



IES INDOOR REPORT

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

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from UL #12316380.10

[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-LN-OF-WH 4000k

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

[MORE] tic optic, clear glass patterned 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	1016
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	88
Total Luminaire Watts	11.6
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.44
Spacing Criterion (90-270)	0.44
Spacing Criterion (Diagonal)	0.44
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	6672	6672	6672
55	5005	5005	5005
65	4141	4141	4141
75	3370	3370	3370
85	1877	1877	1877

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CANDELA TABULATION

	<u>0</u>
0.0	3816.235
0.5	3811.801
1.0	3799.052
1.5	3779.098
2.0	3750.830
2.5	3715.910
3.0	3673.784
3.5	3625.007
4.0	3569.579
4.5	3508.608
5.0	3442.649
5.5	3371.146
6.0	3294.655
6.5	3212.067
7.0	3125.045
7.5	3034.142
8.0	2937.697
8.5	2838.481
9.0	2735.938
9.5	2631.179
10.0	2524.757
10.5	2416.672
11.0	2306.369
11.5	2196.067
12.0	2086.874
12.5	1978.234
13.0	1871.258
13.5	1765.944
14.0	1663.402
14.5	1564.185
15.0	1468.849
15.5	1376.838
16.0	1288.707
16.5	1204.456
17.0	1125.193
17.5	1049.257
18.0	977.754
18.5	910.686
19.0	848.052
19.5	789.853
20.0	734.979
20.5	682.876
21.0	634.099
21.5	589.757
22.0	547.021
22.5	507.279
23.0	470.142
23.5	435.777
24.0	403.795
24.5	373.864
25.0	346.316
25.5	320.930
26.0	297.373
26.5	275.756

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CANDELA TABULATION - (Cont.)

27.0	255.801
27.5	237.510
28.0	220.771
28.5	205.417
29.0	191.338
29.5	178.368
30.0	166.562
30.5	155.698
31.0	145.721
31.5	136.631
32.0	128.372
32.5	120.667
33.0	113.628
33.5	107.143
34.0	101.267
34.5	95.835
35.0	90.902
35.5	86.413
36.0	82.200
36.5	78.376
37.0	74.884
37.5	71.613
38.0	68.676
38.5	65.960
39.0	63.410
39.5	61.027
40.0	58.809
40.5	56.759
41.0	54.874
41.5	53.100
42.0	51.437
42.5	49.885
43.0	48.389
43.5	47.003
44.0	45.673
44.5	44.398
45.0	43.179
45.5	42.070
46.0	40.961
46.5	39.908
47.0	38.911
47.5	37.913
48.0	36.971
48.5	36.028
49.0	35.142
49.5	34.255
50.0	33.423
50.5	32.647
51.0	31.816
51.5	31.095
52.0	30.319
52.5	29.599
53.0	28.934
53.5	28.213
54.0	27.548
54.5	26.938

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CANDELA TABULATION - (Cont.)

55.0	26.273
55.5	25.663
56.0	25.054
56.5	24.444
57.0	23.890
57.5	23.335
58.0	22.781
58.5	22.227
59.0	21.728
59.5	21.229
60.0	20.730
60.5	20.231
61.0	19.732
61.5	19.234
62.0	18.735
62.5	18.291
63.0	17.792
63.5	17.349
64.0	16.906
64.5	16.462
65.0	16.019
65.5	15.575
66.0	15.132
66.5	14.688
67.0	14.300
67.5	13.857
68.0	13.469
68.5	13.026
69.0	12.638
69.5	12.194
70.0	11.806
70.5	11.418
71.0	11.030
71.5	10.642
72.0	10.254
72.5	9.866
73.0	9.478
73.5	9.090
74.0	8.702
74.5	8.370
75.0	7.982
75.5	7.594
76.0	7.261
76.5	6.873
77.0	6.541
77.5	6.153
78.0	5.820
78.5	5.487
79.0	5.155
79.5	4.822
80.0	4.490
80.5	4.157
81.0	3.825
81.5	3.547
82.0	3.215
82.5	2.938

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CANDELA TABULATION - (Cont.)

