

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: P557611

Luminaire Tested: **FUSL-12-4-LD4-2STD-40-UNV-93-94-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: P557611
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-LD4-2STD-40-UNV-93-94-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE
AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND
4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

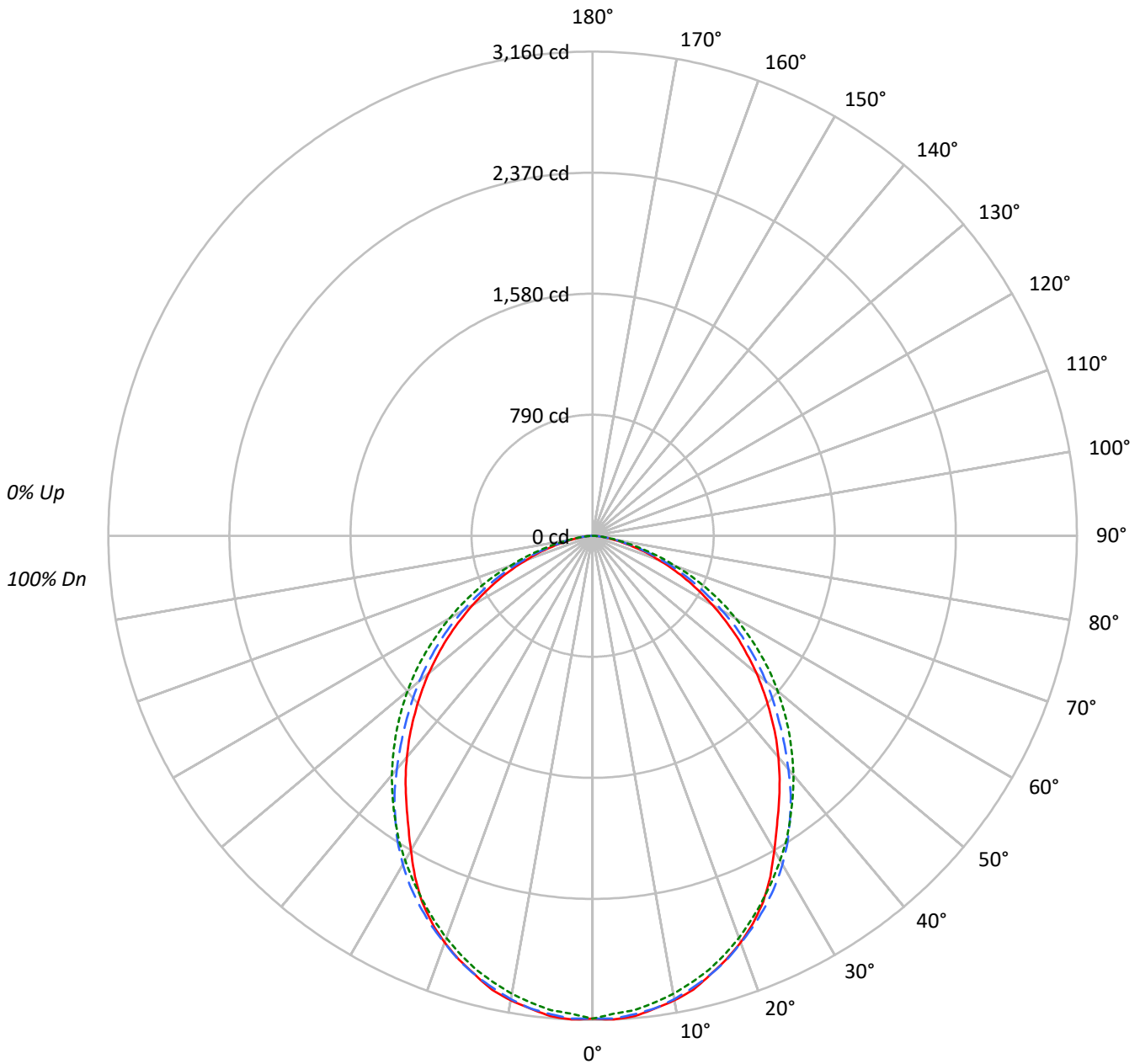
Lumens per Lamp: N/A
Luminaire Lumens: 7287.0 lumens
Efficiency: N/A
Efficacy: 109.4 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 66.6
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°	8480	8480	8480
5°	8503	8467	8395
10°	8413	8390	8294
15°	8264	8264	8169
20°	8089	8099	7995
25°	7822	7919	7793
30°	7366	7697	7603
35°	6960	7378	7390
40°	6622	6979	7162
45°	6243	6556	6893
50°	5844	6178	6599
55°	5390	5748	6243
60°	4855	5245	5806
65°	4286	4664	5280
70°	3572	3973	4486
75°	2807	3172	3512
80°	2007	2233	2476
85°	1309	1309	1235



