

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: P557016

Luminaire Tested: **FUSL-12-4-LD4-2HI-35-UNV-82-88-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: P557016
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-LD4-2HI-35-UNV-82-88-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

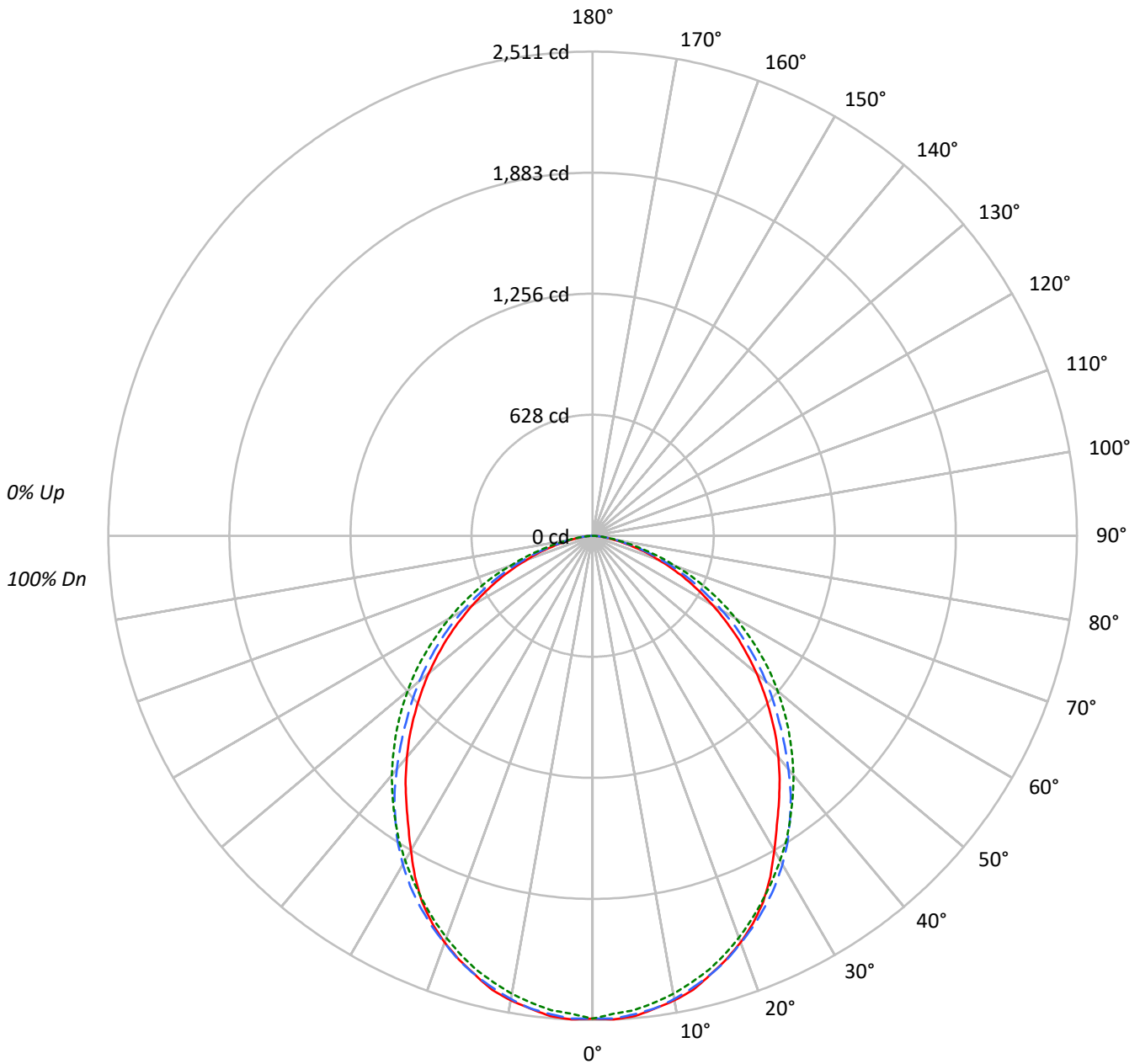
Lumens per Lamp: N/A
Luminaire Lumens: 5790.0 lumens
Efficiency: N/A
Efficacy: 67.0 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 86.4
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°	6738	6738	6738
5°	6756	6728	6670
10°	6684	6666	6590
15°	6566	6566	6491
20°	6427	6435	6353
25°	6215	6292	6192
30°	5853	6116	6041
35°	5530	5862	5872
40°	5262	5545	5691
45°	4961	5210	5477
50°	4644	4909	5243
55°	4283	4567	4960
60°	3857	4168	4613
65°	3406	3706	4196
70°	2838	3156	3565
75°	2230	2520	2791
80°	1595	1774	1968
85°	1041	1041	979



