

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: P557846

Luminaire Tested: **FUSL-12-4-LD4-3HI-40-UNV-82-87-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: P557846
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-LD4-3HI-40-UNV-82-87-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

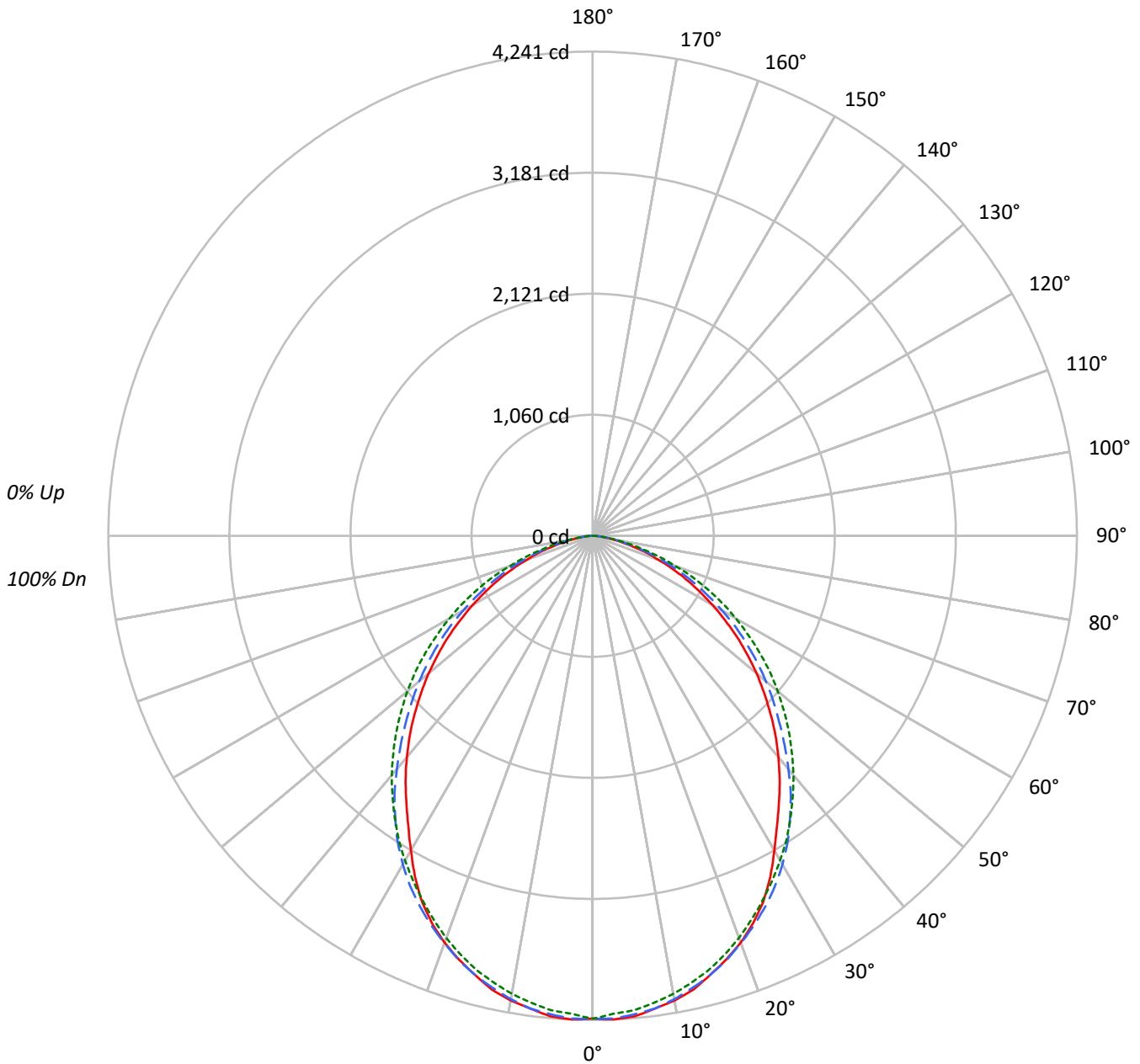
Lumens per Lamp: N/A
Luminaire Lumens: 9781.0 lumens
Efficiency: N/A
Efficacy: 75.5 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 129.6
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: P557846

CATALOG NUMBER: FUSL-12-4-LD4-3HI-40-UNV-82-87-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P557846

