



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : V6DR-L10-8TW-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.

[ISSUE DATE] 21 SEP 2021

[MANUFAC] WILLIAMS INDOOR

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

[LUMCAT] V6DR-L10-8TW-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	1044
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	71
Total Luminaire Watts	14.6
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	17350	17350	17350
55	14444	14444	14444
65	10974	10974	10974
75	7958	7958	7958
85	5186	5186	5186

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CANDELA TABULATION

	<u>0</u>
0.0	663.896
0.5	663.762
1.0	663.227
1.5	662.425
2.0	661.423
2.5	660.086
3.0	658.749
3.5	657.212
4.0	655.808
4.5	654.405
5.0	653.402
5.5	652.467
6.0	651.598
6.5	650.729
7.0	649.793
7.5	648.924
8.0	648.055
8.5	647.253
9.0	646.451
9.5	645.783
10.0	645.114
10.5	644.580
11.0	644.112
11.5	643.845
12.0	643.377
12.5	642.909
13.0	642.240
13.5	641.372
14.0	640.302
14.5	639.099
15.0	637.829
15.5	636.225
16.0	634.487
16.5	632.749
17.0	631.012
17.5	629.207
18.0	627.269
18.5	625.063
19.0	622.590
19.5	619.850
20.0	616.709
20.5	613.300
21.0	609.089
21.5	604.076
22.0	598.395
22.5	591.979
23.0	584.961
23.5	577.341
24.0	568.920
24.5	559.830
25.0	550.005
25.5	539.779
26.0	528.884
26.5	517.522

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**CANDELA TABULATION - (Cont.)**

<b>27.0</b>	505.424
<b>27.5</b>	492.993
<b>28.0</b>	479.892
<b>28.5</b>	466.057
<b>29.0</b>	451.687
<b>29.5</b>	436.582
<b>30.0</b>	421.076
<b>30.5</b>	405.101
<b>31.0</b>	389.127
<b>31.5</b>	373.019
<b>32.0</b>	357.379
<b>32.5</b>	342.408
<b>33.0</b>	328.038
<b>33.5</b>	314.604
<b>34.0</b>	302.239
<b>34.5</b>	291.010
<b>35.0</b>	280.984
<b>35.5</b>	271.761
<b>36.0</b>	263.673
<b>36.5</b>	256.255
<b>37.0</b>	249.638
<b>37.5</b>	243.689
<b>38.0</b>	238.275
<b>38.5</b>	233.329
<b>39.0</b>	228.651
<b>39.5</b>	224.440
<b>40.0</b>	220.363
<b>40.5</b>	216.553
<b>41.0</b>	213.011
<b>41.5</b>	209.535
<b>42.0</b>	206.193
<b>42.5</b>	203.119
<b>43.0</b>	199.977
<b>43.5</b>	196.903
<b>44.0</b>	193.895
<b>44.5</b>	190.954
<b>45.0</b>	187.947
<b>45.5</b>	185.073
<b>46.0</b>	182.132
<b>46.5</b>	179.191
<b>47.0</b>	176.183
<b>47.5</b>	173.242
<b>48.0</b>	170.235
<b>48.5</b>	167.227
<b>49.0</b>	164.219
<b>49.5</b>	161.078
<b>50.0</b>	158.070
<b>50.5</b>	154.996
<b>51.0</b>	151.921
<b>51.5</b>	148.780
<b>52.0</b>	145.639
<b>52.5</b>	142.497
<b>53.0</b>	139.356
<b>53.5</b>	136.215
<b>54.0</b>	133.207
<b>54.5</b>	130.132

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : V6DR-L10-8TW-DIM-UNV-LW-OF-WH\_4000K.IES****CANDELA TABULATION - (Cont.)**

55.0	126.924
55.5	123.783
56.0	120.641
56.5	117.701
57.0	114.760
57.5	111.685
58.0	108.611
58.5	105.603
59.0	102.662
59.5	99.721
60.0	96.914
60.5	94.107
61.0	91.367
61.5	88.626
62.0	86.020
62.5	83.413
63.0	80.873
63.5	78.333
64.0	75.860
64.5	73.454
65.0	71.048
65.5	68.709
66.0	66.376
66.5	64.084
67.0	61.818
67.5	59.599
68.0	57.420
68.5	55.234
69.0	53.116
69.5	51.017
70.0	48.978
70.5	47.007
71.0	45.075
71.5	43.204
72.0	41.399
72.5	39.648
73.0	37.944
73.5	36.273
74.0	34.669
74.5	33.098
75.0	31.554
75.5	30.063
76.0	28.600
76.5	27.163
77.0	25.766
77.5	24.396
78.0	23.066
78.5	21.762
79.0	20.486
79.5	19.256
80.0	18.033
80.5	16.850
81.0	15.680
81.5	14.517
82.0	13.381
82.5	12.251

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CANDELA TABULATION - (Cont.)

