



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 6FDR-LS-8CS-WH-DIM-UNV_18W_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_18W_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	1565
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	85
Total Luminaire Watts	18.5
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	18911	18911	18911
55	14882	14882	14882
65	11804	11804	11804
75	9431	9431	9431
85	7453	7453	7453

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CANDELA TABULATION

	<u>0</u>
0.0	1111.901
0.5	1111.901
1.0	1111.901
1.5	1110.974
2.0	1110.047
2.5	1109.121
3.0	1108.194
3.5	1106.341
4.0	1104.488
4.5	1102.635
5.0	1100.782
5.5	1098.928
6.0	1096.149
6.5	1093.369
7.0	1089.663
7.5	1086.883
8.0	1083.176
8.5	1080.397
9.0	1076.690
9.5	1073.911
10.0	1070.204
10.5	1066.498
11.0	1061.865
11.5	1058.159
12.0	1053.526
12.5	1048.893
13.0	1043.333
13.5	1038.700
14.0	1033.141
14.5	1027.581
15.0	1022.022
15.5	1015.536
16.0	1009.976
16.5	1003.490
17.0	997.004
17.5	989.592
18.0	983.105
18.5	975.693
19.0	967.354
19.5	959.941
20.0	951.602
20.5	944.189
21.0	935.850
21.5	926.584
22.0	917.967
22.5	908.515
23.0	898.230
23.5	887.111
24.0	875.066
24.5	861.816
25.0	847.546
25.5	832.165
26.0	816.135
26.5	799.735

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CANDELA TABULATION - (Cont.)

27.0	782.500
27.5	764.710
28.0	746.456
28.5	727.739
29.0	708.837
29.5	690.027
30.0	672.700
30.5	654.909
31.0	636.007
31.5	616.827
32.0	598.110
32.5	579.764
33.0	561.695
33.5	543.719
34.0	526.022
34.5	508.509
35.0	491.182
35.5	474.411
36.0	458.103
36.5	441.795
37.0	425.673
37.5	409.921
38.0	394.539
38.5	379.714
39.0	365.630
39.5	352.195
40.0	339.130
40.5	326.713
41.0	315.039
41.5	303.919
42.0	293.449
42.5	283.905
43.0	274.825
43.5	266.393
44.0	258.424
44.5	251.104
45.0	244.155
45.5	237.947
46.0	232.109
46.5	226.735
47.0	221.546
47.5	216.635
48.0	211.910
48.5	207.462
49.0	203.107
49.5	198.845
50.0	194.675
50.5	190.506
51.0	186.336
51.5	182.259
52.0	178.460
52.5	174.754
53.0	171.047
53.5	167.248
54.0	163.449
54.5	159.650

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CANDELA TABULATION - (Cont.)

55.0	155.851
55.5	152.238
56.0	148.624
56.5	145.010
57.0	141.397
57.5	137.876
58.0	134.355
58.5	130.926
59.0	127.683
59.5	124.440
60.0	121.105
60.5	117.861
61.0	114.711
61.5	111.561
62.0	108.503
62.5	105.538
63.0	102.480
63.5	99.608
64.0	96.643
64.5	93.863
65.0	91.083
65.5	88.396
66.0	85.709
66.5	83.022
67.0	80.427
67.5	77.833
68.0	75.331
68.5	72.922
69.0	70.513
69.5	68.197
70.0	65.787
70.5	63.564
71.0	61.340
71.5	59.116
72.0	56.985
72.5	54.854
73.0	52.723
73.5	50.591
74.0	48.553
74.5	46.515
75.0	44.569
75.5	42.623
76.0	40.677
76.5	38.824
77.0	36.971
77.5	35.210
78.0	33.450
78.5	31.689
79.0	29.929
79.5	28.261
80.0	26.593
80.5	25.018
81.0	23.350
81.5	21.775
82.0	20.292
82.5	18.810

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CANDELA TABULATION - (Cont.)

83.0	17.327
83.5	15.937
84.0	14.547
84.5	13.157
85.0	11.860
85.5	10.470
86.0	9.266
86.5	7.969
87.0	6.764
87.5	5.560
88.0	4.355
88.5	3.150
89.0	1.946
89.5	0.741
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_18W_3000K_.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
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118.5	0.000
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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_18W_3000K_.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
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159.5	0.000
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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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Zone	Lumens	%Lamp	%Fixt
0-20	390.91	N.A.	25.00
0-30	772.93	N.A.	49.40
0-40	1080.26	N.A.	69.00
0-60	1413.63	N.A.	90.30
0-80	1552.04	N.A.	99.10
0-90	1565.41	N.A.	100.00
10-90	1461.35	N.A.	93.40
20-40	689.35	N.A.	44.00
20-50	882.99	N.A.	56.40
40-70	424.20	N.A.	27.10
60-80	138.42	N.A.	8.80
70-80	47.58	N.A.	3.00
80-90	13.36	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	1565.41	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	104.06
10-20	286.85
20-30	382.02
30-40	307.33
40-50	193.63
50-60	139.73
60-70	90.83
70-80	47.58
80-90	13.36
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	18.7	20.0	19.1	20.4	20.7	18.7	20.0	19.1	20.4	20.7
	3H	20.1	21.3	20.4	21.6	22.0	20.1	21.3	20.4	21.6	22.0
	4H	20.6	21.7	21.0	22.0	22.4	20.6	21.7	21.0	22.0	22.4
	6H	20.9	21.9	21.3	22.3	22.7	20.9	21.9	21.3	22.3	22.7
	8H	21.0	22.0	21.5	22.4	22.8	21.0	22.0	21.5	22.4	22.8
	12H	21.1	22.0	21.5	22.4	22.8	21.1	22.0	21.5	22.4	22.8

