



IES INDOOR REPORT

PHOTOMETRIC FILENAME : V6DR-L10-8TW-DIM-UNV-LM-OF-WH_4000K.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from UL #12326812.09

[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-LM-OF-WH 4000k

[LUMINAIRE] Black formed aluminum housing, white reflector, frosted pl

[MORE] astic 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	1122
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	77
Total Luminaire Watts	14.6
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.60
Spacing Criterion (90-270)	0.60
Spacing Criterion (Diagonal)	0.56
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	5012	5012	5012
55	3670	3670	3670
65	2991	2991	2991
75	2434	2434	2434
85	1601	1601	1601

IES INDOOR REPORT
PHOTOMETRIC FILENAME : V6DR-L10-8TW-DIM-UNV-LM-OF-WH_4000K.IES

CANDELA TABULATION

	<u>0</u>
0.0	2649.557
0.5	2648.335
1.0	2644.670
1.5	2639.173
2.0	2631.844
2.5	2621.461
3.0	2609.856
3.5	2596.419
4.0	2580.539
4.5	2564.048
5.0	2545.724
5.5	2524.958
6.0	2502.359
6.5	2477.317
7.0	2450.443
7.5	2421.126
8.0	2388.754
8.5	2353.940
9.0	2317.293
9.5	2278.203
10.0	2236.060
10.5	2191.473
11.0	2143.832
11.5	2092.527
12.0	2039.389
12.5	1983.197
13.0	1924.563
13.5	1862.874
14.0	1799.353
14.5	1733.389
15.0	1666.203
15.5	1597.796
16.0	1529.389
16.5	1460.371
17.0	1393.186
17.5	1326.000
18.0	1258.203
18.5	1191.629
19.0	1125.665
19.5	1062.144
20.0	1000.455
20.5	941.210
21.0	885.629
21.5	832.491
22.0	779.353
22.5	729.269
23.0	681.629
23.5	636.431
24.0	594.348
24.5	554.526
25.0	517.329
25.5	482.271
26.0	449.777
26.5	419.360

IES INDOOR REPORT**PHOTOMETRIC FILENAME : V6DR-L10-8TW-DIM-UNV-LM-OF-WH_4000K.IES****CANDELA TABULATION - (Cont.)**

27.0	391.081
27.5	364.879
28.0	340.448
28.5	317.849
29.0	296.899
29.5	277.354
30.0	259.275
30.5	242.418
31.0	226.782
31.5	212.245
32.0	198.686
32.5	186.104
33.0	174.377
33.5	163.444
34.0	153.366
34.5	144.022
35.0	135.287
35.5	127.286
36.0	119.835
36.5	113.055
37.0	106.764
37.5	101.023
38.0	95.831
38.5	91.006
39.0	86.608
39.5	82.577
40.0	78.913
40.5	75.492
41.0	72.377
41.5	69.507
42.0	66.819
42.5	64.376
43.0	62.055
43.5	59.917
44.0	57.963
44.5	56.069
45.0	54.298
45.5	52.649
46.0	51.122
46.5	49.656
47.0	48.251
47.5	46.908
48.0	45.686
48.5	44.465
49.0	43.304
49.5	42.205
50.0	41.166
50.5	40.128
51.0	39.151
51.5	38.174
52.0	37.257
52.5	36.402
53.0	35.486
53.5	34.631
54.0	33.837
54.5	33.043

IES INDOOR REPORT
PHOTOMETRIC FILENAME : V6DR-L10-8TW-DIM-UNV-LM-OF-WH_4000K.IES

CANDELA TABULATION - (Cont.)

55.0	32.249
55.5	31.455
56.0	30.722
56.5	29.989
57.0	29.256
57.5	28.523
58.0	27.851
58.5	27.180
59.0	26.508
59.5	25.897
60.0	25.286
60.5	24.614
61.0	24.004
61.5	23.393
62.0	22.782
62.5	22.232
63.0	21.622
63.5	21.072
64.0	20.522
64.5	19.972
65.0	19.362
65.5	18.812
66.0	18.262
66.5	17.774
67.0	17.224
67.5	16.674
68.0	16.186
68.5	15.697
69.0	15.147
69.5	14.659
70.0	14.170
70.5	13.681
71.0	13.254
71.5	12.765
72.0	12.277
72.5	11.849
73.0	11.360
73.5	10.933
74.0	10.505
74.5	10.078
75.0	9.650
75.5	9.223
76.0	8.795
76.5	8.368
77.0	7.940
77.5	7.574
78.0	7.146
78.5	6.780
79.0	6.413
79.5	5.986
80.0	5.619
80.5	5.253
81.0	4.886
81.5	4.520
82.0	4.153
82.5	3.787

IES INDOOR REPORT
PHOTOMETRIC FILENAME : V6DR-L10-8TW-DIM-UNV-LM-OF-WH_4000K.IES

CANDELA TABULATION - (Cont.)

