

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: P556306

Luminaire Tested: **FUSL-12-4-LD4-1HI-40-UNV-82-85-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: P556306
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-LD4-1HI-40-UNV-82-85-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

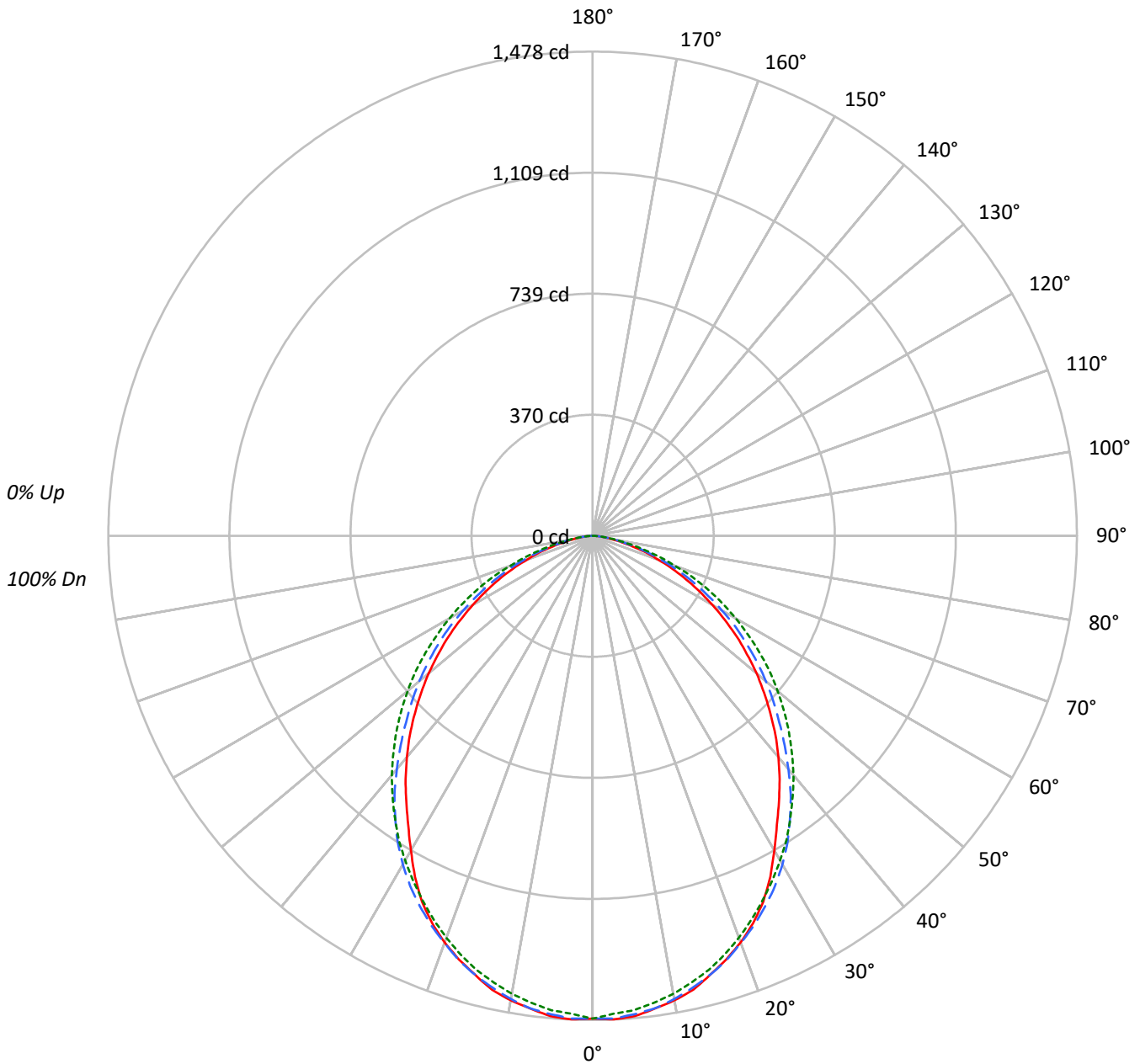
Lumens per Lamp: N/A
Luminaire Lumens: 3408.0 lumens
Efficiency: N/A
Efficacy: 78.9 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 43.2
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

