



## IES INDOOR REPORT

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

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from UL #12326812.15

[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-RN-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	1812
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	76
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)	0.46
Basic Luminous Shape	Circular
Luminous Length (0-180)	0.48 ft (Diameter)
Luminous Width (90-270)	0.48 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	5933	5933	5933
55	3881	3881	3881
65	2641	2641	2641
75	1706	1706	1706
85	1369	1369	1369

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CANDELA TABULATION

	<u>0</u>
0.0	6729.0
0.5	6723.0
1.0	6704.0
1.5	6671.0
2.0	6625.0
2.5	6565.0
3.0	6493.0
3.5	6410.0
4.0	6317.0
4.5	6213.0
5.0	6100.0
5.5	5976.0
6.0	5842.0
6.5	5700.0
7.0	5550.0
7.5	5392.0
8.0	5227.0
8.5	5056.0
9.0	4878.0
9.5	4696.0
10.0	4509.0
10.5	4321.0
11.0	4131.0
11.5	3940.0
12.0	3750.0
12.5	3560.0
13.0	3374.0
13.5	3188.0
14.0	3008.0
14.5	2833.0
15.0	2662.0
15.5	2499.0
16.0	2344.0
16.5	2197.0
17.0	2055.0
17.5	1920.0
18.0	1792.0
18.5	1673.0
19.0	1560.0
19.5	1458.0
20.0	1358.0
20.5	1264.0
21.0	1177.0
21.5	1096.0
22.0	1019.0
22.5	946.6
23.0	879.4
23.5	816.9
24.0	758.6
24.5	704.3
25.0	653.8
25.5	607.0
26.0	563.8
26.5	523.7

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**CANDELA TABULATION - (Cont.)**

<b>27.0</b>	486.7
<b>27.5</b>	452.7
<b>28.0</b>	421.4
<b>28.5</b>	392.6
<b>29.0</b>	366.1
<b>29.5</b>	341.8
<b>30.0</b>	319.3
<b>30.5</b>	298.7
<b>31.0</b>	279.8
<b>31.5</b>	262.3
<b>32.0</b>	246.2
<b>32.5</b>	231.3
<b>33.0</b>	217.6
<b>33.5</b>	204.9
<b>34.0</b>	193.2
<b>34.5</b>	182.3
<b>35.0</b>	172.2
<b>35.5</b>	162.9
<b>36.0</b>	154.3
<b>36.5</b>	146.2
<b>37.0</b>	138.8
<b>37.5</b>	131.8
<b>38.0</b>	125.4
<b>38.5</b>	119.5
<b>39.0</b>	114.0
<b>39.5</b>	108.8
<b>40.0</b>	104.1
<b>40.5</b>	99.6
<b>41.0</b>	95.5
<b>41.5</b>	91.6
<b>42.0</b>	88.0
<b>42.5</b>	84.6
<b>43.0</b>	81.4
<b>43.5</b>	78.4
<b>44.0</b>	75.5
<b>44.5</b>	72.8
<b>45.0</b>	70.3
<b>45.5</b>	67.9
<b>46.0</b>	65.6
<b>46.5</b>	63.4
<b>47.0</b>	61.3
<b>47.5</b>	59.2
<b>48.0</b>	57.3
<b>48.5</b>	55.4
<b>49.0</b>	53.7
<b>49.5</b>	52.0
<b>50.0</b>	50.4
<b>50.5</b>	48.8
<b>51.0</b>	47.3
<b>51.5</b>	45.9
<b>52.0</b>	44.5
<b>52.5</b>	43.2
<b>53.0</b>	41.9
<b>53.5</b>	40.7
<b>54.0</b>	39.5
<b>54.5</b>	38.4

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CANDELA TABULATION - (Cont.)