83.0	2.605
83.5	2.328
84.0	2.051
84.5	1.774
85.0	1.497
85.5	1.275
86.0	1.109
86.5	0.887
87.0	0.721
87.5	0.610
88.0	0.443
88.5	0.333
89.0	0.222
89.5	0.166
90.0	0.111
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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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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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	703.33	N.A.	69.20
0-30	871.81	N.A.	85.80
0-40	932.07	N.A.	91.70
0-60	989.68	N.A.	97.40
0-80	1014.07	N.A.	99.80
0-90	1016.02	N.A.	100.00
10-90	717.19	N.A.	70.60
20-40	228.74	N.A.	22.50
20-50	262.66	N.A.	25.90
40-70	73.53	N.A.	7.20
60-80	24.39	N.A.	2.40
70-80	8.47	N.A.	0.80
80-90	1.96	N.A.	0.20
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	1016.03	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	298.83
10-20	404.49
20-30	168.48
30-40	60.26
40-50	33.91
50-60	23.70
60-70	15.92
70-80	8.47
80-90	1.96
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	72	70	69	67	70	69	67	66	66	65	64	64	63	62	62	61	61	60
2	69	66	64	62	67	65	63	61	63	61	60	61	60	59	59	58	57	57
3	66	63	60	58	65	62	59	57	60	58	56	59	57	56	57	56	55	54
4	64	60	57	54	62	59	56	54	58	55	54	56	54	53	55	54	52	51
5	61	57	54	52	60	56	54	51	55	53	51	54	52	51	53	52	50	49
6	59	55	52	49	58	54	51	49	53	51	49	52	50	49	52	50	48	47
7	57	52	49	47	56	52	49	47	51	49	47	51	48	47	50	48	46	46
8	55	51	48	45	55	50	47	45	50	47	45	49	47	45	48	46	45	44
9	54	49	46	44	53	49	46	44	48	45	44	47	45	44	47	45	43	43
10	52	47	44	42	51	47	44	42	47	44	42	46	44	42	46	44	42	41

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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	12.3	13.3	12.7	13.6	14.0	12.3	13.3	12.7	13.6	14.0
	3H	13.8	14.7	14.2	15.0	15.4	13.8	14.7	14.2	15.0	15.4
	4H	14.3	15.1	14.7	15.5	15.9	14.3	15.1	14.7	15.5	15.9
	6H	14.6	15.4	15.0	15.7	16.1	14.6	15.4	15.0	15.7	16.1
	8H	14.7	15.4	15.1	15.8	16.2	14.7	15.4	15.1	15.8	16.2
	12H	14.7	15.4	15.2	15.8	16.2	14.7	15.4	15.2	15.8	16.2

