

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: P557379

Luminaire Tested: **FUSL-12-4-LD4-2LO-50-UNV-81-85-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: P557379
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-81-85-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

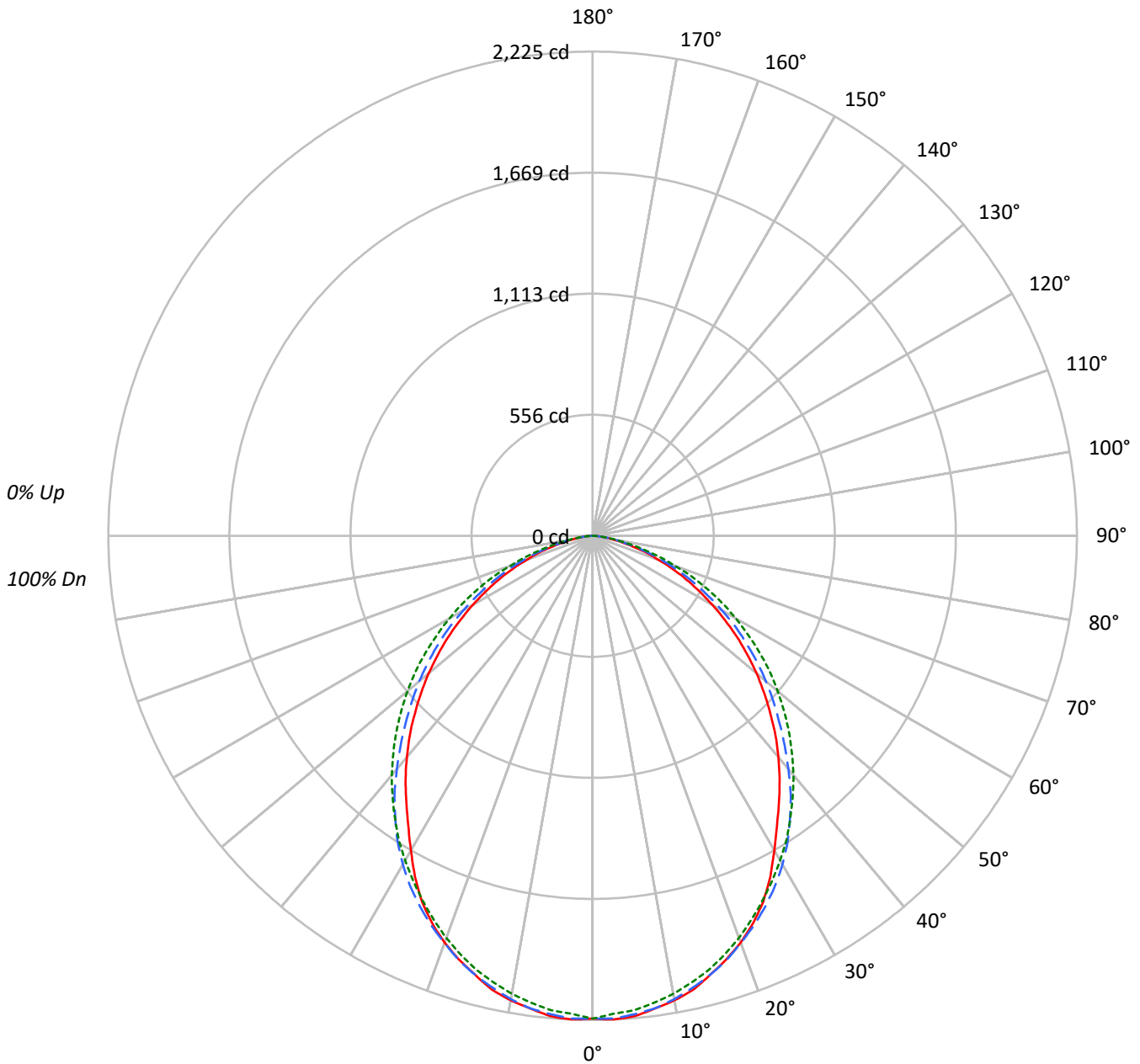
Lumens per Lamp: N/A
Luminaire Lumens: 5131.0 lumens
Efficiency: N/A
Efficacy: 109.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	5971	5971	5971
5°	5987	5962	5911
10°	5924	5907	5840
15°	5819	5819	5752
20°	5696	5703	5629
25°	5508	5576	5488
30°	5187	5420	5354
35°	4901	5195	5203
40°	4663	4914	5043
45°	4396	4617	4853
50°	4115	4351	4647
55°	3795	4047	4396
60°	3418	3694	4088
65°	3018	3284	3719
70°	2515	2797	3159
75°	1976	2233	2472
80°	1413	1571	1743
85°	920	920	868



