

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: P557786

Luminaire Tested: **FUSL-12-4-LD4-3HI-35-UNV-82-94-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: P557786
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-35-UNV-82-94-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

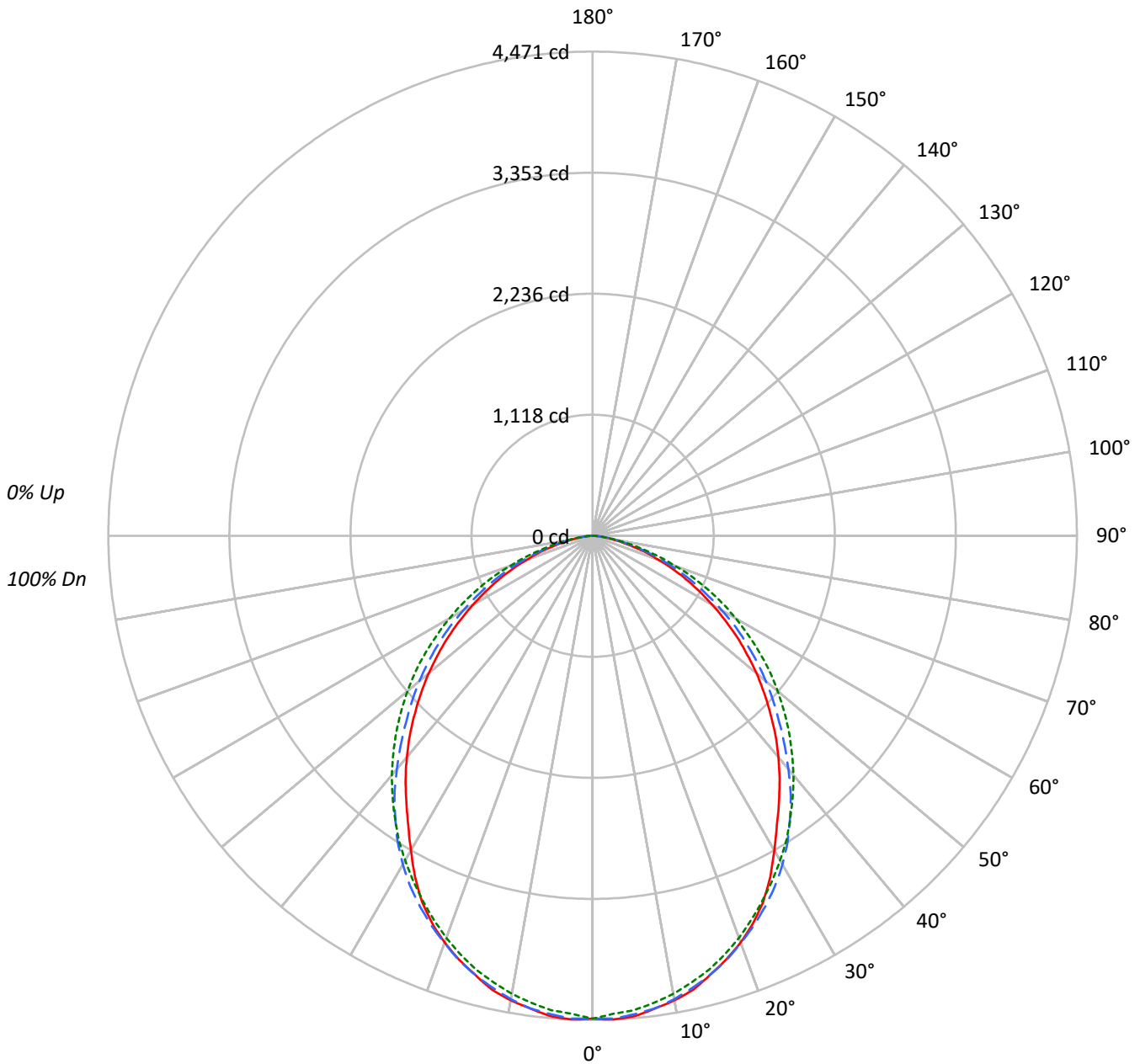
Lumens per Lamp: N/A
Luminaire Lumens: 10310.0 lumens
Efficiency: N/A
Efficacy: 79.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				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	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°	11999	11999	11999
5°	12031	11980	11878
10°	11903	11870	11734
15°	11692	11692	11558
20°	11444	11459	11312
25°	11067	11204	11027
30°	10422	10890	10757
35°	9848	10438	10455
40°	9369	9875	10133
45°	8833	9276	9752
50°	8268	8742	9337
55°	7627	8133	8832
60°	6868	7421	8214
65°	6064	6599	7472
70°	5054	5620	6348
75°	3972	4488	4969
80°	2841	3158	3504
85°	1853	1853	1744



