



IES INDOOR REPORT

PHOTOMETRIC FILENAME : V4DR-P8-835-POE-LM-OF-WH_.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-P8-835-PoE-LM-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	1092
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	95
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	8286	8286	8286
55	6458	6458	6458
65	5398	5398	5398
75	4343	4343	4343
85	2595	2595	2595

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CANDELA TABULATION

	<u>0</u>
0.0	2825.565
0.5	2824.348
1.0	2820.087
1.5	2813.391
2.0	2804.869
2.5	2793.304
3.0	2779.913
3.5	2764.087
4.0	2745.826
4.5	2726.348
5.0	2704.435
5.5	2680.087
6.0	2653.304
6.5	2623.478
7.0	2591.217
7.5	2555.913
8.0	2517.565
8.5	2476.174
9.0	2432.348
9.5	2384.869
10.0	2333.739
10.5	2278.956
11.0	2221.739
11.5	2161.478
12.0	2097.565
12.5	2031.217
13.0	1961.826
13.5	1890.000
14.0	1815.130
14.5	1737.826
15.0	1659.913
15.5	1580.783
16.0	1501.652
16.5	1421.913
17.0	1342.783
17.5	1266.087
18.0	1190.000
18.5	1116.956
19.0	1046.956
19.5	979.391
20.0	915.478
20.5	854.000
21.0	796.783
21.5	742.609
22.0	691.478
22.5	644.000
23.0	599.200
23.5	557.443
24.0	518.670
24.5	482.452
25.0	448.852
25.5	417.626
26.0	388.348
26.5	361.322

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CANDELA TABULATION - (Cont.)

27.0	336.122
27.5	313.052
28.0	291.565
28.5	271.722
29.0	253.522
29.5	236.539
30.0	220.774
30.5	206.226
31.0	192.774
31.5	180.417
32.0	168.974
32.5	158.443
33.0	148.765
33.5	139.817
34.0	131.661
34.5	124.113
35.0	117.296
35.5	110.965
36.0	105.183
36.5	99.887
37.0	95.017
37.5	90.574
38.0	86.557
38.5	82.843
39.0	79.435
39.5	76.330
40.0	73.470
40.5	70.791
41.0	68.296
41.5	66.043
42.0	63.913
42.5	61.904
43.0	60.078
43.5	58.313
44.0	56.670
44.5	55.148
45.0	53.626
45.5	52.226
46.0	50.948
46.5	49.670
47.0	48.452
47.5	47.357
48.0	46.200
48.5	45.165
49.0	44.130
49.5	43.096
50.0	42.183
50.5	41.270
51.0	40.417
51.5	39.504
52.0	38.652
52.5	37.861
53.0	37.009
53.5	36.217
54.0	35.426
54.5	34.635

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CANDELA TABULATION - (Cont.)

55.0	33.904
55.5	33.174
56.0	32.443
56.5	31.713
57.0	30.922
57.5	30.252
58.0	29.583
58.5	28.974
59.0	28.304
59.5	27.635
60.0	26.965
60.5	26.296
61.0	25.748
61.5	25.078
62.0	24.470
62.5	23.861
63.0	23.252
63.5	22.704
64.0	22.096
64.5	21.487
65.0	20.878
65.5	20.330
66.0	19.783
66.5	19.235
67.0	18.626
67.5	18.078
68.0	17.530
68.5	16.983
69.0	16.435
69.5	15.887
70.0	15.339
70.5	14.852
71.0	14.365
71.5	13.757
72.0	13.270
72.5	12.783
73.0	12.296
73.5	11.748
74.0	11.261
74.5	10.774
75.0	10.287
75.5	9.800
76.0	9.313
76.5	8.826
77.0	8.339
77.5	7.974
78.0	7.487
78.5	7.061
79.0	6.635
79.5	6.209
80.0	5.783
80.5	5.357
81.0	4.930
81.5	4.626
82.0	4.139
82.5	3.835

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CANDELA TABULATION - (Cont.)