83.0	3.481
83.5	3.115
84.0	2.810
84.5	2.443
85.0	2.138
85.5	1.832
86.0	1.527
86.5	1.283
87.0	1.038
87.5	0.855
88.0	0.672
88.5	0.550
89.0	0.428
89.5	0.305
90.0	0.183
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-LM-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-L10-8TW-DIM-UNV-LM-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

IES INDOOR REPORT

PHOTOMETRIC FILENAME : V6DR-L10-8TW-DIM-UNV-LM-OF-WH_4000K.IES

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-L10-8TW-DIM-UNV-LM-OF-WH_4000K.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	681.43	N.A.	60.70
0-30	928.22	N.A.	82.70
0-40	1017.96	N.A.	90.70
0-60	1090.1	N.A.	97.10
0-80	1119.62	N.A.	99.80
0-90	1122.23	N.A.	100.00
10-90	888.91	N.A.	79.20
20-40	336.53	N.A.	30.00
20-50	379.62	N.A.	33.80
40-70	91.41	N.A.	8.10
60-80	29.52	N.A.	2.60
70-80	10.25	N.A.	0.90
80-90	2.61	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	1122.24	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	233.33
10-20	448.10
20-30	246.79
30-40	89.74
40-50	43.08
50-60	29.06
60-70	19.27
70-80	10.25
80-90	2.61
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

IES INDOOR REPORT

PHOTOMETRIC FILENAME : V6DR-L10-8TW-DIM-UNV-LM-OF-WH_4000K.IES

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	61	61	61	59	59	59	58
1	66	64	63	61	64	63	62	60	60	60	59	58	58	57	56	56	55	54
2	63	60	58	56	61	59	57	55	57	56	54	56	54	53	54	53	52	51
3	60	57	54	52	59	56	53	51	54	52	51	53	51	50	52	50	49	48
4	57	53	51	48	56	53	50	48	52	49	48	50	49	47	49	48	46	46
5	55	51	48	46	54	50	47	45	49	47	45	48	46	45	47	46	44	43
6	53	48	45	43	52	48	45	43	47	45	43	46	44	42	46	44	42	41
7	51	46	43	41	50	46	43	41	45	43	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	39	37	47	42	39	37	42	39	37	41	39	37	41	39	37	36
10	46	41	38	36	45	40	38	36	40	37	36	40	37	36	39	37	36	35

