



IES INDOOR REPORT

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

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from UL #12316380.14

[TESTLAB] UL Verification Services Inc.

[ISSUEDATE] 6 OCT 2021

[MANUFAC] WILLIAMS INDOOR

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

[LUMCAT] V4DR-P8-8TW-POE x-RM-OF-WH 4000k

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

[MORE] tic optic, clear glass 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	996
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	86
Total Luminaire Watts	11.6
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.52
Spacing Criterion (90-270)	0.52
Spacing Criterion (Diagonal)	0.52
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	5715	5715	5715
55	3975	3975	3975
65	2838	2838	2838
75	1899	1899	1899
85	1549	1549	1549

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CANDELA TABULATION

	<u>0</u>
0.0	2872.031
0.5	2869.811
1.0	2863.153
1.5	2852.610
2.0	2838.184
2.5	2819.873
3.0	2798.233
3.5	2772.708
4.0	2743.300
4.5	2711.672
5.0	2676.715
5.5	2637.874
6.0	2596.258
6.5	2551.868
7.0	2504.149
7.5	2453.101
8.0	2399.833
8.5	2343.235
9.0	2284.974
9.5	2224.492
10.0	2161.791
10.5	2097.426
11.0	2031.396
11.5	1964.256
12.0	1896.007
12.5	1828.312
13.0	1760.617
13.5	1692.368
14.0	1623.563
14.5	1554.759
15.0	1487.064
15.5	1419.924
16.0	1352.784
16.5	1287.309
17.0	1222.389
17.5	1158.578
18.0	1095.877
18.5	1034.841
19.0	976.579
19.5	919.427
20.0	863.940
20.5	811.227
21.0	760.178
21.5	711.349
22.0	665.295
22.5	621.460
23.0	580.399
23.5	541.114
24.0	503.937
24.5	468.925
25.0	436.187
25.5	405.724
26.0	377.315
26.5	350.681

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

27.0	325.933
27.5	303.017
28.0	281.710
28.5	261.845
29.0	243.645
29.5	226.666
30.0	210.963
30.5	196.537
31.0	183.220
31.5	170.901
32.0	159.526
32.5	149.095
33.0	139.440
33.5	130.451
34.0	122.239
34.5	114.582
35.0	107.535
35.5	101.043
36.0	94.995
36.5	89.446
37.0	84.285
37.5	79.625
38.0	75.296
38.5	71.412
39.0	67.806
39.5	64.532
40.0	61.591
40.5	58.817
41.0	56.320
41.5	53.989
42.0	51.825
42.5	49.828
43.0	47.941
43.5	46.166
44.0	44.501
44.5	42.947
45.0	41.505
45.5	40.173
46.0	38.897
46.5	37.676
47.0	36.511
47.5	35.456
48.0	34.458
48.5	33.459
49.0	32.516
49.5	31.628
50.0	30.796
50.5	29.963
51.0	29.186
51.5	28.354
52.0	27.633
52.5	26.856
53.0	26.190
53.5	25.469
54.0	24.747
54.5	24.082

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55.0	23.416
55.5	22.750
56.0	22.139
56.5	21.529
57.0	20.919
57.5	20.308
58.0	19.698
58.5	19.143
59.0	18.588
59.5	18.033
60.0	17.479
60.5	16.924
61.0	16.369
61.5	15.869
62.0	15.315
62.5	14.815
63.0	14.260
63.5	13.761
64.0	13.262
64.5	12.762
65.0	12.318
65.5	11.819
66.0	11.375
66.5	10.876
67.0	10.432
67.5	9.988
68.0	9.544
68.5	9.155
69.0	8.712
69.5	8.323
70.0	7.935
70.5	7.602
71.0	7.269
71.5	6.936
72.0	6.603
72.5	6.326
73.0	6.048
73.5	5.771
74.0	5.549
74.5	5.271
75.0	5.049
75.5	4.827
76.0	4.605
76.5	4.439
77.0	4.217
77.5	3.995
78.0	3.829
78.5	3.607
79.0	3.440
79.5	3.274
80.0	3.052
80.5	2.885
81.0	2.719
81.5	2.552
82.0	2.330
82.5	2.164

