

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: P558028

Luminaire Tested: **FUSL-12-4-LD4-3LO-35-UNV-81-96-EDD-90**

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: P558028
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-LD4-3LO-35-UNV-81-96-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .250
CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

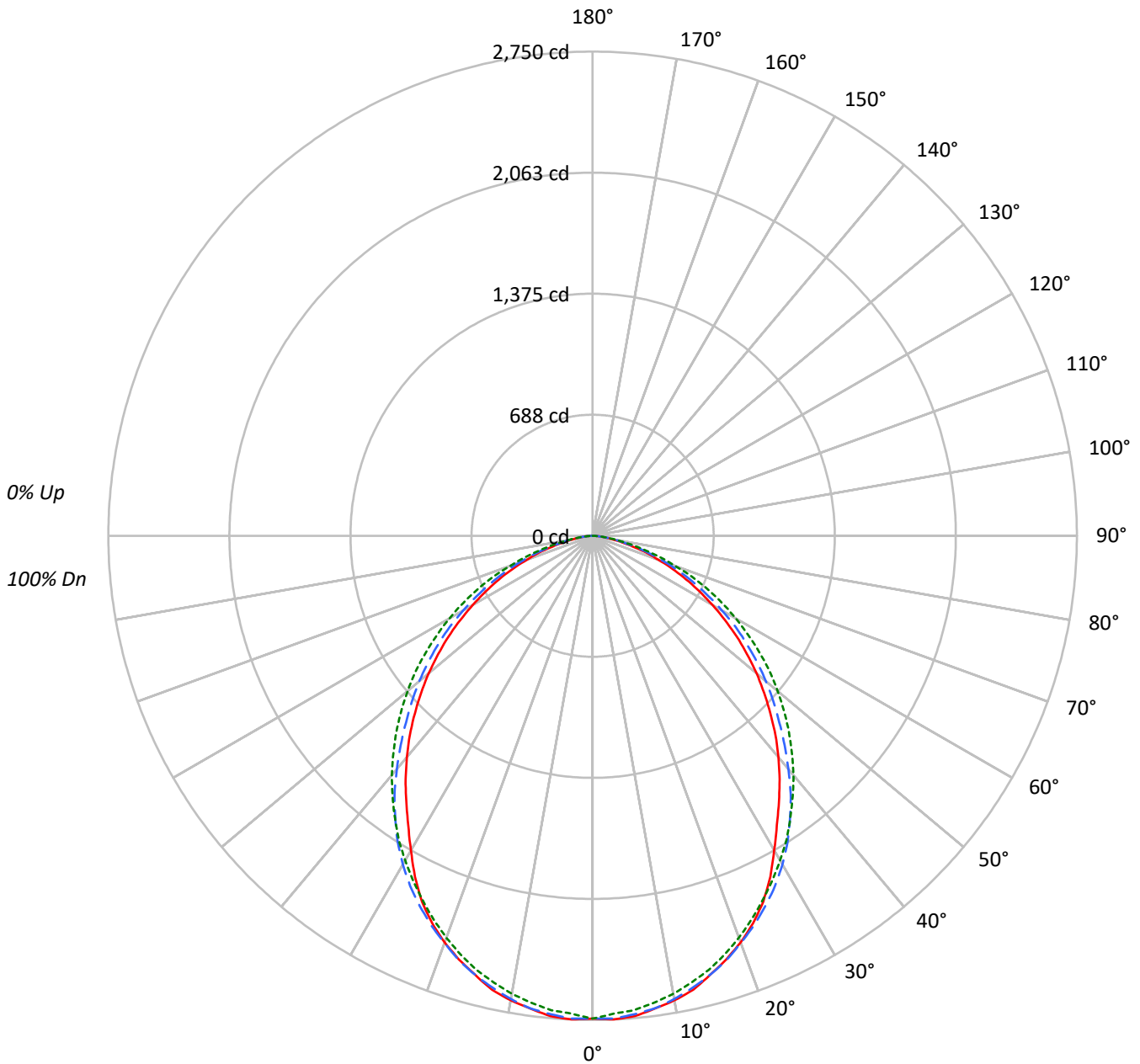
Lumens per Lamp: N/A
Luminaire Lumens: 6341.0 lumens
Efficiency: N/A
Efficacy: 90.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 70.2
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°	7379	7379	7379
5°	7399	7368	7305
10°	7321	7300	7217
15°	7191	7191	7109
20°	7039	7048	6957
25°	6807	6891	6782
30°	6410	6698	6616
35°	6057	6420	6430
40°	5762	6073	6232
45°	5433	5705	5998
50°	5085	5376	5743
55°	4691	5002	5432
60°	4224	4564	5052
65°	3730	4059	4595
70°	3109	3456	3904
75°	2442	2760	3056
80°	1746	1943	2156
85°	1139	1139	1074



