

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: P557568

Luminaire Tested: **FUSL-12-4-LD4-2STD-40-UNV-81-84-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: P557568
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-81-84-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 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

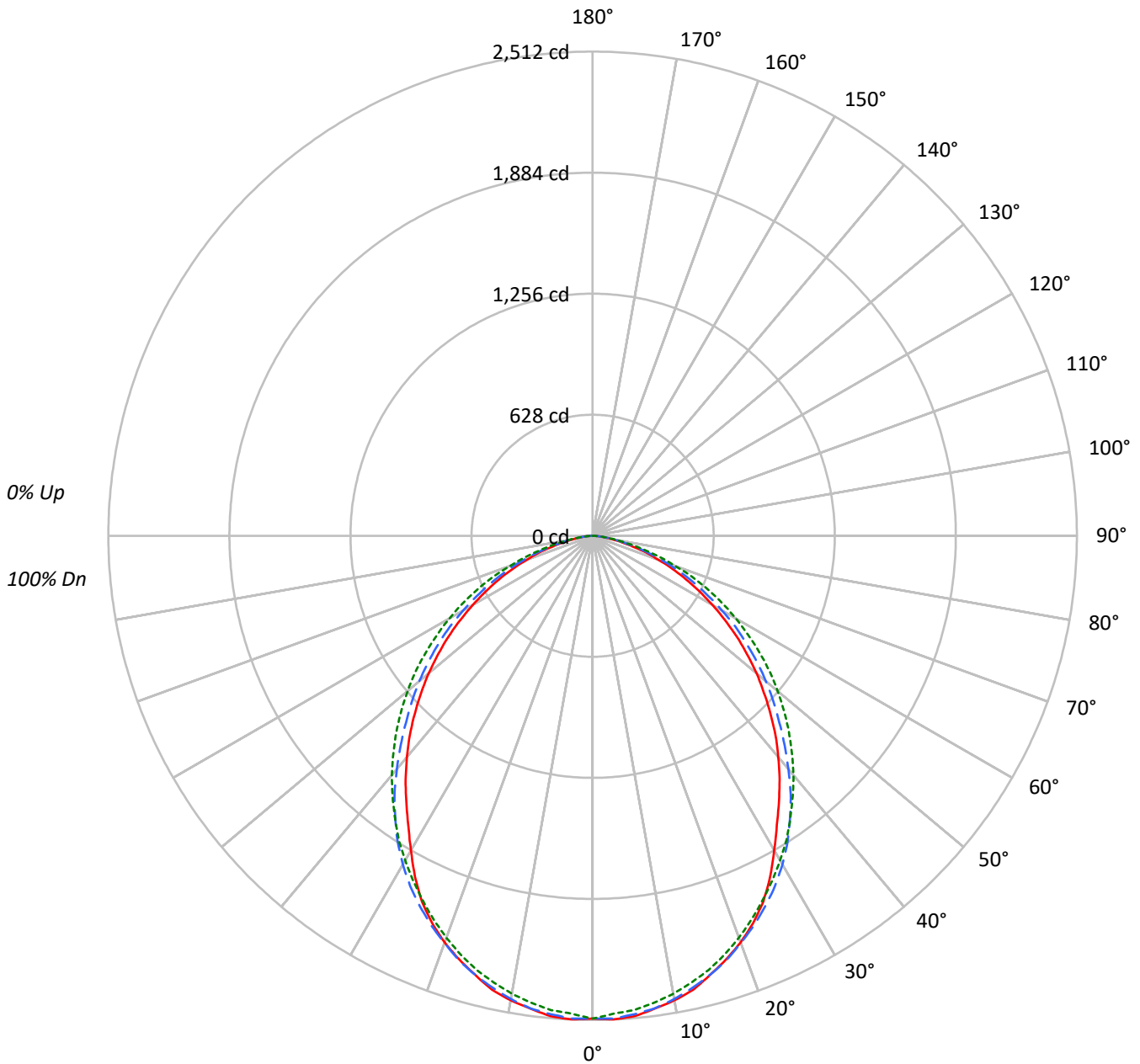
Lumens per Lamp: N/A
Luminaire Lumens: 5792.0 lumens
Efficiency: N/A
Efficacy: 87.0 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	6741	6741	6741
5°	6759	6730	6673
10°	6687	6668	6592
15°	6568	6568	6493
20°	6429	6438	6355
25°	6217	6295	6195
30°	5855	6118	6043
35°	5532	5864	5874
40°	5263	5547	5693
45°	4962	5211	5479
50°	4645	4911	5245
55°	4284	4569	4962
60°	3858	4169	4614
65°	3407	3707	4197
70°	2840	3157	3566
75°	2231	2521	2792
80°	1596	1774	1968
85°	1041	1041	982



