

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: P556182

Luminaire Tested: **FUSL-12-4-LD4-1HI-30-UNV-82-87-EDD-90**

Issue Date: 7/16/2021

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



Test Information

Test Method: LM-79-08
Report Number: P556182
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2105-257-2)
Test Lab: INNOVATION CENTER
Issue Date: 7/16/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FUSL-12-4-LD4-1HI-30-UNV-82-87-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

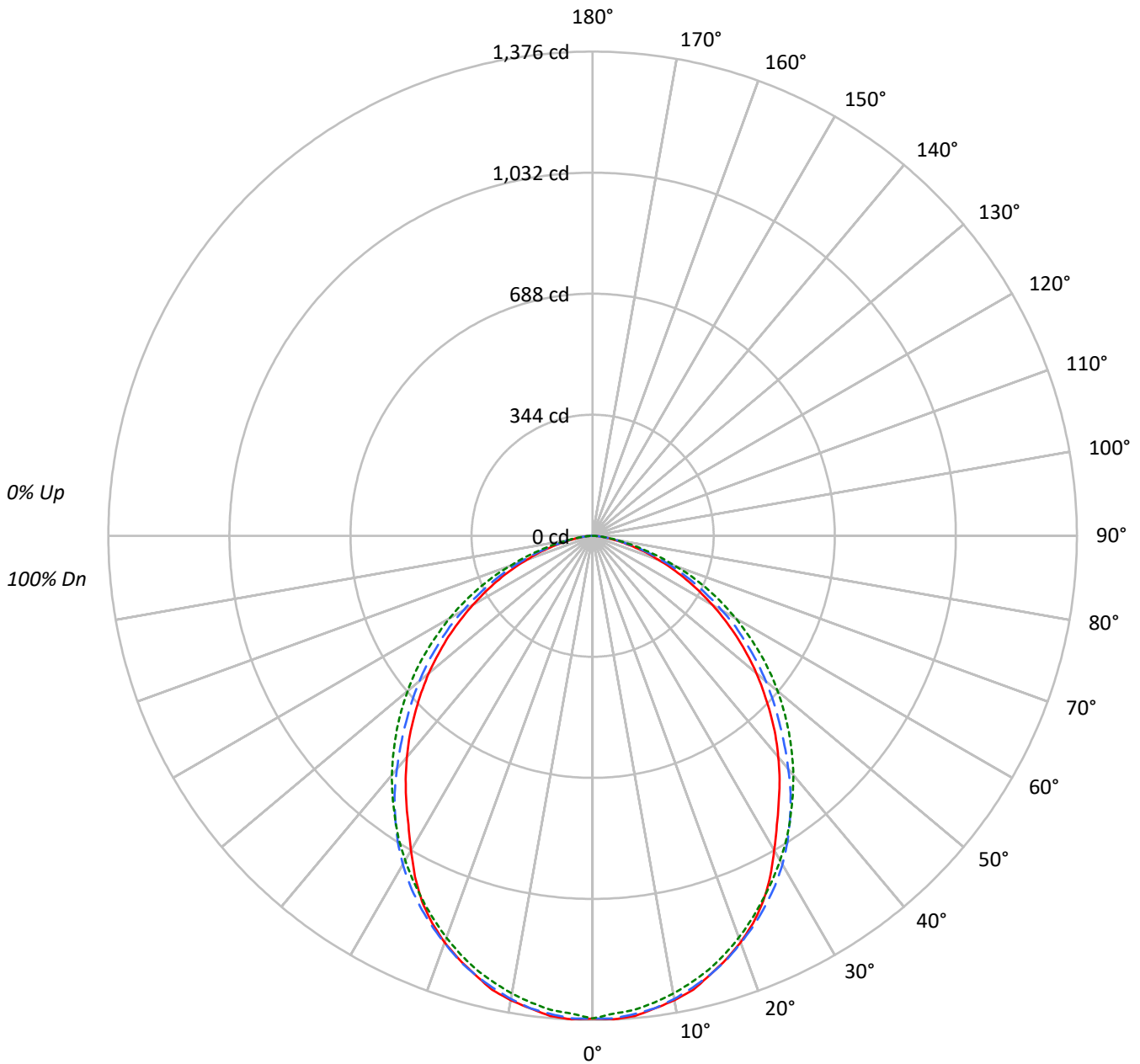
Lumens per Lamp: N/A
Luminaire Lumens: 3172.0 lumens
Efficiency: N/A
Efficacy: 73.4 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 43.2
Input Voltage (V): NR
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									
RC	80									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	100																			
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86																			
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73																			
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63																			
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	61	56	54																			
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	47																			
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42																			
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	49	44	39	37																			
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34																			
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30																			
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29	28																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3691	3691	3691
5°	3701	3686	3654
10°	3662	3652	3610
15°	3597	3597	3556
20°	3521	3525	3480
25°	3405	3447	3393
30°	3206	3351	3310
35°	3030	3211	3217
40°	2883	3038	3118
45°	2718	2854	3000
50°	2544	2689	2873
55°	2346	2502	2717
60°	2113	2283	2527
65°	1866	2030	2299
70°	1555	1729	1953
75°	1222	1381	1528
80°	874	972	1079
85°	568	568	537



