

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: P557045

Luminaire Tested: **FUSL-12-4-LD4-2HI-40-UNV-80-86-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: P557045
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-LD4-2HI-40-UNV-80-86-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC 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

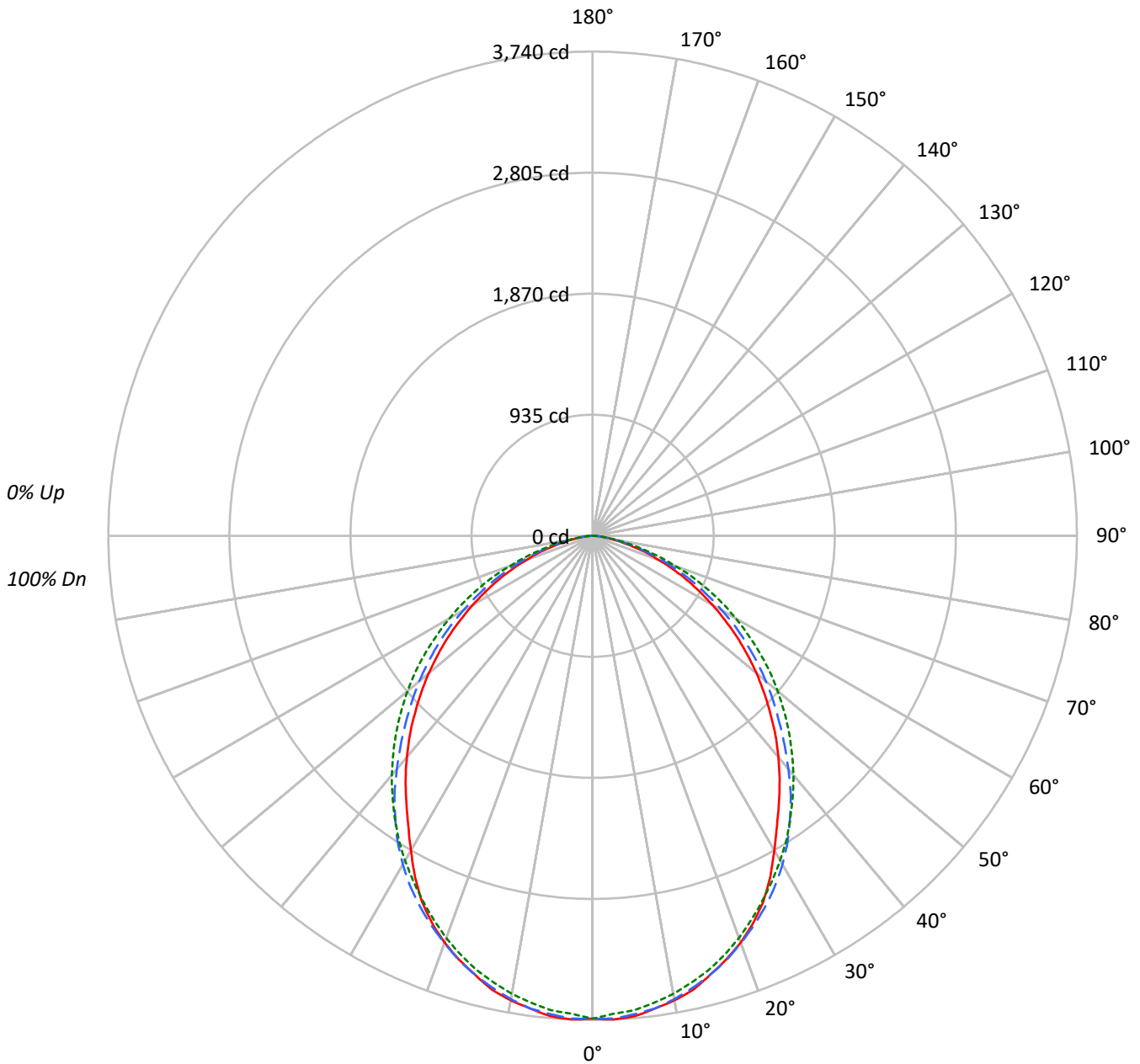
Lumens per Lamp: N/A
Luminaire Lumens: 8625.0 lumens
Efficiency: N/A
Efficacy: 99.8 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 86.4
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°	10038	10038	10038
5°	10064	10022	9937
10°	9957	9930	9816
15°	9781	9781	9669
20°	9574	9586	9463
25°	9258	9373	9224
30°	8718	9110	8999
35°	8238	8732	8747
40°	7838	8260	8477
45°	7389	7760	8158
50°	6917	7313	7811
55°	6380	6804	7389
60°	5746	6209	6872
65°	5073	5521	6250
70°	4228	4702	5310
75°	3323	3754	4157
80°	2376	2642	2932
85°	1550	1550	1460



