



IES INDOOR REPORT

PHOTOMETRIC FILENAME : V4DR-P17-8TW-POE-LW-OF-WH_4000K.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from UL #12316380.07

[TESTLAB] UL Verification Services Inc.

[ISSUEDATE] 6 OCT 2021

[MANUFAC] WILLIAMS INDOOR

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

[LUMCAT] V4DR-P17-8TW-PoE-LW-OF-WH 4000k

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

[MORE] erved glass lens enclosure

[LAMP] One white LED

[_SEARCH_SOURCETYPE] LED

[_SEARCH_APPLICATION] Indoor, Classroom, Commercial, Corridor, Hotel, Industrial, Office, Downlight

[_SEARCH_MOUNTING] Recessed

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	1597
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	71
Total Luminaire Watts	22.6
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.00
Spacing Criterion (90-270)	1.00
Spacing Criterion (Diagonal)	0.90
Basic Luminous Shape	Circular
Luminous Length (0-180)	0.35 ft (Diameter)
Luminous Width (90-270)	0.35 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	44060	44060	44060
55	36204	36204	36204
65	26486	26486	26486
75	18335	18335	18335
85	9995	9995	9995

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CANDELA TABULATION

	<u>0</u>
0.0	1121.562
0.5	1121.207
1.0	1120.499
1.5	1119.554
2.0	1118.609
2.5	1117.546
3.0	1116.128
3.5	1115.301
4.0	1114.711
4.5	1114.356
5.0	1113.884
5.5	1113.411
6.0	1113.057
6.5	1112.585
7.0	1112.230
7.5	1111.994
8.0	1111.876
8.5	1111.521
9.0	1111.167
9.5	1110.458
10.0	1109.986
10.5	1109.159
11.0	1108.332
11.5	1107.269
12.0	1106.088
12.5	1104.670
13.0	1103.017
13.5	1101.127
14.0	1098.764
14.5	1095.929
15.0	1092.504
15.5	1088.370
16.0	1083.763
16.5	1078.329
17.0	1072.423
17.5	1065.809
18.0	1058.013
18.5	1049.980
19.0	1041.239
19.5	1031.435
20.0	1020.686
20.5	1008.992
21.0	996.353
21.5	982.769
22.0	967.768
22.5	951.821
23.0	934.694
23.5	916.267
24.0	896.423
24.5	875.279
25.0	852.363
25.5	828.385
26.0	802.752
26.5	775.584

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CANDELA TABULATION - (Cont.)

27.0	747.472
27.5	718.178
28.0	688.411
28.5	658.526
29.0	629.232
29.5	600.529
30.0	572.888
30.5	546.902
31.0	522.569
31.5	500.362
32.0	480.163
32.5	461.972
33.0	445.790
33.5	431.379
34.0	418.504
34.5	407.164
35.0	396.888
35.5	387.556
36.0	379.288
36.5	371.491
37.0	364.404
37.5	357.789
38.0	351.647
38.5	345.741
39.0	340.307
39.5	334.992
40.0	330.031
40.5	325.070
41.0	320.345
41.5	315.738
42.0	311.368
42.5	306.997
43.0	302.627
43.5	298.256
44.0	293.886
44.5	289.515
45.0	285.145
45.5	280.774
46.0	276.404
46.5	272.033
47.0	267.427
47.5	262.820
48.0	258.213
48.5	253.488
49.0	248.645
49.5	243.802
50.0	239.078
50.5	234.235
51.0	229.392
51.5	224.549
52.0	219.824
52.5	215.099
53.0	210.256
53.5	205.295
54.0	200.216
54.5	195.136

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CANDELA TABULATION - (Cont.)

55.0	190.057
55.5	184.978
56.0	180.017
56.5	175.174
57.0	170.331
57.5	165.488
58.0	160.763
58.5	156.156
59.0	151.550
59.5	147.061
60.0	142.691
60.5	138.320
61.0	134.068
61.5	129.933
62.0	125.799
62.5	121.665
63.0	117.720
63.5	113.798
64.0	109.947
64.5	106.156
65.0	102.447
65.5	98.832
66.0	95.265
66.5	91.792
67.0	88.402
67.5	85.071
68.0	81.846
68.5	78.692
69.0	75.539
69.5	72.491
70.0	69.526
70.5	66.609
71.0	63.762
71.5	60.986
72.0	58.305
72.5	55.659
73.0	53.084
73.5	50.580
74.0	48.123
74.5	45.748
75.0	43.433
75.5	41.189
76.0	38.992
76.5	36.854
77.0	34.810
77.5	32.779
78.0	30.818
78.5	28.916
79.0	27.050
79.5	25.254
80.0	23.494
80.5	21.782
81.0	20.092
81.5	18.451
82.0	16.844
82.5	15.285

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CANDELA TABULATION - (Cont.)

