

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: P558341

Luminaire Tested: **FUSL-12-4-LD4-3STD-40-UNV-81-86-EDD**

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: P558341
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-LD4-3STD-40-UNV-81-86-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

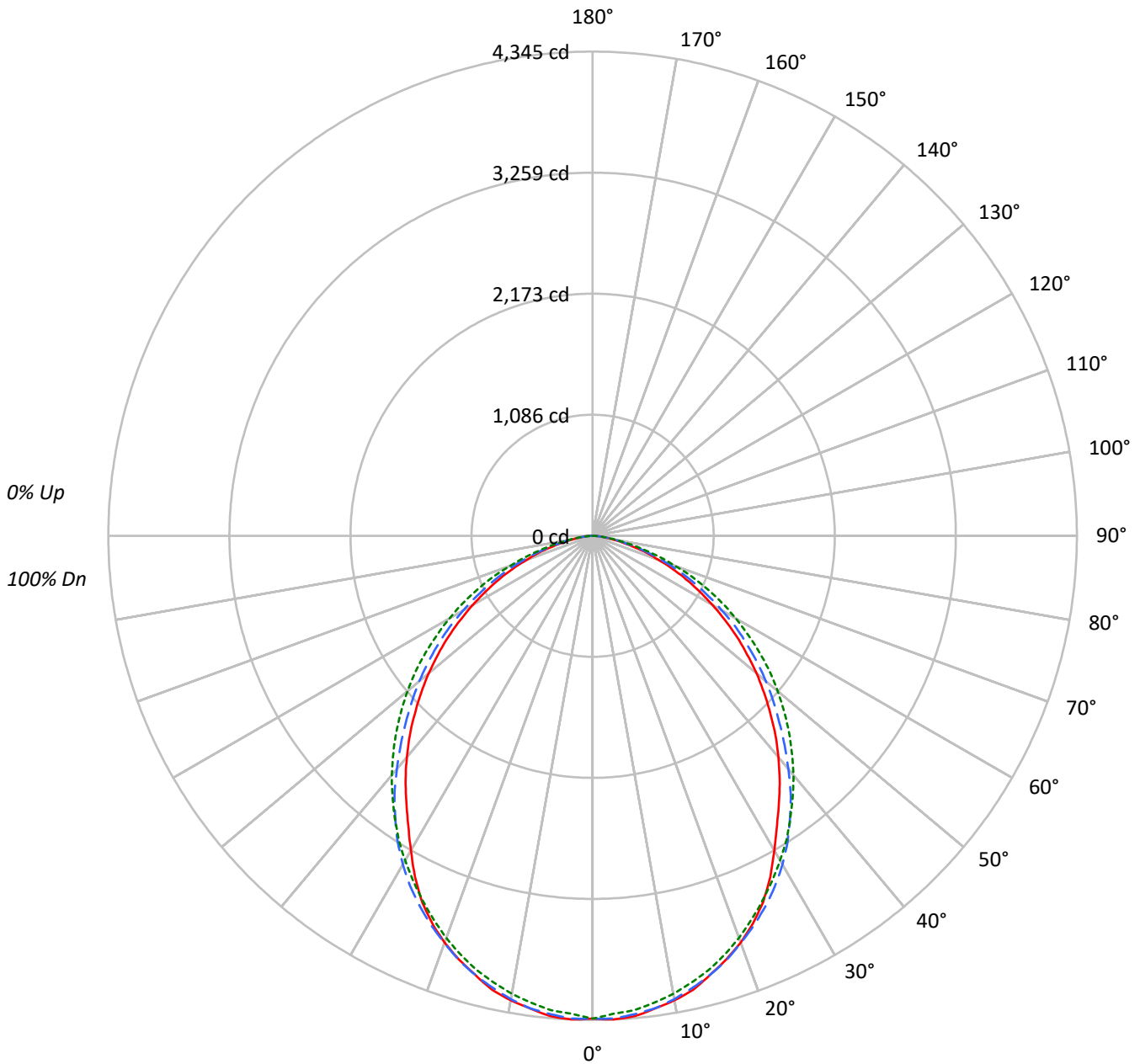
Lumens per Lamp: N/A
Luminaire Lumens: 10020.0 lumens
Efficiency: N/A
Efficacy: 100.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 99.9
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°	11661	11661	11661
5°	11692	11643	11544
10°	11568	11536	11404
15°	11363	11363	11233
20°	11122	11137	10994
25°	10756	10889	10716
30°	10128	10584	10454
35°	9570	10145	10161
40°	9105	9597	9848
45°	8585	9016	9478
50°	8036	8496	9074
55°	7412	7904	8584
60°	6675	7212	7983
65°	5894	6413	7261
70°	4912	5462	6169
75°	3859	4362	4829
80°	2760	3070	3405
85°	1800	1800	1695



