

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: P558365

Luminaire Tested: **FUSL-12-4-LD4-3STD-40-UNV-82-96-EDD**

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: P558365
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-LD4-3STD-40-UNV-82-96-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

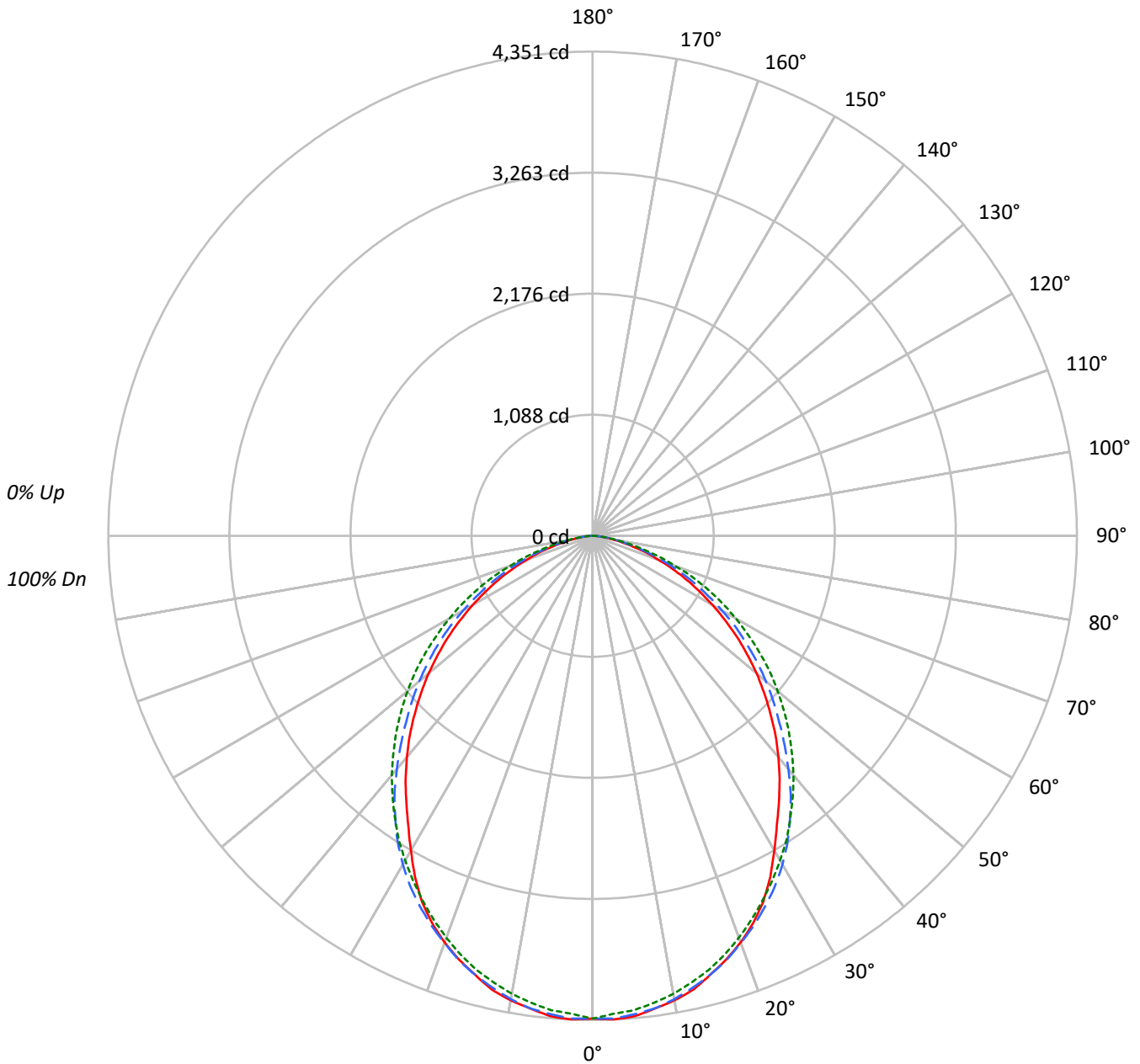
Lumens per Lamp: N/A
Luminaire Lumens: 10033.0 lumens
Efficiency: N/A
Efficacy: 100.4 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 99.9
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					
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								
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°	11676	11676	11676
5°	11707	11658	11559
10°	11583	11551	11419
15°	11378	11378	11248
20°	11137	11151	11008
25°	10770	10903	10730
30°	10142	10597	10468
35°	9583	10158	10175
40°	9117	9609	9861
45°	8596	9027	9490
50°	8046	8507	9086
55°	7422	7914	8595
60°	6684	7222	7993
65°	5901	6422	7270
70°	4918	5469	6177
75°	3865	4368	4836
80°	2765	3075	3409
85°	1800	1800	1698



