

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: P557847

Luminaire Tested: **FUSL-12-4-LD4-3HI-40-UNV-82-87-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: P557847
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-40-UNV-82-87-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

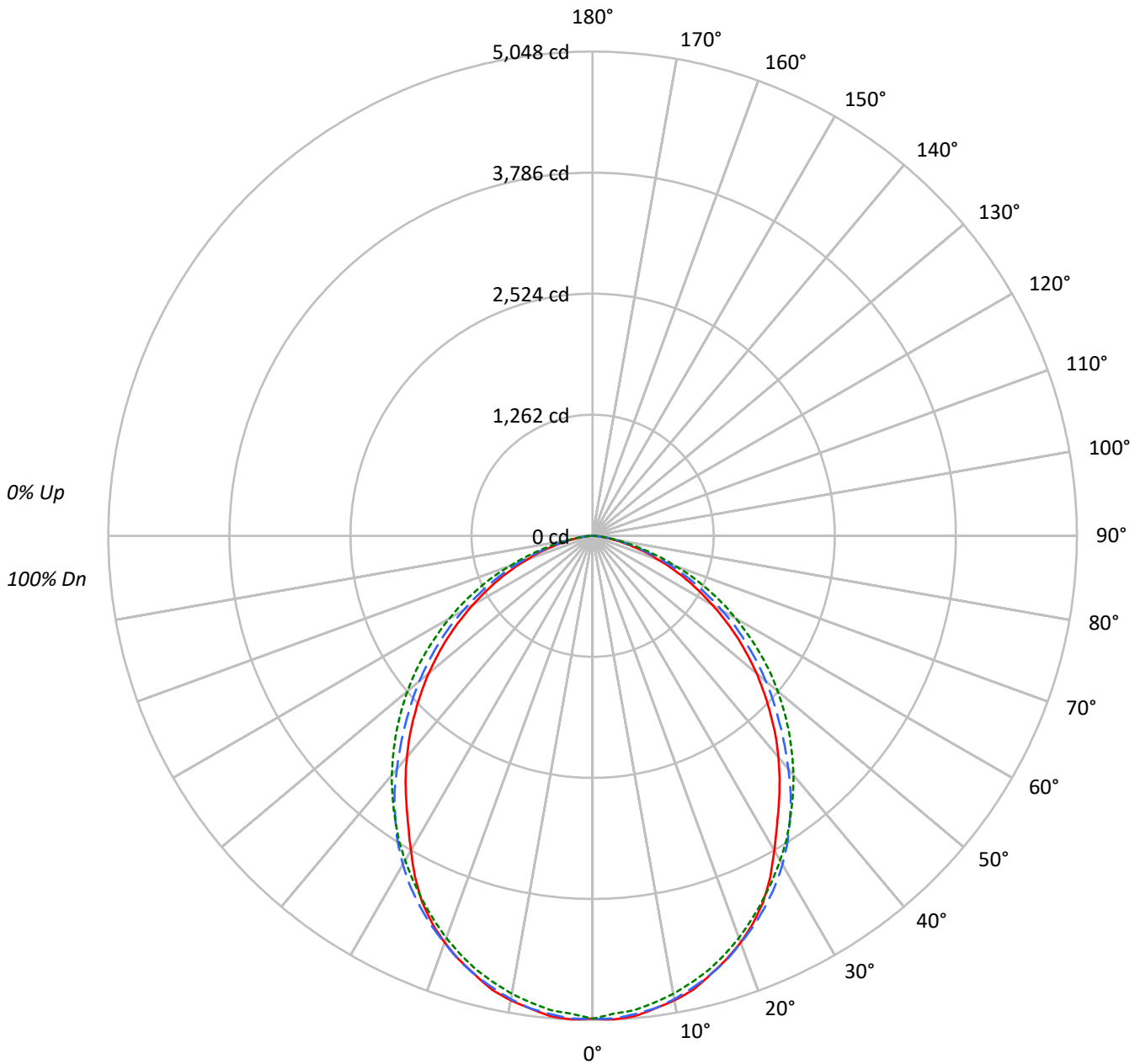
Lumens per Lamp: N/A
Luminaire Lumens: 11641.0 lumens
Efficiency: N/A
Efficacy: 89.8 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 129.6
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°	13547	13547	13547
5°	13584	13526	13411
10°	13439	13402	13249
15°	13201	13201	13050
20°	12921	12938	12772
25°	12496	12651	12450
30°	11767	12296	12146
35°	11119	11786	11805
40°	10579	11149	11441
45°	9973	10474	11011
50°	9336	9870	10542
55°	8611	9183	9972
60°	7755	8379	9275
65°	6848	7450	8436
70°	5707	6345	7168
75°	4484	5068	5610
80°	3206	3567	3956
85°	2090	2090	1970



