

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: P557852

Luminaire Tested: **FUSL-12-4-LD4-3HI-40-UNV-82-96-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: P557852
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-82-96-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDES
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

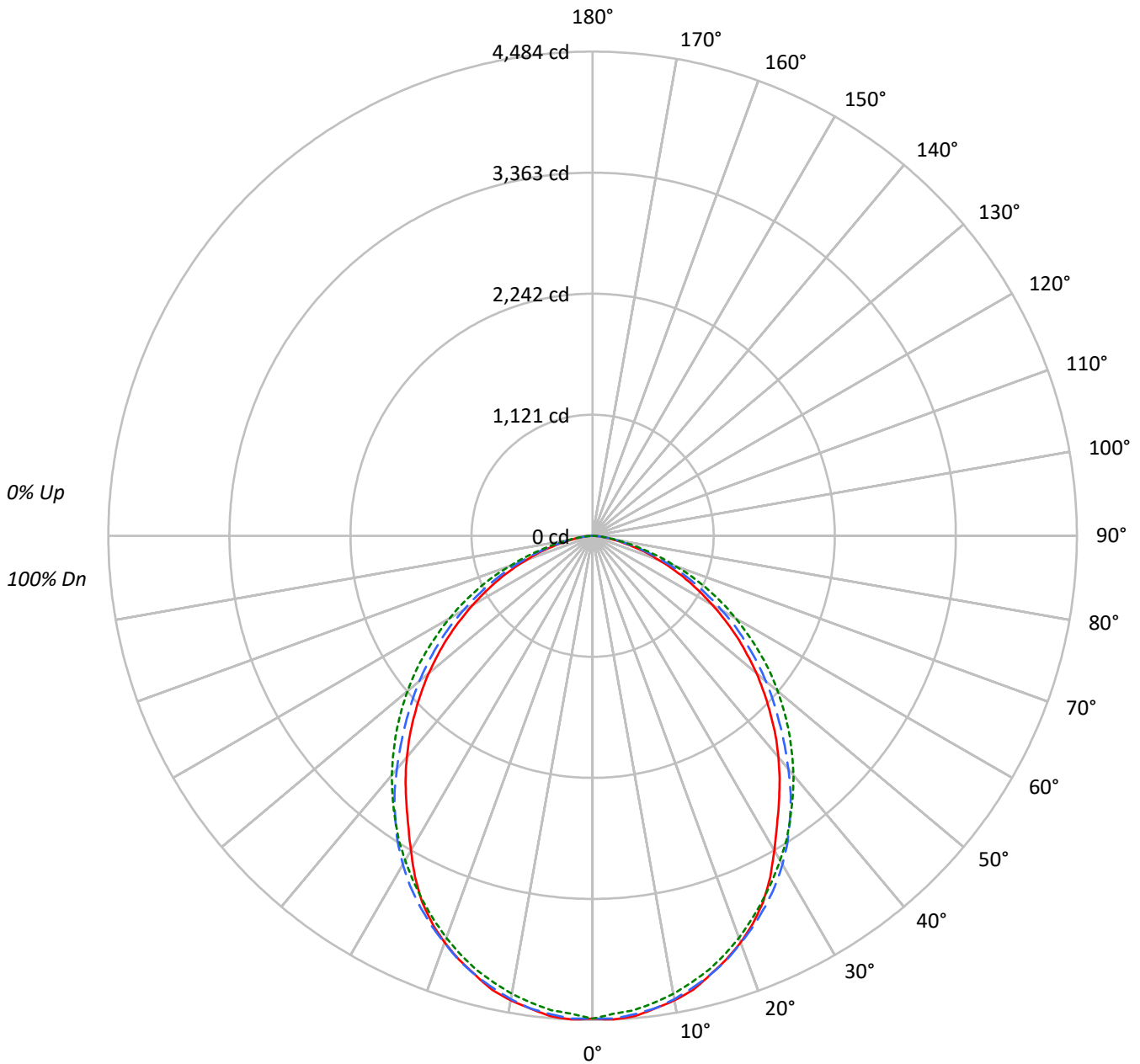
Lumens per Lamp: N/A
Luminaire Lumens: 10340.0 lumens
Efficiency: N/A
Efficacy: 79.8 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 129.6
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