83.0	11.148
83.5	10.066
84.0	8.996
84.5	7.947
85.0	6.924
85.5	5.935
86.0	4.979
86.5	4.057
87.0	3.161
87.5	2.413
88.0	1.845
88.5	1.350
89.0	0.936
89.5	0.588
90.0	0.374
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-L10-8TW-DIM-UNV-LW-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

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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
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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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-L10-8TW-DIM-UNV-LW-OF-WH\_4000K.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	241.84	N.A.	23.20
0-30	488.85	N.A.	46.80
0-40	672.01	N.A.	64.40
0-60	930.63	N.A.	89.20
0-80	1035.39	N.A.	99.20
0-90	1043.66	N.A.	100.00
10-90	981.54	N.A.	94.00
20-40	430.17	N.A.	41.20
20-50	575.31	N.A.	55.10
40-70	329.44	N.A.	31.60
60-80	104.75	N.A.	10.00
70-80	33.93	N.A.	3.30
80-90	8.28	N.A.	0.80
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	1043.67	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	62.13
10-20	179.71
20-30	247.01
30-40	183.16
40-50	145.14
50-60	113.48
60-70	70.82
70-80	33.93
80-90	8.28
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	69	69	69	69	67	67	67	67	64	64	64	62	62	62	59	59	59	58
1	64	62	60	58	63	61	59	57	58	57	55	56	55	54	54	53	52	51
2	60	56	52	50	58	55	52	49	53	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	37	42	39	37	41	39	36	35
5	48	42	37	34	47	41	37	34	40	36	33	39	36	33	38	35	33	32
6	45	38	34	31	44	38	34	30	37	33	30	36	33	30	35	32	30	29
7	42	35	31	28	41	35	31	28	34	30	28	33	30	27	33	29	27	26
8	40	33	28	25	39	32	28	25	32	28	25	31	28	25	30	27	25	24
9	37	30	26	23	37	30	26	23	29	26	23	29	26	23	28	25	23	22
10	35	28	24	22	35	28	24	22	28	24	22	27	24	21	27	24	21	20

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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	21.1	22.5	21.5	22.8	23.1	21.1	22.5	21.5	22.8	23.1
	3H	22.3	23.6	22.7	23.9	24.2	22.3	23.6	22.7	23.9	24.2
	4H	22.7	23.9	23.1	24.2	24.6	22.7	23.9	23.1	24.2	24.6
	6H	23.0	24.0	23.4	24.4	24.8	23.0	24.0	23.4	24.4	24.8
	8H	23.1	24.1	23.5	24.5	24.9	23.1	24.1	23.5	24.5	24.9
	12H	23.1	24.1	23.5	24.4	24.9	23.1	24.1	23.5	24.4	24.9

