



IES INDOOR REPORT

PHOTOMETRIC FILENAME : V4DR-P32-8TW-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.

[ISSUEDATE] 6 OCT 2021

[MANUFAC] WILLIAMS INDOOR

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

[LUMCAT] V4DR-P32-8TW-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	2724
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	64
Total Luminaire Watts	42.5
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	63002	63002	63002
55	50871	50871	50871
65	32909	32909	32909
75	18350	18350	18350
85	9428	9428	9428

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CANDELA TABULATION

	<u>0</u>
0.0	2187.868
0.5	2187.868
1.0	2185.810
1.5	2181.693
2.0	2177.577
2.5	2173.460
3.0	2167.286
3.5	2161.111
4.0	2154.937
4.5	2146.704
5.0	2140.529
5.5	2132.296
6.0	2124.064
6.5	2115.831
7.0	2107.598
7.5	2099.365
8.0	2091.132
8.5	2080.841
9.0	2072.608
9.5	2064.376
10.0	2056.555
10.5	2048.116
11.0	2039.471
11.5	2031.033
12.0	2023.006
12.5	2014.979
13.0	2006.952
13.5	1998.719
14.0	1990.486
14.5	1982.253
15.0	1973.815
15.5	1965.170
16.0	1956.114
16.5	1947.058
17.0	1937.796
17.5	1927.917
18.0	1917.420
18.5	1906.100
19.0	1895.192
19.5	1883.460
20.0	1870.699
20.5	1856.086
21.0	1839.208
21.5	1820.890
22.0	1799.897
22.5	1776.639
23.0	1750.294
23.5	1720.656
24.0	1688.137
24.5	1651.295
25.0	1610.131
25.5	1564.644
26.0	1515.453
26.5	1463.175

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CANDELA TABULATION - (Cont.)

27.0	1408.221
27.5	1352.444
28.0	1293.991
28.5	1236.156
29.0	1178.526
29.5	1120.896
30.0	1064.296
30.5	1008.724
31.0	956.240
31.5	905.403
32.0	857.447
32.5	812.784
33.0	771.414
33.5	734.160
34.0	700.612
34.5	671.385
35.0	645.658
35.5	623.841
36.0	604.699
36.5	588.646
37.0	574.444
37.5	562.301
38.0	551.186
38.5	541.307
39.0	532.457
39.5	524.430
40.0	517.226
40.5	510.434
41.0	503.848
41.5	497.879
42.0	491.910
42.5	486.353
43.0	480.796
43.5	475.033
44.0	469.270
44.5	463.507
45.0	457.538
45.5	451.363
46.0	444.983
46.5	438.397
47.0	431.605
47.5	424.607
48.0	417.609
48.5	410.199
49.0	402.584
49.5	394.557
50.0	386.530
50.5	378.297
51.0	369.653
51.5	361.214
52.0	352.570
52.5	343.925
53.0	335.693
53.5	326.637
54.0	317.580
54.5	308.524

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CANDELA TABULATION - (Cont.)

55.0	299.674
55.5	290.618
56.0	281.768
56.5	273.123
57.0	264.479
57.5	255.834
58.0	247.396
58.5	239.163
59.0	230.930
59.5	222.903
60.0	214.876
60.5	207.055
61.0	199.440
61.5	191.824
62.0	184.621
62.5	177.211
63.0	170.213
63.5	163.010
64.0	156.217
64.5	149.425
65.0	142.839
65.5	136.253
66.0	129.872
66.5	123.698
67.0	117.729
67.5	111.760
68.0	105.997
68.5	100.234
69.0	94.677
69.5	89.326
70.0	84.386
70.5	79.652
71.0	75.330
71.5	71.214
72.0	67.303
72.5	63.598
73.0	60.099
73.5	57.012
74.0	53.925
74.5	51.249
75.0	48.779
75.5	46.515
76.0	44.046
76.5	41.781
77.0	39.517
77.5	37.253
78.0	35.195
78.5	32.931
79.0	30.873
79.5	28.815
80.0	26.757
80.5	24.698
81.0	22.846
81.5	20.994
82.0	18.935
82.5	17.289

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CANDELA TABULATION - (Cont.)

