

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: P557584

Luminaire Tested: **FUSL-12-4-LD4-2STD-40-UNV-82-84-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: P557584
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-40-UNV-82-84-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

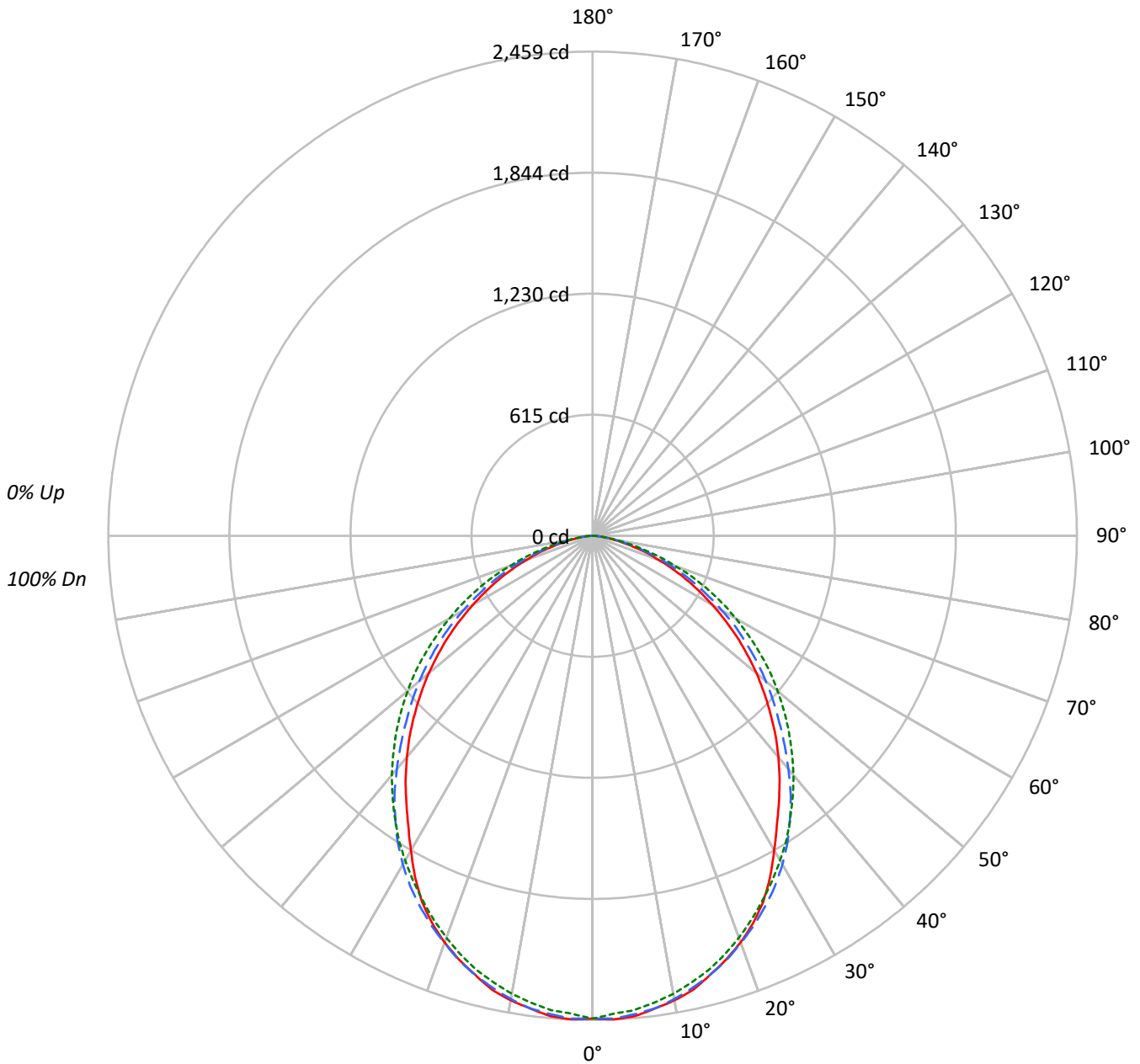
Lumens per Lamp: N/A
Luminaire Lumens: 5670.0 lumens
Efficiency: N/A
Efficacy: 85.1 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 66.6
Input Voltage (V): NR
Input Current (A_{in}): 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°	6599	6599	6599
5°	6616	6588	6532
10°	6546	6528	6453
15°	6430	6430	6356
20°	6294	6302	6221
25°	6086	6162	6064
30°	5731	5989	5916
35°	5416	5741	5750
40°	5153	5430	5573
45°	4858	5101	5363
50°	4547	4807	5135
55°	4194	4472	4857
60°	3777	4081	4518
65°	3335	3629	4109
70°	2780	3091	3491
75°	2184	2468	2732
80°	1562	1737	1926
85°	1019	1019	960



