

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: P556630

Luminaire Tested: **FUSL-12-4-LD4-1LO-50-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: P556630
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-50-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 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

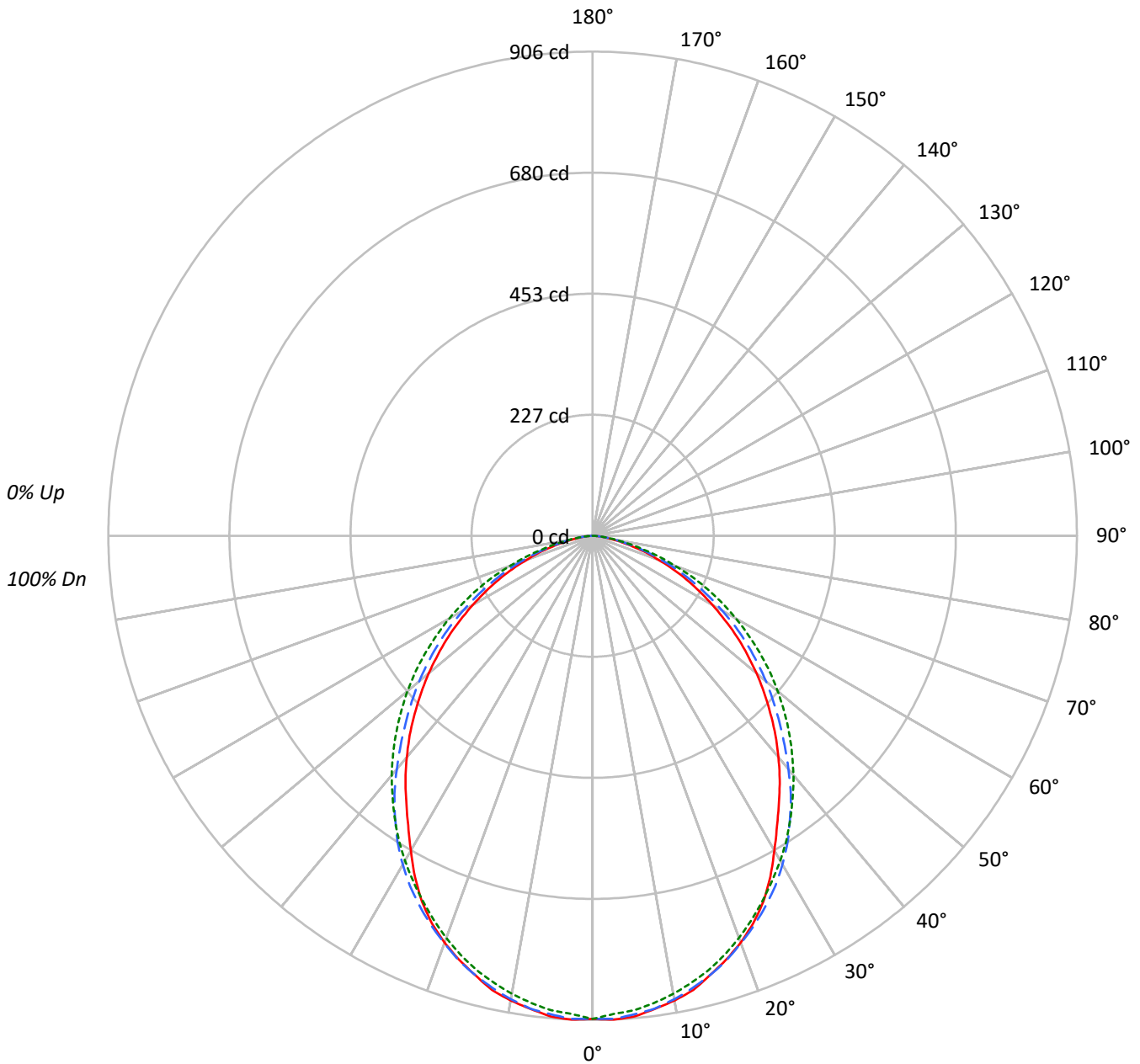
Lumens per Lamp: N/A
Luminaire Lumens: 2090.0 lumens
Efficiency: N/A
Efficacy: 89.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
Input Voltage (V): NR
Input Current (A_{in}): 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°	2432	2432	2432
5°	2439	2428	2408
10°	2413	2406	2379
15°	2370	2370	2343
20°	2320	2323	2293
25°	2244	2271	2235
30°	2113	2208	2181
35°	1996	2116	2120
40°	1899	2002	2054
45°	1791	1880	1977
50°	1676	1772	1893
55°	1546	1649	1790
60°	1392	1504	1665
65°	1230	1338	1515
70°	1024	1139	1287
75°	805	910	1007
80°	576	640	710
85°	377	377	355



