

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: P557393

Luminaire Tested: **FUSL-12-4-LD4-2LO-50-UNV-82-84-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: P557393
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-LD4-2LO-50-UNV-82-84-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

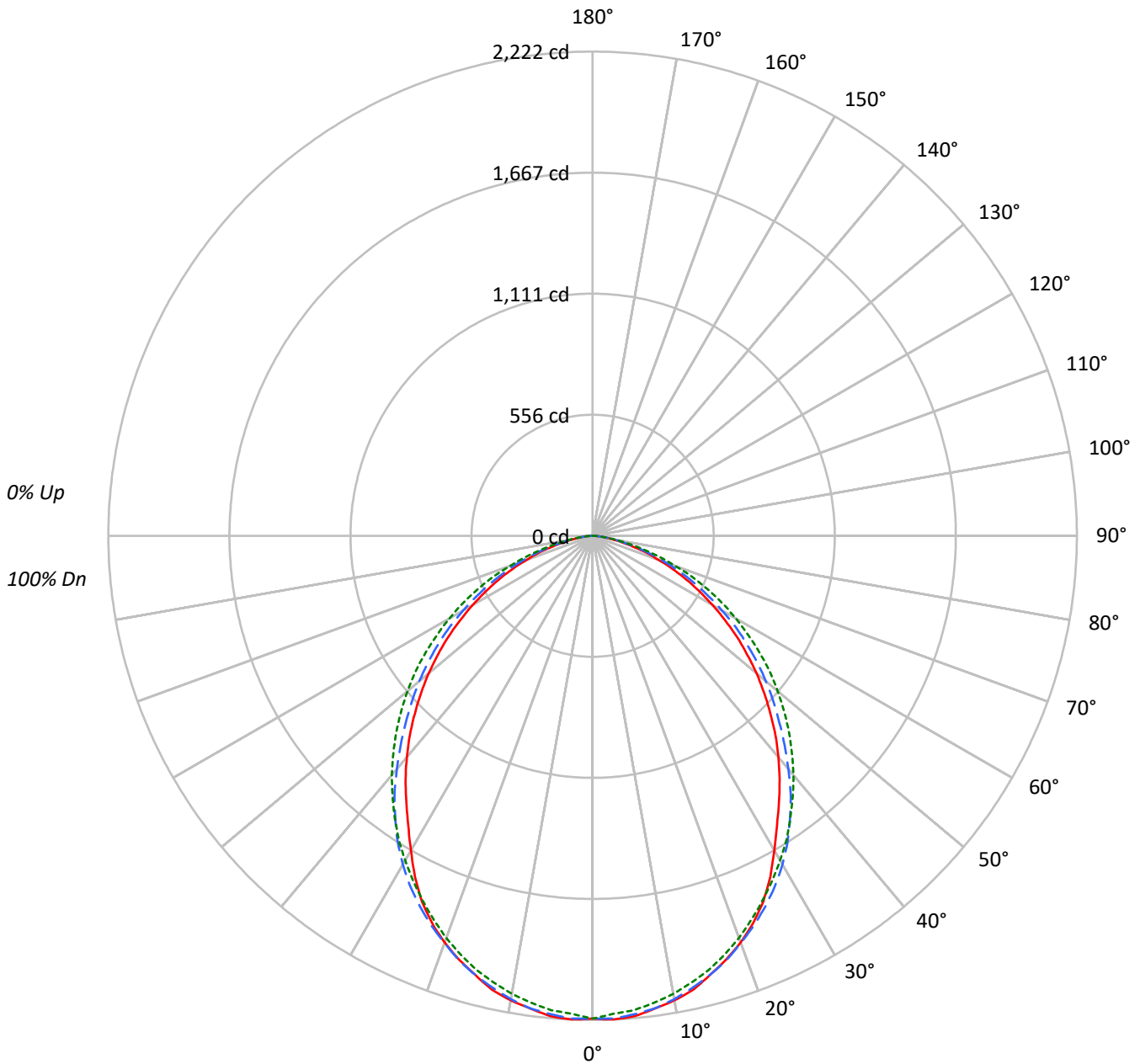
Lumens per Lamp: N/A
Luminaire Lumens: 5124.0 lumens
Efficiency: N/A
Efficacy: 109.5 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 46.8
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°	5963	5963	5963
5°	5979	5954	5903
10°	5916	5899	5832
15°	5811	5811	5744
20°	5688	5695	5622
25°	5500	5569	5480
30°	5180	5412	5346
35°	4894	5188	5196
40°	4656	4907	5036
45°	4390	4610	4847
50°	4109	4345	4640
55°	3790	4042	4389
60°	3413	3688	4082
65°	3014	3280	3713
70°	2511	2793	3155
75°	1973	2230	2469
80°	1412	1570	1742
85°	920	920	868



