

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: P239289

Luminaire Tested: **HDF-2-LD4-UNV-1-LO-30-EDC-1**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P239289  
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-30-EDC-1  
Description: FAILSAFE HDF LED FIXTURE  
2FT, 1-ROW LED BOARDS, NON-OVERLAY  
Light Source: (42) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

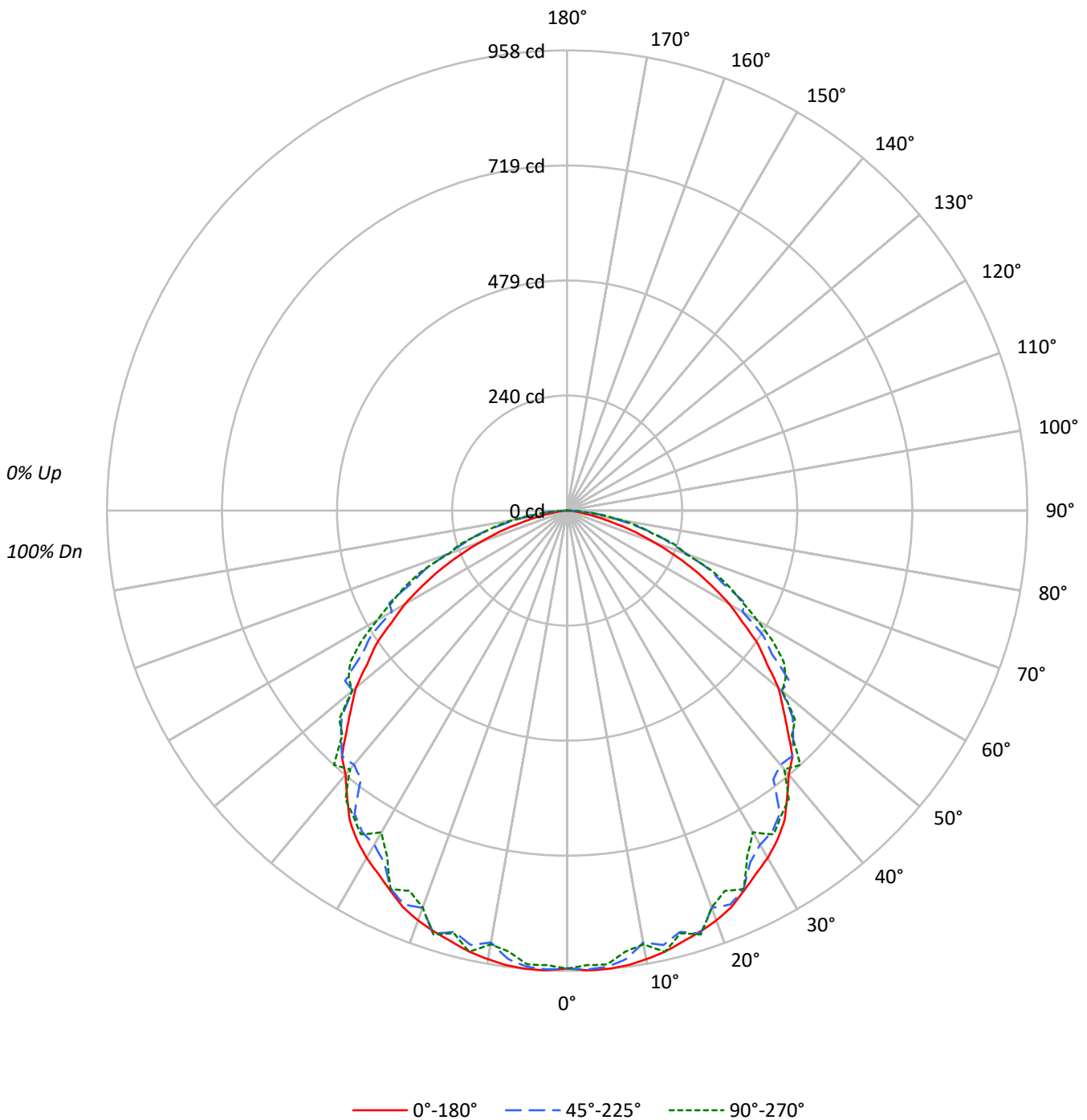
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2753.2 lumens  
Efficiency: N/A  
Efficacy: 111.5 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

