



IES INDOOR REPORT

PHOTOMETRIC FILENAME : V4DR-P8-8TW-POE-RW-OF-WH_4000K.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from UL #12316380.12

[TESTLAB] UL Verification Services Inc.

[ISSUE DATE] 6 OCT 2021

[MANUFAC] WILLIAMS INDOOR

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

[LUMCAT] V4DR-P8-8TW-POE x-RW-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, 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	734
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	63
Total Luminaire Watts	11.6
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.98
Spacing Criterion (90-270)	0.98
Spacing Criterion (Diagonal)	0.88
Basic Luminous Shape	Circular
Luminous Length (0-180)	0.38 ft (Diameter)
Luminous Width (90-270)	0.38 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	16983	16983	16983
55	13713	13713	13713
65	8871	8871	8871
75	4947	4947	4947
85	2542	2542	2542

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CANDELA TABULATION

	<u>0</u>
0.0	589.752
0.5	589.752
1.0	589.197
1.5	588.088
2.0	586.978
2.5	585.868
3.0	584.204
3.5	582.540
4.0	580.875
4.5	578.656
5.0	576.992
5.5	574.772
6.0	572.553
6.5	570.334
7.0	568.115
7.5	565.896
8.0	563.676
8.5	560.902
9.0	558.683
9.5	556.464
10.0	554.356
10.5	552.081
11.0	549.751
11.5	547.476
12.0	545.313
12.5	543.149
13.0	540.985
13.5	538.766
14.0	536.547
14.5	534.328
15.0	532.053
15.5	529.723
16.0	527.282
16.5	524.840
17.0	522.344
17.5	519.681
18.0	516.851
18.5	513.800
19.0	510.859
19.5	507.697
20.0	504.257
20.5	500.318
21.0	495.769
21.5	490.831
22.0	485.172
22.5	478.903
23.0	471.802
23.5	463.812
24.0	455.047
24.5	445.116
25.0	434.020
25.5	421.759
26.0	408.499
26.5	394.407

IES INDOOR REPORT**PHOTOMETRIC FILENAME : V4DR-P8-8TW-POE-RW-OF-WH_4000K.IES****CANDELA TABULATION - (Cont.)**

27.0	379.594
27.5	364.559
28.0	348.803
28.5	333.213
29.0	317.678
29.5	302.144
30.0	286.887
30.5	271.907
31.0	257.760
31.5	244.056
32.0	231.130
32.5	219.090
33.0	207.939
33.5	197.897
34.0	188.854
34.5	180.976
35.0	174.041
35.5	168.160
36.0	163.000
36.5	158.673
37.0	154.845
37.5	151.571
38.0	148.575
38.5	145.912
39.0	143.527
39.5	141.363
40.0	139.421
40.5	137.590
41.0	135.815
41.5	134.206
42.0	132.597
42.5	131.099
43.0	129.601
43.5	128.048
44.0	126.494
44.5	124.941
45.0	123.332
45.5	121.668
46.0	119.948
46.5	118.172
47.0	116.341
47.5	114.455
48.0	112.569
48.5	110.572
49.0	108.519
49.5	106.355
50.0	104.191
50.5	101.972
51.0	99.642
51.5	97.367
52.0	95.037
52.5	92.707
53.0	90.488
53.5	88.047
54.0	85.606
54.5	83.164

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CANDELA TABULATION - (Cont.)

55.0	80.779
55.5	78.338
56.0	75.952
56.5	73.622
57.0	71.292
57.5	68.962
58.0	66.687
58.5	64.468
59.0	62.249
59.5	60.085
60.0	57.921
60.5	55.813
61.0	53.760
61.5	51.707
62.0	49.766
62.5	47.768
63.0	45.882
63.5	43.940
64.0	42.109
64.5	40.278
65.0	38.503
65.5	36.728
66.0	35.008
66.5	33.343
67.0	31.735
67.5	30.126
68.0	28.572
68.5	27.019
69.0	25.521
69.5	24.078
70.0	22.747
70.5	21.471
71.0	20.306
71.5	19.196
72.0	18.142
72.5	17.143
73.0	16.200
73.5	15.368
74.0	14.536
74.5	13.815
75.0	13.149
75.5	12.538
76.0	11.873
76.5	11.262
77.0	10.652
77.5	10.042
78.0	9.487
78.5	8.877
79.0	8.322
79.5	7.767
80.0	7.212
80.5	6.658
81.0	6.158
81.5	5.659
82.0	5.104
82.5	4.660

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CANDELA TABULATION - (Cont.)

