



IES INDOOR REPORT

PHOTOMETRIC FILENAME : V4DR-P8-835-POE-LN-OF-WH_.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-P8-835-PoE-LN-OF-WH

[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	1115
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	97
Total Luminaire Watts	11.5
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	7322	7322	7322
55	5492	5492	5492
65	4545	4545	4545
75	3698	3698	3698
85	2058	2058	2058

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CANDELA TABULATION

	<u>0</u>
0.0	4188.093
0.5	4183.227
1.0	4169.236
1.5	4147.338
2.0	4116.315
2.5	4077.992
3.0	4031.762
3.5	3978.232
4.0	3917.403
4.5	3850.491
5.0	3778.104
5.5	3699.634
6.0	3615.690
6.5	3525.054
7.0	3429.553
7.5	3329.793
8.0	3223.950
8.5	3115.065
9.0	3002.531
9.5	2887.564
10.0	2770.772
10.5	2652.155
11.0	2531.105
11.5	2410.054
12.0	2290.221
12.5	2170.996
13.0	2053.595
13.5	1938.020
14.0	1825.485
14.5	1716.601
15.0	1611.975
15.5	1510.998
16.0	1414.280
16.5	1321.819
17.0	1234.834
17.5	1151.498
18.0	1073.028
18.5	999.424
19.0	930.687
19.5	866.817
20.0	806.596
20.5	749.416
21.0	695.887
21.5	647.223
22.0	600.324
22.5	556.709
23.0	515.954
23.5	478.239
24.0	443.141
24.5	410.293
25.0	380.061
25.5	352.201
26.0	326.349
26.5	302.625

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CANDELA TABULATION - (Cont.)

27.0	280.727
27.5	260.653
28.0	242.283
28.5	225.433
29.0	209.983
29.5	195.748
30.0	182.792
30.5	170.869
31.0	159.920
31.5	149.944
32.0	140.881
32.5	132.425
33.0	124.700
33.5	117.583
34.0	111.135
34.5	105.174
35.0	99.760
35.5	94.833
36.0	90.210
36.5	86.013
37.0	82.180
37.5	78.591
38.0	75.367
38.5	72.387
39.0	69.589
39.5	66.973
40.0	64.540
40.5	62.289
41.0	60.221
41.5	58.274
42.0	56.450
42.5	54.746
43.0	53.104
43.5	51.583
44.0	50.123
44.5	48.724
45.0	47.386
45.5	46.169
46.0	44.953
46.5	43.797
47.0	42.702
47.5	41.607
48.0	40.573
48.5	39.539
49.0	38.566
49.5	37.592
50.0	36.680
50.5	35.828
51.0	34.916
51.5	34.125
52.0	33.274
52.5	32.483
53.0	31.753
53.5	30.962
54.0	30.232
54.5	29.563

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CANDELA TABULATION - (Cont.)

55.0	28.833
55.5	28.164
56.0	27.495
56.5	26.826
57.0	26.217
57.5	25.609
58.0	25.001
58.5	24.393
59.0	23.845
59.5	23.298
60.0	22.750
60.5	22.203
61.0	21.655
61.5	21.108
62.0	20.560
62.5	20.074
63.0	19.526
63.5	19.040
64.0	18.553
64.5	18.066
65.0	17.580
65.5	17.093
66.0	16.606
66.5	16.120
67.0	15.694
67.5	15.207
68.0	14.782
68.5	14.295
69.0	13.869
69.5	13.382
70.0	12.957
70.5	12.531
71.0	12.105
71.5	11.679
72.0	11.253
72.5	10.828
73.0	10.402
73.5	9.976
74.0	9.550
74.5	9.185
75.0	8.759
75.5	8.334
76.0	7.969
76.5	7.543
77.0	7.178
77.5	6.752
78.0	6.387
78.5	6.022
79.0	5.657
79.5	5.292
80.0	4.927
80.5	4.562
81.0	4.197
81.5	3.893
82.0	3.528
82.5	3.224

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CANDELA TABULATION - (Cont.)

