

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: P558016

Luminaire Tested: **FUSL-12-4-LD4-3LO-35-UNV-81-84-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: P558016
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-35-UNV-81-84-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

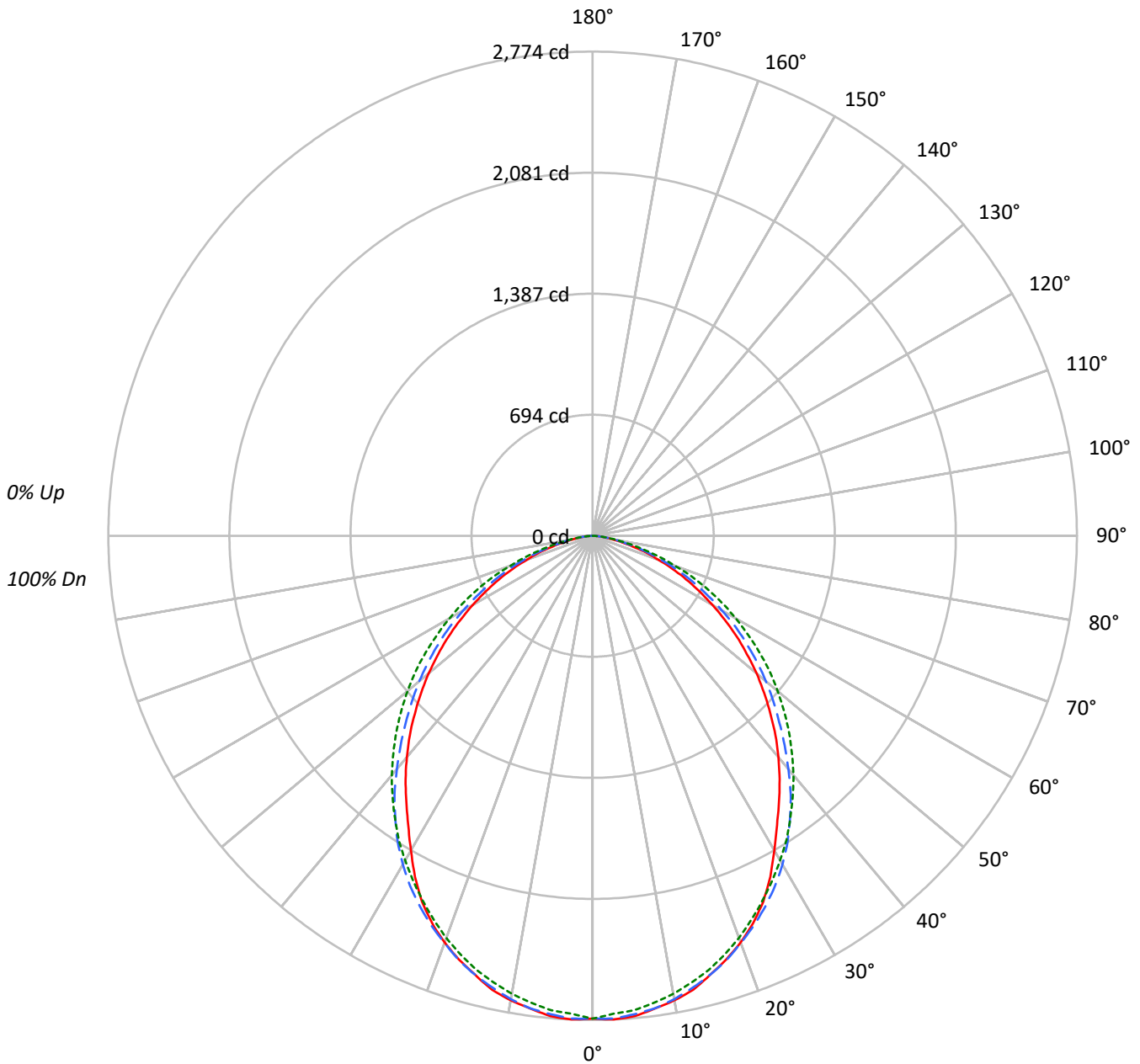
Lumens per Lamp: N/A
Luminaire Lumens: 6397.0 lumens
Efficiency: N/A
Efficacy: 91.1 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	7445	7445	7445
5°	7464	7433	7370
10°	7385	7365	7281
15°	7254	7254	7171
20°	7101	7110	7019
25°	6867	6952	6842
30°	6466	6757	6674
35°	6110	6477	6487
40°	5813	6127	6287
45°	5480	5756	6051
50°	5130	5424	5793
55°	4732	5046	5480
60°	4261	4605	5097
65°	3762	4094	4635
70°	3136	3487	3939
75°	2464	2784	3083
80°	1762	1960	2174
85°	1149	1149	1084



