



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 6FDR-LS-8CS-WH-DIM-UNV_10W_3000K_.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
[MANUFAC] H.E. WILLIAMS, INC.
[MORE] CARTHAGE, MO. 64836
[LUMCAT] 6FDR-LS-8CS-WH-DIM-UNV_10W_3000K
[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	846
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	90
Total Luminaire Watts	9.4
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	10223	10223	10223
55	8045	8045	8045
65	6381	6381	6381
75	5098	5098	5098
85	4029	4029	4029

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CANDELA TABULATION

	<u>0</u>
0.0	601.066
0.5	601.066
1.0	601.066
1.5	600.565
2.0	600.064
2.5	599.563
3.0	599.062
3.5	598.060
4.0	597.059
4.5	596.057
5.0	595.055
5.5	594.053
6.0	592.551
6.5	591.048
7.0	589.044
7.5	587.542
8.0	585.538
8.5	584.036
9.0	582.032
9.5	580.529
10.0	578.526
10.5	576.522
11.0	574.018
11.5	572.014
12.0	569.510
12.5	567.005
13.0	564.000
13.5	561.496
14.0	558.490
14.5	555.485
15.0	552.480
15.5	548.973
16.0	545.968
16.5	542.462
17.0	538.956
17.5	534.949
18.0	531.442
18.5	527.435
19.0	522.927
19.5	518.920
20.0	514.412
20.5	510.405
21.0	505.897
21.5	500.888
22.0	496.230
22.5	491.121
23.0	485.561
23.5	479.550
24.0	473.039
24.5	465.876
25.0	458.162
25.5	449.848
26.0	441.182
26.5	432.317

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27.0	423.000
27.5	413.383
28.0	403.515
28.5	393.398
29.0	383.179
29.5	373.011
30.0	363.645
30.5	354.028
31.0	343.810
31.5	333.441
32.0	323.323
32.5	313.406
33.0	303.638
33.5	293.921
34.0	284.354
34.5	274.887
35.0	265.521
35.5	256.455
36.0	247.639
36.5	238.823
37.0	230.108
37.5	221.593
38.0	213.278
38.5	205.264
39.0	197.650
39.5	190.388
40.0	183.325
40.5	176.613
41.0	170.302
41.5	164.291
42.0	158.631
42.5	153.472
43.0	148.563
43.5	144.005
44.0	139.698
44.5	135.741
45.0	131.984
45.5	128.628
46.0	125.472
46.5	122.567
47.0	119.762
47.5	117.108
48.0	114.553
48.5	112.149
49.0	109.795
49.5	107.491
50.0	105.237
50.5	102.983
51.0	100.729
51.5	98.525
52.0	96.471
52.5	94.467
53.0	92.464
53.5	90.410
54.0	88.357
54.5	86.303

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CANDELA TABULATION - (Cont.)

55.0	84.249
55.5	82.296
56.0	80.342
56.5	78.389
57.0	76.436
57.5	74.532
58.0	72.629
58.5	70.775
59.0	69.022
59.5	67.269
60.0	65.466
60.5	63.713
61.0	62.010
61.5	60.307
62.0	58.654
62.5	57.051
63.0	55.398
63.5	53.845
64.0	52.243
64.5	50.740
65.0	49.237
65.5	47.785
66.0	46.332
66.5	44.880
67.0	43.477
67.5	42.075
68.0	40.722
68.5	39.420
69.0	38.118
69.5	36.865
70.0	35.563
70.5	34.361
71.0	33.159
71.5	31.957
72.0	30.805
72.5	29.653
73.0	28.501
73.5	27.348
74.0	26.247
74.5	25.145
75.0	24.093
75.5	23.041
76.0	21.989
76.5	20.987
77.0	19.985
77.5	19.034
78.0	18.082
78.5	17.130
79.0	16.179
79.5	15.277
80.0	14.375
80.5	13.524
81.0	12.622
81.5	11.771
82.0	10.969
82.5	10.168

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CANDELA TABULATION - (Cont.)

83.0	9.367
83.5	8.615
84.0	7.864
84.5	7.113
85.0	6.411
85.5	5.660
86.0	5.009
86.5	4.308
87.0	3.656
87.5	3.005
88.0	2.354
88.5	1.703
89.0	1.052
89.5	0.401
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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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

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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
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151.0	0.000
151.5	0.000
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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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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	211.31	N.A.	25.00
0-30	417.83	N.A.	49.40
0-40	583.96	N.A.	69.00
0-60	764.17	N.A.	90.30
0-80	839.00	N.A.	99.10
0-90	846.22	N.A.	100.00
10-90	789.97	N.A.	93.40
20-40	372.65	N.A.	44.00
20-50	477.32	N.A.	56.40
40-70	229.31	N.A.	27.10
60-80	74.82	N.A.	8.80
70-80	25.72	N.A.	3.00
80-90	7.22	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	846.22	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	56.25
10-20	155.06
20-30	206.51
30-40	166.14
40-50	104.67
50-60	75.54
60-70	49.10
70-80	25.72
80-90	7.22
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	16.5	17.8	16.9	18.2	18.5	16.5	17.8	16.9	18.2	18.5
	3H	17.9	19.1	18.2	19.4	19.8	17.9	19.1	18.2	19.4	19.8
	4H	18.4	19.5	18.8	19.8	20.2	18.4	19.5	18.8	19.8	20.2
	6H	18.7	19.7	19.1	20.1	20.5	18.7	19.7	19.1	20.1	20.5
	8H	18.8	19.8	19.3	20.2	20.6	18.8	19.8	19.3	20.2	20.6
	12H	18.9	19.8	19.3	20.2	20.6	18.9	19.8	19.3	20.2	20.6

