

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: P558020

Luminaire Tested: **FUSL-12-4-LD4-3LO-35-UNV-81-86-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: P558020
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-81-86-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

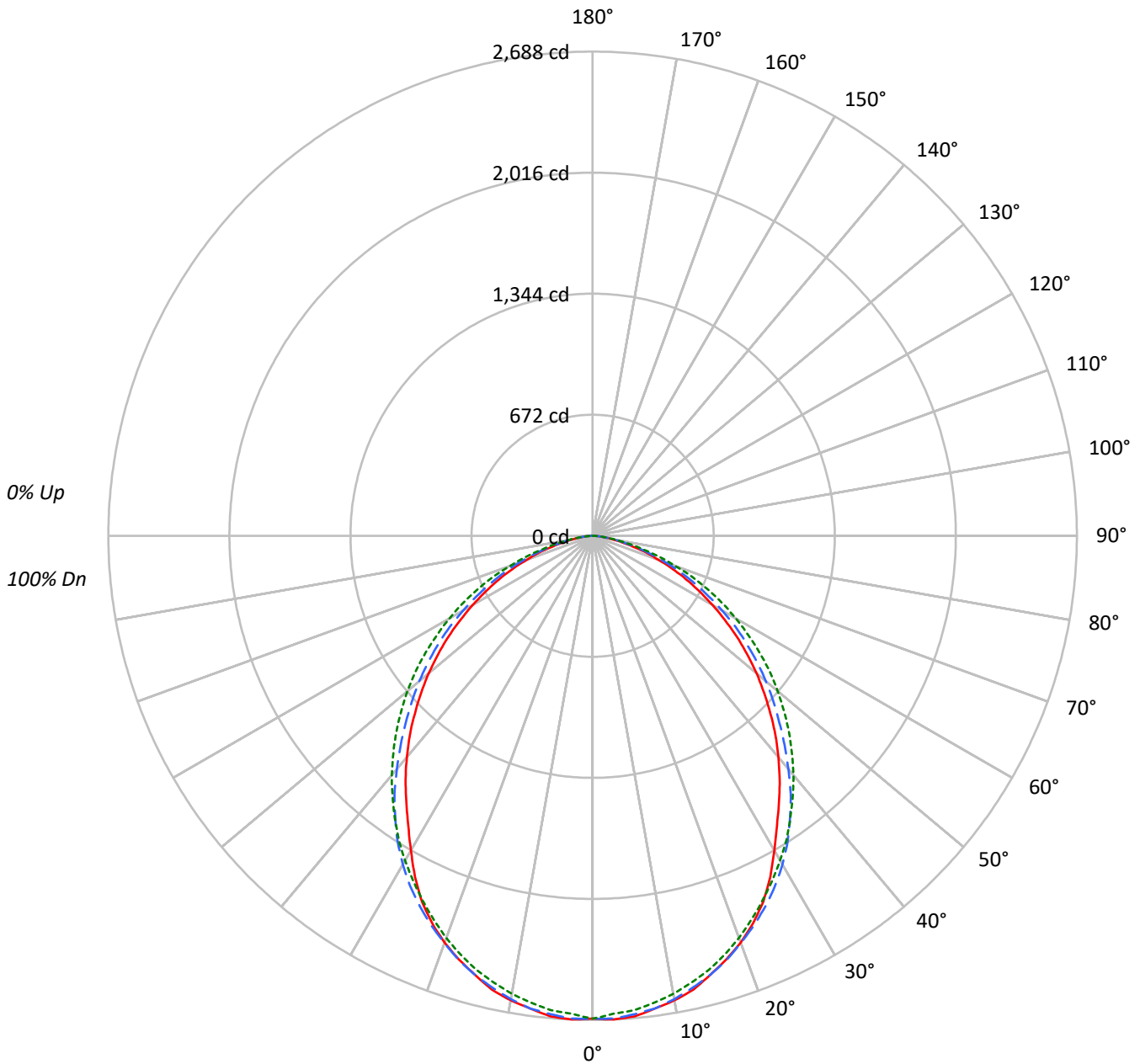
Lumens per Lamp: N/A
Luminaire Lumens: 6199.0 lumens
Efficiency: N/A
Efficacy: 88.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	7214	7214	7214
5°	7233	7203	7142
10°	7157	7137	7055
15°	7030	7030	6949
20°	6881	6890	6801
25°	6654	6737	6630
30°	6266	6548	6468
35°	5921	6276	6286
40°	5633	5937	6093
45°	5311	5578	5864
50°	4971	5256	5614
55°	4586	4890	5310
60°	4130	4462	4939
65°	3646	3968	4492
70°	3039	3379	3817
75°	2388	2698	2988
80°	1708	1900	2108
85°	1112	1112	1050