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	419.8	4.1
10°-20°	1179.4	11.4
20°-30°	1723.4	16.7
30°-40°	1956.3	19.0
40°-50°	1888.5	18.3
50°-60°	1557.9	15.1
60°-70°	1037.4	10.1
70°-80°	464.2	4.5
80°-90°	83.1	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°	3322.6	32.2
0°-40°	5278.9	51.2
0°-60°	8725.3	84.6
0°-90°	10310.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10310.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4459	4459	4459	4459	4459	
5°	4454	4452	4435	4411	4397	422
15°	4197	4207	4197	4178	4149	1183
25°	3727	3756	3774	3746	3714	1707
35°	2998	3039	3178	3195	3183	1878
45°	2321	2360	2438	2549	2563	1791
55°	1626	1653	1734	1829	1882	1451
65°	952	978	1036	1110	1173	944
75°	382	402	432	452	478	418
85°	60	60	60	56	56	81
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4458.8	4458.8	4458.8	4458.8	4458.8
2.5°	4470.8	4472.5	4462.2	4434.8	4417.7
5°	4453.7	4452.0	4434.8	4410.8	4397.1
7.5°	4404.0	4407.4	4402.3	4368.0	4349.2
10°	4356.0	4357.7	4344.0	4316.6	4294.4
12.5°	4294.4	4292.7	4273.8	4260.1	4224.1
15°	4196.7	4207.0	4196.7	4177.9	4148.8
17.5°	4102.5	4102.5	4109.4	4076.8	4054.6
20°	3996.3	4001.5	4001.5	3975.8	3950.1
22.5°	3873.0	3888.4	3893.5	3866.1	3835.3
25°	3727.4	3756.5	3773.6	3746.2	3713.7
27.5°	3550.9	3595.5	3646.9	3626.3	3590.3
30°	3354.0	3419.0	3504.7	3487.6	3461.9
32.5°	3167.2	3232.3	3350.5	3343.7	3330.0
35°	2997.7	3038.8	3177.5	3194.7	3182.7
37.5°	2836.6	2874.3	3004.5	3043.9	3033.6
40°	2667.1	2708.2	2811.0	2881.2	2884.6
42.5°	2499.2	2538.6	2622.5	2723.6	2723.6
45°	2321.0	2360.4	2437.5	2548.9	2562.6
47.5°	2146.3	2187.4	2262.8	2374.1	2396.4
50°	1975.0	2012.7	2088.1	2196.0	2230.3
52.5°	1796.9	1838.0	1911.7	2011.0	2060.7
55°	1625.6	1653.0	1733.5	1829.4	1882.5
57.5°	1447.4	1473.1	1563.9	1646.1	1701.0
60°	1276.1	1308.7	1378.9	1462.9	1526.2
62.5°	1111.7	1146.0	1205.9	1279.6	1351.5
65°	952.4	978.1	1036.3	1110.0	1173.4
67.5°	798.2	820.5	878.7	930.1	996.9
70°	642.4	671.5	714.3	764.0	806.8
72.5°	517.3	529.3	565.3	601.2	645.8
75°	382.0	402.5	431.7	452.2	477.9
77.5°	274.1	286.1	303.2	320.3	344.3
80°	183.3	188.4	203.8	207.3	226.1
82.5°	111.3	114.8	118.2	119.9	126.8
85°	60.0	60.0	60.0	56.5	56.5
87.5°	34.3	34.3	29.1	24.0	17.1
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)