83.0	15.437
83.5	13.584
84.0	11.938
84.5	10.085
85.0	8.439
85.5	6.998
86.0	5.557
86.5	4.528
87.0	3.499
87.5	2.676
88.0	1.852
88.5	1.235
89.0	0.617
89.5	0.206
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
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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
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150.0	0.000
150.5	0.000
151.0	0.000
151.5	0.000
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154.0	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	757.30	N.A.	27.80
0-30	1465.46	N.A.	53.80
0-40	1897.02	N.A.	69.60
0-60	2515.73	N.A.	92.40
0-80	2712.59	N.A.	99.60
0-90	2723.72	N.A.	100.00
10-90	2522.21	N.A.	92.60
20-40	1139.72	N.A.	41.80
20-50	1490.84	N.A.	54.70
40-70	761.81	N.A.	28.00
60-80	196.86	N.A.	7.20
70-80	53.76	N.A.	2.00
80-90	11.13	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	2723.72	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	201.51
10-20	555.79
20-30	708.17
30-40	431.55
40-50	351.12
50-60	267.59
60-70	143.10
70-80	53.76
80-90	11.13
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	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	207	207	207	207	203	203	203	203	194	194	194	185	185	185	178	178	178	174
1	195	188	183	178	190	185	180	175	177	173	170	171	168	165	165	162	160	156
2	182	171	162	154	178	168	160	153	162	155	149	157	151	146	152	147	143	140
3	170	156	145	136	166	153	143	135	148	140	132	144	136	130	140	133	128	125
4	159	142	130	121	155	140	129	120	136	126	119	132	124	117	129	122	116	113
5	149	131	118	109	145	129	117	109	126	115	107	122	114	106	120	112	105	102
6	140	121	108	99	137	119	107	99	116	106	98	114	104	97	111	103	97	94
7	131	112	100	91	129	111	99	90	108	98	90	106	97	89	104	95	89	86
8	124	104	92	84	122	103	92	83	101	91	83	99	90	83	97	89	82	79
9	117	98	86	77	115	97	85	77	95	84	77	93	84	77	92	83	76	74
10	111	92	80	72	109	91	80	72	89	79	72	88	78	72	86	78	71	69

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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	22.5	21.5	22.8	23.1	21.2	22.5	21.5	22.8	23.1
	3H	21.9	23.1	22.3	23.4	23.8	21.9	23.1	22.3	23.4	23.8
	4H	22.1	23.2	22.5	23.5	23.9	22.1	23.2	22.5	23.5	23.9
	6H	22.2	23.2	22.6	23.6	24.0	22.2	23.2	22.6	23.6	24.0
	8H	22.2	23.2	22.6	23.6	24.0	22.2	23.2	22.6	23.6	24.0
	12H	22.2	23.1	22.6	23.5	23.9	22.2	23.1	22.6	23.5	23.9

