



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 6FDR-LS-8CS-CS-DIM-UNV_10W_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_10W_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	1055
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	116
Total Luminaire Watts	9.1
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	11991	11991	11991
55	1686	1686	1686
65	186	186	186
75	76	76	76
85	32	32	32

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CANDELA TABULATION

	<u>0</u>
0.0	872.325
0.5	872.325
1.0	872.838
1.5	873.351
2.0	873.864
2.5	874.377
3.0	874.891
3.5	875.404
4.0	876.430
4.5	876.943
5.0	877.969
5.5	878.482
6.0	879.509
6.5	880.535
7.0	881.561
7.5	882.588
8.0	883.101
8.5	884.127
9.0	884.640
9.5	884.640
10.0	884.127
10.5	883.614
11.0	882.588
11.5	881.561
12.0	879.509
12.5	877.456
13.0	875.404
13.5	872.838
14.0	869.759
14.5	866.680
15.0	863.088
15.5	859.497
16.0	855.392
16.5	850.773
17.0	845.642
17.5	840.511
18.0	835.379
18.5	829.222
19.0	823.064
19.5	816.393
20.0	809.210
20.5	802.026
21.0	794.329
21.5	786.632
22.0	778.422
22.5	769.698
23.0	759.949
23.5	750.713
24.0	739.937
24.5	728.648
25.0	716.846
25.5	704.531
26.0	692.215
26.5	678.874

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CANDELA TABULATION - (Cont.)

27.0	665.019
27.5	650.652
28.0	635.771
28.5	620.890
29.0	605.496
29.5	589.589
30.0	573.682
30.5	557.262
31.0	540.841
31.5	524.421
32.0	507.744
32.5	491.222
33.0	474.699
33.5	458.176
34.0	441.961
34.5	425.900
35.0	410.095
35.5	396.241
36.0	383.105
36.5	367.762
37.0	352.368
37.5	337.282
38.0	322.606
38.5	308.239
39.0	294.076
39.5	280.222
40.0	266.624
40.5	253.539
41.0	240.967
41.5	228.600
42.0	216.644
42.5	205.202
43.0	194.118
43.5	183.547
44.0	173.490
44.5	163.946
45.0	154.812
45.5	145.986
46.0	137.571
46.5	129.515
47.0	121.766
47.5	114.223
48.0	106.885
48.5	99.650
49.0	92.569
49.5	85.642
50.0	78.817
50.5	71.992
51.0	65.219
51.5	58.241
52.0	51.467
52.5	44.848
53.0	38.280
53.5	32.276
54.0	26.734
54.5	21.859

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 6FDR-LS-8CS-CS-DIM-UNV_10W_3500K_.IES****CANDELA TABULATION - (Cont.)**

55.0	17.652
55.5	14.214
56.0	11.443
56.5	9.339
57.0	7.697
57.5	6.414
58.0	5.491
58.5	4.721
59.0	4.156
59.5	3.695
60.0	3.284
60.5	2.976
61.0	2.668
61.5	2.463
62.0	2.258
62.5	2.053
63.0	1.899
63.5	1.796
64.0	1.642
64.5	1.539
65.0	1.437
65.5	1.334
66.0	1.232
66.5	1.180
67.0	1.078
67.5	1.026
68.0	0.924
68.5	0.872
69.0	0.821
69.5	0.770
70.0	0.718
70.5	0.667
71.0	0.616
71.5	0.564
72.0	0.513
72.5	0.513
73.0	0.462
73.5	0.411
74.0	0.411
74.5	0.359
75.0	0.359
75.5	0.308
76.0	0.308
76.5	0.257
77.0	0.257
77.5	0.205
78.0	0.205
78.5	0.205
79.0	0.154
79.5	0.154
80.0	0.154
80.5	0.154
81.0	0.103
81.5	0.103
82.0	0.103
82.5	0.103

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CANDELA TABULATION - (Cont.)

83.0	0.103
83.5	0.103
84.0	0.051
84.5	0.051
85.0	0.051
85.5	0.051
86.0	0.051
86.5	0.051
87.0	0.051
87.5	0.051
88.0	0.051
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

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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
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	326.07	N.A.	30.90
0-30	650.41	N.A.	61.70
0-40	906.93	N.A.	86.00
0-60	1052.96	N.A.	99.80
0-80	1054.92	N.A.	100.00
0-90	1054.99	N.A.	100.00
10-90	970.93	N.A.	92.00
20-40	580.86	N.A.	55.10
20-50	703.52	N.A.	66.70
40-70	147.60	N.A.	14.00
60-80	1.96	N.A.	0.20
70-80	0.39	N.A.	0.00
80-90	0.07	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	1054.99	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	84.07
10-20	242.00
20-30	324.34
30-40	256.52
40-50	122.66
50-60	23.38
60-70	1.57
70-80	0.39
80-90	0.07
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	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

