

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: P556824

Luminaire Tested: **FUSL-12-4-LD4-1STD-40-UNV-82-88-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: P556824
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-LD4-1STD-40-UNV-82-88-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

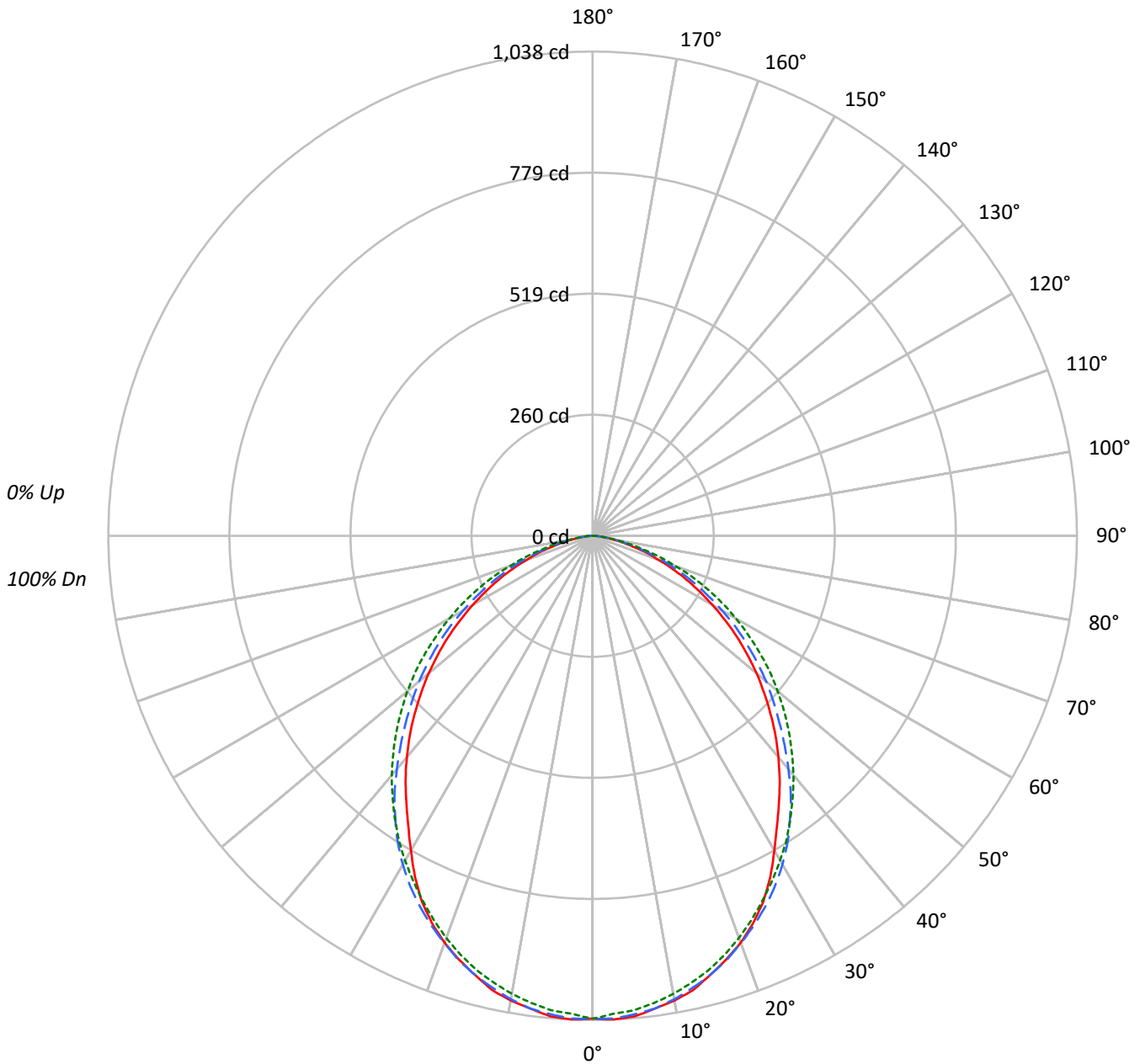
Lumens per Lamp: N/A
Luminaire Lumens: 2394.0 lumens
Efficiency: N/A
Efficacy: 71.9 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
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°	2786	2786	2786
5°	2793	2782	2758
10°	2764	2756	2725
15°	2715	2715	2684
20°	2657	2661	2627
25°	2570	2602	2560
30°	2420	2529	2498
35°	2287	2424	2428
40°	2175	2293	2353
45°	2051	2154	2264
50°	1920	2030	2168
55°	1771	1888	2051
60°	1595	1723	1907
65°	1408	1532	1735
70°	1174	1305	1474
75°	922	1042	1154
80°	660	733	814
85°	429	429	404



