

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: FAIL-SAFE

Report Number: P239284

Luminaire Tested: **HDF-2-LD4-UNV-1-HI-50-EDC-1**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P239284  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1711-412-18)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: HDF-2-LD4-UNV-1-HI-50-EDC-1  
Description: FAILSAFE HDF LED FIXTURE  
2FT, 1-ROW LED BOARDS, NON-OVERLAY  
Light Source: (42) 5000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

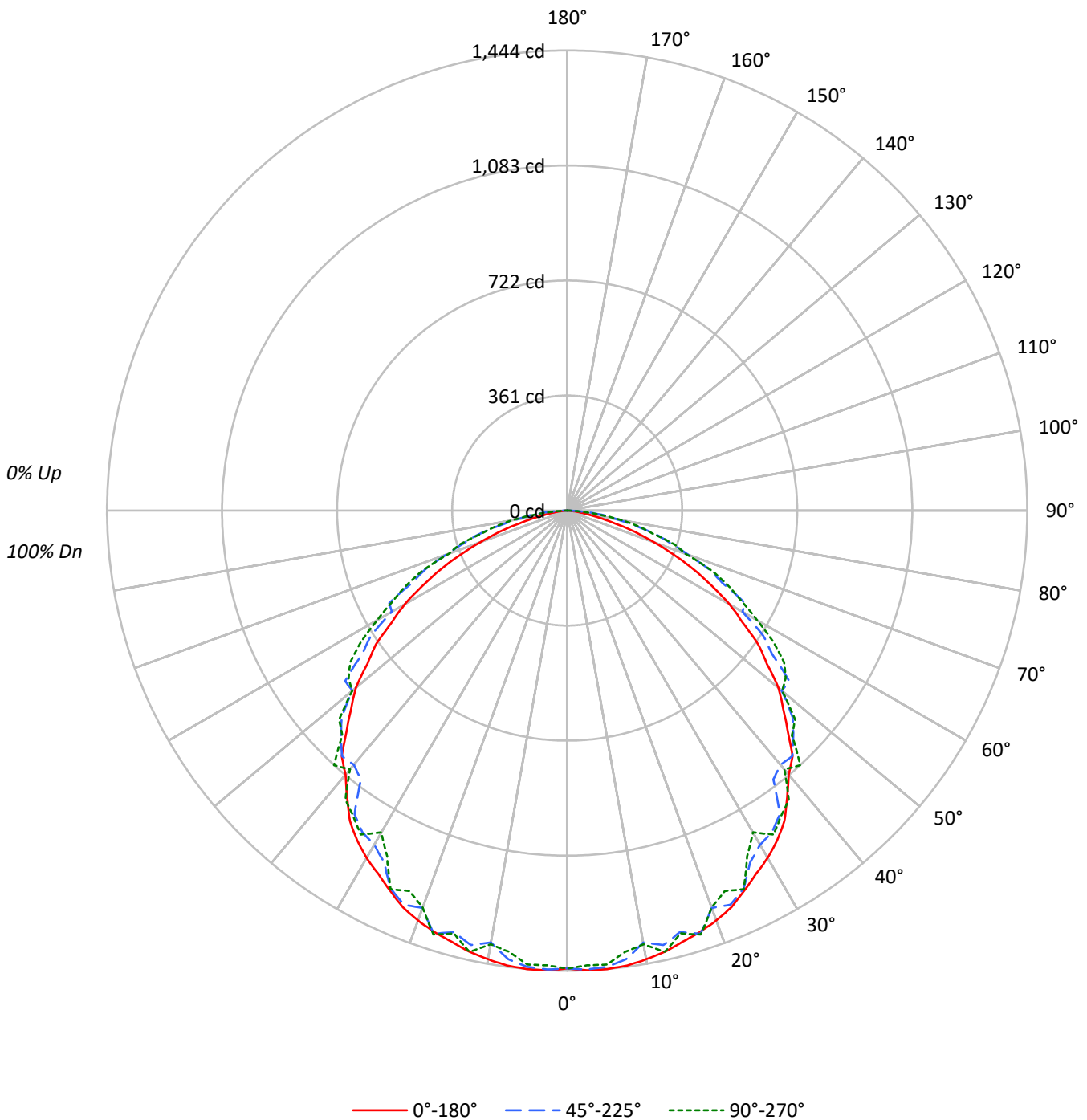
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4151.0 lumens  
Efficiency: N/A  
Efficacy: 87.0 lumens/watt  
Spacing Criteria (0/90/45): 1.3 / 1.28 / 1.41  
Luminous Opening: Rectangular (W 0.58' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 47.7  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT