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	474.0	4.1
10°-20°	1331.6	11.4
20°-30°	1945.9	16.7
30°-40°	2208.8	19.0
40°-50°	2132.3	18.3
50°-60°	1759.0	15.1
60°-70°	1171.4	10.1
70°-80°	524.2	4.5
80°-90°	93.8	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°	3751.6	32.2
0°-40°	5960.4	51.2
0°-60°	9851.7	84.6
0°-90°	11641.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11641.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5034	5034	5034	5034	5034	
5°	5029	5027	5007	4980	4965	476
15°	4738	4750	4738	4717	4684	1336
25°	4209	4242	4261	4230	4193	1927
35°	3385	3431	3588	3607	3594	2121
45°	2621	2665	2752	2878	2893	2022
55°	1835	1866	1957	2066	2126	1638
65°	1075	1104	1170	1253	1325	1066
75°	431	454	487	511	540	472
85°	68	68	68	64	64	91
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5034.4	5034.4	5034.4	5034.4	5034.4
2.5°	5048.0	5049.9	5038.3	5007.4	4988.0
5°	5028.6	5026.7	5007.4	4980.3	4964.8
7.5°	4972.5	4976.4	4970.6	4931.9	4910.7
10°	4918.4	4920.3	4904.8	4873.9	4848.8
12.5°	4848.8	4846.8	4825.6	4810.1	4769.5
15°	4738.5	4750.1	4738.5	4717.2	4684.4
17.5°	4632.1	4632.1	4639.9	4603.1	4578.0
20°	4512.2	4518.0	4518.0	4489.0	4460.0
22.5°	4373.0	4390.4	4396.2	4365.2	4330.4
25°	4208.6	4241.5	4260.8	4229.9	4193.1
27.5°	4009.4	4059.7	4117.7	4094.5	4053.8
30°	3786.9	3860.4	3957.1	3937.8	3908.8
32.5°	3576.1	3649.6	3783.1	3775.3	3759.9
35°	3384.7	3431.1	3587.7	3607.1	3593.5
37.5°	3202.9	3245.4	3392.4	3436.9	3425.3
40°	3011.4	3057.8	3173.8	3253.1	3257.0
42.5°	2821.8	2866.3	2961.1	3075.2	3075.2
45°	2620.7	2665.2	2752.2	2877.9	2893.4
47.5°	2423.4	2469.8	2554.9	2680.6	2705.8
50°	2230.0	2272.6	2357.7	2479.5	2518.2
52.5°	2028.9	2075.3	2158.4	2270.6	2326.7
55°	1835.4	1866.4	1957.3	2065.6	2125.6
57.5°	1634.3	1663.3	1765.8	1858.7	1920.5
60°	1440.9	1477.6	1556.9	1651.7	1723.3
62.5°	1255.2	1293.9	1361.6	1444.8	1526.0
65°	1075.4	1104.4	1170.1	1253.3	1324.9
67.5°	901.3	926.4	992.2	1050.2	1125.6
70°	725.3	758.2	806.5	862.6	911.0
72.5°	584.1	597.6	638.2	678.9	729.2
75°	431.3	454.5	487.4	510.6	539.6
77.5°	309.5	323.0	342.3	361.7	388.8
80°	206.9	212.7	230.2	234.0	255.3
82.5°	125.7	129.6	133.5	135.4	143.1
85°	67.7	67.7	67.7	63.8	63.8
87.5°	38.7	38.7	32.9	27.1	19.3
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)