



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : 6FDR-LS-8CS-WH-DIM-UNV\_14W\_3500K\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002  
[TEST] GEN FROM 15248898.02  
[TESTLAB] UL Verification Services Inc.  
[ISSUE DATE] 2024-04-30  
[TEST DATE] 4/15/2024  
[MANUFACTURER] H.E. WILLIAMS, INC.  
[MORE] CARTHAGE, MO. 64836  
[LUMEN CATEGORY] 6FDR-LS-8CS-WH-DIM-UNV\_14W\_3500K  
[LUMINAIRE] 6 INCH ROUND, RECESSED LED DOWNLIGHT  
[MORE] W/WHITE PAINTED TRIM. WATTAGE & COLOR SELECTABLE  
[LAMP] LED

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	1303
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	97
Total Luminaire Watts	13.4
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.02
Spacing Criterion (90-270)	1.02
Spacing Criterion (Diagonal)	1.00
Basic Luminous Shape	Circular
Luminous Length (0-180)	0.50 ft (Diameter)
Luminous Width (90-270)	0.50 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	15745	15745	15745
55	12390	12390	12390
65	9828	9828	9828
75	7852	7852	7852
85	6205	6205	6205

IES INDOOR REPORT  
PHOTOMETRIC FILENAME : 6FDR-LS-8CS-WH-DIM-UNV\_14W\_3500K\_.IES

CANDELA TABULATION

	<u>0</u>
0.0	925.755
0.5	925.755
1.0	925.755
1.5	924.983
2.0	924.212
2.5	923.440
3.0	922.669
3.5	921.126
4.0	919.583
4.5	918.040
5.0	916.497
5.5	914.954
6.0	912.640
6.5	910.326
7.0	907.240
7.5	904.925
8.0	901.840
8.5	899.525
9.0	896.439
9.5	894.125
10.0	891.039
10.5	887.953
11.0	884.096
11.5	881.010
12.0	877.153
12.5	873.295
13.0	868.667
13.5	864.809
14.0	860.181
14.5	855.552
15.0	850.923
15.5	845.523
16.0	840.894
16.5	835.494
17.0	830.094
17.5	823.922
18.0	818.522
18.5	812.350
19.0	805.407
19.5	799.235
20.0	792.292
20.5	786.120
21.0	779.177
21.5	771.462
22.0	764.288
22.5	756.419
23.0	747.856
23.5	738.598
24.0	728.569
24.5	717.537
25.0	705.657
25.5	692.850
26.0	679.504
26.5	665.849

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : 6FDR-LS-8CS-WH-DIM-UNV\_14W\_3500K\_.IES**

**CANDELA TABULATION - (Cont.)**

27.0	651.500
27.5	636.688
28.0	621.490
28.5	605.907
29.0	590.169
29.5	574.508
30.0	560.082
30.5	545.270
31.0	529.532
31.5	513.563
32.0	497.979
32.5	482.704
33.0	467.660
33.5	452.694
34.0	437.959
34.5	423.379
35.0	408.952
35.5	394.989
36.0	381.411
36.5	367.833
37.0	354.410
37.5	341.295
38.0	328.489
38.5	316.145
39.0	304.419
39.5	293.233
40.0	282.355
40.5	272.018
41.0	262.297
41.5	253.040
42.0	244.322
42.5	236.376
43.0	228.816
43.5	221.795
44.0	215.161
44.5	209.066
45.0	203.280
45.5	198.112
46.0	193.251
46.5	188.777
47.0	184.457
47.5	180.368
48.0	176.433
48.5	172.730
49.0	169.105
49.5	165.556
50.0	162.084
50.5	158.613
51.0	155.141
51.5	151.747
52.0	148.584
52.5	145.498
53.0	142.412
53.5	139.249
54.0	136.086
54.5	132.923

IES INDOOR REPORT  
PHOTOMETRIC FILENAME : 6FDR-LS-8CS-WH-DIM-UNV\_14W\_3500K\_.IES

CANDELA TABULATION - (Cont.)

55.0	129.760
55.5	126.751
56.0	123.743
56.5	120.734
57.0	117.725
57.5	114.794
58.0	111.862
58.5	109.008
59.0	106.308
59.5	103.607
60.0	100.830
60.5	98.130
61.0	95.507
61.5	92.884
62.0	90.338
62.5	87.870
63.0	85.324
63.5	82.932
64.0	80.464
64.5	78.149
65.0	75.835
65.5	73.598
66.0	71.360
66.5	69.123
67.0	66.963
67.5	64.803
68.0	62.720
68.5	60.714
69.0	58.708
69.5	56.780
70.0	54.774
70.5	52.922
71.0	51.071
71.5	49.219
72.0	47.445
72.5	45.671
73.0	43.896
73.5	42.122
74.0	40.425
74.5	38.727
75.0	37.107
75.5	35.487
76.0	33.867
76.5	32.324
77.0	30.781
77.5	29.316
78.0	27.850
78.5	26.384
79.0	24.918
79.5	23.530
80.0	22.141
80.5	20.829
81.0	19.441
81.5	18.129
82.0	16.895
82.5	15.661

IES INDOOR REPORT  
PHOTOMETRIC FILENAME : 6FDR-LS-8CS-WH-DIM-UNV\_14W\_3500K\_.IES

CANDELA TABULATION - (Cont.)