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	408.5	4.1
10°-20°	1147.7	11.4
20°-30°	1677.1	16.7
30°-40°	1903.7	19.0
40°-50°	1837.8	18.3
50°-60°	1516.0	15.1
60°-70°	1009.5	10.1
70°-80°	451.8	4.5
80°-90°	80.8	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°	3233.3	32.2
0°-40°	5137.1	51.2
0°-60°	8490.9	84.6
0°-90°	10033.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10033.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4339	4339	4339	4339	4339	
5°	4334	4332	4316	4292	4279	410
15°	4084	4094	4084	4066	4037	1151
25°	3627	3656	3672	3646	3614	1661
35°	2917	2957	3092	3109	3097	1828
45°	2259	2297	2372	2480	2494	1743
55°	1582	1609	1687	1780	1832	1412
65°	927	952	1008	1080	1142	919
75°	372	392	420	440	465	406
85°	58	58	58	55	55	79
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4339.0	4339.0	4339.0	4339.0	4339.0
2.5°	4350.7	4352.3	4342.3	4315.7	4299.0
5°	4334.0	4332.3	4315.7	4292.3	4279.0
7.5°	4285.7	4289.0	4284.0	4250.7	4232.3
10°	4239.0	4240.7	4227.3	4200.7	4179.0
12.5°	4179.0	4177.3	4159.0	4145.6	4110.6
15°	4084.0	4094.0	4084.0	4065.6	4037.3
17.5°	3992.3	3992.3	3999.0	3967.3	3945.6
20°	3888.9	3893.9	3893.9	3868.9	3843.9
22.5°	3768.9	3783.9	3788.9	3762.3	3732.3
25°	3627.2	3655.6	3672.2	3645.6	3613.9
27.5°	3455.5	3498.9	3548.9	3528.9	3493.9
30°	3263.8	3327.2	3410.5	3393.9	3368.9
32.5°	3082.1	3145.5	3260.5	3253.8	3240.5
35°	2917.1	2957.1	3092.2	3108.8	3097.2
37.5°	2760.4	2797.1	2923.8	2962.1	2952.1
40°	2595.4	2635.4	2735.4	2803.8	2807.1
42.5°	2432.0	2470.4	2552.1	2650.4	2650.4
45°	2258.7	2297.0	2372.0	2480.4	2493.7
47.5°	2088.7	2128.7	2202.0	2310.4	2332.0
50°	1922.0	1958.6	2032.0	2137.0	2170.3
52.5°	1748.6	1788.6	1860.3	1957.0	2005.3
55°	1581.9	1608.6	1686.9	1780.3	1832.0
57.5°	1408.6	1433.6	1521.9	1601.9	1655.3
60°	1241.9	1273.5	1341.9	1423.6	1485.2
62.5°	1081.8	1115.2	1173.5	1245.2	1315.2
65°	926.8	951.8	1008.5	1080.2	1141.8
67.5°	776.8	798.5	855.1	905.1	970.2
70°	625.1	653.4	695.1	743.4	785.1
72.5°	503.4	515.1	550.1	585.1	628.4
75°	371.7	391.7	420.1	440.1	465.1
77.5°	266.7	278.4	295.0	311.7	335.1
80°	178.4	183.4	198.4	201.7	220.0
82.5°	108.4	111.7	115.0	116.7	123.4
85°	58.3	58.3	58.3	55.0	55.0
87.5°	33.3	33.3	28.3	23.3	16.7
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)