

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: P556944

Luminaire Tested: **FUSL-12-4-LD4-2HI-30-UNV-82-84-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: P556944
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-30-UNV-82-84-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

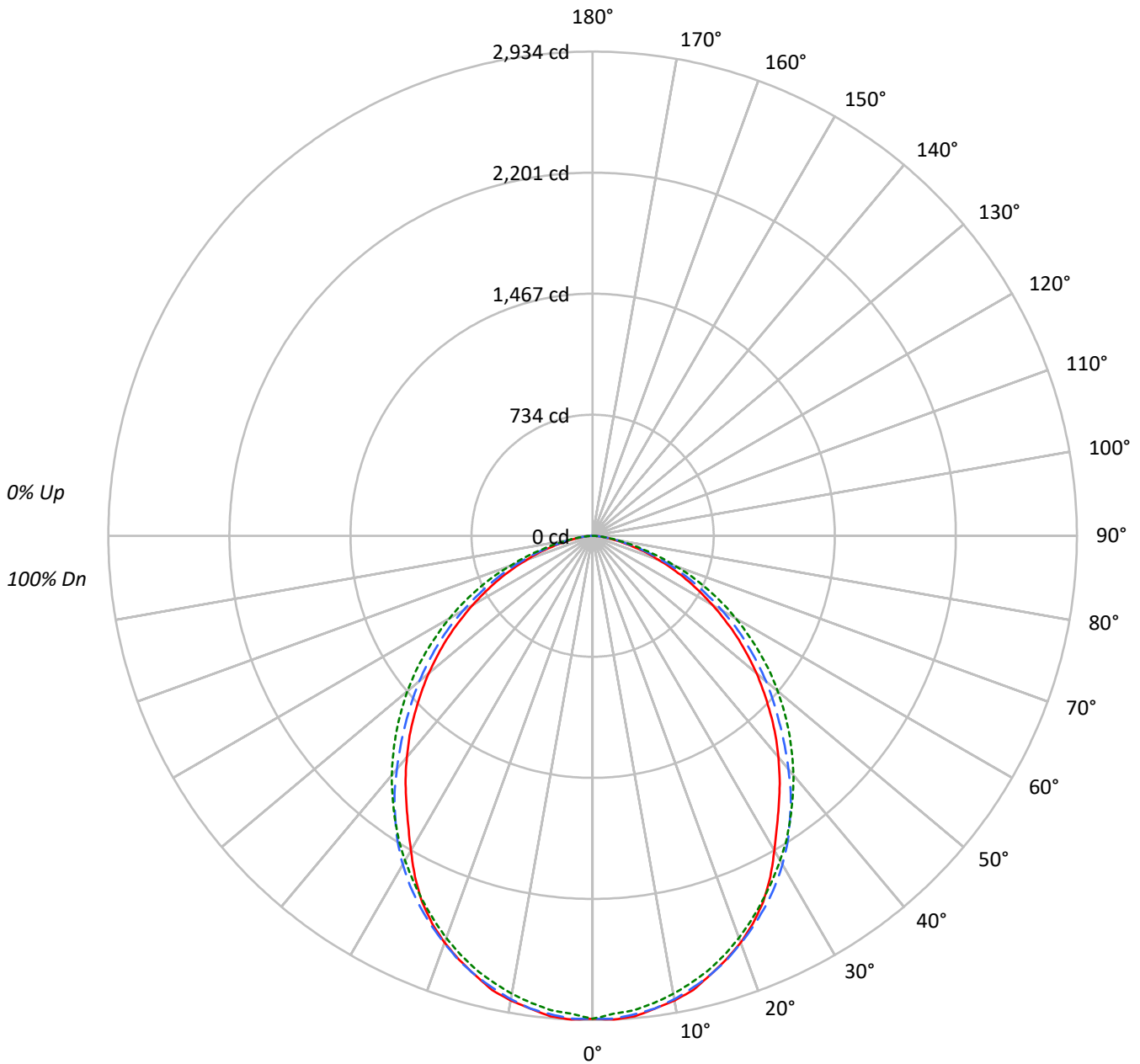
Lumens per Lamp: N/A
Luminaire Lumens: 6767.0 lumens
Efficiency: N/A
Efficacy: 78.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	7875	7875	7875
5°	7896	7863	7796
10°	7812	7791	7702
15°	7674	7674	7586
20°	7511	7521	7424
25°	7264	7354	7237
30°	6840	7148	7060
35°	6463	6851	6862
40°	6149	6481	6651
45°	5797	6089	6401
50°	5427	5737	6128
55°	5006	5338	5797
60°	4508	4871	5392
65°	3980	4331	4904
70°	3317	3688	4166
75°	2607	2946	3262
80°	1864	2073	2300
85°	1216	1216	1145



