



IES INDOOR REPORT

PHOTOMETRIC FILENAME : V4DR-P8-835-POE-RN-OF-WH_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from UL #12316380.15

[TESTLAB] UL Verification Services Inc.

[ISSUEDATE] 8 OCT 2021

[MANUFAC] WILLIAMS INDOOR

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

[LUMCAT] V4DR-P8-835-PoE-RN-OF-WH

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

[MORE] tic optic, clear glass 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	1077
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	94
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)	0.46
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	5390	5390	5390
55	3586	3586	3586
65	2469	2469	2469
75	1603	1603	1603
85	1293	1293	1293

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CANDELA TABULATION

	<u>0</u>
0.0	4039.511
0.5	4034.640
1.0	4021.855
1.5	3999.329
2.0	3968.888
2.5	3930.532
3.0	3884.871
3.5	3832.512
4.0	3773.457
4.5	3708.313
5.0	3637.690
5.5	3561.588
6.0	3480.006
6.5	3392.337
7.0	3299.796
7.5	3203.603
8.0	3103.757
8.5	2999.649
9.0	2893.714
9.5	2784.736
10.0	2675.148
10.5	2563.735
11.0	2451.712
11.5	2339.689
12.0	2228.276
12.5	2118.688
13.0	2009.710
13.5	1903.167
14.0	1798.450
14.5	1696.777
15.0	1598.757
15.5	1504.390
16.0	1412.459
16.5	1325.398
17.0	1241.990
17.5	1162.234
18.0	1086.741
18.5	1014.900
19.0	947.322
19.5	884.004
20.0	824.340
20.5	767.720
21.0	714.753
21.5	666.047
22.0	619.168
22.5	575.212
23.0	533.325
23.5	494.543
24.0	458.379
24.5	424.529
25.0	392.931
25.5	363.586
26.0	336.555
26.5	311.532

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CANDELA TABULATION - (Cont.)

27.0	288.458
27.5	267.210
28.0	247.667
28.5	229.890
29.0	213.513
29.5	198.475
30.0	184.655
30.5	171.869
31.0	160.241
31.5	149.526
32.0	139.602
32.5	130.470
33.0	122.129
33.5	114.458
34.0	107.335
34.5	100.820
35.0	94.915
35.5	89.435
36.0	84.443
36.5	79.877
37.0	75.676
37.5	71.841
38.0	68.309
38.5	65.083
39.0	62.160
39.5	59.421
40.0	56.864
40.5	54.489
41.0	52.298
41.5	50.228
42.0	48.340
42.5	46.575
43.0	44.870
43.5	43.287
44.0	41.826
44.5	40.426
45.0	39.147
45.5	37.869
46.0	36.712
46.5	35.555
47.0	34.459
47.5	33.363
48.0	32.328
48.5	31.354
49.0	30.380
49.5	29.467
50.0	28.554
50.5	27.701
51.0	26.849
51.5	26.057
52.0	25.266
52.5	24.535
53.0	23.805
53.5	23.074
54.0	22.405
54.5	21.796

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CANDELA TABULATION - (Cont.)

55.0	21.126
55.5	20.517
56.0	19.908
56.5	19.300
57.0	18.752
57.5	18.204
58.0	17.595
58.5	17.047
59.0	16.560
59.5	16.012
60.0	15.464
60.5	14.977
61.0	14.490
61.5	14.003
62.0	13.516
62.5	13.029
63.0	12.542
63.5	12.055
64.0	11.628
64.5	11.202
65.0	10.715
65.5	10.289
66.0	9.863
66.5	9.437
67.0	9.071
67.5	8.645
68.0	8.280
68.5	7.854
69.0	7.488
69.5	7.123
70.0	6.758
70.5	6.453
71.0	6.149
71.5	5.845
72.0	5.601
72.5	5.297
73.0	5.053
73.5	4.871
74.0	4.627
74.5	4.444
75.0	4.262
75.5	4.079
76.0	3.896
76.5	3.714
77.0	3.531
77.5	3.349
78.0	3.227
78.5	3.044
79.0	2.861
79.5	2.740
80.0	2.557
80.5	2.374
81.0	2.253
81.5	2.070
82.0	1.948
82.5	1.826

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CANDELA TABULATION - (Cont.)

