



## IES INDOOR REPORT

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

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from UL#12326812.07

[TESTLAB] UL Verification Services Inc.

[ISSUEDATE] 21 SEP 2021

[MANUFAC] WILLIAMS INDOOR

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

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

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

[MORE] s 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	1805
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	75
Total Luminaire Watts	24
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.08
Spacing Criterion (90-270)	1.08
Spacing Criterion (Diagonal)	0.98
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	30013	30013	30013
55	24987	24987	24987
65	18983	18983	18983
75	13766	13766	13766
85	8971	8971	8971

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CANDELA TABULATION

	<u>0</u>
0.0	1148.463
0.5	1148.232
1.0	1147.307
1.5	1145.920
2.0	1144.185
2.5	1141.873
3.0	1139.561
3.5	1136.901
4.0	1134.473
4.5	1132.045
5.0	1130.311
5.5	1128.692
6.0	1127.189
6.5	1125.686
7.0	1124.067
7.5	1122.564
8.0	1121.061
8.5	1119.674
9.0	1118.286
9.5	1117.130
10.0	1115.974
10.5	1115.049
11.0	1114.240
11.5	1113.777
12.0	1112.968
12.5	1112.158
13.0	1111.002
13.5	1109.499
14.0	1107.649
14.5	1105.568
15.0	1103.371
15.5	1100.596
16.0	1097.590
16.5	1094.584
17.0	1091.578
17.5	1088.456
18.0	1085.103
18.5	1081.288
19.0	1077.010
19.5	1072.269
20.0	1066.835
20.5	1060.938
21.0	1053.654
21.5	1044.983
22.0	1035.155
22.5	1024.055
23.0	1011.915
23.5	998.734
24.0	984.166
24.5	968.441
25.0	951.445
25.5	933.755
26.0	914.909
26.5	895.253

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**CANDELA TABULATION - (Cont.)**

<b>27.0</b>	874.326
<b>27.5</b>	852.820
<b>28.0</b>	830.159
<b>28.5</b>	806.225
<b>29.0</b>	781.367
<b>29.5</b>	755.236
<b>30.0</b>	728.412
<b>30.5</b>	700.779
<b>31.0</b>	673.145
<b>31.5</b>	645.281
<b>32.0</b>	618.225
<b>32.5</b>	592.326
<b>33.0</b>	567.468
<b>33.5</b>	544.228
<b>34.0</b>	522.838
<b>34.5</b>	503.414
<b>35.0</b>	486.071
<b>35.5</b>	470.115
<b>36.0</b>	456.125
<b>36.5</b>	443.291
<b>37.0</b>	431.844
<b>37.5</b>	421.554
<b>38.0</b>	412.189
<b>38.5</b>	403.633
<b>39.0</b>	395.539
<b>39.5</b>	388.255
<b>40.0</b>	381.202
<b>40.5</b>	374.612
<b>41.0</b>	368.484
<b>41.5</b>	362.472
<b>42.0</b>	356.691
<b>42.5</b>	351.372
<b>43.0</b>	345.938
<b>43.5</b>	340.619
<b>44.0</b>	335.417
<b>44.5</b>	330.329
<b>45.0</b>	325.126
<b>45.5</b>	320.155
<b>46.0</b>	315.067
<b>46.5</b>	309.980
<b>47.0</b>	304.777
<b>47.5</b>	299.690
<b>48.0</b>	294.487
<b>48.5</b>	289.284
<b>49.0</b>	284.081
<b>49.5</b>	278.647
<b>50.0</b>	273.444
<b>50.5</b>	268.125
<b>51.0</b>	262.807
<b>51.5</b>	257.372
<b>52.0</b>	251.938
<b>52.5</b>	246.504
<b>53.0</b>	241.070
<b>53.5</b>	235.636
<b>54.0</b>	230.433
<b>54.5</b>	225.114

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CANDELA TABULATION - (Cont.)

55.0	219.564
55.5	214.130
56.0	208.696
56.5	203.609
57.0	198.521
57.5	193.203
58.0	187.884
58.5	182.681
59.0	177.594
59.5	172.507
60.0	167.650
60.5	162.794
61.0	158.054
61.5	153.313
62.0	148.804
62.5	144.295
63.0	139.901
63.5	135.508
64.0	131.230
64.5	127.067
65.0	122.905
65.5	118.858
66.0	114.823
66.5	110.857
67.0	106.938
67.5	103.099
68.0	99.330
68.5	95.549
69.0	91.884
69.5	88.254
70.0	84.727
70.5	81.316
71.0	77.975
71.5	74.737
72.0	71.616
72.5	68.586
73.0	65.638
73.5	62.748
74.0	59.973
74.5	57.256
75.0	54.585
75.5	52.006
76.0	49.474
76.5	46.988
77.0	44.572
77.5	42.202
78.0	39.901
78.5	37.646
79.0	35.438
79.5	33.310
80.0	31.195
80.5	29.148
81.0	27.125
81.5	25.113
82.0	23.147
82.5	21.193

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CANDELA TABULATION - (Cont.)