UGR Viewed Endwise

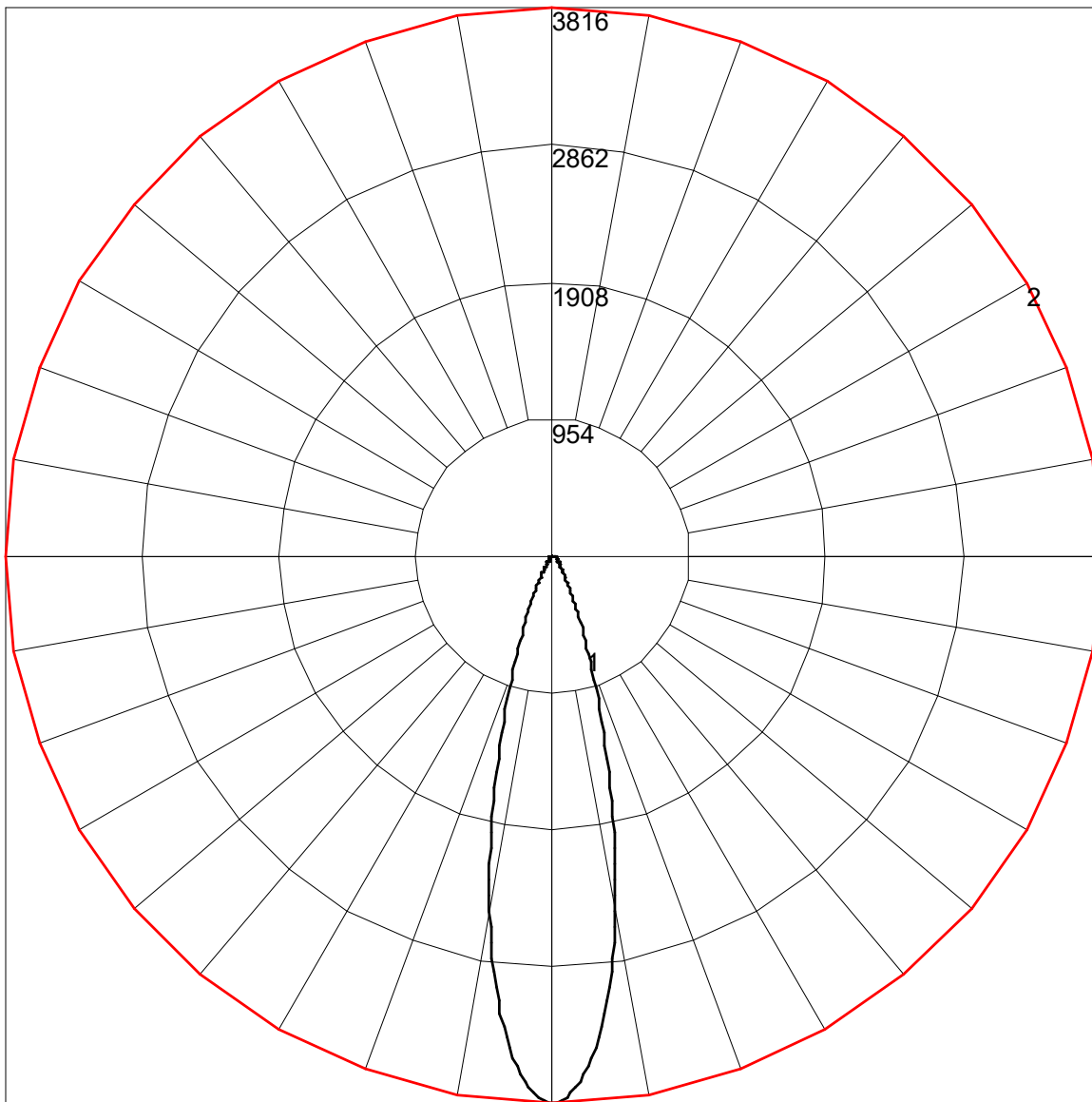
4H	2H	12.8	13.6	13.2	13.9	14.3	12.8	13.6	13.2	13.9	14.3
	3H	14.4	15.1	14.8	15.5	15.9	14.4	15.1	14.8	15.5	15.9
	4H	15.0	15.6	15.5	16.0	16.5	15.0	15.6	15.5	16.0	16.5
	6H	15.5	16.0	15.9	16.4	16.9	15.5	16.0	15.9	16.4	16.9
	8H	15.6	16.0	16.1	16.5	17.0	15.6	16.0	16.1	16.5	17.0
	12H	15.6	16.0	16.1	16.5	17.0	15.6	16.0	16.1	16.5	17.0

8H	4H	15.2	15.7	15.7	16.1	16.6	15.2	15.7	15.7	16.1	16.6
	6H	15.7	16.1	16.3	16.6	17.1	15.7	16.1	16.3	16.6	17.1
	8H	15.9	16.2	16.4	16.7	17.2	15.9	16.2	16.4	16.7	17.2
	12H	16.0	16.3	16.5	16.8	17.3	16.0	16.3	16.5	16.8	17.3

12H	4H	15.2	15.6	15.7	16.1	16.5	15.2	15.6	15.7	16.1	16.5
	6H	15.8	16.1	16.3	16.5	17.1	15.8	16.1	16.3	16.5	17.1
	8H	15.9	16.2	16.5	16.7	17.3	15.9	16.2	16.5	16.7	17.3

Maximum UGR = 17.3

POLAR GRAPH



Maximum Candela = 3816.235 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.)