

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: P556502

Luminaire Tested: **FUSL-12-4-LD4-1LO-35-UNV-82-87-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: P556502
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-35-UNV-82-87-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

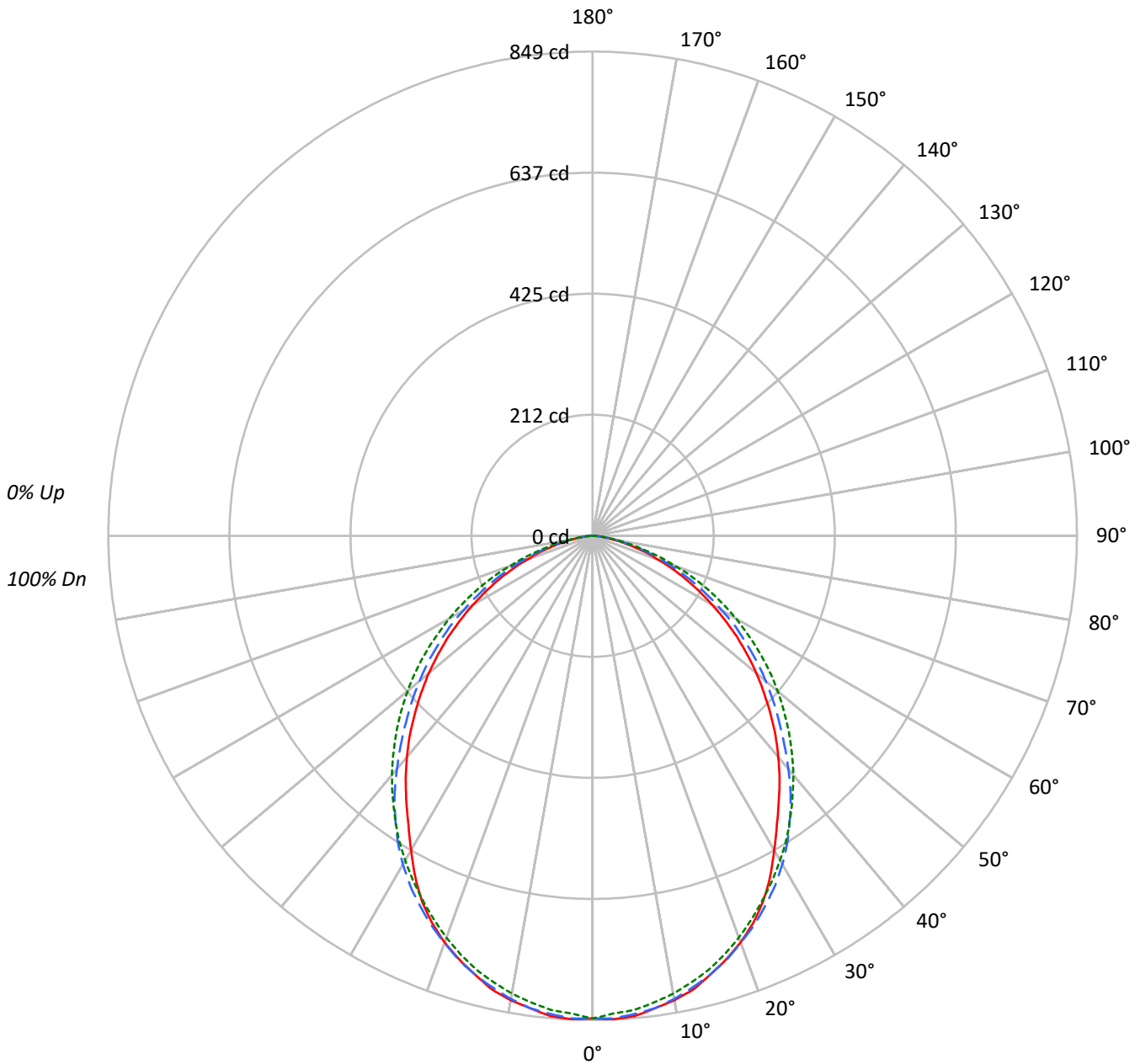
Lumens per Lamp: N/A
Luminaire Lumens: 1957.0 lumens
Efficiency: N/A
Efficacy: 83.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	2278	2278	2278
5°	2284	2274	2254
10°	2259	2253	2227
15°	2219	2219	2194
20°	2172	2175	2147
25°	2101	2127	2093
30°	1978	2067	2042
35°	1869	1981	1985
40°	1779	1874	1923
45°	1677	1761	1851
50°	1569	1659	1772
55°	1448	1544	1676
60°	1304	1408	1559
65°	1151	1252	1418
70°	959	1067	1205
75°	754	852	943
80°	539	600	665
85°	352	352	330



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	79.7	4.1
10°-20°	223.9	11.4
20°-30°	327.1	16.7
30°-40°	371.3	19.0
40°-50°	358.5	18.3
50°-60°	295.7	15.1
60°-70°	196.9	10.1
70°-80°	88.1	4.5
80°-90°	15.8	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°	630.7	32.2
0°-40°	1002.0	51.2
0°-60°	1656.2	84.6
0°-90°	1957.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1957.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	846	846	846	846	846	
5°	845	845	842	837	835	80
15°	797	799	797	793	788	225
25°	708	713	716	711	705	324
35°	569	577	603	606	604	357
45°	441	448	463	484	486	340
55°	309	314	329	347	357	275
65°	181	186	197	211	223	179
75°	72	76	82	86	91	79
85°	11	11	11	11	11	15
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	846.4	846.4	846.4	846.4	846.4
2.5°	848.6	849.0	847.0	841.8	838.5
5°	845.4	845.1	841.8	837.2	834.6
7.5°	835.9	836.6	835.6	829.1	825.5
10°	826.8	827.2	824.6	819.4	815.1
12.5°	815.1	814.8	811.2	808.6	801.8
15°	796.6	798.6	796.6	793.0	787.5
17.5°	778.7	778.7	780.0	773.8	769.6
20°	758.6	759.5	759.5	754.7	749.8
22.5°	735.2	738.1	739.1	733.9	728.0
25°	707.5	713.0	716.3	711.1	704.9
27.5°	674.0	682.5	692.2	688.3	681.5
30°	636.6	649.0	665.2	662.0	657.1
32.5°	601.2	613.5	636.0	634.7	632.1
35°	569.0	576.8	603.1	606.4	604.1
37.5°	538.4	545.6	570.3	577.8	575.8
40°	506.3	514.1	533.6	546.9	547.5
42.5°	474.4	481.9	497.8	517.0	517.0
45°	440.6	448.0	462.7	483.8	486.4
47.5°	407.4	415.2	429.5	450.7	454.9
50°	374.9	382.0	396.4	416.8	423.3
52.5°	341.1	348.9	362.9	381.7	391.1
55°	308.6	313.8	329.0	347.3	357.3
57.5°	274.7	279.6	296.9	312.5	322.9
60°	242.2	248.4	261.7	277.7	289.7
62.5°	211.0	217.5	228.9	242.9	256.5
65°	180.8	185.7	196.7	210.7	222.7
67.5°	151.5	155.7	166.8	176.6	189.2
70°	121.9	127.5	135.6	145.0	153.1
72.5°	98.2	100.5	107.3	114.1	122.6
75°	72.5	76.4	81.9	85.8	90.7
77.5°	52.0	54.3	57.6	60.8	65.4
80°	34.8	35.8	38.7	39.3	42.9
82.5°	21.1	21.8	22.4	22.8	24.1
85°	11.4	11.4	11.4	10.7	10.7
87.5°	6.5	6.5	5.5	4.6	3.3
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)