	208.898
31.0	199.604
31.5	191.121
32.0	183.406
32.5	176.458
33.0	170.277
33.5	164.772
34.0	159.854
34.5	155.523
35.0	151.598
35.5	148.033
36.0	144.875
36.5	141.897
37.0	139.190
37.5	136.663
38.0	134.317
38.5	132.061
39.0	129.986
39.5	127.956
40.0	126.061
40.5	124.166
41.0	122.361
41.5	120.601
42.0	118.932
42.5	117.263
43.0	115.593
43.5	113.924
44.0	112.254
44.5	110.585
45.0	108.916
45.5	107.246
46.0	105.577
46.5	103.908
47.0	102.148
47.5	100.388
48.0	98.629
48.5	96.824
49.0	94.974
49.5	93.124
50.0	91.320
50.5	89.470
51.0	87.620
51.5	85.770
52.0	83.965
52.5	82.160
53.0	80.311
53.5	78.416
54.0	76.476
54.5	74.535

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CANDELA TABULATION - (Cont.)

55.0	72.595
55.5	70.655
56.0	68.760
56.5	66.910
57.0	65.061
57.5	63.211
58.0	61.406
58.5	59.646
59.0	57.887
59.5	56.172
60.0	54.503
60.5	52.834
61.0	51.209
61.5	49.630
62.0	48.051
62.5	46.472
63.0	44.965
63.5	43.467
64.0	41.996
64.5	40.548
65.0	39.131
65.5	37.751
66.0	36.388
66.5	35.061
67.0	33.767
67.5	32.494
68.0	31.262
68.5	30.058
69.0	28.853
69.5	27.689
70.0	26.557
70.5	25.442
71.0	24.355
71.5	23.295
72.0	22.270
72.5	21.260
73.0	20.276
73.5	19.320
74.0	18.381
74.5	17.474
75.0	16.590
75.5	15.733
76.0	14.894
76.5	14.077
77.0	13.296
77.5	12.520
78.0	11.771
78.5	11.045
79.0	10.332
79.5	9.646
80.0	8.974
80.5	8.320
81.0	7.675
81.5	7.047
82.0	6.434
82.5	5.838

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CANDELA TABULATION - (Cont.)

83.0	5.247
83.5	4.674
84.0	4.115
84.5	3.569
85.0	3.045
85.5	2.540
86.0	2.057
86.5	1.602
87.0	1.200
87.5	0.866
88.0	0.605
88.5	0.384
89.0	0.239
89.5	0.162
90.0	0.113
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
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152.0	0.000
152.5	0.000
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157.0	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

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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	157.36	N.A.	25.80
0-30	301.83	N.A.	49.50
0-40	400.24	N.A.	65.60
0-60	549.00	N.A.	90.00
0-80	606.03	N.A.	99.40
0-90	609.84	N.A.	100.00
10-90	569.26	N.A.	93.30
20-40	242.88	N.A.	39.80
20-50	326.76	N.A.	53.60
40-70	187.89	N.A.	30.80
60-80	57.03	N.A.	9.40
70-80	17.90	N.A.	2.90
80-90	3.81	N.A.	0.60
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	609.85	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	40.58
10-20	116.78
20-30	144.47
30-40	98.41
40-50	83.88
50-60	64.88
60-70	39.13
70-80	17.90
80-90	3.81
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	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	68	68	68	68	66	66	66	66	63	63	63	61	61	61	58	58	58	57
1	63	61	59	58	62	60	58	57	58	56	55	56	54	53	54	53	52	51
2	59	55	52	50	58	54	51	49	52	50	48	51	49	47	49	47	46	45
3	55	50	46	43	54	49	46	43	48	45	42	46	44	41	45	43	41	40
4	51	46	41	38	50	45	41	38	44	40	38	42	39	37	41	39	37	36
5	48	42	37	34	47	41	37	34	40	36	34	39	36	33	38	35	33	32
6	45	38	34	31	44	38	34	31	37	33	31	36	33	30	35	32	30	29
7	42	36	31	28	41	35	31	28	34	31	28	34	30	28	33	30	28	27
8	40	33	29	26	39	33	29	26	32	28	26	31	28	26	31	28	26	25
9	37	31	27	24	37	30	27	24	30	26	24	29	26	24	29	26	24	23
10	35	29	25	22	35	29	25	22	28	25	22	28	24	22	27	24	22	21

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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

