

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: P556952

Luminaire Tested: **FUSL-12-4-LD4-2HI-30-UNV-82-88-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: P556952
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-LD4-2HI-30-UNV-82-88-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

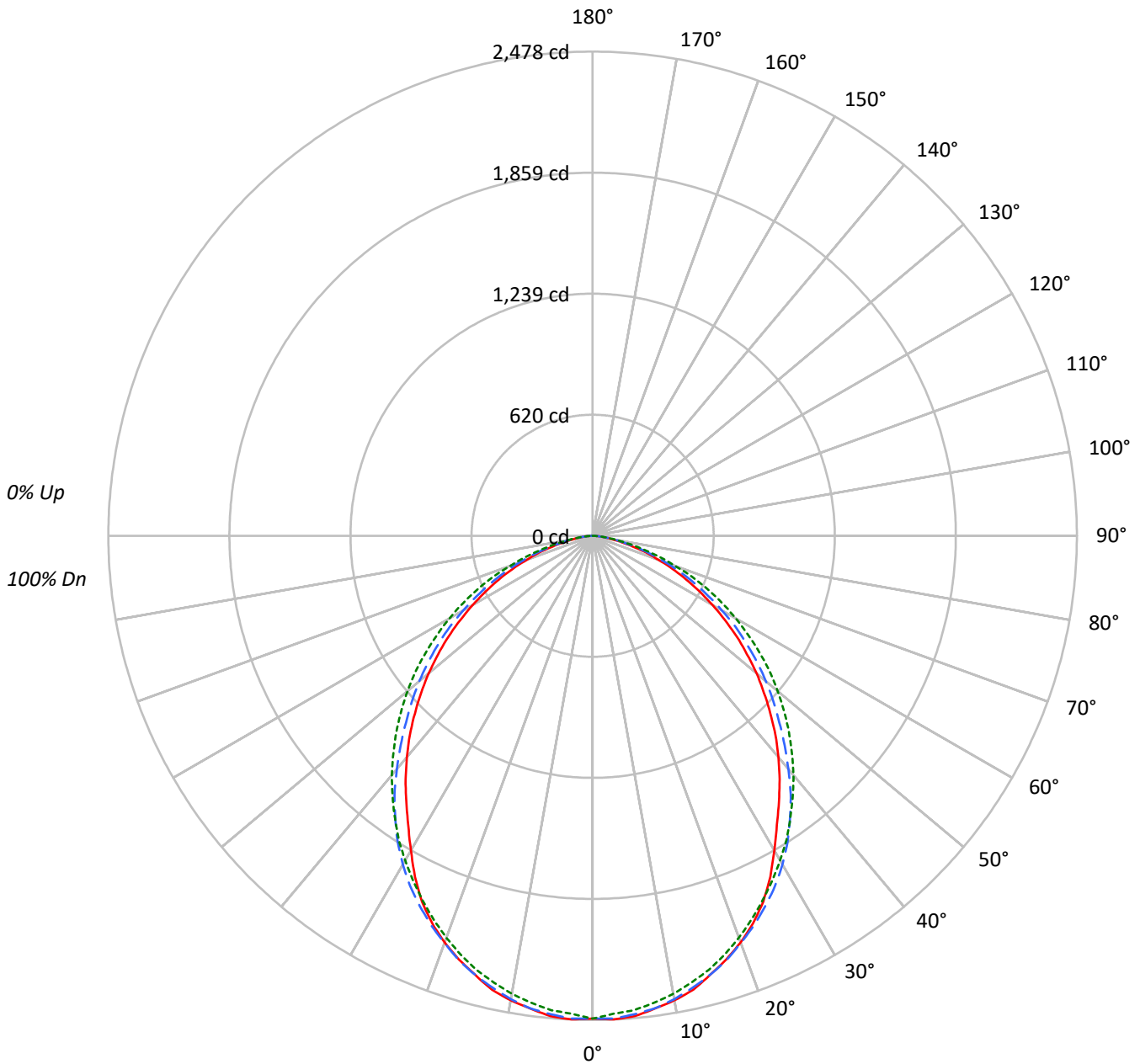
Lumens per Lamp: N/A
Luminaire Lumens: 5714.0 lumens
Efficiency: N/A
Efficacy: 66.1 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 86.4
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°	6650	6650	6650
5°	6668	6639	6583
10°	6597	6579	6503
15°	6480	6480	6406
20°	6342	6351	6269
25°	6134	6210	6111
30°	5776	6036	5962
35°	5458	5785	5795
40°	5192	5473	5616
45°	4896	5141	5405
50°	4582	4845	5175
55°	4227	4507	4895
60°	3807	4113	4553
65°	3361	3657	4141
70°	2801	3115	3518
75°	2201	2487	2754
80°	1574	1751	1942
85°	1025	1025	966



