

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: P557442

Luminaire Tested: **FUSL-12-4-LD4-2STD-30-UNV-81-85-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: P557442
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-30-UNV-81-85-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

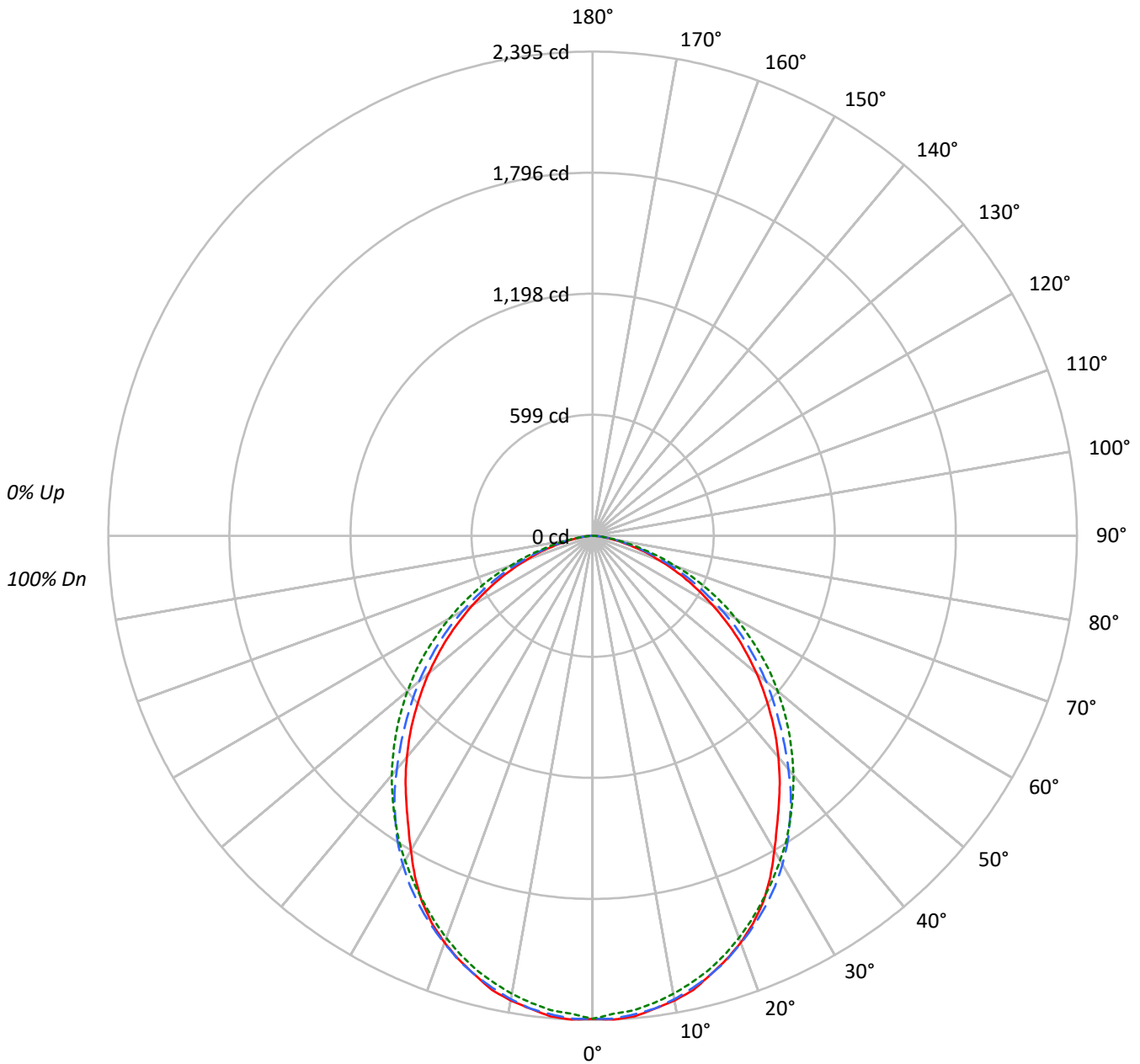
Lumens per Lamp: N/A
Luminaire Lumens: 5524.0 lumens
Efficiency: N/A
Efficacy: 82.9 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	6429	6429	6429
5°	6446	6418	6364
10°	6377	6360	6287
15°	6264	6264	6193
20°	6132	6139	6061
25°	5930	6003	5908
30°	5584	5835	5763
35°	5276	5593	5602
40°	5020	5291	5429
45°	4733	4970	5225
50°	4430	4684	5003
55°	4086	4358	4732
60°	3680	3976	4401
65°	3249	3536	4003
70°	2708	3011	3401
75°	2128	2405	2663
80°	1522	1692	1877
85°	991	991	936



