

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: P557768

Luminaire Tested: **FUSL-12-4-LD4-3HI-35-UNV-81-88-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: P557768
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-35-UNV-81-88-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

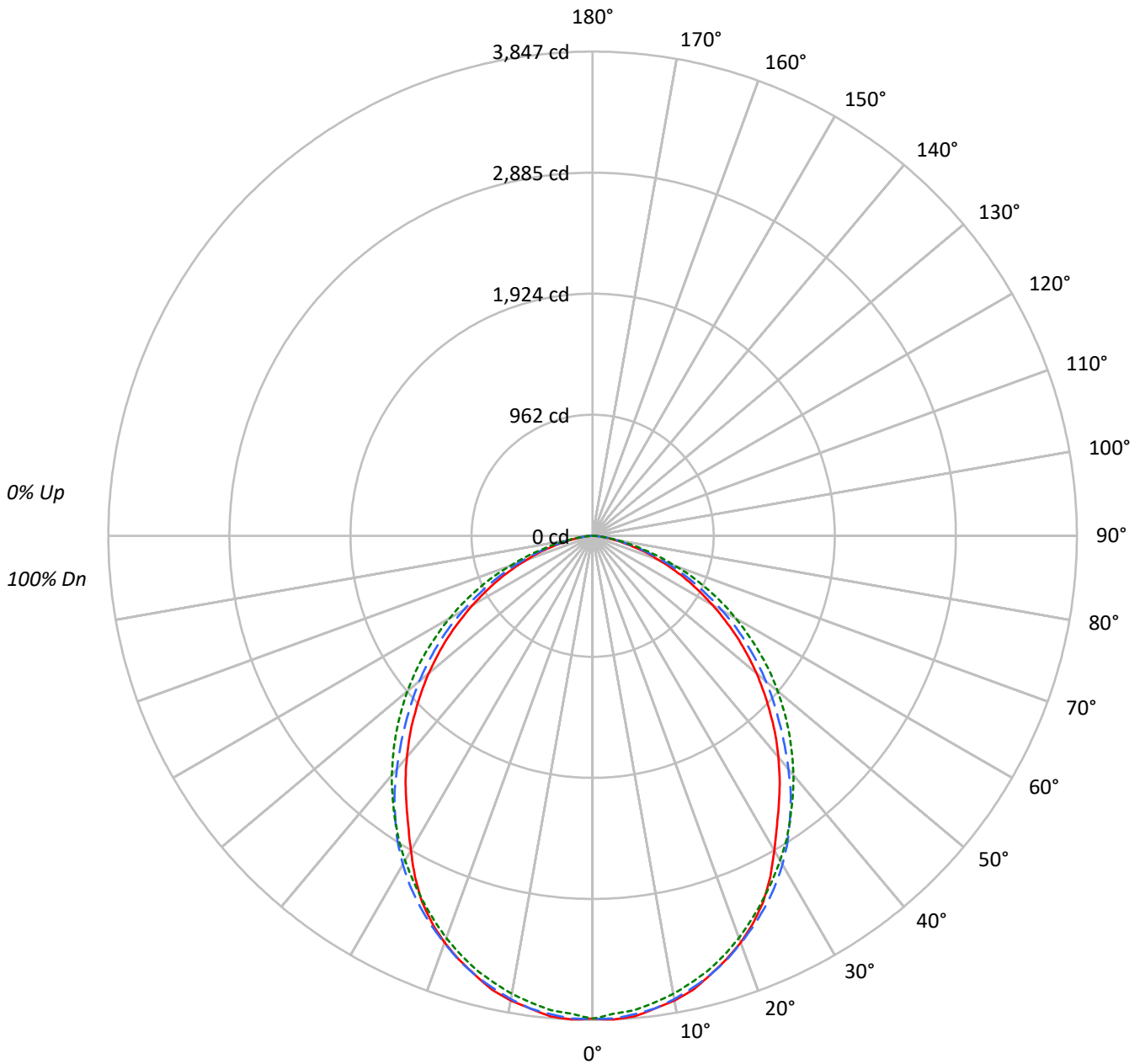
Lumens per Lamp: N/A
Luminaire Lumens: 8872.0 lumens
Efficiency: N/A
Efficacy: 68.5 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 129.6
Input Voltage (V): NR
Input Current (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°	10325	10325	10325
5°	10353	10309	10221
10°	10243	10215	10098
15°	10061	10061	9946
20°	9848	9861	9734
25°	9524	9642	9489
30°	8968	9371	9257
35°	8474	8982	8997
40°	8062	8497	8720
45°	7601	7983	8392
50°	7115	7522	8035
55°	6563	6998	7600
60°	5910	6386	7069
65°	5219	5678	6429
70°	4349	4836	5463
75°	3418	3863	4276
80°	2444	2718	3016
85°	1593	1593	1501



