

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: P239256

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

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P239256
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1711-412-13)
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-2-LO-50-EDC-1
Description: FAILSAFE HDF LED FIXTURE
2FT, 2-ROW LED BOARDS, NON-OVERLAY
Light Source: (84) 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

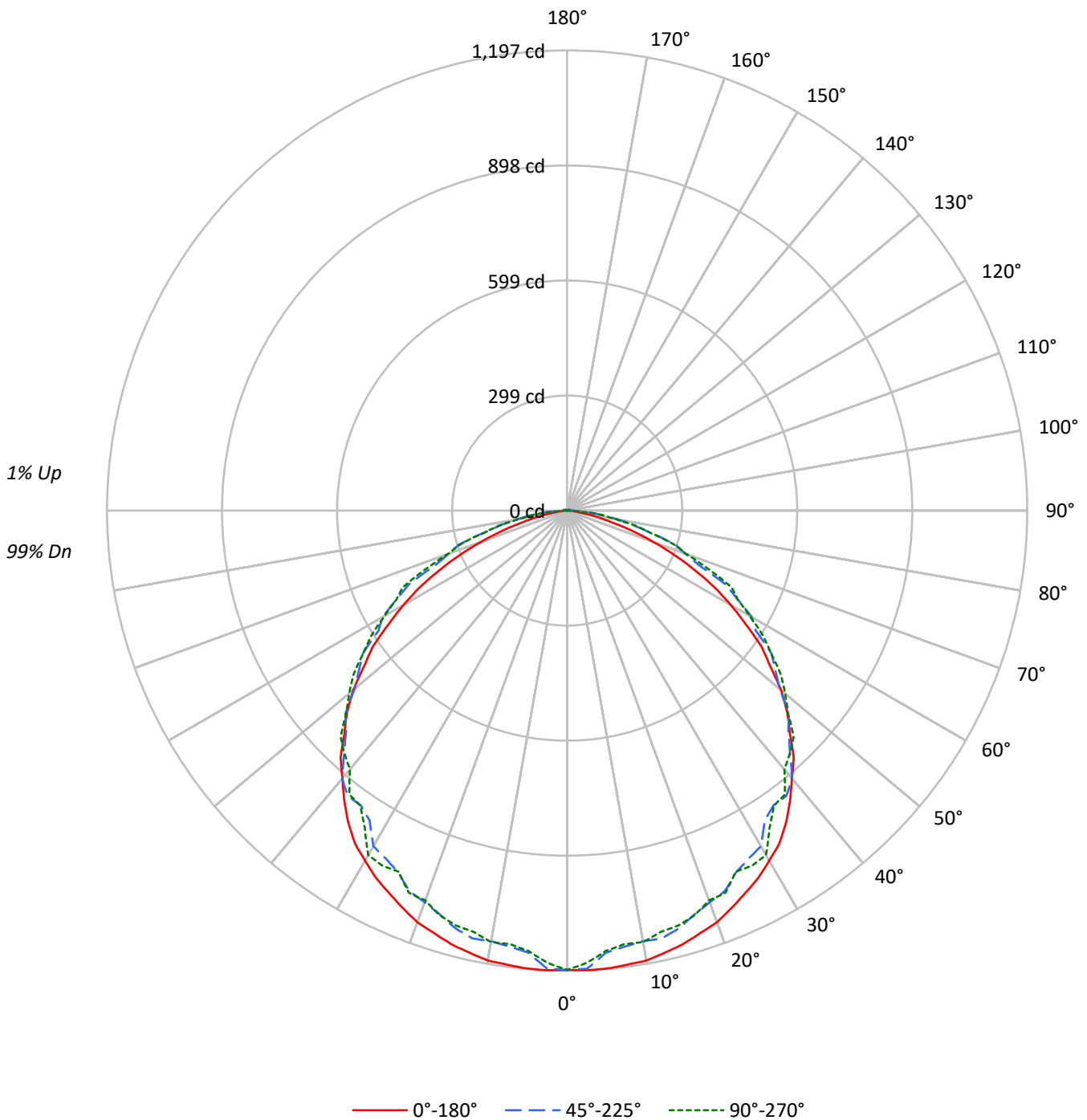
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3419.6 lumens
Efficiency: N/A
Efficacy: 146.8 lumens/watt
Spacing Criteria (0/90/45): 1.31 / 1.26 / 1.39
Luminous Opening: Rectangular (W 0.58' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 23.3
Input Voltage (V): 120
Input Current (A_{in}): 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	102	102	102	99				
1	109	104	100	96	106	102	98	94	97	94	91	93	91	88	90	87	86	83				
2	99	91	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	69				
3	90	79	71	65	87	78	70	64	75	68	63	72	66	62	69	65	61	58				
4	82	70	61	55	80	69	61	54	66	59	54	64	58	53	62	56	52	50				
5	76	63	54	47	74	62	53	47	59	52	46	57	51	46	55	50	45	43				
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	37				
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33				
8	60	47	38	32	59	46	38	32	44	37	32	43	36	32	42	36	31	29				
9	56	43	34	29	55	42	34	29	41	34	29	40	33	28	39	33	28	26				
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11023	11023	11023
5°	11074	10691	10653
10°	11133	10656	10676
15°	11148	10743	10672
20°	11189	10647	10595
25°	11170	10576	10554
30°	11203	10740	11022
35°	11175	10542	10555
40°	10954	10967	10584
45°	10691	10609	10871
50°	10422	10346	10620
55°	9925	10436	10419
60°	9077	10230	10114
65°	7984	9905	10298
70°	6463	8808	8864
75°	4495	8010	8010
80°	2534	7152	6758
85°	1239	6394	5166



