

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: P557012

Luminaire Tested: **FUSL-12-4-LD4-2HI-35-UNV-82-86-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: P557012
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-LD4-2HI-35-UNV-82-86-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

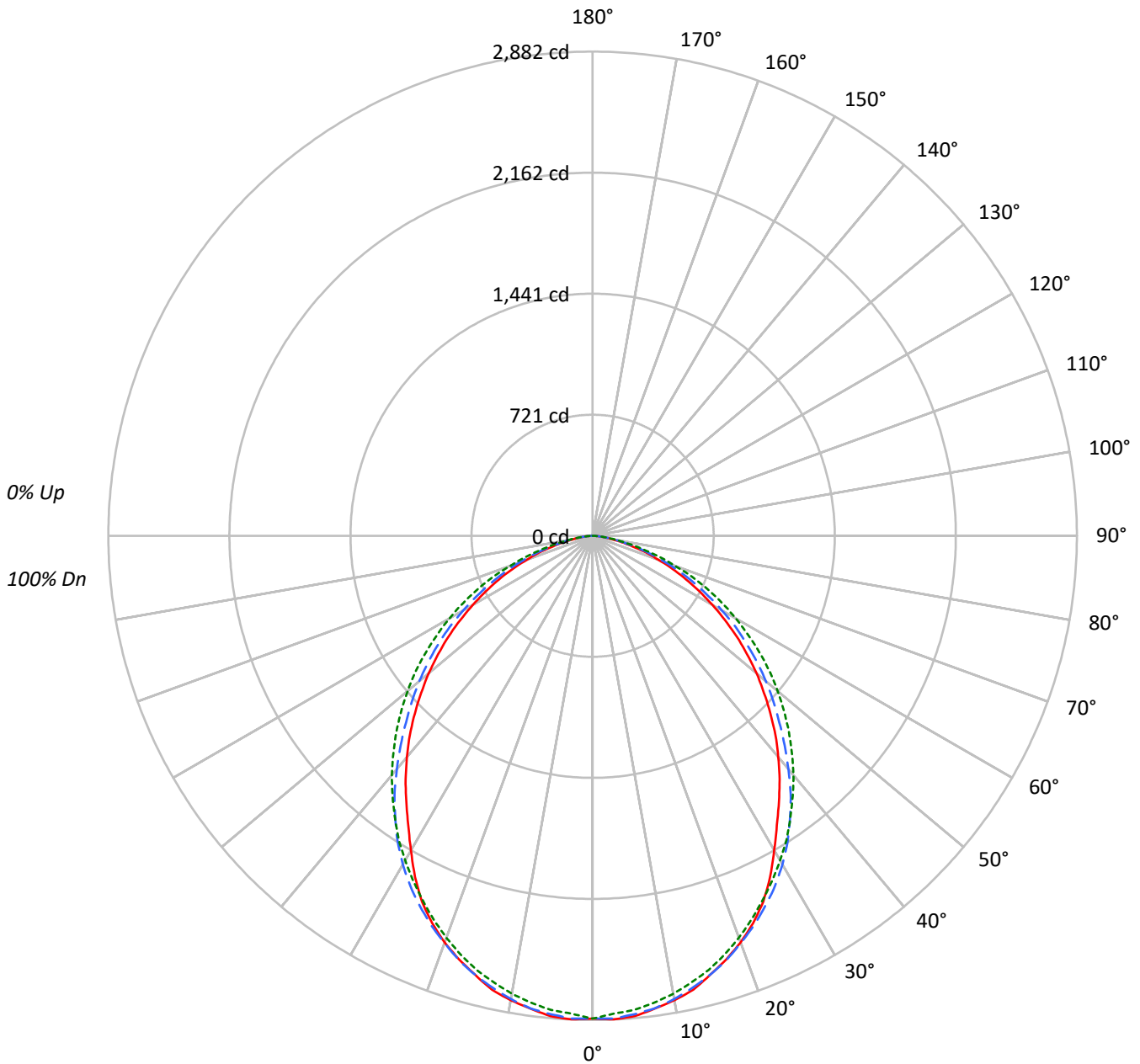
Lumens per Lamp: N/A
Luminaire Lumens: 6645.0 lumens
Efficiency: N/A
Efficacy: 76.9 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 86.4
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°	7733	7733	7733
5°	7754	7721	7655
10°	7671	7650	7563
15°	7536	7536	7450
20°	7376	7385	7291
25°	7133	7222	7107
30°	6717	7019	6933
35°	6347	6728	6739
40°	6039	6364	6531
45°	5693	5979	6285
50°	5329	5634	6018
55°	4915	5242	5692
60°	4427	4783	5294
65°	3908	4253	4816
70°	3257	3622	4091
75°	2560	2892	3202
80°	1830	2036	2258
85°	1192	1192	1124