55.0	37.3
55.5	36.2
56.0	35.2
56.5	34.2
57.0	33.1
57.5	32.1
58.0	31.2
58.5	30.2
59.0	29.3
59.5	28.3
60.0	27.4
60.5	26.4
61.0	25.5
61.5	24.6
62.0	23.7
62.5	22.9
63.0	22.0
63.5	21.2
64.0	20.3
64.5	19.5
65.0	18.7
65.5	17.9
66.0	17.2
66.5	16.5
67.0	15.8
67.5	15.1
68.0	14.4
68.5	13.8
69.0	13.2
69.5	12.6
70.0	12.0
70.5	11.5
71.0	10.9
71.5	10.4
72.0	9.9
72.5	9.4
73.0	9.0
73.5	8.6
74.0	8.2
74.5	7.8
75.0	7.4
75.5	7.0
76.0	6.7
76.5	6.4
77.0	6.1
77.5	5.8
78.0	5.5
78.5	5.3
79.0	5.0
79.5	4.7
80.0	4.5
80.5	4.2
81.0	3.9
81.5	3.7
82.0	3.4
82.5	3.2

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CANDELA TABULATION - (Cont.)

83.0	3.0
83.5	2.7
84.0	2.5
84.5	2.2
85.0	2.0
85.5	1.8
86.0	1.6
86.5	1.4
87.0	1.2
87.5	1.0
88.0	0.8
88.5	0.6
89.0	0.5
89.5	0.4
90.0	0.3
90.5	0.0
91.0	0.0
91.5	0.0
92.0	0.0
92.5	0.0
93.0	0.0
93.5	0.0
94.0	0.0
94.5	0.0
95.0	0.0
95.5	0.0
96.0	0.0
96.5	0.0
97.0	0.0
97.5	0.0
98.0	0.0
98.5	0.0
99.0	0.0
99.5	0.0
100.0	0.0
100.5	0.0
101.0	0.0
101.5	0.0
102.0	0.0
102.5	0.0
103.0	0.0
103.5	0.0
104.0	0.0
104.5	0.0
105.0	0.0
105.5	0.0
106.0	0.0
106.5	0.0
107.0	0.0
107.5	0.0
108.0	0.0
108.5	0.0
109.0	0.0
109.5	0.0
110.0	0.0
110.5	0.0

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CANDELA TABULATION - (Cont.)

111.0	0.0
111.5	0.0
112.0	0.0
112.5	0.0
113.0	0.0
113.5	0.0
114.0	0.0
114.5	0.0
115.0	0.0
115.5	0.0
116.0	0.0
116.5	0.0
117.0	0.0
117.5	0.0
118.0	0.0
118.5	0.0
119.0	0.0
119.5	0.0
120.0	0.0
120.5	0.0
121.0	0.0
121.5	0.0
122.0	0.0
122.5	0.0
123.0	0.0
123.5	0.0
124.0	0.0
124.5	0.0
125.0	0.0
125.5	0.0
126.0	0.0
126.5	0.0
127.0	0.0
127.5	0.0
128.0	0.0
128.5	0.0
129.0	0.0
129.5	0.0
130.0	0.0
130.5	0.0
131.0	0.0
131.5	0.0
132.0	0.0
132.5	0.0
133.0	0.0
133.5	0.0
134.0	0.0
134.5	0.0
135.0	0.0
135.5	0.0
136.0	0.0
136.5	0.0
137.0	0.0
137.5	0.0
138.0	0.0
138.5	0.0

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CANDELA TABULATION - (Cont.)

139.0	0.0
139.5	0.0
140.0	0.0
140.5	0.0
141.0	0.0
141.5	0.0
142.0	0.0
142.5	0.0
143.0	0.0
143.5	0.0
144.0	0.0
144.5	0.0
145.0	0.0
145.5	0.0
146.0	0.0
146.5	0.0
147.0	0.0
147.5	0.0
148.0	0.0
148.5	0.0
149.0	0.0
149.5	0.0
150.0	0.0
150.5	0.0
151.0	0.0
151.5	0.0
152.0	0.0
152.5	0.0
153.0	0.0
153.5	0.0
154.0	0.0
154.5	0.0
155.0	0.0
155.5	0.0
156.0	0.0
156.5	0.0
157.0	0.0
157.5	0.0
158.0	0.0
158.5	0.0
159.0	0.0
159.5	0.0
160.0	0.0
160.5	0.0
161.0	0.0
161.5	0.0
162.0	0.0
162.5	0.0
163.0	0.0
163.5	0.0
164.0	0.0
164.5	0.0
165.0	0.0
165.5	0.0
166.0	0.0
166.5	0.0

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**CANDELA TABULATION - (Cont.)**

