



IES INDOOR REPORT

PHOTOMETRIC FILENAME : V4DR-L14-835-DIM-UNV-LW-OF-WH_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST]GEN from UL #12316380.07

[TESTLAB] UL Verification Services Inc.

[ISSUE DATE] 10 SEP 2021

[MANUFAC] WILLIAMS INDOOR

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

[LUMCAT] V4DR-L14-835-DIM-UNV-LW-OF-WH

[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	1352
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	62
Total Luminaire Watts	21.7
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	37301	37301	37301
55	30650	30650	30650
65	22423	22423	22423
75	15523	15523	15523
85	8462	8462	8462

IES INDOOR REPORT
PHOTOMETRIC FILENAME : V4DR-L14-835-DIM-UNV-LW-OF-WH_.IES

CANDELA TABULATION

	<u>0</u>
0.0	949.50
0.5	949.20
1.0	948.60
1.5	947.80
2.0	947.00
2.5	946.10
3.0	944.90
3.5	944.20
4.0	943.70
4.5	943.40
5.0	943.00
5.5	942.60
6.0	942.30
6.5	941.90
7.0	941.60
7.5	941.40
8.0	941.30
8.5	941.00
9.0	940.70
9.5	940.10
10.0	939.70
10.5	939.00
11.0	938.30
11.5	937.40
12.0	936.40
12.5	935.20
13.0	933.80
13.5	932.20
14.0	930.20
14.5	927.80
15.0	924.90
15.5	921.40
16.0	917.50
16.5	912.90
17.0	907.90
17.5	902.30
18.0	895.70
18.5	888.90
19.0	881.50
19.5	873.20
20.0	864.10
20.5	854.20
21.0	843.50
21.5	832.00
22.0	819.30
22.5	805.80
23.0	791.30
23.5	775.70
24.0	758.90
24.5	741.00
25.0	721.60
25.5	701.30
26.0	679.60
26.5	656.60

IES INDOOR REPORT
PHOTOMETRIC FILENAME : V4DR-L14-835-DIM-UNV-LW-OF-WH_.IES

CANDELA TABULATION - (Cont.)

27.0	632.80
27.5	608.00
28.0	582.80
28.5	557.50
29.0	532.70
29.5	508.40
30.0	485.00
30.5	463.00
31.0	442.40
31.5	423.60
32.0	406.50
32.5	391.10
33.0	377.40
33.5	365.20
34.0	354.30
34.5	344.70
35.0	336.00
35.5	328.10
36.0	321.10
36.5	314.50
37.0	308.50
37.5	302.90
38.0	297.70
38.5	292.70
39.0	288.10
39.5	283.60
40.0	279.40
40.5	275.20
41.0	271.20
41.5	267.30
42.0	263.60
42.5	259.90
43.0	256.20
43.5	252.50
44.0	248.80
44.5	245.10
45.0	241.40
45.5	237.70
46.0	234.00
46.5	230.30
47.0	226.40
47.5	222.50
48.0	218.60
48.5	214.60
49.0	210.50
49.5	206.40
50.0	202.40
50.5	198.30
51.0	194.20
51.5	190.10
52.0	186.10
52.5	182.10
53.0	178.00
53.5	173.80
54.0	169.50
54.5	165.20

IES INDOOR REPORT
PHOTOMETRIC FILENAME : V4DR-L14-835-DIM-UNV-LW-OF-WH_.IES

CANDELA TABULATION - (Cont.)

55.0	160.90
55.5	156.60
56.0	152.40
56.5	148.30
57.0	144.20
57.5	140.10
58.0	136.10
58.5	132.20
59.0	128.30
59.5	124.50
60.0	120.80
60.5	117.10
61.0	113.50
61.5	110.00
62.0	106.50
62.5	103.00
63.0	99.66
63.5	96.34
64.0	93.08
64.5	89.87
65.0	86.73
65.5	83.67
66.0	80.65
66.5	77.71
67.0	74.84
67.5	72.02
68.0	69.29
68.5	66.62
69.0	63.95
69.5	61.37
70.0	58.86
70.5	56.39
71.0	53.98
71.5	51.63
72.0	49.36
72.5	47.12
73.0	44.94
73.5	42.82
74.0	40.74
74.5	38.73
75.0	36.77
75.5	34.87
76.0	33.01
76.5	31.20
77.0	29.47
77.5	27.75
78.0	26.09
78.5	24.48
79.0	22.90
79.5	21.38
80.0	19.89
80.5	18.44
81.0	17.01
81.5	15.62
82.0	14.26
82.5	12.94

IES INDOOR REPORT
PHOTOMETRIC FILENAME : V4DR-L14-835-DIM-UNV-LW-OF-WH_.IES

CANDELA TABULATION - (Cont.)