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	270.6	4.1
10°-20°	760.1	11.4
20°-30°	1110.8	16.7
30°-40°	1260.9	19.0
40°-50°	1217.2	18.3
50°-60°	1004.1	15.1
60°-70°	668.6	10.1
70°-80°	299.2	4.5
80°-90°	53.5	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°	2141.5	32.2
0°-40°	3402.4	51.2
0°-60°	5623.6	84.6
0°-90°	6645.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6645.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2874	2874	2874	2874	2874	
5°	2870	2869	2858	2843	2834	272
15°	2705	2712	2705	2693	2674	763
25°	2402	2421	2432	2414	2394	1100
35°	1932	1958	2048	2059	2051	1211
45°	1496	1521	1571	1643	1652	1154
55°	1048	1065	1117	1179	1213	935
65°	614	630	668	715	756	609
75°	246	259	278	292	308	269
85°	39	39	39	36	36	52
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2873.8	2873.8	2873.8	2873.8	2873.8
2.5°	2881.5	2882.6	2876.0	2858.3	2847.3
5°	2870.5	2869.4	2858.3	2842.9	2834.0
7.5°	2838.5	2840.7	2837.4	2815.3	2803.1
10°	2807.5	2808.7	2799.8	2782.2	2767.8
12.5°	2767.8	2766.7	2754.6	2745.7	2722.5
15°	2704.9	2711.5	2704.9	2692.7	2674.0
17.5°	2644.2	2644.2	2648.6	2627.6	2613.2
20°	2575.7	2579.0	2579.0	2562.5	2545.9
22.5°	2496.2	2506.1	2509.5	2491.8	2471.9
25°	2402.4	2421.1	2432.2	2414.5	2393.5
27.5°	2288.7	2317.4	2350.5	2337.2	2314.0
30°	2161.7	2203.6	2258.8	2247.8	2231.2
32.5°	2041.4	2083.3	2159.5	2155.1	2146.2
35°	1932.1	1958.5	2048.0	2059.0	2051.3
37.5°	1828.3	1852.6	1936.5	1961.9	1955.2
40°	1719.0	1745.5	1811.7	1857.0	1859.2
42.5°	1610.8	1636.2	1690.3	1755.4	1755.4
45°	1496.0	1521.4	1571.0	1642.8	1651.6
47.5°	1383.3	1409.8	1458.4	1530.2	1544.5
50°	1272.9	1297.2	1345.8	1415.4	1437.4
52.5°	1158.1	1184.6	1232.1	1296.1	1328.1
55°	1047.7	1065.4	1117.3	1179.1	1213.3
57.5°	932.9	949.5	1008.0	1061.0	1096.3
60°	822.5	843.5	888.7	942.8	983.7
62.5°	716.5	738.6	777.2	824.7	871.1
65°	613.8	630.4	667.9	715.4	756.3
67.5°	514.5	528.8	566.4	599.5	642.5
70°	414.0	432.8	460.4	492.4	520.0
72.5°	333.4	341.1	364.3	387.5	416.2
75°	246.2	259.4	278.2	291.5	308.0
77.5°	176.6	184.4	195.4	206.5	221.9
80°	118.1	121.4	131.4	133.6	145.7
82.5°	71.8	74.0	76.2	77.3	81.7
85°	38.6	38.6	38.6	36.4	36.4
87.5°	22.1	22.1	18.8	15.5	11.0
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)