83.0	13.738
83.5	12.237
84.0	10.773
84.5	9.343
85.0	7.973
85.5	6.650
86.0	5.386
86.5	4.193
87.0	3.142
87.5	2.268
88.0	1.583
88.5	1.004
89.0	0.626
89.5	0.425
90.0	0.295
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

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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
119.0	0.000
119.5	0.000
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120.5	0.000
121.0	0.000
121.5	0.000
122.0	0.000
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123.0	0.000
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129.0	0.000
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130.0	0.000
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133.5	0.000
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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
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150.0	0.000
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152.0	0.000
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153.5	0.000
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154.5	0.000
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156.0	0.000
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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

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	411.97	N.A.	25.80
0-30	790.21	N.A.	49.50
0-40	1047.85	N.A.	65.60
0-60	1437.31	N.A.	90.00
0-80	1586.6	N.A.	99.40
0-90	1596.59	N.A.	100.00
10-90	1490.35	N.A.	93.30
20-40	635.88	N.A.	39.80
20-50	855.48	N.A.	53.60
40-70	491.89	N.A.	30.80
60-80	149.29	N.A.	9.40
70-80	46.86	N.A.	2.90
80-90	9.99	N.A.	0.60
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	1596.6	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	106.23
10-20	305.74
20-30	378.24
30-40	257.64
40-50	219.60
50-60	169.86
60-70	102.44
70-80	46.86
80-90	9.99
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	159	159	159	159	155	155	155	155	148	148	148	142	142	142	136	136	136	134
1	149	144	139	135	145	141	137	133	135	132	129	130	127	125	125	123	121	119
2	138	129	122	116	135	127	120	115	122	117	112	118	114	110	114	111	107	105
3	129	117	108	101	126	115	107	100	111	104	99	108	102	97	105	100	96	93
4	120	107	97	90	117	105	96	89	102	94	88	99	92	87	96	91	86	83
5	112	98	88	80	109	96	87	80	94	85	79	91	84	78	89	83	78	75
6	105	90	80	73	103	89	79	72	87	78	72	84	77	71	83	76	71	68
7	99	83	73	66	96	82	73	66	80	72	66	79	71	65	77	70	65	63
8	93	77	68	61	91	76	67	61	75	66	60	73	66	60	72	65	60	58
9	88	72	63	56	86	71	62	56	70	62	56	69	61	56	67	60	55	53
10	83	68	58	52	81	67	58	52	66	58	52	65	57	52	63	57	52	49

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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	21.2	22.6	21.6	22.9	23.2	21.2	22.6	21.6	22.9	23.2
	3H	22.3	23.5	22.7	23.9	24.2	22.3	23.5	22.7	23.9	24.2
	4H	22.7	23.8	23.1	24.1	24.5	22.7	23.8	23.1	24.1	24.5
	6H	22.9	23.9	23.3	24.3	24.7	22.9	23.9	23.3	24.3	24.7
	8H	22.9	23.9	23.4	24.3	24.7	22.9	23.9	23.4	24.3	24.7
	12H	22.9	23.9	23.4	24.3	24.7	22.9	23.9	23.4	24.3	24.7