83.0	4.161
83.5	3.662
84.0	3.218
84.5	2.719
85.0	2.275
85.5	1.886
86.0	1.498
86.5	1.221
87.0	0.943
87.5	0.721
88.0	0.499
88.5	0.333
89.0	0.166
89.5	0.055
90.0	0.000
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
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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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
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153.0	0.000
153.5	0.000
154.0	0.000
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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

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Zone	Lumens	%Lamp	%Fixt
0-20	204.13	N.A.	27.80
0-30	395.02	N.A.	53.80
0-40	511.35	N.A.	69.60
0-60	678.13	N.A.	92.40
0-80	731.19	N.A.	99.60
0-90	734.19	N.A.	100.00
10-90	679.88	N.A.	92.60
20-40	307.22	N.A.	41.80
20-50	401.86	N.A.	54.70
40-70	205.35	N.A.	28.00
60-80	53.06	N.A.	7.20
70-80	14.49	N.A.	2.00
80-90	3.00	N.A.	0.40
90-110	0.00	N.A.	0.00
90-120	0.00	N.A.	0.00
90-130	0.00	N.A.	0.00
90-150	0.00	N.A.	0.00
90-180	0.00	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	734.19	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	54.32
10-20	149.82
20-30	190.89
30-40	116.33
40-50	94.65
50-60	72.13
60-70	38.57
70-80	14.49
80-90	3.00
90-100	0.00
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 RW	80				70				50			30			10			0
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	75	75	75	75	73	73	73	73	70	70	70	67	67	67	64	64	64	63
1	70	68	66	64	69	67	65	63	64	62	61	62	60	59	59	58	58	56
2	65	62	58	56	64	60	57	55	58	56	54	56	54	53	55	53	51	50
3	61	56	52	49	60	55	51	49	53	50	48	52	49	47	50	48	46	45
4	57	51	47	44	56	50	46	43	49	46	43	48	45	42	46	44	42	41
5	54	47	43	39	52	46	42	39	45	42	39	44	41	38	43	40	38	37
6	50	44	39	36	49	43	39	36	42	38	35	41	38	35	40	37	35	34
7	47	40	36	33	46	40	36	33	39	35	32	38	35	32	37	34	32	31
8	45	38	33	30	44	37	33	30	36	33	30	36	32	30	35	32	30	29
9	42	35	31	28	41	35	31	28	34	30	28	34	30	28	33	30	28	27
10	40	33	29	26	39	33	29	26	32	28	26	32	28	26	31	28	26	25

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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	20.2	21.5	20.5	21.8	22.1	20.2	21.5	20.5	21.8	22.1
	3H	20.9	22.1	21.3	22.4	22.8	20.9	22.1	21.3	22.4	22.8
	4H	21.1	22.2	21.5	22.5	22.9	21.1	22.2	21.5	22.5	22.9
	6H	21.2	22.2	21.6	22.6	23.0	21.2	22.2	21.6	22.6	23.0
	8H	21.2	22.2	21.6	22.5	23.0	21.2	22.2	21.6	22.5	23.0
	12H	21.2	22.1	21.6	22.5	22.9	21.2	22.1	21.6	22.5	22.9