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	258.2	4.1
10°-20°	725.3	11.4
20°-30°	1060.0	16.7
30°-40°	1203.2	19.0
40°-50°	1161.5	18.3
50°-60°	958.1	15.1
60°-70°	638.1	10.1
70°-80°	285.5	4.5
80°-90°	51.1	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°	2043.5	32.2
0°-40°	3246.7	51.2
0°-60°	5366.3	84.6
0°-90°	6341.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6341.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2742	2742	2742	2742	2742	
5°	2739	2738	2728	2713	2704	259
15°	2581	2588	2581	2570	2552	728
25°	2292	2310	2321	2304	2284	1050
35°	1844	1869	1954	1965	1957	1155
45°	1428	1452	1499	1568	1576	1101
55°	1000	1017	1066	1125	1158	892
65°	586	602	637	683	722	581
75°	235	248	266	278	294	257
85°	37	37	37	35	35	50
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2742.3	2742.3	2742.3	2742.3	2742.3
2.5°	2749.7	2750.7	2744.4	2727.6	2717.0
5°	2739.2	2738.1	2727.6	2712.8	2704.4
7.5°	2708.6	2710.7	2707.6	2686.5	2674.9
10°	2679.1	2680.2	2671.7	2654.9	2641.2
12.5°	2641.2	2640.1	2628.5	2620.1	2598.0
15°	2581.1	2587.5	2581.1	2569.5	2551.6
17.5°	2523.2	2523.2	2527.4	2507.4	2493.7
20°	2457.9	2461.0	2461.0	2445.2	2429.4
22.5°	2382.0	2391.5	2394.7	2377.8	2358.8
25°	2292.5	2310.4	2320.9	2304.1	2284.0
27.5°	2184.0	2211.3	2242.9	2230.3	2208.2
30°	2062.8	2102.8	2155.5	2145.0	2129.2
32.5°	1948.0	1988.0	2060.7	2056.5	2048.0
35°	1843.7	1868.9	1954.3	1964.8	1957.4
37.5°	1744.6	1767.8	1847.9	1872.1	1865.8
40°	1640.3	1665.6	1728.8	1772.0	1774.1
42.5°	1537.1	1561.3	1612.9	1675.1	1675.1
45°	1427.5	1451.8	1499.2	1567.6	1576.1
47.5°	1320.1	1345.3	1391.7	1460.2	1473.9
50°	1214.7	1237.9	1284.2	1350.6	1371.7
52.5°	1105.1	1130.4	1175.7	1236.8	1267.4
55°	999.8	1016.6	1066.2	1125.2	1157.8
57.5°	890.2	906.0	961.9	1012.4	1046.1
60°	784.9	804.9	848.1	899.7	938.7
62.5°	683.7	704.8	741.7	787.0	831.2
65°	585.8	601.6	637.4	682.7	721.7
67.5°	490.9	504.6	540.5	572.1	613.2
70°	395.1	413.0	439.3	469.9	496.2
72.5°	318.2	325.5	347.7	369.8	397.2
75°	234.9	247.6	265.5	278.1	293.9
77.5°	168.6	175.9	186.5	197.0	211.8
80°	112.7	115.9	125.4	127.5	139.1
82.5°	68.5	70.6	72.7	73.7	78.0
85°	36.9	36.9	36.9	34.8	34.8
87.5°	21.1	21.1	17.9	14.7	10.5
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)