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	296.7	4.1
10°-20°	833.6	11.4
20°-30°	1218.1	16.7
30°-40°	1382.7	19.0
40°-50°	1334.8	18.3
50°-60°	1101.1	15.1
60°-70°	733.2	10.1
70°-80°	328.1	4.5
80°-90°	58.7	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°	2348.4	32.2
0°-40°	3731.1	51.2
0°-60°	6166.9	84.6
0°-90°	7287.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7287.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3151	3151	3151	3151	3151	
5°	3148	3147	3134	3118	3108	298
15°	2966	2974	2966	2953	2932	836
25°	2634	2655	2667	2648	2625	1206
35°	2119	2148	2246	2258	2250	1327
45°	1640	1668	1723	1802	1811	1266
55°	1149	1168	1225	1293	1331	1025
65°	673	691	732	784	829	667
75°	270	284	305	320	338	295
85°	42	42	42	40	40	57
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3151.4	3151.4	3151.4	3151.4	3151.4
2.5°	3159.9	3161.1	3153.9	3134.5	3122.4
5°	3147.8	3146.6	3134.5	3117.5	3107.9
7.5°	3112.7	3115.1	3111.5	3087.3	3074.0
10°	3078.8	3080.0	3070.3	3051.0	3035.2
12.5°	3035.2	3034.0	3020.7	3011.0	2985.6
15°	2966.2	2973.5	2966.2	2952.9	2932.3
17.5°	2899.6	2899.6	2904.5	2881.5	2865.7
20°	2824.6	2828.2	2828.2	2810.0	2791.9
22.5°	2737.4	2748.3	2751.9	2732.5	2710.7
25°	2634.5	2655.1	2667.2	2647.8	2624.8
27.5°	2509.8	2541.2	2577.6	2563.0	2537.6
30°	2370.5	2416.5	2477.1	2465.0	2446.8
32.5°	2238.6	2284.6	2368.1	2363.3	2353.6
35°	2118.7	2147.8	2245.8	2257.9	2249.5
37.5°	2004.9	2031.5	2123.6	2151.4	2144.1
40°	1885.1	1914.1	1986.8	2036.4	2038.8
42.5°	1766.4	1794.3	1853.6	1925.0	1925.0
45°	1640.5	1668.3	1722.8	1801.5	1811.2
47.5°	1517.0	1546.1	1599.3	1678.0	1693.8
50°	1395.9	1422.6	1475.8	1552.1	1576.3
52.5°	1270.0	1299.1	1351.1	1421.4	1456.5
55°	1148.9	1168.3	1225.2	1293.0	1330.6
57.5°	1023.0	1041.2	1105.4	1163.5	1202.2
60°	902.0	925.0	974.6	1033.9	1078.7
62.5°	785.7	810.0	852.3	904.4	955.2
65°	673.1	691.3	732.5	784.5	829.3
67.5°	564.2	579.9	621.1	657.4	704.6
70°	454.0	474.6	504.9	540.0	570.2
72.5°	365.6	374.1	399.5	425.0	456.4
75°	270.0	284.5	305.1	319.6	337.8
77.5°	193.7	202.2	214.3	226.4	243.3
80°	129.5	133.2	144.1	146.5	159.8
82.5°	78.7	81.1	83.5	84.7	89.6
85°	42.4	42.4	42.4	40.0	40.0
87.5°	24.2	24.2	20.6	16.9	12.1
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)