



IES INDOOR REPORT

PHOTOMETRIC FILENAME : V6DR-L16-835-DIM-UNV-RW-OF-WH_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from 12326812.12

[TESTLAB] UL Verification Services Inc.

[ISSUEDATE] 9 SEP 2021

[MANUFAC] WILLIAMS INDOOR

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

[LUMCAT] V6DR-L16-835-DIM-UNV-RW-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	1445
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	71
Total Luminaire Watts	20.4
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.04
Spacing Criterion (90-270)	1.04
Spacing Criterion (Diagonal)	0.94
Basic Luminous Shape	Circular
Luminous Length (0-180)	0.48 ft (Diameter)
Luminous Width (90-270)	0.48 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	19512	19512	19512
55	16272	16272	16272
65	11480	11480	11480
75	7032	7032	7032
85	5546	5546	5546

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CANDELA TABULATION

	<u>0</u>
0.0	1069.0
0.5	1068.0
1.0	1067.0
1.5	1066.0
2.0	1064.0
2.5	1061.0
3.0	1058.0
3.5	1054.0
4.0	1050.0
4.5	1047.0
5.0	1043.0
5.5	1039.0
6.0	1035.0
6.5	1031.0
7.0	1027.0
7.5	1023.0
8.0	1018.0
8.5	1014.0
9.0	1010.0
9.5	1005.0
10.0	1001.0
10.5	996.1
11.0	991.3
11.5	986.5
12.0	981.7
12.5	977.0
13.0	972.2
13.5	967.2
14.0	962.3
14.5	957.5
15.0	953.0
15.5	948.4
16.0	943.9
16.5	939.5
17.0	935.4
17.5	931.3
18.0	927.3
18.5	923.5
19.0	919.7
19.5	915.8
20.0	911.8
20.5	907.5
21.0	902.6
21.5	897.0
22.0	890.7
22.5	883.7
23.0	876.1
23.5	867.5
24.0	858.1
24.5	847.8
25.0	836.4
25.5	824.1
26.0	810.4
26.5	795.4

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CANDELA TABULATION - (Cont.)

27.0	779.4
27.5	762.0
28.0	743.5
28.5	723.4
29.0	702.2
29.5	679.2
30.0	654.8
30.5	629.0
31.0	602.2
31.5	574.8
32.0	546.9
32.5	519.2
33.0	491.8
33.5	465.3
34.0	439.9
34.5	416.0
35.0	394.2
35.5	374.2
36.0	356.6
36.5	341.0
37.0	327.3
37.5	315.6
38.0	305.3
38.5	296.2
39.0	288.3
39.5	281.3
40.0	274.9
40.5	269.1
41.0	263.7
41.5	258.8
42.0	254.3
42.5	250.0
43.0	245.9
43.5	242.0
44.0	238.3
44.5	234.8
45.0	231.2
45.5	227.8
46.0	224.3
46.5	220.9
47.0	217.4
47.5	213.9
48.0	210.3
48.5	206.7
49.0	203.3
49.5	199.8
50.0	196.1
50.5	192.3
51.0	188.4
51.5	184.5
52.0	180.6
52.5	176.6
53.0	172.7
53.5	168.9
54.0	164.7
54.5	160.5

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CANDELA TABULATION - (Cont.)

55.0	156.4
55.5	152.2
56.0	148.1
56.5	144.0
57.0	139.9
57.5	135.8
58.0	131.9
58.5	127.9
59.0	124.0
59.5	120.2
60.0	116.4
60.5	112.6
61.0	108.9
61.5	105.3
62.0	101.7
62.5	98.2
63.0	94.7
63.5	91.2
64.0	87.9
64.5	84.5
65.0	81.3
65.5	78.0
66.0	74.9
66.5	71.8
67.0	68.8
67.5	65.8
68.0	62.9
68.5	60.0
69.0	57.3
69.5	54.5
70.0	51.9
70.5	49.3
71.0	46.8
71.5	44.4
72.0	42.0
72.5	39.8
73.0	37.7
73.5	35.8
74.0	33.9
74.5	32.2
75.0	30.5
75.5	29.0
76.0	27.5
76.5	26.2
77.0	25.0
77.5	23.8
78.0	22.6
78.5	21.4
79.0	20.3
79.5	19.2
80.0	18.1
80.5	17.0
81.0	15.9
81.5	14.9
82.0	13.8
82.5	12.8

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CANDELA TABULATION - (Cont.)

