



IES INDOOR REPORT

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

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from UL #12316380.09

[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-LM-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	995
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	87
Total Luminaire Watts	11.5
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.56
Spacing Criterion (90-270)	0.56
Spacing Criterion (Diagonal)	0.54
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	7550	7550	7550
55	5885	5885	5885
65	4918	4918	4918
75	3957	3957	3957
85	2364	2364	2364

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CANDELA TABULATION

	<u>0</u>
0.0	2574.576
0.5	2573.467
1.0	2569.585
1.5	2563.484
2.0	2555.719
2.5	2545.181
3.0	2532.979
3.5	2518.559
4.0	2501.920
4.5	2484.172
5.0	2464.206
5.5	2442.021
6.0	2417.617
6.5	2390.440
7.0	2361.045
7.5	2328.877
8.0	2293.935
8.5	2256.221
9.0	2216.288
9.5	2173.027
10.0	2126.438
10.5	2076.522
11.0	2024.387
11.5	1969.479
12.0	1911.243
12.5	1850.789
13.0	1787.561
13.5	1722.115
14.0	1653.896
14.5	1583.459
15.0	1512.467
15.5	1440.365
16.0	1368.264
16.5	1295.608
17.0	1223.506
17.5	1153.623
18.0	1084.295
18.5	1017.740
19.0	953.958
19.5	892.394
20.0	834.158
20.5	778.141
21.0	726.006
21.5	676.644
22.0	630.056
22.5	586.795
23.0	545.974
23.5	507.927
24.0	472.597
24.5	439.597
25.0	408.982
25.5	380.529
26.0	353.852
26.5	329.226

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CANDELA TABULATION - (Cont.)

27.0	306.265
27.5	285.244
28.0	265.666
28.5	247.585
29.0	231.002
29.5	215.528
30.0	201.163
30.5	187.907
31.0	175.650
31.5	164.391
32.0	153.964
32.5	144.369
33.0	135.551
33.5	127.398
34.0	119.966
34.5	113.088
35.0	106.877
35.5	101.108
36.0	95.839
36.5	91.014
37.0	86.577
37.5	82.528
38.0	78.868
38.5	75.485
39.0	72.379
39.5	69.550
40.0	66.943
40.5	64.503
41.0	62.229
41.5	60.177
42.0	58.236
42.5	56.406
43.0	54.742
43.5	53.133
44.0	51.636
44.5	50.249
45.0	48.863
45.5	47.587
46.0	46.422
46.5	45.258
47.0	44.148
47.5	43.150
48.0	42.096
48.5	41.153
49.0	40.210
49.5	39.268
50.0	38.436
50.5	37.604
51.0	36.827
51.5	35.995
52.0	35.219
52.5	34.498
53.0	33.721
53.5	33.000
54.0	32.279
54.5	31.558

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CANDELA TABULATION - (Cont.)

55.0	30.893
55.5	30.227
56.0	29.562
56.5	28.896
57.0	28.175
57.5	27.565
58.0	26.955
58.5	26.400
59.0	25.790
59.5	25.180
60.0	24.570
60.5	23.960
61.0	23.461
61.5	22.851
62.0	22.296
62.5	21.741
63.0	21.187
63.5	20.688
64.0	20.133
64.5	19.578
65.0	19.024
65.5	18.525
66.0	18.025
66.5	17.526
67.0	16.972
67.5	16.472
68.0	15.973
68.5	15.474
69.0	14.975
69.5	14.476
70.0	13.977
70.5	13.533
71.0	13.089
71.5	12.535
72.0	12.091
72.5	11.647
73.0	11.203
73.5	10.704
74.0	10.261
74.5	9.817
75.0	9.373
75.5	8.929
76.0	8.486
76.5	8.042
77.0	7.598
77.5	7.266
78.0	6.822
78.5	6.434
79.0	6.045
79.5	5.657
80.0	5.269
80.5	4.881
81.0	4.492
81.5	4.215
82.0	3.771
82.5	3.494

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CANDELA TABULATION - (Cont.)