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	224.9	4.1
10°-20°	631.9	11.4
20°-30°	923.4	16.7
30°-40°	1048.2	19.0
40°-50°	1011.8	18.3
50°-60°	834.7	15.1
60°-70°	555.8	10.1
70°-80°	248.7	4.5
80°-90°	44.5	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°	1780.2	32.2
0°-40°	2828.4	51.2
0°-60°	4674.9	84.6
0°-90°	5524.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5524.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2389	2389	2389	2389	2389	
5°	2386	2385	2376	2363	2356	226
15°	2249	2254	2249	2238	2223	634
25°	1997	2013	2022	2007	1990	915
35°	1606	1628	1702	1712	1705	1006
45°	1244	1265	1306	1366	1373	960
55°	871	886	929	980	1009	777
65°	510	524	555	595	629	506
75°	205	216	231	242	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°	2389.0	2389.0	2389.0	2389.0	2389.0
2.5°	2395.4	2396.3	2390.8	2376.1	2367.0
5°	2386.2	2385.3	2376.1	2363.3	2355.9
7.5°	2359.6	2361.5	2358.7	2340.3	2330.2
10°	2333.9	2334.8	2327.5	2312.8	2300.9
12.5°	2300.9	2300.0	2289.9	2282.5	2263.3
15°	2248.6	2254.1	2248.6	2238.5	2222.9
17.5°	2198.1	2198.1	2201.8	2184.3	2172.4
20°	2141.2	2143.9	2143.9	2130.2	2116.4
22.5°	2075.1	2083.4	2086.1	2071.4	2054.9
25°	1997.1	2012.7	2021.9	2007.2	1989.8
27.5°	1902.6	1926.4	1954.0	1942.9	1923.7
30°	1797.0	1831.9	1877.8	1868.6	1854.8
32.5°	1697.0	1731.9	1795.2	1791.5	1784.2
35°	1606.1	1628.1	1702.5	1711.7	1705.2
37.5°	1519.8	1540.0	1609.8	1630.9	1625.4
40°	1429.0	1451.0	1506.1	1543.7	1545.5
42.5°	1339.0	1360.2	1405.1	1459.3	1459.3
45°	1243.6	1264.7	1306.0	1365.7	1373.0
47.5°	1150.0	1172.0	1212.4	1272.0	1284.0
50°	1058.2	1078.4	1118.8	1176.6	1195.0
52.5°	962.8	984.8	1024.2	1077.5	1104.1
55°	871.0	885.7	928.8	980.2	1008.6
57.5°	775.5	789.3	837.9	882.0	911.4
60°	683.7	701.2	738.8	783.8	817.7
62.5°	595.6	614.0	646.1	685.6	724.1
65°	510.3	524.1	555.3	594.7	628.7
67.5°	427.7	439.6	470.8	498.4	534.1
70°	344.2	359.8	382.7	409.3	432.3
72.5°	277.2	283.6	302.9	322.1	346.0
75°	204.7	215.7	231.3	242.3	256.1
77.5°	146.8	153.3	162.4	171.6	184.5
80°	98.2	101.0	109.2	111.1	121.1
82.5°	59.7	61.5	63.3	64.2	67.9
85°	32.1	32.1	32.1	30.3	30.3
87.5°	18.4	18.4	15.6	12.8	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)