



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : V6DR-L46-835-DIM-UNV-LW-OF-WH\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN FROM 12326812.07

[TESTLAB] UL Verification Services Inc.

[ISSUE DATE] 9 SEP 2021

[MANUFAC] WILLIAMS INDOOR

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

[LUMCAT] V6DR-L46-835-DIM-UNV-LW-OF-WH

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

[MORE] s patterned lens enclosure

[LAMP] One white LED

[\_SEARCH\_SOURCETYPE] LED

[\_SEARCH\_APPLICATION] Indoor, Architectural, Classroom, Commercial, Healthcare, Office, Downlight

[\_SEARCH\_MOUNTING] Recessed

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	4609
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	74
Total Luminaire Watts	62.2
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.08
Spacing Criterion (90-270)	1.08
Spacing Criterion (Diagonal)	0.98
Basic Luminous Shape	Circular
Luminous Length (0-180)	0.46 ft (Diameter)
Luminous Width (90-270)	0.46 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	76611	76611	76611
55	63782	63782	63782
65	48456	48456	48456
75	35140	35140	35140
85	22900	22900	22900

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CANDELA TABULATION

	<u>0</u>
0.0	2931.570
0.5	2930.980
1.0	2928.619
1.5	2925.077
2.0	2920.650
2.5	2914.747
3.0	2908.845
3.5	2902.057
4.0	2895.859
4.5	2889.661
5.0	2885.234
5.5	2881.102
6.0	2877.265
6.5	2873.429
7.0	2869.297
7.5	2865.460
8.0	2861.623
8.5	2858.082
9.0	2854.540
9.5	2851.589
10.0	2848.637
10.5	2846.276
11.0	2844.210
11.5	2843.030
12.0	2840.964
12.5	2838.898
13.0	2835.946
13.5	2832.110
14.0	2827.388
14.5	2822.075
15.0	2816.468
15.5	2809.384
16.0	2801.711
16.5	2794.037
17.0	2786.364
17.5	2778.395
18.0	2769.836
18.5	2760.097
19.0	2749.177
19.5	2737.076
20.0	2723.205
20.5	2708.153
21.0	2689.560
21.5	2667.425
22.0	2642.338
22.5	2614.005
23.0	2583.016
23.5	2549.371
24.0	2512.184
24.5	2472.046
25.0	2428.661
25.5	2383.505
26.0	2335.399
26.5	2285.226

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**CANDELA TABULATION - (Cont.)**

27.0	2231.806
27.5	2176.911
28.0	2119.065
28.5	2057.972
29.0	1994.518
29.5	1927.818
30.0	1859.347
30.5	1788.810
31.0	1718.272
31.5	1647.145
32.0	1578.084
32.5	1511.974
33.0	1448.520
33.5	1389.198
34.0	1334.598
34.5	1285.015
35.0	1240.745
35.5	1200.016
36.0	1164.305
36.5	1131.545
37.0	1102.327
37.5	1076.060
38.0	1052.154
38.5	1030.314
39.0	1009.655
39.5	991.061
40.0	973.058
40.5	956.235
41.0	940.593
41.5	925.246
42.0	910.490
42.5	896.913
43.0	883.042
43.5	869.466
44.0	856.185
44.5	843.199
45.0	829.918
45.5	817.227
46.0	804.241
46.5	791.255
47.0	777.974
47.5	764.988
48.0	751.707
48.5	738.426
49.0	725.145
49.5	711.274
50.0	697.993
50.5	684.417
51.0	670.840
51.5	656.969
52.0	643.098
52.5	629.227
53.0	615.355
53.5	601.484
54.0	588.203
54.5	574.627

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CANDELA TABULATION - (Cont.)

55.0	560.460
55.5	546.589
56.0	532.718
56.5	519.732
57.0	506.746
57.5	493.170
58.0	479.593
58.5	466.312
59.0	453.326
59.5	440.341
60.0	427.945
60.5	415.549
61.0	403.449
61.5	391.348
62.0	379.838
62.5	368.328
63.0	357.113
63.5	345.898
64.0	334.978
64.5	324.353
65.0	313.728
65.5	303.398
66.0	293.098
66.5	282.975
67.0	272.970
67.5	263.171
68.0	253.550
68.5	243.899
69.0	234.543
69.5	225.276
70.0	216.274
70.5	207.568
71.0	199.039
71.5	190.775
72.0	182.806
72.5	175.074
73.0	167.548
73.5	160.169
74.0	153.086
74.5	146.151
75.0	139.333
75.5	132.751
76.0	126.288
76.5	119.943
77.0	113.774
77.5	107.724
78.0	101.851
78.5	96.096
79.0	90.459
79.5	85.028
80.0	79.627
80.5	74.403
81.0	69.239
81.5	64.103
82.0	59.086
82.5	54.098

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CANDELA TABULATION - (Cont.)