83.0	3.409
83.5	3.104
84.0	2.739
84.5	2.374
85.0	2.070
85.5	1.704
86.0	1.461
86.5	1.157
87.0	0.974
87.5	0.791
88.0	0.609
88.5	0.487
89.0	0.365
89.5	0.243
90.0	0.183
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
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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
149.0	0.000
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150.0	0.000
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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
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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	690.62	N.A.	63.20
0-30	907.03	N.A.	83.10
0-40	985.04	N.A.	90.20
0-60	1057.77	N.A.	96.90
0-80	1089.47	N.A.	99.80
0-90	1092.05	N.A.	100.00
10-90	845.45	N.A.	77.40
20-40	294.42	N.A.	27.00
20-50	336.67	N.A.	30.80
40-70	93.49	N.A.	8.60
60-80	31.70	N.A.	2.90
70-80	10.94	N.A.	1.00
80-90	2.58	N.A.	0.20
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	1092.05	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	246.60
10-20	444.02
20-30	216.41
30-40	78.01
40-50	42.25
50-60	30.48
60-70	20.76
70-80	10.94
80-90	2.58
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	84	84	84	84	82	82	82	82	79	79	79	75	75	75	72	72	72	71
1	81	79	77	75	79	77	76	74	74	73	72	72	71	70	69	69	68	67
2	77	74	71	69	75	73	70	68	70	68	67	68	67	65	66	65	64	63
3	74	70	66	64	72	69	66	63	67	64	62	65	63	61	64	62	60	59
4	71	66	62	60	69	65	62	59	64	61	59	62	60	58	61	59	57	56
5	68	63	59	56	67	62	59	56	61	58	56	60	57	55	59	56	55	54
6	65	60	56	53	64	59	56	53	58	55	53	57	55	52	56	54	52	51
7	63	57	53	51	62	57	53	51	56	53	50	55	52	50	54	52	50	49
8	60	55	51	49	60	54	51	48	54	51	48	53	50	48	52	50	48	47
9	58	53	49	47	58	52	49	47	52	49	46	51	48	46	50	48	46	45
10	56	51	47	45	56	50	47	45	50	47	45	49	46	45	49	46	44	44

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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	13.4	14.5	13.8	14.8	15.1	13.4	14.5	13.8	14.8	15.1
	3H	14.9	15.8	15.3	16.1	16.5	14.9	15.8	15.3	16.1	16.5
	4H	15.4	16.2	15.8	16.6	17.0	15.4	16.2	15.8	16.6	17.0
	6H	15.7	16.5	16.1	16.9	17.3	15.7	16.5	16.1	16.9	17.3
	8H	15.8	16.5	16.2	16.9	17.3	15.8	16.5	16.2	16.9	17.3
	12H	15.8	16.5	16.3	16.9	17.3	15.8	16.5	16.3	16.9	17.3