83.0	14.426
83.5	13.269
84.0	12.112
84.5	10.955
85.0	9.875
85.5	8.718
86.0	7.715
86.5	6.635
87.0	5.632
87.5	4.629
88.0	3.626
88.5	2.623
89.0	1.620
89.5	0.617
90.0	0.000
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

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : 6FDR-LS-8CS-WH-DIM-UNV\_14W\_3500K\_.IES****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
132.5	0.000
133.0	0.000
133.5	0.000
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

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : 6FDR-LS-8CS-WH-DIM-UNV\_14W\_3500K\_.IES****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
149.5	0.000
150.0	0.000
150.5	0.000
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
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

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : 6FDR-LS-8CS-WH-DIM-UNV\_14W\_3500K\_.IES****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



**IES INDOOR REPORT****PHOTOMETRIC FILENAME : 6FDR-LS-8CS-WH-DIM-UNV\_14W\_3500K\_.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	325.46	N.A.	25.00
0-30	643.53	N.A.	49.40
0-40	899.41	N.A.	69.00
0-60	1176.97	N.A.	90.30
0-80	1292.21	N.A.	99.10
0-90	1303.34	N.A.	100.00
10-90	1216.7	N.A.	93.40
20-40	573.95	N.A.	44.00
20-50	735.16	N.A.	56.40
40-70	353.18	N.A.	27.10
60-80	115.24	N.A.	8.80
70-80	39.62	N.A.	3.00
80-90	11.12	N.A.	0.90
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	1303.34	N.A.	100.00

Total Luminaire Efficiency = N.A.%

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	86.64
10-20	238.83
20-30	318.07
30-40	255.88
40-50	161.22
50-60	116.34
60-70	75.63
70-80	39.62
80-90	11.12
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

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : 6FDR-LS-8CS-WH-DIM-UNV\_14W\_3500K\_.IES**

**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	104	101	109	105	102	100	101	99	96	97	95	94	94	92	91	89
2	104	97	92	87	101	95	90	86	92	88	84	89	85	82	86	83	81	79
3	97	88	82	76	94	87	81	76	84	79	74	81	77	73	79	75	72	70
4	90	80	73	68	88	79	72	67	77	71	66	75	70	66	73	68	65	63
5	84	74	66	61	82	73	66	61	71	65	60	69	64	59	67	62	59	57
6	79	68	60	55	77	67	60	55	65	59	54	64	58	54	62	57	54	52
7	74	63	55	50	73	62	55	50	61	54	50	59	54	49	58	53	49	47
8	70	58	51	46	68	58	51	46	57	50	46	55	50	46	54	49	45	44
9	66	54	47	43	65	54	47	42	53	47	42	52	46	42	51	46	42	40
10	62	51	44	39	61	50	44	39	50	43	39	49	43	39	48	43	39	37

# IES INDOOR REPORT

PHOTOMETRIC FILENAME : 6FDR-LS-8CS-WH-DIM-UNV\_14W\_3500K\_.IES

## 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	18.0	19.3	18.4	19.7	20.0
	3H	19.4	20.6	19.7	20.9	21.3
	4H	19.9	21.0	20.3	21.3	21.7
	6H	20.2	21.2	20.6	21.6	22.0
	8H	20.3	21.3	20.8	21.7	22.1
	12H	20.4	21.3	20.8	21.7	22.1

### UGR Viewed Endwise

18.0	19.3	18.4	19.7	20.0
19.4	20.6	19.7	20.9	21.3
19.9	21.0	20.3	21.3	21.7
20.2	21.2	20.6	21.6	22.0
20.3	21.3	20.8	21.7	22.1
20.4	21.3	20.8	21.7	22.1