83.0	49.228
83.5	44.447
84.0	39.725
84.5	35.091
85.0	30.576
85.5	26.208
86.0	21.988
86.5	17.915
87.0	13.960
87.5	10.654
88.0	8.146
88.5	5.962
89.0	4.132
89.5	2.597
90.0	1.653
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
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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
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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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150.5	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
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156.5	0.000
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157.5	0.000
158.0	0.000
158.5	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	1067.88	N.A.	23.20
0-30	2158.61	N.A.	46.80
0-40	2967.4	N.A.	64.40
0-60	4109.4	N.A.	89.20
0-80	4571.96	N.A.	99.20
0-90	4608.52	N.A.	100.00
10-90	4334.18	N.A.	94.00
20-40	1899.52	N.A.	41.20
20-50	2540.42	N.A.	55.10
40-70	1454.72	N.A.	31.60
60-80	462.56	N.A.	10.00
70-80	149.84	N.A.	3.30
80-90	36.55	N.A.	0.80
90-110	0.05	N.A.	0.00
90-120	0.05	N.A.	0.00
90-130	0.05	N.A.	0.00
90-150	0.05	N.A.	0.00
90-180	0.05	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	4608.56	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	274.33
10-20	793.54
20-30	1090.73
30-40	808.79
40-50	640.89
50-60	501.11
60-70	312.72
70-80	149.84
80-90	36.55
90-100	0.05
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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88
2	103	96	91	86	101	94	89	85	91	87	83	88	84	81	85	82	79	78
3	96	87	80	75	93	85	79	74	83	77	73	80	75	72	78	74	70	69
4	89	79	72	66	87	78	71	65	75	69	65	73	68	64	71	67	63	61
5	83	72	64	59	81	71	64	58	69	63	58	67	62	57	65	61	57	55
6	78	66	58	53	76	65	58	53	64	57	52	62	56	52	61	55	51	50
7	73	61	53	48	71	60	53	48	59	52	48	57	52	47	56	51	47	45
8	68	57	49	44	67	56	49	44	55	48	44	54	48	43	52	47	43	42
9	64	53	45	40	63	52	45	40	51	45	40	50	44	40	49	44	40	38
10	61	49	42	37	60	49	42	37	48	42	37	47	41	37	46	41	37	35

