

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: P557892

Luminaire Tested: **FUSL-12-4-LD4-3HI-50-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: P557892
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-LD4-3HI-50-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 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

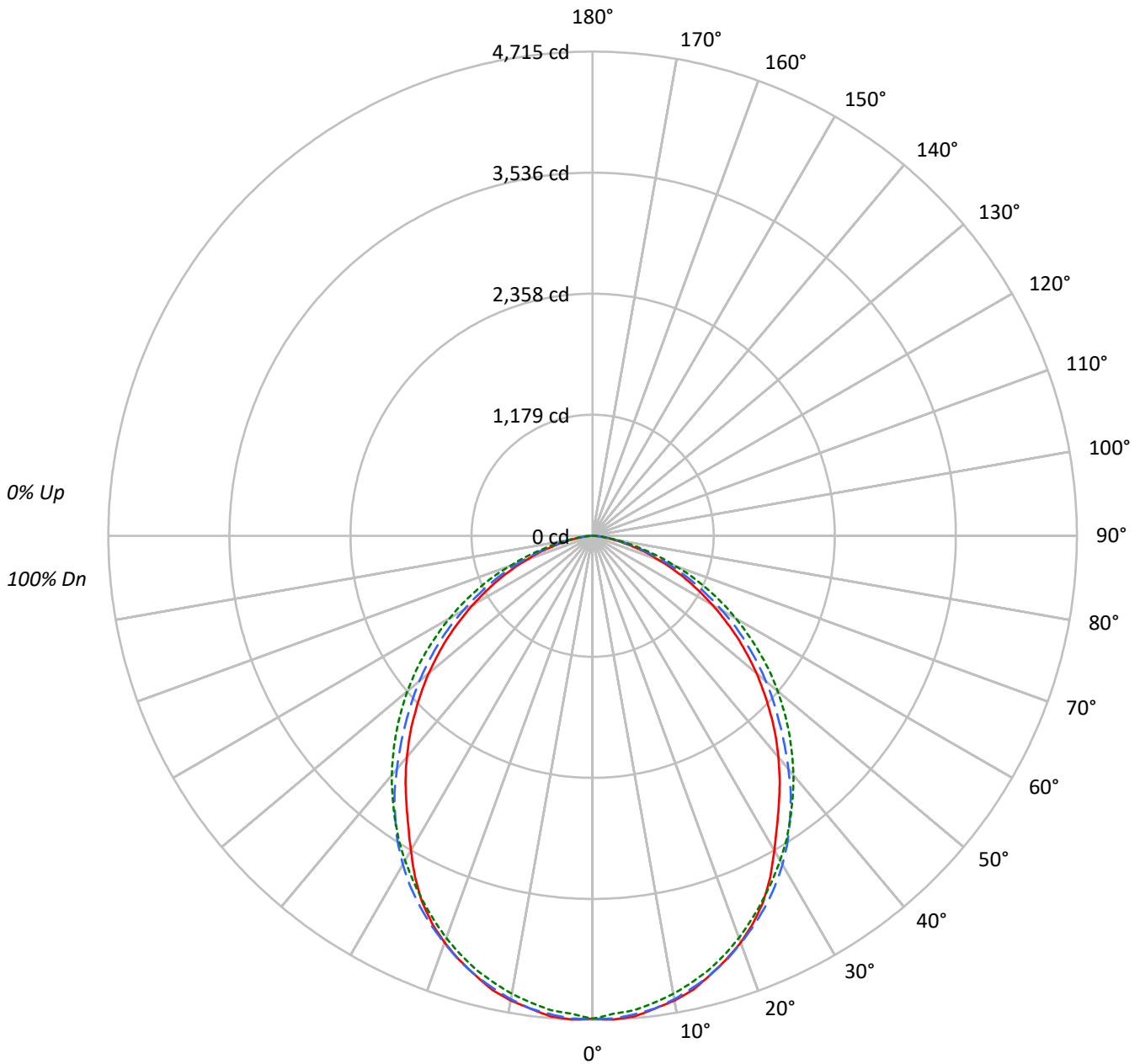
Lumens per Lamp: N/A
Luminaire Lumens: 10874.0 lumens
Efficiency: N/A
Efficacy: 83.9 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 129.6
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					20					
RC	80					70					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°	12655	12655	12655
5°	12689	12635	12528
10°	12554	12519	12376
15°	12331	12331	12190
20°	12070	12086	11930
25°	11673	11818	11630
30°	10992	11486	11346
35°	10386	11009	11027
40°	9882	10414	10687
45°	9316	9784	10286
50°	8721	9220	9848
55°	8044	8578	9315
60°	7244	7828	8663
65°	6396	6960	7880
70°	5330	5928	6695
75°	4189	4734	5241
80°	2996	3332	3696
85°	1951	1951	1840



