

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: P557840

Luminaire Tested: **FUSL-12-4-LD4-3HI-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: P557840
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-LD4-3HI-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

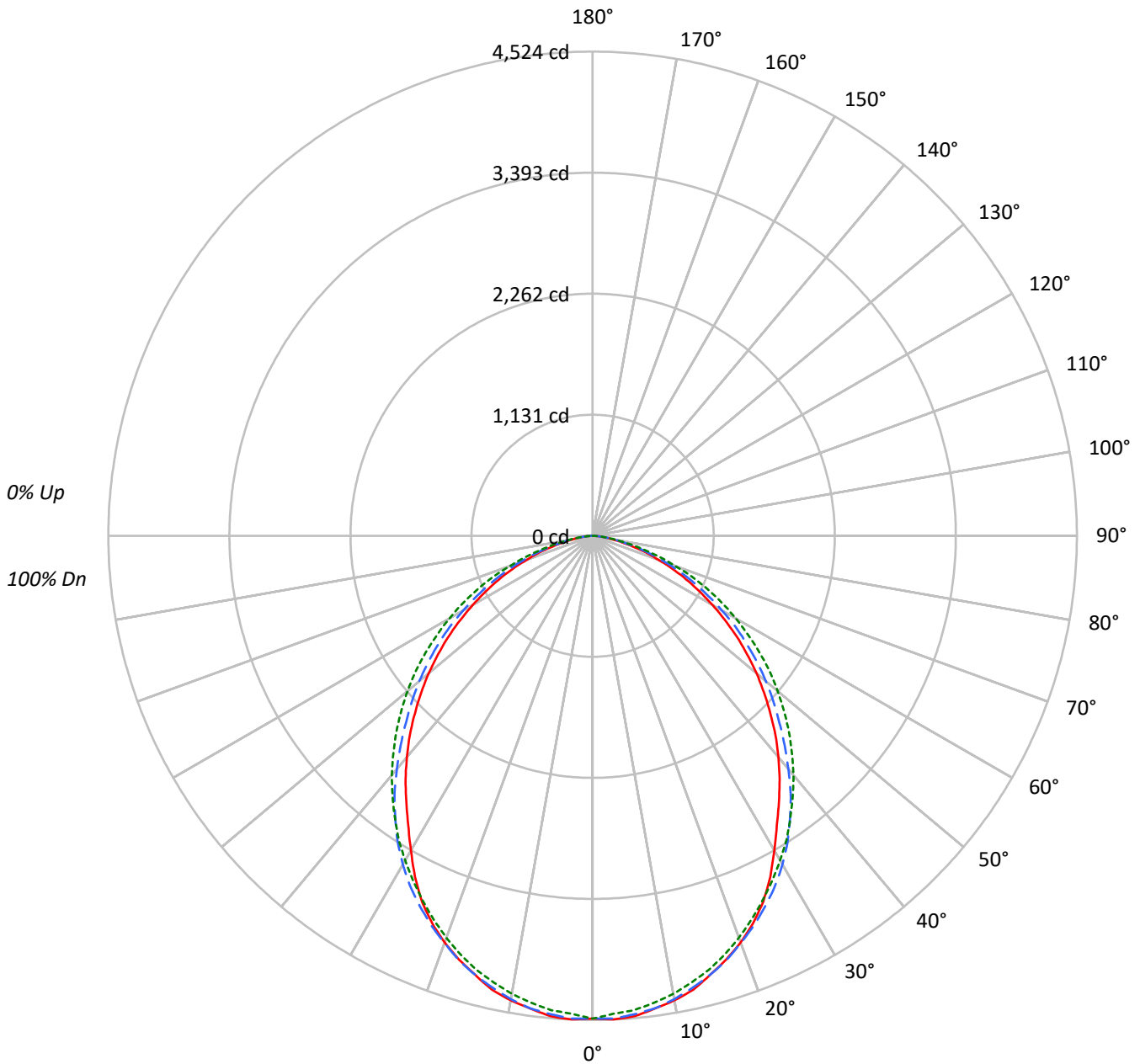
Lumens per Lamp: N/A
Luminaire Lumens: 10432.0 lumens
Efficiency: N/A
Efficacy: 80.5 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 129.6
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°	12141	12141	12141
5°	12173	12121	12018
10°	12044	12010	11873
15°	11830	11830	11695
20°	11580	11594	11446
25°	11198	11337	11157
30°	10545	11019	10884
35°	9964	10562	10579
40°	9480	9991	10253
45°	8937	9386	9868
50°	8366	8845	9447
55°	7717	8229	8937
60°	6949	7509	8311
65°	6136	6677	7560
70°	5114	5687	6423
75°	4018	4541	5028
80°	2875	3197	3546
85°	1874	1874	1766



