

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: P557575

Luminaire Tested: **FUSL-12-4-LD4-2STD-40-UNV-81-87-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: P557575
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-LD4-2STD-40-UNV-81-87-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .375
CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

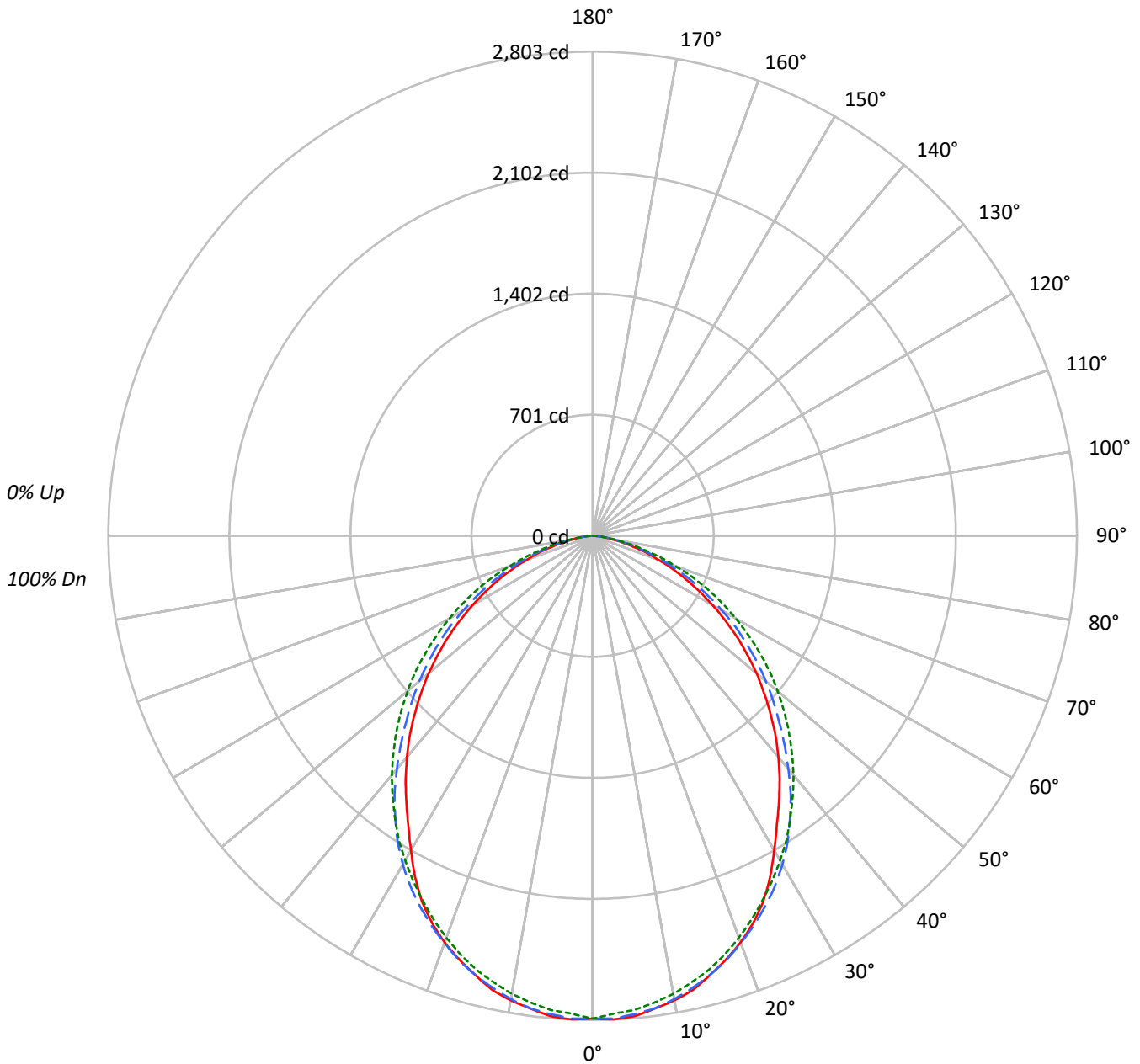
Lumens per Lamp: N/A
Luminaire Lumens: 6463.0 lumens
Efficiency: N/A
Efficacy: 97.0 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 66.6
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°	7522	7522	7522
5°	7542	7509	7446
10°	7462	7441	7356
15°	7329	7329	7245
20°	7174	7183	7091
25°	6938	7024	6912
30°	6533	6827	6743
35°	6173	6544	6554
40°	5873	6190	6352
45°	5537	5815	6113
50°	5183	5480	5853
55°	4781	5098	5537
60°	4306	4652	5149
65°	3801	4136	4683
70°	3168	3523	3980
75°	2490	2813	3115
80°	1781	1980	2196
85°	1161	1161	1093