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	85.1	4.1
10°-20°	239.1	11.4
20°-30°	349.4	16.7
30°-40°	396.6	19.0
40°-50°	382.8	18.3
50°-60°	315.8	15.1
60°-70°	210.3	10.1
70°-80°	94.1	4.5
80°-90°	16.9	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°	673.5	32.2
0°-40°	1070.1	51.2
0°-60°	1768.7	84.6
0°-90°	2090.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2090.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	904	904	904	904	904	
5°	903	902	899	894	891	85
15°	851	853	851	847	841	240
25°	756	762	765	759	753	346
35°	608	616	644	648	645	381
45°	470	478	494	517	520	363
55°	330	335	351	371	382	294
65°	193	198	210	225	238	191
75°	77	82	88	92	97	85
85°	12	12	12	12	12	16
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	903.9	903.9	903.9	903.9	903.9
2.5°	906.3	906.6	904.6	899.0	895.5
5°	902.8	902.5	899.0	894.1	891.4
7.5°	892.8	893.5	892.4	885.5	881.6
10°	883.0	883.4	880.6	875.0	870.5
12.5°	870.5	870.2	866.4	863.6	856.3
15°	850.7	852.8	850.7	846.9	841.0
17.5°	831.6	831.6	833.0	826.4	821.9
20°	810.1	811.2	811.2	805.9	800.7
22.5°	785.1	788.2	789.3	783.7	777.5
25°	755.6	761.5	765.0	759.4	752.8
27.5°	719.8	728.9	739.3	735.1	727.8
30°	679.9	693.1	710.5	707.0	701.8
32.5°	642.1	655.2	679.2	677.8	675.0
35°	607.7	616.0	644.1	647.6	645.2
37.5°	575.0	582.7	609.1	617.0	615.0
40°	540.7	549.0	569.8	584.1	584.8
42.5°	506.6	514.6	531.6	552.1	552.1
45°	470.5	478.5	494.1	516.7	519.5
47.5°	435.1	443.4	458.7	481.3	485.8
50°	400.4	408.0	423.3	445.2	452.1
52.5°	364.3	372.6	387.5	407.7	417.7
55°	329.5	335.1	351.4	370.9	381.6
57.5°	293.4	298.6	317.0	333.7	344.8
60°	258.7	265.3	279.5	296.5	309.4
62.5°	225.4	232.3	244.5	259.4	274.0
65°	193.1	198.3	210.1	225.0	237.9
67.5°	161.8	166.3	178.1	188.6	202.1
70°	130.2	136.1	144.8	154.9	163.6
72.5°	104.9	107.3	114.6	121.9	130.9
75°	77.4	81.6	87.5	91.7	96.9
77.5°	55.6	58.0	61.5	64.9	69.8
80°	37.2	38.2	41.3	42.0	45.8
82.5°	22.6	23.3	24.0	24.3	25.7
85°	12.2	12.2	12.2	11.5	11.5
87.5°	6.9	6.9	5.9	4.9	3.5
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)