

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: P239301

Luminaire Tested: **HDF-2-LD4-UNV-1-LO-30-IK12-EDC-1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P239301
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1711-412-19)
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-IK12-EDC-1
Description: FAILSAFE HDF LED FIXTURE
2FT, 1-ROW LED BOARDS, CLEAR LENS
Light Source: (42) 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

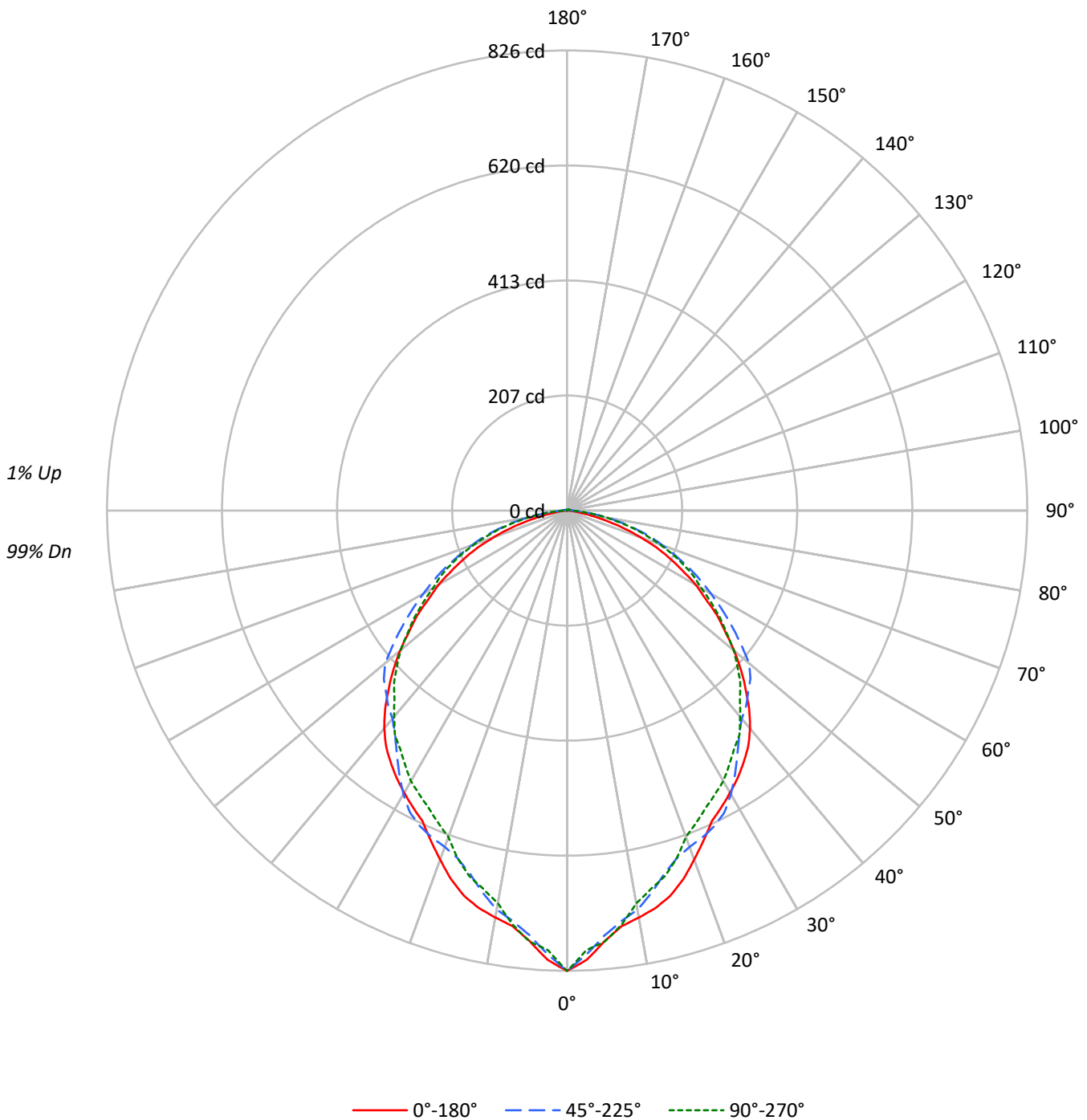
Lumens per Lamp: N/A
Luminaire Lumens: 1931.7 lumens
Efficiency: N/A
Efficacy: 78.2 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 1 / 1.23
Luminous Opening: Rectangular (W 0.58' x L: 2' x H: 0')
CIE Type: Direct

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: P239301

CATALOG NUMBER: HDF-2-LD4-UNV-1-LO-30-IK12-EDC-1

Luminous Intensity Polar Plot





TEST NUMBER: P239301

CATALOG NUMBER: HDF-2-LD4-UNV-1-LO-30-IK12-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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	101	101	101	99
1	109	104	100	96	106	102	98	95	97	94	91	93	91	89	90	88	86	84
2	99	91	84	79	96	89	83	78	85	80	76	82	78	74	79	75	72	70
3	90	80	72	66	88	78	71	65	75	69	64	73	67	63	70	65	61	59
4	83	71	62	56	81	70	62	55	67	60	54	65	59	54	62	57	53	51
5	76	64	55	48	74	62	54	48	60	53	47	58	52	47	56	51	46	44
6	70	57	48	42	69	56	48	42	54	47	41	53	46	41	51	45	41	38
7	65	52	43	37	64	51	43	37	50	42	37	48	41	36	47	41	36	34
8	61	47	39	33	59	47	39	33	45	38	33	44	37	33	43	37	32	30
9	57	44	35	30	55	43	35	30	42	35	30	41	34	29	40	34	29	27
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7624	7624	7624
5°	7180	7092	7190
10°	6948	6813	6705
15°	6836	6441	6487
20°	6545	6308	6120
25°	6258	6365	5993
30°	6230	6261	5974
35°	6218	6002	5883
40°	6152	5874	5816
45°	5912	5999	5736
50°	5619	6116	5605
55°	5292	5802	5384
60°	4916	5484	5111
65°	4451	5229	5041
70°	3787	4904	4775
75°	2777	4527	4388
80°	1536	3831	3682
85°	815	2953	2848



