

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: P557992

Luminaire Tested: **FUSL-12-4-LD4-3LO-30-UNV-93-88-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: P557992
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-30-UNV-93-88-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

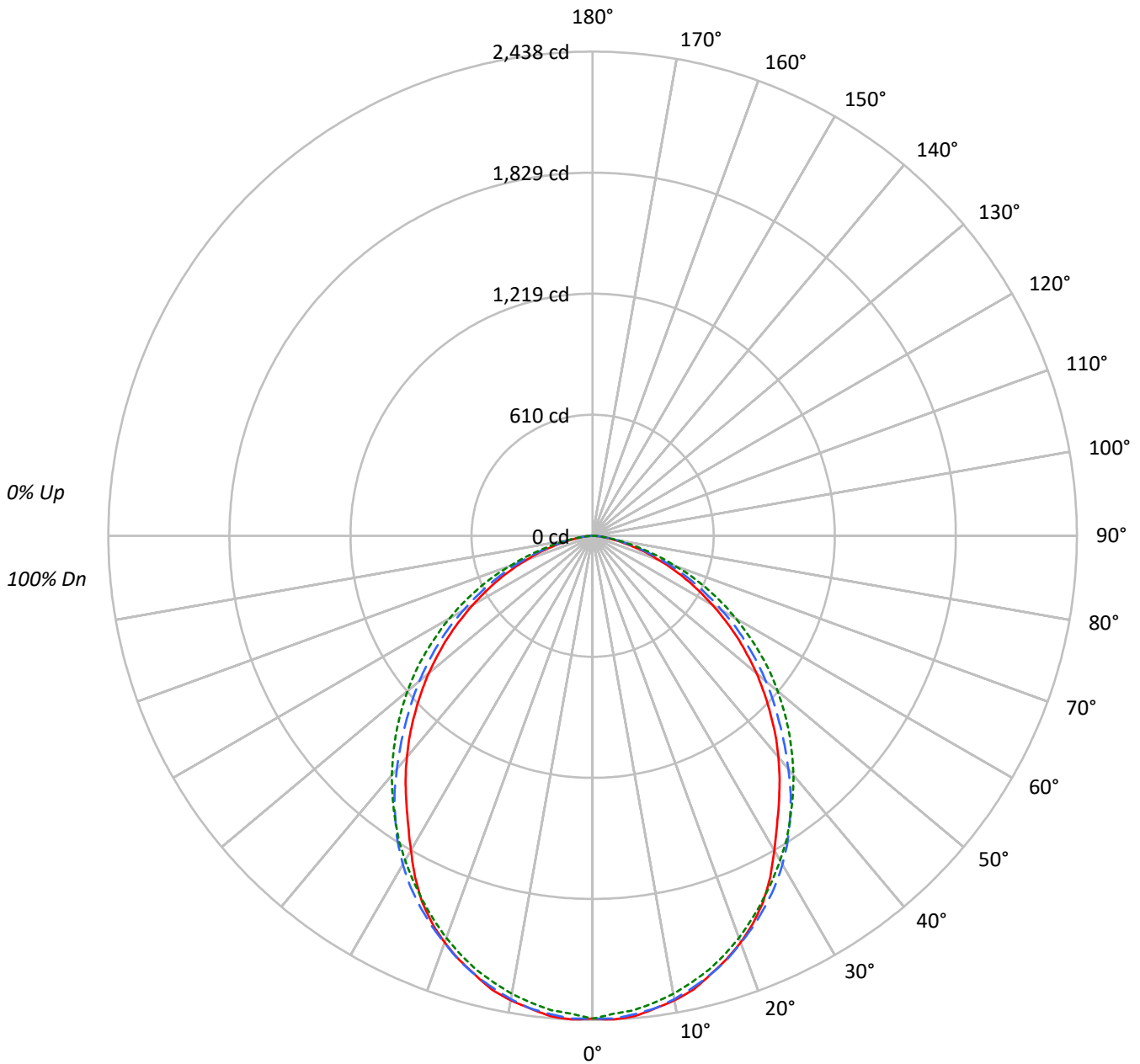
Lumens per Lamp: N/A
Luminaire Lumens: 5622.0 lumens
Efficiency: N/A
Efficacy: 80.1 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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					20					
RC	80					70					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	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86					86			
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73					73			
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63					63			
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	61	56	54					54			
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	47					47			
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42					42			
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	49	44	39	37					37			
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34					34			
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30					30			
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29	28					28			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6543	6543	6543
5°	6560	6532	6477
10°	6490	6473	6399
15°	6376	6376	6303
20°	6241	6249	6168
25°	6035	6110	6013
30°	5683	5938	5866
35°	5370	5692	5701
40°	5109	5384	5526
45°	4817	5058	5318
50°	4509	4767	5092
55°	4159	4435	4816
60°	3745	4047	4479
65°	3307	3598	4074
70°	2756	3065	3461
75°	2166	2447	2709
80°	1548	1723	1911
85°	1010	1010	951