167.0	0.0
167.5	0.0
168.0	0.0
168.5	0.0
169.0	0.0
169.5	0.0
170.0	0.0
170.5	0.0
171.0	0.0
171.5	0.0
172.0	0.0
172.5	0.0
173.0	0.0
173.5	0.0
174.0	0.0
174.5	0.0
175.0	0.0
175.5	0.0
176.0	0.0
176.5	0.0
177.0	0.0
177.5	0.0
178.0	0.0
178.5	0.0
179.0	0.0
179.5	0.0
180.0	0.0

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

Zone	Lumens	%Lamp	%Fixt
0-20	1263.49	N.A.	69.70
0-30	1580.06	N.A.	87.20
0-40	1693.64	N.A.	93.50
0-60	1782.95	N.A.	98.40
0-80	1809.86	N.A.	99.90
0-90	1812.17	N.A.	100.00
10-90	1281.57	N.A.	70.70
20-40	430.15	N.A.	23.70
20-50	485.74	N.A.	26.80
40-70	108.11	N.A.	6.00
60-80	26.91	N.A.	1.50
70-80	8.11	N.A.	0.40
80-90	2.31	N.A.	0.10
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	1812.18	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	530.60
10-20	732.89
20-30	316.58
30-40	113.58
40-50	55.59
50-60	33.72
60-70	18.81
70-80	8.11
80-90	2.31
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	104	104	104	104	102	102	102	102	97	97	97	93	93	93	89	89	89	87
1	100	98	96	94	98	96	94	93	92	91	90	89	88	87	86	85	85	83
2	96	92	89	87	94	91	88	86	88	86	84	86	84	82	83	82	81	79
3	92	88	84	81	91	87	83	81	84	82	79	82	80	78	80	79	77	76
4	89	84	80	77	87	83	79	76	81	78	75	79	77	74	78	75	74	72
5	86	80	76	73	84	79	75	72	78	74	72	76	73	71	75	73	71	70
6	83	77	72	69	82	76	72	69	75	71	69	74	71	68	73	70	68	67
7	80	74	70	67	79	73	69	66	72	69	66	71	68	66	70	68	65	64
8	77	71	67	64	77	71	67	64	70	66	64	69	66	63	68	65	63	62
9	75	69	64	62	74	68	64	62	67	64	61	67	64	61	66	63	61	60
10	73	66	62	60	72	66	62	60	65	62	59	65	62	59	64	61	59	58

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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	9.3	10.2	9.6	10.5	10.9	9.3	10.2	9.6	10.5	10.9
	3H	10.1	11.0	10.5	11.3	11.7	10.1	11.0	10.5	11.3	11.7
	4H	10.4	11.2	10.8	11.5	11.9	10.4	11.2	10.8	11.5	11.9
	6H	10.5	11.3	11.0	11.6	12.0	10.5	11.3	11.0	11.6	12.0
	8H	10.6	11.3	11.0	11.7	12.1	10.6	11.3	11.0	11.7	12.1
	12H	10.6	11.2	11.0	11.6	12.1	10.6	11.2	11.0	11.6	12.1

