

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: P557315

Luminaire Tested: **FUSL-12-4-LD4-2LO-40-UNV-81-85-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: P557315
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-40-UNV-81-85-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

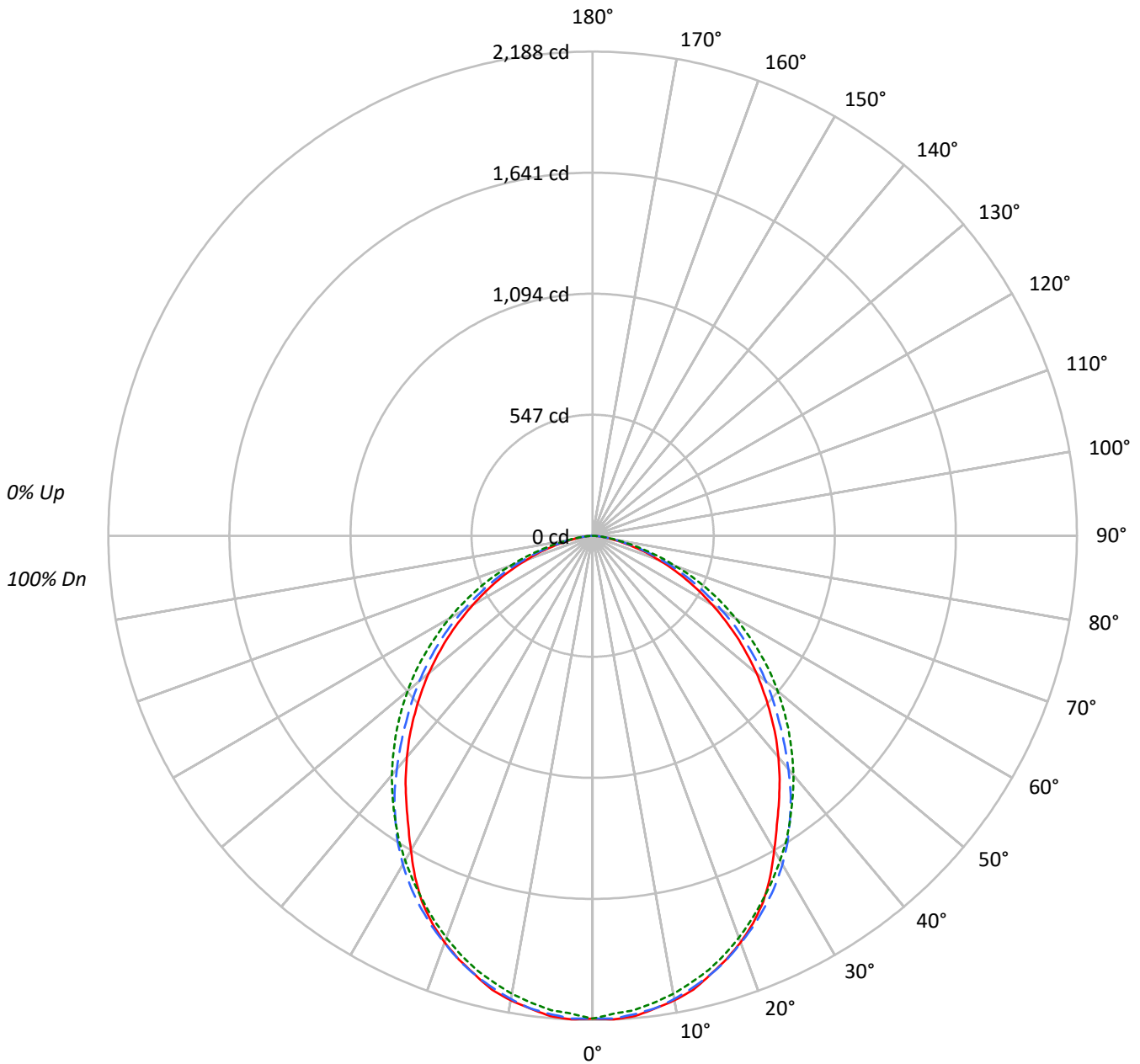
Lumens per Lamp: N/A
Luminaire Lumens: 5045.0 lumens
Efficiency: N/A
Efficacy: 107.8 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 46.8
Input Voltage (V): NR
Input Current (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°	5871	5871	5871
5°	5887	5862	5812
10°	5824	5808	5742
15°	5721	5721	5656
20°	5600	5607	5535
25°	5415	5483	5396
30°	5100	5329	5264
35°	4819	5108	5116
40°	4585	4832	4958
45°	4322	4539	4772
50°	4046	4278	4569
55°	3732	3980	4322
60°	3361	3632	4019
65°	2967	3229	3656
70°	2473	2750	3106
75°	1943	2196	2432
80°	1390	1545	1714
85°	905	905	855