83.0	19.286
83.5	17.413
84.0	15.563
84.5	13.747
85.0	11.978
85.5	10.267
86.0	8.614
86.5	7.018
87.0	5.469
87.5	4.174
88.0	3.191
88.5	2.336
89.0	1.619
89.5	1.017
90.0	0.647
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  
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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
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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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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
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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
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157.0	0.000
157.5	0.000
158.0	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

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

Zone	Lumens	%Lamp	%Fixt
0-20	418.35	N.A.	23.20
0-30	845.65	N.A.	46.80
0-40	1162.5	N.A.	64.40
0-60	1609.89	N.A.	89.20
0-80	1791.1	N.A.	99.20
0-90	1805.42	N.A.	100.00
10-90	1697.95	N.A.	94.00
20-40	744.15	N.A.	41.20
20-50	995.23	N.A.	55.10
40-70	569.90	N.A.	31.60
60-80	181.21	N.A.	10.00
70-80	58.70	N.A.	3.30
80-90	14.32	N.A.	0.80
90-110	0.02	N.A.	0.00
90-120	0.02	N.A.	0.00
90-130	0.02	N.A.	0.00
90-150	0.02	N.A.	0.00
90-180	0.02	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	1805.44	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	107.47
10-20	310.88
20-30	427.30
30-40	316.85
40-50	251.07
50-60	196.31
60-70	122.51
70-80	58.70
80-90	14.32
90-100	0.02
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	109	109	109	109	107	107	107	107	102	102	102	98	98	98	94	94	94	92
1	102	99	95	93	100	97	94	91	93	90	88	89	87	86	86	84	83	81
2	95	89	83	79	92	87	82	78	84	80	76	81	78	75	78	75	73	71
3	88	80	74	69	86	79	73	68	76	71	67	74	69	66	71	68	65	63
4	82	73	66	61	80	71	65	60	69	64	59	67	62	59	65	61	58	56
5	76	66	59	54	75	65	59	54	63	58	53	62	57	53	60	56	52	50
6	71	61	54	49	70	60	53	48	58	53	48	57	52	48	56	51	47	46
7	67	56	49	44	65	55	49	44	54	48	44	53	48	44	52	47	43	42
8	63	52	45	40	62	51	45	40	50	44	40	49	44	40	48	43	40	38
9	59	48	42	37	58	48	42	37	47	41	37	46	41	37	45	40	37	35
10	56	45	39	34	55	45	39	34	44	38	34	43	38	34	42	38	34	33