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	97.5	4.1
10°-20°	273.9	11.4
20°-30°	400.2	16.7
30°-40°	454.3	19.0
40°-50°	438.5	18.3
50°-60°	361.7	15.1
60°-70°	240.9	10.1
70°-80°	107.8	4.5
80°-90°	19.3	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°	771.5	32.2
0°-40°	1225.8	51.2
0°-60°	2026.0	84.6
0°-90°	2394.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2394.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1035	1035	1035	1035	1035	
5°	1034	1034	1030	1024	1021	98
15°	974	977	974	970	963	275
25°	866	872	876	870	862	396
35°	696	706	738	742	739	436
45°	539	548	566	592	595	416
55°	378	384	402	425	437	337
65°	221	227	241	258	272	219
75°	89	94	100	105	111	97
85°	14	14	14	13	13	19
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1035.3	1035.3	1035.3	1035.3	1035.3
2.5°	1038.1	1038.5	1036.1	1029.8	1025.8
5°	1034.1	1033.8	1029.8	1024.2	1021.0
7.5°	1022.6	1023.4	1022.2	1014.3	1009.9
10°	1011.5	1011.9	1008.7	1002.3	997.2
12.5°	997.2	996.8	992.4	989.2	980.9
15°	974.5	976.9	974.5	970.1	963.4
17.5°	952.6	952.6	954.2	946.6	941.5
20°	928.0	929.1	929.1	923.2	917.2
22.5°	899.3	902.9	904.1	897.7	890.6
25°	865.5	872.3	876.2	869.9	862.3
27.5°	824.5	834.9	846.8	842.0	833.7
30°	778.8	793.9	813.8	809.8	803.9
32.5°	735.4	750.6	778.0	776.4	773.2
35°	696.1	705.6	737.8	741.8	739.0
37.5°	658.7	667.4	697.7	706.8	704.4
40°	619.3	628.8	652.7	669.0	669.8
42.5°	580.3	589.5	609.0	632.4	632.4
45°	539.0	548.1	566.0	591.9	595.0
47.5°	498.4	507.9	525.4	551.3	556.5
50°	458.6	467.4	484.9	509.9	517.9
52.5°	417.2	426.8	443.9	467.0	478.5
55°	377.5	383.8	402.5	424.8	437.1
57.5°	336.1	342.1	363.1	382.2	395.0
60°	296.3	303.9	320.2	339.7	354.4
62.5°	258.1	266.1	280.0	297.1	313.8
65°	221.1	227.1	240.6	257.7	272.5
67.5°	185.4	190.5	204.0	216.0	231.5
70°	149.2	155.9	165.9	177.4	187.3
72.5°	120.1	122.9	131.3	139.6	150.0
75°	88.7	93.5	100.2	105.0	111.0
77.5°	63.6	66.4	70.4	74.4	79.9
80°	42.6	43.8	47.3	48.1	52.5
82.5°	25.9	26.6	27.4	27.8	29.4
85°	13.9	13.9	13.9	13.1	13.1
87.5°	8.0	8.0	6.8	5.6	4.0
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)