83.0	1.644
83.5	1.522
84.0	1.400
84.5	1.279
85.0	1.157
85.5	1.035
86.0	0.852
86.5	0.791
87.0	0.670
87.5	0.548
88.0	0.426
88.5	0.304
89.0	0.244
89.5	0.183
90.0	0.122
90.5	0.122
91.0	0.061
91.5	0.000
92.0	0.061
92.5	0.061
93.0	0.061
93.5	0.061
94.0	0.000
94.5	0.061
95.0	0.061
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	0.061
103.0	0.000
103.5	0.061
104.0	0.061
104.5	0.061
105.0	0.061
105.5	0.061
106.0	0.061
106.5	0.061
107.0	0.061
107.5	0.000
108.0	0.061
108.5	0.061
109.0	0.061
109.5	0.061
110.0	0.061
110.5	0.061

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CANDELA TABULATION - (Cont.)

111.0	0.061
111.5	0.061
112.0	0.061
112.5	0.061
113.0	0.061
113.5	0.061
114.0	0.061
114.5	0.061
115.0	0.061
115.5	0.061
116.0	0.061
116.5	0.061
117.0	0.061
117.5	0.061
118.0	0.061
118.5	0.061
119.0	0.061
119.5	0.061
120.0	0.061
120.5	0.061
121.0	0.061
121.5	0.061
122.0	0.061
122.5	0.061
123.0	0.061
123.5	0.061
124.0	0.061
124.5	0.061
125.0	0.061
125.5	0.061
126.0	0.061
126.5	0.061
127.0	0.061
127.5	0.061
128.0	0.061
128.5	0.061
129.0	0.061
129.5	0.061
130.0	0.061
130.5	0.061
131.0	0.122
131.5	0.122
132.0	0.122
132.5	0.122
133.0	0.122
133.5	0.122
134.0	0.122
134.5	0.122
135.0	0.183
135.5	0.183
136.0	0.183
136.5	0.183
137.0	0.183
137.5	0.244
138.0	0.244
138.5	0.244

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CANDELA TABULATION - (Cont.)

139.0	0.244
139.5	0.304
140.0	0.304
140.5	0.304
141.0	0.365
141.5	0.365
142.0	0.365
142.5	0.426
143.0	0.426
143.5	0.426
144.0	0.487
144.5	0.487
145.0	0.548
145.5	0.548
146.0	0.609
146.5	0.609
147.0	0.670
147.5	0.670
148.0	0.731
148.5	0.731
149.0	0.791
149.5	0.791
150.0	0.852
150.5	0.852
151.0	0.913
151.5	0.913
152.0	0.974
152.5	0.974
153.0	1.035
153.5	1.035
154.0	1.096
154.5	1.096
155.0	1.157
155.5	1.157
156.0	1.218
156.5	1.218
157.0	1.218
157.5	1.279
158.0	1.279
158.5	1.339
159.0	1.339
159.5	1.339
160.0	1.400
160.5	1.400
161.0	1.400
161.5	1.400
162.0	1.461
162.5	1.461
163.0	1.461
163.5	1.461
164.0	1.461
164.5	1.461
165.0	1.461
165.5	1.461
166.0	1.522
166.5	1.461

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CANDELA TABULATION - (Cont.)

167.0	1.522
167.5	1.522
168.0	1.522
168.5	1.461
169.0	1.461
169.5	1.461
170.0	1.461
170.5	1.461
171.0	1.461
171.5	1.461
172.0	1.461
172.5	1.461
173.0	1.461
173.5	1.461
174.0	1.461
174.5	1.461
175.0	1.461
175.5	1.461
176.0	1.461
176.5	1.461
177.0	1.461
177.5	1.400
178.0	1.400
178.5	1.400
179.0	1.400
179.5	1.400
180.0	1.400

