

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: P239296

Luminaire Tested: **HDF-2-LD4-UNV-1-HI-50-IK12-EDC-1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P239296
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-HI-50-IK12-EDC-1
Description: FAILSAFE HDF LED FIXTURE
2FT, 1-ROW LED BOARDS, CLEAR LENS
Light Source: (42) 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

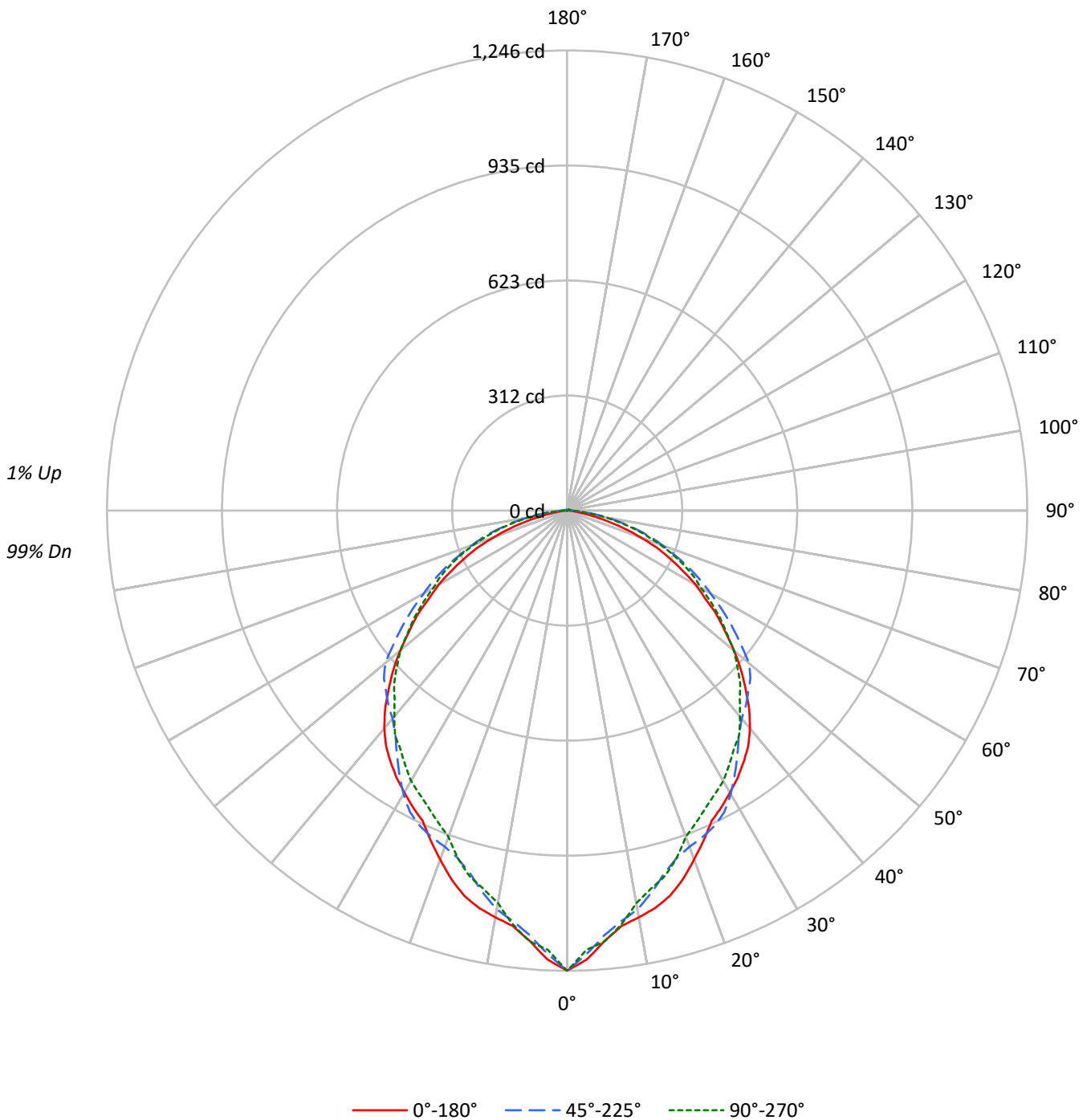
Lumens per Lamp: N/A
Luminaire Lumens: 2912.5 lumens
Efficiency: N/A
Efficacy: 61.1 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 1 / 1.23
Luminous Opening: Rectangular (W 0.58' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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	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°	11493	11493	11493
5°	10826	10691	10839
10°	10475	10272	10109
15°	10306	9710	9780
20°	9867	9511	9226
25°	9434	9596	9035
30°	9393	9440	9008
35°	9375	9049	8870
40°	9275	8856	8768
45°	8913	9045	8648
50°	8471	9221	8451
55°	7978	8747	8118
60°	7412	8269	7708
65°	6711	7883	7599
70°	5711	7394	7197
75°	4189	6823	6616
80°	2311	5781	5547
85°	1228	4457	4298



