

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: P558357

Luminaire Tested: **FUSL-12-4-LD4-3STD-40-UNV-82-86-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: P558357
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-82-86-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

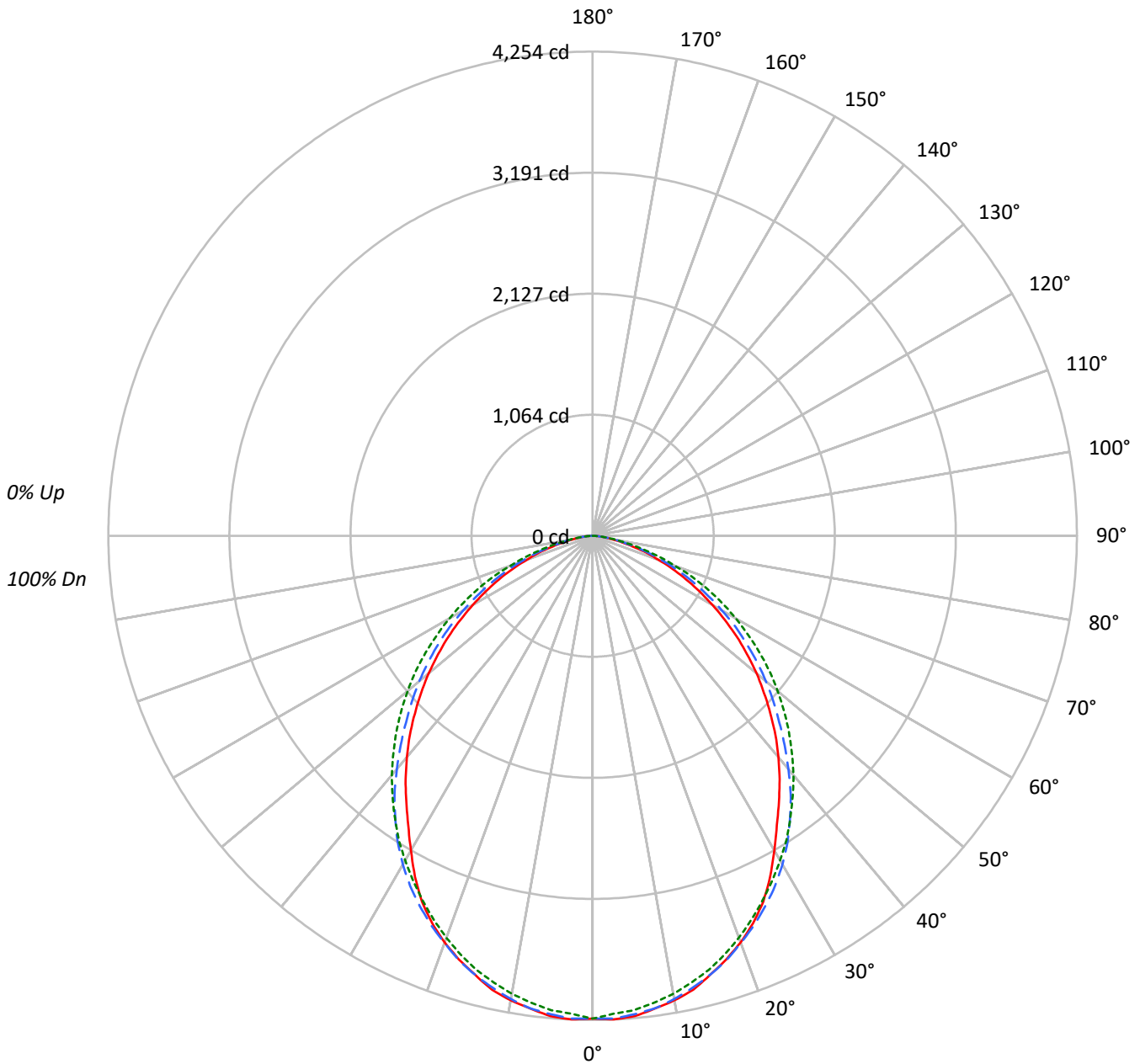
Lumens per Lamp: N/A
Luminaire Lumens: 9809.0 lumens
Efficiency: N/A
Efficacy: 98.2 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	11415	11415	11415
5°	11446	11397	11301
10°	11325	11293	11164
15°	11124	11124	10997
20°	10888	10902	10762
25°	10530	10660	10491
30°	9915	10361	10234
35°	9369	9931	9947
40°	8914	9395	9641
45°	8404	8826	9278
50°	7867	8317	8883
55°	7256	7738	8403
60°	6534	7061	7815
65°	5769	6278	7109
70°	4808	5347	6039
75°	3778	4270	4728
80°	2703	3005	3333
85°	1760	1760	1661



