



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 6FDR-LS-8CS-CS-DIM-UNV_18W_3000K_.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_18W_3000K

[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	1888
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	102
Total Luminaire Watts	18.5
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	21459	21459	21459
55	3016	3016	3016
65	333	333	333
75	136	136	136
85	58	58	58

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 6FDR-LS-8CS-CS-DIM-UNV_18W_3000K_.IES

CANDELA TABULATION

	<u>0</u>
0.0	1561.089
0.5	1561.089
1.0	1562.008
1.5	1562.926
2.0	1563.844
2.5	1564.763
3.0	1565.681
3.5	1566.599
4.0	1568.436
4.5	1569.354
5.0	1571.191
5.5	1572.109
6.0	1573.945
6.5	1575.782
7.0	1577.619
7.5	1579.455
8.0	1580.373
8.5	1582.210
9.0	1583.128
9.5	1583.128
10.0	1582.210
10.5	1581.292
11.0	1579.455
11.5	1577.619
12.0	1573.945
12.5	1570.272
13.0	1566.599
13.5	1562.008
14.0	1556.498
14.5	1550.988
15.0	1544.560
15.5	1538.132
16.0	1530.786
16.5	1522.521
17.0	1513.338
17.5	1504.156
18.0	1494.973
18.5	1483.953
19.0	1472.934
19.5	1460.996
20.0	1448.140
20.5	1435.284
21.0	1421.510
21.5	1407.735
22.0	1393.043
22.5	1377.432
23.0	1359.984
23.5	1343.455
24.0	1324.171
24.5	1303.969
25.0	1282.848
25.5	1260.809
26.0	1238.770
26.5	1214.895

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 6FDR-LS-8CS-CS-DIM-UNV_18W_3000K_.IES

CANDELA TABULATION - (Cont.)

27.0	1190.101
27.5	1164.389
28.0	1137.759
28.5	1111.128
29.0	1083.580
29.5	1055.113
30.0	1026.646
30.5	997.261
31.0	967.875
31.5	938.490
32.0	908.646
32.5	879.077
33.0	849.508
33.5	819.939
34.0	790.921
34.5	762.179
35.0	733.896
35.5	709.102
36.0	685.594
36.5	658.137
37.0	630.588
37.5	603.591
38.0	577.328
38.5	551.616
39.0	526.271
39.5	501.477
40.0	477.142
40.5	453.726
41.0	431.228
41.5	409.097
42.0	387.701
42.5	367.223
43.0	347.388
43.5	328.472
44.0	310.473
44.5	293.393
45.0	277.047
45.5	261.253
46.0	246.193
46.5	231.776
47.0	217.910
47.5	204.411
48.0	191.279
48.5	178.332
49.0	165.659
49.5	153.262
50.0	141.049
50.5	128.836
51.0	116.714
51.5	104.226
52.0	92.104
52.5	80.258
53.0	68.504
53.5	57.760
54.0	47.843
54.5	39.119

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 6FDR-LS-8CS-CS-DIM-UNV_18W_3000K_.IES

CANDELA TABULATION - (Cont.)

55.0	31.589
55.5	25.437
56.0	20.478
56.5	16.713
57.0	13.774
57.5	11.479
58.0	9.826
58.5	8.448
59.0	7.438
59.5	6.612
60.0	5.877
60.5	5.326
61.0	4.775
61.5	4.408
62.0	4.040
62.5	3.673
63.0	3.398
63.5	3.214
64.0	2.939
64.5	2.755
65.0	2.571
65.5	2.388
66.0	2.204
66.5	2.112
67.0	1.928
67.5	1.837
68.0	1.653
68.5	1.561
69.0	1.469
69.5	1.377
70.0	1.286
70.5	1.194
71.0	1.102
71.5	1.010
72.0	0.918
72.5	0.918
73.0	0.826
73.5	0.735
74.0	0.735
74.5	0.643
75.0	0.643
75.5	0.551
76.0	0.551
76.5	0.459
77.0	0.459
77.5	0.367
78.0	0.367
78.5	0.367
79.0	0.275
79.5	0.275
80.0	0.275
80.5	0.275
81.0	0.184
81.5	0.184
82.0	0.184
82.5	0.184

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 6FDR-LS-8CS-CS-DIM-UNV_18W_3000K_.IES****CANDELA TABULATION - (Cont.)**

83.0	0.184
83.5	0.184
84.0	0.092
84.5	0.092
85.0	0.092
85.5	0.092
86.0	0.092
86.5	0.092
87.0	0.092
87.5	0.092
88.0	0.092
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_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
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_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
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_18W_3000K_.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_18W_3000K_.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	583.53	N.A.	30.90
0-30	1163.96	N.A.	61.70
0-40	1623.02	N.A.	86.00
0-60	1884.36	N.A.	99.80
0-80	1887.86	N.A.	100.00
0-90	1887.99	N.A.	100.00
10-90	1737.54	N.A.	92.00
20-40	1039.49	N.A.	55.10
20-50	1258.99	N.A.	66.70
40-70	264.15	N.A.	14.00
60-80	3.50	N.A.	0.20
70-80	0.69	N.A.	0.00
80-90	0.13	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	1887.99	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	150.45
10-20	433.08
20-30	580.43
30-40	459.06
40-50	219.50
50-60	41.83
60-70	2.81
70-80	0.69
80-90	0.13
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_18W_3000K_.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

