



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : V6DR-L18-8TW-DIM-UNV-LN-OF-WH\_4000K.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from UL #12326812.10

[TESTLAB] UL Verification Services Inc.

[ISSUE DATE] 21 SEP 2021

[MANUFAC] WILLIAMS INDOOR

[OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.

[LUMCAT] V6DR-L18-8TW-DIM-UNV-LN-OF-WH 4000k

[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, Architectural, Classroom, Commercial, Healthcare, Office, Downlight

[SEARCH\_MOUNTING] Recessed

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	1957
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	82
Total Luminaire Watts	24
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)	0.46 ft (Diameter)
Luminous Width (90-270)	0.46 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	7364	7364	7364
55	5389	5389	5389
65	4382	4382	4382
75	3577	3577	3577
85	2316	2316	2316

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CANDELA TABULATION

	<u>0</u>
0.0	7323.306
0.5	7316.907
1.0	7295.578
1.5	7258.252
2.0	7207.063
2.5	7142.009
3.0	7064.158
3.5	6972.444
4.0	6867.932
4.5	6752.755
5.0	6627.981
5.5	6491.475
6.0	6344.305
6.5	6187.537
7.0	6021.171
7.5	5846.274
8.0	5661.778
8.5	5471.950
9.0	5277.856
9.5	5077.364
10.0	4874.739
10.5	4668.914
11.0	4459.890
11.5	4249.799
12.0	4039.709
12.5	3831.751
13.0	3625.927
13.5	3423.301
14.0	3224.942
14.5	3031.915
15.0	2846.353
15.5	2668.256
16.0	2498.690
16.5	2337.656
17.0	2184.088
17.5	2037.984
18.0	1900.412
18.5	1772.438
19.0	1651.930
19.5	1539.952
20.0	1433.308
20.5	1331.995
21.0	1238.147
21.5	1150.699
22.0	1067.515
22.5	990.411
23.0	918.106
23.5	851.133
24.0	788.426
24.5	730.304
25.0	676.555
25.5	626.752
26.0	580.682
26.5	538.237

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : V6DR-L18-8TW-DIM-UNV-LN-OF-WH\_4000K.IES****CANDELA TABULATION - (Cont.)**

27.0	499.311
27.5	463.479
28.0	430.632
28.5	400.665
29.0	373.044
29.5	347.662
30.0	324.414
30.5	303.191
31.0	283.675
31.5	265.866
32.0	249.442
32.5	234.406
33.0	220.542
33.5	207.851
34.0	196.120
34.5	185.455
35.0	175.538
35.5	166.473
36.0	158.154
36.5	150.369
37.0	143.331
37.5	136.825
38.0	130.853
38.5	125.201
39.0	120.082
39.5	115.283
40.0	110.911
40.5	106.752
41.0	103.019
41.5	99.393
42.0	96.087
42.5	92.994
43.0	90.008
43.5	87.236
44.0	84.569
44.5	82.117
45.0	79.770
45.5	77.531
46.0	75.398
46.5	73.265
47.0	71.345
47.5	69.426
48.0	67.506
48.5	65.693
49.0	63.987
49.5	62.387
50.0	60.788
50.5	59.188
51.0	57.695
51.5	56.309
52.0	54.922
52.5	53.536
53.0	52.149
53.5	50.976
54.0	49.697
54.5	48.523

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : V6DR-L18-8TW-DIM-UNV-LN-OF-WH\_4000K.IES****CANDELA TABULATION - (Cont.)**

55.0	47.350
55.5	46.177
56.0	45.004
56.5	43.938
57.0	42.871
57.5	41.911
58.0	40.845
58.5	39.885
59.0	38.925
59.5	37.859
60.0	37.006
60.5	36.046
61.0	35.086
61.5	34.233
62.0	33.380
62.5	32.527
63.0	31.674
63.5	30.820
64.0	29.967
64.5	29.114
65.0	28.368
65.5	27.514
66.0	26.768
66.5	25.915
67.0	25.168
67.5	24.422
68.0	23.675
68.5	22.929
69.0	22.182
69.5	21.436
70.0	20.689
70.5	20.049
71.0	19.303
71.5	18.663
72.0	18.023
72.5	17.276
73.0	16.637
73.5	15.997
74.0	15.357
74.5	14.717
75.0	14.184
75.5	13.544
76.0	12.904
76.5	12.264
77.0	11.731
77.5	11.091
78.0	10.558
78.5	10.025
79.0	9.385
79.5	8.852
80.0	8.318
80.5	7.785
81.0	7.252
81.5	6.719
82.0	6.185
82.5	5.652

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CANDELA TABULATION - (Cont.)