UGR Viewed Endwise

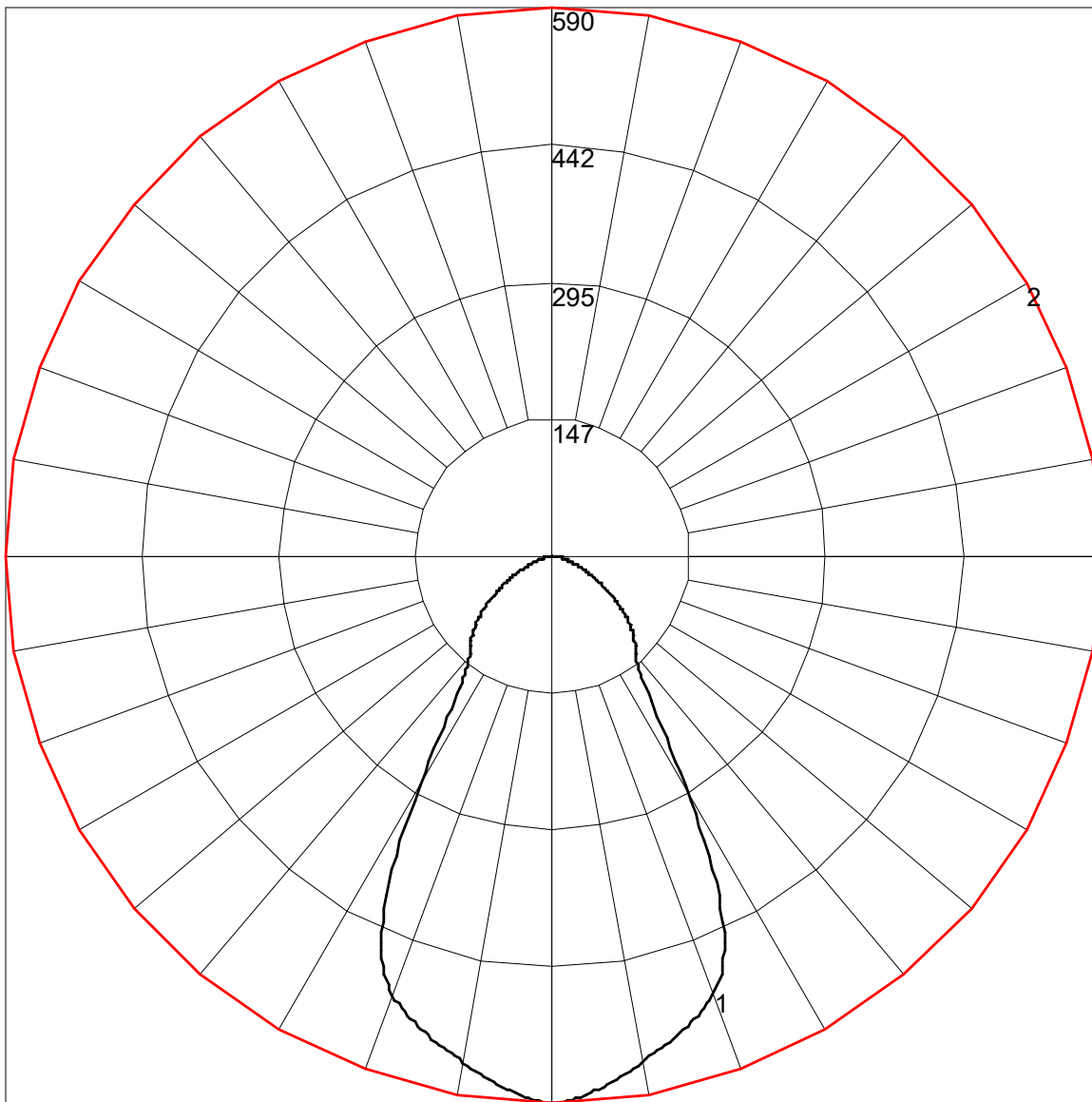
4H	2H	20.4	21.5	20.8	21.9	22.3	20.4	21.5	20.8	21.9	22.3
	3H	21.3	22.2	21.7	22.6	23.0	21.3	22.2	21.7	22.6	23.0
	4H	21.6	22.4	22.0	22.8	23.2	21.6	22.4	22.0	22.8	23.2
	6H	21.7	22.4	22.2	22.9	23.3	21.7	22.4	22.2	22.9	23.3
	8H	21.8	22.4	22.2	22.9	23.3	21.8	22.4	22.2	22.9	23.3
	12H	21.8	22.3	22.3	22.8	23.3	21.8	22.3	22.3	22.8	23.3

8H	4H	21.6	22.2	22.1	22.7	23.2	21.6	22.2	22.1	22.7	23.2
	6H	21.8	22.4	22.3	22.9	23.3	21.8	22.4	22.3	22.9	23.3
	8H	21.9	22.4	22.4	22.9	23.4	21.9	22.4	22.4	22.9	23.4
	12H	21.9	22.3	22.4	22.8	23.4	21.9	22.3	22.4	22.8	23.4

12H	4H	21.6	22.1	22.1	22.6	23.1	21.6	22.1	22.1	22.6	23.1
	6H	21.8	22.3	22.3	22.8	23.3	21.8	22.3	22.3	22.8	23.3
	8H	21.9	22.3	22.4	22.8	23.4	21.9	22.3	22.4	22.8	23.4

Maximum UGR = 23.4

POLAR GRAPH



Maximum Candela = 589.752 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.)