

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: P239292

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

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P239292  
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-LO-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

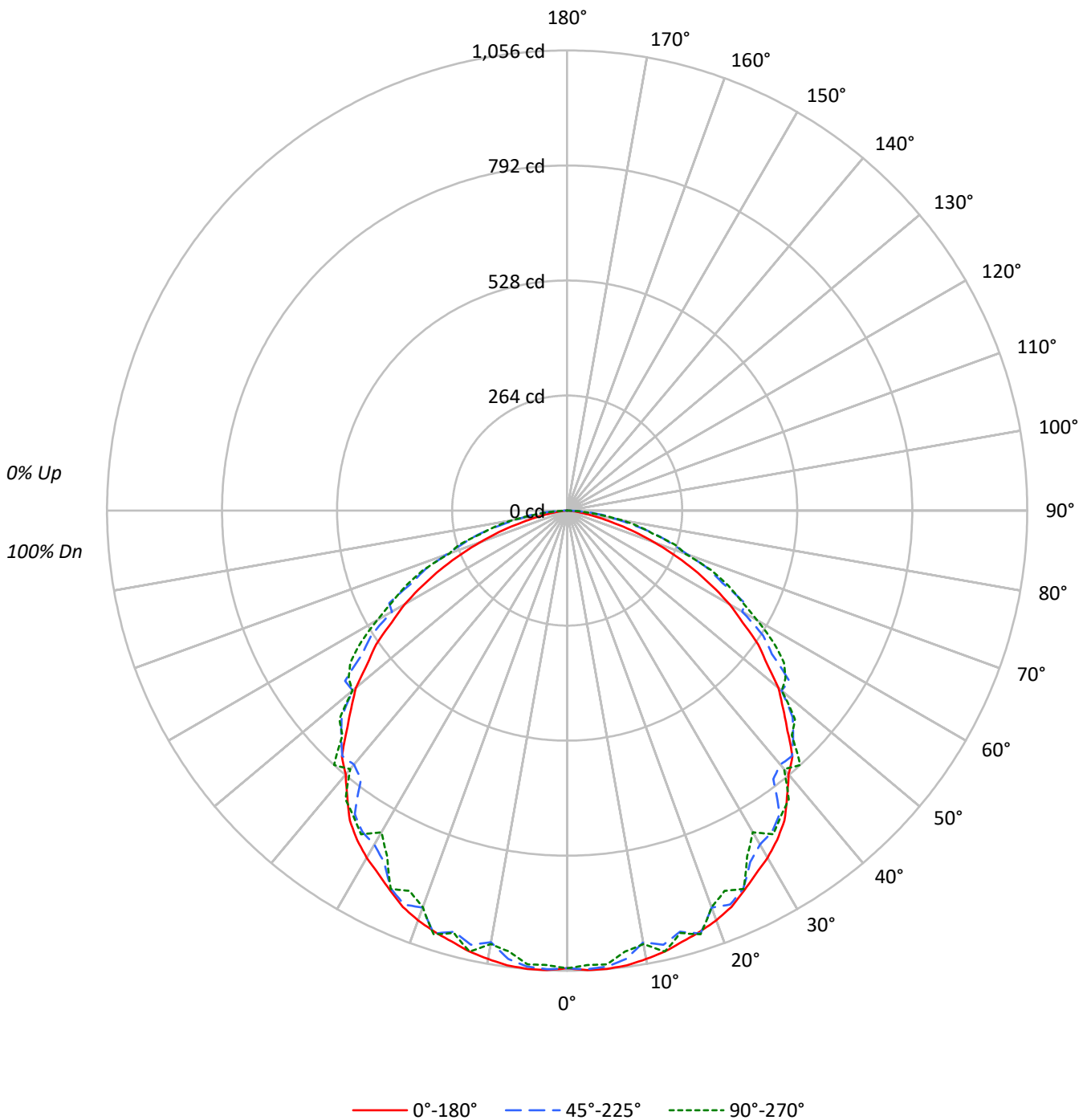
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3033.7 lumens  
Efficiency: N/A  
Efficacy: 122.8 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): 24.7  
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	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					100			
1	109	104	100	96	106	102	98	94	98	94	91	94	91	89	90	88	86	84					84			
2	99	91	84	78	96	89	82	77	85	80	75	82	78	74	79	75	72	70					70			
3	90	80	71	65	88	78	70	64	75	68	63	72	67	62	70	65	61	59					59			
4	82	70	62	55	80	69	61	54	67	59	54	64	58	53	62	57	52	50					50			
5	76	63	54	47	74	62	53	47	60	52	46	58	51	46	56	50	45	43					43			
6	70	56	47	41	68	56	47	41	54	46	40	52	45	40	50	44	40	38					38			
7	65	51	42	36	63	50	42	36	49	41	36	47	41	35	46	40	35	33					33			
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	30					30			
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27					27			
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24					24			