83.0	11.63
83.5	10.36
84.0	9.12
84.5	7.91
85.0	6.75
85.5	5.63
86.0	4.56
86.5	3.55
87.0	2.66
87.5	1.92
88.0	1.34
88.5	0.85
89.0	0.53
89.5	0.36
90.0	0.25
90.5	0.00
91.0	0.00
91.5	0.00
92.0	0.00
92.5	0.00
93.0	0.00
93.5	0.00
94.0	0.00
94.5	0.00
95.0	0.00
95.5	0.00
96.0	0.00
96.5	0.00
97.0	0.00
97.5	0.00
98.0	0.00
98.5	0.00
99.0	0.00
99.5	0.00
100.0	0.00
100.5	0.00
101.0	0.00
101.5	0.00
102.0	0.00
102.5	0.00
103.0	0.00
103.5	0.00
104.0	0.00
104.5	0.00
105.0	0.00
105.5	0.00
106.0	0.00
106.5	0.00
107.0	0.00
107.5	0.00
108.0	0.00
108.5	0.00
109.0	0.00
109.5	0.00
110.0	0.00
110.5	0.00

IES INDOOR REPORT
PHOTOMETRIC FILENAME : V4DR-L14-835-DIM-UNV-LW-OF-WH_.IES

CANDELA TABULATION - (Cont.)

111.0	0.00
111.5	0.00
112.0	0.00
112.5	0.00
113.0	0.00
113.5	0.00
114.0	0.00
114.5	0.00
115.0	0.00
115.5	0.00
116.0	0.00
116.5	0.00
117.0	0.00
117.5	0.00
118.0	0.00
118.5	0.00
119.0	0.00
119.5	0.00
120.0	0.00
120.5	0.00
121.0	0.00
121.5	0.00
122.0	0.00
122.5	0.00
123.0	0.00
123.5	0.00
124.0	0.00
124.5	0.00
125.0	0.00
125.5	0.00
126.0	0.00
126.5	0.00
127.0	0.00
127.5	0.00
128.0	0.00
128.5	0.00
129.0	0.00
129.5	0.00
130.0	0.00
130.5	0.00
131.0	0.00
131.5	0.00
132.0	0.00
132.5	0.00
133.0	0.00
133.5	0.00
134.0	0.00
134.5	0.00
135.0	0.00
135.5	0.00
136.0	0.00
136.5	0.00
137.0	0.00
137.5	0.00
138.0	0.00
138.5	0.00

IES INDOOR REPORT
PHOTOMETRIC FILENAME : V4DR-L14-835-DIM-UNV-LW-OF-WH_.IES

CANDELA TABULATION - (Cont.)

139.0	0.00
139.5	0.00
140.0	0.00
140.5	0.00
141.0	0.00
141.5	0.00
142.0	0.00
142.5	0.00
143.0	0.00
143.5	0.00
144.0	0.00
144.5	0.00
145.0	0.00
145.5	0.00
146.0	0.00
146.5	0.00
147.0	0.00
147.5	0.00
148.0	0.00
148.5	0.00
149.0	0.00
149.5	0.00
150.0	0.00
150.5	0.00
151.0	0.00
151.5	0.00
152.0	0.00
152.5	0.00
153.0	0.00
153.5	0.00
154.0	0.00
154.5	0.00
155.0	0.00
155.5	0.00
156.0	0.00
156.5	0.00
157.0	0.00
157.5	0.00
158.0	0.00
158.5	0.00
159.0	0.00
159.5	0.00
160.0	0.00
160.5	0.00
161.0	0.00
161.5	0.00
162.0	0.00
162.5	0.00
163.0	0.00
163.5	0.00
164.0	0.00
164.5	0.00
165.0	0.00
165.5	0.00
166.0	0.00
166.5	0.00

IES INDOOR REPORT
PHOTOMETRIC FILENAME : V4DR-L14-835-DIM-UNV-LW-OF-WH_.IES

CANDELA TABULATION - (Cont.)