83.0	2.859
83.5	2.555
84.0	2.251
84.5	1.947
85.0	1.642
85.5	1.399
86.0	1.217
86.5	0.973
87.0	0.791
87.5	0.669
88.0	0.487
88.5	0.365
89.0	0.243
89.5	0.182
90.0	0.122
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
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128.5	0.000
129.0	0.000
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130.0	0.000
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131.0	0.000
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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
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151.0	0.000
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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	771.86	N.A.	69.20
0-30	956.76	N.A.	85.80
0-40	1022.89	N.A.	91.70
0-60	1086.12	N.A.	97.40
0-80	1112.88	N.A.	99.80
0-90	1115.03	N.A.	100.00
10-90	787.07	N.A.	70.60
20-40	251.03	N.A.	22.50
20-50	288.25	N.A.	25.90
40-70	80.69	N.A.	7.20
60-80	26.76	N.A.	2.40
70-80	9.29	N.A.	0.80
80-90	2.15	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	1115.03	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	327.95
10-20	443.91
20-30	184.90
30-40	66.13
40-50	37.22
50-60	26.00
60-70	17.47
70-80	9.29
80-90	2.15
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	84	84	84	84	82	82	82	82	79	79	79	75	75	75	72	72	72	71
1	81	79	77	76	79	77	76	75	75	73	72	72	71	70	70	69	68	67
2	77	74	72	70	76	73	71	69	71	69	68	69	67	66	67	66	65	64
3	74	71	68	65	73	70	67	65	68	65	64	66	64	63	65	63	62	61
4	72	67	64	61	70	66	63	61	65	62	60	64	61	60	62	60	59	58
5	69	64	61	58	68	64	60	58	62	60	57	61	59	57	60	58	57	56
6	67	61	58	56	66	61	58	55	60	57	55	59	57	55	58	56	54	53
7	64	59	56	53	64	59	55	53	58	55	53	57	55	53	56	54	52	52
8	62	57	54	51	62	57	53	51	56	53	51	55	53	51	55	52	51	50
9	60	55	52	49	60	55	52	49	54	51	49	54	51	49	53	51	49	48
10	59	53	50	48	58	53	50	48	52	50	48	52	49	47	51	49	47	47

