



IES INDOOR REPORT

PHOTOMETRIC FILENAME : V4DR-P32-8TW-POE-LW-OF-WH_4000K.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from UL #12316380.07

[TESTLAB] UL Verification Services Inc.

[ISSUEDATE] 6 OCT 2021

[MANUFAC] WILLIAMS INDOOR

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

[LUMCAT] V4DR-P32-8TW-PoE-LW-OF-WH 4000k

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

[MORE] erved glass 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	2780
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	65
Total Luminaire Watts	42.5
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.00
Spacing Criterion (90-270)	1.00
Spacing Criterion (Diagonal)	0.90
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	76727	76727	76727
55	63046	63046	63046
65	46123	46123	46123
75	31929	31929	31929
85	17405	17405	17405

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CANDELA TABULATION

	<u>0</u>
0.0	1953.085
0.5	1952.468
1.0	1951.234
1.5	1949.589
2.0	1947.943
2.5	1946.092
3.0	1943.623
3.5	1942.184
4.0	1941.155
4.5	1940.538
5.0	1939.715
5.5	1938.892
6.0	1938.275
6.5	1937.453
7.0	1936.835
7.5	1936.424
8.0	1936.218
8.5	1935.601
9.0	1934.984
9.5	1933.750
10.0	1932.927
10.5	1931.487
11.0	1930.047
11.5	1928.196
12.0	1926.139
12.5	1923.671
13.0	1920.791
13.5	1917.500
14.0	1913.386
14.5	1908.449
15.0	1902.484
15.5	1895.285
16.0	1887.263
16.5	1877.801
17.0	1867.516
17.5	1855.997
18.0	1842.421
18.5	1828.434
19.0	1813.212
19.5	1796.139
20.0	1777.421
20.5	1757.057
21.0	1735.047
21.5	1711.392
22.0	1685.269
22.5	1657.500
23.0	1627.674
23.5	1595.585
24.0	1561.028
24.5	1524.209
25.0	1484.304
25.5	1442.547
26.0	1397.911
26.5	1350.601

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CANDELA TABULATION - (Cont.)

27.0	1301.646
27.5	1250.633
28.0	1198.797
28.5	1146.756
29.0	1095.744
29.5	1045.759
30.0	997.627
30.5	952.373
31.0	910.000
31.5	871.329
32.0	836.155
32.5	804.478
33.0	776.297
33.5	751.203
34.0	728.782
34.5	709.035
35.0	691.139
35.5	674.889
36.0	660.491
36.5	646.915
37.0	634.573
37.5	623.054
38.0	612.358
38.5	602.073
39.0	592.611
39.5	583.354
40.0	574.715
40.5	566.076
41.0	557.848
41.5	549.826
42.0	542.215
42.5	534.604
43.0	526.994
43.5	519.383
44.0	511.772
44.5	504.161
45.0	496.551
45.5	488.940
46.0	481.329
46.5	473.718
47.0	465.696
47.5	457.674
48.0	449.652
48.5	441.424
49.0	432.991
49.5	424.557
50.0	416.329
50.5	407.896
51.0	399.462
51.5	391.028
52.0	382.801
52.5	374.573
53.0	366.139
53.5	357.500
54.0	348.655
54.5	339.810

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CANDELA TABULATION - (Cont.)

55.0	330.965
55.5	322.120
56.0	313.481
56.5	305.047
57.0	296.614
57.5	288.180
58.0	279.953
58.5	271.930
59.0	263.908
59.5	256.092
60.0	248.481
60.5	240.870
61.0	233.465
61.5	226.266
62.0	219.066
62.5	211.867
63.0	204.997
63.5	198.168
64.0	191.462
64.5	184.859
65.0	178.400
65.5	172.106
66.0	165.894
66.5	159.847
67.0	153.943
67.5	148.142
68.0	142.527
68.5	137.035
69.0	131.543
69.5	126.236
70.0	121.073
70.5	115.992
71.0	111.035
71.5	106.201
72.0	101.532
72.5	96.924
73.0	92.440
73.5	88.079
74.0	83.801
74.5	79.666
75.0	75.634
75.5	71.726
76.0	67.900
76.5	64.177
77.0	60.619
77.5	57.081
78.0	53.666
78.5	50.354
79.0	47.104
79.5	43.978
80.0	40.913
80.5	37.930
81.0	34.989
81.5	32.130
82.0	29.332
82.5	26.617

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CANDELA TABULATION - (Cont.)