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	235.8	4.1
10°-20°	662.3	11.4
20°-30°	967.9	16.7
30°-40°	1098.6	19.0
40°-50°	1060.6	18.3
50°-60°	874.9	15.1
60°-70°	582.6	10.1
70°-80°	260.7	4.5
80°-90°	46.6	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°	1865.9	32.2
0°-40°	2964.6	51.2
0°-60°	4900.0	84.6
0°-90°	5790.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5790.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2504	2504	2504	2504	2504	
5°	2501	2500	2491	2477	2469	237
15°	2357	2363	2357	2346	2330	664
25°	2093	2110	2119	2104	2086	959
35°	1684	1706	1784	1794	1787	1055
45°	1304	1326	1369	1431	1439	1006
55°	913	928	974	1027	1057	815
65°	535	549	582	623	659	530
75°	214	226	242	254	268	235
85°	34	34	34	32	32	45
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2504.0	2504.0	2504.0	2504.0	2504.0
2.5°	2510.8	2511.7	2505.9	2490.6	2480.9
5°	2501.1	2500.2	2490.6	2477.1	2469.4
7.5°	2473.2	2475.2	2472.3	2453.0	2442.5
10°	2446.3	2447.3	2439.6	2424.2	2411.7
12.5°	2411.7	2410.7	2400.1	2392.4	2372.2
15°	2356.8	2362.6	2356.8	2346.3	2329.9
17.5°	2303.9	2303.9	2307.8	2289.5	2277.0
20°	2244.3	2247.2	2247.2	2232.7	2218.3
22.5°	2175.0	2183.7	2186.6	2171.2	2153.9
25°	2093.3	2109.6	2119.2	2103.8	2085.6
27.5°	1994.2	2019.2	2048.0	2036.5	2016.3
30°	1883.6	1920.1	1968.2	1958.6	1944.2
32.5°	1778.7	1815.3	1881.6	1877.8	1870.1
35°	1683.5	1706.5	1784.5	1794.1	1787.4
37.5°	1593.0	1614.2	1687.3	1709.4	1703.7
40°	1497.8	1520.9	1578.6	1618.0	1620.0
42.5°	1403.5	1425.6	1472.8	1529.5	1529.5
45°	1303.5	1325.6	1368.9	1431.4	1439.1
47.5°	1205.4	1228.4	1270.8	1333.3	1345.8
50°	1109.2	1130.3	1172.6	1233.3	1252.5
52.5°	1009.1	1032.2	1073.6	1129.4	1157.3
55°	912.9	928.3	973.5	1027.4	1057.2
57.5°	812.9	827.3	878.3	924.5	955.2
60°	716.7	735.0	774.4	821.5	857.1
62.5°	624.3	643.6	677.2	718.6	759.0
65°	534.9	549.3	582.0	623.4	659.0
67.5°	448.3	460.8	493.5	522.4	559.9
70°	360.7	377.1	401.1	429.0	453.1
72.5°	290.5	297.3	317.5	337.7	362.7
75°	214.5	226.1	242.4	254.0	268.4
77.5°	153.9	160.7	170.3	179.9	193.4
80°	102.9	105.8	114.5	116.4	127.0
82.5°	62.5	64.5	66.4	67.3	71.2
85°	33.7	33.7	33.7	31.7	31.7
87.5°	19.2	19.2	16.4	13.5	9.6
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)