

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: P556553

Luminaire Tested: **FUSL-12-4-LD4-1LO-40-UNV-81-88-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: P556553
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-40-UNV-81-88-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

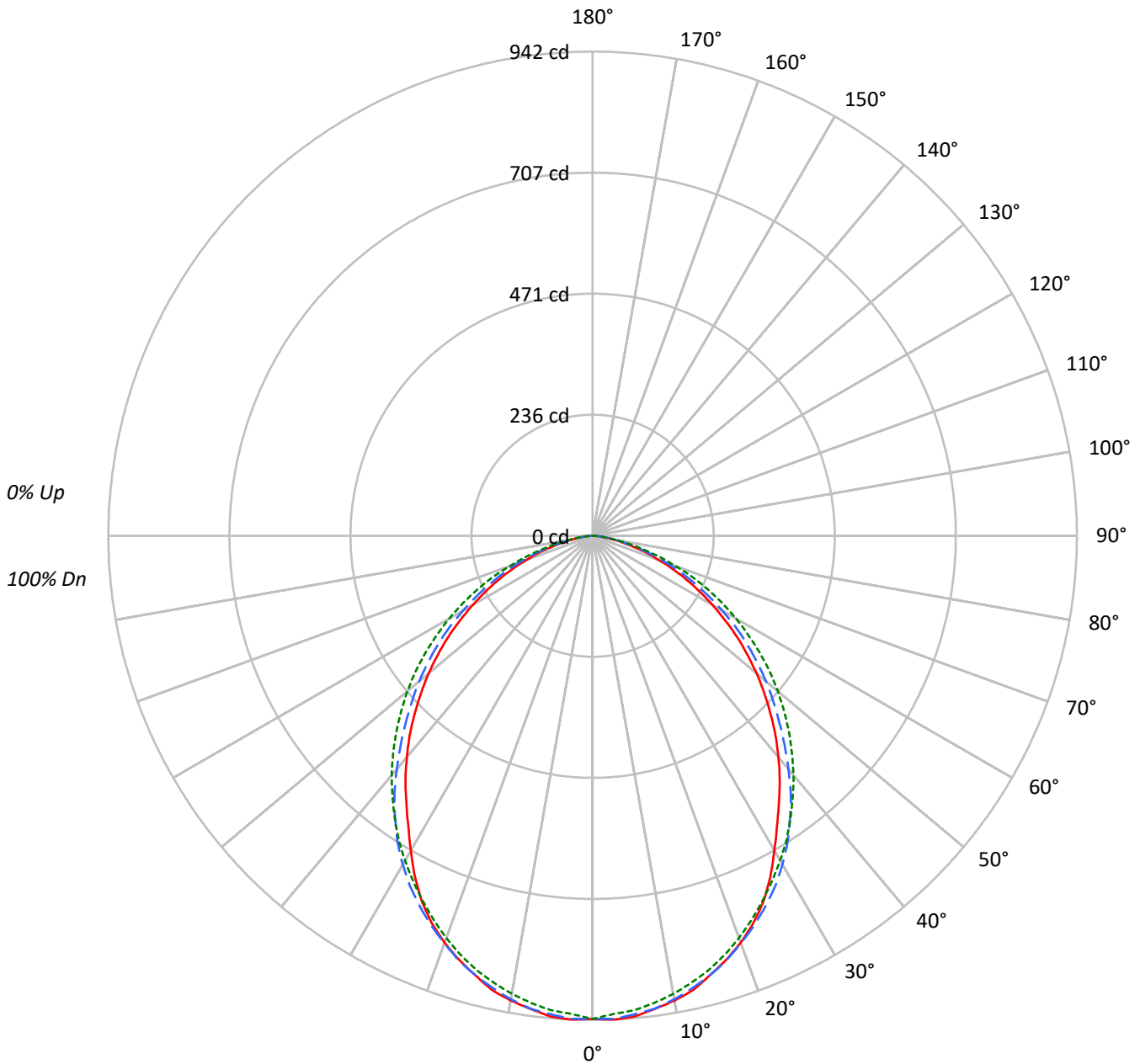
Lumens per Lamp: N/A
Luminaire Lumens: 2173.0 lumens
Efficiency: N/A
Efficacy: 92.9 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	2529	2529	2529
5°	2536	2525	2504
10°	2509	2502	2473
15°	2464	2464	2436
20°	2412	2415	2384
25°	2333	2362	2324
30°	2197	2295	2267
35°	2076	2200	2204
40°	1975	2081	2136
45°	1862	1955	2055
50°	1743	1842	1968
55°	1607	1714	1862
60°	1448	1564	1731
65°	1278	1391	1575
70°	1065	1185	1338
75°	837	946	1047
80°	598	666	739
85°	389	389	367



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.5	4.1
10°-20°	248.6	11.4
20°-30°	363.2	16.7
30°-40°	412.3	19.0
40°-50°	398.0	18.3
50°-60°	328.4	15.1
60°-70°	218.6	10.1
70°-80°	97.8	4.5
80°-90°	17.5	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°	700.3	32.2
0°-40°	1112.6	51.2
0°-60°	1839.0	84.6
0°-90°	2173.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2173.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	940	940	940	940	940	
5°	939	938	935	930	927	89
15°	884	887	884	881	874	249
25°	786	792	795	790	783	360
35°	632	640	670	673	671	396
45°	489	498	514	537	540	377
55°	343	348	365	386	397	306
65°	201	206	218	234	247	199
75°	80	85	91	95	101	88
85°	13	13	13	12	12	17
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	939.8	939.8	939.8	939.8	939.8
2.5°	942.3	942.7	940.5	934.7	931.1
5°	938.7	938.3	934.7	929.7	926.8
7.5°	928.2	928.9	927.9	920.6	916.7
10°	918.1	918.5	915.6	909.8	905.1
12.5°	905.1	904.7	900.8	897.9	890.3
15°	884.5	886.7	884.5	880.6	874.4
17.5°	864.7	864.7	866.1	859.3	854.6
20°	842.3	843.4	843.4	838.0	832.5
22.5°	816.3	819.5	820.6	814.8	808.4
25°	785.6	791.7	795.4	789.6	782.7
27.5°	748.4	757.8	768.6	764.3	756.7
30°	706.9	720.6	738.7	735.1	729.6
32.5°	667.5	681.3	706.2	704.7	701.8
35°	631.8	640.5	669.7	673.3	670.8
37.5°	597.9	605.8	633.3	641.6	639.4
40°	562.1	570.8	592.5	607.3	608.0
42.5°	526.7	535.0	552.7	574.0	574.0
45°	489.2	497.5	513.7	537.2	540.1
47.5°	452.4	461.0	476.9	500.4	505.1
50°	416.3	424.2	440.1	462.8	470.1
52.5°	378.7	387.4	402.9	423.9	434.3
55°	342.6	348.4	365.4	385.6	396.8
57.5°	305.1	310.5	329.6	347.0	358.5
60°	269.0	275.8	290.6	308.3	321.7
62.5°	234.3	241.5	254.2	269.7	284.9
65°	200.7	206.1	218.4	233.9	247.3
67.5°	168.2	172.9	185.2	196.0	210.1
70°	135.4	141.5	150.6	161.0	170.0
72.5°	109.0	111.6	119.1	126.7	136.1
75°	80.5	84.8	91.0	95.3	100.7
77.5°	57.8	60.3	63.9	67.5	72.6
80°	38.6	39.7	43.0	43.7	47.7
82.5°	23.5	24.2	24.9	25.3	26.7
85°	12.6	12.6	12.6	11.9	11.9
87.5°	7.2	7.2	6.1	5.1	3.6
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)