

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: P557291

Luminaire Tested: **FUSL-12-4-LD4-2LO-35-UNV-93-94-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: P557291
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-LD4-2LO-35-UNV-93-94-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE
AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND
3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

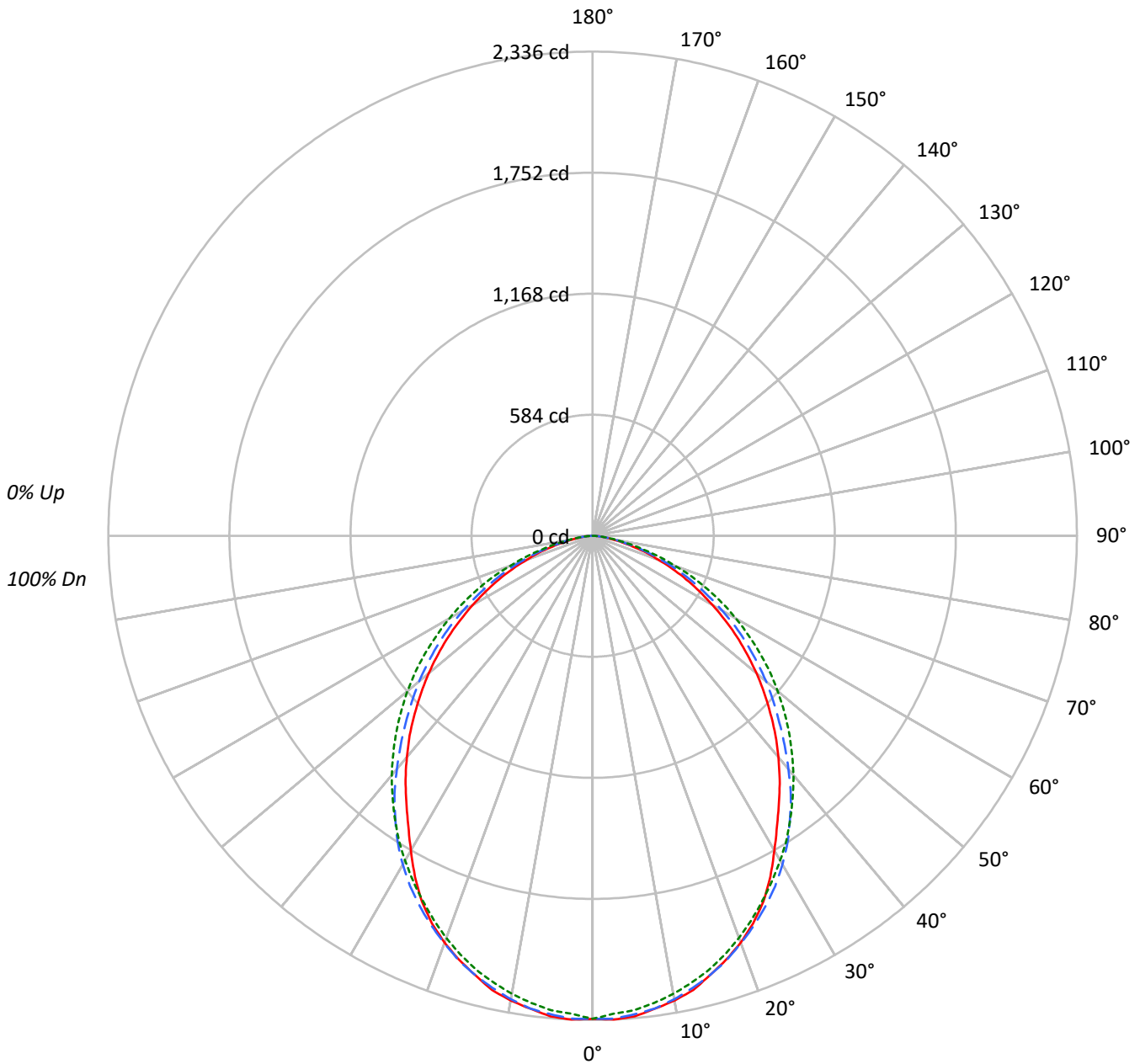
Lumens per Lamp: N/A
Luminaire Lumens: 5388.0 lumens
Efficiency: N/A
Efficacy: 115.1 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 46.8
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°	6271	6271	6271
5°	6287	6260	6207
10°	6221	6203	6132
15°	6110	6110	6040
20°	5981	5989	5911
25°	5784	5855	5763
30°	5446	5691	5622
35°	5146	5455	5464
40°	4896	5160	5296
45°	4616	4848	5096
50°	4321	4568	4879
55°	3985	4250	4616
60°	3589	3878	4293
65°	3169	3449	3904
70°	2641	2937	3317
75°	2075	2346	2597
80°	1485	1650	1832
85°	966	966	911