### UGR Viewed Endwise

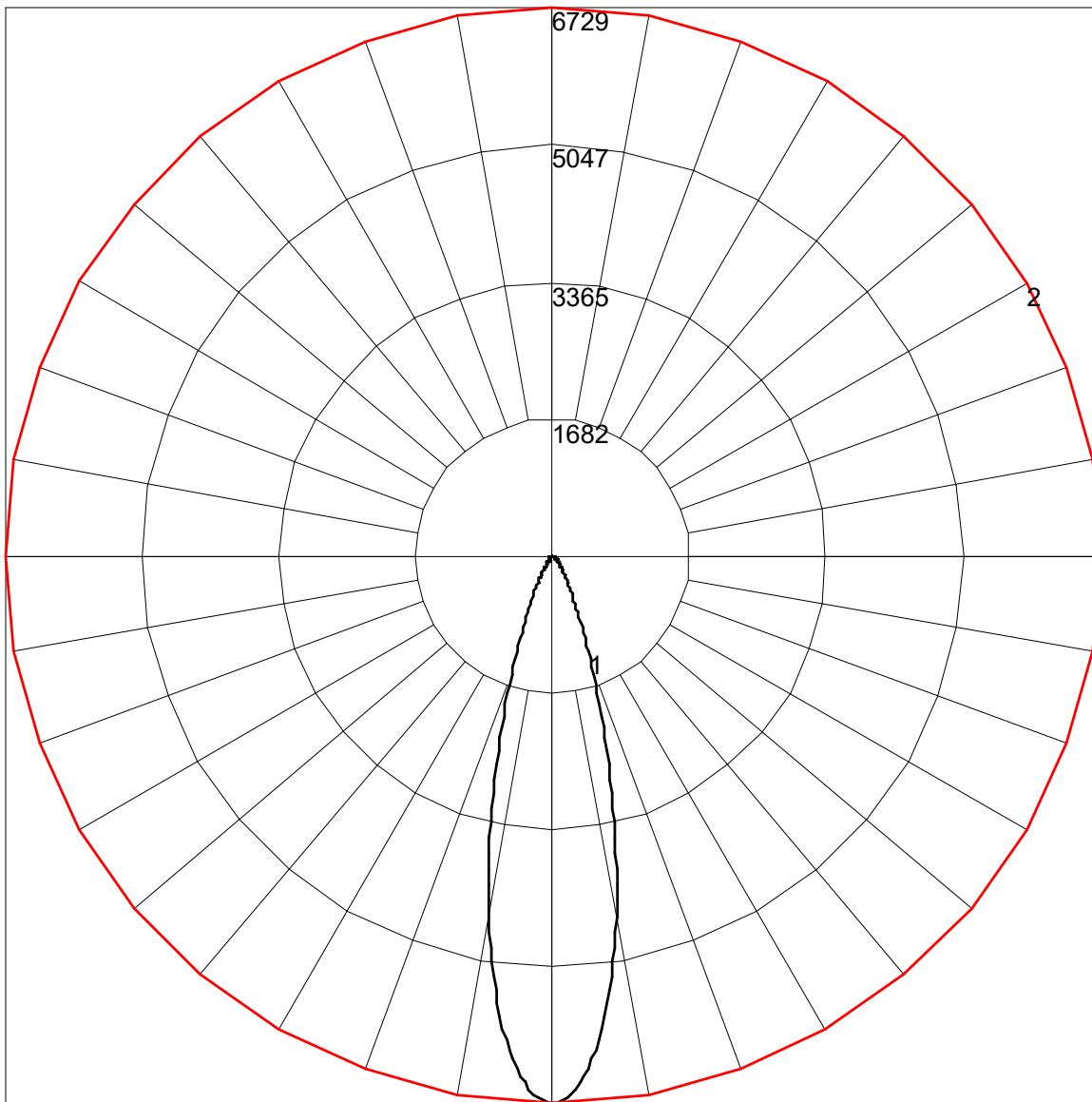
4H	2H	9.5	10.3	9.9	10.6	11.0	9.5	10.3	9.9	10.6	11.0
	3H	10.5	11.2	10.9	11.6	12.0	10.5	11.2	10.9	11.6	12.0
	4H	10.9	11.4	11.3	11.8	12.3	10.9	11.4	11.3	11.8	12.3
	6H	11.1	11.6	11.6	12.0	12.5	11.1	11.6	11.6	12.0	12.5
	8H	11.2	11.6	11.7	12.1	12.6	11.2	11.6	11.7	12.1	12.6
	12H	11.2	11.6	11.7	12.1	12.6	11.2	11.6	11.7	12.1	12.6

8H	4H	10.9	11.3	11.4	11.8	12.3	10.9	11.3	11.4	11.8	12.3
	6H	11.2	11.6	11.8	12.1	12.6	11.2	11.6	11.8	12.1	12.6
	8H	11.4	11.7	11.9	12.2	12.7	11.4	11.7	11.9	12.2	12.7
	12H	11.5	11.8	12.0	12.3	12.8	11.5	11.8	12.0	12.3	12.8

12H	4H	10.9	11.2	11.3	11.7	12.2	10.9	11.2	11.3	11.7	12.2
	6H	11.2	11.6	11.8	12.0	12.6	11.2	11.6	11.8	12.0	12.6
	8H	11.4	11.7	11.9	12.2	12.8	11.4	11.7	11.9	12.2	12.8

Maximum UGR = 12.8

POLAR GRAPH



Maximum Candela = 6729 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.)