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	108.8	3.7
10°-20°	290.5	10.0
20°-30°	427.3	14.7
30°-40°	506.7	17.4
40°-50°	520.0	17.9
50°-60°	469.9	16.1
60°-70°	340.3	11.7
70°-80°	181.9	6.2
80°-90°	45.7	1.6
90°-100°	9.3	0.3
100°-110°	5.6	0.2
110°-120°	3.2	0.1
120°-130°	2.3	0.1
130°-140°	1.2	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°	826.5	28.4
0°-40°	1333.2	45.8
0°-60°	2323.0	79.8
0°-90°	2890.9	99.3
90°-120°	18.0	0.6
90°-150°	21.6	0.7
90°-180°	22.0	0.8
0°-180°	2912.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1246	1246	1246	1246	1246	
5°	1169	1154	1154	1157	1170	110
15°	1079	1033	1017	1018	1024	302
25°	927	941	943	909	888	431
35°	832	819	803	806	788	520
45°	683	667	693	656	663	527
55°	496	526	544	547	505	441
65°	307	322	361	363	348	304
75°	118	154	191	190	186	127
85°	12	33	42	42	41	16
90°	0	12	13	12	9	1
95°	0	7	12	10	9	0
105°	0	3	6	7	7	1
115°	2	2	3	4	4	1
125°	2	2	3	3	4	1
135°	2	2	2	3	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



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1245.7	1245.7	1245.7	1245.7	1245.7
2.5°	1216.7	1209.5	1202.2	1192.1	1190.6
5°	1168.9	1154.4	1154.4	1157.3	1170.3
7.5°	1134.1	1122.5	1121.0	1122.5	1129.7
10°	1118.1	1102.2	1096.4	1074.6	1079.0
12.5°	1102.2	1073.2	1058.7	1044.2	1048.5
15°	1079.0	1032.6	1016.6	1018.1	1023.9
17.5°	1045.6	1002.1	986.1	993.4	986.1
20°	1005.0	980.3	968.7	964.4	939.7
22.5°	965.8	960.0	957.1	931.0	913.6
25°	926.7	941.2	942.6	909.3	887.5
27.5°	904.9	923.8	920.9	890.4	865.8
30°	881.7	896.2	886.1	873.0	845.5
32.5°	858.5	861.4	845.5	846.9	816.5
35°	832.4	819.4	803.4	806.3	787.5
37.5°	804.9	781.7	764.3	759.9	765.7
40°	770.1	735.3	735.3	719.3	728.0
42.5°	729.5	703.4	716.4	687.4	691.8
45°	683.1	667.1	693.2	655.5	662.8
47.5°	638.1	635.2	672.9	635.2	625.0
50°	590.2	597.5	642.4	607.6	588.8
52.5°	539.5	565.6	591.7	578.6	543.8
55°	496.0	526.4	543.8	546.7	504.7
57.5°	443.8	472.8	496.0	503.2	461.2
60°	401.7	426.4	448.1	452.5	417.7
62.5°	352.4	375.6	406.1	406.1	387.2
65°	307.4	321.9	361.1	362.6	348.1
67.5°	262.5	274.1	316.1	319.0	308.9
70°	211.7	230.6	274.1	274.1	266.8
72.5°	163.9	192.9	236.4	230.6	224.8
75°	117.5	153.7	191.4	190.0	185.6
77.5°	75.4	117.5	149.4	147.9	143.6
80°	43.5	84.1	108.8	107.3	104.4
82.5°	23.2	56.6	72.5	71.1	69.6
85°	11.6	33.4	42.1	42.1	40.6
87.5°	4.4	18.9	23.2	20.3	18.9
90°	0.0	11.6	13.1	11.6	8.7
92.5°	0.0	8.7	13.1	11.6	8.7
95°	0.0	7.3	11.6	10.2	8.7
97.5°	0.0	5.8	10.2	10.2	8.7
100°	0.0	4.4	8.7	10.2	8.7
102.5°	0.0	2.9	7.3	8.7	7.3
105°	0.0	2.9	5.8	7.3	7.3
107.5°	1.5	2.9	5.8	7.3	7.3
110°	1.5	1.5	4.4	5.8	5.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	1.5	1.5	4.4	4.4	5.8
115°	1.5	1.5	2.9	4.4	4.4
117.5°	1.5	1.5	2.9	4.4	4.4
120°	1.5	1.5	2.9	4.4	4.4
122.5°	1.5	1.5	2.9	2.9	4.4
125°	1.5	1.5	2.9	2.9	4.4
127.5°	1.5	1.5	2.9	2.9	4.4
130°	1.5	1.5	2.9	2.9	4.4
132.5°	1.5	1.5	2.9	2.9	4.4
135°	1.5	1.5	1.5	2.9	4.4
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)