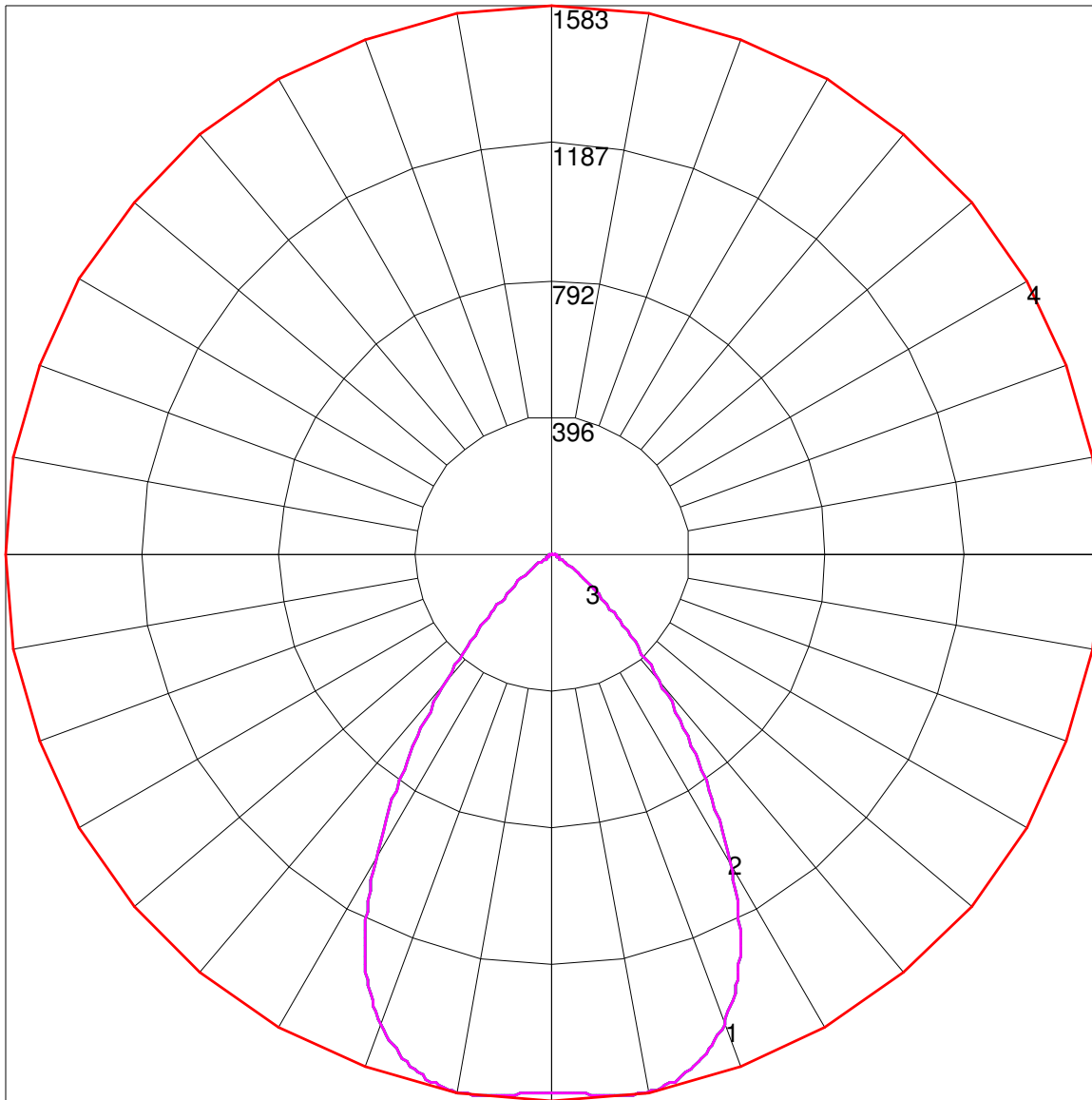
IES INDOOR REPORT
PHOTOMETRIC FILENAME : 6FDR-LS-8CS-CS-DIM-UNV_18W_3000K_.IES

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	2.2	2.2	2.2	2.2	2.4	2.2	2.2	2.2	2.2	2.4
	3H	2.2	2.2	2.2	2.2	2.3	2.2	2.2	2.2	2.2	2.3
	4H	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
	6H	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
	8H	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
	12H	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
4H	2H	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
	3H	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
	4H	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
	6H	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
	8H	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
	12H	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
8H	4H	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
	6H	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
	8H	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
	12H	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
12H	4H	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
	6H	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
	8H	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2

Maximum UGR = 2.4

POLAR GRAPH



Maximum Candela = 1583.128 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.)