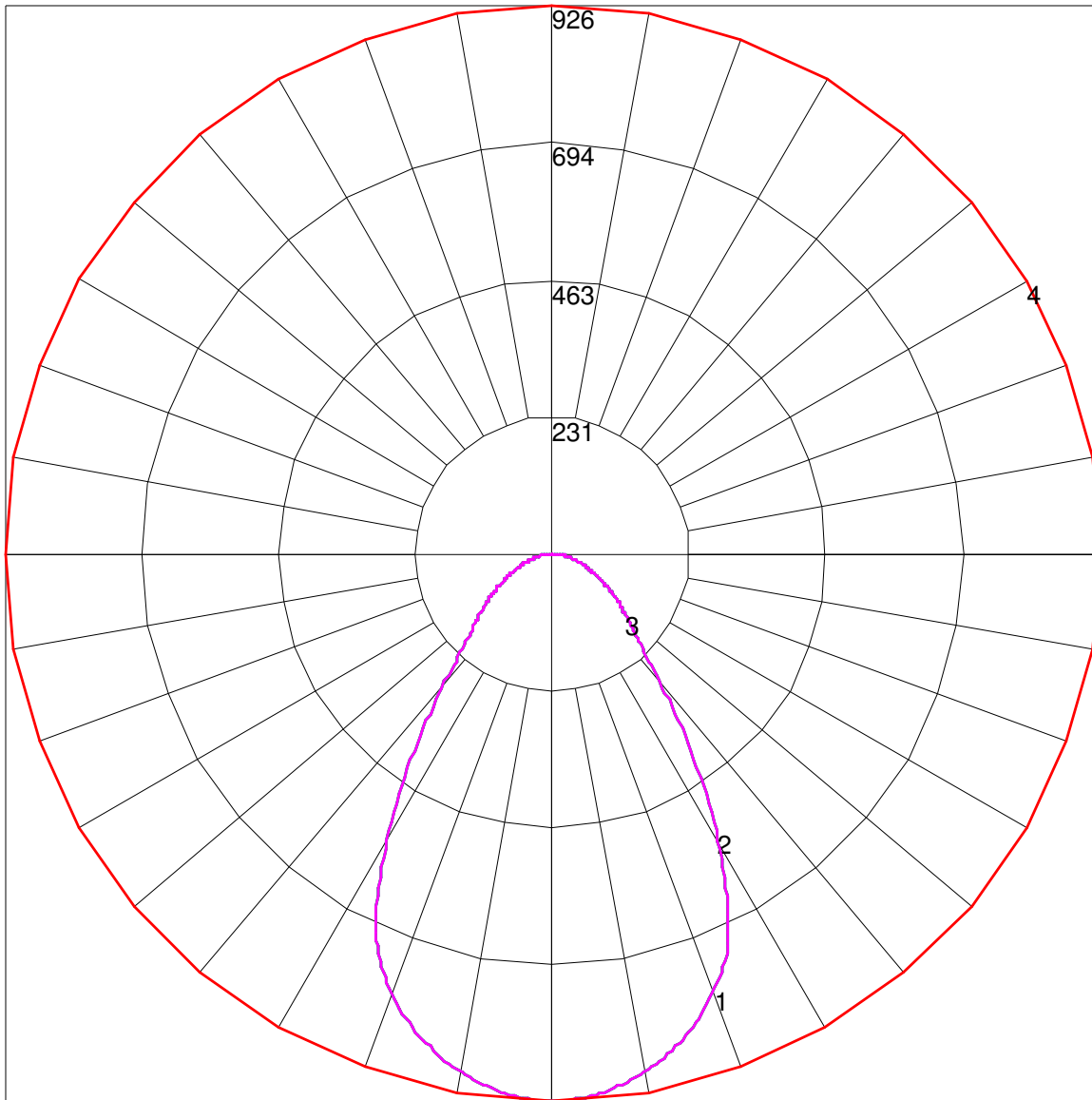
4H	2H	18.5	19.6	18.9	19.9	20.3	18.5	19.6	18.9	19.9	20.3
	3H	20.0	20.9	20.5	21.3	21.8	20.0	20.9	20.5	21.3	21.8
	4H	20.6	21.5	21.1	21.9	22.3	20.6	21.5	21.1	21.9	22.3
	6H	21.1	21.8	21.6	22.3	22.7	21.1	21.8	21.6	22.3	22.7
	8H	21.3	21.9	21.7	22.4	22.8	21.3	21.9	21.7	22.4	22.8
	12H	21.4	22.0	21.8	22.4	22.9	21.4	22.0	21.8	22.4	22.9

8H	4H	20.8	21.5	21.3	21.9	22.4	20.8	21.5	21.3	21.9	22.4
	6H	21.4	22.0	21.9	22.5	22.9	21.4	22.0	21.9	22.5	22.9
	8H	21.6	22.1	22.2	22.6	23.1	21.6	22.1	22.2	22.6	23.1
	12H	21.8	22.3	22.3	22.7	23.3	21.8	22.3	22.3	22.7	23.3

12H	4H	20.8	21.4	21.3	21.9	22.4	20.8	21.4	21.3	21.9	22.4
	6H	21.5	21.9	22.0	22.4	23.0	21.5	21.9	22.0	22.4	23.0
	8H	21.7	22.1	22.2	22.6	23.2	21.7	22.1	22.2	22.6	23.2

Maximum UGR = 23.3

POLAR GRAPH



Maximum Candela = 925.755 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)  
# 2 - Vertical Plane Through Horizontal Angles (5 - 185)  
# 3 - Vertical Plane Through Horizontal Angles (10 - 190)  
# 4 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)