

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: P239300

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

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P239300
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-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

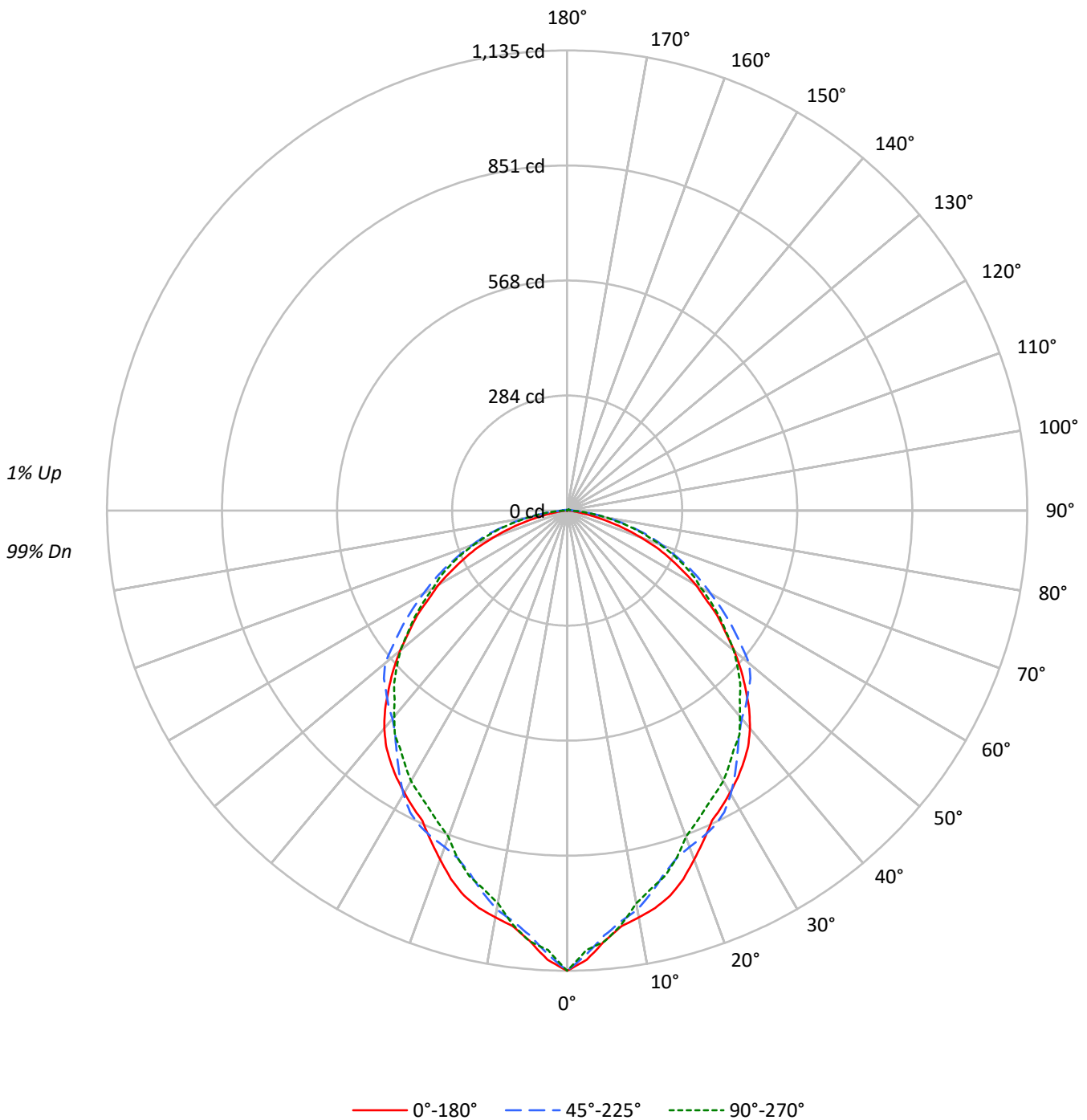
Lumens per Lamp: N/A
Luminaire Lumens: 2653.4 lumens
Efficiency: N/A
Efficacy: 74.3 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 1 / 1.23
Luminous Opening: Rectangular (W 0.58' x L: 2' x H: 0')
CIE Type: Direct

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

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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	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°	10472	10472	10472
5°	9863	9741	9875
10°	9545	9358	9210
15°	9390	8848	8911
20°	8991	8667	8406
25°	8595	8744	8233
30°	8559	8601	8206
35°	8543	8245	8081
40°	8450	8068	7989
45°	8121	8241	7880
50°	7719	8403	7701
55°	7269	7970	7396
60°	6754	7534	7021
65°	6115	7182	6923
70°	5204	6736	6558
75°	3814	6217	6028
80°	2104	5265	5053
85°	1122	4054	3917



