

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: P557508

Luminaire Tested: **FUSL-12-4-LD4-2STD-35-UNV-81-86-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: P557508
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-81-86-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

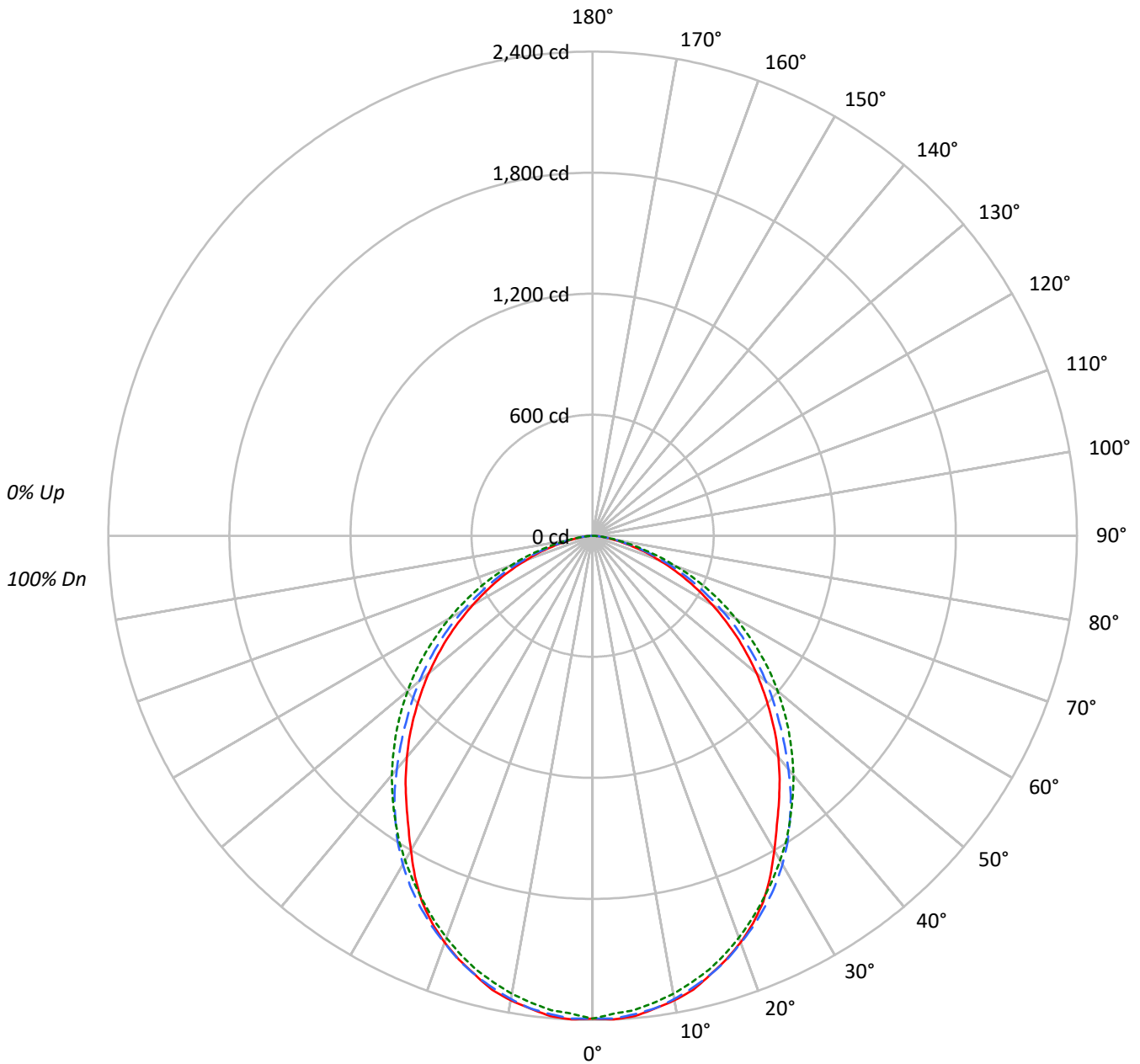
Lumens per Lamp: N/A
Luminaire Lumens: 5534.0 lumens
Efficiency: N/A
Efficacy: 83.1 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	6440	6440	6440
5°	6458	6430	6376
10°	6389	6371	6298
15°	6276	6276	6204
20°	6143	6151	6072
25°	5940	6014	5919
30°	5594	5845	5774
35°	5286	5603	5612
40°	5029	5300	5439
45°	4741	4979	5235
50°	4438	4692	5012
55°	4094	4366	4741
60°	3687	3984	4409
65°	3255	3542	4010
70°	2713	3017	3408
75°	2131	2409	2667
80°	1525	1695	1881
85°	994	994	936



