

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: P558435

Luminaire Tested: **FUSL-12-4-LD4-3STD-50-UNV-93-85-EDD**

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: P558435
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-LD4-3STD-50-UNV-93-85-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

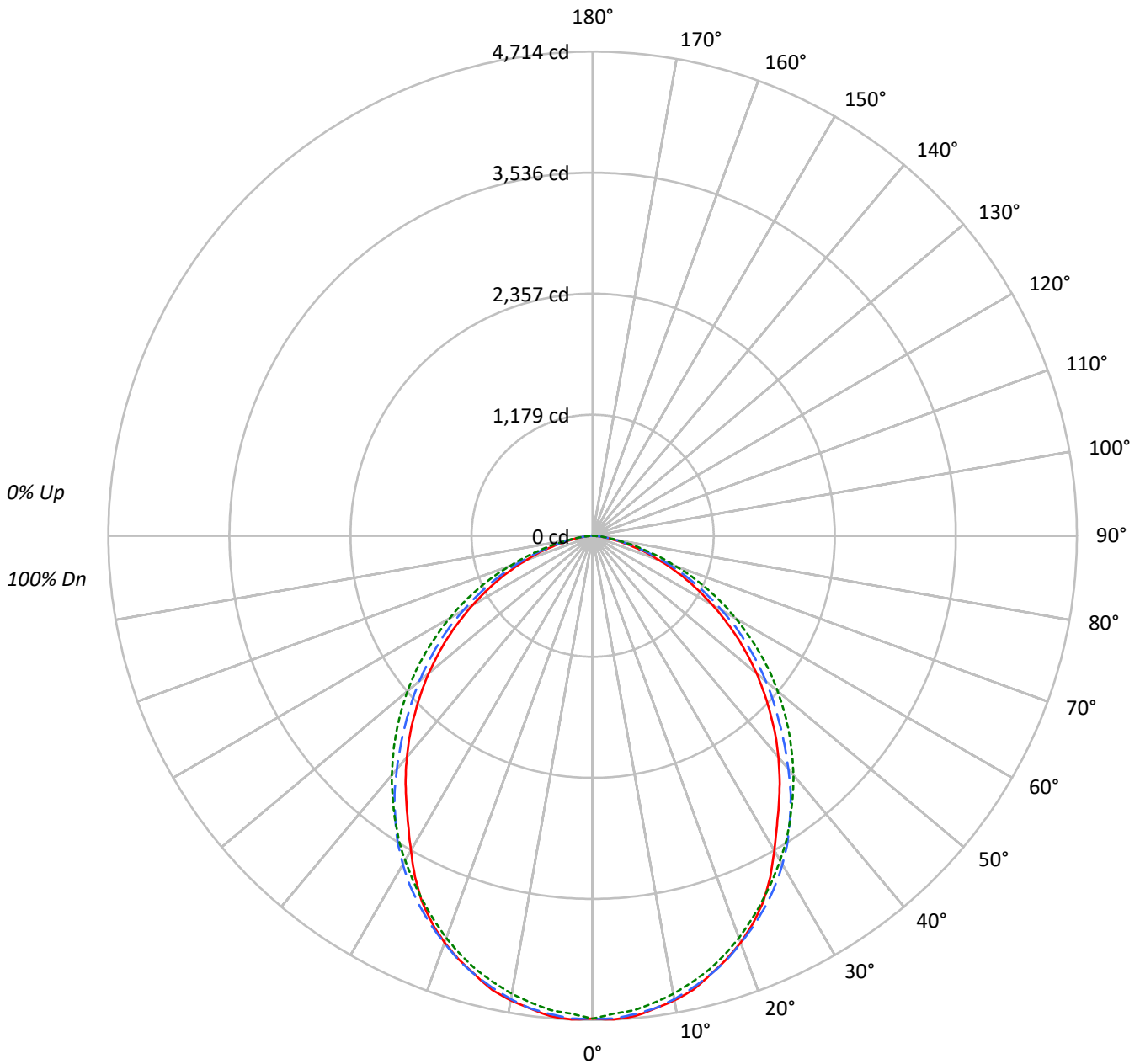
Lumens per Lamp: N/A
Luminaire Lumens: 10871.0 lumens
Efficiency: N/A
Efficacy: 108.8 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 99.9
Input Voltage (V): NR
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	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°	12651	12651	12651
5°	12685	12631	12524
10°	12551	12516	12373
15°	12328	12328	12187
20°	12067	12082	11927
25°	11669	11814	11626
30°	10989	11483	11342
35°	10383	11006	11024
40°	9879	10412	10685
45°	9313	9781	10283
50°	8718	9217	9845
55°	8041	8575	9313
60°	7242	7825	8661
65°	6394	6958	7878
70°	5329	5926	6693
75°	4188	4733	5239
80°	2996	3330	3694
85°	1951	1951	1840