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	129.2	4.1
10°-20°	362.8	11.4
20°-30°	530.2	16.7
30°-40°	601.9	19.0
40°-50°	581.0	18.3
50°-60°	479.3	15.1
60°-70°	319.2	10.1
70°-80°	142.8	4.5
80°-90°	25.6	0.8
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°	1022.2	32.2
0°-40°	1624.1	51.2
0°-60°	2684.4	84.6
0°-90°	3172.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3172.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1372	1372	1372	1372	1372	
5°	1370	1370	1364	1357	1353	130
15°	1291	1294	1291	1285	1276	364
25°	1147	1156	1161	1153	1143	525
35°	922	935	978	983	979	578
45°	714	726	750	784	788	551
55°	500	509	533	563	579	446
65°	293	301	319	342	361	291
75°	118	124	133	139	147	129
85°	18	18	18	17	17	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1371.8	1371.8	1371.8	1371.8	1371.8
2.5°	1375.5	1376.0	1372.9	1364.4	1359.2
5°	1370.2	1369.7	1364.4	1357.1	1352.8
7.5°	1354.9	1356.0	1354.4	1343.9	1338.1
10°	1340.2	1340.7	1336.5	1328.1	1321.2
12.5°	1321.2	1320.7	1314.9	1310.7	1299.6
15°	1291.2	1294.3	1291.2	1285.4	1276.4
17.5°	1262.2	1262.2	1264.3	1254.3	1247.4
20°	1229.5	1231.1	1231.1	1223.2	1215.3
22.5°	1191.6	1196.3	1197.9	1189.5	1180.0
25°	1146.8	1155.7	1161.0	1152.6	1142.6
27.5°	1092.5	1106.2	1122.0	1115.7	1104.6
30°	1031.9	1051.9	1078.3	1073.0	1065.1
32.5°	974.4	994.5	1030.8	1028.7	1024.5
35°	922.3	934.9	977.6	982.9	979.2
37.5°	872.7	884.3	924.4	936.5	933.3
40°	820.6	833.2	864.8	886.4	887.5
42.5°	768.9	781.0	806.9	837.9	837.9
45°	714.1	726.2	749.9	784.2	788.4
47.5°	660.3	673.0	696.2	730.4	737.3
50°	607.6	619.2	642.4	675.6	686.2
52.5°	552.8	565.5	588.1	618.7	634.0
55°	500.1	508.6	533.3	562.8	579.2
57.5°	445.3	453.2	481.2	506.5	523.3
60°	392.6	402.6	424.2	450.1	469.6
62.5°	342.0	352.6	371.0	393.7	415.8
65°	293.0	300.9	318.8	341.5	361.0
67.5°	245.6	252.4	270.4	286.2	306.7
70°	197.6	206.6	219.8	235.0	248.2
72.5°	159.2	162.8	173.9	185.0	198.7
75°	117.5	123.8	132.8	139.1	147.0
77.5°	84.3	88.0	93.3	98.6	105.9
80°	56.4	58.0	62.7	63.8	69.6
82.5°	34.3	35.3	36.4	36.9	39.0
85°	18.4	18.4	18.4	17.4	17.4
87.5°	10.5	10.5	9.0	7.4	5.3
90°	0.0	0.0	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-MV3F9LC





— 0°-180° - - 45°-225° - - - - 90°-270°







(END OF REPORT)