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	263.2	4.1
10°-20°	739.3	11.4
20°-30°	1080.4	16.7
30°-40°	1226.3	19.0
40°-50°	1183.8	18.3
50°-60°	976.6	15.1
60°-70°	650.3	10.1
70°-80°	291.0	4.5
80°-90°	52.1	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°	2082.8	32.2
0°-40°	3309.2	51.2
0°-60°	5469.6	84.6
0°-90°	6463.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6463.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2795	2795	2795	2795	2795	
5°	2792	2791	2780	2765	2756	264
15°	2631	2637	2631	2619	2601	742
25°	2337	2355	2366	2348	2328	1070
35°	1879	1905	1992	2003	1995	1177
45°	1455	1480	1528	1598	1606	1123
55°	1019	1036	1087	1147	1180	910
65°	597	613	650	696	736	592
75°	240	252	271	284	300	262
85°	38	38	38	35	35	51
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2795.1	2795.1	2795.1	2795.1	2795.1
2.5°	2802.6	2803.7	2797.2	2780.0	2769.3
5°	2791.9	2790.8	2780.0	2765.0	2756.4
7.5°	2760.7	2762.9	2759.6	2738.2	2726.4
10°	2730.7	2731.7	2723.1	2706.0	2692.0
12.5°	2692.0	2690.9	2679.1	2670.5	2648.0
15°	2630.8	2637.2	2630.8	2619.0	2600.7
17.5°	2571.7	2571.7	2576.0	2555.6	2541.7
20°	2505.2	2508.4	2508.4	2492.3	2476.2
22.5°	2427.8	2437.5	2440.7	2423.5	2404.2
25°	2336.6	2354.8	2365.6	2348.4	2328.0
27.5°	2226.0	2253.9	2286.1	2273.2	2250.7
30°	2102.5	2143.3	2197.0	2186.2	2170.1
32.5°	1985.4	2026.2	2100.3	2096.0	2087.5
35°	1879.1	1904.9	1991.9	2002.6	1995.1
37.5°	1778.2	1801.8	1883.4	1908.1	1901.7
40°	1671.9	1697.7	1762.1	1806.1	1808.3
42.5°	1566.7	1591.4	1644.0	1707.3	1707.3
45°	1455.0	1479.7	1528.0	1597.8	1606.4
47.5°	1345.5	1371.2	1418.5	1488.3	1502.2
50°	1238.1	1261.7	1309.0	1376.6	1398.1
52.5°	1126.4	1152.2	1198.4	1260.6	1291.8
55°	1019.0	1036.2	1086.7	1146.8	1180.1
57.5°	907.4	923.5	980.4	1031.9	1066.3
60°	800.0	820.4	864.4	917.0	956.7
62.5°	696.9	718.4	755.9	802.1	847.2
65°	597.0	613.1	649.6	695.8	735.5
67.5°	500.4	514.3	550.9	583.1	624.9
70°	402.7	420.9	447.8	478.9	505.8
72.5°	324.3	331.8	354.4	376.9	404.8
75°	239.5	252.3	270.6	283.5	299.6
77.5°	171.8	179.3	190.1	200.8	215.8
80°	114.9	118.1	127.8	129.9	141.7
82.5°	69.8	71.9	74.1	75.2	79.5
85°	37.6	37.6	37.6	35.4	35.4
87.5°	21.5	21.5	18.3	15.0	10.7
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)