

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: P558120

Luminaire Tested: **FUSL-12-4-LD4-3LO-40-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: P558120
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-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 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

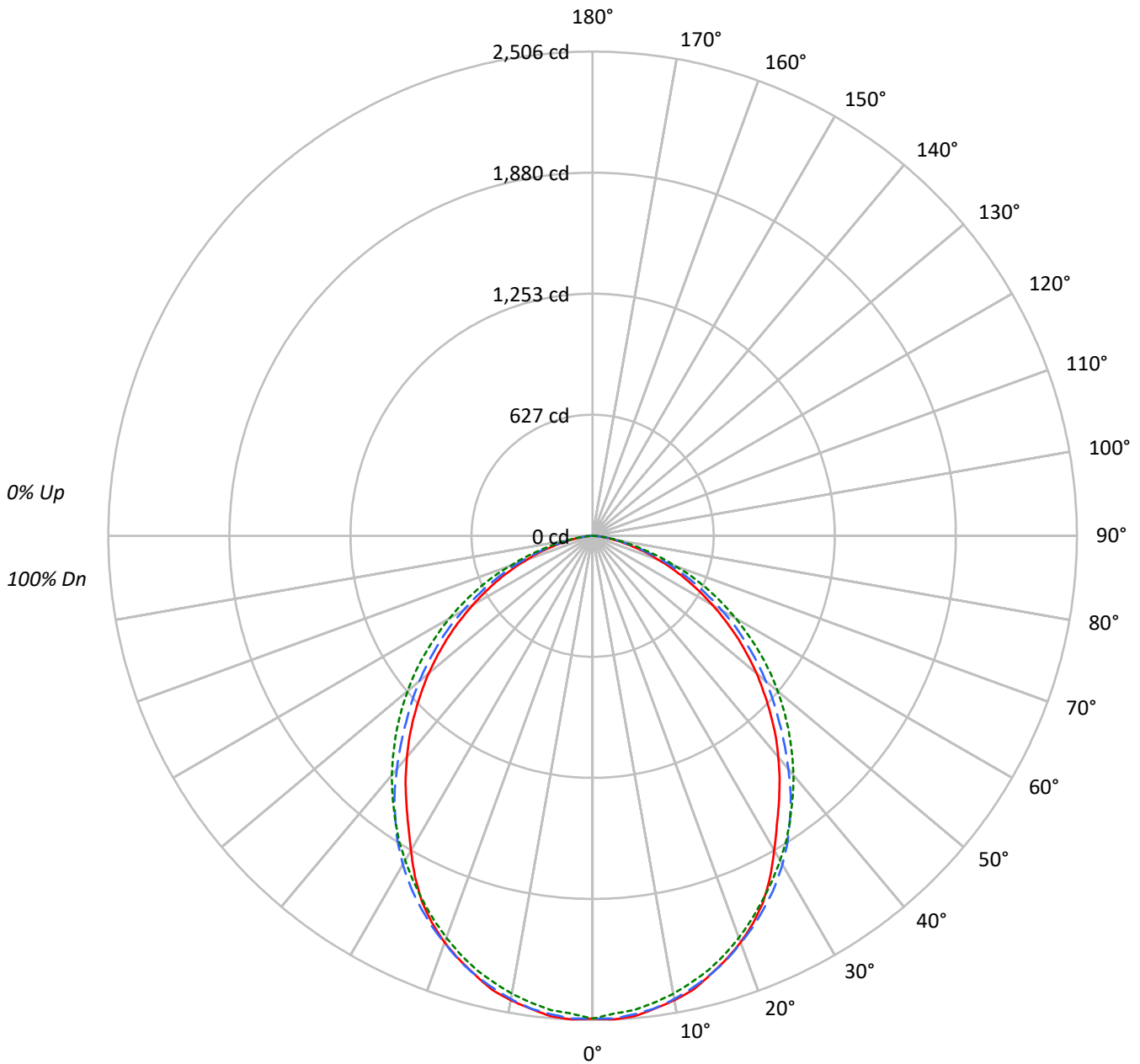
Lumens per Lamp: N/A
Luminaire Lumens: 5778.0 lumens
Efficiency: N/A
Efficacy: 82.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	6724	6724	6724
5°	6742	6714	6657
10°	6671	6652	6576
15°	6552	6552	6478
20°	6413	6422	6339
25°	6202	6279	6179
30°	5840	6103	6028
35°	5519	5850	5859
40°	5251	5534	5679
45°	4950	5199	5465
50°	4634	4899	5233
55°	4274	4558	4950
60°	3849	4159	4603
65°	3399	3698	4187
70°	2832	3150	3558
75°	2226	2515	2784
80°	1592	1770	1963
85°	1037	1037	979