TEST NUMBER: P557852

CATALOG NUMBER: FUSL-12-4-LD4-3HI-40-UNV-82-96-EDD-90

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°	12034	12034	12034
5°	12065	12014	11912
10°	11937	11905	11769
15°	11726	11726	11592
20°	11477	11492	11345
25°	11099	11237	11059
30°	10452	10922	10788
35°	9876	10469	10486
40°	9396	9903	10163
45°	8859	9303	9780
50°	8292	8767	9364
55°	7649	8156	8858
60°	6888	7443	8238
65°	6082	6618	7493
70°	5068	5637	6366
75°	3983	4501	4983
80°	2848	3168	3515
85°	1856	1856	1751



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	421.0	4.1
10°-20°	1182.8	11.4
20°-30°	1728.5	16.7
30°-40°	1962.0	19.0
40°-50°	1894.0	18.3
50°-60°	1562.4	15.1
60°-70°	1040.4	10.1
70°-80°	465.6	4.5
80°-90°	83.3	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°	3332.3	32.2
0°-40°	5294.3	51.2
0°-60°	8750.7	84.6
0°-90°	10340.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10340.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4472	4472	4472	4472	4472	
5°	4467	4465	4448	4424	4410	423
15°	4209	4219	4209	4190	4161	1187
25°	3738	3767	3785	3757	3724	1712
35°	3006	3048	3187	3204	3192	1884
45°	2328	2367	2445	2556	2570	1796
55°	1630	1658	1738	1835	1888	1455
65°	955	981	1039	1113	1177	947
75°	383	404	433	454	479	419
85°	60	60	60	57	57	81
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4471.8	4471.8	4471.8	4471.8	4471.8
2.5°	4483.8	4485.5	4475.2	4447.7	4430.6
5°	4466.6	4464.9	4447.7	4423.7	4409.9
7.5°	4416.8	4420.2	4415.1	4380.7	4361.8
10°	4368.7	4370.4	4356.7	4329.2	4306.9
12.5°	4306.9	4305.1	4286.2	4272.5	4236.4
15°	4208.9	4219.2	4208.9	4190.0	4160.8
17.5°	4114.5	4114.5	4121.3	4088.7	4066.4
20°	4007.9	4013.1	4013.1	3987.3	3961.6
22.5°	3884.2	3899.7	3904.9	3877.4	3846.5
25°	3738.2	3767.4	3784.6	3757.1	3724.5
27.5°	3561.3	3605.9	3657.5	3636.9	3600.8
30°	3363.7	3429.0	3514.9	3497.7	3471.9
32.5°	3176.5	3241.7	3360.3	3353.4	3339.7
35°	3006.4	3047.6	3186.8	3203.9	3191.9
37.5°	2844.9	2882.7	3013.3	3052.8	3042.5
40°	2674.8	2716.1	2819.1	2889.6	2893.0
42.5°	2506.5	2546.0	2630.2	2731.5	2731.5
45°	2327.8	2367.3	2444.6	2556.3	2570.0
47.5°	2152.6	2193.8	2269.4	2381.1	2403.4
50°	1980.8	2018.6	2094.2	2202.4	2236.8
52.5°	1802.1	1843.3	1917.2	2016.9	2066.7
55°	1630.3	1657.8	1738.5	1834.8	1888.0
57.5°	1451.7	1477.4	1568.5	1650.9	1705.9
60°	1279.9	1312.5	1382.9	1467.1	1530.7
62.5°	1114.9	1149.3	1209.4	1283.3	1355.5
65°	955.2	980.9	1039.4	1113.2	1176.8
67.5°	800.6	822.9	881.3	932.8	999.8
70°	644.2	673.4	716.4	766.2	809.1
72.5°	518.8	530.8	566.9	603.0	647.7
75°	383.1	403.7	432.9	453.5	479.3
77.5°	274.9	286.9	304.1	321.3	345.3
80°	183.8	189.0	204.4	207.9	226.8
82.5°	111.7	115.1	118.5	120.3	127.1
85°	60.1	60.1	60.1	56.7	56.7
87.5°	34.4	34.4	29.2	24.1	17.2
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)