



IES INDOOR REPORT

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

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from UL #12316380.09

[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-LM-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	692
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	49
Total Luminaire Watts	14
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.56
Spacing Criterion (90-270)	0.56
Spacing Criterion (Diagonal)	0.54
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	5251	5251	5251
55	4093	4093	4093
65	3421	3421	3421
75	2752	2752	2752
85	1644	1644	1644

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CANDELA TABULATION

	<u>0</u>
0.0	1790.560
0.5	1789.788
1.0	1787.088
1.5	1782.845
2.0	1777.445
2.5	1770.116
3.0	1761.630
3.5	1751.601
4.0	1740.029
4.5	1727.686
5.0	1713.799
5.5	1698.370
6.0	1681.398
6.5	1662.497
7.0	1642.053
7.5	1619.681
8.0	1595.380
8.5	1569.150
9.0	1541.378
9.5	1511.291
10.0	1478.890
10.5	1444.174
11.0	1407.915
11.5	1369.728
12.0	1329.226
12.5	1287.182
13.0	1243.208
13.5	1197.692
14.0	1150.247
14.5	1101.260
15.0	1051.886
15.5	1001.741
16.0	951.596
16.5	901.066
17.0	850.921
17.5	802.319
18.0	754.103
18.5	707.815
19.0	663.456
19.5	620.640
20.0	580.138
20.5	541.179
21.0	504.921
21.5	470.591
22.0	438.190
22.5	408.103
23.0	379.713
23.5	353.252
24.0	328.681
24.5	305.730
25.0	284.437
25.5	264.649
26.0	246.096
26.5	228.969

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CANDELA TABULATION - (Cont.)

27.0	213.000
27.5	198.381
28.0	184.765
28.5	172.190
29.0	160.657
29.5	149.895
30.0	139.904
30.5	130.685
31.0	122.161
31.5	114.330
32.0	107.079
32.5	100.406
33.0	94.272
33.5	88.602
34.0	83.433
34.5	78.650
35.0	74.330
35.5	70.319
36.0	66.654
36.5	63.298
37.0	60.212
37.5	57.397
38.0	54.851
38.5	52.498
39.0	50.338
39.5	48.371
40.0	46.558
40.5	44.860
41.0	43.279
41.5	41.852
42.0	40.502
42.5	39.229
43.0	38.072
43.5	36.953
44.0	35.911
44.5	34.947
45.0	33.983
45.5	33.096
46.0	32.286
46.5	31.476
47.0	30.704
47.5	30.010
48.0	29.277
48.5	28.621
49.0	27.965
49.5	27.310
50.0	26.731
50.5	26.153
51.0	25.612
51.5	25.034
52.0	24.494
52.5	23.992
53.0	23.452
53.5	22.951
54.0	22.449
54.5	21.948

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CANDELA TABULATION - (Cont.)

55.0	21.485
55.5	21.022
56.0	20.559
56.5	20.097
57.0	19.595
57.5	19.171
58.0	18.746
58.5	18.361
59.0	17.936
59.5	17.512
60.0	17.088
60.5	16.664
61.0	16.316
61.5	15.892
62.0	15.506
62.5	15.121
63.0	14.735
63.5	14.388
64.0	14.002
64.5	13.616
65.0	13.231
65.5	12.883
66.0	12.536
66.5	12.189
67.0	11.803
67.5	11.456
68.0	11.109
68.5	10.762
69.0	10.415
69.5	10.068
70.0	9.720
70.5	9.412
71.0	9.103
71.5	8.718
72.0	8.409
72.5	8.100
73.0	7.792
73.5	7.445
74.0	7.136
74.5	6.827
75.0	6.519
75.5	6.210
76.0	5.902
76.5	5.593
77.0	5.285
77.5	5.053
78.0	4.744
78.5	4.474
79.0	4.204
79.5	3.934
80.0	3.664
80.5	3.394
81.0	3.124
81.5	2.932
82.0	2.623
82.5	2.430