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	219.4	4.1
10°-20°	616.3	11.4
20°-30°	900.7	16.7
30°-40°	1022.4	19.0
40°-50°	986.9	18.3
50°-60°	814.1	15.1
60°-70°	542.2	10.1
70°-80°	242.6	4.5
80°-90°	43.4	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°	1736.4	32.2
0°-40°	2758.8	51.2
0°-60°	4559.8	84.6
0°-90°	5388.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5388.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2330	2330	2330	2330	2330	
5°	2328	2327	2318	2305	2298	220
15°	2193	2199	2193	2183	2168	618
25°	1948	1963	1972	1958	1941	892
35°	1567	1588	1661	1670	1663	982
45°	1213	1234	1274	1332	1339	936
55°	850	864	906	956	984	758
65°	498	511	542	580	613	494
75°	200	210	226	236	250	218
85°	31	31	31	30	30	42
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2330.2	2330.2	2330.2	2330.2	2330.2
2.5°	2336.4	2337.3	2332.0	2317.6	2308.7
5°	2327.5	2326.6	2317.6	2305.1	2297.9
7.5°	2301.5	2303.3	2300.6	2282.7	2272.9
10°	2276.5	2277.4	2270.2	2255.9	2244.2
12.5°	2244.2	2243.3	2233.5	2226.3	2207.5
15°	2193.2	2198.6	2193.2	2183.4	2168.1
17.5°	2144.0	2144.0	2147.6	2130.5	2118.9
20°	2088.5	2091.2	2091.2	2077.7	2064.3
22.5°	2024.0	2032.1	2034.8	2020.4	2004.3
25°	1947.9	1963.1	1972.1	1957.8	1940.8
27.5°	1855.7	1879.0	1905.9	1895.1	1876.3
30°	1752.8	1786.8	1831.6	1822.6	1809.2
32.5°	1655.2	1689.2	1751.0	1747.4	1740.2
35°	1566.6	1588.1	1660.6	1669.5	1663.3
37.5°	1482.4	1502.1	1570.2	1590.7	1585.4
40°	1393.8	1415.3	1469.0	1505.7	1507.5
42.5°	1306.1	1326.7	1370.5	1423.3	1423.3
45°	1213.0	1233.6	1273.9	1332.0	1339.2
47.5°	1121.7	1143.2	1182.5	1240.7	1252.4
50°	1032.2	1051.8	1091.2	1147.6	1165.5
52.5°	939.1	960.5	999.0	1050.9	1076.9
55°	849.5	863.9	905.9	956.1	983.8
57.5°	756.4	769.9	817.3	860.3	888.9
60°	666.9	683.9	720.6	764.5	797.6
62.5°	581.0	598.9	630.2	668.7	706.3
65°	497.7	511.2	541.6	580.1	613.2
67.5°	417.2	428.8	459.2	486.1	521.0
70°	335.7	350.9	373.3	399.3	421.6
72.5°	270.3	276.6	295.4	314.2	337.5
75°	199.6	210.4	225.6	236.3	249.8
77.5°	143.2	149.5	158.4	167.4	179.9
80°	95.8	98.5	106.5	108.3	118.2
82.5°	58.2	60.0	61.8	62.7	66.2
85°	31.3	31.3	31.3	29.5	29.5
87.5°	17.9	17.9	15.2	12.5	9.0
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)