### UGR Viewed Endwise

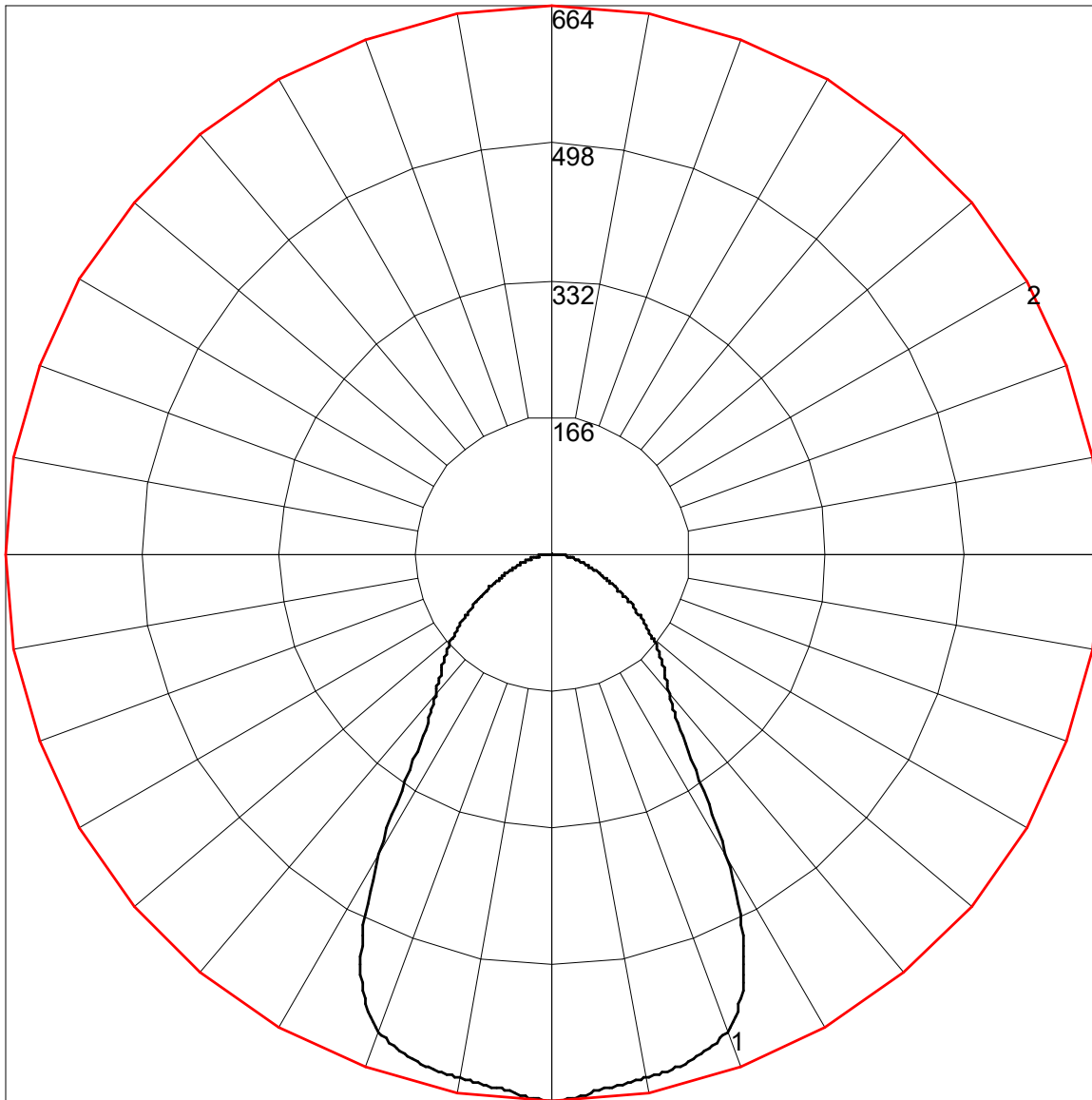
4H	2H	21.5	22.7	21.9	23.0	23.4	21.5	22.7	21.9	23.0	23.4
	3H	22.9	23.9	23.3	24.3	24.7	22.9	23.9	23.3	24.3	24.7
	4H	23.4	24.3	23.9	24.7	25.1	23.4	24.3	23.9	24.7	25.1
	6H	23.8	24.5	24.3	25.0	25.4	23.8	24.5	24.3	25.0	25.4
	8H	23.9	24.6	24.3	25.0	25.5	23.9	24.6	24.3	25.0	25.5
	12H	24.0	24.6	24.4	25.1	25.5	24.0	24.6	24.4	25.1	25.5

8H	4H	23.6	24.3	24.0	24.7	25.2	23.6	24.3	24.0	24.7	25.2
	6H	24.0	24.6	24.5	25.1	25.6	24.0	24.6	24.5	25.1	25.6
	8H	24.2	24.7	24.7	25.2	25.7	24.2	24.7	24.7	25.2	25.7
	12H	24.3	24.8	24.8	25.3	25.8	24.3	24.8	24.8	25.3	25.8

12H	4H	23.6	24.2	24.1	24.7	25.1	23.6	24.2	24.1	24.7	25.1
	6H	24.1	24.6	24.6	25.0	25.6	24.1	24.6	24.6	25.0	25.6
	8H	24.3	24.7	24.8	25.2	25.8	24.3	24.7	24.8	25.2	25.8

Maximum UGR = 25.8

POLAR GRAPH



Maximum Candela = 663.896 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.)