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

	0°	45°	90°
0°	9690	9690	9690
5°	9776	9727	9678
10°	9790	9423	9462
15°	9779	9556	9586
20°	9823	9521	9511
25°	9786	9742	9753
30°	9800	9427	9078
35°	9789	9574	9633
40°	9522	9165	9330
45°	9334	9569	9514
50°	9081	9219	9234
55°	8609	9223	9769
60°	7940	8566	9289
65°	7010	8584	8907
70°	5746	7920	7747
75°	4042	7518	7215
80°	2311	6195	6811
85°	1122	5388	4372



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	99.1	3.3
10°-20°	285.6	9.4
20°-30°	434.1	14.3
30°-40°	529.4	17.5
40°-50°	557.7	18.4
50°-60°	503.4	16.6
60°-70°	375.1	12.4
70°-80°	199.3	6.6
80°-90°	50.0	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°	818.8	27.0
0°-40°	1348.2	44.4
0°-60°	2409.3	79.4
0°-90°	3033.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3033.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1050	1050	1050	1050	1050	
5°	1056	1057	1050	1048	1045	100
15°	1024	999	1000	1002	1004	290
25°	961	934	957	923	958	444
35°	869	848	850	852	855	540
45°	715	703	733	762	729	553
55°	535	513	573	605	607	474
65°	321	342	393	406	408	317
75°	113	168	211	210	202	126
85°	11	39	51	49	41	17
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1050.3	1050.3	1050.3	1050.3	1050.3
2.5°	1055.6	1049.2	1053.5	1046.0	1043.9
5°	1055.6	1056.6	1050.3	1048.2	1045.0
7.5°	1052.4	1056.6	1037.6	1002.6	1020.6
10°	1045.0	1047.1	1005.8	1017.4	1010.0
12.5°	1036.5	1038.6	1020.6	1018.5	1036.5
15°	1023.8	999.4	1000.5	1001.5	1003.6
17.5°	1013.2	970.8	1017.4	1013.2	1019.5
20°	1000.5	982.5	969.7	988.8	968.7
22.5°	984.6	966.6	978.2	946.4	944.3
25°	961.3	933.7	957.0	923.1	958.1
27.5°	939.0	918.9	909.3	935.8	894.5
30°	919.9	916.7	884.9	860.6	852.1
32.5°	896.6	877.5	874.4	841.5	880.7
35°	869.1	847.9	850.0	852.1	855.3
37.5°	828.8	841.5	776.8	823.5	835.1
40°	790.6	802.3	761.0	802.3	774.7
42.5°	765.2	738.7	764.1	751.4	791.7
45°	715.4	702.7	733.4	762.0	729.2
47.5°	671.9	653.9	701.6	695.2	709.0
50°	632.7	621.1	642.3	667.7	643.3
52.5°	577.6	582.9	642.3	605.2	631.7
55°	535.2	513.0	573.4	605.2	607.3
57.5°	476.9	466.3	533.1	553.2	560.6
60°	430.3	451.5	464.2	517.2	503.4
62.5°	375.2	396.4	460.0	456.8	451.5
65°	321.1	342.3	393.2	405.9	408.0
67.5°	265.0	308.4	351.9	354.0	358.2
70°	213.0	263.9	293.6	309.5	287.2
72.5°	163.2	202.4	248.0	266.0	258.6
75°	113.4	168.5	210.9	209.8	202.4
77.5°	74.2	130.4	157.9	168.5	168.5
80°	43.5	93.3	116.6	131.4	128.2
82.5°	23.3	61.5	86.9	85.8	77.4
85°	10.6	39.2	50.9	48.8	41.3
87.5°	5.3	22.3	23.3	18.0	12.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)