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	260.5	4.1
10°-20°	731.8	11.4
20°-30°	1069.3	16.7
30°-40°	1213.8	19.0
40°-50°	1171.7	18.3
50°-60°	966.6	15.1
60°-70°	643.7	10.1
70°-80°	288.0	4.5
80°-90°	51.5	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°	2061.6	32.2
0°-40°	3275.4	51.2
0°-60°	5413.7	84.6
0°-90°	6397.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6397.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2766	2766	2766	2766	2766	
5°	2763	2762	2752	2737	2728	262
15°	2604	2610	2604	2592	2574	734
25°	2313	2331	2341	2324	2304	1059
35°	1860	1886	1972	1982	1975	1165
45°	1440	1465	1512	1582	1590	1111
55°	1009	1026	1076	1135	1168	900
65°	591	607	643	689	728	586
75°	237	250	268	281	296	259
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°	2766.5	2766.5	2766.5	2766.5	2766.5
2.5°	2774.0	2775.0	2768.7	2751.7	2741.0
5°	2763.3	2762.3	2751.7	2736.8	2728.3
7.5°	2732.5	2734.7	2731.5	2710.2	2698.5
10°	2702.8	2703.8	2695.3	2678.3	2664.5
12.5°	2664.5	2663.4	2651.8	2643.2	2620.9
15°	2603.9	2610.3	2603.9	2592.2	2574.2
17.5°	2545.5	2545.5	2549.7	2529.5	2515.7
20°	2479.6	2482.8	2482.8	2466.8	2450.9
22.5°	2403.1	2412.6	2415.8	2398.8	2379.7
25°	2312.7	2330.8	2341.4	2324.4	2304.2
27.5°	2203.2	2230.9	2262.8	2250.0	2227.7
30°	2081.0	2121.4	2174.5	2163.9	2148.0
32.5°	1965.2	2005.6	2078.9	2074.6	2066.1
35°	1859.9	1885.5	1971.5	1982.2	1974.7
37.5°	1760.0	1783.4	1864.2	1888.6	1882.3
40°	1654.8	1680.3	1744.1	1787.7	1789.8
42.5°	1550.7	1575.1	1627.2	1689.9	1689.9
45°	1440.1	1464.6	1512.4	1581.5	1590.0
47.5°	1331.7	1357.2	1404.0	1473.1	1486.9
50°	1225.4	1248.8	1295.6	1362.5	1383.8
52.5°	1114.9	1140.4	1186.1	1247.8	1278.6
55°	1008.6	1025.6	1075.6	1135.1	1168.0
57.5°	898.1	914.0	970.4	1021.4	1055.4
60°	791.8	812.0	855.6	907.7	947.0
62.5°	689.8	711.0	748.2	793.9	838.6
65°	590.9	606.9	643.0	688.7	728.0
67.5°	495.3	509.1	545.2	577.1	618.6
70°	398.6	416.6	443.2	474.0	500.6
72.5°	321.0	328.4	350.7	373.1	400.7
75°	237.0	249.8	267.8	280.6	296.5
77.5°	170.1	177.5	188.1	198.7	213.6
80°	113.7	116.9	126.5	128.6	140.3
82.5°	69.1	71.2	73.3	74.4	78.6
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)