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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				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
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	100	96	106	102	98	94	98	94	91	94	91	89	90	88	86	84
2	99	91	84	78	96	89	82	77	85	80	75	82	78	74	79	75	72	70
3	90	80	71	65	88	78	70	64	75	68	63	72	67	62	70	65	61	59
4	82	70	62	55	80	69	61	54	67	59	54	64	58	53	62	57	52	50
5	76	63	54	47	74	62	53	47	60	52	46	58	51	46	56	50	45	43
6	70	56	47	41	68	56	47	41	54	46	40	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	13259	13259	13259
5°	13376	13310	13242
10°	13395	12893	12947
15°	13380	13075	13117
20°	13440	13028	13013
25°	13390	13331	13345
30°	13410	12900	12421
35°	13393	13099	13180
40°	13029	12540	12767
45°	12771	13094	13018
50°	12426	12614	12634
55°	11779	12619	13365
60°	10865	11721	12710
65°	9593	11745	12188
70°	7863	10836	10601
75°	5532	10288	9874
80°	3161	8475	9325
85°	1535	7368	5992



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	135.6	3.3
10°-20°	390.8	9.4
20°-30°	593.9	14.3
30°-40°	724.4	17.5
40°-50°	763.0	18.4
50°-60°	688.8	16.6
60°-70°	513.3	12.4
70°-80°	272.7	6.6
80°-90°	68.4	1.6
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1120.4	27.0
0°-40°	1844.8	44.4
0°-60°	3296.5	79.4
0°-90°	4151.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4151.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1437	1437	1437	1437	1437	
5°	1444	1446	1437	1434	1430	137
15°	1401	1368	1369	1370	1373	396
25°	1315	1278	1310	1263	1311	607
35°	1189	1160	1163	1166	1170	739
45°	979	961	1004	1043	998	756
55°	732	702	784	828	831	649
65°	439	468	538	555	558	434
75°	155	231	289	287	277	172
85°	14	54	70	67	57	23
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1437.1	1437.1	1437.1	1437.1	1437.1
2.5°	1444.3	1435.6	1441.4	1431.3	1428.4
5°	1444.3	1445.8	1437.1	1434.2	1429.8
7.5°	1440.0	1445.8	1419.7	1371.8	1396.5
10°	1429.8	1432.7	1376.2	1392.1	1382.0
12.5°	1418.2	1421.1	1396.5	1393.6	1418.2
15°	1400.8	1367.5	1368.9	1370.4	1373.3
17.5°	1386.3	1328.3	1392.1	1386.3	1395.0
20°	1368.9	1344.3	1326.9	1353.0	1325.4
22.5°	1347.2	1322.5	1338.5	1295.0	1292.1
25°	1315.3	1277.6	1309.5	1263.1	1310.9
27.5°	1284.8	1257.3	1244.2	1280.5	1223.9
30°	1258.7	1254.4	1210.9	1177.5	1165.9
32.5°	1226.8	1200.7	1196.4	1151.4	1205.1
35°	1189.1	1160.1	1163.0	1165.9	1170.2
37.5°	1134.0	1151.4	1062.9	1126.7	1142.7
40°	1081.8	1097.7	1041.2	1097.7	1060.0
42.5°	1047.0	1010.7	1045.5	1028.1	1083.2
45°	978.8	961.4	1003.5	1042.6	997.7
47.5°	919.4	894.7	960.0	951.3	970.1
50°	865.7	849.8	878.8	913.6	880.2
52.5°	790.3	797.6	878.8	828.0	864.3
55°	732.3	701.9	784.5	828.0	830.9
57.5°	652.6	638.1	729.4	757.0	767.1
60°	588.8	617.8	635.2	707.7	688.8
62.5°	513.3	542.3	629.4	625.0	617.8
65°	439.4	468.4	538.0	555.4	558.3
67.5°	362.5	422.0	481.4	484.3	490.1
70°	291.5	361.1	401.7	423.4	393.0
72.5°	223.3	277.0	339.3	364.0	353.8
75°	155.2	230.6	288.6	287.1	277.0
77.5°	101.5	178.4	216.1	230.6	230.6
80°	59.5	127.6	159.5	179.8	175.5
82.5°	31.9	84.1	118.9	117.5	105.9
85°	14.5	53.7	69.6	66.7	56.6
87.5°	7.3	30.5	31.9	24.7	17.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)