UGR Viewed Endwise

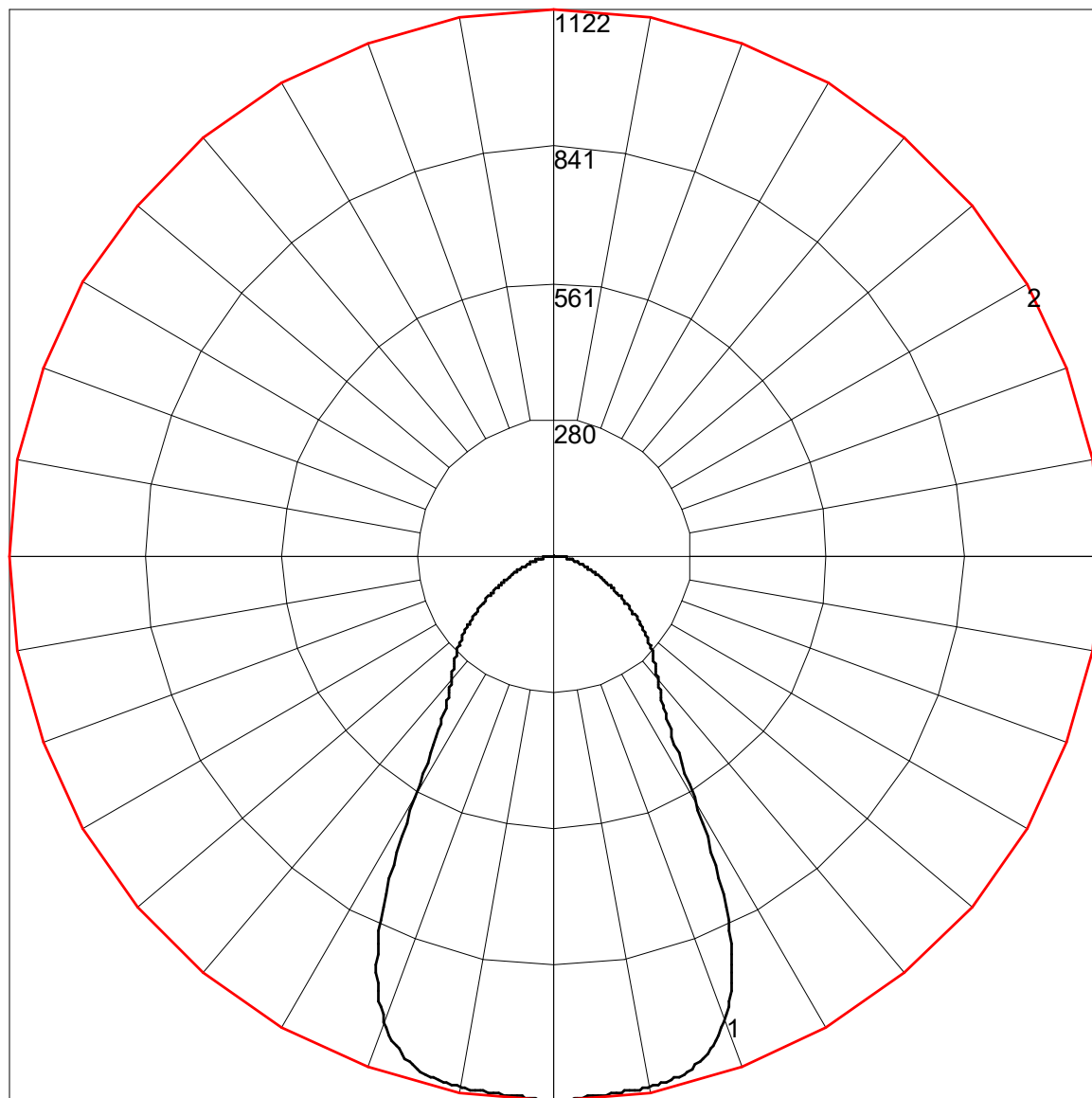
4H	2H	21.6	22.7	22.0	23.1	23.4	21.6	22.7	22.0	23.1	23.4
	3H	22.9	23.8	23.3	24.2	24.6	22.9	23.8	23.3	24.2	24.6
	4H	23.3	24.2	23.7	24.6	25.0	23.3	24.2	23.7	24.6	25.0
	6H	23.6	24.4	24.1	24.8	25.3	23.6	24.4	24.1	24.8	25.3
	8H	23.7	24.4	24.2	24.8	25.3	23.7	24.4	24.2	24.8	25.3
	12H	23.7	24.3	24.2	24.8	25.3	23.7	24.3	24.2	24.8	25.3

8H	4H	23.4	24.1	23.9	24.6	25.0	23.4	24.1	23.9	24.6	25.0
	6H	23.8	24.4	24.3	24.9	25.4	23.8	24.4	24.3	24.9	25.4
	8H	23.9	24.4	24.5	25.0	25.4	23.9	24.4	24.5	25.0	25.4
	12H	24.0	24.4	24.5	24.9	25.5	24.0	24.4	24.5	24.9	25.5

12H	4H	23.4	24.0	23.9	24.5	25.0	23.4	24.0	23.9	24.5	25.0
	6H	23.8	24.3	24.4	24.8	25.3	23.8	24.3	24.4	24.8	25.3
	8H	24.0	24.4	24.5	24.9	25.5	24.0	24.4	24.5	24.9	25.5

Maximum UGR = 25.5

POLAR GRAPH



Maximum Candela = 1121.562 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.)