83.0	23.922
83.5	21.310
84.0	18.759
84.5	16.271
85.0	13.884
85.5	11.581
86.0	9.380
86.5	7.302
87.0	5.472
87.5	3.949
88.0	2.756
88.5	1.748
89.0	1.090
89.5	0.741
90.0	0.514
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
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130.0	0.000
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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
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147.0	0.000
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151.0	0.000
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152.0	0.000
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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	717.41	N.A.	25.80
0-30	1376.07	N.A.	49.50
0-40	1824.72	N.A.	65.60
0-60	2502.92	N.A.	90.00
0-80	2762.91	N.A.	99.40
0-90	2780.29	N.A.	100.00
10-90	2595.3	N.A.	93.30
20-40	1107.31	N.A.	39.80
20-50	1489.72	N.A.	53.60
40-70	856.58	N.A.	30.80
60-80	259.98	N.A.	9.40
70-80	81.60	N.A.	2.90
80-90	17.39	N.A.	0.60
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	2780.31	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	184.99
10-20	532.41
20-30	658.66
30-40	448.66
40-50	382.41
50-60	295.79
60-70	178.38
70-80	81.60
80-90	17.39
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	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	202	202	202	202	193	193	193	185	185	185	178	178	178	174
1	194	187	181	176	189	183	178	173	176	172	168	169	166	163	163	161	158	155
2	180	169	159	151	176	165	157	149	160	152	146	154	148	143	149	144	140	136
3	168	153	141	132	164	150	139	131	145	136	129	141	133	127	136	130	125	121
4	156	139	126	117	153	137	125	116	133	123	115	129	120	113	125	118	112	109
5	146	127	114	105	143	125	113	104	122	111	103	119	109	102	116	108	101	98
6	137	117	104	95	134	116	103	94	113	102	94	110	100	93	108	99	92	89
7	128	108	95	86	126	107	95	86	105	94	86	102	92	85	100	91	84	81
8	121	101	88	79	119	100	87	79	97	86	79	95	86	78	94	85	78	75
9	114	94	82	73	112	93	81	73	91	80	73	89	80	72	88	79	72	69
10	108	88	76	68	106	87	76	68	86	75	68	84	74	67	83	74	67	64

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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	22.2	23.6	22.6	23.9	24.2	22.2	23.6	22.6	23.9	24.2
	3H	23.3	24.5	23.7	24.9	25.2	23.3	24.5	23.7	24.9	25.2
	4H	23.7	24.8	24.1	25.1	25.5	23.7	24.8	24.1	25.1	25.5
	6H	23.9	24.9	24.3	25.3	25.7	23.9	24.9	24.3	25.3	25.7
	8H	23.9	24.9	24.4	25.3	25.7	23.9	24.9	24.4	25.3	25.7
	12H	23.9	24.9	24.4	25.3	25.7	23.9	24.9	24.4	25.3	25.7