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	442.7	4.1
10°-20°	1243.5	11.4
20°-30°	1817.2	16.7
30°-40°	2062.7	19.0
40°-50°	1991.3	18.3
50°-60°	1642.6	15.1
60°-70°	1093.9	10.1
70°-80°	489.5	4.5
80°-90°	87.6	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°	3503.4	32.2
0°-40°	5566.1	51.2
0°-60°	9200.1	84.6
0°-90°	10871.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10871.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4701	4701	4701	4701	4701	
5°	4696	4694	4676	4651	4636	444
15°	4425	4436	4425	4405	4374	1247
25°	3930	3961	3979	3950	3916	1800
35°	3161	3204	3350	3368	3356	1980
45°	2447	2489	2570	2688	2702	1888
55°	1714	1743	1828	1929	1985	1530
65°	1004	1031	1093	1170	1237	996
75°	403	424	455	477	504	440
85°	63	63	63	60	60	85
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4701.4	4701.4	4701.4	4701.4	4701.4
2.5°	4714.1	4715.9	4705.0	4676.1	4658.1
5°	4696.0	4694.2	4676.1	4650.9	4636.4
7.5°	4643.6	4647.2	4641.8	4605.7	4585.8
10°	4593.1	4594.9	4580.4	4551.5	4528.0
12.5°	4528.0	4526.2	4506.4	4491.9	4454.0
15°	4425.1	4435.9	4425.1	4405.2	4374.5
17.5°	4325.7	4325.7	4333.0	4298.7	4275.2
20°	4213.8	4219.2	4219.2	4192.1	4165.0
22.5°	4083.7	4100.0	4105.4	4076.5	4044.0
25°	3930.2	3960.9	3979.0	3950.1	3915.7
27.5°	3744.2	3791.1	3845.3	3823.6	3785.7
30°	3536.5	3605.1	3695.4	3677.3	3650.2
32.5°	3339.6	3408.2	3532.8	3525.6	3511.2
35°	3160.8	3204.1	3350.4	3368.5	3355.8
37.5°	2991.0	3030.7	3168.0	3209.5	3198.7
40°	2812.2	2855.5	2963.9	3038.0	3041.6
42.5°	2635.2	2676.7	2765.2	2871.8	2871.8
45°	2447.3	2488.9	2570.2	2687.6	2702.0
47.5°	2263.1	2306.5	2385.9	2503.3	2526.8
50°	2082.5	2122.2	2201.7	2315.5	2351.6
52.5°	1894.7	1938.0	2015.7	2120.4	2172.8
55°	1714.0	1742.9	1827.8	1929.0	1985.0
57.5°	1526.2	1553.3	1649.0	1735.7	1793.5
60°	1345.6	1379.9	1454.0	1542.5	1609.3
62.5°	1172.2	1208.3	1271.5	1349.2	1425.1
65°	1004.2	1031.3	1092.7	1170.4	1237.2
67.5°	841.7	865.1	926.6	980.7	1051.2
70°	677.3	708.0	753.2	805.5	850.7
72.5°	545.5	558.1	596.0	634.0	680.9
75°	402.8	424.4	455.2	476.8	503.9
77.5°	289.0	301.6	319.7	337.8	363.0
80°	193.3	198.7	214.9	218.5	238.4
82.5°	117.4	121.0	124.6	126.4	133.7
85°	63.2	63.2	63.2	59.6	59.6
87.5°	36.1	36.1	30.7	25.3	18.1
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)