

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: P557329

Luminaire Tested: **FUSL-12-4-LD4-2LO-40-UNV-82-84-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: P557329
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-82-84-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

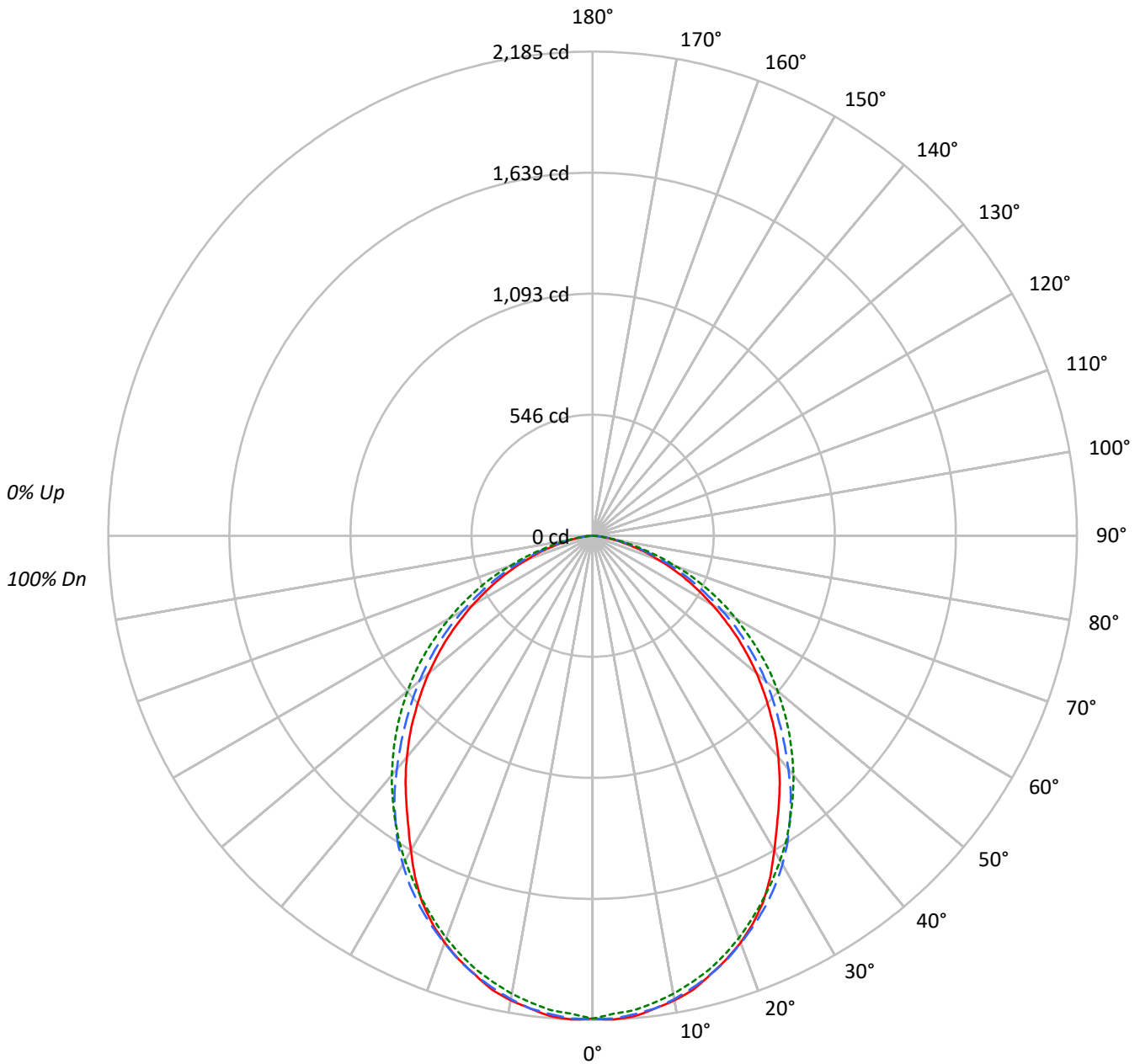
Lumens per Lamp: N/A
Luminaire Lumens: 5039.0 lumens
Efficiency: N/A
Efficacy: 107.7 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P557329