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	225.3	4.1
10°-20°	633.0	11.4
20°-30°	925.1	16.7
30°-40°	1050.1	19.0
40°-50°	1013.7	18.3
50°-60°	836.2	15.1
60°-70°	556.9	10.1
70°-80°	249.2	4.5
80°-90°	44.6	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°	1783.4	32.2
0°-40°	2833.5	51.2
0°-60°	4683.4	84.6
0°-90°	5534.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5534.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2393	2393	2393	2393	2393	
5°	2391	2390	2380	2368	2360	226
15°	2253	2258	2253	2242	2227	635
25°	2001	2016	2026	2011	1993	916
35°	1609	1631	1706	1715	1708	1008
45°	1246	1267	1308	1368	1376	961
55°	873	887	930	982	1010	779
65°	511	525	556	596	630	507
75°	205	216	232	243	256	224
85°	32	32	32	30	30	43
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2393.3	2393.3	2393.3	2393.3	2393.3
2.5°	2399.7	2400.7	2395.2	2380.4	2371.2
5°	2390.6	2389.6	2380.4	2367.6	2360.2
7.5°	2363.9	2365.7	2363.0	2344.6	2334.5
10°	2338.1	2339.1	2331.7	2317.0	2305.0
12.5°	2305.0	2304.1	2294.0	2286.7	2267.3
15°	2252.6	2258.2	2252.6	2242.5	2226.9
17.5°	2202.1	2202.1	2205.7	2188.3	2176.3
20°	2145.1	2147.8	2147.8	2134.0	2120.2
22.5°	2078.9	2087.1	2089.9	2075.2	2058.6
25°	2000.7	2016.3	2025.5	2010.8	1993.4
27.5°	1906.0	1929.9	1957.5	1946.5	1927.2
30°	1800.3	1835.2	1881.2	1872.0	1858.2
32.5°	1700.1	1735.0	1798.4	1794.8	1787.4
35°	1609.0	1631.1	1705.6	1714.8	1708.3
37.5°	1522.6	1542.8	1612.7	1633.9	1628.3
40°	1431.6	1453.6	1508.8	1546.5	1548.3
42.5°	1341.5	1362.6	1407.7	1461.9	1461.9
45°	1245.8	1267.0	1308.4	1368.1	1375.5
47.5°	1152.1	1174.1	1214.6	1274.3	1286.3
50°	1060.1	1080.3	1120.8	1178.7	1197.1
52.5°	964.5	986.6	1026.1	1079.4	1106.1
55°	872.6	887.3	930.5	982.0	1010.5
57.5°	776.9	790.7	839.5	883.6	913.0
60°	685.0	702.5	740.2	785.2	819.2
62.5°	596.7	615.1	647.3	686.8	725.4
65°	511.2	525.0	556.3	595.8	629.8
67.5°	428.5	440.4	471.7	499.3	535.1
70°	344.8	360.4	383.4	410.1	433.1
72.5°	277.7	284.1	303.4	322.7	346.6
75°	205.0	216.1	231.7	242.7	256.5
77.5°	147.1	153.5	162.7	171.9	184.8
80°	98.4	101.1	109.4	111.3	121.4
82.5°	59.8	61.6	63.4	64.4	68.0
85°	32.2	32.2	32.2	30.3	30.3
87.5°	18.4	18.4	15.6	12.9	9.2
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)