

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: P239297

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

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P239297
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-STD-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

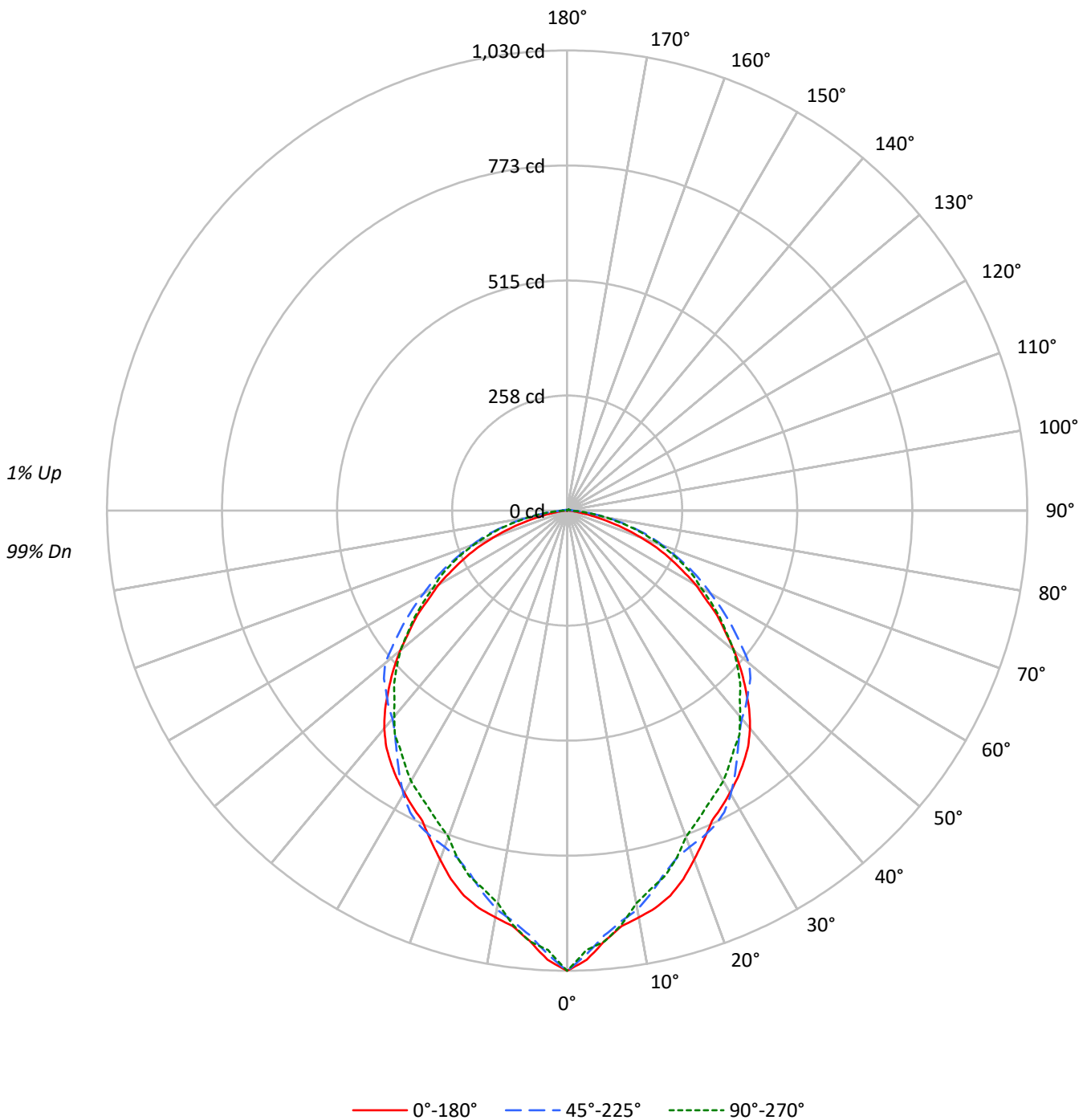
Lumens per Lamp: N/A
Luminaire Lumens: 2408.2 lumens
Efficiency: N/A
Efficacy: 67.5 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 1 / 1.23
Luminous Opening: Rectangular (W 0.58' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 35.7
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: P239297

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

Luminous Intensity Polar Plot





TEST NUMBER: P239297

CATALOG NUMBER: HDF-2-LD4-UNV-1-STD-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°	9504	9504	9504
5°	8951	8840	8962
10°	8662	8494	8359
15°	8522	8029	8086
20°	8159	7865	7630
25°	7801	7935	7471
30°	7767	7806	7448
35°	7752	7482	7335
40°	7670	7323	7250
45°	7369	7479	7150
50°	7006	7625	6989
55°	6597	7234	6712
60°	6130	6837	6373
65°	5549	6519	6283
70°	4723	6113	5951
75°	3461	5643	5472
80°	1913	4777	4585
85°	1016	3684	3557