UGR Viewed Endwise

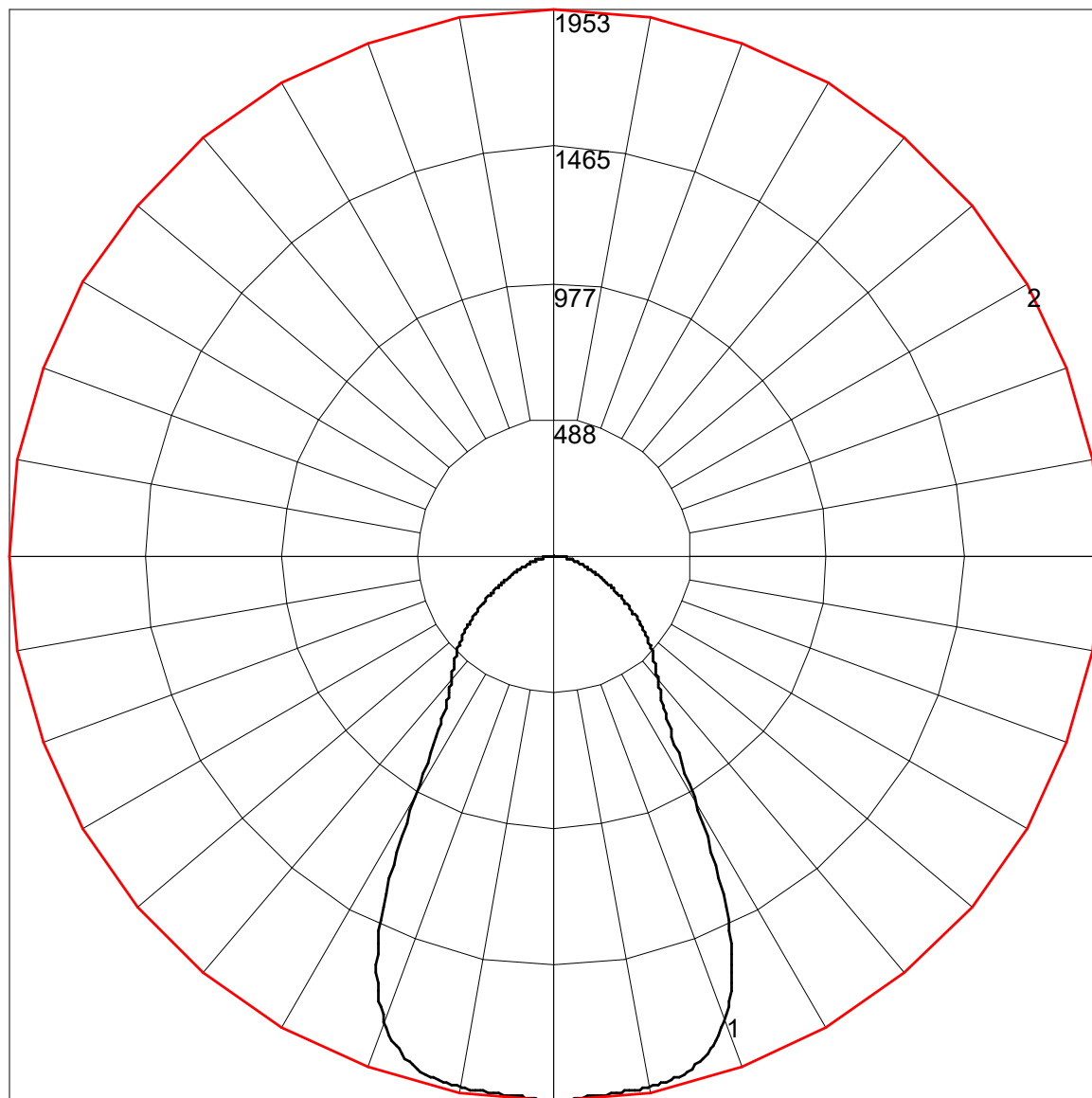
4H	2H	22.6	23.7	23.0	24.1	24.4	22.6	23.7	23.0	24.1	24.4
	3H	23.9	24.8	24.3	25.2	25.6	23.9	24.8	24.3	25.2	25.6
	4H	24.3	25.2	24.7	25.6	26.0	24.3	25.2	24.7	25.6	26.0
	6H	24.6	25.4	25.1	25.8	26.3	24.6	25.4	25.1	25.8	26.3
	8H	24.7	25.4	25.2	25.8	26.3	24.7	25.4	25.2	25.8	26.3
	12H	24.7	25.3	25.2	25.8	26.3	24.7	25.3	25.2	25.8	26.3

8H	4H	24.4	25.1	24.9	25.6	26.0	24.4	25.1	24.9	25.6	26.0
	6H	24.8	25.4	25.3	25.9	26.4	24.8	25.4	25.3	25.9	26.4
	8H	24.9	25.4	25.4	26.0	26.4	24.9	25.4	25.4	26.0	26.4
	12H	25.0	25.4	25.5	25.9	26.5	25.0	25.4	25.5	25.9	26.5

12H	4H	24.4	25.0	24.9	25.5	26.0	24.4	25.0	24.9	25.5	26.0
	6H	24.8	25.3	25.4	25.8	26.3	24.8	25.3	25.4	25.8	26.3
	8H	25.0	25.4	25.5	25.9	26.5	25.0	25.4	25.5	25.9	26.5

Maximum UGR = 26.5

POLAR GRAPH



Maximum Candela = 1953.085 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.)