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	235.3	4.1
10°-20°	661.0	11.4
20°-30°	965.9	16.7
30°-40°	1096.4	19.0
40°-50°	1058.4	18.3
50°-60°	873.1	15.1
60°-70°	581.4	10.1
70°-80°	260.2	4.5
80°-90°	46.5	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°	1862.1	32.2
0°-40°	2958.4	51.2
0°-60°	4889.9	84.6
0°-90°	5778.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5778.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2499	2499	2499	2499	2499	
5°	2496	2495	2485	2472	2464	236
15°	2352	2358	2352	2341	2325	663
25°	2089	2105	2115	2100	2081	957
35°	1680	1703	1781	1790	1784	1053
45°	1301	1323	1366	1428	1436	1004
55°	911	926	972	1025	1055	813
65°	534	548	581	622	658	529
75°	214	226	242	253	268	234
85°	34	34	34	32	32	45
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2498.8	2498.8	2498.8	2498.8	2498.8
2.5°	2505.6	2506.5	2500.8	2485.4	2475.8
5°	2496.0	2495.0	2485.4	2472.0	2464.3
7.5°	2468.1	2470.0	2467.2	2448.0	2437.4
10°	2441.2	2442.2	2434.5	2419.2	2406.7
12.5°	2406.7	2405.7	2395.2	2387.5	2367.3
15°	2352.0	2357.7	2352.0	2341.4	2325.1
17.5°	2299.2	2299.2	2303.0	2284.8	2272.3
20°	2239.6	2242.5	2242.5	2228.1	2213.7
22.5°	2170.5	2179.2	2182.0	2166.7	2149.4
25°	2088.9	2105.2	2114.8	2099.5	2081.2
27.5°	1990.0	2015.0	2043.8	2032.3	2012.1
30°	1879.6	1916.1	1964.1	1954.5	1940.1
32.5°	1775.0	1811.5	1877.7	1873.9	1866.2
35°	1680.0	1703.0	1780.8	1790.4	1783.6
37.5°	1589.7	1610.9	1683.8	1705.9	1700.1
40°	1494.7	1517.7	1575.3	1614.7	1616.6
42.5°	1400.6	1422.7	1469.7	1526.4	1526.4
45°	1300.8	1322.9	1366.1	1428.5	1436.1
47.5°	1202.9	1225.9	1268.1	1330.5	1343.0
50°	1106.9	1128.0	1170.2	1230.7	1249.9
52.5°	1007.0	1030.1	1071.3	1127.0	1154.9
55°	911.0	926.4	971.5	1025.3	1055.0
57.5°	811.2	825.6	876.5	922.5	953.3
60°	715.2	733.4	772.8	819.8	855.3
62.5°	623.0	642.2	675.8	717.1	757.4
65°	533.8	548.2	580.8	622.1	657.6
67.5°	447.4	459.8	492.5	521.3	558.7
70°	360.0	376.3	400.3	428.2	452.2
72.5°	289.9	296.6	316.8	337.0	361.9
75°	214.1	225.6	241.9	253.4	267.8
77.5°	153.6	160.3	169.9	179.5	193.0
80°	102.7	105.6	114.2	116.2	126.7
82.5°	62.4	64.3	66.2	67.2	71.0
85°	33.6	33.6	33.6	31.7	31.7
87.5°	19.2	19.2	16.3	13.4	9.6
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)