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	755.20	N.A.	70.10
0-30	945.38	N.A.	87.80
0-40	1008.75	N.A.	93.70
0-60	1058.74	N.A.	98.30
0-80	1074.09	N.A.	99.70
0-90	1075.39	N.A.	99.80
10-90	759.52	N.A.	70.50
20-40	253.55	N.A.	23.50
20-50	284.44	N.A.	26.40
40-70	60.72	N.A.	5.60
60-80	15.35	N.A.	1.40
70-80	4.62	N.A.	0.40
80-90	1.30	N.A.	0.10
90-110	0.08	N.A.	0.00
90-120	0.14	N.A.	0.00
90-130	0.19	N.A.	0.00
90-150	0.66	N.A.	0.10
90-180	1.72	N.A.	0.20
110-180	1.65	N.A.	0.20
0-180	1077.12	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	315.88
10-20	439.33
20-30	190.17
30-40	63.37
40-50	30.89
50-60	19.10
60-70	10.73
70-80	4.62
80-90	1.30
90-100	0.03
100-110	0.04
110-120	0.06
120-130	0.05
130-140	0.13
140-150	0.34
150-160	0.51
160-170	0.41
170-180	0.14

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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	78	78	78	75	75	75	72	72	72	71
1	81	79	78	76	79	78	76	75	75	74	73	72	71	71	70	69	69	67
2	78	75	72	70	76	74	71	70	71	70	68	69	68	67	67	66	65	64
3	75	71	68	66	73	70	67	65	68	66	64	67	65	63	65	64	62	61
4	72	68	65	62	71	67	64	62	65	63	61	64	62	60	63	61	60	59
5	69	65	61	59	68	64	61	59	63	60	58	62	60	58	61	59	57	56
6	67	62	59	56	66	62	58	56	61	58	56	60	57	55	59	57	55	54
7	65	60	56	54	64	59	56	54	58	56	54	58	55	53	57	55	53	52
8	63	58	54	52	62	57	54	52	57	54	52	56	53	51	55	53	51	51
9	61	56	52	50	60	55	52	50	55	52	50	54	52	50	54	51	50	49
10	59	54	51	48	58	54	50	48	53	50	48	53	50	48	52	50	48	47