UGR Viewed Endwise

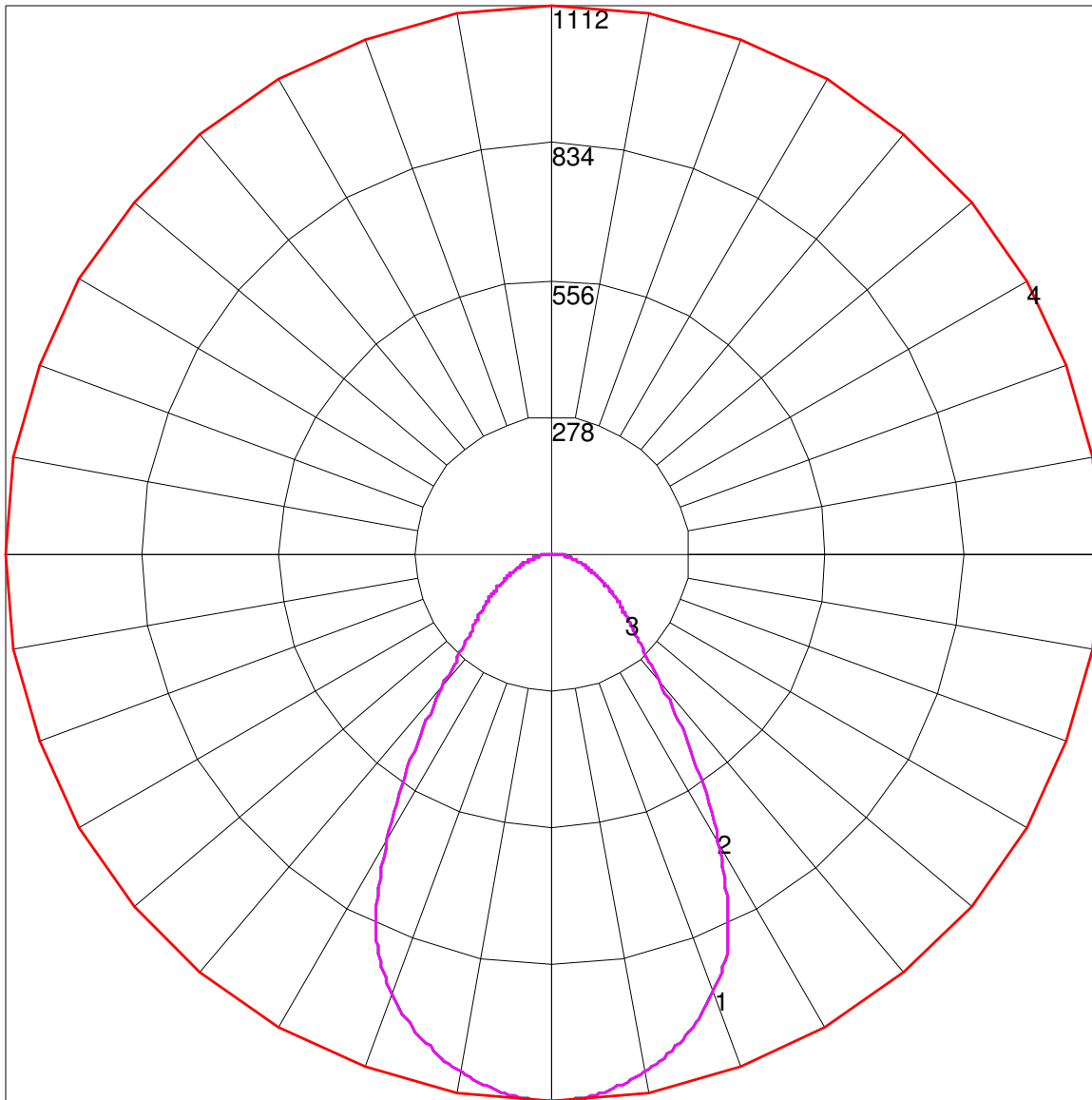
4H	2H	19.2	20.3	19.6	20.6	21.0	19.2	20.3	19.6	20.6	21.0
	3H	20.7	21.6	21.2	22.1	22.5	20.7	21.6	21.2	22.1	22.5
	4H	21.3	22.2	21.8	22.6	23.0	21.3	22.2	21.8	22.6	23.0
	6H	21.8	22.5	22.3	23.0	23.4	21.8	22.5	22.3	23.0	23.4
	8H	22.0	22.6	22.4	23.1	23.5	22.0	22.6	22.4	23.1	23.5
	12H	22.1	22.7	22.5	23.1	23.6	22.1	22.7	22.5	23.1	23.6

8H	4H	21.5	22.2	22.0	22.6	23.1	21.5	22.2	22.0	22.6	23.1
	6H	22.1	22.7	22.6	23.2	23.6	22.1	22.7	22.6	23.2	23.6
	8H	22.3	22.8	22.9	23.3	23.8	22.3	22.8	22.9	23.3	23.8
	12H	22.5	23.0	23.0	23.4	24.0	22.5	23.0	23.0	23.4	24.0

12H	4H	21.5	22.1	22.0	22.6	23.1	21.5	22.1	22.0	22.6	23.1
	6H	22.2	22.6	22.7	23.1	23.7	22.2	22.6	22.7	23.1	23.7
	8H	22.4	22.9	22.9	23.3	23.9	22.4	22.9	22.9	23.3	23.9

Maximum UGR = 24.0

POLAR GRAPH



Maximum Candela = 1111.901 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.)