TEST NUMBER: P556306

CATALOG NUMBER: FUSL-12-4-LD4-1HI-40-UNV-82-85-EDD-90

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°	3966	3966	3966
5°	3977	3960	3926
10°	3935	3924	3879
15°	3865	3865	3821
20°	3783	3788	3739
25°	3658	3704	3645
30°	3445	3600	3556
35°	3255	3450	3456
40°	3097	3264	3349
45°	2920	3066	3224
50°	2733	2889	3086
55°	2521	2688	2920
60°	2270	2453	2715
65°	2004	2181	2470
70°	1670	1858	2098
75°	1313	1484	1643
80°	939	1044	1158
85°	611	611	577



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	138.8	4.1
10°-20°	389.8	11.4
20°-30°	569.7	16.7
30°-40°	646.7	19.0
40°-50°	624.3	18.3
50°-60°	515.0	15.1
60°-70°	342.9	10.1
70°-80°	153.5	4.5
80°-90°	27.4	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°	1098.3	32.2
0°-40°	1745.0	51.2
0°-60°	2884.2	84.6
0°-90°	3408.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3408.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1474	1474	1474	1474	1474	
5°	1472	1472	1466	1458	1454	139
15°	1387	1391	1387	1381	1371	391
25°	1232	1242	1247	1238	1228	564
35°	991	1004	1050	1056	1052	621
45°	767	780	806	842	847	592
55°	537	546	573	605	622	480
65°	315	323	343	367	388	312
75°	126	133	143	150	158	138
85°	20	20	20	19	19	27
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1473.9	1473.9	1473.9	1473.9	1473.9
2.5°	1477.8	1478.4	1475.0	1465.9	1460.3
5°	1472.2	1471.6	1465.9	1458.0	1453.5
7.5°	1455.8	1456.9	1455.2	1443.9	1437.6
10°	1439.9	1440.5	1435.9	1426.9	1419.5
12.5°	1419.5	1418.9	1412.7	1408.2	1396.3
15°	1387.2	1390.6	1387.2	1381.0	1371.4
17.5°	1356.1	1356.1	1358.4	1347.6	1340.2
20°	1321.0	1322.7	1322.7	1314.2	1305.7
22.5°	1280.2	1285.3	1287.0	1278.0	1267.8
25°	1232.1	1241.7	1247.4	1238.3	1227.6
27.5°	1173.8	1188.5	1205.5	1198.7	1186.8
30°	1108.7	1130.2	1158.5	1152.8	1144.3
32.5°	1046.9	1068.5	1107.5	1105.3	1100.7
35°	990.9	1004.5	1050.3	1056.0	1052.0
37.5°	937.7	950.1	993.2	1006.2	1002.8
40°	881.6	895.2	929.2	952.4	953.5
42.5°	826.1	839.1	866.9	900.3	900.3
45°	767.2	780.3	805.7	842.5	847.1
47.5°	709.5	723.1	748.0	784.8	792.1
50°	652.9	665.3	690.2	725.9	737.2
52.5°	594.0	607.6	631.9	664.7	681.2
55°	537.3	546.4	573.0	604.7	622.3
57.5°	478.5	486.9	517.0	544.1	562.3
60°	421.8	432.6	455.8	483.6	504.5
62.5°	367.5	378.8	398.6	423.0	446.7
65°	314.8	323.3	342.6	366.9	387.9
67.5°	263.9	271.2	290.5	307.5	329.5
70°	212.3	222.0	236.1	252.5	266.7
72.5°	171.0	175.0	186.9	198.7	213.5
75°	126.3	133.1	142.7	149.5	158.0
77.5°	90.6	94.6	100.2	105.9	113.8
80°	60.6	62.3	67.4	68.5	74.7
82.5°	36.8	37.9	39.1	39.6	41.9
85°	19.8	19.8	19.8	18.7	18.7
87.5°	11.3	11.3	9.6	7.9	5.7
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)