

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: P558082

Luminaire Tested: **FUSL-12-4-LD4-3LO-40-UNV-81-85-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: P558082
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-40-UNV-81-85-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

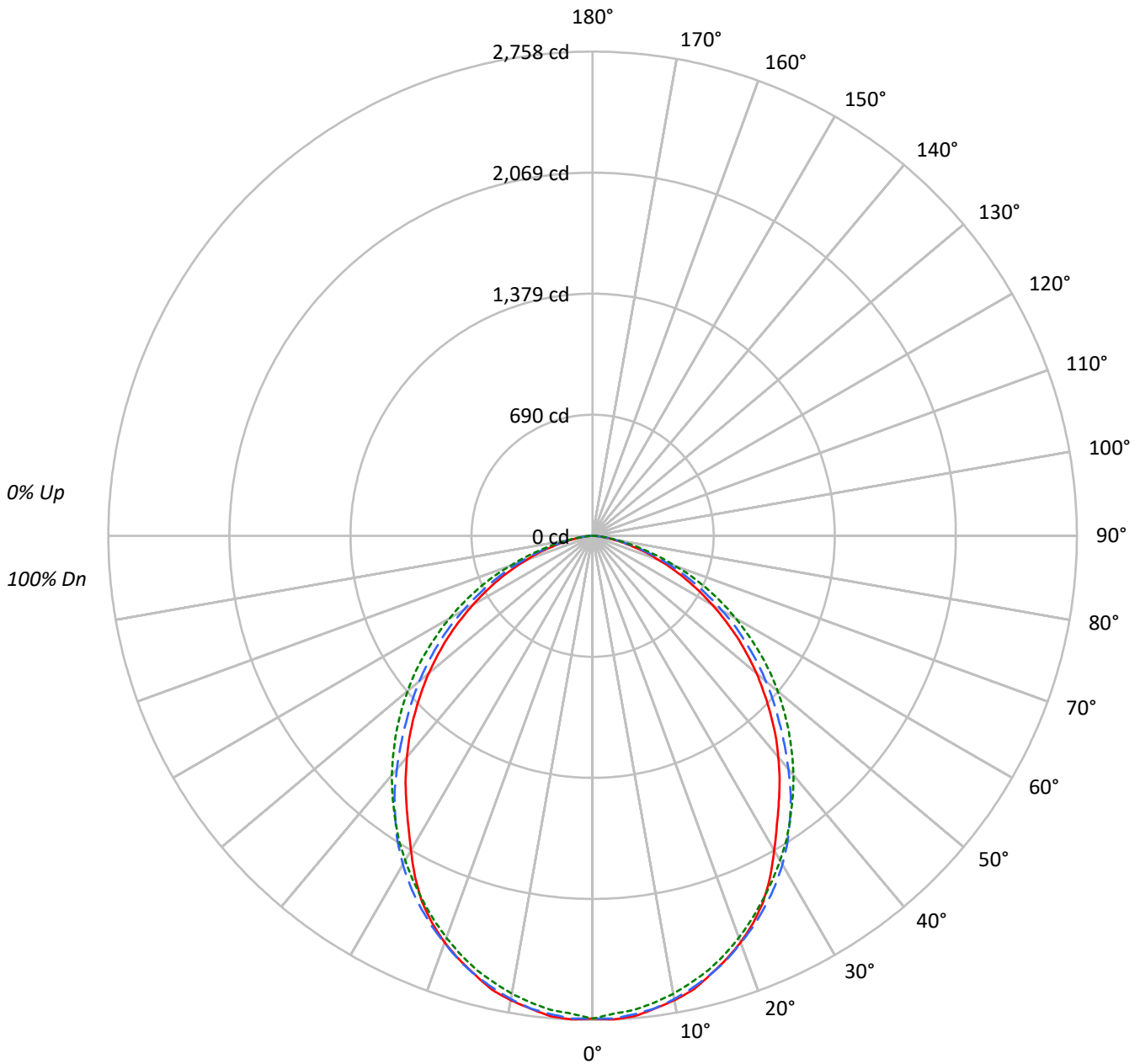
Lumens per Lamp: N/A
Luminaire Lumens: 6359.0 lumens
Efficiency: N/A
Efficacy: 90.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 70.2
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°	7400	7400	7400
5°	7420	7389	7326
10°	7341	7321	7238
15°	7211	7211	7129
20°	7058	7068	6977
25°	6826	6911	6801
30°	6428	6717	6635
35°	6074	6438	6449
40°	5779	6090	6250
45°	5448	5721	6015
50°	5100	5392	5759
55°	4704	5016	5447
60°	4236	4577	5067
65°	3740	4070	4608
70°	3117	3467	3915
75°	2450	2768	3065
80°	1751	1948	2162
85°	1142	1142	1078