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	351.2	4.1
10°-20°	986.6	11.4
20°-30°	1441.8	16.7
30°-40°	1636.6	19.0
40°-50°	1579.9	18.3
50°-60°	1303.3	15.1
60°-70°	867.9	10.1
70°-80°	388.4	4.5
80°-90°	69.5	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°	2779.6	32.2
0°-40°	4416.2	51.2
0°-60°	7299.3	84.6
0°-90°	8625.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8625.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3730	3730	3730	3730	3730	
5°	3726	3724	3710	3690	3678	353
15°	3511	3519	3511	3495	3471	990
25°	3118	3143	3157	3134	3107	1428
35°	2508	2542	2658	2672	2662	1571
45°	1942	1975	2039	2132	2144	1498
55°	1360	1383	1450	1530	1575	1214
65°	797	818	867	929	982	790
75°	320	337	361	378	400	349
85°	50	50	50	47	47	68
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3730.1	3730.1	3730.1	3730.1	3730.1
2.5°	3740.1	3741.6	3733.0	3710.0	3695.7
5°	3725.8	3724.4	3710.0	3690.0	3678.5
7.5°	3684.2	3687.1	3682.8	3654.1	3638.4
10°	3644.1	3645.5	3634.1	3611.2	3592.5
12.5°	3592.5	3591.1	3575.3	3563.9	3533.8
15°	3510.8	3519.4	3510.8	3495.1	3470.7
17.5°	3432.0	3432.0	3437.8	3410.5	3391.9
20°	3343.2	3347.5	3347.5	3326.0	3304.5
22.5°	3240.0	3252.9	3257.2	3234.3	3208.5
25°	3118.2	3142.6	3156.9	3134.0	3106.7
27.5°	2970.6	3007.9	3050.8	3033.7	3003.6
30°	2805.8	2860.3	2931.9	2917.6	2896.1
32.5°	2649.6	2704.1	2802.9	2797.2	2785.7
35°	2507.7	2542.1	2658.2	2672.5	2662.5
37.5°	2373.0	2404.6	2513.5	2546.4	2537.8
40°	2231.2	2265.6	2351.5	2410.3	2413.2
42.5°	2090.7	2123.7	2193.9	2278.5	2278.5
45°	1941.7	1974.7	2039.2	2132.3	2143.8
47.5°	1795.5	1829.9	1893.0	1986.1	2004.8
50°	1652.2	1683.8	1746.8	1837.1	1865.8
52.5°	1503.2	1537.6	1599.2	1682.3	1723.9
55°	1359.9	1382.8	1450.2	1530.4	1574.9
57.5°	1210.9	1232.4	1308.3	1377.1	1423.0
60°	1067.6	1094.8	1153.6	1223.8	1276.8
62.5°	930.0	958.7	1008.8	1070.4	1130.6
65°	796.7	818.2	867.0	928.6	981.6
67.5°	667.8	686.4	735.1	778.1	834.0
70°	537.4	561.7	597.6	639.1	674.9
72.5°	432.8	442.8	472.9	503.0	540.2
75°	319.6	336.8	361.1	378.3	399.8
77.5°	229.3	239.3	253.6	268.0	288.0
80°	153.3	157.6	170.5	173.4	189.2
82.5°	93.1	96.0	98.9	100.3	106.0
85°	50.2	50.2	50.2	47.3	47.3
87.5°	28.7	28.7	24.4	20.1	14.3
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)