

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: P557089

Luminaire Tested: **FUSL-12-4-LD4-2HI-40-UNV-93-84-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: P557089
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-LD4-2HI-40-UNV-93-84-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

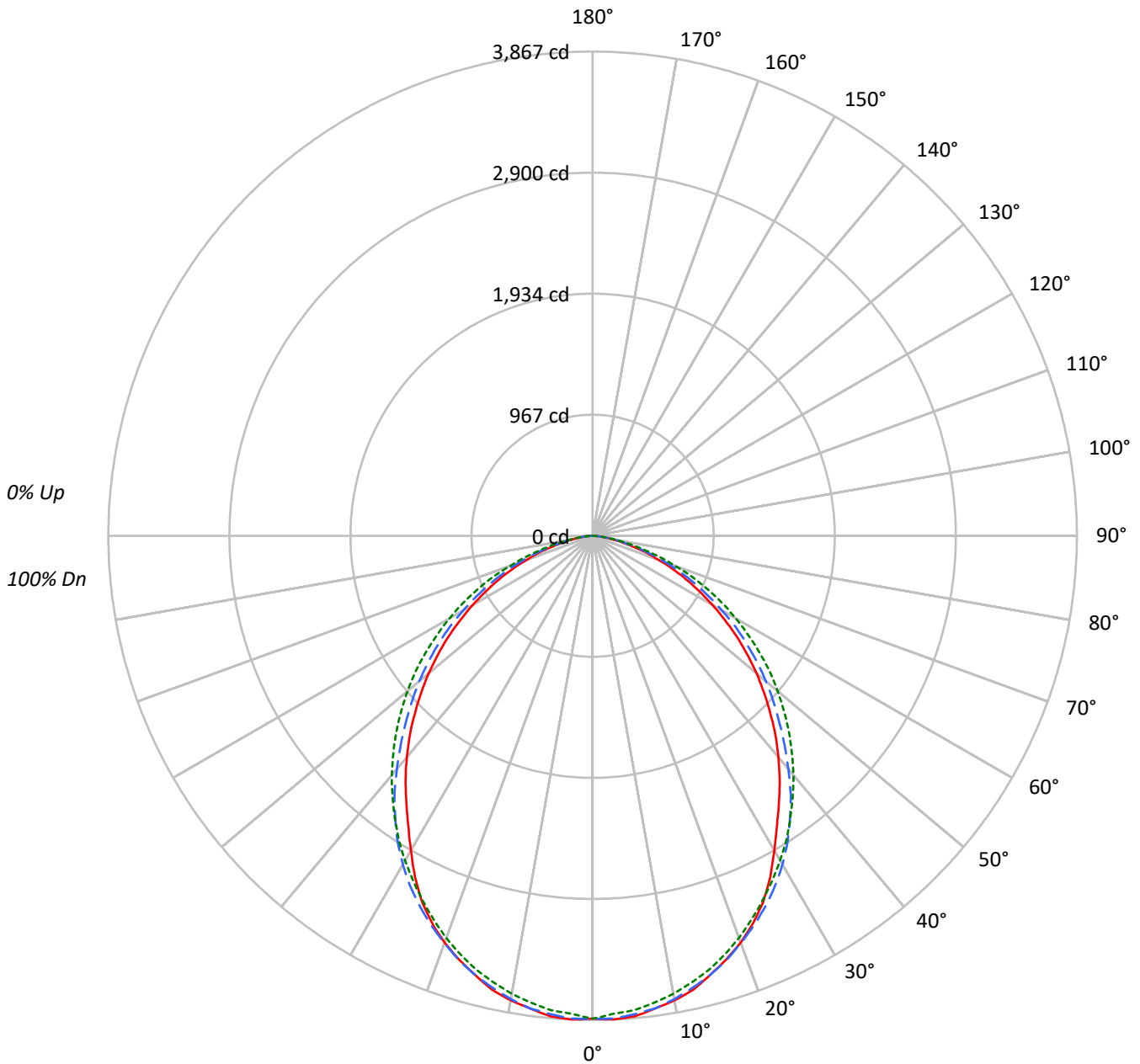
Lumens per Lamp: N/A
Luminaire Lumens: 8918.0 lumens
Efficiency: N/A
Efficacy: 103.2 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 86.4
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									
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°	10379	10379	10379
5°	10406	10362	10274
10°	10296	10267	10150
15°	10113	10113	9998
20°	9899	9912	9784
25°	9573	9692	9538
30°	9015	9420	9305
35°	8518	9029	9044
40°	8104	8541	8765
45°	7641	8024	8436
50°	7152	7562	8076
55°	6597	7035	7640
60°	5941	6419	7105
65°	5245	5708	6462
70°	4371	4862	5491
75°	3435	3882	4298
80°	2456	2732	3031
85°	1602	1602	1510