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	258.9	4.1
10°-20°	727.4	11.4
20°-30°	1063.0	16.7
30°-40°	1206.6	19.0
40°-50°	1164.8	18.3
50°-60°	960.9	15.1
60°-70°	639.9	10.1
70°-80°	286.3	4.5
80°-90°	51.2	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°	2049.3	32.2
0°-40°	3255.9	51.2
0°-60°	5381.6	84.6
0°-90°	6359.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6359.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2750	2750	2750	2750	2750	
5°	2747	2746	2735	2720	2712	260
15°	2588	2595	2588	2577	2559	730
25°	2299	2317	2328	2311	2290	1053
35°	1849	1874	1960	1970	1963	1158
45°	1432	1456	1503	1572	1580	1105
55°	1003	1020	1069	1128	1161	895
65°	587	603	639	685	724	582
75°	236	248	266	279	295	258
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°	2750.1	2750.1	2750.1	2750.1	2750.1
2.5°	2757.5	2758.6	2752.2	2735.3	2724.7
5°	2746.9	2745.9	2735.3	2720.5	2712.1
7.5°	2716.3	2718.4	2715.2	2694.1	2682.5
10°	2686.7	2687.8	2679.3	2662.4	2648.7
12.5°	2648.7	2647.6	2636.0	2627.5	2605.4
15°	2588.5	2594.8	2588.5	2576.8	2558.9
17.5°	2530.3	2530.3	2534.6	2514.5	2500.8
20°	2464.8	2468.0	2468.0	2452.2	2436.3
22.5°	2388.8	2398.3	2401.5	2384.5	2365.5
25°	2299.0	2316.9	2327.5	2310.6	2290.5
27.5°	2190.2	2217.6	2249.3	2236.6	2214.5
30°	2068.7	2108.8	2161.6	2151.1	2135.2
32.5°	1953.5	1993.6	2066.5	2062.3	2053.9
35°	1848.9	1874.3	1959.8	1970.4	1963.0
37.5°	1749.6	1772.8	1853.1	1877.4	1871.1
40°	1645.0	1670.3	1733.7	1777.1	1779.2
42.5°	1541.5	1565.8	1617.5	1679.9	1679.9
45°	1431.6	1455.9	1503.4	1572.1	1580.5
47.5°	1323.8	1349.2	1395.7	1464.3	1478.1
50°	1218.2	1241.4	1287.9	1354.4	1375.6
52.5°	1108.3	1133.6	1179.1	1240.3	1271.0
55°	1002.6	1019.5	1069.2	1128.4	1161.1
57.5°	892.8	908.6	964.6	1015.3	1049.1
60°	787.1	807.2	850.5	902.3	941.4
62.5°	685.7	706.8	743.8	789.2	833.6
65°	587.4	603.3	639.2	684.6	723.7
67.5°	492.3	506.1	542.0	573.7	614.9
70°	396.2	414.2	440.6	471.2	497.6
72.5°	319.1	326.5	348.6	370.8	398.3
75°	235.6	248.3	266.2	278.9	294.8
77.5°	169.0	176.4	187.0	197.6	212.4
80°	113.0	116.2	125.7	127.8	139.5
82.5°	68.7	70.8	72.9	74.0	78.2
85°	37.0	37.0	37.0	34.9	34.9
87.5°	21.1	21.1	18.0	14.8	10.6
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)