UGR Viewed Endwise

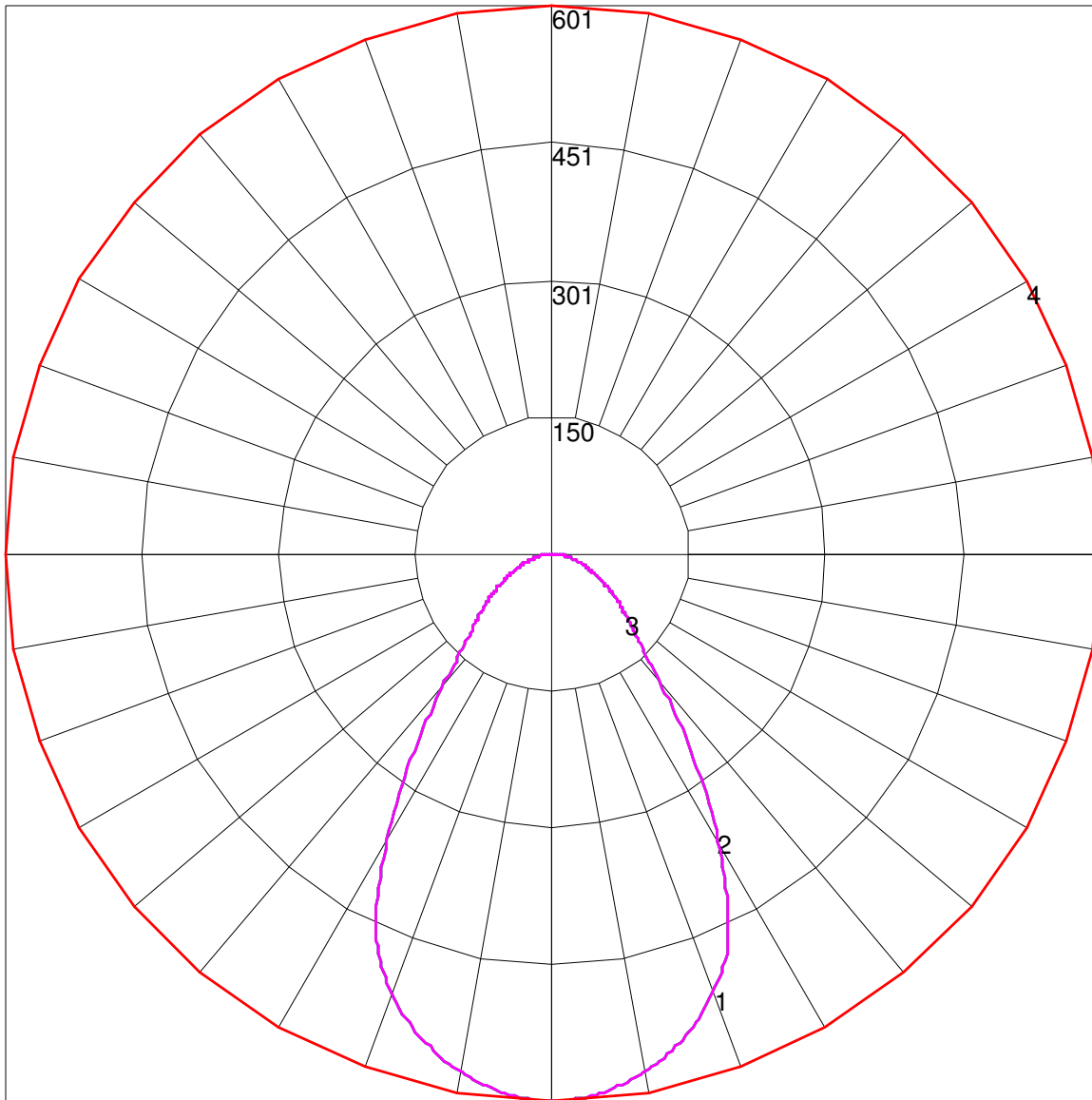
4H	2H	17.0	18.1	17.4	18.4	18.8	17.0	18.1	17.4	18.4	18.8
	3H	18.5	19.4	18.9	19.8	20.3	18.5	19.4	18.9	19.8	20.3
	4H	19.1	20.0	19.6	20.4	20.8	19.1	20.0	19.6	20.4	20.8
	6H	19.6	20.3	20.1	20.8	21.2	19.6	20.3	20.1	20.8	21.2
	8H	19.8	20.4	20.2	20.9	21.3	19.8	20.4	20.2	20.9	21.3
	12H	19.9	20.5	20.3	20.9	21.4	19.9	20.5	20.3	20.9	21.4

8H	4H	19.3	20.0	19.8	20.4	20.9	19.3	20.0	19.8	20.4	20.9
	6H	19.9	20.5	20.4	21.0	21.4	19.9	20.5	20.4	21.0	21.4
	8H	20.1	20.6	20.7	21.1	21.6	20.1	20.6	20.7	21.1	21.6
	12H	20.3	20.8	20.8	21.2	21.8	20.3	20.8	20.8	21.2	21.8

12H	4H	19.3	19.9	19.8	20.4	20.9	19.3	19.9	19.8	20.4	20.9
	6H	20.0	20.4	20.5	20.9	21.5	20.0	20.4	20.5	20.9	21.5
	8H	20.2	20.6	20.7	21.1	21.7	20.2	20.6	20.7	21.1	21.7

Maximum UGR = 21.8

POLAR GRAPH



Maximum Candela = 601.066 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.)