

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: P557592

Luminaire Tested: **FUSL-12-4-LD4-2STD-40-UNV-82-88-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: P557592
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-LD4-2STD-40-UNV-82-88-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

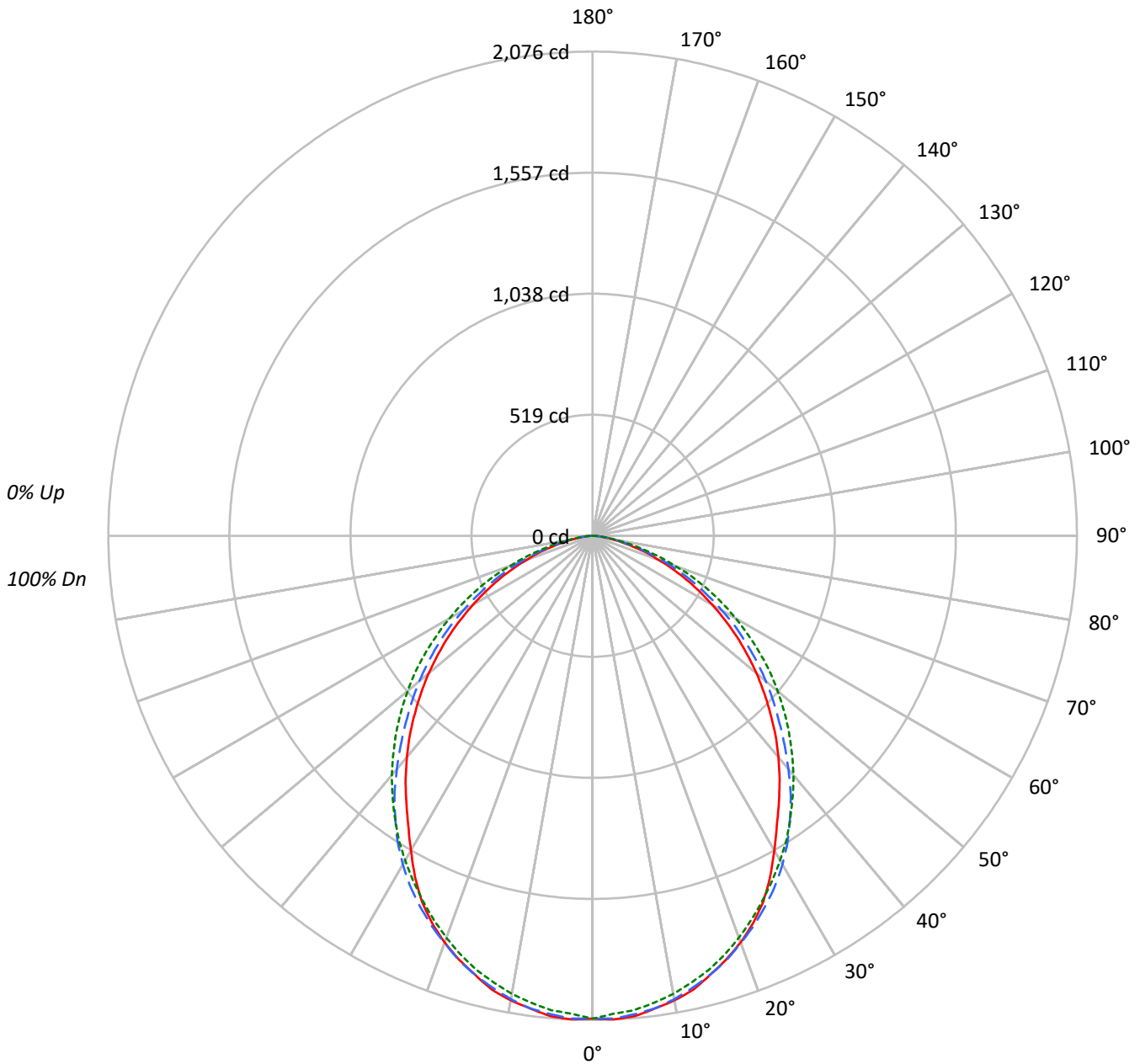
Lumens per Lamp: N/A
Luminaire Lumens: 4787.0 lumens
Efficiency: N/A
Efficacy: 71.9 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 66.6
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°	5571	5571	5571
5°	5586	5562	5515
10°	5526	5511	5448
15°	5429	5429	5366
20°	5314	5320	5252
25°	5138	5202	5120
30°	4839	5056	4995
35°	4572	4846	4854
40°	4350	4585	4705
45°	4101	4307	4528
50°	3839	4059	4335
55°	3541	3776	4101
60°	3189	3446	3814
65°	2816	3064	3469
70°	2347	2610	2947
75°	1844	2084	2307
80°	1319	1466	1627
85°	858	858	809