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	208.6	4.1
10°-20°	586.1	11.4
20°-30°	856.5	16.7
30°-40°	972.3	19.0
40°-50°	938.6	18.3
50°-60°	774.3	15.1
60°-70°	515.6	10.1
70°-80°	230.7	4.5
80°-90°	41.3	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°	1651.3	32.2
0°-40°	2623.6	51.2
0°-60°	4336.4	84.6
0°-90°	5124.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5124.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2216	2216	2216	2216	2216	
5°	2213	2213	2204	2192	2185	210
15°	2086	2091	2086	2076	2062	588
25°	1852	1867	1876	1862	1846	848
35°	1490	1510	1579	1588	1582	933
45°	1154	1173	1211	1267	1274	890
55°	808	822	862	909	936	721
65°	473	486	515	552	583	469
75°	190	200	214	225	238	208
85°	30	30	30	28	28	40
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2216.0	2216.0	2216.0	2216.0	2216.0
2.5°	2222.0	2222.8	2217.7	2204.1	2195.6
5°	2213.4	2212.6	2204.1	2192.2	2185.3
7.5°	2188.8	2190.5	2187.9	2170.9	2161.5
10°	2164.9	2165.8	2159.0	2145.3	2134.3
12.5°	2134.3	2133.4	2124.1	2117.2	2099.4
15°	2085.7	2090.9	2085.7	2076.4	2061.9
17.5°	2038.9	2038.9	2042.3	2026.2	2015.1
20°	1986.1	1988.7	1988.7	1975.9	1963.2
22.5°	1924.8	1932.5	1935.1	1921.4	1906.1
25°	1852.5	1867.0	1875.5	1861.8	1845.7
27.5°	1764.8	1786.9	1812.5	1802.3	1784.4
30°	1666.9	1699.2	1741.8	1733.3	1720.5
32.5°	1574.1	1606.4	1665.2	1661.8	1655.0
35°	1489.8	1510.2	1579.2	1587.7	1581.8
37.5°	1409.8	1428.5	1493.2	1512.8	1507.7
40°	1325.5	1345.9	1397.0	1431.9	1433.6
42.5°	1242.1	1261.7	1303.4	1353.6	1353.6
45°	1153.5	1173.1	1211.4	1266.8	1273.6
47.5°	1066.7	1087.1	1124.6	1179.9	1191.0
50°	981.6	1000.3	1037.8	1091.4	1108.4
52.5°	893.0	913.5	950.1	999.5	1024.1
55°	807.9	821.5	861.5	909.2	935.6
57.5°	719.4	732.1	777.3	818.1	845.4
60°	634.2	650.4	685.3	727.0	758.5
62.5°	552.5	569.5	599.3	635.9	671.7
65°	473.3	486.1	515.1	551.7	583.2
67.5°	396.7	407.8	436.7	462.3	495.5
70°	319.2	333.7	355.0	379.7	401.0
72.5°	257.1	263.1	280.9	298.8	320.9
75°	189.8	200.1	214.5	224.7	237.5
77.5°	136.2	142.2	150.7	159.2	171.1
80°	91.1	93.6	101.3	103.0	112.4
82.5°	55.3	57.0	58.7	59.6	63.0
85°	29.8	29.8	29.8	28.1	28.1
87.5°	17.0	17.0	14.5	11.9	8.5
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)