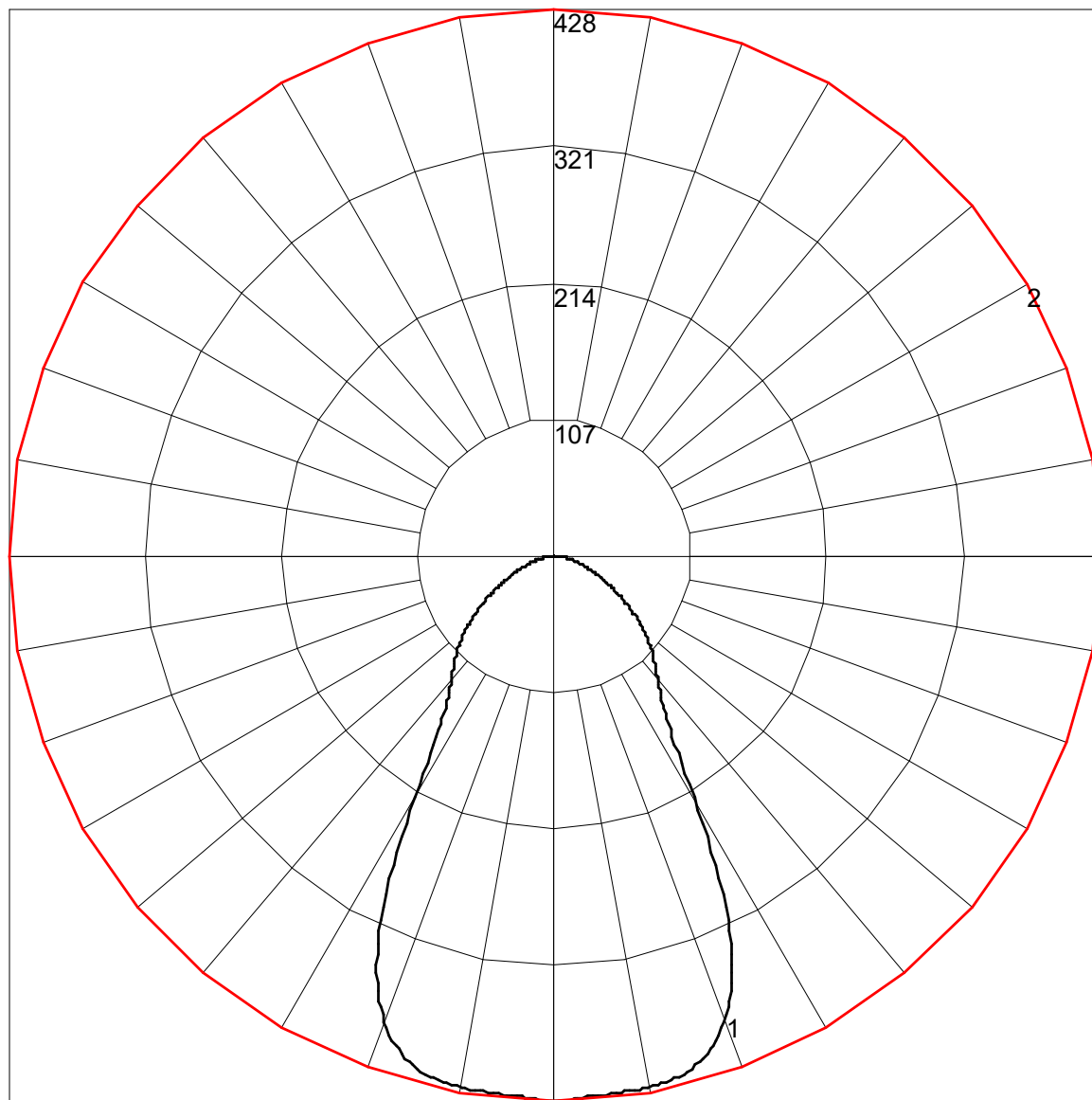
4H	2H	21.2	22.3	21.6	22.7	23.0	21.2	22.3	21.6	22.7	23.0
	3H	22.5	23.4	22.9	23.8	24.2	22.5	23.4	22.9	23.8	24.2
	4H	22.9	23.8	23.3	24.2	24.6	22.9	23.8	23.3	24.2	24.6
	6H	23.2	24.0	23.7	24.4	24.9	23.2	24.0	23.7	24.4	24.9
	8H	23.3	24.0	23.8	24.4	24.9	23.3	24.0	23.8	24.4	24.9
	12H	23.3	23.9	23.8	24.4	24.9	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 = 428.399 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.)