CATALOG NUMBER: FUSL-12-4-LD4-3HI-40-UNV-82-87-EDD-90

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					20					
RC	80					70					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	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86					86			
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73					73			
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63					63			
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	61	56	54					54			
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	47					47			
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42					42			
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	49	44	39	37					37			
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34					34			
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30					30			
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29	28					28			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11383	11383	11383
5°	11413	11365	11268
10°	11292	11261	11132
15°	11092	11092	10965
20°	10857	10871	10731
25°	10499	10630	10461
30°	9887	10331	10205
35°	9342	9903	9919
40°	8888	9368	9613
45°	8380	8800	9252
50°	7844	8293	8858
55°	7235	7716	8379
60°	6516	7041	7793
65°	5753	6260	7088
70°	4795	5331	6022
75°	3768	4258	4714
80°	2695	2997	3324
85°	1757	1757	1655



TEST NUMBER: P557846

CATALOG NUMBER: FUSL-12-4-LD4-3HI-40-UNV-82-87-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	398.3	4.1
10°-20°	1118.8	11.4
20°-30°	1635.0	16.7
30°-40°	1855.9	19.0
40°-50°	1791.6	18.3
50°-60°	1478.0	15.1
60°-70°	984.2	10.1
70°-80°	440.4	4.5
80°-90°	78.8	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°	3152.1	32.2
0°-40°	5008.1	51.2
0°-60°	8277.6	84.6
0°-90°	9781.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9781.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4230	4230	4230	4230	4230	
5°	4225	4224	4207	4184	4172	400
15°	3981	3991	3981	3964	3936	1122
25°	3536	3564	3580	3554	3523	1619
35°	2844	2883	3014	3031	3019	1782
45°	2202	2239	2312	2418	2431	1699
55°	1542	1568	1645	1736	1786	1376
65°	904	928	983	1053	1113	896
75°	362	382	410	429	453	396
85°	57	57	57	54	54	77
90°	0	0	0	0	0	



TEST NUMBER: P557846

CATALOG NUMBER: FUSL-12-4-LD4-3HI-40-UNV-82-87-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4230.0	4230.0	4230.0	4230.0	4230.0
2.5°	4241.4	4243.0	4233.3	4207.3	4191.0
5°	4225.2	4223.5	4207.3	4184.5	4171.5
7.5°	4178.0	4181.3	4176.4	4143.9	4126.0
10°	4132.5	4134.2	4121.2	4095.1	4074.0
12.5°	4074.0	4072.4	4054.5	4041.5	4007.4
15°	3981.4	3991.1	3981.4	3963.5	3935.9
17.5°	3892.0	3892.0	3898.5	3867.6	3846.5
20°	3791.3	3796.1	3796.1	3771.8	3747.4
22.5°	3674.3	3688.9	3693.8	3667.8	3638.5
25°	3536.1	3563.8	3580.0	3554.0	3523.1
27.5°	3368.7	3411.0	3459.8	3440.3	3406.1
30°	3181.9	3243.6	3324.9	3308.6	3284.2
32.5°	3004.7	3066.5	3178.6	3172.1	3159.1
35°	2843.9	2882.9	3014.5	3030.7	3019.4
37.5°	2691.1	2726.8	2850.4	2887.7	2878.0
40°	2530.2	2569.2	2666.7	2733.4	2736.6
42.5°	2371.0	2408.3	2488.0	2583.8	2583.8
45°	2202.0	2239.3	2312.5	2418.1	2431.1
47.5°	2036.2	2075.2	2146.7	2252.3	2273.5
50°	1873.7	1909.4	1980.9	2083.3	2115.8
52.5°	1704.7	1743.7	1813.6	1907.8	1954.9
55°	1542.2	1568.2	1644.6	1735.6	1785.9
57.5°	1373.2	1397.6	1483.7	1561.7	1613.7
60°	1210.7	1241.5	1308.2	1387.8	1447.9
62.5°	1054.7	1087.2	1144.0	1213.9	1282.2
65°	903.5	927.9	983.2	1053.0	1113.2
67.5°	757.3	778.4	833.7	882.4	945.8
70°	609.4	637.0	677.6	724.8	765.4
72.5°	490.8	502.1	536.3	570.4	612.6
75°	362.4	381.9	409.5	429.0	453.4
77.5°	260.0	271.4	287.6	303.9	326.6
80°	173.9	178.8	193.4	196.6	214.5
82.5°	105.6	108.9	112.1	113.8	120.3
85°	56.9	56.9	56.9	53.6	53.6
87.5°	32.5	32.5	27.6	22.8	16.3
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)