

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: P558359

Luminaire Tested: **FUSL-12-4-LD4-3STD-40-UNV-82-87-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: P558359
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-82-87-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

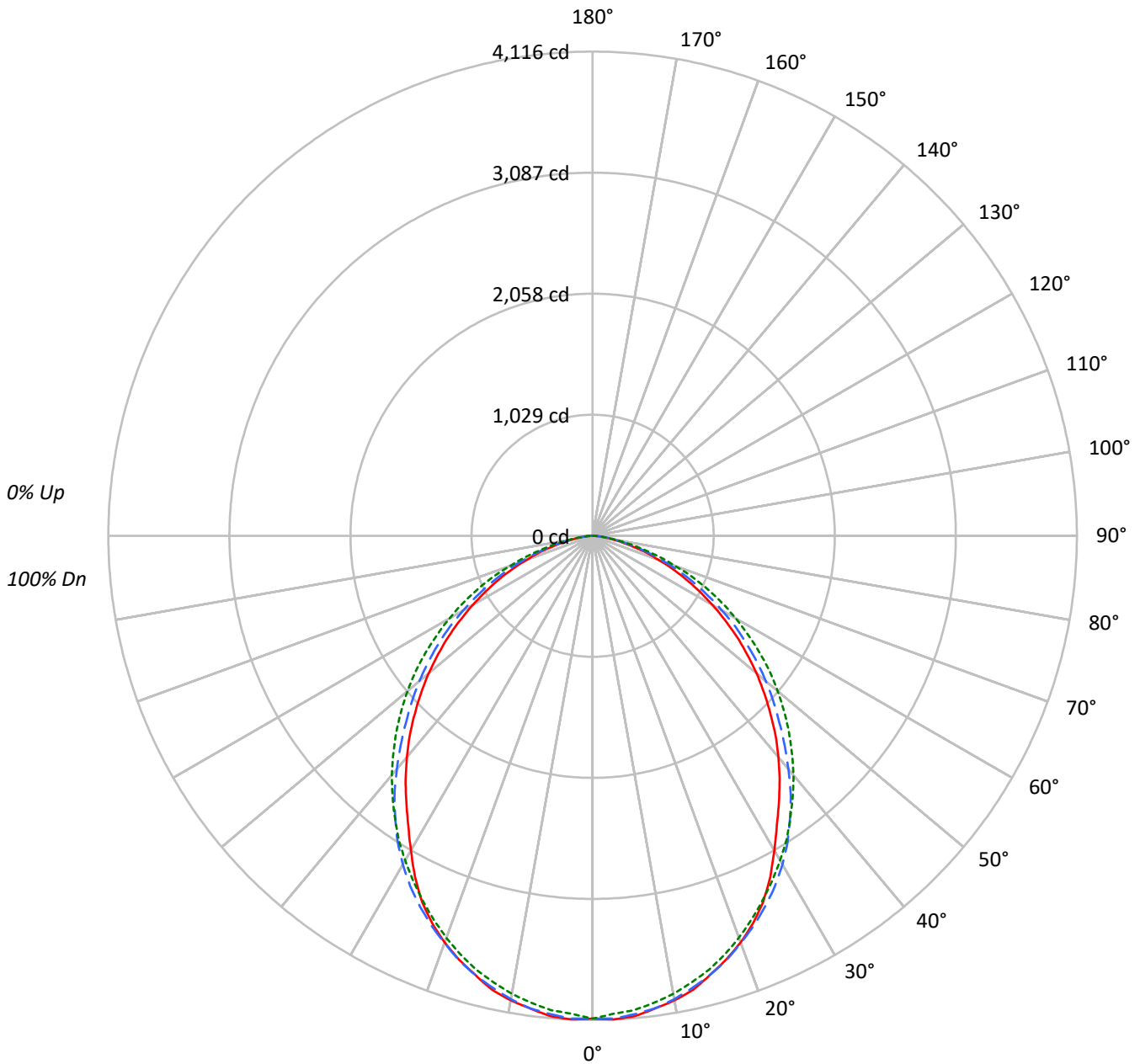
Lumens per Lamp: N/A
Luminaire Lumens: 9491.0 lumens
Efficiency: N/A
Efficacy: 95.0 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 99.9
Input Voltage (V): NR
Input Current (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°	11045	11045	11045
5°	11075	11028	10934
10°	10957	10927	10802
15°	10763	10763	10640
20°	10535	10549	10413
25°	10188	10315	10151
30°	9594	10025	9903
35°	9065	9609	9625
40°	8625	9090	9328
45°	8131	8539	8977
50°	7611	8047	8595
55°	7021	7487	8131
60°	6323	6832	7562
65°	5582	6074	6878
70°	4652	5174	5843
75°	3656	4132	4574
80°	2614	2907	3225
85°	1704	1704	1606