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83.0	1.998
83.5	1.831
84.0	1.665
84.5	1.498
85.0	1.387
85.5	1.221
86.0	1.054
86.5	0.888
87.0	0.777
87.5	0.666
88.0	0.555
88.5	0.444
89.0	0.388
89.5	0.277
90.0	0.222
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
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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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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Zone	Lumens	%Lamp	%Fixt
0-20	642.66	N.A.	64.50
0-30	851.23	N.A.	85.40
0-40	922.79	N.A.	92.60
0-60	976.89	N.A.	98.10
0-80	994.66	N.A.	99.80
0-90	996.23	N.A.	100.00
10-90	757.30	N.A.	76.00
20-40	280.13	N.A.	28.10
20-50	313.13	N.A.	31.40
40-70	66.37	N.A.	6.70
60-80	17.76	N.A.	1.80
70-80	5.49	N.A.	0.60
80-90	1.57	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	996.24	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	238.93
10-20	403.73
20-30	208.57
30-40	71.57
40-50	33.00
50-60	21.10
60-70	12.27
70-80	5.49
80-90	1.57
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 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	72	70	69	67	70	69	67	66	66	65	64	64	63	62	62	61	61	59
2	69	66	64	62	67	65	63	61	63	61	60	61	60	58	59	58	57	56
3	66	62	60	57	65	61	59	57	60	58	56	58	57	55	57	56	54	53
4	63	59	56	54	62	58	56	54	57	55	53	56	54	52	55	53	52	51
5	61	56	53	51	60	56	53	51	55	52	50	54	52	50	53	51	49	49
6	58	54	51	48	58	53	50	48	52	50	48	52	49	48	51	49	47	47
7	56	52	48	46	56	51	48	46	50	48	46	50	47	46	49	47	45	45
8	54	49	46	44	54	49	46	44	48	46	44	48	45	44	47	45	44	43
9	53	48	44	42	52	47	44	42	47	44	42	46	44	42	46	44	42	41
10	51	46	43	41	50	46	43	41	45	42	41	45	42	41	44	42	40	40

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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	11.0	12.0	11.4	12.3	12.6
	3H	12.0	12.9	12.4	13.2	13.6
	4H	12.3	13.1	12.7	13.4	13.8
	6H	12.5	13.2	12.9	13.6	14.0
	8H	12.5	13.2	13.0	13.6	14.0
	12H	12.6	13.2	13.0	13.6	14.0

UGR Viewed Endwise

11.0	12.0	11.4	12.3	12.6
12.0	12.9	12.4	13.2	13.6
12.3	13.1	12.7	13.4	13.8
12.5	13.2	12.9	13.6	14.0
12.5	13.2	13.0	13.6	14.0
12.6	13.2	13.0	13.6	14.0

