



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 6FDR-LS-8CS-WH-DIM-UNV_10W_4000K_.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
[LUMCAT] 6FDR-LS-8CS-WH-DIM-UNV_10W_4000K
[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	857
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	93
Total Luminaire Watts	9.2
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	10356	10356	10356
55	8149	8149	8149
65	6464	6464	6464
75	5165	5165	5165
85	4081	4081	4081

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CANDELA TABULATION

	<u>0</u>
0.0	608.881
0.5	608.881
1.0	608.881
1.5	608.374
2.0	607.866
2.5	607.359
3.0	606.851
3.5	605.837
4.0	604.822
4.5	603.807
5.0	602.792
5.5	601.777
6.0	600.255
6.5	598.733
7.0	596.703
7.5	595.181
8.0	593.152
8.5	591.629
9.0	589.600
9.5	588.078
10.0	586.048
10.5	584.018
11.0	581.481
11.5	579.452
12.0	576.915
12.5	574.378
13.0	571.333
13.5	568.796
14.0	565.752
14.5	562.707
15.0	559.663
15.5	556.111
16.0	553.067
16.5	549.515
17.0	545.963
17.5	541.904
18.0	538.352
18.5	534.293
19.0	529.726
19.5	525.667
20.0	521.101
20.5	517.041
21.0	512.475
21.5	507.401
22.0	502.682
22.5	497.506
23.0	491.874
23.5	485.786
24.0	479.189
24.5	471.933
25.0	464.120
25.5	455.697
26.0	446.919
26.5	437.938

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 6FDR-LS-8CS-WH-DIM-UNV_10W_4000K_.IES****CANDELA TABULATION - (Cont.)**

27.0	428.500
27.5	418.758
28.0	408.762
28.5	398.513
29.0	388.162
29.5	377.861
30.0	368.373
30.5	358.631
31.0	348.280
31.5	337.777
32.0	327.527
32.5	317.481
33.0	307.586
33.5	297.743
34.0	288.051
34.5	278.462
35.0	268.973
35.5	259.789
36.0	250.859
36.5	241.929
37.0	233.100
37.5	224.474
38.0	216.051
38.5	207.933
39.0	200.220
39.5	192.863
40.0	185.709
40.5	178.910
41.0	172.516
41.5	166.427
42.0	160.694
42.5	155.468
43.0	150.495
43.5	145.878
44.0	141.514
44.5	137.506
45.0	133.700
45.5	130.301
46.0	127.104
46.5	124.161
47.0	121.320
47.5	118.630
48.0	116.043
48.5	113.607
49.0	111.222
49.5	108.888
50.0	106.605
50.5	104.322
51.0	102.038
51.5	99.806
52.0	97.725
52.5	95.696
53.0	93.666
53.5	91.586
54.0	89.506
54.5	87.425

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CANDELA TABULATION - (Cont.)

55.0	85.345
55.5	83.366
56.0	81.387
56.5	79.408
57.0	77.429
57.5	75.501
58.0	73.573
58.5	71.696
59.0	69.920
59.5	68.144
60.0	66.317
60.5	64.541
61.0	62.816
61.5	61.091
62.0	59.417
62.5	57.793
63.0	56.119
63.5	54.546
64.0	52.922
64.5	51.400
65.0	49.877
65.5	48.406
66.0	46.935
66.5	45.463
67.0	44.042
67.5	42.622
68.0	41.252
68.5	39.932
69.0	38.613
69.5	37.345
70.0	36.025
70.5	34.808
71.0	33.590
71.5	32.372
72.0	31.205
72.5	30.038
73.0	28.871
73.5	27.704
74.0	26.588
74.5	25.472
75.0	24.406
75.5	23.340
76.0	22.275
76.5	21.260
77.0	20.245
77.5	19.281
78.0	18.317
78.5	17.353
79.0	16.389
79.5	15.476
80.0	14.562
80.5	13.700
81.0	12.787
81.5	11.924
82.0	11.112
82.5	10.300

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83.0	9.488
83.5	8.727
84.0	7.966
84.5	7.205
85.0	6.495
85.5	5.734
86.0	5.074
86.5	4.364
87.0	3.704
87.5	3.044
88.0	2.385
88.5	1.725
89.0	1.066
89.5	0.406
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

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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

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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

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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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Zone	Lumens	%Lamp	%Fixt
0-20	214.06	N.A.	25.00
0-30	423.26	N.A.	49.40
0-40	591.56	N.A.	69.00
0-60	774.11	N.A.	90.30
0-80	849.91	N.A.	99.10
0-90	857.22	N.A.	100.00
10-90	800.24	N.A.	93.40
20-40	377.49	N.A.	44.00
20-50	483.53	N.A.	56.40
40-70	232.29	N.A.	27.10
60-80	75.80	N.A.	8.80
70-80	26.06	N.A.	3.00
80-90	7.32	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	857.22	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	56.98
10-20	157.08
20-30	209.20
30-40	168.30
40-50	106.03
50-60	76.52
60-70	49.74
70-80	26.06
80-90	7.32
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

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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	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

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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