83.0	11.8
83.5	10.9
84.0	9.9
84.5	9.0
85.0	8.1
85.5	7.2
86.0	6.3
86.5	5.4
87.0	4.6
87.5	3.7
88.0	3.0
88.5	2.4
89.0	1.9
89.5	1.4
90.0	1.0
90.5	0.0
91.0	0.0
91.5	0.0
92.0	0.0
92.5	0.0
93.0	0.0
93.5	0.0
94.0	0.0
94.5	0.0
95.0	0.0
95.5	0.0
96.0	0.0
96.5	0.0
97.0	0.0
97.5	0.0
98.0	0.0
98.5	0.0
99.0	0.0
99.5	0.0
100.0	0.0
100.5	0.0
101.0	0.0
101.5	0.0
102.0	0.0
102.5	0.0
103.0	0.0
103.5	0.0
104.0	0.0
104.5	0.0
105.0	0.0
105.5	0.0
106.0	0.0
106.5	0.0
107.0	0.0
107.5	0.0
108.0	0.0
108.5	0.0
109.0	0.0
109.5	0.0
110.0	0.0
110.5	0.0

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CANDELA TABULATION - (Cont.)

111.0	0.0
111.5	0.0
112.0	0.0
112.5	0.0
113.0	0.0
113.5	0.0
114.0	0.0
114.5	0.0
115.0	0.0
115.5	0.0
116.0	0.0
116.5	0.0
117.0	0.0
117.5	0.0
118.0	0.0
118.5	0.0
119.0	0.0
119.5	0.0
120.0	0.0
120.5	0.0
121.0	0.0
121.5	0.0
122.0	0.0
122.5	0.0
123.0	0.0
123.5	0.0
124.0	0.0
124.5	0.0
125.0	0.0
125.5	0.0
126.0	0.0
126.5	0.0
127.0	0.0
127.5	0.0
128.0	0.0
128.5	0.0
129.0	0.0
129.5	0.0
130.0	0.0
130.5	0.0
131.0	0.0
131.5	0.0
132.0	0.0
132.5	0.0
133.0	0.0
133.5	0.0
134.0	0.0
134.5	0.0
135.0	0.0
135.5	0.0
136.0	0.0
136.5	0.0
137.0	0.0
137.5	0.0
138.0	0.0
138.5	0.0

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CANDELA TABULATION - (Cont.)

139.0	0.0
139.5	0.0
140.0	0.0
140.5	0.0
141.0	0.0
141.5	0.0
142.0	0.0
142.5	0.0
143.0	0.0
143.5	0.0
144.0	0.0
144.5	0.0
145.0	0.0
145.5	0.0
146.0	0.0
146.5	0.0
147.0	0.0
147.5	0.0
148.0	0.0
148.5	0.0
149.0	0.0
149.5	0.0
150.0	0.0
150.5	0.0
151.0	0.0
151.5	0.0
152.0	0.0
152.5	0.0
153.0	0.0
153.5	0.0
154.0	0.0
154.5	0.0
155.0	0.0
155.5	0.0
156.0	0.0
156.5	0.0
157.0	0.0
157.5	0.0
158.0	0.0
158.5	0.0
159.0	0.0
159.5	0.0
160.0	0.0
160.5	0.0
161.0	0.0
161.5	0.0
162.0	0.0
162.5	0.0
163.0	0.0
163.5	0.0
164.0	0.0
164.5	0.0
165.0	0.0
165.5	0.0
166.0	0.0
166.5	0.0

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167.0	0.0
167.5	0.0
168.0	0.0
168.5	0.0
169.0	0.0
169.5	0.0
170.0	0.0
170.5	0.0
171.0	0.0
171.5	0.0
172.0	0.0
172.5	0.0
173.0	0.0
173.5	0.0
174.0	0.0
174.5	0.0
175.0	0.0
175.5	0.0
176.0	0.0
176.5	0.0
177.0	0.0
177.5	0.0
178.0	0.0
178.5	0.0
179.0	0.0
179.5	0.0
180.0	0.0