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	399.4	4.1
10°-20°	1122.1	11.4
20°-30°	1639.7	16.7
30°-40°	1861.2	19.0
40°-50°	1796.7	18.3
50°-60°	1482.2	15.1
60°-70°	987.0	10.1
70°-80°	441.7	4.5
80°-90°	79.0	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°	3161.2	32.2
0°-40°	5022.4	51.2
0°-60°	8301.3	84.6
0°-90°	9809.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9809.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4242	4242	4242	4242	4242	
5°	4237	4236	4219	4196	4184	401
15°	3993	4003	3993	3975	3947	1126
25°	3546	3574	3590	3564	3533	1624
35°	2852	2891	3023	3039	3028	1787
45°	2208	2246	2319	2425	2438	1704
55°	1547	1573	1649	1740	1791	1380
65°	906	931	986	1056	1116	898
75°	363	383	411	430	455	397
85°	57	57	57	54	54	77
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4242.1	4242.1	4242.1	4242.1	4242.1
2.5°	4253.5	4255.2	4245.4	4219.3	4203.0
5°	4237.3	4235.6	4219.3	4196.5	4183.5
7.5°	4190.0	4193.2	4188.4	4155.8	4137.8
10°	4144.4	4146.0	4132.9	4106.9	4085.7
12.5°	4085.7	4084.1	4066.1	4053.1	4018.9
15°	3992.8	4002.6	3992.8	3974.9	3947.2
17.5°	3903.2	3903.2	3909.7	3878.7	3857.5
20°	3802.1	3807.0	3807.0	3782.6	3758.1
22.5°	3684.8	3699.4	3704.3	3678.3	3648.9
25°	3546.3	3574.0	3590.3	3564.2	3533.2
27.5°	3378.4	3420.8	3469.7	3450.1	3415.9
30°	3191.0	3252.9	3334.4	3318.1	3293.6
32.5°	3013.3	3075.3	3187.7	3181.2	3168.2
35°	2852.0	2891.1	3023.1	3039.4	3028.0
37.5°	2698.8	2734.7	2858.5	2896.0	2886.2
40°	2537.5	2576.6	2674.4	2741.2	2744.4
42.5°	2377.7	2415.2	2495.1	2591.2	2591.2
45°	2208.3	2245.7	2319.1	2425.0	2438.0
47.5°	2042.0	2081.1	2152.8	2258.8	2280.0
50°	1879.1	1914.9	1986.6	2089.3	2121.9
52.5°	1709.6	1748.7	1818.8	1913.3	1960.5
55°	1546.6	1572.7	1649.3	1740.5	1791.1
57.5°	1377.1	1401.6	1487.9	1566.2	1618.3
60°	1214.1	1245.1	1311.9	1391.8	1452.1
62.5°	1057.7	1090.3	1147.3	1217.4	1285.8
65°	906.1	930.6	986.0	1056.1	1116.4
67.5°	759.4	780.6	836.0	884.9	948.5
70°	611.1	638.8	679.6	726.9	767.6
72.5°	492.2	503.6	537.8	572.0	614.4
75°	363.4	383.0	410.7	430.2	454.7
77.5°	260.8	272.2	288.5	304.8	327.6
80°	174.4	179.3	193.9	197.2	215.1
82.5°	105.9	109.2	112.5	114.1	120.6
85°	57.0	57.0	57.0	53.8	53.8
87.5°	32.6	32.6	27.7	22.8	16.3
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)