

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: P556417

Luminaire Tested: **FUSL-12-4-LD4-1LO-30-UNV-81-84-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: P556417
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-LD4-1LO-30-UNV-81-84-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

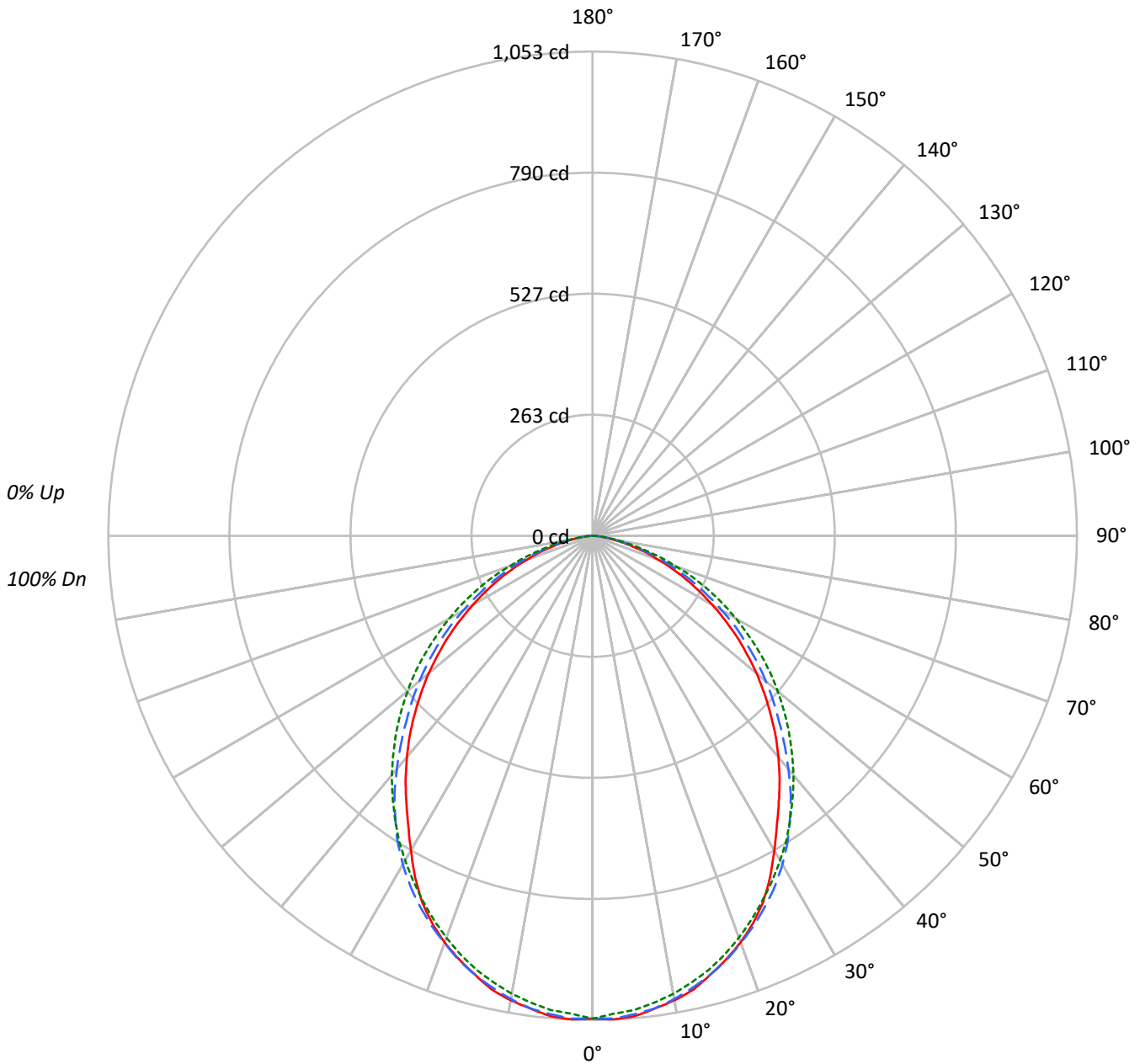
Lumens per Lamp: N/A
Luminaire Lumens: 2428.0 lumens
Efficiency: N/A
Efficacy: 103.8 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
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°	2826	2826	2826
5°	2833	2821	2797
10°	2803	2795	2763
15°	2753	2753	2722
20°	2695	2698	2664
25°	2606	2639	2597
30°	2454	2565	2533
35°	2319	2458	2462
40°	2206	2325	2386
45°	2080	2184	2297
50°	1947	2058	2199
55°	1796	1915	2080
60°	1617	1748	1934
65°	1428	1554	1759
70°	1190	1323	1495
75°	936	1057	1170
80°	669	744	824
85°	435	435	411