TEST NUMBER: P239297

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

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.0	3.7
10°-20°	240.2	10.0
20°-30°	353.3	14.7
30°-40°	419.0	17.4
40°-50°	429.9	17.9
50°-60°	388.5	16.1
60°-70°	281.4	11.7
70°-80°	150.4	6.2
80°-90°	37.8	1.6
90°-100°	7.7	0.3
100°-110°	4.6	0.2
110°-120°	2.6	0.1
120°-130°	1.9	0.1
130°-140°	1.0	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°	683.5	28.4
0°-40°	1102.4	45.8
0°-60°	1920.9	79.8
0°-90°	2390.5	99.3
90°-120°	14.8	0.6
90°-150°	17.7	0.7
90°-180°	18.0	0.7
0°-180°	2408.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1030	1030	1030	1030	1030	
5°	966	954	954	957	968	91
15°	892	854	841	842	847	250
25°	766	778	780	752	734	357
35°	688	678	664	667	651	430
45°	565	552	573	542	548	436
55°	410	435	450	452	417	365
65°	254	266	299	300	288	251
75°	97	127	158	157	154	105
85°	10	28	35	35	34	13
90°	0	10	11	10	7	0
95°	0	6	10	8	7	0
105°	0	2	5	6	6	1
115°	1	1	2	4	4	1
125°	1	1	2	2	4	1
135°	1	1	1	2	4	1
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: P239297

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

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1030.1	1030.1	1030.1	1030.1	1030.1
2.5°	1006.1	1000.1	994.1	985.7	984.5
5°	966.5	954.5	954.5	956.9	967.7
7.5°	937.8	928.2	927.0	928.2	934.2
10°	924.6	911.4	906.6	888.6	892.2
12.5°	911.4	887.4	875.4	863.4	867.0
15°	892.2	853.8	840.6	841.8	846.6
17.5°	864.6	828.6	815.4	821.4	815.4
20°	831.0	810.6	801.1	797.5	777.1
22.5°	798.7	793.9	791.5	769.9	755.5
25°	766.3	778.3	779.5	751.9	733.9
27.5°	748.3	763.9	761.5	736.3	715.9
30°	729.1	741.1	732.7	721.9	699.1
32.5°	709.9	712.3	699.1	700.3	675.1
35°	688.3	677.5	664.3	666.7	651.2
37.5°	665.5	646.4	632.0	628.4	633.2
40°	636.8	608.0	608.0	594.8	602.0
42.5°	603.2	581.6	592.4	568.4	572.0
45°	564.8	551.6	573.2	542.0	548.0
47.5°	527.6	525.2	556.4	525.2	516.8
50°	488.1	494.1	531.2	502.5	486.9
52.5°	446.1	467.7	489.3	478.5	449.7
55°	410.1	435.3	449.7	452.1	417.3
57.5°	366.9	390.9	410.1	416.1	381.3
60°	332.2	352.6	370.5	374.1	345.4
62.5°	291.4	310.6	335.8	335.8	320.2
65°	254.2	266.2	298.6	299.8	287.8
67.5°	217.1	226.6	261.4	263.8	255.4
70°	175.1	190.7	226.6	226.6	220.6
72.5°	135.5	159.5	195.5	190.7	185.9
75°	97.1	127.1	158.3	157.1	153.5
77.5°	62.4	97.1	123.5	122.3	118.7
80°	36.0	69.6	89.9	88.7	86.3
82.5°	19.2	46.8	60.0	58.8	57.6
85°	9.6	27.6	34.8	34.8	33.6
87.5°	3.6	15.6	19.2	16.8	15.6
90°	0.0	9.6	10.8	9.6	7.2
92.5°	0.0	7.2	10.8	9.6	7.2
95°	0.0	6.0	9.6	8.4	7.2
97.5°	0.0	4.8	8.4	8.4	7.2
100°	0.0	3.6	7.2	8.4	7.2
102.5°	0.0	2.4	6.0	7.2	6.0
105°	0.0	2.4	4.8	6.0	6.0
107.5°	1.2	2.4	4.8	6.0	6.0
110°	1.2	1.2	3.6	4.8	4.8



TEST NUMBER: P239297

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

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	1.2	1.2	3.6	3.6	4.8
115°	1.2	1.2	2.4	3.6	3.6
117.5°	1.2	1.2	2.4	3.6	3.6
120°	1.2	1.2	2.4	3.6	3.6
122.5°	1.2	1.2	2.4	2.4	3.6
125°	1.2	1.2	2.4	2.4	3.6
127.5°	1.2	1.2	2.4	2.4	3.6
130°	1.2	1.2	2.4	2.4	3.6
132.5°	1.2	1.2	2.4	2.4	3.6
135°	1.2	1.2	1.2	2.4	3.6
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)