

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: P239281

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

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P239281
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1711-412-18)
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-30-EDC-1
Description: FAILSAFE HDF LED FIXTURE
2FT, 1-ROW LED BOARDS, NON-OVERLAY
Light Source: (42) 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

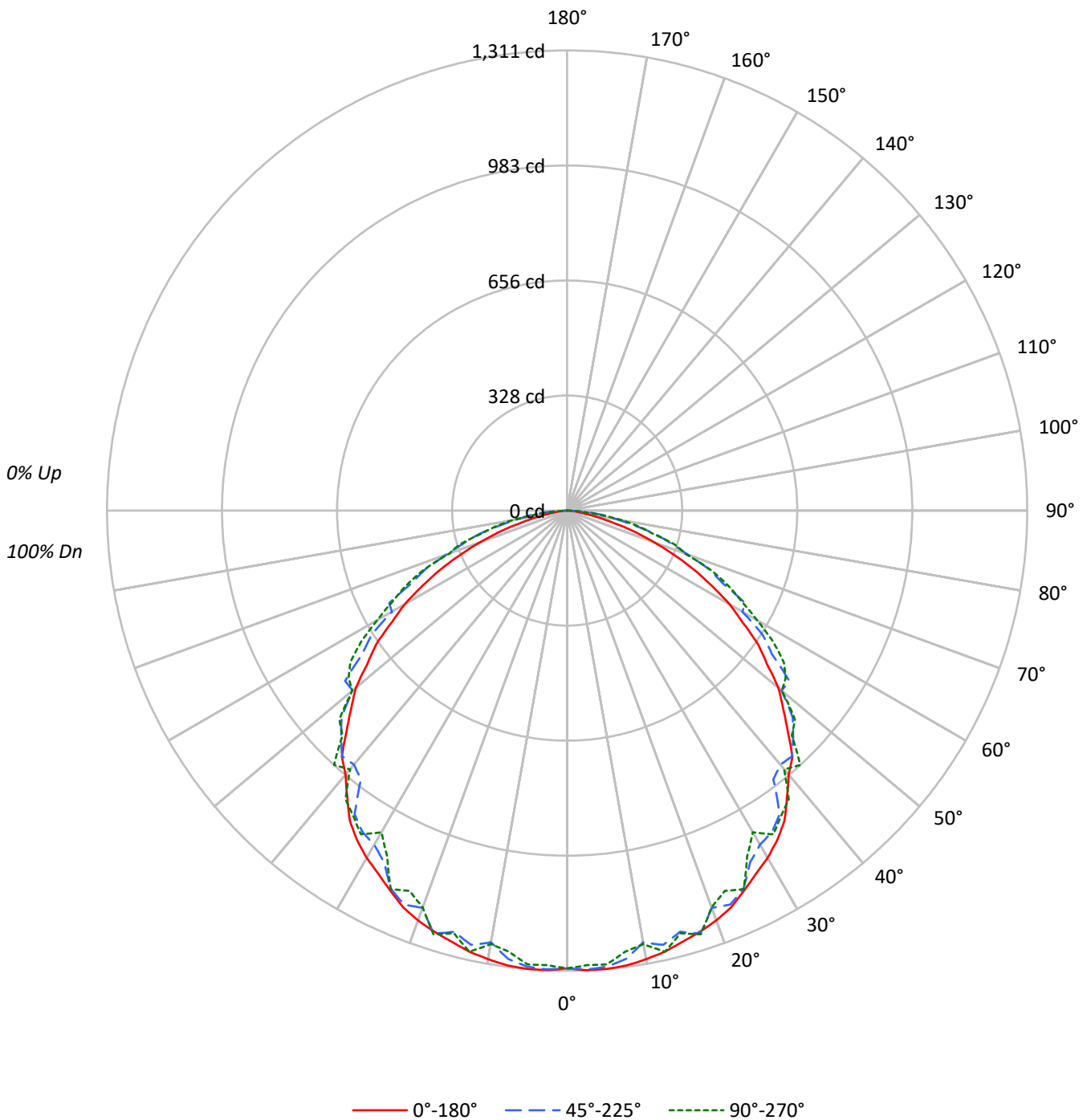
Lumens per Lamp: N/A
Luminaire Lumens: 3767.2 lumens
Efficiency: N/A
Efficacy: 79.0 lumens/watt
Spacing Criteria (0/90/45): 1.3 / 1.28 / 1.41
Luminous Opening: Rectangular (W 0.58' x L: 2' x H: 0')
CIE Type: Direct

