

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: P558118

Luminaire Tested: **FUSL-12-4-LD4-3LO-40-UNV-93-87-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: P558118
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-40-UNV-93-87-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

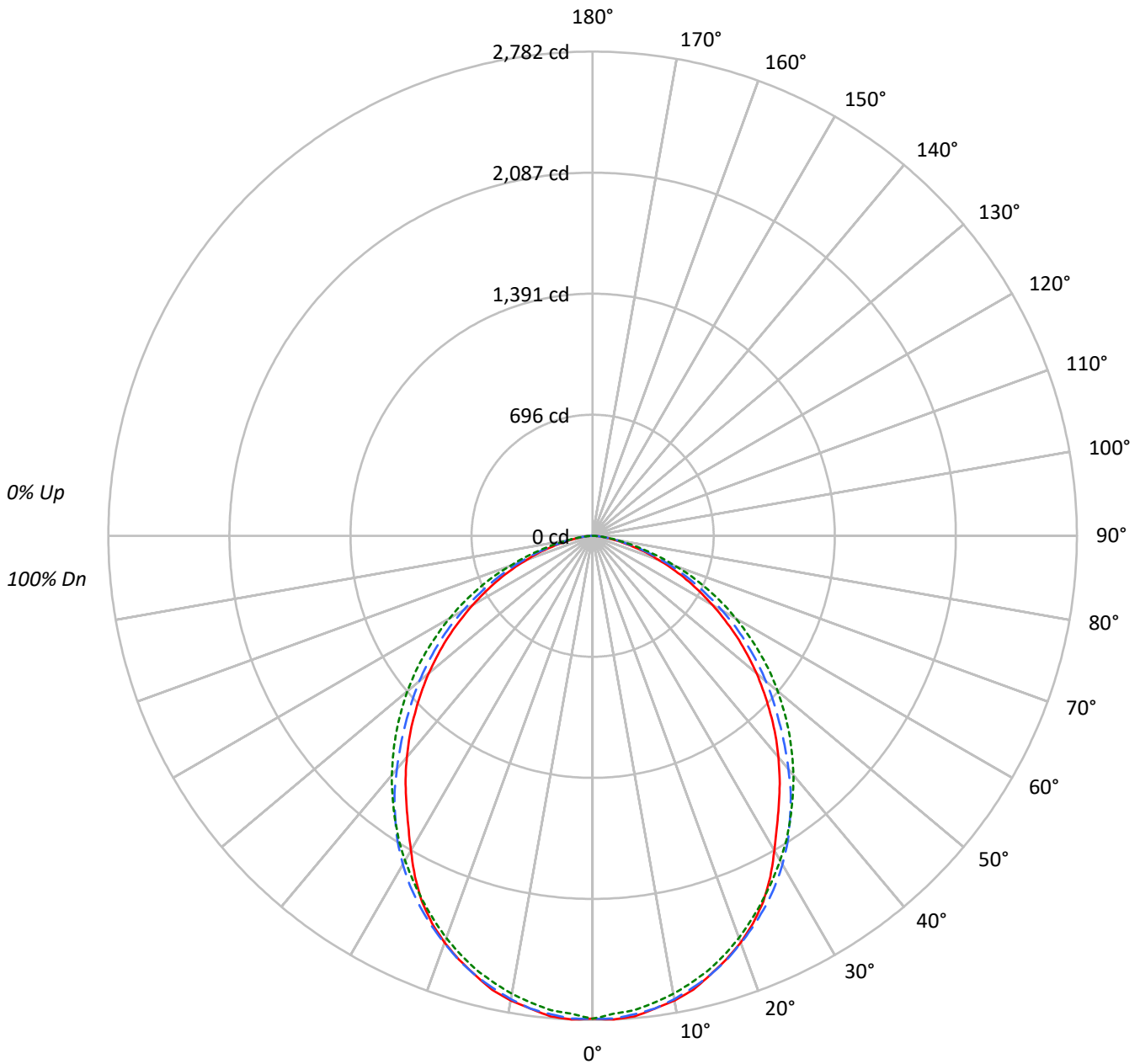
Lumens per Lamp: N/A
Luminaire Lumens: 6416.0 lumens
Efficiency: N/A
Efficacy: 91.4 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 70.2
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									
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°	7467	7467	7467
5°	7487	7455	7392
10°	7407	7387	7302
15°	7276	7276	7193
20°	7122	7131	7039
25°	6887	6973	6862
30°	6486	6777	6694
35°	6128	6496	6506
40°	5830	6145	6306
45°	5497	5773	6069
50°	5146	5440	5810
55°	4746	5061	5496
60°	4274	4618	5112
65°	3774	4106	4649
70°	3145	3497	3950
75°	2471	2793	3092
80°	1768	1967	2180
85°	1152	1152	1087