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	205.4	4.1
10°-20°	577.1	11.4
20°-30°	843.3	16.7
30°-40°	957.3	19.0
40°-50°	924.1	18.3
50°-60°	762.3	15.1
60°-70°	507.6	10.1
70°-80°	227.2	4.5
80°-90°	40.6	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°	1625.9	32.2
0°-40°	2583.1	51.2
0°-60°	4269.6	84.6
0°-90°	5045.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5045.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2182	2182	2182	2182	2182	
5°	2179	2178	2170	2158	2152	206
15°	2054	2059	2054	2044	2030	579
25°	1824	1838	1847	1833	1817	835
35°	1467	1487	1555	1563	1557	919
45°	1136	1155	1193	1247	1254	876
55°	796	809	848	895	921	710
65°	466	479	507	543	574	462
75°	187	197	211	221	234	204
85°	29	29	29	28	28	40
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2181.8	2181.8	2181.8	2181.8	2181.8
2.5°	2187.7	2188.5	2183.5	2170.1	2161.7
5°	2179.3	2178.5	2170.1	2158.4	2151.7
7.5°	2155.0	2156.7	2154.2	2137.4	2128.2
10°	2131.5	2132.4	2125.7	2112.3	2101.4
12.5°	2101.4	2100.5	2091.3	2084.6	2067.0
15°	2053.6	2058.6	2053.6	2044.4	2030.1
17.5°	2007.5	2007.5	2010.8	1994.9	1984.0
20°	1955.5	1958.0	1958.0	1945.5	1932.9
22.5°	1895.2	1902.7	1905.2	1891.8	1876.7
25°	1823.9	1838.2	1846.6	1833.1	1817.2
27.5°	1737.6	1759.4	1784.5	1774.5	1756.9
30°	1641.2	1673.0	1715.0	1706.6	1694.0
32.5°	1549.8	1581.7	1639.5	1636.2	1629.5
35°	1466.8	1487.0	1554.9	1563.2	1557.4
37.5°	1388.1	1406.5	1470.2	1489.5	1484.5
40°	1305.1	1325.2	1375.5	1409.9	1411.5
42.5°	1222.9	1242.2	1283.3	1332.7	1332.7
45°	1135.8	1155.0	1192.8	1247.2	1253.9
47.5°	1050.3	1070.4	1107.3	1161.7	1172.6
50°	966.4	984.9	1021.8	1074.6	1091.3
52.5°	879.3	899.4	935.4	984.0	1008.4
55°	795.5	808.9	848.3	895.2	921.2
57.5°	708.3	720.9	765.3	805.5	832.3
60°	624.5	640.4	674.8	715.8	746.8
62.5°	544.0	560.8	590.1	626.1	661.3
65°	466.0	478.6	507.1	543.2	574.2
67.5°	390.6	401.5	430.0	455.1	487.8
70°	314.3	328.6	349.5	373.8	394.8
72.5°	253.1	259.0	276.6	294.2	316.0
75°	186.9	197.0	211.2	221.3	233.9
77.5°	134.1	140.0	148.4	156.7	168.5
80°	89.7	92.2	99.7	101.4	110.6
82.5°	54.5	56.2	57.8	58.7	62.0
85°	29.3	29.3	29.3	27.7	27.7
87.5°	16.8	16.8	14.2	11.7	8.4
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)