

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: P556512

Luminaire Tested: **FUSL-12-4-LD4-1LO-35-UNV-93-84-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: P556512
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-93-84-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

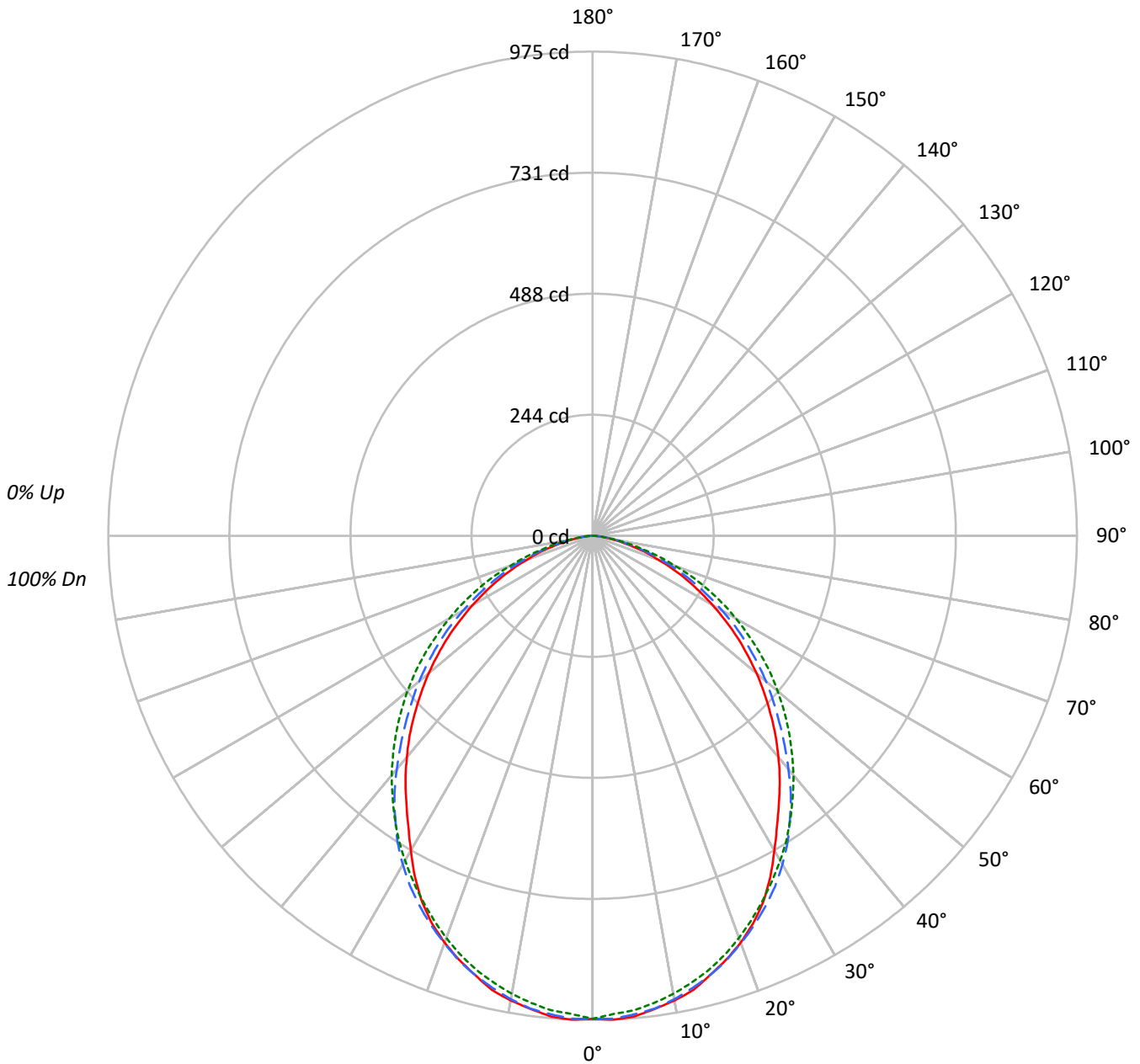
Lumens per Lamp: N/A
Luminaire Lumens: 2249.0 lumens
Efficiency: N/A
Efficacy: 96.1 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	2617	2617	2617
5°	2624	2613	2591
10°	2596	2589	2560
15°	2550	2550	2521
20°	2496	2500	2468
25°	2414	2444	2405
30°	2273	2376	2347
35°	2148	2277	2281
40°	2044	2154	2210
45°	1927	2023	2127
50°	1804	1907	2037
55°	1664	1774	1927
60°	1498	1619	1792
65°	1323	1440	1630
70°	1102	1226	1385
75°	866	979	1084
80°	620	690	764
85°	404	404	380



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	91.6	4.1
10°-20°	257.3	11.4
20°-30°	375.9	16.7
30°-40°	426.7	19.0
40°-50°	412.0	18.3
50°-60°	339.8	15.1
60°-70°	226.3	10.1
70°-80°	101.3	4.5
80°-90°	18.1	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°	724.8	32.2
0°-40°	1151.5	51.2
0°-60°	1903.3	84.6
0°-90°	2249.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2249.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	973	973	973	973	973	
5°	972	971	967	962	959	92
15°	916	918	916	911	905	258
25°	813	819	823	817	810	372
35°	654	663	693	697	694	410
45°	506	515	532	556	559	391
55°	355	361	378	399	411	316
65°	208	213	226	242	256	206
75°	83	88	94	99	104	91
85°	13	13	13	12	12	18
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	972.6	972.6	972.6	972.6	972.6
2.5°	975.3	975.6	973.4	967.4	963.7
5°	971.5	971.1	967.4	962.2	959.2
7.5°	960.7	961.4	960.3	952.8	948.7
10°	950.2	950.6	947.6	941.6	936.8
12.5°	936.8	936.4	932.3	929.3	921.4
15°	915.5	917.7	915.5	911.4	905.0
17.5°	894.9	894.9	896.4	889.3	884.5
20°	871.7	872.9	872.9	867.3	861.7
22.5°	844.8	848.2	849.3	843.3	836.6
25°	813.1	819.4	823.2	817.2	810.1
27.5°	774.6	784.3	795.5	791.0	783.2
30°	731.6	745.8	764.5	760.8	755.2
32.5°	690.9	705.1	730.9	729.4	726.4
35°	653.9	662.9	693.1	696.9	694.3
37.5°	618.8	627.0	655.4	664.0	661.8
40°	581.8	590.8	613.2	628.5	629.2
42.5°	545.2	553.8	572.1	594.1	594.1
45°	506.3	514.9	531.7	556.0	559.0
47.5°	468.2	477.2	493.6	517.9	522.7
50°	430.8	439.0	455.5	479.0	486.5
52.5°	392.0	400.9	417.0	438.7	449.5
55°	354.6	360.6	378.1	399.1	410.7
57.5°	315.7	321.3	341.2	359.1	371.0
60°	278.4	285.5	300.8	319.1	332.9
62.5°	242.5	250.0	263.1	279.1	294.8
65°	207.8	213.4	226.1	242.1	256.0
67.5°	174.1	179.0	191.7	202.9	217.5
70°	140.1	146.5	155.8	166.7	176.0
72.5°	112.8	115.5	123.3	131.2	140.9
75°	83.3	87.8	94.2	98.6	104.3
77.5°	59.8	62.4	66.1	69.9	75.1
80°	40.0	41.1	44.5	45.2	49.3
82.5°	24.3	25.0	25.8	26.2	27.7
85°	13.1	13.1	13.1	12.3	12.3
87.5°	7.5	7.5	6.4	5.2	3.7
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)