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	110.9	3.2
10°-20°	317.6	9.3
20°-30°	486.5	14.2
30°-40°	597.3	17.5
40°-50°	626.0	18.3
50°-60°	564.7	16.5
60°-70°	418.1	12.2
70°-80°	221.8	6.5
80°-90°	57.8	1.7
90°-100°	8.4	0.2
100°-110°	4.9	0.1
110°-120°	3.0	0.1
120°-130°	1.8	0.1
130°-140°	0.9	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°	914.9	26.8
0°-40°	1512.2	44.2
0°-60°	2702.9	79.0
0°-90°	3400.6	99.4
90°-120°	16.3	0.5
90°-150°	19.0	0.6
90°-180°	19.0	0.6
0°-180°	3419.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1195	1195	1195	1195	1195	
5°	1196	1192	1154	1140	1150	114
15°	1167	1122	1125	1111	1117	330
25°	1097	1060	1039	1037	1037	507
35°	992	935	936	959	937	619
45°	819	796	813	818	833	634
55°	617	620	649	660	648	546
65°	366	385	454	438	472	362
75°	126	188	225	241	225	140
85°	12	46	60	59	49	17
90°	0	14	14	11	6	1
95°	0	8	11	8	5	0
105°	0	3	6	6	4	1
115°	1	2	4	4	3	1
125°	1	1	2	3	2	1
135°	1	1	2	2	2	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°	1194.7	1194.7	1194.7	1194.7	1194.7
2.5°	1196.8	1194.7	1192.6	1184.1	1177.7
5°	1195.7	1191.5	1154.4	1139.6	1150.2
7.5°	1191.5	1174.5	1143.8	1138.5	1137.4
10°	1188.3	1147.0	1137.4	1144.9	1139.6
12.5°	1177.7	1130.0	1139.6	1131.1	1122.6
15°	1167.1	1121.5	1124.7	1110.9	1117.3
17.5°	1152.3	1104.6	1101.4	1113.1	1103.5
20°	1139.6	1084.4	1084.4	1078.1	1079.1
22.5°	1118.4	1078.1	1071.7	1076.0	1076.0
25°	1097.2	1060.1	1038.9	1036.7	1036.7
27.5°	1077.0	1027.2	1020.8	1010.2	1041.0
30°	1051.6	994.3	1008.1	1023.0	1034.6
32.5°	1027.2	962.5	956.2	1012.4	979.5
35°	992.2	935.0	936.0	959.4	937.1
37.5°	951.9	910.6	936.0	914.8	930.7
40°	909.5	866.1	910.6	895.7	878.8
42.5°	872.4	819.4	858.6	847.0	857.6
45°	819.4	796.1	813.1	818.4	833.2
47.5°	776.0	747.3	782.3	798.2	779.1
50°	726.1	683.7	720.8	735.7	739.9
52.5°	665.7	645.6	682.7	706.0	700.7
55°	617.0	620.1	648.8	660.4	647.7
57.5°	551.2	571.4	582.0	593.6	603.2
60°	491.9	498.2	554.4	548.1	548.1
62.5°	432.5	450.5	499.3	505.6	500.3
65°	365.7	384.8	453.7	437.8	471.7
67.5°	302.1	328.6	371.0	415.5	398.6
70°	239.6	283.0	326.5	344.5	328.6
72.5°	180.2	231.1	295.8	285.2	290.5
75°	126.1	187.6	224.7	240.6	224.7
77.5°	81.6	138.9	177.0	189.8	182.3
80°	47.7	104.9	134.6	139.9	127.2
82.5°	25.4	71.0	93.3	94.3	93.3
85°	11.7	45.6	60.4	59.4	48.8
87.5°	5.3	27.6	25.4	19.1	13.8
90°	0.0	13.8	13.8	10.6	6.4
92.5°	0.0	10.6	11.7	9.5	5.3
95°	0.0	8.5	10.6	8.5	5.3
97.5°	0.0	6.4	9.5	7.4	5.3
100°	0.0	5.3	8.5	7.4	4.2
102.5°	0.0	4.2	7.4	6.4	4.2
105°	0.0	3.2	6.4	6.4	4.2
107.5°	1.1	2.1	6.4	5.3	4.2
110°	1.1	2.1	5.3	5.3	3.2



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	1.1	2.1	4.2	4.2	3.2
115°	1.1	2.1	4.2	4.2	3.2
117.5°	1.1	1.1	3.2	4.2	3.2
120°	1.1	1.1	3.2	3.2	3.2
122.5°	1.1	1.1	2.1	3.2	3.2
125°	1.1	1.1	2.1	3.2	2.1
127.5°	1.1	1.1	2.1	3.2	2.1
130°	1.1	1.1	2.1	2.1	2.1
132.5°	1.1	1.1	2.1	2.1	2.1
135°	1.1	1.1	2.1	2.1	2.1
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)