83.0	5.119
83.5	4.586
84.0	4.159
84.5	3.626
85.0	3.093
85.5	2.666
86.0	2.240
86.5	1.813
87.0	1.493
87.5	1.173
88.0	0.853
88.5	0.640
89.0	0.533
89.5	0.320
90.0	0.213
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

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : V6DR-L18-8TW-DIM-UNV-LN-OF-WH\_4000K.IES****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

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : V6DR-L18-8TW-DIM-UNV-LN-OF-WH\_4000K.IES****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



**IES INDOOR REPORT****PHOTOMETRIC FILENAME : V6DR-L18-8TW-DIM-UNV-LN-OF-WH\_4000K.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	1359.89	N.A.	69.50
0-30	1688.74	N.A.	86.30
0-40	1805.00	N.A.	92.20
0-60	1910.44	N.A.	97.60
0-80	1953.65	N.A.	99.80
0-90	1957.47	N.A.	100.00
10-90	1381.86	N.A.	70.60
20-40	445.12	N.A.	22.70
20-50	507.85	N.A.	25.90
40-70	133.62	N.A.	6.80
60-80	43.21	N.A.	2.20
70-80	15.03	N.A.	0.80
80-90	3.82	N.A.	0.20
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	1957.47	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	575.61
10-20	784.28
20-30	328.85
30-40	116.27
40-50	62.74
50-60	42.70
60-70	28.18
70-80	15.03
80-90	3.82
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	110	110	110	110	107	107	107	107	102	102	102	98	98	98	94	94	94	92
1	105	103	101	99	103	101	99	97	97	96	94	94	93	92	91	90	89	87
2	101	97	94	91	99	95	93	90	93	90	88	90	88	86	87	86	84	83
3	97	92	88	85	95	91	87	84	88	85	83	86	84	82	84	82	80	79
4	93	88	83	80	92	87	83	80	85	81	79	83	80	78	81	79	77	76
5	90	84	79	76	89	83	79	76	81	78	75	80	77	74	79	76	74	73
6	87	80	76	73	86	80	75	72	78	75	72	77	74	71	76	73	71	70
7	84	77	73	70	83	77	72	69	75	72	69	74	71	69	74	71	68	67
8	81	74	70	67	80	74	70	67	73	69	67	72	69	66	71	68	66	65
9	79	72	67	65	78	71	67	64	71	67	64	70	66	64	69	66	64	63
10	76	69	65	62	76	69	65	62	68	65	62	68	64	62	67	64	62	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	11.0	12.0	11.3	12.3	12.6	UGR Viewed Endwise	11.0	12.0	11.3	12.3	12.6
	3H	12.4	13.2	12.8	13.6	13.9		12.4	13.2	12.8	13.6	13.9
	4H	12.9	13.7	13.3	14.0	14.4		12.9	13.7	13.3	14.0	14.4
	6H	13.2	13.9	13.6	14.3	14.7		13.2	13.9	13.6	14.3	14.7
	8H	13.3	14.0	13.7	14.4	14.8		13.3	14.0	13.7	14.4	14.8
	12H	13.3	14.0	13.8	14.4	14.8		13.3	14.0	13.8	14.4	14.8

