

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: P558150

Luminaire Tested: **FUSL-12-4-LD4-3LO-50-UNV-81-87-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: P558150
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-LD4-3LO-50-UNV-81-87-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .375
CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

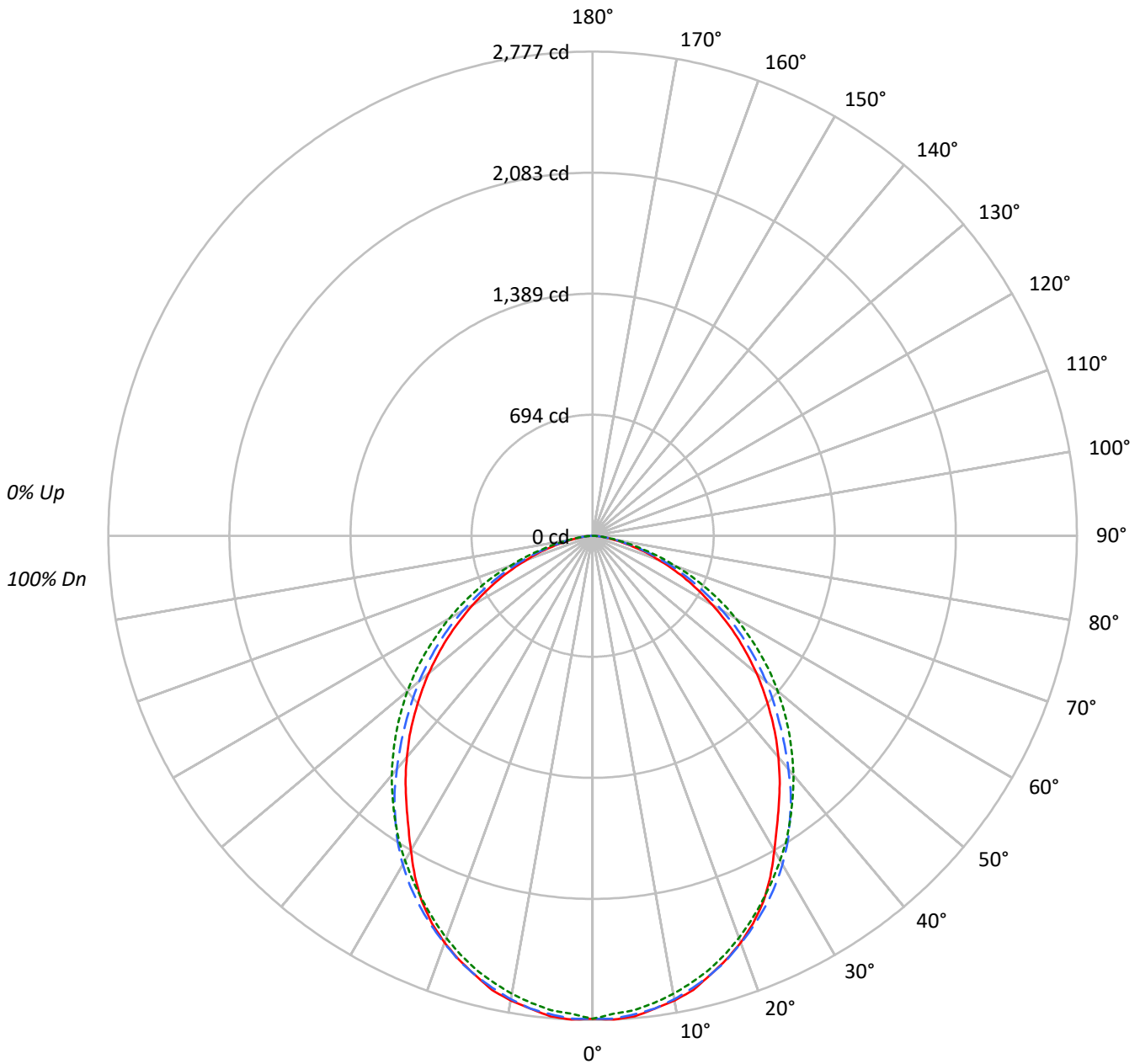
Lumens per Lamp: N/A
Luminaire Lumens: 6405.0 lumens
Efficiency: N/A
Efficacy: 91.2 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 70.2
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°	7454	7454	7454
5°	7474	7442	7379
10°	7394	7374	7290
15°	7263	7263	7180
20°	7110	7119	7027
25°	6875	6961	6850
30°	6474	6765	6683
35°	6118	6485	6495
40°	5820	6134	6295
45°	5487	5763	6059
50°	5137	5431	5800
55°	4738	5052	5487
60°	4267	4610	5103
65°	3768	4099	4641
70°	3140	3492	3943
75°	2467	2789	3087
80°	1765	1962	2177
85°	1149	1149	1084