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	363.1	4.1
10°-20°	1020.1	11.4
20°-30°	1490.7	16.7
30°-40°	1692.2	19.0
40°-50°	1633.5	18.3
50°-60°	1347.5	15.1
60°-70°	897.3	10.1
70°-80°	401.6	4.5
80°-90°	71.8	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°	2874.0	32.2
0°-40°	4566.2	51.2
0°-60°	7547.2	84.6
0°-90°	8918.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8918.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3857	3857	3857	3857	3857	
5°	3852	3851	3836	3815	3804	365
15°	3630	3639	3630	3614	3589	1023
25°	3224	3249	3264	3240	3212	1476
35°	2593	2628	2748	2763	2753	1625
45°	2008	2042	2108	2205	2217	1549
55°	1406	1430	1500	1582	1628	1255
65°	824	846	896	960	1015	817
75°	330	348	373	391	413	361
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°	3856.8	3856.8	3856.8	3856.8	3856.8
2.5°	3867.2	3868.7	3859.8	3836.1	3821.2
5°	3852.4	3850.9	3836.1	3815.3	3803.5
7.5°	3809.4	3812.4	3807.9	3778.3	3762.0
10°	3767.9	3769.4	3757.5	3733.8	3714.6
12.5°	3714.6	3713.1	3696.8	3684.9	3653.8
15°	3630.1	3639.0	3630.1	3613.8	3588.6
17.5°	3548.6	3548.6	3554.5	3526.4	3507.1
20°	3456.8	3461.2	3461.2	3439.0	3416.7
22.5°	3350.1	3363.4	3367.9	3344.1	3317.5
25°	3224.1	3249.3	3264.1	3240.4	3212.3
27.5°	3071.5	3110.0	3154.5	3136.7	3105.6
30°	2901.1	2957.4	3031.5	3016.7	2994.5
32.5°	2739.6	2795.9	2898.2	2892.2	2880.4
35°	2592.9	2628.5	2748.5	2763.3	2753.0
37.5°	2453.7	2486.3	2598.9	2632.9	2624.0
40°	2307.0	2342.5	2431.4	2492.2	2495.1
42.5°	2161.8	2195.8	2268.4	2355.9	2355.9
45°	2007.7	2041.8	2108.4	2204.7	2216.6
47.5°	1856.5	1892.1	1957.3	2053.6	2072.9
50°	1708.4	1741.0	1806.2	1899.5	1929.1
52.5°	1554.3	1589.8	1653.6	1739.5	1782.5
55°	1406.1	1429.8	1499.5	1582.4	1628.4
57.5°	1252.0	1274.2	1352.8	1423.9	1471.3
60°	1103.8	1132.0	1192.7	1265.4	1320.2
62.5°	961.6	991.2	1043.1	1106.8	1169.0
65°	823.8	846.0	896.4	960.1	1014.9
67.5°	690.5	709.7	760.1	804.6	862.3
70°	555.6	580.8	617.9	660.8	697.9
72.5°	447.5	457.8	489.0	520.1	558.6
75°	330.4	348.2	373.4	391.2	413.4
77.5°	237.1	247.4	262.3	277.1	297.8
80°	158.5	163.0	176.3	179.3	195.6
82.5°	96.3	99.3	102.2	103.7	109.6
85°	51.9	51.9	51.9	48.9	48.9
87.5°	29.6	29.6	25.2	20.7	14.8
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)