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	208.9	4.1
10°-20°	586.9	11.4
20°-30°	857.7	16.7
30°-40°	973.6	19.0
40°-50°	939.9	18.3
50°-60°	775.3	15.1
60°-70°	516.3	10.1
70°-80°	231.0	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°	1653.6	32.2
0°-40°	2627.2	51.2
0°-60°	4342.3	84.6
0°-90°	5131.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5131.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2219	2219	2219	2219	2219	
5°	2216	2216	2207	2195	2188	210
15°	2089	2094	2089	2079	2065	589
25°	1855	1870	1878	1864	1848	850
35°	1492	1512	1581	1590	1584	935
45°	1155	1175	1213	1268	1275	891
55°	809	823	863	910	937	722
65°	474	487	516	552	584	470
75°	190	200	215	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°	2219.0	2219.0	2219.0	2219.0	2219.0
2.5°	2225.0	2225.8	2220.7	2207.1	2198.6
5°	2216.5	2215.6	2207.1	2195.2	2188.3
7.5°	2191.7	2193.5	2190.9	2173.8	2164.5
10°	2167.9	2168.7	2161.9	2148.3	2137.2
12.5°	2137.2	2136.3	2127.0	2120.1	2102.2
15°	2088.6	2093.7	2088.6	2079.2	2064.7
17.5°	2041.7	2041.7	2045.1	2028.9	2017.8
20°	1988.9	1991.4	1991.4	1978.6	1965.8
22.5°	1927.5	1935.1	1937.7	1924.1	1908.7
25°	1855.0	1869.5	1878.0	1864.4	1848.2
27.5°	1767.2	1789.4	1814.9	1804.7	1786.8
30°	1669.2	1701.6	1744.2	1735.7	1722.9
32.5°	1576.2	1608.6	1667.5	1664.1	1657.2
35°	1491.9	1512.3	1581.4	1589.9	1583.9
37.5°	1411.7	1430.5	1495.3	1514.9	1509.8
40°	1327.3	1347.8	1398.9	1433.9	1435.6
42.5°	1243.8	1263.4	1305.2	1355.5	1355.5
45°	1155.1	1174.7	1213.1	1268.5	1275.3
47.5°	1068.2	1088.6	1126.1	1181.5	1192.6
50°	982.9	1001.7	1039.2	1092.9	1109.9
52.5°	894.3	914.7	951.4	1000.8	1025.5
55°	809.0	822.7	862.7	910.5	936.9
57.5°	720.4	733.1	778.3	819.2	846.5
60°	635.1	651.3	686.3	728.0	759.6
62.5°	553.3	570.3	600.2	636.8	672.6
65°	474.0	486.8	515.8	552.4	584.0
67.5°	397.3	408.3	437.3	462.9	496.1
70°	319.7	334.2	355.5	380.2	401.5
72.5°	257.5	263.4	281.3	299.2	321.4
75°	190.1	200.3	214.8	225.1	237.8
77.5°	136.4	142.4	150.9	159.4	171.3
80°	91.2	93.8	101.4	103.2	112.5
82.5°	55.4	57.1	58.8	59.7	63.1
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)