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	367.33	N.A.	25.40
0-30	742.60	N.A.	51.40
0-40	1002.24	N.A.	69.40
0-60	1320.85	N.A.	91.40
0-80	1435.88	N.A.	99.40
0-90	1445.1	N.A.	100.00
10-90	1346.9	N.A.	93.20
20-40	634.91	N.A.	43.90
20-50	814.04	N.A.	56.30
40-70	399.80	N.A.	27.70
60-80	115.02	N.A.	8.00
70-80	33.84	N.A.	2.30
80-90	9.22	N.A.	0.60
90-110	0.03	N.A.	0.00
90-120	0.03	N.A.	0.00
90-130	0.03	N.A.	0.00
90-150	0.03	N.A.	0.00
90-180	0.03	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	1445.13	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	98.20
10-20	269.13
20-30	375.27
30-40	259.64
40-50	179.13
50-60	139.48
60-70	81.18
70-80	33.84
80-90	9.22
90-100	0.03
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	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79
3	97	89	82	77	95	87	81	76	84	79	75	82	77	74	79	76	73	71
4	90	81	74	68	88	80	73	68	77	72	67	75	70	66	73	69	66	64
5	85	74	67	62	83	73	66	61	71	65	61	69	64	60	68	63	59	58
6	79	68	61	56	78	68	61	56	66	60	55	64	59	55	63	58	54	53
7	75	63	56	51	73	63	56	51	61	55	50	60	54	50	59	54	50	48
8	70	59	52	47	69	58	51	47	57	51	46	56	50	46	55	50	46	44
9	66	55	48	43	65	54	48	43	53	47	43	52	47	43	51	46	43	41
10	63	51	45	40	62	51	44	40	50	44	40	49	44	40	48	43	40	38

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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	19.2	20.5	19.5	20.8	21.1	19.2	20.5	19.5	20.8	21.1
	3H	20.1	21.3	20.5	21.6	22.0	20.1	21.3	20.5	21.6	22.0
	4H	20.4	21.5	20.8	21.8	22.2	20.4	21.5	20.8	21.8	22.2
	6H	20.5	21.6	21.0	21.9	22.3	20.5	21.6	21.0	21.9	22.3
	8H	20.6	21.6	21.0	22.0	22.4	20.6	21.6	21.0	22.0	22.4
	12H	20.6	21.5	21.1	21.9	22.4	20.6	21.5	21.1	21.9	22.4