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	275.5	4.1
10°-20°	774.1	11.4
20°-30°	1131.2	16.7
30°-40°	1284.0	19.0
40°-50°	1239.5	18.3
50°-60°	1022.5	15.1
60°-70°	680.9	10.1
70°-80°	304.7	4.5
80°-90°	54.5	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°	2180.8	32.2
0°-40°	3464.8	51.2
0°-60°	5726.9	84.6
0°-90°	6767.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6767.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2927	2927	2927	2927	2927	
5°	2923	2922	2911	2895	2886	277
15°	2754	2761	2754	2742	2723	777
25°	2446	2466	2477	2459	2438	1120
35°	1968	1994	2086	2097	2089	1233
45°	1523	1549	1600	1673	1682	1175
55°	1067	1085	1138	1201	1236	952
65°	625	642	680	728	770	620
75°	251	264	283	297	314	274
85°	39	39	39	37	37	53
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2926.6	2926.6	2926.6	2926.6	2926.6
2.5°	2934.4	2935.5	2928.8	2910.8	2899.6
5°	2923.2	2922.1	2910.8	2895.1	2886.1
7.5°	2890.6	2892.8	2889.5	2867.0	2854.6
10°	2859.1	2860.2	2851.2	2833.2	2818.6
12.5°	2818.6	2817.5	2805.1	2796.1	2772.5
15°	2754.5	2761.3	2754.5	2742.2	2723.1
17.5°	2692.7	2692.7	2697.2	2675.8	2661.2
20°	2623.0	2626.4	2626.4	2609.5	2592.6
22.5°	2542.0	2552.2	2555.5	2537.5	2517.3
25°	2446.5	2465.6	2476.8	2458.8	2437.5
27.5°	2330.7	2359.9	2393.6	2380.1	2356.5
30°	2201.4	2244.1	2300.3	2289.1	2272.2
32.5°	2078.8	2121.6	2199.1	2194.6	2185.6
35°	1967.5	1994.5	2085.6	2096.8	2088.9
37.5°	1861.8	1886.6	1972.0	1997.9	1991.1
40°	1750.5	1777.5	1845.0	1891.1	1893.3
42.5°	1640.4	1666.2	1721.3	1787.6	1787.6
45°	1523.4	1549.3	1599.9	1673.0	1682.0
47.5°	1408.7	1435.7	1485.2	1558.3	1572.9
50°	1296.3	1321.1	1370.5	1441.4	1463.8
52.5°	1179.4	1206.4	1254.7	1319.9	1352.5
55°	1067.0	1084.9	1137.8	1200.8	1235.6
57.5°	950.0	966.9	1026.5	1080.5	1116.4
60°	837.6	859.0	905.1	960.2	1001.8
62.5°	729.7	752.2	791.5	839.9	887.1
65°	625.1	642.0	680.2	728.5	770.1
67.5°	523.9	538.5	576.8	610.5	654.3
70°	421.6	440.7	468.8	501.4	529.5
72.5°	339.5	347.4	371.0	394.6	423.9
75°	250.7	264.2	283.3	296.8	313.7
77.5°	179.9	187.8	199.0	210.2	226.0
80°	120.3	123.7	133.8	136.0	148.4
82.5°	73.1	75.3	77.6	78.7	83.2
85°	39.4	39.4	39.4	37.1	37.1
87.5°	22.5	22.5	19.1	15.7	11.2
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)