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

83.0	2.160
83.5	1.967
84.0	1.736
84.5	1.504
85.0	1.311
85.5	1.080
86.0	0.926
86.5	0.733
87.0	0.617
87.5	0.501
88.0	0.386
88.5	0.309
89.0	0.231
89.5	0.154
90.0	0.116
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
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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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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	437.65	N.A.	63.20
0-30	574.79	N.A.	83.10
0-40	624.22	N.A.	90.20
0-60	670.31	N.A.	96.90
0-80	690.40	N.A.	99.80
0-90	692.03	N.A.	100.00
10-90	535.76	N.A.	77.40
20-40	186.58	N.A.	27.00
20-50	213.35	N.A.	30.80
40-70	59.24	N.A.	8.60
60-80	20.09	N.A.	2.90
70-80	6.93	N.A.	1.00
80-90	1.63	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	692.03	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	156.27
10-20	281.38
20-30	137.14
30-40	49.44
40-50	26.77
50-60	19.31
60-70	13.16
70-80	6.93
80-90	1.63
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	65	63	62	61	64	62	61	60	60	59	58	58	57	56	56	55	55	54
2	62	60	57	56	61	59	57	55	57	55	54	55	54	53	53	52	52	51
3	59	56	54	51	58	55	53	51	54	52	50	52	51	49	51	50	49	48
4	57	53	50	48	56	52	50	48	51	49	47	50	48	47	49	48	46	45
5	55	50	48	45	54	50	47	45	49	47	45	48	46	44	47	45	44	43
6	53	48	45	43	52	48	45	43	47	44	43	46	44	42	45	44	42	41
7	51	46	43	41	50	46	43	41	45	42	41	44	42	40	44	42	40	40
8	49	44	41	39	48	44	41	39	43	41	39	43	40	39	42	40	39	38
9	47	42	40	38	47	42	39	38	42	39	37	41	39	37	41	39	37	37
10	46	41	38	36	45	41	38	36	40	38	36	40	37	36	39	37	36	35

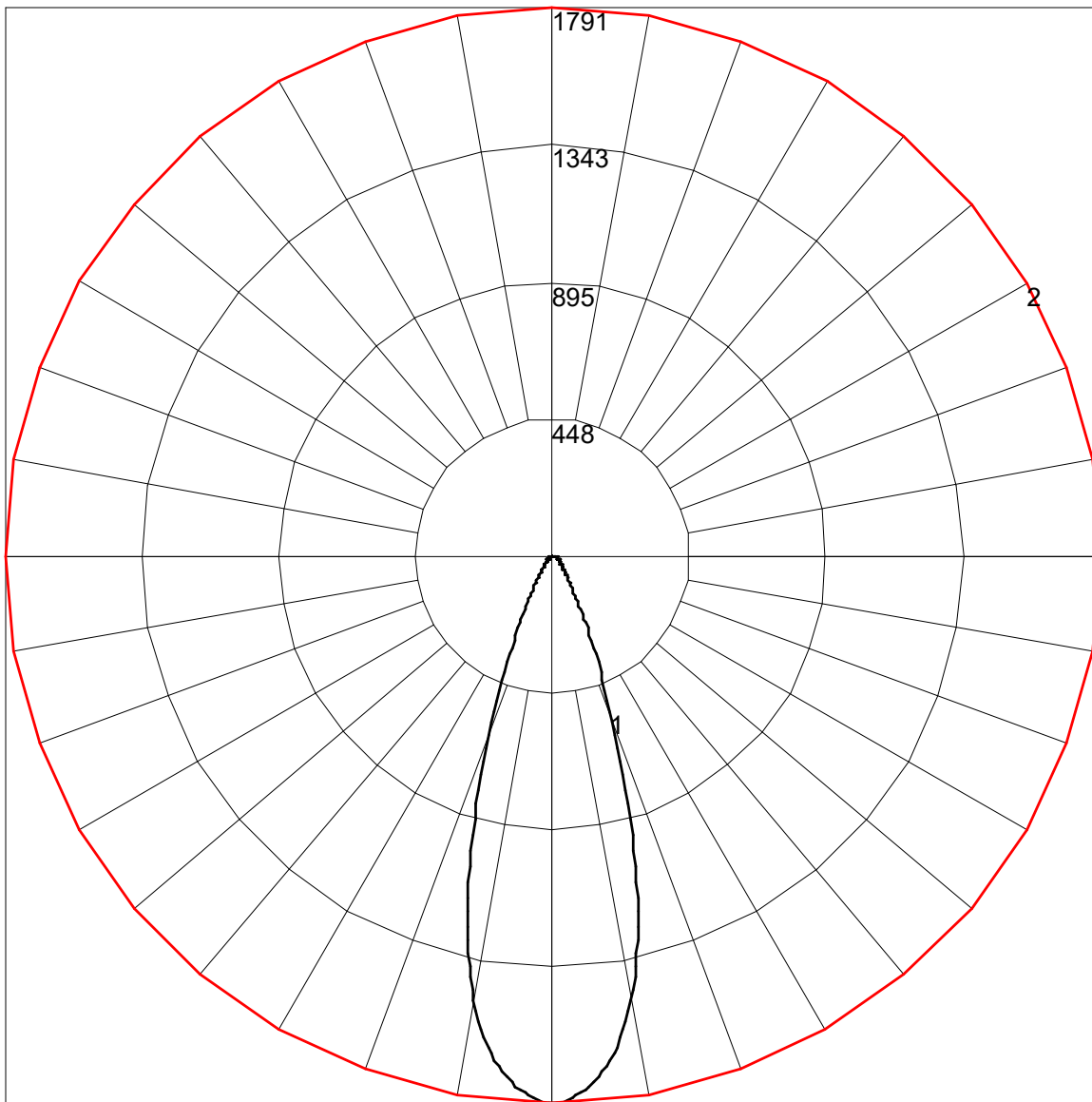
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UGR TABLE - CORRECTED