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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

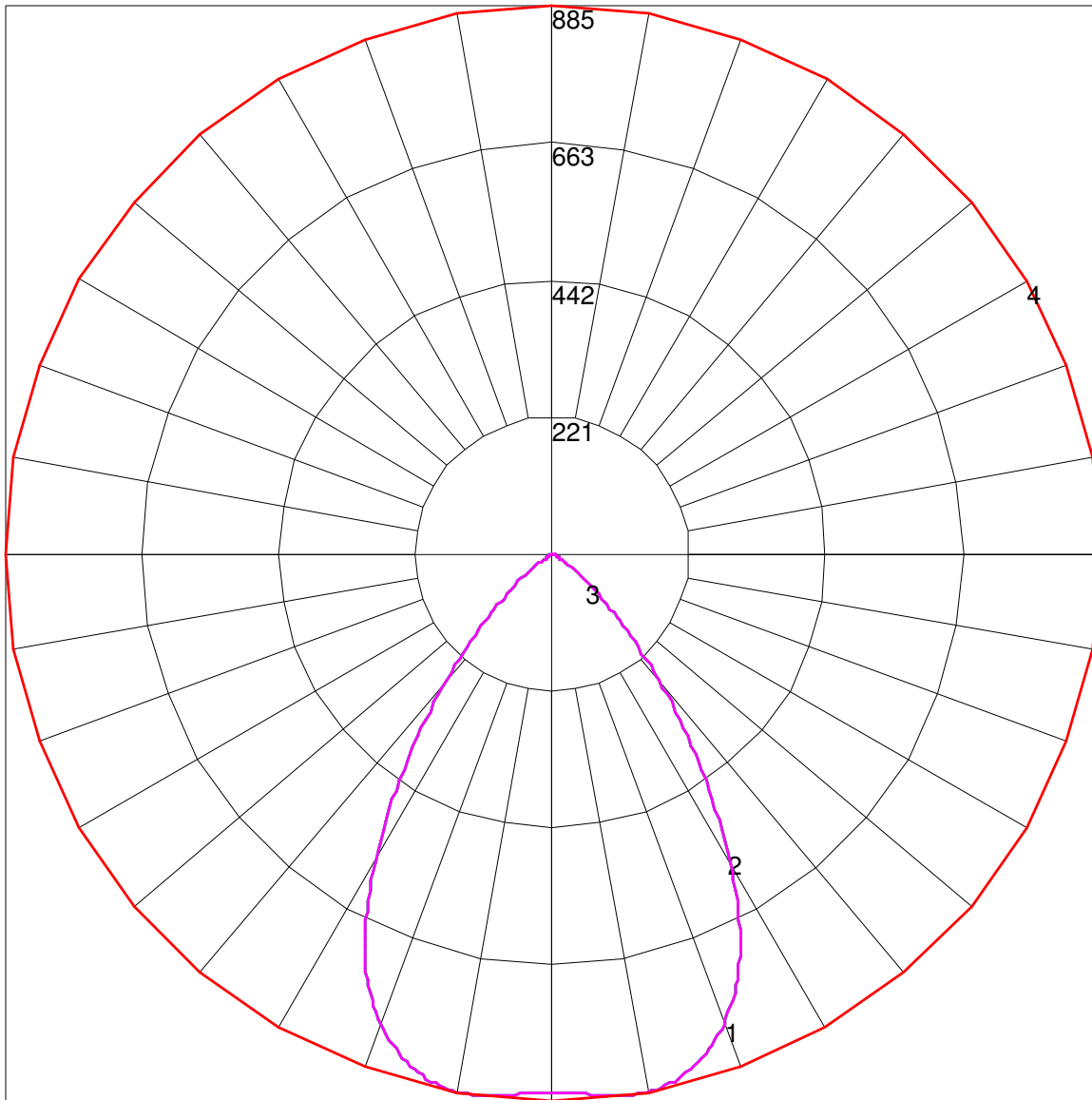
X=2H	Y=2H	0.2	0.2	0.2	0.2	0.4	0.2	0.2	0.2	0.2	0.4
	3H	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.3
	4H	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	6H	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	8H	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	12H	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2

UGR Viewed Endwise

4H	2H	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	3H	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	4H	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	6H	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	8H	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	12H	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
8H	4H	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	6H	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	8H	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	12H	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
12H	4H	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	6H	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	8H	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2

Maximum UGR = 0.4

POLAR GRAPH



Maximum Candela = 884.64 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.)