167.0	0.00
167.5	0.00
168.0	0.00
168.5	0.00
169.0	0.00
169.5	0.00
170.0	0.00
170.5	0.00
171.0	0.00
171.5	0.00
172.0	0.00
172.5	0.00
173.0	0.00
173.5	0.00
174.0	0.00
174.5	0.00
175.0	0.00
175.5	0.00
176.0	0.00
176.5	0.00
177.0	0.00
177.5	0.00
178.0	0.00
178.5	0.00
179.0	0.00
179.5	0.00
180.0	0.00

IES INDOOR REPORT
PHOTOMETRIC FILENAME : V4DR-L14-835-DIM-UNV-LW-OF-WH_.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	348.77	N.A.	25.80
0-30	668.98	N.A.	49.50
0-40	887.10	N.A.	65.60
0-60	1216.81	N.A.	90.00
0-80	1343.2	N.A.	99.40
0-90	1351.65	N.A.	100.00
10-90	1261.72	N.A.	93.30
20-40	538.33	N.A.	39.80
20-50	724.24	N.A.	53.60
40-70	416.43	N.A.	30.80
60-80	126.39	N.A.	9.40
70-80	39.67	N.A.	2.90
80-90	8.45	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	1351.66	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	89.94
10-20	258.83
20-30	320.21
30-40	218.12
40-50	185.91
50-60	143.80
60-70	86.72
70-80	39.67
80-90	8.45
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

IES INDOOR REPORT
PHOTOMETRIC FILENAME : V4DR-L14-835-DIM-UNV-LW-OF-WH_.IES

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	162	162	162	162	158	158	158	158	151	151	151	145	145	145	139	139	139	136
1	151	146	142	138	148	143	139	135	138	134	131	132	130	127	128	125	123	121
2	141	132	124	118	137	129	123	117	125	119	114	120	116	112	116	113	109	107
3	131	119	110	103	128	117	109	102	113	106	101	110	104	99	107	102	97	95
4	122	109	99	91	119	107	98	91	104	96	90	101	94	88	98	92	87	85
5	114	99	89	82	111	98	88	81	95	87	81	93	86	80	91	84	79	77
6	107	92	81	74	104	90	81	74	88	79	73	86	78	73	84	77	72	70
7	100	85	75	67	98	84	74	67	82	73	67	80	72	66	78	71	66	64
8	94	79	69	62	93	78	68	62	76	68	61	75	67	61	73	66	61	59
9	89	73	64	57	87	73	63	57	71	63	57	70	62	57	69	62	56	54
10	84	69	59	53	83	68	59	53	67	59	53	66	58	53	65	58	52	50

IES INDOOR REPORT
PHOTOMETRIC FILENAME : V4DR-L14-835-DIM-UNV-LW-OF-WH_.IES

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	20.6	22.0	21.0	22.3	22.6	20.6	22.0	21.0	22.3	22.6
	3H	21.7	22.9	22.1	23.3	23.6	21.7	22.9	22.1	23.3	23.6
	4H	22.1	23.2	22.5	23.6	23.9	22.1	23.2	22.5	23.6	23.9
	6H	22.3	23.3	22.7	23.7	24.1	22.3	23.3	22.7	23.7	24.1
	8H	22.3	23.3	22.8	23.7	24.1	22.3	23.3	22.8	23.7	24.1
	12H	22.3	23.3	22.8	23.7	24.1	22.3	23.3	22.8	23.7	24.1

