



## IES INDOOR REPORT

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

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN FROM 15248898.01

[TESTLAB] UL Verification Services Inc.

[ISSUEDATE] 2024-04-30

[TESTDATE] 4/15/2024

[MANUFAC] H.E. WILLIAMS, INC.

[MORE] CARTHAGE, MO. 64836

[LUMCAT] 6FDR-LS-8CS-CS-DIM-UNV\_14W\_3500K

[LUMINAIRE] 6 INCH ROUND, RECESSED LED DOWNLIGHT

[MORE] W/SEMI-SPECULAR TRIM. WATTAGE & COLOR SELECTABLE

[LAMP] LED

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	1569
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	117
Total Luminaire Watts	13.4
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.08
Spacing Criterion (90-270)	1.08
Spacing Criterion (Diagonal)	1.02
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	17833	17833	17833
55	2507	2507	2507
65	277	277	277
75	113	113	113
85	48	48	48

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

CANDELA TABULATION

	<u>0</u>
0.0	1297.325
0.5	1297.325
1.0	1298.088
1.5	1298.851
2.0	1299.614
2.5	1300.377
3.0	1301.141
3.5	1301.904
4.0	1303.430
4.5	1304.193
5.0	1305.719
5.5	1306.482
6.0	1308.009
6.5	1309.535
7.0	1311.061
7.5	1312.588
8.0	1313.351
8.5	1314.877
9.0	1315.640
9.5	1315.640
10.0	1314.877
10.5	1314.114
11.0	1312.588
11.5	1311.061
12.0	1308.009
12.5	1304.956
13.0	1301.904
13.5	1298.088
14.0	1293.509
14.5	1288.930
15.0	1283.588
15.5	1278.247
16.0	1272.142
16.5	1265.273
17.0	1257.642
17.5	1250.011
18.0	1242.379
18.5	1233.222
19.0	1224.064
19.5	1214.143
20.0	1203.460
20.5	1192.776
21.0	1181.329
21.5	1169.882
22.0	1157.672
22.5	1144.698
23.0	1130.199
23.5	1116.463
24.0	1100.437
24.5	1083.648
25.0	1066.096
25.5	1047.781
26.0	1029.465
26.5	1009.624

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

**CANDELA TABULATION - (Cont.)**

27.0	989.019
27.5	967.652
28.0	945.521
28.5	923.390
29.0	900.496
29.5	876.839
30.0	853.182
30.5	828.762
31.0	804.341
31.5	779.921
32.0	755.119
32.5	730.547
33.0	705.974
33.5	681.401
34.0	657.286
34.5	633.400
35.0	609.895
35.5	589.291
36.0	569.755
36.5	546.937
37.0	524.043
37.5	501.607
38.0	479.781
38.5	458.414
39.0	437.351
39.5	416.747
40.0	396.524
40.5	377.064
41.0	358.367
41.5	339.975
42.0	322.194
42.5	305.177
43.0	288.693
43.5	272.972
44.0	258.015
44.5	243.821
45.0	230.237
45.5	217.111
46.0	204.596
46.5	192.615
47.0	181.091
47.5	169.873
48.0	158.960
48.5	148.200
49.0	137.669
49.5	127.367
50.0	117.217
50.5	107.067
51.0	96.994
51.5	86.616
52.0	76.542
52.5	66.698
53.0	56.930
53.5	48.001
54.0	39.759
54.5	32.509

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

CANDELA TABULATION - (Cont.)

55.0	26.252
55.5	21.139
56.0	17.018
56.5	13.889
57.0	11.447
57.5	9.539
58.0	8.166
58.5	7.021
59.0	6.181
59.5	5.495
60.0	4.884
60.5	4.426
61.0	3.968
61.5	3.663
62.0	3.358
62.5	3.053
63.0	2.824
63.5	2.671
64.0	2.442
64.5	2.289
65.0	2.137
65.5	1.984
66.0	1.832
66.5	1.755
67.0	1.603
67.5	1.526
68.0	1.374
68.5	1.297
69.0	1.221
69.5	1.145
70.0	1.068
70.5	0.992
71.0	0.916
71.5	0.839
72.0	0.763
72.5	0.763
73.0	0.687
73.5	0.611
74.0	0.611
74.5	0.534
75.0	0.534
75.5	0.458
76.0	0.458
76.5	0.382
77.0	0.382
77.5	0.305
78.0	0.305
78.5	0.305
79.0	0.229
79.5	0.229
80.0	0.229
80.5	0.229
81.0	0.153
81.5	0.153
82.0	0.153
82.5	0.153

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

CANDELA TABULATION - (Cont.)

83.0	0.153
83.5	0.153
84.0	0.076
84.5	0.076
85.0	0.076
85.5	0.076
86.0	0.076
86.5	0.076
87.0	0.076
87.5	0.076
88.0	0.076
88.5	0.000
89.0	0.000
89.5	0.000
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-CS-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-CS-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-CS-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-CS-DIM-UNV\_14W\_3500K\_.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	484.93	N.A.	30.90
0-30	967.30	N.A.	61.70
0-40	1348.79	N.A.	86.00
0-60	1565.97	N.A.	99.80
0-80	1568.89	N.A.	100.00
0-90	1568.99	N.A.	100.00
10-90	1443.96	N.A.	92.00
20-40	863.86	N.A.	55.10
20-50	1046.27	N.A.	66.70
40-70	219.52	N.A.	14.00
60-80	2.91	N.A.	0.20
70-80	0.58	N.A.	0.00
80-90	0.11	N.A.	0.00
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	1568.99	N.A.	100.00