CATALOG NUMBER: FUSL-12-4-LD4-2LO-40-UNV-82-84-EDD

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°	5864	5864	5864
5°	5880	5855	5805
10°	5817	5801	5735
15°	5714	5714	5649
20°	5593	5600	5529
25°	5409	5476	5389
30°	5093	5322	5258
35°	4813	5102	5110
40°	4579	4826	4952
45°	4317	4534	4767
50°	4041	4272	4563
55°	3727	3975	4317
60°	3357	3627	4014
65°	2964	3225	3652
70°	2471	2747	3102
75°	1941	2194	2429
80°	1389	1543	1712
85°	905	905	852



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	205.2	4.1
10°-20°	576.4	11.4
20°-30°	842.3	16.7
30°-40°	956.1	19.0
40°-50°	923.0	18.3
50°-60°	761.4	15.1
60°-70°	507.0	10.1
70°-80°	226.9	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°	1623.9	32.2
0°-40°	2580.1	51.2
0°-60°	4264.5	84.6
0°-90°	5039.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5039.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2179	2179	2179	2179	2179	
5°	2177	2176	2168	2156	2149	206
15°	2051	2056	2051	2042	2028	578
25°	1822	1836	1844	1831	1815	834
35°	1465	1485	1553	1561	1556	918
45°	1134	1154	1191	1246	1252	875
55°	794	808	847	894	920	709
65°	466	478	506	542	574	462
75°	187	197	211	221	234	204
85°	29	29	29	28	28	39
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2179.2	2179.2	2179.2	2179.2	2179.2
2.5°	2185.1	2185.9	2180.9	2167.5	2159.1
5°	2176.7	2175.9	2167.5	2155.8	2149.1
7.5°	2152.4	2154.1	2151.6	2134.9	2125.7
10°	2129.0	2129.8	2123.1	2109.7	2098.9
12.5°	2098.9	2098.0	2088.8	2082.1	2064.5
15°	2051.1	2056.2	2051.1	2041.9	2027.7
17.5°	2005.1	2005.1	2008.4	1992.5	1981.7
20°	1953.2	1955.7	1955.7	1943.1	1930.6
22.5°	1892.9	1900.4	1903.0	1889.6	1874.5
25°	1821.8	1836.0	1844.4	1831.0	1815.1
27.5°	1735.5	1757.3	1782.4	1772.4	1754.8
30°	1639.2	1671.1	1712.9	1704.5	1692.0
32.5°	1548.0	1579.8	1637.6	1634.2	1627.5
35°	1465.1	1485.2	1553.0	1561.4	1555.5
37.5°	1386.4	1404.8	1468.5	1487.7	1482.7
40°	1303.5	1323.6	1373.8	1408.2	1409.8
42.5°	1221.5	1240.7	1281.8	1331.2	1331.2
45°	1134.4	1153.7	1191.3	1245.8	1252.5
47.5°	1049.0	1069.1	1105.9	1160.4	1171.2
50°	965.3	983.7	1020.5	1073.3	1090.0
52.5°	878.2	898.3	934.3	982.9	1007.2
55°	794.5	807.9	847.2	894.1	920.1
57.5°	707.4	720.0	764.4	804.6	831.3
60°	623.7	639.6	673.9	715.0	745.9
62.5°	543.3	560.1	589.4	625.4	660.6
65°	465.5	478.0	506.5	542.5	573.5
67.5°	390.1	401.0	429.5	454.6	487.3
70°	314.0	328.2	349.1	373.4	394.3
72.5°	252.8	258.7	276.3	293.9	315.6
75°	186.7	196.7	211.0	221.0	233.6
77.5°	134.0	139.8	148.2	156.6	168.3
80°	89.6	92.1	99.6	101.3	110.5
82.5°	54.4	56.1	57.8	58.6	62.0
85°	29.3	29.3	29.3	27.6	27.6
87.5°	16.7	16.7	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)