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	261.3	4.1
10°-20°	733.9	11.4
20°-30°	1072.5	16.7
30°-40°	1217.4	19.0
40°-50°	1175.2	18.3
50°-60°	969.5	15.1
60°-70°	645.6	10.1
70°-80°	288.9	4.5
80°-90°	51.7	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°	2067.7	32.2
0°-40°	3285.1	51.2
0°-60°	5429.8	84.6
0°-90°	6416.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6416.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2775	2775	2775	2775	2775	
5°	2772	2770	2760	2745	2736	262
15°	2612	2618	2612	2600	2582	736
25°	2320	2338	2348	2331	2311	1062
35°	1866	1891	1977	1988	1981	1169
45°	1444	1469	1517	1586	1595	1114
55°	1012	1029	1079	1138	1172	903
65°	593	609	645	691	730	588
75°	238	250	269	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°	2774.8	2774.8	2774.8	2774.8	2774.8
2.5°	2782.2	2783.3	2776.9	2759.8	2749.2
5°	2771.6	2770.5	2759.8	2744.9	2736.4
7.5°	2740.6	2742.8	2739.6	2718.3	2706.5
10°	2710.8	2711.9	2703.3	2686.3	2672.4
12.5°	2672.4	2671.4	2659.6	2651.1	2628.7
15°	2611.7	2618.1	2611.7	2599.9	2581.8
17.5°	2553.0	2553.0	2557.3	2537.0	2523.2
20°	2486.9	2490.1	2490.1	2474.1	2458.2
22.5°	2410.2	2419.8	2423.0	2405.9	2386.7
25°	2319.6	2337.7	2348.4	2331.3	2311.1
27.5°	2209.8	2237.5	2269.5	2256.7	2234.3
30°	2087.2	2127.7	2181.0	2170.3	2154.4
32.5°	1971.0	2011.5	2085.1	2080.8	2072.3
35°	1865.5	1891.1	1977.4	1988.1	1980.6
37.5°	1765.3	1788.7	1869.7	1894.3	1887.9
40°	1659.7	1685.3	1749.3	1793.0	1795.1
42.5°	1555.3	1579.8	1632.0	1694.9	1694.9
45°	1444.4	1468.9	1516.9	1586.2	1594.7
47.5°	1335.7	1361.3	1408.2	1477.5	1491.3
50°	1229.1	1252.5	1299.4	1366.6	1387.9
52.5°	1118.2	1143.8	1189.6	1251.5	1282.4
55°	1011.6	1028.7	1078.8	1138.5	1171.5
57.5°	900.8	916.7	973.2	1024.4	1058.5
60°	794.2	814.4	858.1	910.3	949.8
62.5°	691.8	713.1	750.5	796.3	841.1
65°	592.7	608.7	644.9	690.8	730.2
67.5°	496.7	510.6	546.8	578.8	620.4
70°	399.7	417.9	444.5	475.4	502.1
72.5°	321.9	329.4	351.8	374.2	401.9
75°	237.7	250.5	268.6	281.4	297.4
77.5°	170.6	178.0	188.7	199.3	214.3
80°	114.1	117.3	126.9	129.0	140.7
82.5°	69.3	71.4	73.6	74.6	78.9
85°	37.3	37.3	37.3	35.2	35.2
87.5°	21.3	21.3	18.1	14.9	10.7
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)