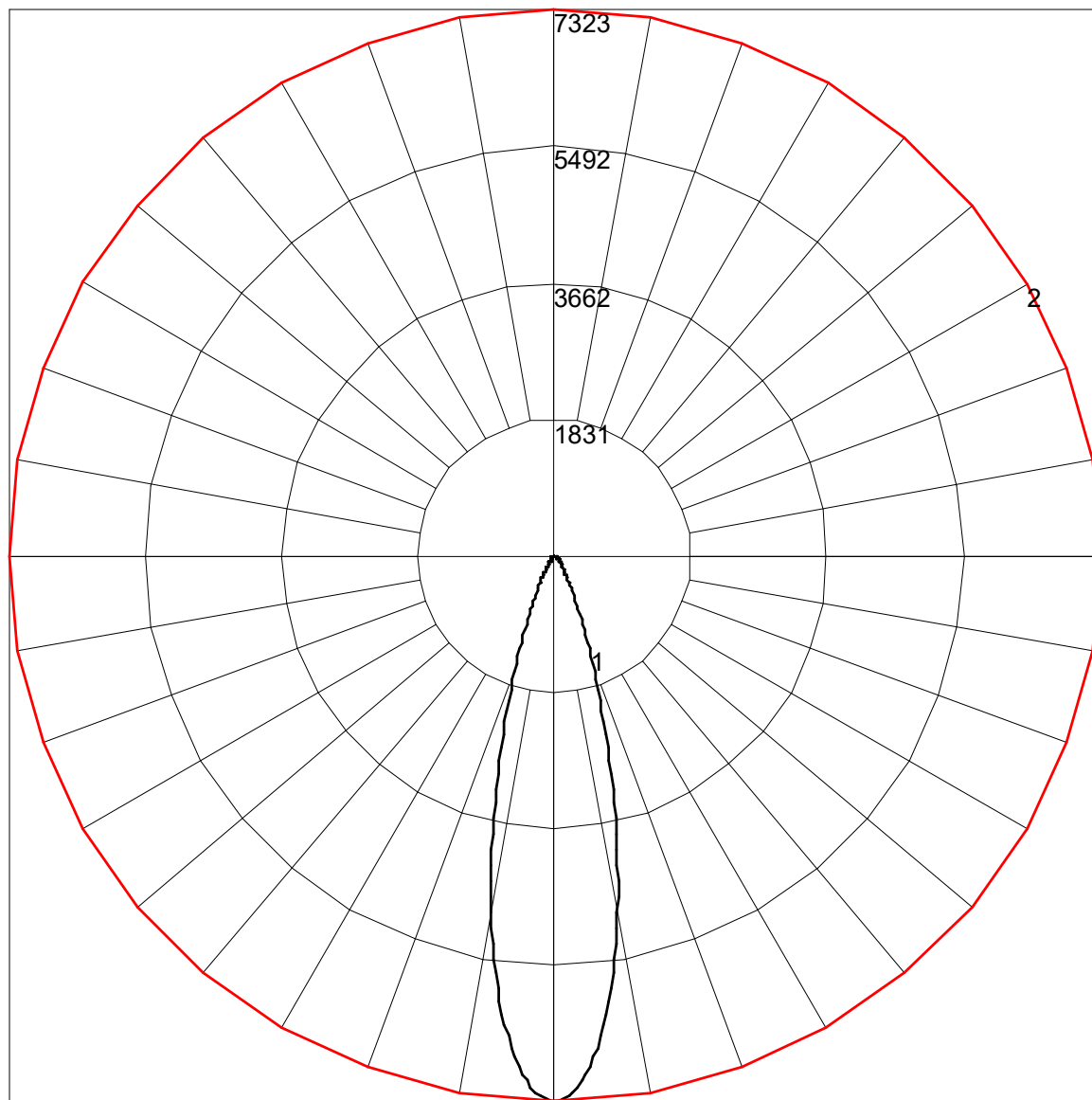
4H	2H	11.4	12.2	11.8	12.5	12.9	11.4	12.2	11.8	12.5	12.9
	3H	13.0	13.6	13.4	14.0	14.4	13.0	13.6	13.4	14.0	14.4
	4H	13.6	14.2	14.0	14.6	15.0	13.6	14.2	14.0	14.6	15.0
	6H	14.0	14.5	14.5	15.0	15.5	14.0	14.5	14.5	15.0	15.5
	8H	14.2	14.6	14.7	15.1	15.6	14.2	14.6	14.7	15.1	15.6
	12H	14.2	14.6	14.7	15.1	15.6	14.2	14.6	14.7	15.1	15.6

8H	4H	13.8	14.2	14.2	14.7	15.1	13.8	14.2	14.2	14.7	15.1
	6H	14.3	14.7	14.8	15.2	15.7	14.3	14.7	14.8	15.2	15.7
	8H	14.5	14.8	15.1	15.4	15.9	14.5	14.8	15.1	15.4	15.9
	12H	14.6	14.9	15.2	15.4	16.0	14.6	14.9	15.2	15.4	16.0

12H	4H	13.7	14.1	14.2	14.6	15.1	13.7	14.1	14.2	14.6	15.1
	6H	14.3	14.7	14.9	15.1	15.7	14.3	14.7	14.9	15.1	15.7
	8H	14.6	14.9	15.1	15.4	15.9	14.6	14.9	15.1	15.4	15.9

Maximum UGR = 16.0

POLAR GRAPH



Maximum Candela = 7323.306 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.)