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.1	3.7
10°-20°	264.7	10.0
20°-30°	389.3	14.7
30°-40°	461.6	17.4
40°-50°	473.7	17.9
50°-60°	428.1	16.1
60°-70°	310.0	11.7
70°-80°	165.8	6.2
80°-90°	41.6	1.6
90°-100°	8.4	0.3
100°-110°	5.0	0.2
110°-120°	2.9	0.1
120°-130°	2.1	0.1
130°-140°	1.1	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°	753.1	28.4
0°-40°	1214.7	45.8
0°-60°	2116.6	79.8
0°-90°	2634.0	99.3
90°-120°	16.3	0.6
90°-150°	19.5	0.7
90°-180°	19.0	0.7
0°-180°	2653.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1135	1135	1135	1135	1135	
5°	1065	1052	1052	1054	1066	100
15°	983	941	926	928	933	275
25°	844	858	859	828	809	393
35°	758	747	732	735	718	474
45°	622	608	632	597	604	480
55°	452	480	496	498	460	402
65°	280	293	329	330	317	277
75°	107	140	174	173	169	116
85°	11	30	38	38	37	15
90°	0	11	12	11	8	1
95°	0	7	11	9	8	0
105°	0	3	5	7	7	1
115°	1	1	3	4	4	1
125°	1	1	3	3	4	1
135°	1	1	1	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°	1135.0	1135.0	1135.0	1135.0	1135.0
2.5°	1108.6	1102.0	1095.4	1086.1	1084.8
5°	1065.0	1051.8	1051.8	1054.4	1066.3
7.5°	1033.3	1022.7	1021.4	1022.7	1029.3
10°	1018.8	1004.2	998.9	979.1	983.1
12.5°	1004.2	977.8	964.6	951.4	955.3
15°	983.1	940.8	926.3	927.6	932.9
17.5°	952.7	913.0	898.5	905.1	898.5
20°	915.7	893.2	882.7	878.7	856.2
22.5°	880.0	874.7	872.1	848.3	832.4
25°	844.3	857.6	858.9	828.5	808.7
27.5°	824.5	841.7	839.1	811.3	788.8
30°	803.4	816.6	807.3	795.4	770.3
32.5°	782.2	784.9	770.3	771.7	743.9
35°	758.5	746.6	732.0	734.7	717.5
37.5°	733.3	712.2	696.3	692.4	697.7
40°	701.6	669.9	669.9	655.4	663.3
42.5°	664.6	640.9	652.7	626.3	630.3
45°	622.4	607.8	631.6	597.2	603.9
47.5°	581.4	578.7	613.1	578.7	569.5
50°	537.8	544.4	585.4	553.6	536.5
52.5°	491.5	515.3	539.1	527.2	495.5
55°	451.9	479.6	495.5	498.1	459.8
57.5°	404.3	430.8	451.9	458.5	420.2
60°	366.0	388.5	408.3	412.3	380.5
62.5°	321.1	342.2	370.0	370.0	352.8
65°	280.1	293.3	329.0	330.3	317.1
67.5°	239.2	249.7	288.1	290.7	281.4
70°	192.9	210.1	249.7	249.7	243.1
72.5°	149.3	175.7	215.4	210.1	204.8
75°	107.0	140.1	174.4	173.1	169.1
77.5°	68.7	107.0	136.1	134.8	130.8
80°	39.6	76.6	99.1	97.8	95.1
82.5°	21.1	51.5	66.1	64.7	63.4
85°	10.6	30.4	38.3	38.3	37.0
87.5°	4.0	17.2	21.1	18.5	17.2
90°	0.0	10.6	11.9	10.6	7.9
92.5°	0.0	7.9	11.9	10.6	7.9
95°	0.0	6.6	10.6	9.2	7.9
97.5°	0.0	5.3	9.2	9.2	7.9
100°	0.0	4.0	7.9	9.2	7.9
102.5°	0.0	2.6	6.6	7.9	6.6
105°	0.0	2.6	5.3	6.6	6.6
107.5°	1.3	2.6	5.3	6.6	6.6
110°	1.3	1.3	4.0	5.3	5.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	1.3	1.3	4.0	4.0	5.3
115°	1.3	1.3	2.6	4.0	4.0
117.5°	1.3	1.3	2.6	4.0	4.0
120°	1.3	1.3	2.6	4.0	4.0
122.5°	1.3	1.3	2.6	2.6	4.0
125°	1.3	1.3	2.6	2.6	4.0
127.5°	1.3	1.3	2.6	2.6	4.0
130°	1.3	1.3	2.6	2.6	4.0
132.5°	1.3	1.3	2.6	2.6	4.0
135°	1.3	1.3	1.3	2.6	4.0
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)