83.0	3.106
83.5	2.829
84.0	2.496
84.5	2.163
85.0	1.886
85.5	1.553
86.0	1.331
86.5	1.054
87.0	0.887
87.5	0.721
88.0	0.555
88.5	0.444
89.0	0.333
89.5	0.222
90.0	0.166
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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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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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	629.27	N.A.	63.20
0-30	826.46	N.A.	83.10
0-40	897.54	N.A.	90.20
0-60	963.81	N.A.	96.90
0-80	992.70	N.A.	99.80
0-90	995.04	N.A.	100.00
10-90	770.35	N.A.	77.40
20-40	268.27	N.A.	27.00
20-50	306.77	N.A.	30.80
40-70	85.18	N.A.	8.60
60-80	28.89	N.A.	2.90
70-80	9.97	N.A.	1.00
80-90	2.35	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	995.05	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	224.70
10-20	404.58
20-30	197.19
30-40	71.08
40-50	38.50
50-60	27.77
60-70	18.92
70-80	9.97
80-90	2.35
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	71	70	68	67	70	68	67	66	66	65	64	64	63	62	61	61	60	59
2	68	65	63	61	67	64	62	60	62	61	59	61	59	58	59	58	57	56
3	65	62	59	57	64	61	58	56	59	57	55	58	56	54	56	55	54	53
4	63	58	55	53	62	58	55	53	56	54	52	55	53	51	54	52	51	50
5	60	56	52	50	59	55	52	50	54	51	49	53	51	49	52	50	48	48
6	58	53	50	47	57	52	49	47	52	49	47	51	48	47	50	48	46	45
7	56	51	47	45	55	50	47	45	49	47	45	49	46	45	48	46	44	44
8	54	49	45	43	53	48	45	43	48	45	43	47	44	43	46	44	43	42
9	52	47	43	41	51	46	43	41	46	43	41	45	43	41	45	43	41	40
10	50	45	42	40	49	45	42	40	44	41	40	44	41	39	43	41	39	39

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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

