

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: P558231

Luminaire Tested: **FUSL-12-4-LD4-3STD-30-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: P558231
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-30-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 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

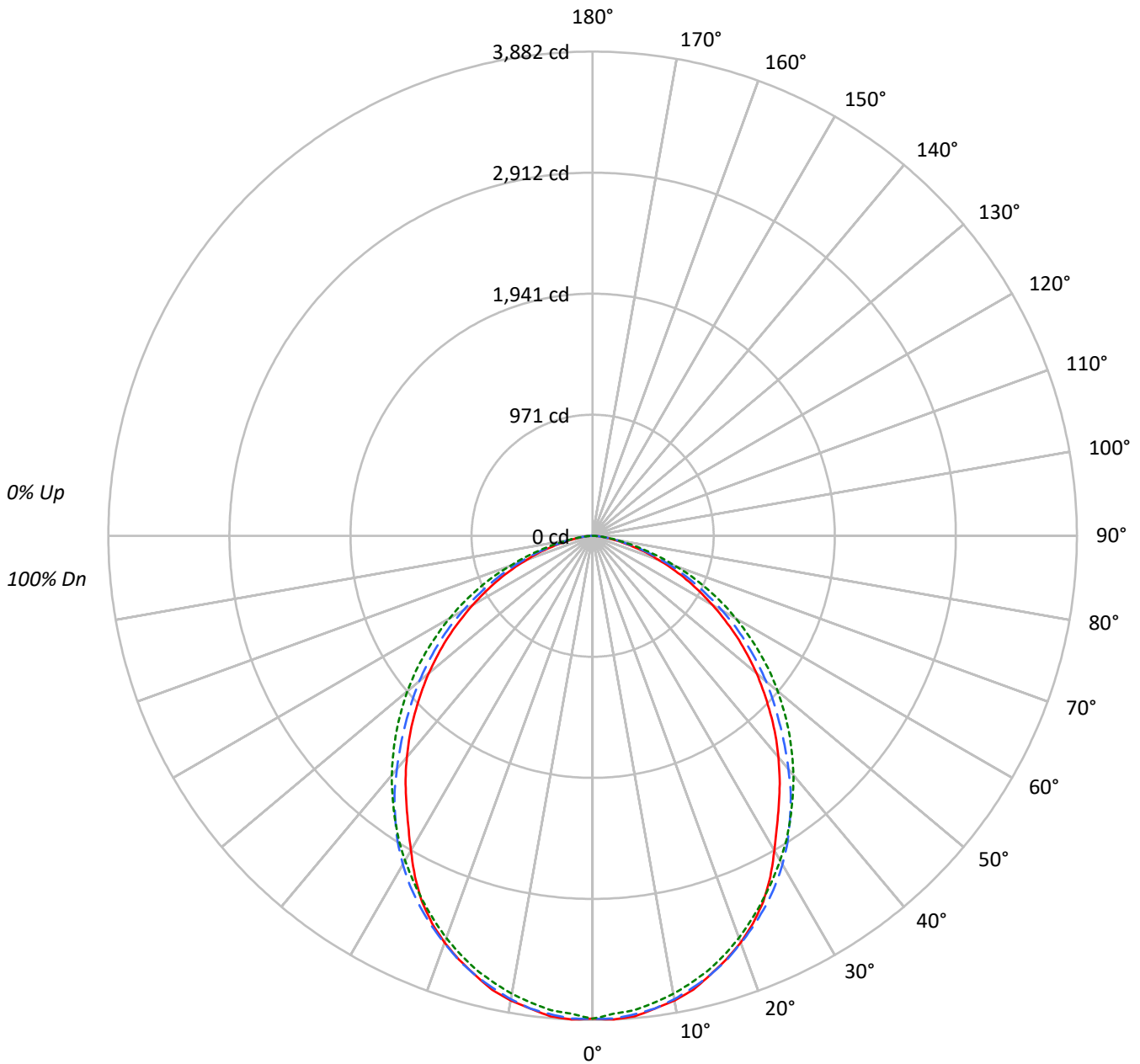
Lumens per Lamp: N/A
Luminaire Lumens: 8953.0 lumens
Efficiency: N/A
Efficacy: 89.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	10419	10419	10419
5°	10447	10403	10314
10°	10336	10308	10190
15°	10153	10153	10037
20°	9938	9951	9823
25°	9611	9730	9575
30°	9050	9457	9341
35°	8551	9065	9079
40°	8136	8575	8799
45°	7671	8055	8469
50°	7180	7591	8108
55°	6623	7062	7670
60°	5964	6444	7133
65°	5266	5730	6488
70°	4389	4880	5512
75°	3449	3897	4315
80°	2467	2743	3042
85°	1609	1609	1516



