

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: P557512

Luminaire Tested: **FUSL-12-4-LD4-2STD-35-UNV-81-88-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: P557512
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-35-UNV-81-88-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

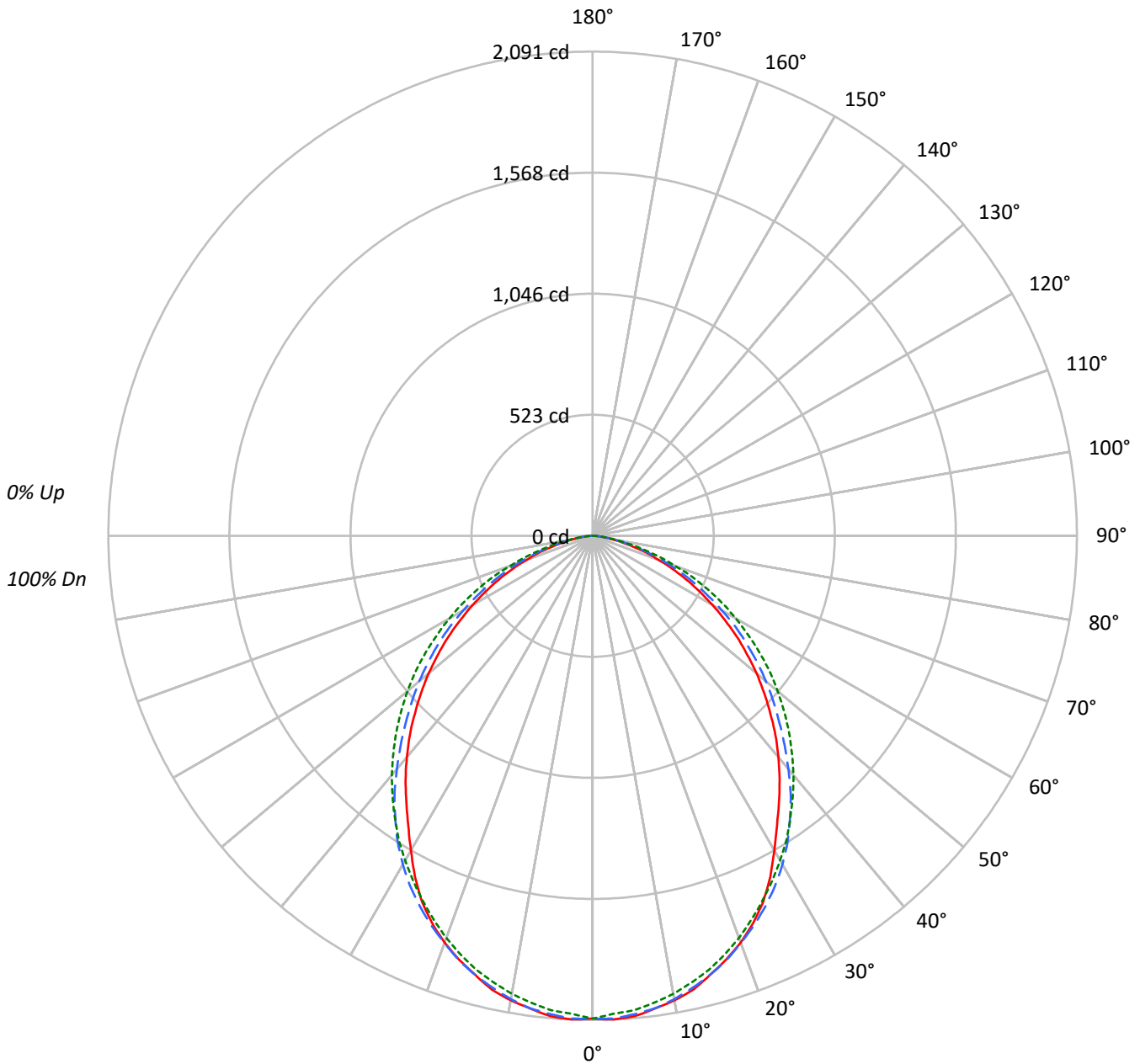
Lumens per Lamp: N/A
Luminaire Lumens: 4822.0 lumens
Efficiency: N/A
Efficacy: 72.4 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	5612	5612	5612
5°	5627	5603	5555
10°	5567	5552	5488
15°	5468	5468	5406
20°	5353	5359	5290
25°	5176	5240	5157
30°	4874	5093	5031
35°	4606	4882	4890
40°	4382	4618	4739
45°	4131	4338	4561
50°	3867	4088	4367
55°	3567	3804	4131
60°	3212	3471	3842
65°	2836	3086	3494
70°	2364	2629	2969
75°	1858	2099	2324
80°	1328	1477	1640
85°	865	865	815