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	235.8	4.1
10°-20°	662.6	11.4
20°-30°	968.2	16.7
30°-40°	1099.0	19.0
40°-50°	1060.9	18.3
50°-60°	875.2	15.1
60°-70°	582.8	10.1
70°-80°	260.8	4.5
80°-90°	46.7	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°	1866.6	32.2
0°-40°	2965.6	51.2
0°-60°	4901.8	84.6
0°-90°	5792.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5792.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2505	2505	2505	2505	2505	
5°	2502	2501	2491	2478	2470	237
15°	2358	2363	2358	2347	2331	665
25°	2094	2110	2120	2105	2086	959
35°	1684	1707	1785	1795	1788	1055
45°	1304	1326	1369	1432	1440	1006
55°	913	929	974	1028	1058	815
65°	535	550	582	624	659	530
75°	215	226	242	254	268	235
85°	34	34	34	32	32	45
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2504.9	2504.9	2504.9	2504.9	2504.9
2.5°	2511.6	2512.6	2506.8	2491.4	2481.8
5°	2502.0	2501.0	2491.4	2477.9	2470.2
7.5°	2474.1	2476.0	2473.1	2453.9	2443.3
10°	2447.2	2448.1	2440.4	2425.0	2412.5
12.5°	2412.5	2411.5	2401.0	2393.3	2373.1
15°	2357.7	2363.4	2357.7	2347.1	2330.7
17.5°	2304.7	2304.7	2308.6	2290.3	2277.8
20°	2245.1	2248.0	2248.0	2233.5	2219.1
22.5°	2175.8	2184.4	2187.3	2171.9	2154.6
25°	2094.0	2110.3	2120.0	2104.6	2086.3
27.5°	1994.9	2019.9	2048.8	2037.2	2017.0
30°	1884.2	1920.8	1968.9	1959.3	1944.8
32.5°	1779.3	1815.9	1882.3	1878.4	1870.7
35°	1684.0	1707.1	1785.1	1794.7	1788.0
37.5°	1593.6	1614.8	1687.9	1710.0	1704.2
40°	1498.3	1521.4	1579.1	1618.6	1620.5
42.5°	1404.0	1426.1	1473.3	1530.1	1530.1
45°	1303.9	1326.1	1369.4	1431.9	1439.6
47.5°	1205.8	1228.9	1271.2	1333.8	1346.3
50°	1109.5	1130.7	1173.1	1233.7	1252.9
52.5°	1009.5	1032.6	1073.9	1129.8	1157.7
55°	913.2	928.6	973.9	1027.7	1057.6
57.5°	813.2	827.6	878.6	924.8	955.6
60°	716.9	735.2	774.7	821.8	857.4
62.5°	624.5	643.8	677.5	718.8	759.3
65°	535.0	549.5	582.2	623.6	659.2
67.5°	448.4	460.9	493.7	522.5	560.1
70°	360.9	377.2	401.3	429.2	453.2
72.5°	290.6	297.4	317.6	337.8	362.8
75°	214.6	226.1	242.5	254.0	268.5
77.5°	154.0	160.7	170.3	180.0	193.4
80°	103.0	105.9	114.5	116.4	127.0
82.5°	62.6	64.5	66.4	67.4	71.2
85°	33.7	33.7	33.7	31.8	31.8
87.5°	19.2	19.2	16.4	13.5	9.6
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)