UGR Viewed Endwise

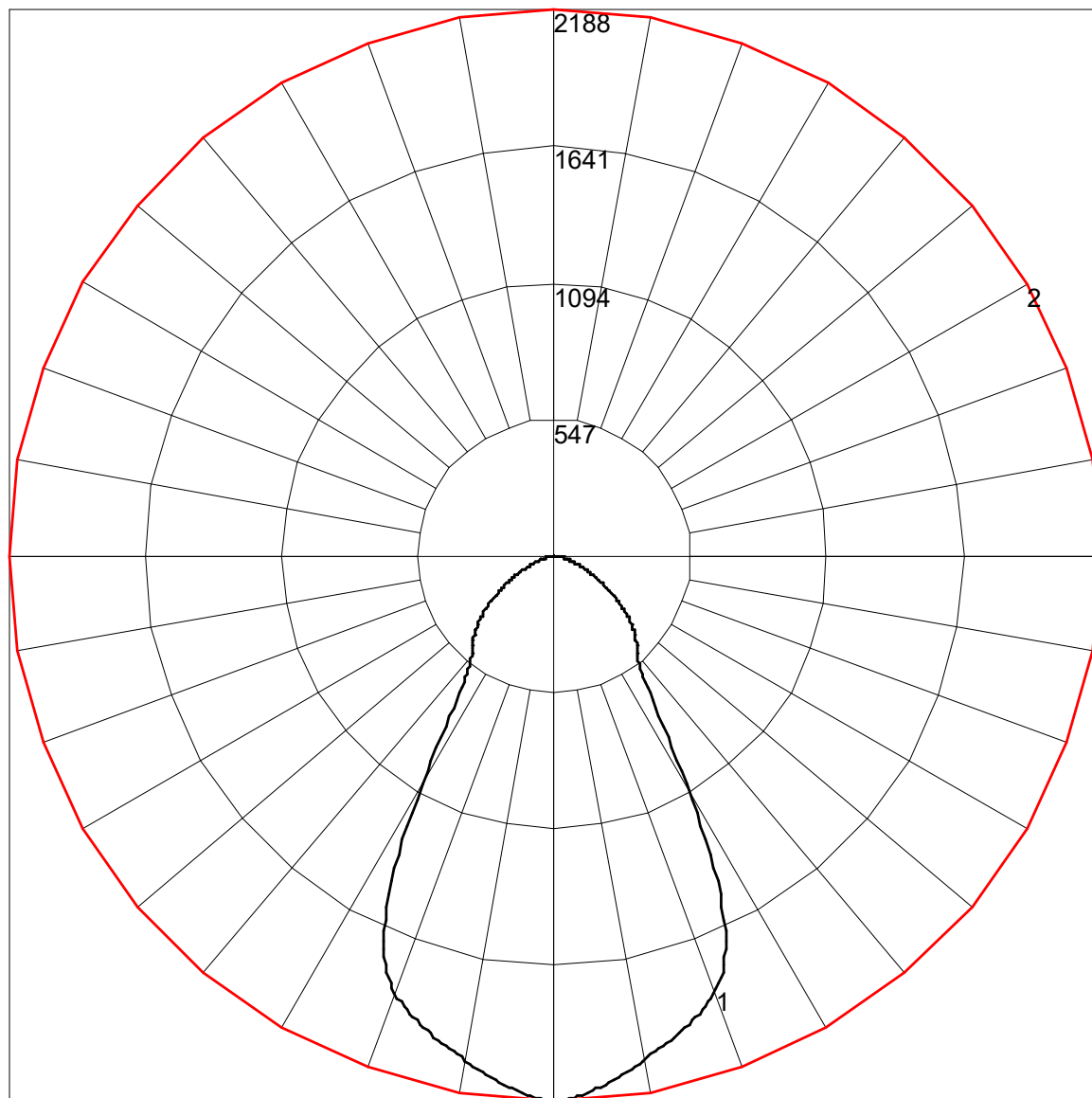
4H	2H	21.4	22.5	21.8	22.9	23.3	21.4	22.5	21.8	22.9	23.3
	3H	22.3	23.2	22.7	23.6	24.0	22.3	23.2	22.7	23.6	24.0
	4H	22.6	23.4	23.0	23.8	24.2	22.6	23.4	23.0	23.8	24.2
	6H	22.7	23.4	23.2	23.9	24.3	22.7	23.4	23.2	23.9	24.3
	8H	22.8	23.4	23.2	23.9	24.3	22.8	23.4	23.2	23.9	24.3
	12H	22.8	23.3	23.3	23.8	24.3	22.8	23.3	23.3	23.8	24.3

8H	4H	22.6	23.2	23.1	23.7	24.2	22.6	23.2	23.1	23.7	24.2
	6H	22.8	23.4	23.3	23.9	24.3	22.8	23.4	23.3	23.9	24.3
	8H	22.9	23.4	23.4	23.9	24.4	22.9	23.4	23.4	23.9	24.4
	12H	22.9	23.3	23.4	23.8	24.4	22.9	23.3	23.4	23.8	24.4

12H	4H	22.6	23.1	23.1	23.6	24.1	22.6	23.1	23.1	23.6	24.1
	6H	22.8	23.3	23.3	23.8	24.3	22.8	23.3	23.3	23.8	24.3
	8H	22.9	23.3	23.4	23.8	24.4	22.9	23.3	23.4	23.8	24.4

Maximum UGR = 24.4

POLAR GRAPH



Maximum Candela = 2187.868 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.)