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	98.9	4.1
10°-20°	277.7	11.4
20°-30°	405.9	16.7
30°-40°	460.7	19.0
40°-50°	444.7	18.3
50°-60°	366.9	15.1
60°-70°	244.3	10.1
70°-80°	109.3	4.5
80°-90°	19.6	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°	782.5	32.2
0°-40°	1243.2	51.2
0°-60°	2054.8	84.6
0°-90°	2428.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2428.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1050	1050	1050	1050	1050	
5°	1049	1048	1044	1039	1036	99
15°	988	991	988	984	977	279
25°	878	885	889	882	875	402
35°	706	716	748	752	750	442
45°	547	556	574	600	604	422
55°	383	389	408	431	443	342
65°	224	230	244	261	276	222
75°	90	95	102	106	112	98
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°	1050.0	1050.0	1050.0	1050.0	1050.0
2.5°	1052.9	1053.3	1050.9	1044.4	1040.4
5°	1048.8	1048.4	1044.4	1038.8	1035.5
7.5°	1037.1	1037.9	1036.7	1028.7	1024.2
10°	1025.8	1026.2	1023.0	1016.6	1011.3
12.5°	1011.3	1010.9	1006.5	1003.3	994.8
15°	988.3	990.7	988.3	983.9	977.0
17.5°	966.1	966.1	967.8	960.1	954.8
20°	941.1	942.3	942.3	936.3	930.2
22.5°	912.1	915.7	916.9	910.5	903.2
25°	877.8	884.7	888.7	882.2	874.6
27.5°	836.2	846.7	858.8	854.0	845.5
30°	789.9	805.2	825.4	821.3	815.3
32.5°	745.9	761.2	789.0	787.4	784.2
35°	705.9	715.6	748.3	752.3	749.5
37.5°	668.0	676.9	707.6	716.8	714.4
40°	628.1	637.8	662.0	678.5	679.3
42.5°	588.6	597.8	617.6	641.4	641.4
45°	546.6	555.9	574.0	600.3	603.5
47.5°	505.5	515.1	532.9	559.1	564.4
50°	465.1	474.0	491.7	517.2	525.2
52.5°	423.2	432.8	450.2	473.6	485.3
55°	382.8	389.3	408.2	430.8	443.3
57.5°	340.9	346.9	368.3	387.7	400.6
60°	300.5	308.2	324.7	344.5	359.4
62.5°	261.8	269.9	284.0	301.3	318.3
65°	224.3	230.3	244.1	261.4	276.3
67.5°	188.0	193.2	206.9	219.0	234.8
70°	151.3	158.1	168.2	179.9	190.0
72.5°	121.8	124.7	133.1	141.6	152.1
75°	90.0	94.8	101.7	106.5	112.5
77.5°	64.5	67.4	71.4	75.4	81.1
80°	43.2	44.4	48.0	48.8	53.2
82.5°	26.2	27.0	27.8	28.2	29.9
85°	14.1	14.1	14.1	13.3	13.3
87.5°	8.1	8.1	6.9	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)