TEST NUMBER: P239301

CATALOG NUMBER: HDF-2-LD4-UNV-1-LO-30-IK12-EDC-1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.2	3.7
10°-20°	192.7	10.0
20°-30°	283.4	14.7
30°-40°	336.1	17.4
40°-50°	344.9	17.9
50°-60°	311.6	16.1
60°-70°	225.7	11.7
70°-80°	120.7	6.2
80°-90°	30.3	1.6
90°-100°	6.1	0.3
100°-110°	3.7	0.2
110°-120°	2.1	0.1
120°-130°	1.5	0.1
130°-140°	0.8	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°	548.2	28.4
0°-40°	884.3	45.8
0°-60°	1540.8	79.8
0°-90°	1917.5	99.3
90°-120°	11.9	0.6
90°-150°	14.2	0.7
90°-180°	14.0	0.7
0°-180°	1931.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	826	826	826	826	826	
5°	775	766	766	768	776	73
15°	716	685	674	675	679	200
25°	615	624	625	603	589	286
35°	552	544	533	535	522	345
45°	453	442	460	435	440	349
55°	329	349	361	363	335	293
65°	204	214	240	240	231	201
75°	78	102	127	126	123	85
85°	8	22	28	28	27	11
90°	0	8	9	8	6	0
95°	0	5	8	7	6	0
105°	0	2	4	5	5	1
115°	1	1	2	3	3	1
125°	1	1	2	2	3	1
135°	1	1	1	2	3	0
145°	0	0	0	0	0	0
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P239301

CATALOG NUMBER: HDF-2-LD4-UNV-1-LO-30-IK12-EDC-1

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	826.3	826.3	826.3	826.3	826.3
2.5°	807.0	802.2	797.4	790.7	789.7
5°	775.3	765.7	765.7	767.6	776.3
7.5°	752.2	744.5	743.5	744.5	749.3
10°	741.6	731.0	727.2	712.8	715.7
12.5°	731.0	711.8	702.2	692.6	695.5
15°	715.7	684.9	674.3	675.3	679.1
17.5°	693.5	664.7	654.1	658.9	654.1
20°	666.6	650.2	642.5	639.7	623.3
22.5°	640.6	636.8	634.9	617.5	606.0
25°	614.7	624.3	625.2	603.1	588.7
27.5°	600.2	612.7	610.8	590.6	574.3
30°	584.8	594.5	587.7	579.1	560.8
32.5°	569.4	571.4	560.8	561.7	541.5
35°	552.1	543.5	532.9	534.8	522.3
37.5°	533.9	518.5	506.9	504.0	507.9
40°	510.8	487.7	487.7	477.1	482.9
42.5°	483.8	466.5	475.2	455.9	458.8
45°	453.1	442.5	459.8	434.8	439.6
47.5°	423.2	421.3	446.3	421.3	414.6
50°	391.5	396.3	426.1	403.0	390.5
52.5°	357.8	375.1	392.5	383.8	360.7
55°	329.0	349.2	360.7	362.6	334.7
57.5°	294.3	313.6	329.0	333.8	305.9
60°	266.4	282.8	297.2	300.1	277.0
62.5°	233.7	249.1	269.3	269.3	256.8
65°	203.9	213.5	239.5	240.5	230.9
67.5°	174.1	181.8	209.7	211.6	204.9
70°	140.4	152.9	181.8	181.8	177.0
72.5°	108.7	127.9	156.8	152.9	149.1
75°	77.9	102.0	127.0	126.0	123.1
77.5°	50.0	77.9	99.1	98.1	95.2
80°	28.9	55.8	72.1	71.2	69.3
82.5°	15.4	37.5	48.1	47.1	46.2
85°	7.7	22.1	27.9	27.9	26.9
87.5°	2.9	12.5	15.4	13.5	12.5
90°	0.0	7.7	8.7	7.7	5.8
92.5°	0.0	5.8	8.7	7.7	5.8
95°	0.0	4.8	7.7	6.7	5.8
97.5°	0.0	3.8	6.7	6.7	5.8
100°	0.0	2.9	5.8	6.7	5.8
102.5°	0.0	1.9	4.8	5.8	4.8
105°	0.0	1.9	3.8	4.8	4.8
107.5°	1.0	1.9	3.8	4.8	4.8
110°	1.0	1.0	2.9	3.8	3.8



TEST NUMBER: P239301

CATALOG NUMBER: HDF-2-LD4-UNV-1-LO-30-IK12-EDC-1

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	1.0	1.0	2.9	2.9	3.8
115°	1.0	1.0	1.9	2.9	2.9
117.5°	1.0	1.0	1.9	2.9	2.9
120°	1.0	1.0	1.9	2.9	2.9
122.5°	1.0	1.0	1.9	1.9	2.9
125°	1.0	1.0	1.9	1.9	2.9
127.5°	1.0	1.0	1.9	1.9	2.9
130°	1.0	1.0	1.9	1.9	2.9
132.5°	1.0	1.0	1.9	1.9	2.9
135°	1.0	1.0	1.0	1.9	2.9
137.5°	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)