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	386.5	4.1
10°-20°	1085.7	11.4
20°-30°	1586.5	16.7
30°-40°	1800.9	19.0
40°-50°	1738.5	18.3
50°-60°	1434.1	15.1
60°-70°	955.0	10.1
70°-80°	427.4	4.5
80°-90°	76.5	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°	3058.7	32.2
0°-40°	4859.6	51.2
0°-60°	8032.2	84.6
0°-90°	9491.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9491.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4105	4105	4105	4105	4105	
5°	4100	4098	4082	4060	4048	388
15°	3863	3873	3863	3846	3819	1089
25°	3431	3458	3474	3449	3419	1571
35°	2760	2797	2925	2941	2930	1729
45°	2137	2173	2244	2346	2359	1649
55°	1496	1522	1596	1684	1733	1336
65°	877	900	954	1022	1080	869
75°	352	371	397	416	440	384
85°	55	55	55	52	52	74
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4104.6	4104.6	4104.6	4104.6	4104.6
2.5°	4115.7	4117.2	4107.8	4082.5	4066.8
5°	4099.9	4098.3	4082.5	4060.5	4047.8
7.5°	4054.2	4057.3	4052.6	4021.0	4003.7
10°	4010.0	4011.6	3999.0	3973.7	3953.2
12.5°	3953.2	3951.7	3934.3	3921.7	3888.6
15°	3863.4	3872.8	3863.4	3846.0	3819.2
17.5°	3776.6	3776.6	3782.9	3753.0	3732.5
20°	3678.9	3683.6	3683.6	3659.9	3636.3
22.5°	3565.3	3579.5	3584.2	3559.0	3530.6
25°	3431.3	3458.1	3473.9	3448.6	3418.7
27.5°	3268.9	3309.9	3357.2	3338.2	3305.1
30°	3087.5	3147.4	3226.3	3210.5	3186.9
32.5°	2915.6	2975.6	3084.4	3078.1	3065.5
35°	2759.5	2797.4	2925.1	2940.9	2929.8
37.5°	2611.3	2646.0	2765.8	2802.1	2792.7
40°	2455.2	2493.0	2587.7	2652.3	2655.5
42.5°	2300.7	2336.9	2414.2	2507.2	2507.2
45°	2136.7	2172.9	2243.9	2346.4	2359.0
47.5°	1975.8	2013.7	2083.1	2185.6	2206.1
50°	1818.1	1852.8	1922.2	2021.6	2053.1
52.5°	1654.1	1692.0	1759.8	1851.3	1897.0
55°	1496.5	1521.7	1595.8	1684.1	1733.0
57.5°	1332.5	1356.1	1439.7	1515.4	1565.8
60°	1174.8	1204.7	1269.4	1346.7	1405.0
62.5°	1023.4	1054.9	1110.1	1177.9	1244.2
65°	876.7	900.4	954.0	1021.8	1080.2
67.5°	734.8	755.3	808.9	856.2	917.7
70°	591.3	618.1	657.6	703.3	742.7
72.5°	476.2	487.3	520.4	553.5	594.5
75°	351.6	370.6	397.4	416.3	439.9
77.5°	252.3	263.3	279.1	294.9	317.0
80°	168.7	173.5	187.6	190.8	208.1
82.5°	102.5	105.7	108.8	110.4	116.7
85°	55.2	55.2	55.2	52.0	52.0
87.5°	31.5	31.5	26.8	22.1	15.8
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)