

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: P556372

Luminaire Tested: **FUSL-12-4-LD4-1HI-50-UNV-82-86-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: P556372
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-50-UNV-82-86-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

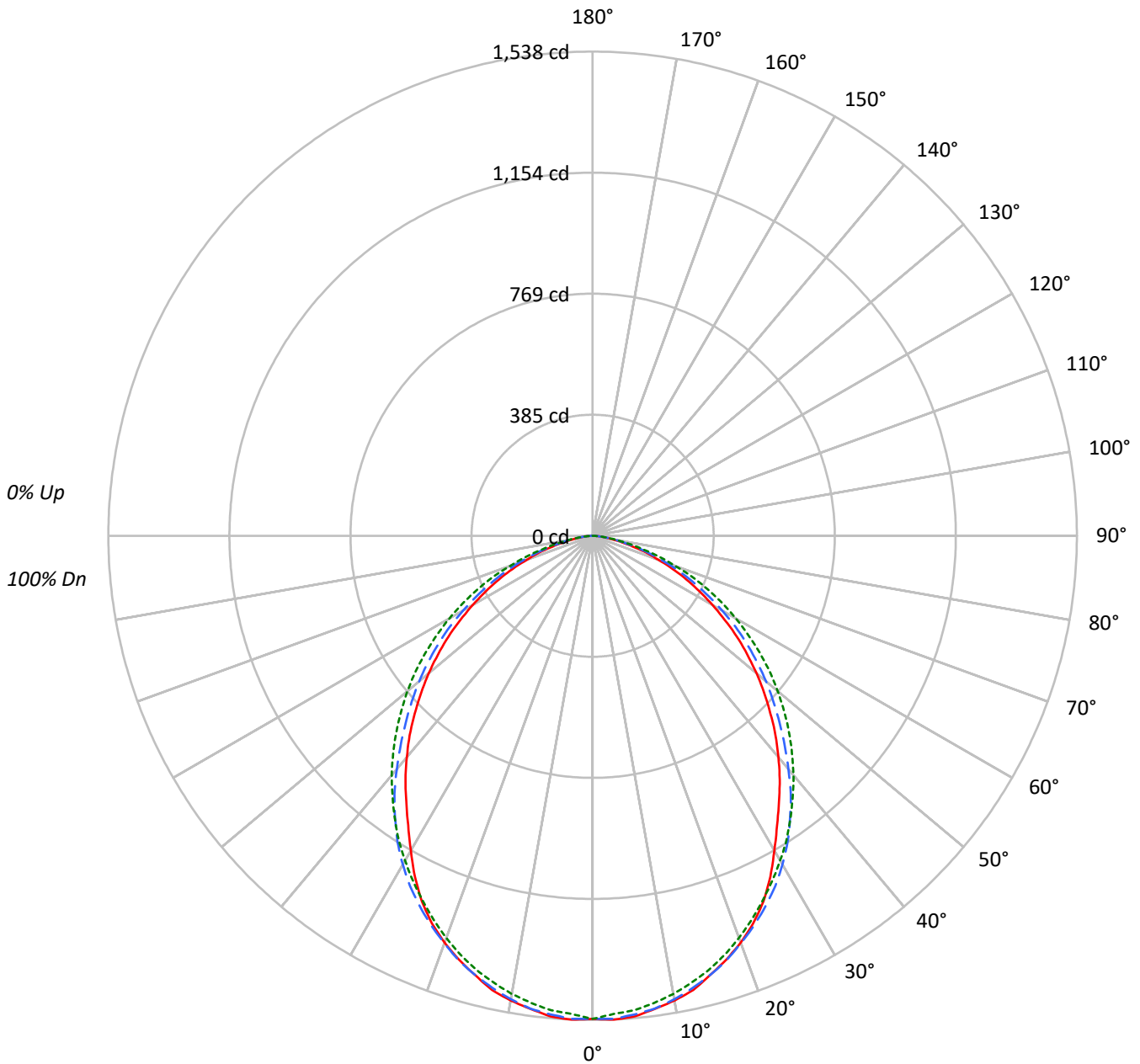
Lumens per Lamp: N/A
Luminaire Lumens: 3548.0 lumens
Efficiency: N/A
Efficacy: 82.1 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	4129	4129	4129
5°	4140	4123	4088
10°	4096	4085	4038
15°	4023	4023	3977
20°	3938	3943	3893
25°	3809	3856	3795
30°	3586	3748	3702
35°	3389	3592	3598
40°	3224	3398	3487
45°	3040	3192	3356
50°	2846	3008	3213
55°	2624	2799	3039
60°	2364	2554	2827
65°	2087	2271	2571
70°	1740	1934	2184
75°	1367	1544	1710
80°	978	1086	1206
85°	636	636	602