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## UGR TABLE - CORRECTED

### Reflectances

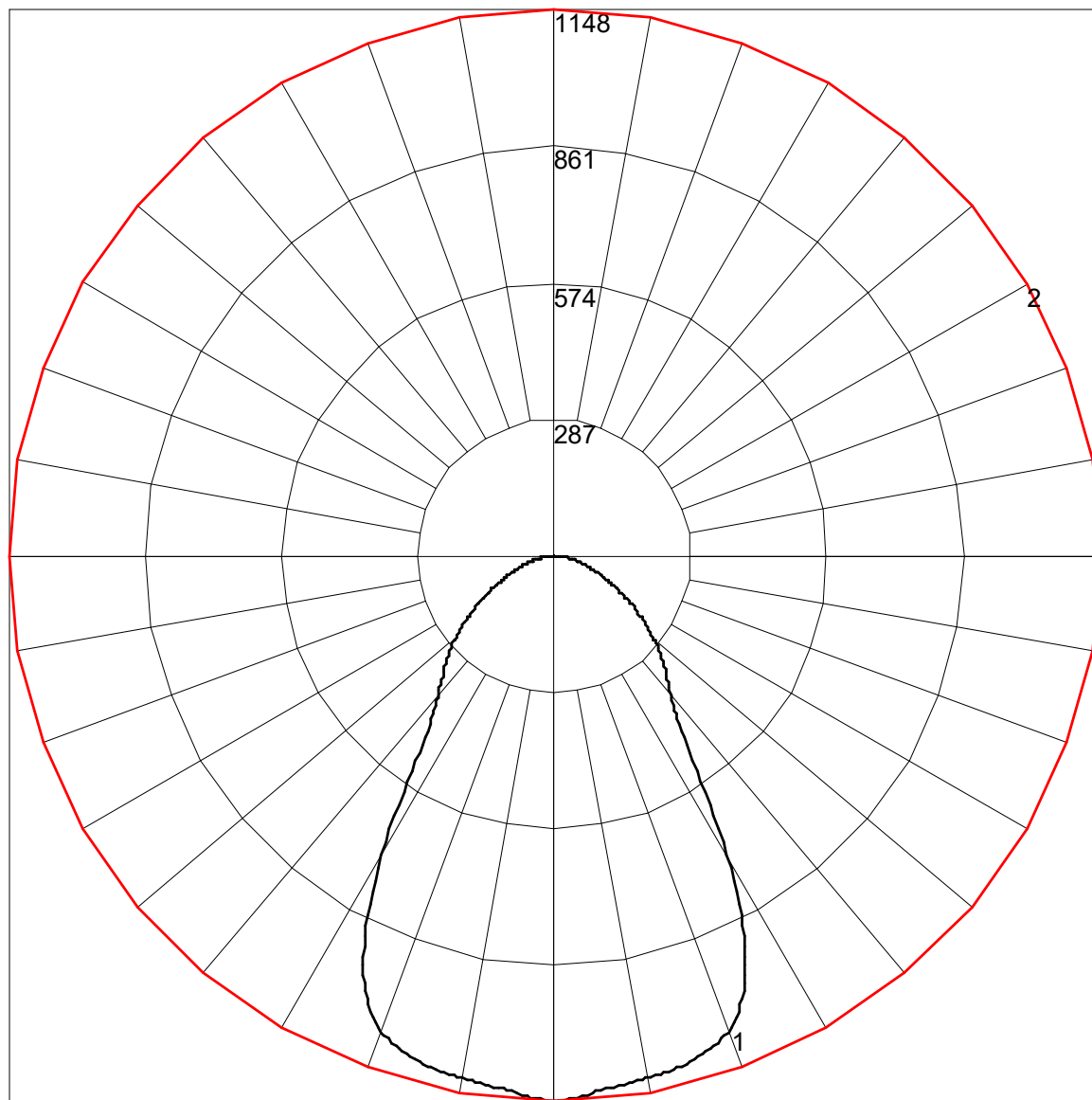
Ceiling Cavity	70	70	50	50	30	70	70	50	50	30
Walls	50	30	50	30	30	50	30	50	30	30
Floor Cavity	20	20	20	20	20	20	20	20	20	20

### Room Size UGR Viewed Crosswise

X=2H	Y=2H	21.4	22.8	21.8	23.1	23.4	UGR Viewed Endwise			
	3H	22.6	23.9	23.0	24.2	24.5	21.4	22.8	21.8	23.1
	4H	23.0	24.2	23.4	24.5	24.9	22.6	23.9	23.0	24.2
	6H	23.3	24.3	23.7	24.7	25.1	23.0	24.2	23.4	24.5
	8H	23.3	24.4	23.8	24.8	25.2	23.3	24.3	23.7	24.7
	12H	23.4	24.4	23.8	24.7	25.2	23.3	24.4	23.8	24.8
							23.4	24.4	23.8	24.7
4H	2H	21.8	23.0	22.2	23.3	23.7	21.4	22.8	21.8	23.1
	3H	23.2	24.2	23.6	24.6	25.0	22.6	23.9	23.0	24.2
	4H	23.7	24.6	24.1	25.0	25.4	23.0	24.2	23.4	24.5
	6H	24.1	24.8	24.6	25.3	25.7	23.3	24.3	23.7	24.7
	8H	24.2	24.9	24.6	25.3	25.8	23.3	24.4	23.8	24.8
	12H	24.3	24.9	24.7	25.4	25.8	23.4	24.4	23.8	24.7
8H	4H	23.9	24.6	24.3	25.0	25.5	21.8	23.0	22.2	23.3
	6H	24.3	24.9	24.8	25.4	25.9	21.8	23.0	22.2	23.3
	8H	24.5	25.0	25.0	25.5	26.0	23.2	24.2	23.6	24.6
	12H	24.6	25.1	25.1	25.6	26.1	23.7	24.6	24.1	25.0
12H	4H	23.9	24.5	24.3	25.0	25.4	24.1	24.8	24.6	25.3
	6H	24.4	24.9	24.9	25.3	25.9	24.1	24.8	24.6	25.3
	8H	24.6	25.0	25.1	25.5	26.1	24.2	24.9	24.6	25.3
							24.3	24.9	24.7	25.4

Maximum UGR = 26.1

POLAR GRAPH



Maximum Candela = 1148.463 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.)