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					UGR Viewed Endwise				
X=2H	Y=2H	12.6	13.6	12.9	13.9	14.2	12.6	13.6	12.9	13.9	14.2
	3H	14.0	14.9	14.4	15.2	15.6	14.0	14.9	14.4	15.2	15.6
	4H	14.5	15.3	14.9	15.7	16.1	14.5	15.3	14.9	15.7	16.1
	6H	14.8	15.6	15.3	16.0	16.4	14.8	15.6	15.3	16.0	16.4
	8H	14.9	15.6	15.4	16.0	16.4	14.9	15.6	15.4	16.0	16.4
	12H	14.9	15.6	15.4	16.0	16.4	14.9	15.6	15.4	16.0	16.4
4H	2H	13.0	13.8	13.4	14.2	14.6	13.0	13.8	13.4	14.2	14.6
	3H	14.6	15.3	15.0	15.7	16.1	14.6	15.3	15.0	15.7	16.1
	4H	15.3	15.9	15.7	16.3	16.7	15.3	15.9	15.7	16.3	16.7
	6H	15.7	16.2	16.2	16.7	17.1	15.7	16.2	16.2	16.7	17.1
	8H	15.8	16.3	16.3	16.7	17.2	15.8	16.3	16.3	16.7	17.2
	12H	15.8	16.3	16.3	16.7	17.2	15.8	16.3	16.3	16.7	17.2
8H	4H	15.4	15.9	15.9	16.4	16.8	15.4	15.9	15.9	16.4	16.8
	6H	15.9	16.3	16.5	16.8	17.3	15.9	16.3	16.5	16.8	17.3
	8H	16.1	16.5	16.6	17.0	17.5	16.1	16.5	16.6	17.0	17.5
	12H	16.2	16.5	16.7	17.0	17.6	16.2	16.5	16.7	17.0	17.6
12H	4H	15.4	15.8	15.9	16.3	16.8	15.4	15.8	15.9	16.3	16.8
	6H	16.0	16.3	16.5	16.8	17.3	16.0	16.3	16.5	16.8	17.3
	8H	16.1	16.5	16.7	16.9	17.5	16.1	16.5	16.7	16.9	17.5

Maximum UGR = 17.6

POLAR GRAPH



Maximum Candela = 1790.56 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.)