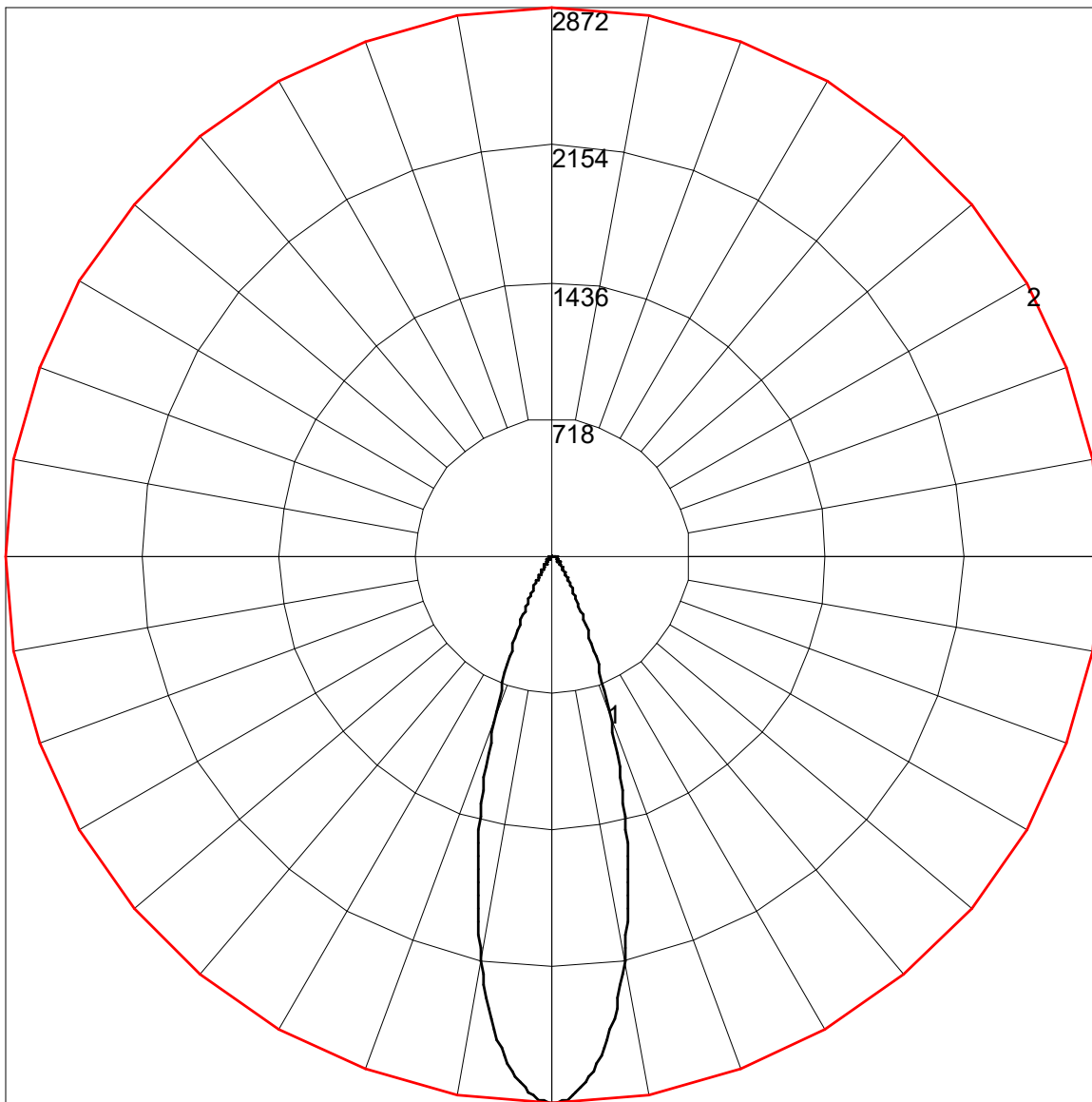
4H	2H	11.3	12.1	11.7	12.5	12.8
	3H	12.4	13.1	12.8	13.5	13.9
	4H	12.8	13.4	13.2	13.8	14.2
	6H	13.1	13.6	13.6	14.1	14.5
	8H	13.2	13.7	13.7	14.1	14.6
	12H	13.2	13.6	13.7	14.1	14.6

8H	4H	12.9	13.3	13.3	13.8	14.3
	6H	13.3	13.6	13.8	14.1	14.6
	8H	13.4	13.8	14.0	14.3	14.8
	12H	13.6	13.8	14.1	14.3	14.9

12H	4H	12.8	13.2	13.3	13.7	14.2
	6H	13.3	13.6	13.8	14.1	14.6
	8H	13.5	13.7	14.0	14.2	14.8

Maximum UGR = 14.9

POLAR GRAPH



Maximum Candela = 2872.031 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.)