UGR Viewed Endwise

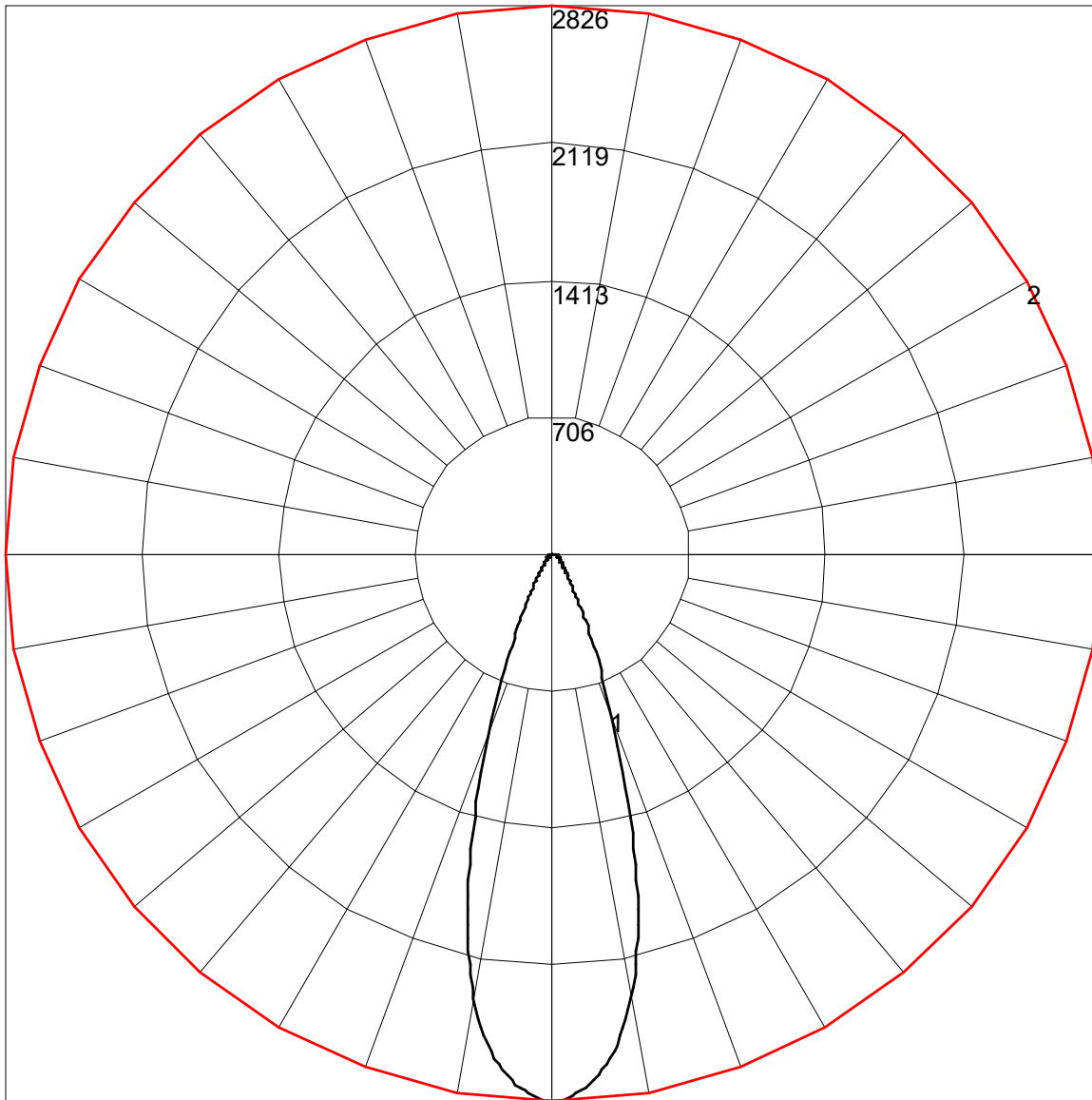
4H	2H	13.9	14.7	14.3	15.1	15.5	13.9	14.7	14.3	15.1	15.5
	3H	15.5	16.2	15.9	16.6	17.0	15.5	16.2	15.9	16.6	17.0
	4H	16.1	16.8	16.6	17.2	17.6	16.1	16.8	16.6	17.2	17.6
	6H	16.6	17.1	17.1	17.6	18.0	16.6	17.1	17.1	17.6	18.0
	8H	16.7	17.2	17.2	17.6	18.1	16.7	17.2	17.2	17.6	18.1
	12H	16.7	17.2	17.2	17.6	18.1	16.7	17.2	17.2	17.6	18.1

8H	4H	16.3	16.8	16.8	17.2	17.7	16.3	16.8	16.8	17.2	17.7
	6H	16.8	17.2	17.4	17.7	18.2	16.8	17.2	17.4	17.7	18.2
	8H	17.0	17.3	17.5	17.9	18.4	17.0	17.3	17.5	17.9	18.4
	12H	17.1	17.4	17.6	17.9	18.5	17.1	17.4	17.6	17.9	18.5

12H	4H	16.3	16.7	16.8	17.2	17.7	16.3	16.7	16.8	17.2	17.7
	6H	16.9	17.2	17.4	17.7	18.2	16.9	17.2	17.4	17.7	18.2
	8H	17.0	17.3	17.6	17.8	18.4	17.0	17.3	17.6	17.8	18.4

Maximum UGR = 18.5

POLAR GRAPH



Maximum Candela = 2825.565 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.)