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**UGR TABLE - CORRECTED**

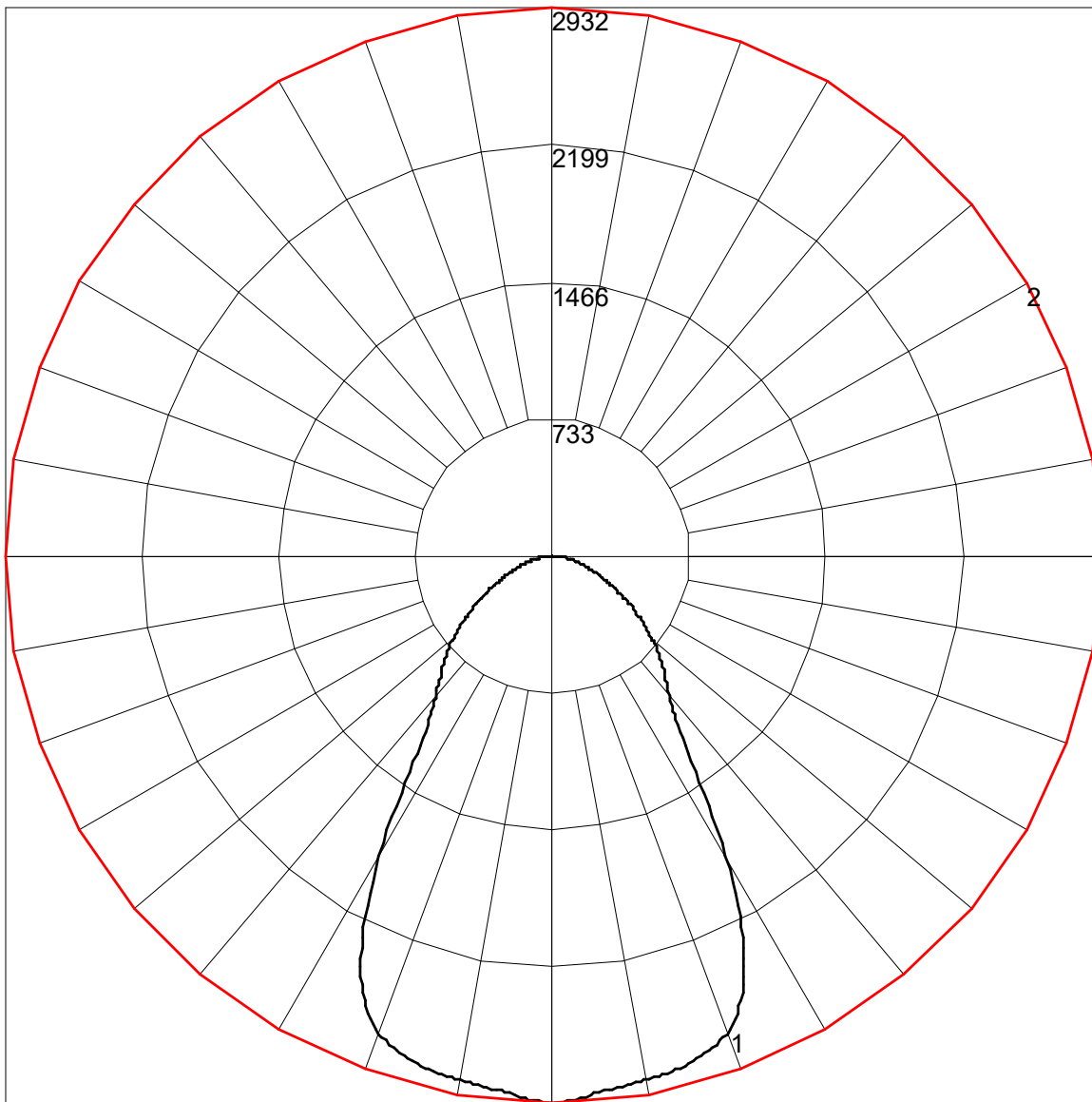
Reflectances

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	24.3	25.7	24.7	26.0	26.3	24.3	25.7	24.7	26.0	26.3
	3H	25.5	26.8	25.9	27.1	27.4	25.5	26.8	25.9	27.1	27.4
	4H	25.9	27.1	26.3	27.4	27.8	25.9	27.1	26.3	27.4	27.8
	6H	26.2	27.2	26.6	27.6	28.0	26.2	27.2	26.6	27.6	28.0
	8H	26.2	27.3	26.7	27.7	28.1	26.2	27.3	26.7	27.7	28.1
	12H	26.3	27.3	26.7	27.6	28.1	26.3	27.3	26.7	27.6	28.1
4H	2H	24.7	25.9	25.1	26.2	26.6	24.7	25.9	25.1	26.2	26.6
	3H	26.1	27.1	26.5	27.5	27.9	26.1	27.1	26.5	27.5	27.9
	4H	26.6	27.5	27.1	27.9	28.3	26.6	27.5	27.1	27.9	28.3
	6H	27.0	27.7	27.5	28.2	28.6	27.0	27.7	27.5	28.2	28.6
	8H	27.1	27.8	27.5	28.2	28.7	27.1	27.8	27.5	28.2	28.7
	12H	27.2	27.8	27.6	28.3	28.7	27.2	27.8	27.6	28.3	28.7
8H	4H	26.8	27.5	27.2	27.9	28.4	26.8	27.5	27.2	27.9	28.4
	6H	27.2	27.8	27.7	28.3	28.8	27.2	27.8	27.7	28.3	28.8
	8H	27.4	27.9	27.9	28.4	28.9	27.4	27.9	27.9	28.4	28.9
	12H	27.5	28.0	28.0	28.5	29.0	27.5	28.0	28.0	28.5	29.0
12H	4H	26.8	27.4	27.3	27.9	28.3	26.8	27.4	27.3	27.9	28.3
	6H	27.3	27.8	27.8	28.2	28.8	27.3	27.8	27.8	28.2	28.8
	8H	27.5	27.9	28.0	28.4	29.0	27.5	27.9	28.0	28.4	29.0

Maximum UGR = 29.0

POLAR GRAPH



Maximum Candela = 2931.57 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.)