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	364.6	4.1
10°-20°	1024.1	11.4
20°-30°	1496.6	16.7
30°-40°	1698.8	19.0
40°-50°	1639.9	18.3
50°-60°	1352.8	15.1
60°-70°	900.9	10.1
70°-80°	403.1	4.5
80°-90°	72.1	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°	2885.3	32.2
0°-40°	4584.1	51.2
0°-60°	7576.9	84.6
0°-90°	8953.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8953.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3872	3872	3872	3872	3872	
5°	3868	3866	3851	3830	3818	366
15°	3644	3653	3644	3628	3603	1027
25°	3237	3262	3277	3253	3225	1482
35°	2603	2639	2759	2774	2764	1631
45°	2016	2050	2117	2213	2225	1555
55°	1412	1435	1505	1589	1635	1260
65°	827	849	900	964	1019	820
75°	332	350	375	393	415	363
85°	52	52	52	49	49	70
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3871.9	3871.9	3871.9	3871.9	3871.9
2.5°	3882.4	3883.8	3874.9	3851.1	3836.2
5°	3867.5	3866.0	3851.1	3830.3	3818.4
7.5°	3824.3	3827.3	3822.9	3793.1	3776.7
10°	3782.7	3784.2	3772.3	3748.5	3729.1
12.5°	3729.1	3727.7	3711.3	3699.4	3668.2
15°	3644.4	3653.3	3644.4	3628.0	3602.7
17.5°	3562.5	3562.5	3568.5	3540.2	3520.9
20°	3470.3	3474.8	3474.8	3452.5	3430.2
22.5°	3363.2	3376.6	3381.1	3357.3	3330.5
25°	3236.8	3262.1	3276.9	3253.1	3224.9
27.5°	3083.6	3122.2	3166.9	3149.0	3117.8
30°	2912.5	2969.0	3043.4	3028.5	3006.2
32.5°	2750.4	2806.9	2909.5	2903.6	2891.7
35°	2603.1	2638.8	2759.3	2774.2	2763.8
37.5°	2463.3	2496.0	2609.1	2643.3	2634.3
40°	2316.0	2351.7	2441.0	2502.0	2504.9
42.5°	2170.3	2204.5	2277.4	2365.1	2365.1
45°	2015.6	2049.8	2116.7	2213.4	2225.3
47.5°	1863.8	1899.5	1965.0	2061.7	2081.0
50°	1715.1	1747.8	1813.3	1907.0	1936.7
52.5°	1560.4	1596.1	1660.0	1746.3	1789.5
55°	1411.6	1435.4	1505.3	1588.6	1634.8
57.5°	1256.9	1279.2	1358.1	1429.5	1477.1
60°	1108.2	1136.4	1197.4	1270.3	1325.4
62.5°	965.4	995.1	1047.2	1111.2	1173.6
65°	827.0	849.4	899.9	963.9	1018.9
67.5°	693.2	712.5	763.1	807.7	865.7
70°	557.8	583.1	620.3	663.4	700.6
72.5°	449.2	459.6	490.9	522.1	560.8
75°	331.7	349.6	374.8	392.7	415.0
77.5°	238.0	248.4	263.3	278.2	299.0
80°	159.2	163.6	177.0	180.0	196.3
82.5°	96.7	99.7	102.6	104.1	110.1
85°	52.1	52.1	52.1	49.1	49.1
87.5°	29.7	29.7	25.3	20.8	14.9
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)