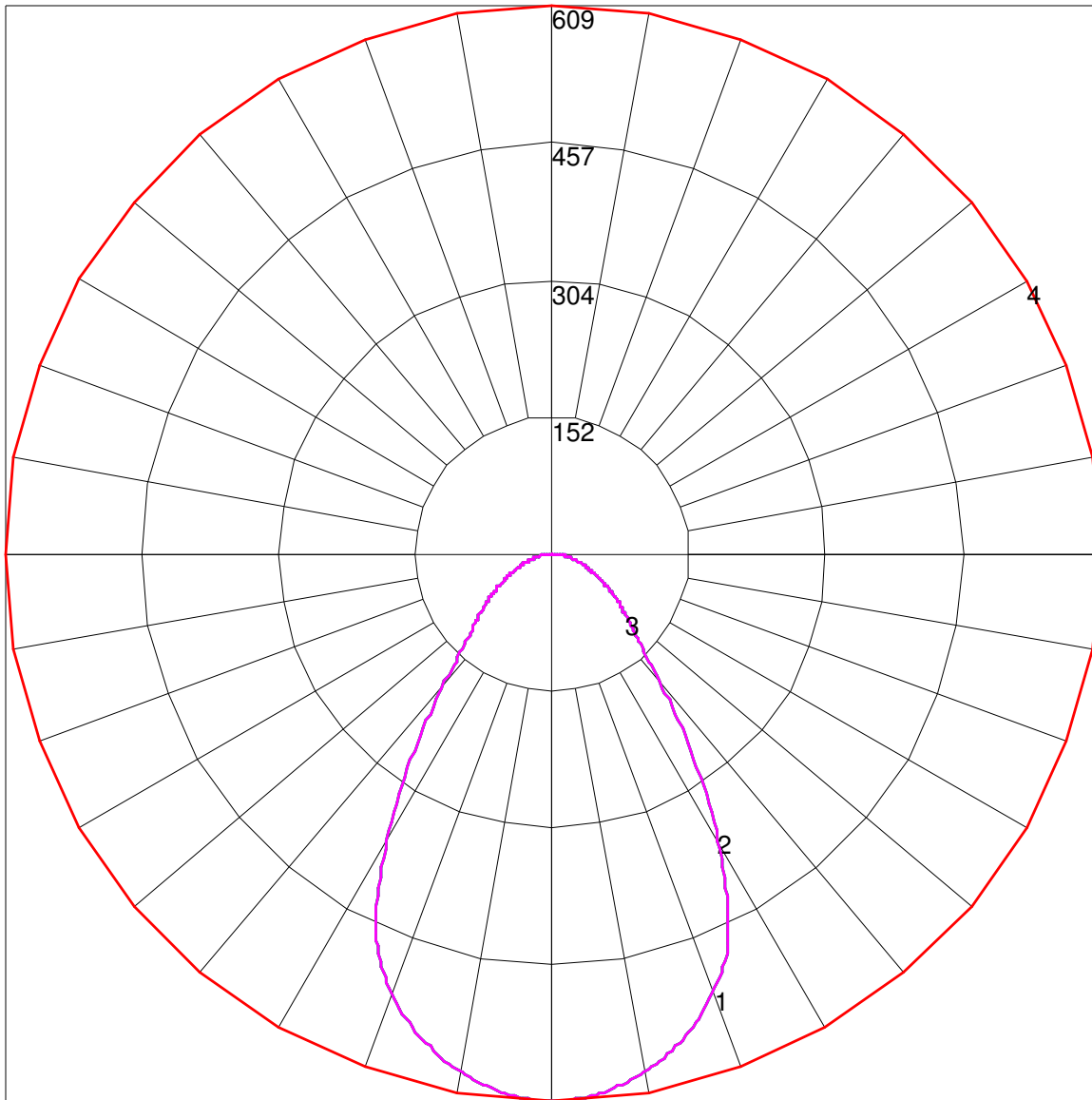
X=2H	Y=2H	16.6	17.9	17.0	18.3	18.6	16.6	17.9	17.0	18.3	18.6
	3H	18.0	19.2	18.3	19.5	19.9	18.0	19.2	18.3	19.5	19.9
	4H	18.5	19.6	18.9	19.9	20.3	18.5	19.6	18.9	19.9	20.3
	6H	18.8	19.8	19.2	20.2	20.6	18.8	19.8	19.2	20.2	20.6
	8H	18.9	19.9	19.4	20.3	20.7	18.9	19.9	19.4	20.3	20.7
	12H	19.0	19.9	19.4	20.3	20.7	19.0	19.9	19.4	20.3	20.7

UGR Viewed Endwise

4H	2H	17.1	18.2	17.5	18.5	18.9	17.1	18.2	17.5	18.5	18.9
	3H	18.6	19.5	19.1	19.9	20.4	18.6	19.5	19.1	19.9	20.4
	4H	19.2	20.1	19.7	20.5	20.9	19.2	20.1	19.7	20.5	20.9
	6H	19.7	20.4	20.2	20.9	21.3	19.7	20.4	20.2	20.9	21.3
	8H	19.9	20.5	20.3	21.0	21.4	19.9	20.5	20.3	21.0	21.4
	12H	20.0	20.6	20.4	21.0	21.5	20.0	20.6	20.4	21.0	21.5
8H	4H	19.4	20.1	19.9	20.5	21.0	19.4	20.1	19.9	20.5	21.0
	6H	20.0	20.6	20.5	21.1	21.5	20.0	20.6	20.5	21.1	21.5
	8H	20.2	20.7	20.8	21.2	21.7	20.2	20.7	20.8	21.2	21.7
	12H	20.4	20.9	20.9	21.3	21.9	20.4	20.9	20.9	21.3	21.9
12H	4H	19.4	20.0	19.9	20.5	21.0	19.4	20.0	19.9	20.5	21.0
	6H	20.1	20.5	20.6	21.0	21.6	20.1	20.5	20.6	21.0	21.6
	8H	20.3	20.7	20.8	21.2	21.8	20.3	20.7	20.8	21.2	21.8

Maximum UGR = 21.9

POLAR GRAPH



Maximum Candela = 608.881 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.)