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	144.5	4.1
10°-20°	405.9	11.4
20°-30°	593.1	16.7
30°-40°	673.2	19.0
40°-50°	649.9	18.3
50°-60°	536.1	15.1
60°-70°	357.0	10.1
70°-80°	159.7	4.5
80°-90°	28.6	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°	1143.4	32.2
0°-40°	1816.6	51.2
0°-60°	3002.7	84.6
0°-90°	3548.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3548.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1534	1534	1534	1534	1534	
5°	1533	1532	1526	1518	1513	145
15°	1444	1448	1444	1438	1428	407
25°	1283	1293	1299	1289	1278	587
35°	1032	1046	1094	1099	1095	646
45°	799	812	839	877	882	616
55°	559	569	597	630	648	499
65°	328	337	357	382	404	325
75°	132	138	148	156	164	144
85°	21	21	21	20	20	28
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1534.4	1534.4	1534.4	1534.4	1534.4
2.5°	1538.5	1539.1	1535.6	1526.2	1520.3
5°	1532.6	1532.1	1526.2	1517.9	1513.2
7.5°	1515.6	1516.7	1515.0	1503.2	1496.7
10°	1499.0	1499.6	1494.9	1485.5	1477.8
12.5°	1477.8	1477.2	1470.8	1466.0	1453.7
15°	1444.2	1447.8	1444.2	1437.7	1427.7
17.5°	1411.8	1411.8	1414.2	1403.0	1395.3
20°	1375.3	1377.0	1377.0	1368.2	1359.3
22.5°	1332.8	1338.1	1339.9	1330.5	1319.8
25°	1282.7	1292.7	1298.6	1289.2	1278.0
27.5°	1222.0	1237.3	1255.0	1247.9	1235.6
30°	1154.2	1176.6	1206.1	1200.2	1191.3
32.5°	1089.9	1112.4	1153.0	1150.7	1146.0
35°	1031.6	1045.7	1093.5	1099.4	1095.3
37.5°	976.2	989.1	1033.9	1047.5	1044.0
40°	917.8	932.0	967.3	991.5	992.7
42.5°	860.1	873.6	902.5	937.3	937.3
45°	798.7	812.3	838.8	877.1	881.9
47.5°	738.6	752.8	778.7	817.0	824.7
50°	679.7	692.6	718.6	755.7	767.5
52.5°	618.4	632.5	657.9	692.1	709.1
55°	559.4	568.8	596.6	629.6	647.8
57.5°	498.1	507.0	538.2	566.5	585.4
60°	439.2	450.4	474.5	503.4	525.2
62.5°	382.6	394.4	415.0	440.3	465.1
65°	327.8	336.6	356.6	382.0	403.8
67.5°	274.7	282.4	302.4	320.1	343.1
70°	221.1	231.1	245.8	262.9	277.6
72.5°	178.0	182.1	194.5	206.9	222.2
75°	131.5	138.5	148.5	155.6	164.5
77.5°	94.3	98.4	104.3	110.2	118.5
80°	63.1	64.8	70.1	71.3	77.8
82.5°	38.3	39.5	40.7	41.3	43.6
85°	20.6	20.6	20.6	19.5	19.5
87.5°	11.8	11.8	10.0	8.3	5.9
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)