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	361.3	4.1
10°-20°	1014.9	11.4
20°-30°	1483.1	16.7
30°-40°	1683.4	19.0
40°-50°	1625.1	18.3
50°-60°	1340.6	15.1
60°-70°	892.7	10.1
70°-80°	399.5	4.5
80°-90°	71.5	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°	2859.2	32.2
0°-40°	4542.6	51.2
0°-60°	7508.3	84.6
0°-90°	8872.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8872.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3837	3837	3837	3837	3837	
5°	3832	3831	3816	3796	3784	363
15°	3611	3620	3611	3595	3570	1018
25°	3208	3233	3247	3224	3196	1469
35°	2580	2615	2734	2749	2739	1616
45°	1997	2031	2098	2193	2205	1541
55°	1399	1422	1492	1574	1620	1249
65°	820	842	892	955	1010	813
75°	329	346	372	389	411	359
85°	52	52	52	49	49	70
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3836.9	3836.9	3836.9	3836.9	3836.9
2.5°	3847.2	3848.7	3839.9	3816.3	3801.5
5°	3832.5	3831.0	3816.3	3795.6	3783.8
7.5°	3789.7	3792.7	3788.3	3758.8	3742.6
10°	3748.5	3749.9	3738.2	3714.6	3695.4
12.5°	3695.4	3693.9	3677.7	3665.9	3635.0
15°	3611.4	3620.2	3611.4	3595.2	3570.1
17.5°	3530.3	3530.3	3536.2	3508.2	3489.0
20°	3438.9	3443.3	3443.3	3421.2	3399.1
22.5°	3332.8	3346.1	3350.5	3326.9	3300.4
25°	3207.5	3232.6	3247.3	3223.7	3195.7
27.5°	3055.7	3094.0	3138.2	3120.5	3089.6
30°	2886.2	2942.2	3015.9	3001.1	2979.0
32.5°	2725.5	2781.5	2883.2	2877.3	2865.5
35°	2579.6	2614.9	2734.3	2749.1	2738.8
37.5°	2441.0	2473.4	2585.5	2619.4	2610.5
40°	2295.1	2330.4	2418.9	2479.3	2482.3
42.5°	2150.6	2184.5	2256.7	2343.7	2343.7
45°	1997.3	2031.2	2097.6	2193.4	2205.2
47.5°	1847.0	1882.3	1947.2	2043.0	2062.2
50°	1699.6	1732.0	1796.8	1889.7	1919.2
52.5°	1546.3	1581.6	1645.0	1730.5	1773.3
55°	1398.9	1422.4	1491.7	1574.3	1620.0
57.5°	1245.6	1267.7	1345.8	1416.5	1463.7
60°	1098.2	1126.2	1186.6	1258.8	1313.4
62.5°	956.6	986.1	1037.7	1101.1	1163.0
65°	819.6	841.7	891.8	955.2	1009.7
67.5°	686.9	706.1	756.2	800.4	857.9
70°	552.8	577.8	614.7	657.4	694.3
72.5°	445.2	455.5	486.4	517.4	555.7
75°	328.7	346.4	371.5	389.1	411.3
77.5°	235.8	246.2	260.9	275.6	296.3
80°	157.7	162.1	175.4	178.4	194.6
82.5°	95.8	98.8	101.7	103.2	109.1
85°	51.6	51.6	51.6	48.6	48.6
87.5°	29.5	29.5	25.1	20.6	14.7
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)