UGR Viewed Endwise

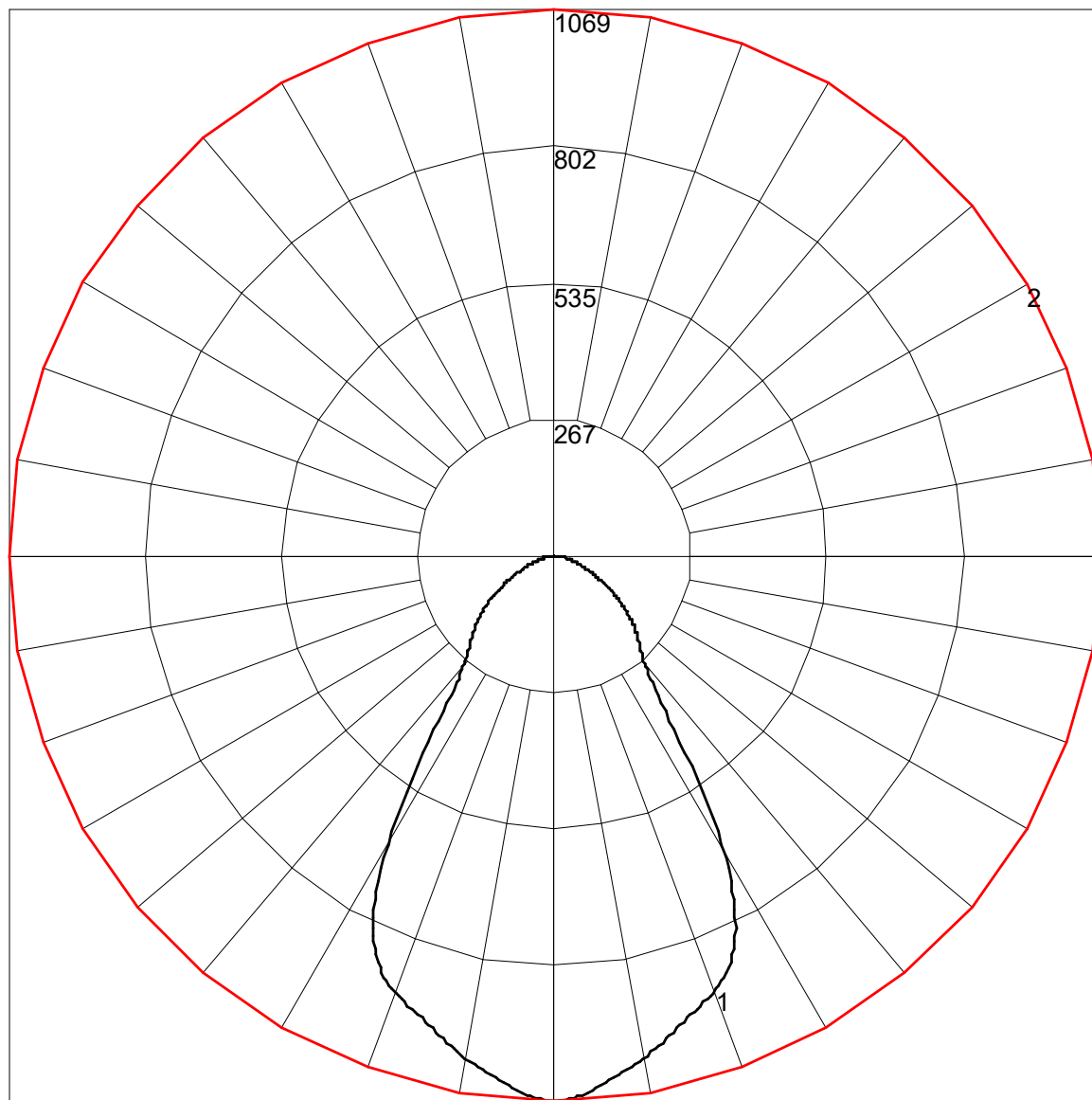
4H	2H	19.5	20.6	19.9	20.9	21.3	19.5	20.6	19.9	20.9	21.3
	3H	20.6	21.5	21.0	21.9	22.3	20.6	21.5	21.0	21.9	22.3
	4H	21.0	21.8	21.4	22.2	22.6	21.0	21.8	21.4	22.2	22.6
	6H	21.2	21.9	21.7	22.4	22.8	21.2	21.9	21.7	22.4	22.8
	8H	21.3	21.9	21.8	22.4	22.9	21.3	21.9	21.8	22.4	22.9
	12H	21.4	21.9	21.8	22.4	22.9	21.4	21.9	21.8	22.4	22.9

8H	4H	21.0	21.7	21.5	22.1	22.6	21.0	21.7	21.5	22.1	22.6
	6H	21.4	21.9	21.9	22.4	22.9	21.4	21.9	21.9	22.4	22.9
	8H	21.5	22.0	22.0	22.5	23.0	21.5	22.0	22.0	22.5	23.0
	12H	21.6	22.0	22.1	22.5	23.1	21.6	22.0	22.1	22.5	23.1

12H	4H	21.0	21.6	21.5	22.1	22.6	21.0	21.6	21.5	22.1	22.6
	6H	21.4	21.9	21.9	22.3	22.9	21.4	21.9	21.9	22.3	22.9
	8H	21.5	22.0	22.1	22.5	23.0	21.5	22.0	22.1	22.5	23.0

Maximum UGR = 23.1

POLAR GRAPH



Maximum Candela = 1069 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.)