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UGR TABLE - CORRECTED

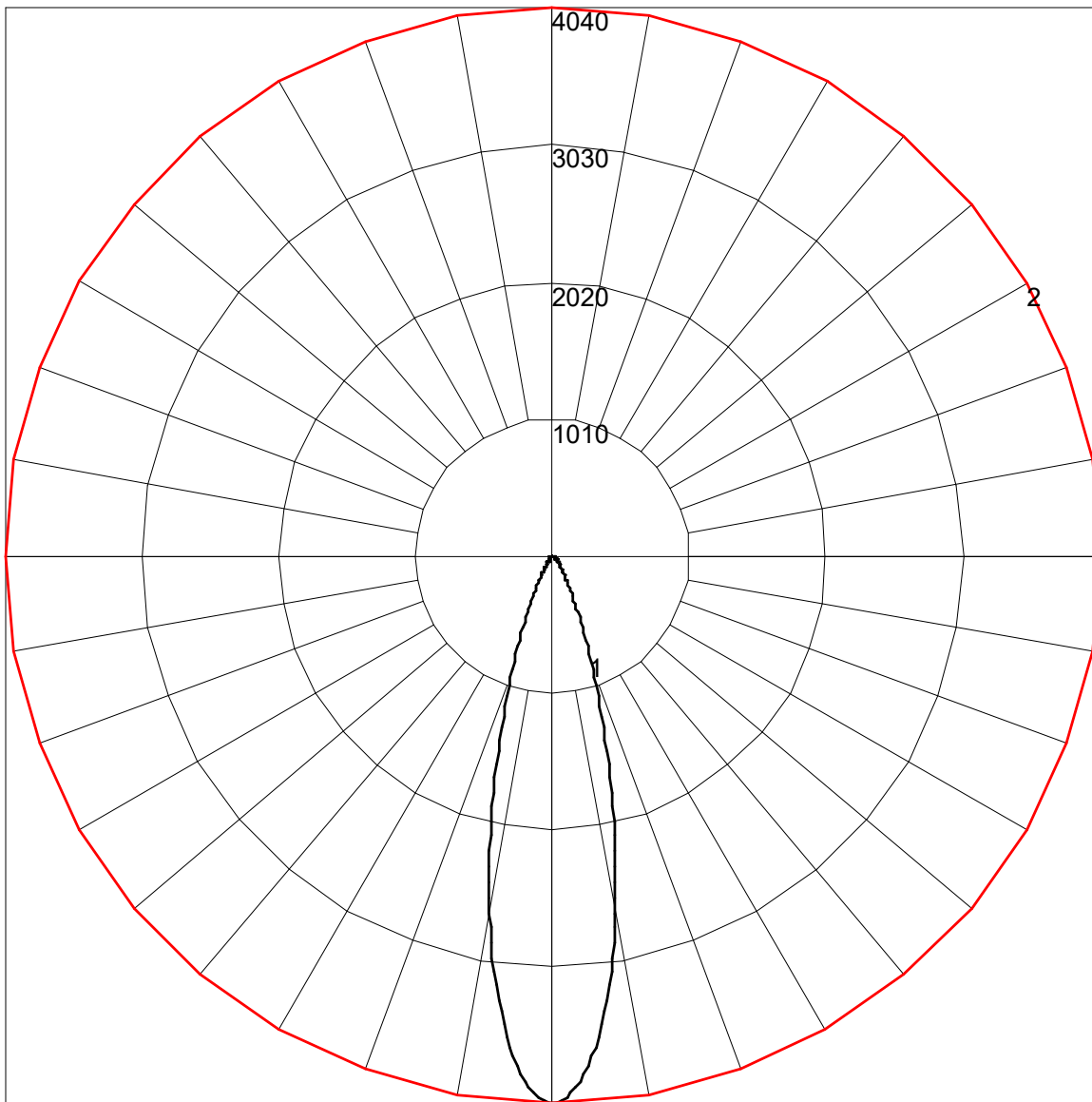
Reflectances

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	9.6	10.6	10.0	10.9	11.2	9.6	10.6	10.0	10.9	11.2
	3H	10.5	11.4	10.9	11.7	12.1	10.5	11.4	10.9	11.7	12.1
	4H	10.7	11.5	11.2	11.9	12.3	10.7	11.5	11.2	11.9	12.3
	6H	10.9	11.6	11.3	12.0	12.4	10.9	11.6	11.3	12.0	12.4
	8H	11.0	11.6	11.4	12.0	12.4	11.0	11.6	11.4	12.0	12.4
	12H	11.0	11.6	11.4	12.0	12.4	11.0	11.6	11.4	12.0	12.4
4H	2H	9.9	10.7	10.3	11.0	11.4	9.9	10.7	10.3	11.0	11.4
	3H	10.9	11.5	11.3	11.9	12.4	10.9	11.5	11.3	11.9	12.4
	4H	11.2	11.8	11.7	12.2	12.7	11.2	11.8	11.7	12.2	12.7
	6H	11.5	12.0	12.0	12.4	12.9	11.5	12.0	12.0	12.4	12.9
	8H	11.6	12.0	12.0	12.5	13.0	11.6	12.0	12.0	12.5	13.0
	12H	11.6	12.0	12.1	12.5	13.0	11.6	12.0	12.1	12.5	13.0
8H	4H	11.3	11.7	11.7	12.2	12.6	11.3	11.7	11.7	12.2	12.6
	6H	11.6	12.0	12.1	12.5	13.0	11.6	12.0	12.1	12.5	13.0
	8H	11.8	12.1	12.3	12.6	13.1	11.8	12.1	12.3	12.6	13.1
	12H	11.9	12.2	12.4	12.7	13.2	11.9	12.2	12.4	12.7	13.2
12H	4H	11.2	11.6	11.7	12.1	12.6	11.2	11.6	11.7	12.1	12.6
	6H	11.6	11.9	12.2	12.4	13.0	11.6	11.9	12.2	12.4	13.0
	8H	11.8	12.1	12.3	12.6	13.2	11.8	12.1	12.3	12.6	13.2

Maximum UGR = 13.2

POLAR GRAPH



Maximum Candela = 4039.511 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.)