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	196.3	4.1
10°-20°	551.6	11.4
20°-30°	806.1	16.7
30°-40°	914.9	19.0
40°-50°	883.3	18.3
50°-60°	728.6	15.1
60°-70°	485.2	10.1
70°-80°	217.1	4.5
80°-90°	38.8	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°	1554.0	32.2
0°-40°	2468.9	51.2
0°-60°	4080.8	84.6
0°-90°	4822.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4822.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2085	2085	2085	2085	2085	
5°	2083	2082	2074	2063	2056	197
15°	1963	1968	1963	1954	1940	553
25°	1743	1757	1765	1752	1737	798
35°	1402	1421	1486	1494	1488	878
45°	1086	1104	1140	1192	1198	838
55°	760	773	811	856	880	679
65°	445	458	485	519	549	442
75°	179	188	202	212	224	195
85°	28	28	28	26	26	38
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2085.4	2085.4	2085.4	2085.4	2085.4
2.5°	2091.0	2091.8	2087.0	2074.2	2066.2
5°	2083.0	2082.2	2074.2	2063.0	2056.5
7.5°	2059.8	2061.4	2059.0	2042.9	2034.1
10°	2037.3	2038.1	2031.7	2018.9	2008.5
12.5°	2008.5	2007.7	1998.9	1992.5	1975.6
15°	1962.8	1967.6	1962.8	1954.0	1940.4
17.5°	1918.8	1918.8	1922.0	1906.7	1896.3
20°	1869.1	1871.5	1871.5	1859.5	1847.4
22.5°	1811.4	1818.6	1821.0	1808.2	1793.8
25°	1743.3	1756.9	1764.9	1752.1	1736.9
27.5°	1660.8	1681.6	1705.6	1696.0	1679.2
30°	1568.6	1599.1	1639.2	1631.1	1619.1
32.5°	1481.3	1511.8	1567.0	1563.8	1557.4
35°	1402.0	1421.2	1486.1	1494.1	1488.5
37.5°	1326.7	1344.3	1405.2	1423.6	1418.8
40°	1247.4	1266.6	1314.7	1347.5	1349.1
42.5°	1168.9	1187.3	1226.6	1273.8	1273.8
45°	1085.6	1104.0	1140.0	1192.1	1198.5
47.5°	1003.8	1023.1	1058.3	1110.4	1120.8
50°	923.7	941.3	976.6	1027.1	1043.1
52.5°	840.4	859.6	894.1	940.5	963.8
55°	760.3	773.1	810.8	855.6	880.5
57.5°	677.0	689.0	731.4	769.9	795.5
60°	596.9	612.1	644.9	684.2	713.8
62.5°	519.9	536.0	564.0	598.5	632.1
65°	445.4	457.5	484.7	519.1	548.8
67.5°	373.3	383.8	411.0	435.0	466.3
70°	300.4	314.1	334.1	357.3	377.3
72.5°	241.9	247.6	264.4	281.2	302.0
75°	178.7	188.3	201.9	211.5	223.5
77.5°	128.2	133.8	141.8	149.8	161.0
80°	85.7	88.1	95.3	96.9	105.8
82.5°	52.1	53.7	55.3	56.1	59.3
85°	28.0	28.0	28.0	26.4	26.4
87.5°	16.0	16.0	13.6	11.2	8.0
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)