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	102	102	102	100
1	109	104	100	96	106	102	98	94	98	94	91	94	91	89	90	88	86	84
2	99	91	84	78	96	89	82	77	85	80	75	82	78	74	79	75	72	70
3	90	80	71	65	88	78	70	64	75	68	63	72	67	62	70	65	61	59
4	82	70	62	55	80	69	61	54	67	59	54	64	58	53	62	57	52	50
5	76	63	54	47	74	62	53	47	60	52	46	58	51	46	56	50	45	43
6	70	56	47	41	68	56	47	41	54	46	40	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
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°	12033	12033	12033
5°	12140	12079	12018
10°	12157	11700	11750
15°	12143	11867	11904
20°	12198	11823	11810
25°	12152	12098	12111
30°	12170	11707	11272
35°	12155	11888	11963
40°	11825	11380	11586
45°	11590	11883	11814
50°	11278	11447	11466
55°	10690	11453	12130
60°	9859	10636	11535
65°	8706	10660	11062
70°	7135	9833	9622
75°	5019	9336	8962
80°	2869	7693	8459
85°	1397	6690	5431



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	123.1	3.3
10°-20°	354.7	9.4
20°-30°	539.0	14.3
30°-40°	657.4	17.5
40°-50°	692.5	18.4
50°-60°	625.1	16.6
60°-70°	465.8	12.4
70°-80°	247.5	6.6
80°-90°	62.1	1.6
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	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°	1016.8	27.0
0°-40°	1674.2	44.4
0°-60°	2991.7	79.4
0°-90°	3767.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3767.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1304	1304	1304	1304	1304	
5°	1311	1312	1304	1302	1298	125
15°	1271	1241	1242	1244	1246	360
25°	1194	1159	1188	1146	1190	551
35°	1079	1053	1056	1058	1062	671
45°	888	872	911	946	905	686
55°	665	637	712	752	754	589
65°	399	425	488	504	507	394
75°	141	209	262	261	251	156
85°	13	49	63	60	51	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1304.2	1304.2	1304.2	1304.2	1304.2
2.5°	1310.8	1302.9	1308.2	1298.9	1296.3
5°	1310.8	1312.1	1304.2	1301.6	1297.6
7.5°	1306.8	1312.1	1288.4	1245.0	1267.4
10°	1297.6	1300.3	1248.9	1263.4	1254.2
12.5°	1287.1	1289.7	1267.4	1264.7	1287.1
15°	1271.3	1241.0	1242.4	1243.7	1246.3
17.5°	1258.1	1205.5	1263.4	1258.1	1266.0
20°	1242.4	1220.0	1204.2	1227.9	1202.9
22.5°	1222.6	1200.2	1214.7	1175.2	1172.6
25°	1193.7	1159.4	1188.4	1146.3	1189.7
27.5°	1166.0	1141.0	1129.2	1162.1	1110.8
30°	1142.3	1138.4	1098.9	1068.6	1058.1
32.5°	1113.4	1089.7	1085.7	1044.9	1093.6
35°	1079.2	1052.8	1055.5	1058.1	1062.1
37.5°	1029.2	1044.9	964.7	1022.6	1037.1
40°	981.8	996.3	944.9	996.3	962.0
42.5°	950.2	917.3	948.9	933.1	983.1
45°	888.3	872.5	910.7	946.2	905.4
47.5°	834.4	812.0	871.2	863.3	880.4
50°	785.7	771.2	797.5	829.1	798.8
52.5°	717.3	723.8	797.5	751.5	784.4
55°	664.6	637.0	712.0	751.5	754.1
57.5°	592.2	579.1	662.0	687.0	696.2
60°	534.3	560.6	576.4	642.2	625.1
62.5°	465.9	492.2	571.2	567.2	560.6
65°	398.8	425.1	488.3	504.0	506.7
67.5°	329.0	383.0	436.9	439.6	444.8
70°	264.5	327.7	364.5	384.3	356.7
72.5°	202.7	251.4	308.0	330.3	321.1
75°	140.8	209.3	261.9	260.6	251.4
77.5°	92.1	161.9	196.1	209.3	209.3
80°	54.0	115.8	144.8	163.2	159.2
82.5°	29.0	76.3	107.9	106.6	96.1
85°	13.2	48.7	63.2	60.5	51.3
87.5°	6.6	27.6	29.0	22.4	15.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)