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	252.4	4.1
10°-20°	709.1	11.4
20°-30°	1036.2	16.7
30°-40°	1176.2	19.0
40°-50°	1135.5	18.3
50°-60°	936.7	15.1
60°-70°	623.8	10.1
70°-80°	279.1	4.5
80°-90°	49.9	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°	1997.8	32.2
0°-40°	3174.0	51.2
0°-60°	5246.2	84.6
0°-90°	6199.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6199.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2681	2681	2681	2681	2681	
5°	2678	2677	2666	2652	2644	253
15°	2523	2530	2523	2512	2494	711
25°	2241	2259	2269	2252	2233	1026
35°	1802	1827	1910	1921	1914	1129
45°	1396	1419	1466	1532	1541	1077
55°	977	994	1042	1100	1132	872
65°	573	588	623	667	706	568
75°	230	242	260	272	287	251
85°	36	36	36	34	34	49
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2680.9	2680.9	2680.9	2680.9	2680.9
2.5°	2688.1	2689.1	2683.0	2666.5	2656.2
5°	2677.8	2676.8	2666.5	2652.1	2643.8
7.5°	2647.9	2650.0	2646.9	2626.3	2615.0
10°	2619.1	2620.1	2611.9	2595.4	2582.0
12.5°	2582.0	2581.0	2569.7	2561.4	2539.8
15°	2523.3	2529.5	2523.3	2512.0	2494.5
17.5°	2466.7	2466.7	2470.8	2451.2	2437.8
20°	2402.8	2405.9	2405.9	2390.5	2375.0
22.5°	2328.7	2337.9	2341.0	2324.6	2306.0
25°	2241.1	2258.6	2268.9	2252.5	2232.9
27.5°	2135.0	2161.8	2192.7	2180.4	2158.7
30°	2016.6	2055.7	2107.2	2096.9	2081.5
32.5°	1904.3	1943.5	2014.5	2010.4	2002.2
35°	1802.4	1827.1	1910.5	1920.8	1913.6
37.5°	1705.6	1728.2	1806.5	1830.2	1824.0
40°	1603.6	1628.3	1690.1	1732.3	1734.4
42.5°	1502.7	1526.4	1576.8	1637.6	1637.6
45°	1395.6	1419.2	1465.6	1532.5	1540.8
47.5°	1290.5	1315.2	1360.5	1427.5	1440.9
50°	1187.5	1210.2	1255.5	1320.4	1341.0
52.5°	1080.4	1105.1	1149.4	1209.1	1239.0
55°	977.4	993.9	1042.3	1100.0	1131.9
57.5°	870.3	885.7	940.3	989.8	1022.7
60°	767.3	786.9	829.1	879.6	917.7
62.5°	668.4	689.0	725.1	769.4	812.6
65°	572.6	588.1	623.1	667.4	705.5
67.5°	479.9	493.3	528.4	559.3	599.4
70°	386.2	403.7	429.5	459.3	485.1
72.5°	311.0	318.2	339.9	361.5	388.3
75°	229.7	242.0	259.5	271.9	287.4
77.5°	164.8	172.0	182.3	192.6	207.0
80°	110.2	113.3	122.6	124.6	136.0
82.5°	66.9	69.0	71.1	72.1	76.2
85°	36.0	36.0	36.0	34.0	34.0
87.5°	20.6	20.6	17.5	14.4	10.3
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)