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	424.8	4.1
10°-20°	1193.3	11.4
20°-30°	1743.8	16.7
30°-40°	1979.4	19.0
40°-50°	1910.8	18.3
50°-60°	1576.3	15.1
60°-70°	1049.7	10.1
70°-80°	469.7	4.5
80°-90°	84.1	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°	3361.9	32.2
0°-40°	5341.4	51.2
0°-60°	8828.5	84.6
0°-90°	10432.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10432.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4512	4512	4512	4512	4512	
5°	4506	4505	4487	4463	4449	427
15°	4246	4257	4246	4227	4198	1197
25°	3772	3801	3818	3791	3758	1727
35°	3033	3075	3215	3232	3220	1900
45°	2348	2388	2466	2579	2593	1812
55°	1645	1673	1754	1851	1905	1468
65°	964	990	1049	1123	1187	956
75°	386	407	437	458	484	423
85°	61	61	61	57	57	82
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4511.6	4511.6	4511.6	4511.6	4511.6
2.5°	4523.7	4525.4	4515.0	4487.3	4470.0
5°	4506.4	4504.6	4487.3	4463.0	4449.2
7.5°	4456.1	4459.6	4454.4	4419.7	4400.6
10°	4407.6	4409.3	4395.4	4367.7	4345.2
12.5°	4345.2	4343.4	4324.4	4310.5	4274.1
15°	4246.4	4256.8	4246.4	4227.3	4197.9
17.5°	4151.1	4151.1	4158.0	4125.1	4102.5
20°	4043.6	4048.8	4048.8	4022.8	3996.8
22.5°	3918.8	3934.4	3939.6	3911.9	3880.7
25°	3771.5	3801.0	3818.3	3790.6	3757.6
27.5°	3593.0	3638.0	3690.0	3669.2	3632.8
30°	3393.6	3459.5	3546.2	3528.8	3502.8
32.5°	3204.7	3270.6	3390.2	3383.2	3369.4
35°	3033.1	3074.7	3215.1	3232.5	3220.3
37.5°	2870.2	2908.3	3040.1	3079.9	3069.5
40°	2698.6	2740.2	2844.2	2915.3	2918.7
42.5°	2528.8	2568.6	2653.6	2755.8	2755.8
45°	2348.5	2388.4	2466.4	2579.0	2592.9
47.5°	2171.7	2213.3	2289.6	2402.2	2424.8
50°	1998.4	2036.5	2112.8	2222.0	2256.7
52.5°	1818.1	1859.7	1934.3	2034.8	2085.1
55°	1644.8	1672.6	1754.0	1851.1	1904.8
57.5°	1464.6	1490.6	1582.4	1665.6	1721.1
60°	1291.2	1324.2	1395.2	1480.2	1544.3
62.5°	1124.9	1159.5	1220.2	1294.7	1367.5
65°	963.7	989.7	1048.6	1123.1	1187.3
67.5°	807.7	830.2	889.1	941.1	1008.7
70°	650.0	679.4	722.8	773.0	816.3
72.5°	523.4	535.6	572.0	608.4	653.4
75°	386.5	407.3	436.8	457.6	483.6
77.5°	277.3	289.4	306.8	324.1	348.4
80°	185.5	190.7	206.3	209.7	228.8
82.5°	112.7	116.1	119.6	121.3	128.3
85°	60.7	60.7	60.7	57.2	57.2
87.5°	34.7	34.7	29.5	24.3	17.3
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)