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	194.9	4.1
10°-20°	547.6	11.4
20°-30°	800.2	16.7
30°-40°	908.3	19.0
40°-50°	876.8	18.3
50°-60°	723.3	15.1
60°-70°	481.7	10.1
70°-80°	215.6	4.5
80°-90°	38.6	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°	1542.7	32.2
0°-40°	2451.0	51.2
0°-60°	4051.2	84.6
0°-90°	4787.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4787.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2070	2070	2070	2070	2070	
5°	2068	2067	2059	2048	2042	196
15°	1949	1953	1949	1940	1926	549
25°	1731	1744	1752	1739	1724	793
35°	1392	1411	1475	1483	1478	872
45°	1078	1096	1132	1184	1190	831
55°	755	768	805	849	874	674
65°	442	454	481	515	545	438
75°	177	187	200	210	222	194
85°	28	28	28	26	26	38
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2070.3	2070.3	2070.3	2070.3	2070.3
2.5°	2075.8	2076.6	2071.8	2059.1	2051.2
5°	2067.9	2067.1	2059.1	2048.0	2041.6
7.5°	2044.8	2046.4	2044.0	2028.1	2019.4
10°	2022.5	2023.3	2017.0	2004.2	1993.9
12.5°	1993.9	1993.1	1984.4	1978.0	1961.3
15°	1948.6	1953.3	1948.6	1939.8	1926.3
17.5°	1904.8	1904.8	1908.0	1892.9	1882.6
20°	1855.5	1857.9	1857.9	1846.0	1834.0
22.5°	1798.2	1805.4	1807.8	1795.1	1780.8
25°	1730.6	1744.2	1752.1	1739.4	1724.3
27.5°	1648.7	1669.4	1693.3	1683.7	1667.0
30°	1557.3	1587.5	1627.3	1619.3	1607.4
32.5°	1470.6	1500.8	1555.7	1552.5	1546.1
35°	1391.8	1410.9	1475.3	1483.3	1477.7
37.5°	1317.1	1334.6	1395.0	1413.3	1408.5
40°	1238.3	1257.4	1305.1	1337.8	1339.3
42.5°	1160.4	1178.7	1217.7	1264.6	1264.6
45°	1077.7	1096.0	1131.8	1183.5	1189.8
47.5°	996.6	1015.6	1050.6	1102.3	1112.7
50°	917.0	934.5	969.5	1019.6	1035.5
52.5°	834.3	853.4	887.6	933.7	956.8
55°	754.8	767.5	804.9	849.4	874.1
57.5°	672.1	684.0	726.1	764.3	789.8
60°	592.5	607.6	640.2	679.2	708.6
62.5°	516.2	532.1	559.9	594.1	627.5
65°	442.2	454.1	481.2	515.4	544.8
67.5°	370.6	381.0	408.0	431.9	462.9
70°	298.3	311.8	331.7	354.7	374.6
72.5°	240.2	245.8	262.5	279.2	299.8
75°	177.4	186.9	200.4	210.0	221.9
77.5°	127.3	132.8	140.8	148.7	159.9
80°	85.1	87.5	94.6	96.2	105.0
82.5°	51.7	53.3	54.9	55.7	58.9
85°	27.8	27.8	27.8	26.2	26.2
87.5°	15.9	15.9	13.5	11.1	8.0
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)