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	408.0	4.1
10°-20°	1146.2	11.4
20°-30°	1675.0	16.7
30°-40°	1901.3	19.0
40°-50°	1835.4	18.3
50°-60°	1514.1	15.1
60°-70°	1008.2	10.1
70°-80°	451.2	4.5
80°-90°	80.7	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°	3229.2	32.2
0°-40°	5130.4	51.2
0°-60°	8479.9	84.6
0°-90°	10020.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10020.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4333	4333	4333	4333	4333	
5°	4328	4327	4310	4287	4274	410
15°	4079	4089	4079	4060	4032	1150
25°	3622	3651	3668	3641	3609	1659
35°	2913	2953	3088	3105	3093	1825
45°	2256	2294	2369	2477	2490	1740
55°	1580	1606	1685	1778	1830	1410
65°	926	951	1007	1079	1140	918
75°	371	391	420	440	464	406
85°	58	58	58	55	55	79
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4333.4	4333.4	4333.4	4333.4	4333.4
2.5°	4345.0	4346.7	4336.7	4310.1	4293.4
5°	4328.4	4326.7	4310.1	4286.8	4273.5
7.5°	4280.1	4283.4	4278.5	4245.2	4226.8
10°	4233.5	4235.2	4221.9	4195.2	4173.6
12.5°	4173.6	4171.9	4153.6	4140.3	4105.3
15°	4078.7	4088.7	4078.7	4060.4	4032.1
17.5°	3987.1	3987.1	3993.8	3962.1	3940.5
20°	3883.9	3888.9	3888.9	3863.9	3839.0
22.5°	3764.0	3779.0	3784.0	3757.4	3727.4
25°	3622.5	3650.8	3667.5	3640.8	3609.2
27.5°	3451.1	3494.3	3544.3	3524.3	3489.4
30°	3259.6	3322.9	3406.1	3389.5	3364.5
32.5°	3078.2	3141.4	3256.3	3249.6	3236.3
35°	2913.3	2953.3	3088.1	3104.8	3093.1
37.5°	2756.9	2793.5	2920.0	2958.3	2948.3
40°	2592.0	2632.0	2731.9	2800.1	2803.5
42.5°	2428.9	2467.2	2548.8	2647.0	2647.0
45°	2255.8	2294.1	2369.0	2477.2	2490.5
47.5°	2086.0	2125.9	2199.2	2307.4	2329.0
50°	1919.5	1956.1	2029.4	2134.2	2167.5
52.5°	1746.3	1786.3	1857.9	1954.4	2002.7
55°	1579.9	1606.5	1684.7	1778.0	1829.6
57.5°	1406.7	1431.7	1519.9	1599.8	1653.1
60°	1240.3	1271.9	1340.1	1421.7	1483.3
62.5°	1080.4	1113.7	1172.0	1243.6	1313.5
65°	925.6	950.6	1007.2	1078.8	1140.4
67.5°	775.8	797.4	854.0	904.0	968.9
70°	624.3	652.6	694.2	742.5	784.1
72.5°	502.8	514.4	549.4	584.3	627.6
75°	371.2	391.2	419.5	439.5	464.5
77.5°	266.4	278.0	294.7	311.3	334.6
80°	178.1	183.1	198.1	201.4	219.7
82.5°	108.2	111.5	114.9	116.5	123.2
85°	58.3	58.3	58.3	54.9	54.9
87.5°	33.3	33.3	28.3	23.3	16.6
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)