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	228.9	4.1
10°-20°	643.1	11.4
20°-30°	939.8	16.7
30°-40°	1066.8	19.0
40°-50°	1029.8	18.3
50°-60°	849.5	15.1
60°-70°	565.7	10.1
70°-80°	253.1	4.5
80°-90°	45.3	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°	1811.8	32.2
0°-40°	2878.6	51.2
0°-60°	4757.9	84.6
0°-90°	5622.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5622.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2431	2431	2431	2431	2431	
5°	2429	2428	2418	2405	2398	230
15°	2288	2294	2288	2278	2262	645
25°	2032	2048	2058	2043	2025	931
35°	1635	1657	1733	1742	1736	1024
45°	1266	1287	1329	1390	1397	977
55°	886	901	945	998	1026	791
65°	519	533	565	605	640	515
75°	208	220	235	247	261	228
85°	33	33	33	31	31	44
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2431.4	2431.4	2431.4	2431.4	2431.4
2.5°	2437.9	2438.8	2433.2	2418.3	2409.0
5°	2428.6	2427.6	2418.3	2405.2	2397.7
7.5°	2401.5	2403.3	2400.5	2381.9	2371.6
10°	2375.3	2376.3	2368.8	2353.8	2341.7
12.5°	2341.7	2340.8	2330.5	2323.0	2303.4
15°	2288.5	2294.1	2288.5	2278.2	2262.3
17.5°	2237.1	2237.1	2240.8	2223.1	2210.9
20°	2179.2	2182.0	2182.0	2168.0	2154.0
22.5°	2111.9	2120.3	2123.1	2108.2	2091.4
25°	2032.5	2048.4	2057.7	2042.8	2025.1
27.5°	1936.3	1960.6	1988.6	1977.4	1957.8
30°	1828.9	1864.4	1911.1	1901.8	1887.7
32.5°	1727.1	1762.6	1827.0	1823.3	1815.8
35°	1634.6	1657.0	1732.7	1742.0	1735.5
37.5°	1546.8	1567.4	1638.3	1659.8	1654.2
40°	1454.3	1476.8	1532.8	1571.1	1573.0
42.5°	1362.8	1384.3	1430.1	1485.2	1485.2
45°	1265.7	1287.1	1329.2	1389.9	1397.4
47.5°	1170.4	1192.8	1233.9	1294.6	1306.8
50°	1077.0	1097.5	1138.6	1197.5	1216.2
52.5°	979.8	1002.3	1042.4	1096.6	1123.7
55°	886.4	901.4	945.3	997.6	1026.5
57.5°	789.3	803.3	852.8	897.6	927.5
60°	695.9	713.6	751.9	797.7	832.3
62.5°	606.2	624.9	657.6	697.7	737.0
65°	519.3	533.4	565.1	605.3	639.8
67.5°	435.3	447.4	479.2	507.2	543.6
70°	350.3	366.2	389.5	416.6	439.9
72.5°	282.1	288.6	308.2	327.9	352.1
75°	208.3	219.5	235.4	246.6	260.6
77.5°	149.5	156.0	165.3	174.7	187.7
80°	99.9	102.7	111.2	113.0	123.3
82.5°	60.7	62.6	64.5	65.4	69.1
85°	32.7	32.7	32.7	30.8	30.8
87.5°	18.7	18.7	15.9	13.1	9.3
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)