TEST NUMBER: P239289  
CATALOG NUMBER: HDF-2-LD4-UNV-1-LO-30-EDC-1

### Luminous Intensity Polar Plot





TEST NUMBER: P239289

CATALOG NUMBER: HDF-2-LD4-UNV-1-LO-30-EDC-1

**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°	8794	8794	8794
5°	8872	8828	8784
10°	8885	8552	8587
15°	8874	8673	8701
20°	8915	8641	8631
25°	8881	8841	8852
30°	8895	8556	8238
35°	8883	8688	8742
40°	8642	8318	8468
45°	8471	8685	8634
50°	8242	8367	8380
55°	7813	8371	8865
60°	7206	7774	8431
65°	6362	7789	8084
70°	5214	7186	7033
75°	3668	6823	6548
80°	2093	5621	6185
85°	1016	4891	3970



TEST NUMBER: P239289

CATALOG NUMBER: HDF-2-LD4-UNV-1-LO-30-EDC-1

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	90.0	3.3
10°-20°	259.2	9.4
20°-30°	393.9	14.3
30°-40°	480.5	17.5
40°-50°	506.1	18.4
50°-60°	456.8	16.6
60°-70°	340.4	12.4
70°-80°	180.9	6.6
80°-90°	45.4	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°	743.1	27.0
0°-40°	1223.6	44.4
0°-60°	2186.5	79.4
0°-90°	2753.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2753.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	953	953	953	953	953	
5°	958	959	953	951	948	91
15°	929	907	908	909	911	263
25°	872	847	868	838	870	403
35°	789	770	771	773	776	490
45°	649	638	666	692	662	502
55°	486	466	520	549	551	430
65°	291	311	357	368	370	288
75°	103	153	191	190	184	114
85°	10	36	46	44	38	15
90°	0	0	0	0	0	



TEST NUMBER: P239289

CATALOG NUMBER: HDF-2-LD4-UNV-1-LO-30-EDC-1

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	953.2	953.2	953.2	953.2	953.2
2.5°	958.0	952.2	956.1	949.3	947.4
5°	958.0	959.0	953.2	951.3	948.4
7.5°	955.1	959.0	941.6	909.9	926.2
10°	948.4	950.3	912.8	923.4	916.6
12.5°	940.7	942.6	926.2	924.3	940.7
15°	929.1	907.0	908.0	908.9	910.9
17.5°	919.5	881.0	923.4	919.5	925.3
20°	908.0	891.6	880.1	897.4	879.1
22.5°	893.5	877.2	887.8	858.9	857.0
25°	872.4	847.4	868.5	837.8	869.5
27.5°	852.2	833.9	825.3	849.3	811.8
30°	834.9	832.0	803.1	781.0	773.3
32.5°	813.7	796.4	793.5	763.7	799.3
35°	788.7	769.5	771.4	773.3	776.2
37.5°	752.2	763.7	705.0	747.3	757.9
40°	717.5	728.1	690.6	728.1	703.1
42.5°	694.4	670.4	693.5	681.9	718.5
45°	649.2	637.7	665.6	691.6	661.7
47.5°	609.8	593.5	636.7	631.0	643.5
50°	574.2	563.6	582.9	606.0	583.8
52.5°	524.2	529.0	582.9	549.2	573.3
55°	485.7	465.5	520.4	549.2	551.1
57.5°	432.8	423.2	483.8	502.1	508.8
60°	390.5	409.7	421.3	469.4	456.9
62.5°	340.5	359.7	417.4	414.6	409.7
65°	291.4	310.7	356.8	368.4	370.3
67.5°	240.5	279.9	319.3	321.3	325.1
70°	193.3	239.5	266.4	280.9	260.7
72.5°	148.1	183.7	225.1	241.4	234.7
75°	102.9	152.9	191.4	190.4	183.7
77.5°	67.3	118.3	143.3	152.9	152.9
80°	39.4	84.6	105.8	119.3	116.4
82.5°	21.2	55.8	78.9	77.9	70.2
85°	9.6	35.6	46.2	44.2	37.5
87.5°	4.8	20.2	21.2	16.4	11.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)