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	230.9	4.1
10°-20°	648.6	11.4
20°-30°	947.8	16.7
30°-40°	1075.9	19.0
40°-50°	1038.6	18.3
50°-60°	856.8	15.1
60°-70°	570.5	10.1
70°-80°	255.3	4.5
80°-90°	45.7	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°	1827.3	32.2
0°-40°	2903.1	51.2
0°-60°	4798.5	84.6
0°-90°	5670.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5670.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2452	2452	2452	2452	2452	
5°	2449	2448	2439	2426	2418	232
15°	2308	2314	2308	2298	2282	651
25°	2050	2066	2075	2060	2042	939
35°	1649	1671	1748	1757	1750	1033
45°	1276	1298	1340	1402	1409	985
55°	894	909	953	1006	1035	798
65°	524	538	570	610	645	519
75°	210	221	237	249	263	230
85°	33	33	33	31	31	44
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2452.1	2452.1	2452.1	2452.1	2452.1
2.5°	2458.7	2459.7	2454.0	2438.9	2429.5
5°	2449.3	2448.4	2438.9	2425.8	2418.2
7.5°	2422.0	2423.9	2421.0	2402.2	2391.8
10°	2395.6	2396.5	2389.0	2373.9	2361.7
12.5°	2361.7	2360.8	2350.4	2342.9	2323.1
15°	2308.0	2313.6	2308.0	2297.6	2281.6
17.5°	2256.2	2256.2	2260.0	2242.1	2229.8
20°	2197.8	2200.6	2200.6	2186.5	2172.3
22.5°	2130.0	2138.4	2141.3	2126.2	2109.2
25°	2049.9	2065.9	2075.3	2060.2	2042.3
27.5°	1952.8	1977.3	2005.6	1994.3	1974.5
30°	1844.5	1880.3	1927.4	1918.0	1903.9
32.5°	1741.8	1777.6	1842.6	1838.9	1831.3
35°	1648.6	1671.2	1747.5	1756.9	1750.3
37.5°	1560.0	1580.7	1652.3	1674.0	1668.4
40°	1466.8	1489.4	1545.9	1584.5	1586.4
42.5°	1374.4	1396.1	1442.3	1497.8	1497.8
45°	1276.5	1298.1	1340.5	1401.8	1409.3
47.5°	1180.4	1203.0	1244.4	1305.7	1317.9
50°	1086.2	1106.9	1148.3	1207.7	1226.5
52.5°	988.2	1010.8	1051.3	1106.0	1133.3
55°	894.0	909.1	953.3	1006.1	1035.3
57.5°	796.0	810.2	860.1	905.3	935.4
60°	701.8	719.7	758.3	804.5	839.4
62.5°	611.4	630.2	663.2	703.7	743.3
65°	523.8	537.9	569.9	610.4	645.3
67.5°	439.0	451.2	483.3	511.5	548.3
70°	353.3	369.3	392.8	420.1	443.7
72.5°	284.5	291.1	310.9	330.7	355.1
75°	210.1	221.4	237.4	248.7	262.8
77.5°	150.7	157.3	166.7	176.2	189.3
80°	100.8	103.6	112.1	114.0	124.3
82.5°	61.2	63.1	65.0	65.9	69.7
85°	33.0	33.0	33.0	31.1	31.1
87.5°	18.8	18.8	16.0	13.2	9.4
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)