Total Luminaire Efficiency = N.A.%

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	125.03
10-20	359.91
20-30	482.36
30-40	381.49
40-50	182.42
50-60	34.77
60-70	2.34
70-80	0.58
80-90	0.11
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-CS-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	113	110	108	105	111	108	106	104	104	102	100	100	99	97	97	96	95	93
2	107	102	98	94	105	100	96	93	97	94	91	94	91	89	91	89	87	85
3	101	94	89	85	99	93	88	84	90	86	83	88	84	81	85	83	80	78
4	95	87	81	77	94	86	81	76	84	79	75	82	78	75	80	77	74	72
5	90	81	75	70	88	80	74	70	78	73	69	77	72	69	75	71	68	66
6	85	75	69	64	84	75	69	64	73	68	64	72	67	63	70	66	63	61
7	80	70	64	59	79	70	64	59	68	63	59	67	62	59	66	62	58	57
8	76	66	59	55	75	65	59	55	64	59	55	63	58	54	62	57	54	53
9	72	62	55	51	71	61	55	51	60	55	51	59	54	51	58	54	50	49
10	68	58	52	48	67	57	52	48	57	51	47	56	51	47	55	50	47	46

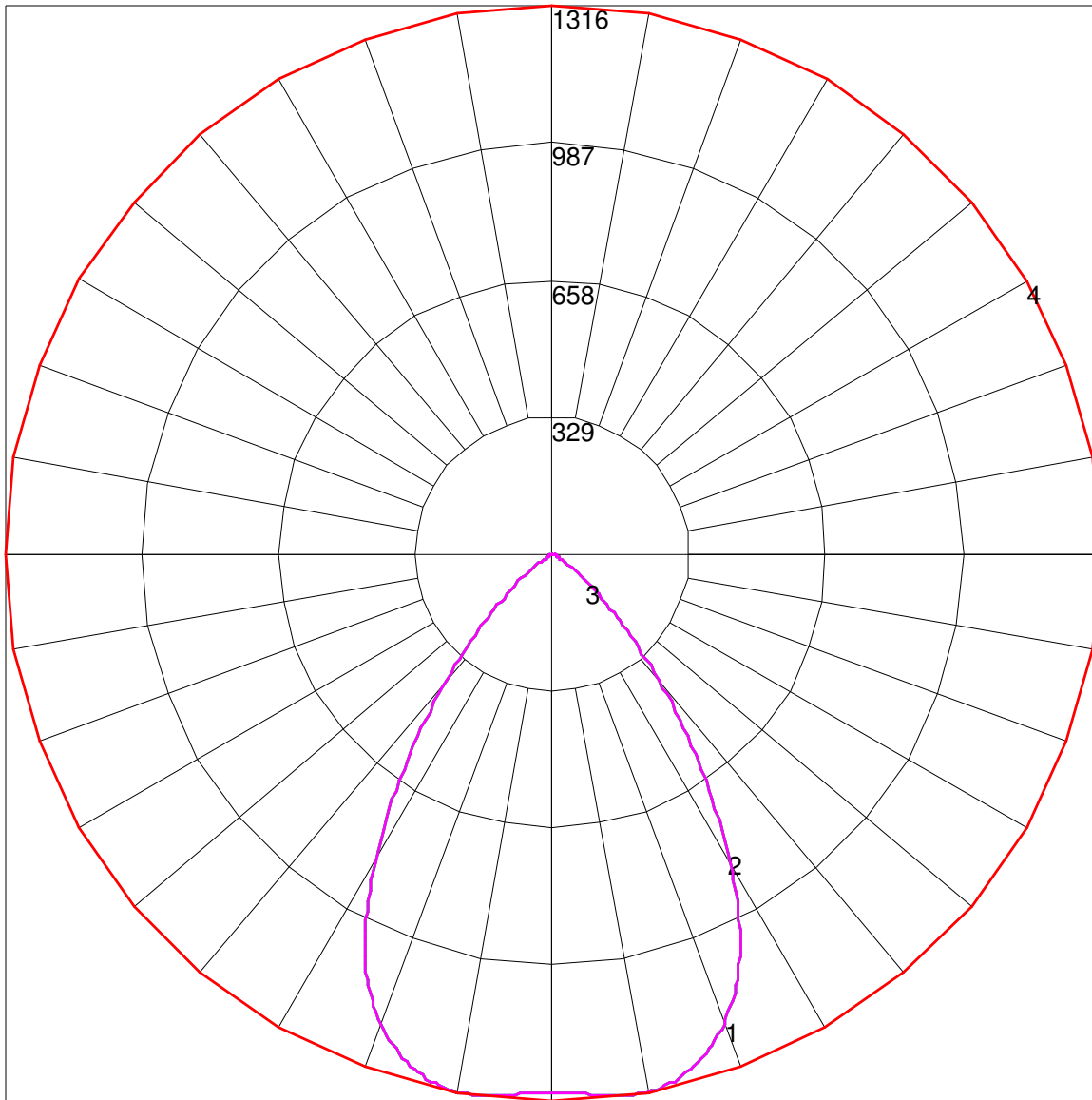
**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : 6FDR-LS-8CS-CS-DIM-UNV\_14W\_3500K\_.IES**

**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					UGR Viewed Endwise				
X=2H	Y=2H	1.6	1.6	1.6	1.6	1.8	1.6	1.6	1.6	1.6	1.8
	3H	1.6	1.6	1.6	1.6	1.7	1.6	1.6	1.6	1.6	1.7
	4H	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
	6H	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
	8H	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
	12H	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
4H	2H	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
	3H	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
	4H	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
	6H	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
	8H	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
	12H	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
8H	4H	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
	6H	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
	8H	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
	12H	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
12H	4H	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
	6H	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
	8H	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6

Maximum UGR = 1.8

POLAR GRAPH



Maximum Candela = 1315.64 Located At Horizontal Angle = 0, Vertical Angle = 9  
# 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 (9) (Through Max. Cd.)