UGR Viewed Endwise

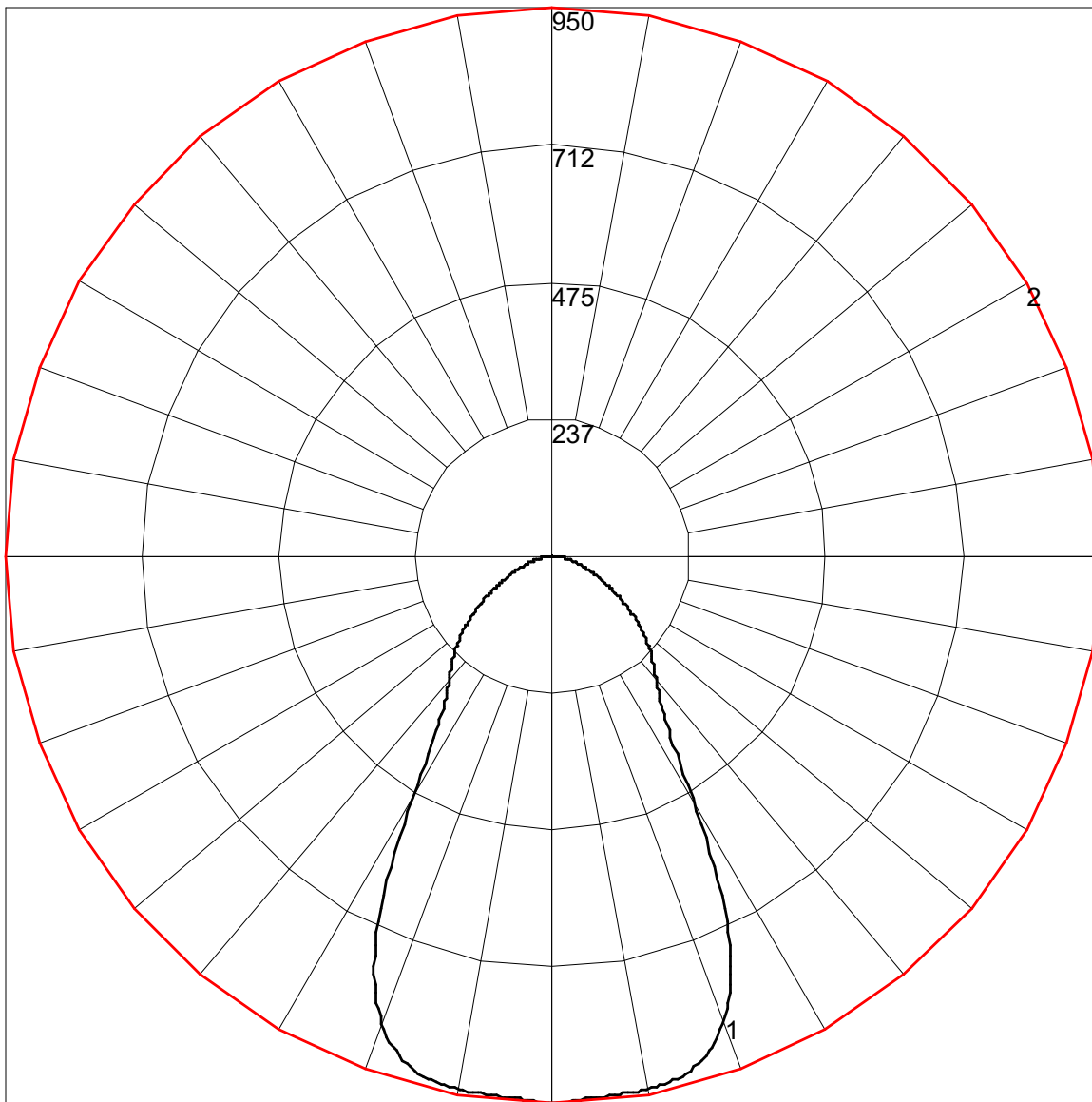
4H	2H	21.0	22.1	21.4	22.5	22.8	21.0	22.1	21.4	22.5	22.8
	3H	22.3	23.2	22.7	23.6	24.0	22.3	23.2	22.7	23.6	24.0
	4H	22.7	23.6	23.1	24.0	24.4	22.7	23.6	23.1	24.0	24.4
	6H	23.0	23.8	23.5	24.2	24.7	23.0	23.8	23.5	24.2	24.7
	8H	23.1	23.8	23.6	24.2	24.7	23.1	23.8	23.6	24.2	24.7
	12H	23.1	23.7	23.6	24.2	24.7	23.1	23.7	23.6	24.2	24.7

8H	4H	22.8	23.5	23.3	24.0	24.4	22.8	23.5	23.3	24.0	24.4
	6H	23.2	23.8	23.7	24.3	24.8	23.2	23.8	23.7	24.3	24.8
	8H	23.3	23.8	23.9	24.4	24.8	23.3	23.8	23.9	24.4	24.8
	12H	23.4	23.9	23.9	24.3	24.9	23.4	23.9	23.9	24.3	24.9

12H	4H	22.8	23.4	23.3	23.9	24.4	22.8	23.4	23.3	23.9	24.4
	6H	23.2	23.7	23.8	24.2	24.7	23.2	23.7	23.8	24.2	24.7
	8H	23.4	23.8	23.9	24.3	24.9	23.4	23.8	23.9	24.3	24.9

Maximum UGR = 24.9

POLAR GRAPH



Maximum Candela = 949.5 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.)