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	260.8	4.1
10°-20°	732.7	11.4
20°-30°	1070.7	16.7
30°-40°	1215.3	19.0
40°-50°	1173.2	18.3
50°-60°	967.8	15.1
60°-70°	644.5	10.1
70°-80°	288.4	4.5
80°-90°	51.6	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°	2064.2	32.2
0°-40°	3279.5	51.2
0°-60°	5420.5	84.6
0°-90°	6405.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6405.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2770	2770	2770	2770	2770	
5°	2767	2766	2755	2740	2732	262
15°	2607	2614	2607	2596	2577	735
25°	2316	2334	2344	2327	2307	1060
35°	1862	1888	1974	1985	1977	1167
45°	1442	1466	1514	1584	1592	1113
55°	1010	1027	1077	1136	1170	901
65°	592	608	644	690	729	587
75°	237	250	268	281	297	260
85°	37	37	37	35	35	50
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2770.0	2770.0	2770.0	2770.0	2770.0
2.5°	2777.4	2778.5	2772.1	2755.1	2744.5
5°	2766.8	2765.7	2755.1	2740.2	2731.7
7.5°	2735.9	2738.1	2734.9	2713.6	2701.9
10°	2706.1	2707.2	2698.7	2681.7	2667.8
12.5°	2667.8	2666.8	2655.1	2646.6	2624.2
15°	2607.2	2613.6	2607.2	2595.5	2577.4
17.5°	2548.7	2548.7	2552.9	2532.7	2518.9
20°	2482.7	2485.9	2485.9	2469.9	2453.9
22.5°	2406.1	2415.6	2418.8	2401.8	2382.6
25°	2315.6	2333.7	2344.3	2327.3	2307.1
27.5°	2206.0	2233.7	2265.6	2252.8	2230.5
30°	2083.6	2124.1	2177.3	2166.6	2150.7
32.5°	1967.6	2008.1	2081.5	2077.2	2068.7
35°	1862.3	1887.8	1974.0	1984.7	1977.2
37.5°	1762.2	1785.7	1866.5	1891.0	1884.6
40°	1656.9	1682.4	1746.3	1789.9	1792.0
42.5°	1552.6	1577.1	1629.2	1692.0	1692.0
45°	1441.9	1466.4	1514.3	1583.5	1592.0
47.5°	1333.4	1358.9	1405.7	1474.9	1488.8
50°	1227.0	1250.4	1297.2	1364.2	1385.5
52.5°	1116.3	1141.8	1187.6	1249.3	1280.2
55°	1009.9	1026.9	1076.9	1136.5	1169.5
57.5°	899.2	915.2	971.6	1022.7	1056.7
60°	792.8	813.0	856.6	908.8	948.2
62.5°	690.6	711.9	749.2	794.9	839.6
65°	591.7	607.6	643.8	689.6	728.9
67.5°	495.9	509.7	545.9	577.8	619.3
70°	399.1	417.1	443.8	474.6	501.2
72.5°	321.4	328.8	351.2	373.5	401.2
75°	237.3	250.1	268.2	280.9	296.9
77.5°	170.3	177.7	188.4	199.0	213.9
80°	113.9	117.1	126.6	128.8	140.5
82.5°	69.2	71.3	73.4	74.5	78.7
85°	37.2	37.2	37.2	35.1	35.1
87.5°	21.3	21.3	18.1	14.9	10.6
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)