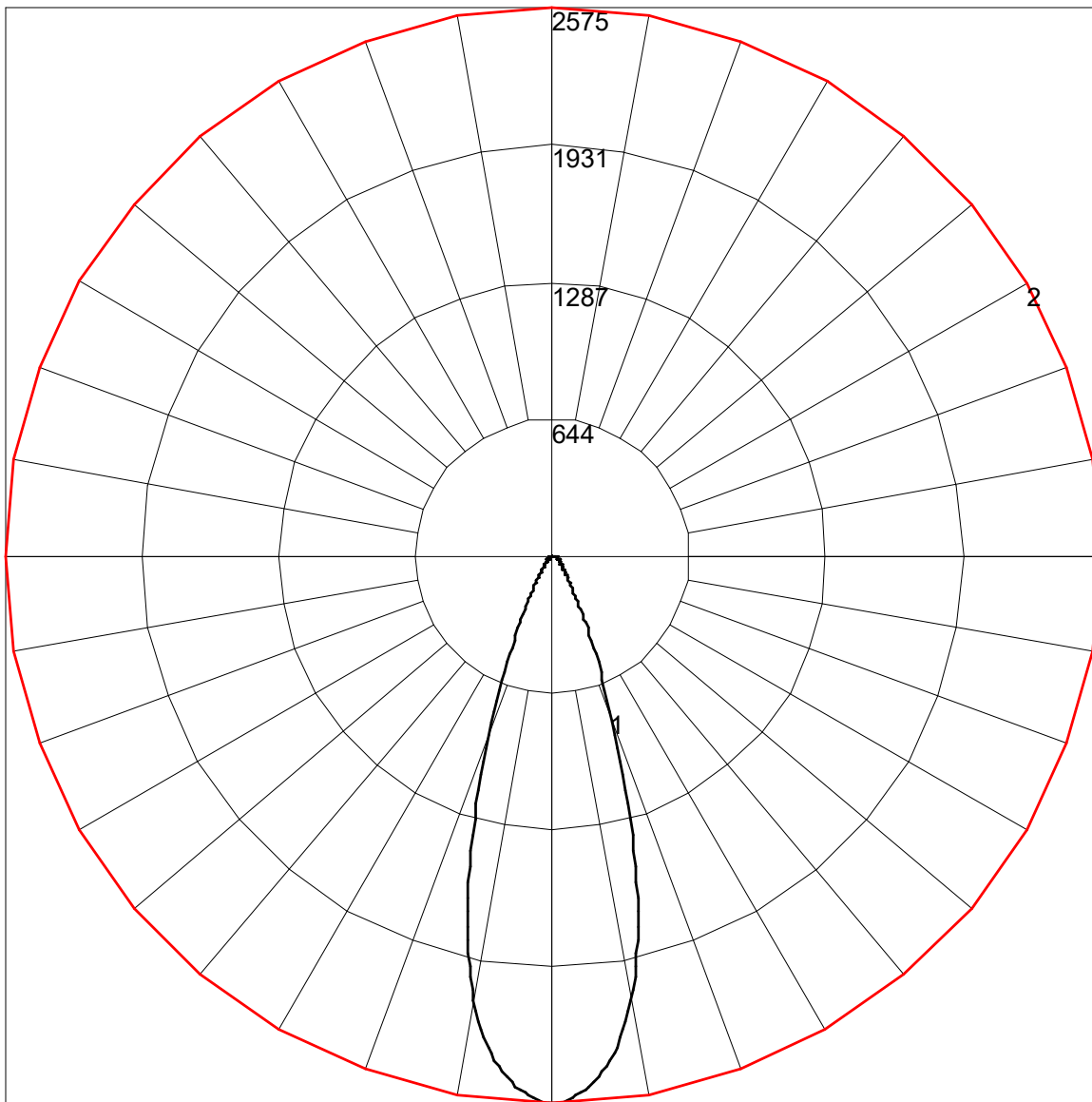
X=2H	Y=2H	13.5	14.6	13.9	14.9	15.2	13.5	14.6	13.9	14.9	15.2
	3H	15.0	15.9	15.4	16.2	16.6	15.0	15.9	15.4	16.2	16.6
	4H	15.5	16.3	15.9	16.7	17.1	15.5	16.3	15.9	16.7	17.1
	6H	15.8	16.6	16.2	17.0	17.4	15.8	16.6	16.2	17.0	17.4
	8H	15.9	16.6	16.3	17.0	17.4	15.9	16.6	16.3	17.0	17.4
	12H	15.9	16.6	16.4	17.0	17.4	15.9	16.6	16.4	17.0	17.4

UGR Viewed Endwise

4H	2H	14.0	14.8	14.4	15.2	15.6	14.0	14.8	14.4	15.2	15.6
	3H	15.6	16.3	16.0	16.7	17.1	15.6	16.3	16.0	16.7	17.1
	4H	16.2	16.9	16.7	17.3	17.7	16.2	16.9	16.7	17.3	17.7
	6H	16.7	17.2	17.2	17.7	18.1	16.7	17.2	17.2	17.7	18.1
	8H	16.8	17.3	17.3	17.7	18.2	16.8	17.3	17.3	17.7	18.2
	12H	16.8	17.2	17.3	17.7	18.2	16.8	17.2	17.3	17.7	18.2
8H	4H	16.4	16.9	16.9	17.3	17.8	16.4	16.9	16.9	17.3	17.8
	6H	16.9	17.3	17.5	17.8	18.3	16.9	17.3	17.5	17.8	18.3
	8H	17.1	17.4	17.6	18.0	18.5	17.1	17.4	17.6	18.0	18.5
	12H	17.2	17.5	17.7	18.0	18.6	17.2	17.5	17.7	18.0	18.6
12H	4H	16.4	16.8	16.9	17.3	17.8	16.4	16.8	16.9	17.3	17.8
	6H	17.0	17.3	17.5	17.8	18.3	17.0	17.3	17.5	17.8	18.3
	8H	17.1	17.4	17.7	17.9	18.5	17.1	17.4	17.7	17.9	18.5

Maximum UGR = 18.6

POLAR GRAPH



Maximum Candela = 2574.576 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.)