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	442.8	4.1
10°-20°	1243.9	11.4
20°-30°	1817.7	16.7
30°-40°	2063.3	19.0
40°-50°	1991.8	18.3
50°-60°	1643.1	15.1
60°-70°	1094.2	10.1
70°-80°	489.6	4.5
80°-90°	87.6	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°	3504.4	32.2
0°-40°	5567.7	51.2
0°-60°	9202.6	84.6
0°-90°	10874.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10874.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4703	4703	4703	4703	4703	
5°	4697	4696	4677	4652	4638	445
15°	4426	4437	4426	4406	4376	1248
25°	3931	3962	3980	3951	3917	1800
35°	3162	3205	3351	3369	3357	1981
45°	2448	2490	2571	2688	2703	1889
55°	1714	1743	1828	1930	1986	1530
65°	1004	1032	1093	1171	1238	996
75°	403	425	455	477	504	441
85°	63	63	63	60	60	85
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4702.7	4702.7	4702.7	4702.7	4702.7
2.5°	4715.4	4717.2	4706.3	4677.4	4659.4
5°	4697.3	4695.5	4677.4	4652.1	4637.7
7.5°	4644.9	4648.5	4643.1	4607.0	4587.1
10°	4594.3	4596.1	4581.7	4552.8	4529.3
12.5°	4529.3	4527.5	4507.6	4493.2	4455.2
15°	4426.3	4437.1	4426.3	4406.4	4375.7
17.5°	4326.9	4326.9	4334.2	4299.8	4276.4
20°	4214.9	4220.3	4220.3	4193.2	4166.1
22.5°	4084.8	4101.1	4106.5	4077.6	4045.1
25°	3931.3	3962.0	3980.1	3951.2	3916.8
27.5°	3745.2	3792.2	3846.4	3824.7	3786.7
30°	3537.4	3606.1	3696.4	3678.4	3651.3
32.5°	3340.5	3409.2	3533.8	3526.6	3512.1
35°	3161.6	3205.0	3351.3	3369.4	3356.8
37.5°	2991.8	3031.6	3168.9	3210.4	3199.6
40°	2813.0	2856.3	2964.7	3038.8	3042.4
42.5°	2635.9	2677.5	2766.0	2872.6	2872.6
45°	2448.0	2489.6	2570.9	2688.3	2702.8
47.5°	2263.7	2307.1	2386.6	2504.0	2527.5
50°	2083.1	2122.8	2202.3	2316.1	2352.3
52.5°	1895.2	1938.5	2016.2	2121.0	2173.4
55°	1714.5	1743.4	1828.3	1929.5	1985.5
57.5°	1526.6	1553.7	1649.5	1736.2	1794.0
60°	1346.0	1380.3	1454.4	1542.9	1609.7
62.5°	1172.5	1208.7	1271.9	1349.6	1425.5
65°	1004.5	1031.6	1093.0	1170.7	1237.6
67.5°	841.9	865.4	926.8	981.0	1051.5
70°	677.5	708.2	753.4	805.8	850.9
72.5°	545.6	558.3	596.2	634.1	681.1
75°	402.9	424.6	455.3	477.0	504.1
77.5°	289.1	301.7	319.8	337.8	363.1
80°	193.3	198.7	215.0	218.6	238.5
82.5°	117.4	121.0	124.7	126.5	133.7
85°	63.2	63.2	63.2	59.6	59.6
87.5°	36.1	36.1	30.7	25.3	18.1
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)