IES INDOOR REPORT

PHOTOMETRIC FILENAME : V6DR-L10-8TW-DIM-UNV-LM-OF-WH_4000K.IES

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

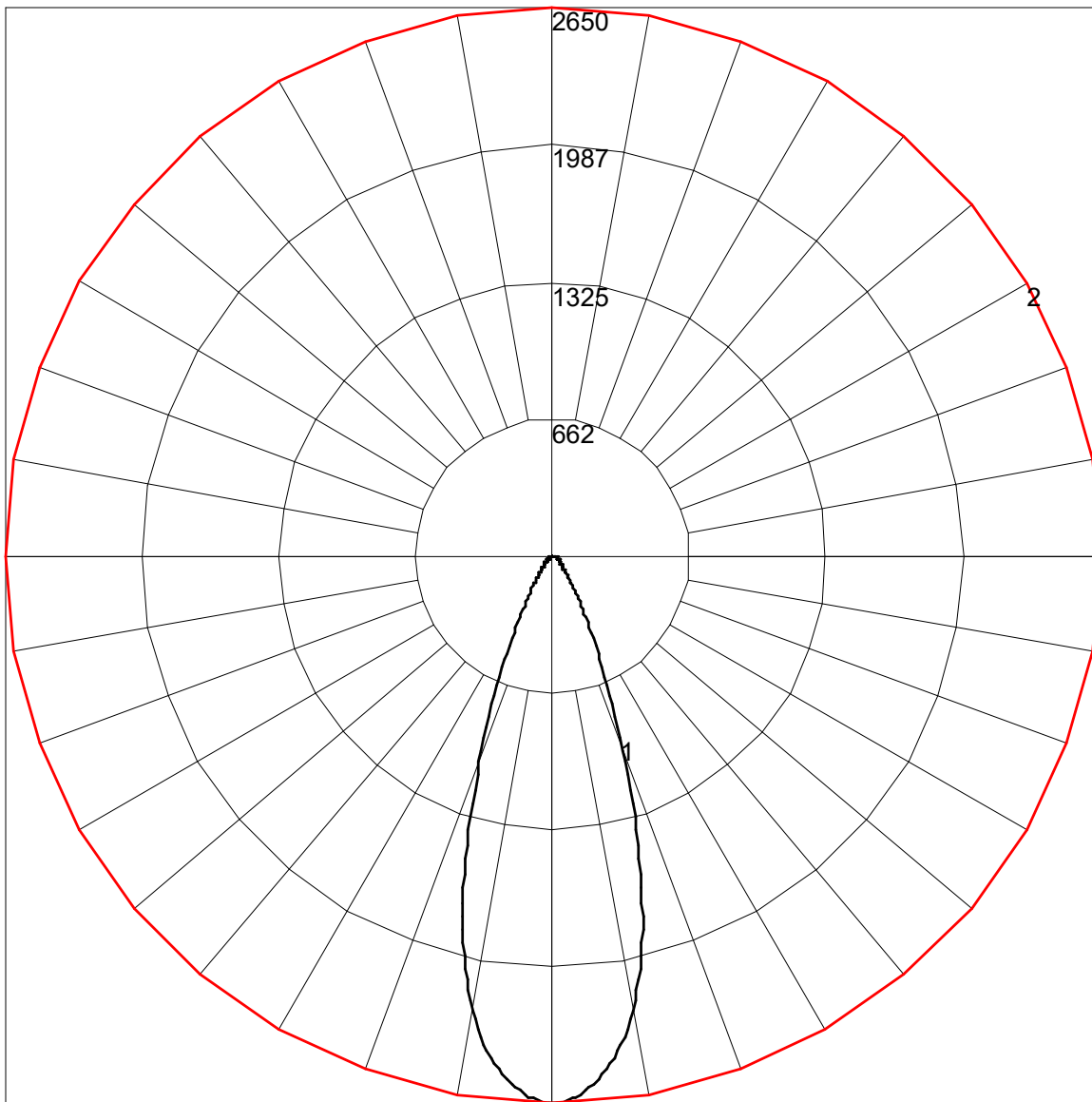
X=2H	Y=2H	11.9	12.9	12.2	13.2	13.5	11.9	12.9	12.2	13.2	13.5
	3H	13.3	14.2	13.7	14.5	14.9	13.3	14.2	13.7	14.5	14.9
	4H	13.8	14.6	14.2	15.0	15.4	13.8	14.6	14.2	15.0	15.4
	6H	14.1	14.9	14.6	15.3	15.7	14.1	14.9	14.6	15.3	15.7
	8H	14.2	14.9	14.6	15.3	15.7	14.2	14.9	14.6	15.3	15.7
	12H	14.3	14.9	14.7	15.3	15.8	14.3	14.9	14.7	15.3	15.8

UGR Viewed Endwise

4H	2H	12.3	13.1	12.7	13.5	13.9	12.3	13.1	12.7	13.5	13.9
	3H	13.9	14.6	14.3	15.0	15.4	13.9	14.6	14.3	15.0	15.4
	4H	14.5	15.1	14.9	15.5	16.0	14.5	15.1	14.9	15.5	16.0
	6H	15.0	15.5	15.4	15.9	16.4	15.0	15.5	15.4	15.9	16.4
	8H	15.1	15.6	15.6	16.0	16.5	15.1	15.6	15.6	16.0	16.5
	12H	15.2	15.6	15.6	16.1	16.5	15.2	15.6	15.6	16.1	16.5
8H	4H	14.7	15.2	15.2	15.6	16.1	14.7	15.2	15.2	15.6	16.1
	6H	15.2	15.6	15.8	16.1	16.6	15.2	15.6	15.8	16.1	16.6
	8H	15.4	15.8	16.0	16.3	16.8	15.4	15.8	16.0	16.3	16.8
	12H	15.6	15.9	16.1	16.4	16.9	15.6	15.9	16.1	16.4	16.9
12H	4H	14.7	15.1	15.2	15.6	16.0	14.7	15.1	15.2	15.6	16.0
	6H	15.3	15.6	15.8	16.1	16.6	15.3	15.6	15.8	16.1	16.6
	8H	15.5	15.8	16.0	16.3	16.9	15.5	15.8	16.0	16.3	16.9

Maximum UGR = 16.9

POLAR GRAPH



Maximum Candela = 2649.557 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.)