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UGR TABLE - CORRECTED

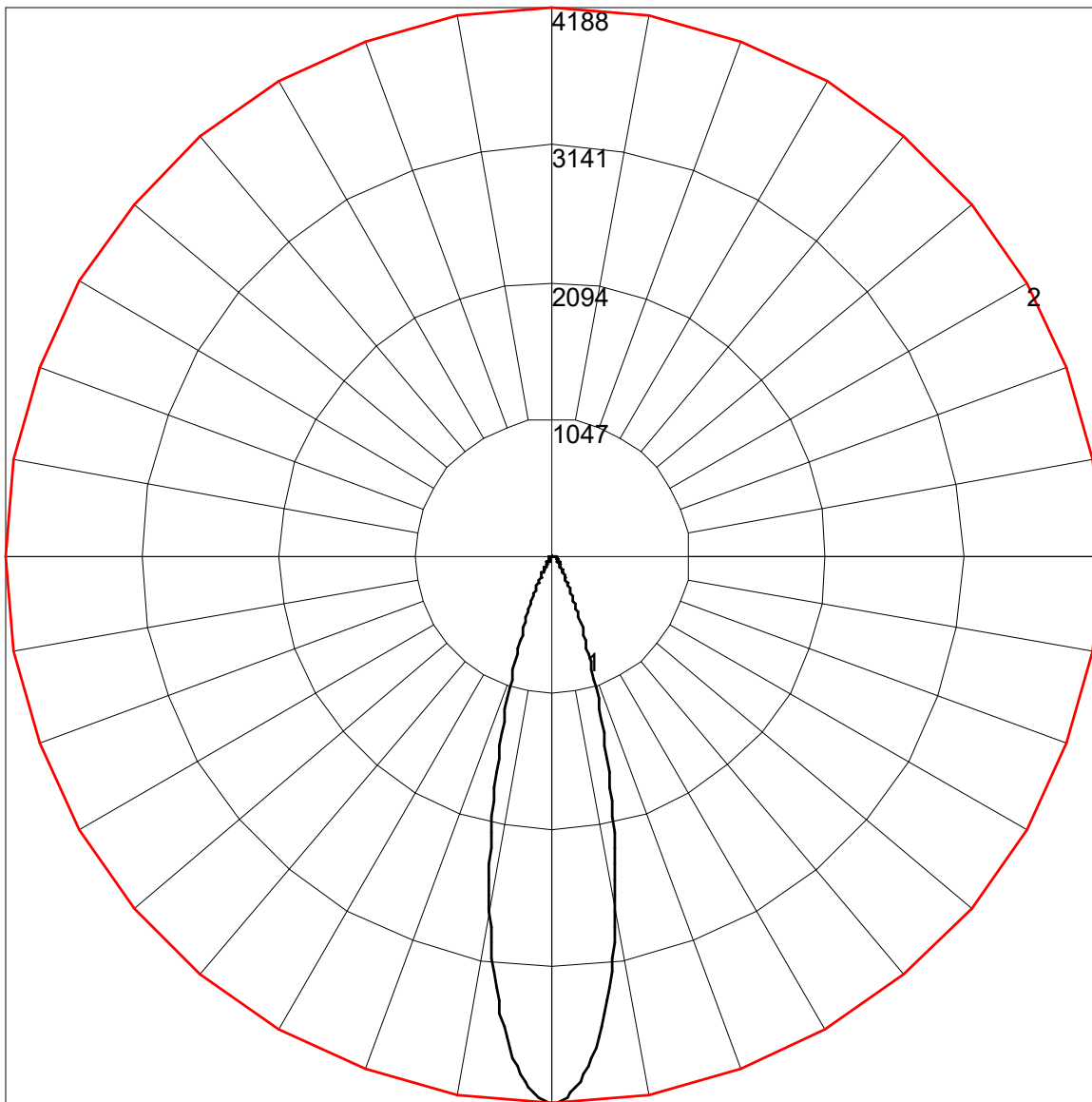
Reflectances

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					UGR Viewed Endwise				
X=2H	Y=2H	12.2	13.2	12.6	13.5	13.9	12.2	13.2	12.6	13.5	13.9
	3H	13.7	14.6	14.1	14.9	15.3	13.7	14.6	14.1	14.9	15.3
	4H	14.2	15.0	14.6	15.4	15.8	14.2	15.0	14.6	15.4	15.8
	6H	14.5	15.3	14.9	15.6	16.0	14.5	15.3	14.9	15.6	16.0
	8H	14.6	15.3	15.0	15.7	16.1	14.6	15.3	15.0	15.7	16.1
	12H	14.6	15.3	15.1	15.7	16.1	14.6	15.3	15.1	15.7	16.1
4H	2H	12.7	13.5	13.1	13.8	14.2	12.7	13.5	13.1	13.8	14.2
	3H	14.3	15.0	14.7	15.4	15.8	14.3	15.0	14.7	15.4	15.8
	4H	14.9	15.5	15.4	15.9	16.4	14.9	15.5	15.4	15.9	16.4
	6H	15.4	15.9	15.8	16.3	16.8	15.4	15.9	15.8	16.3	16.8
	8H	15.5	15.9	16.0	16.4	16.9	15.5	15.9	16.0	16.4	16.9
	12H	15.5	15.9	16.0	16.4	16.9	15.5	15.9	16.0	16.4	16.9
8H	4H	15.1	15.6	15.6	16.0	16.5	15.1	15.6	15.6	16.0	16.5
	6H	15.6	16.0	16.2	16.5	17.0	15.6	16.0	16.2	16.5	17.0
	8H	15.8	16.1	16.3	16.6	17.1	15.8	16.1	16.3	16.6	17.1
	12H	15.9	16.2	16.4	16.7	17.2	15.9	16.2	16.4	16.7	17.2
12H	4H	15.1	15.5	15.6	16.0	16.4	15.1	15.5	15.6	16.0	16.4
	6H	15.7	16.0	16.2	16.4	17.0	15.7	16.0	16.2	16.4	17.0
	8H	15.8	16.1	16.4	16.6	17.2	15.8	16.1	16.4	16.6	17.2

Maximum UGR = 17.2

POLAR GRAPH



Maximum Candela = 4188.093 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.)