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	232.7	4.1
10°-20°	653.6	11.4
20°-30°	955.2	16.7
30°-40°	1084.2	19.0
40°-50°	1046.6	18.3
50°-60°	863.4	15.1
60°-70°	575.0	10.1
70°-80°	257.3	4.5
80°-90°	46.0	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°	1841.5	32.2
0°-40°	2925.7	51.2
0°-60°	4835.7	84.6
0°-90°	5714.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5714.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2471	2471	2471	2471	2471	
5°	2468	2467	2458	2445	2437	234
15°	2326	2332	2326	2316	2299	656
25°	2066	2082	2091	2076	2058	946
35°	1661	1684	1761	1770	1764	1041
45°	1286	1308	1351	1413	1420	993
55°	901	916	961	1014	1043	804
65°	528	542	574	615	650	523
75°	212	223	239	251	265	231
85°	33	33	33	31	31	45
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2471.2	2471.2	2471.2	2471.2	2471.2
2.5°	2477.8	2478.8	2473.1	2457.9	2448.4
5°	2468.3	2467.4	2457.9	2444.6	2437.0
7.5°	2440.8	2442.7	2439.8	2420.8	2410.4
10°	2414.2	2415.1	2407.6	2392.4	2380.0
12.5°	2380.0	2379.1	2368.6	2361.0	2341.1
15°	2325.9	2331.6	2325.9	2315.5	2299.3
17.5°	2273.7	2273.7	2277.5	2259.5	2247.1
20°	2214.8	2217.7	2217.7	2203.4	2189.2
22.5°	2146.5	2155.0	2157.9	2142.7	2125.6
25°	2065.8	2081.9	2091.4	2076.2	2058.2
27.5°	1968.0	1992.7	2021.2	2009.8	1989.8
30°	1858.8	1894.9	1942.4	1932.9	1918.6
32.5°	1755.3	1791.4	1856.9	1853.1	1845.5
35°	1661.4	1684.1	1761.0	1770.5	1763.9
37.5°	1572.1	1593.0	1665.2	1687.0	1681.3
40°	1478.1	1500.9	1557.9	1596.8	1598.7
42.5°	1385.1	1406.9	1453.5	1509.5	1509.5
45°	1286.4	1308.2	1350.9	1412.6	1420.2
47.5°	1189.5	1212.3	1254.1	1315.8	1328.1
50°	1094.6	1115.5	1157.3	1217.1	1236.1
52.5°	995.9	1018.7	1059.5	1114.5	1142.1
55°	900.9	916.1	960.7	1013.9	1043.3
57.5°	802.2	816.4	866.8	912.3	942.7
60°	707.3	725.3	764.2	810.7	845.9
62.5°	616.1	635.1	668.3	709.2	749.0
65°	527.8	542.1	574.4	615.2	650.3
67.5°	442.4	454.7	487.0	515.5	552.5
70°	356.0	372.1	395.9	423.4	447.1
72.5°	286.7	293.3	313.3	333.2	357.9
75°	211.7	223.1	239.2	250.6	264.9
77.5°	151.9	158.5	168.0	177.5	190.8
80°	101.6	104.4	113.0	114.9	125.3
82.5°	61.7	63.6	65.5	66.5	70.3
85°	33.2	33.2	33.2	31.3	31.3
87.5°	19.0	19.0	16.1	13.3	9.5
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)