

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: P556988

Luminaire Tested: **FUSL-12-4-LD4-2HI-35-UNV-80-96-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: P556988
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-LD4-2HI-35-UNV-80-96-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

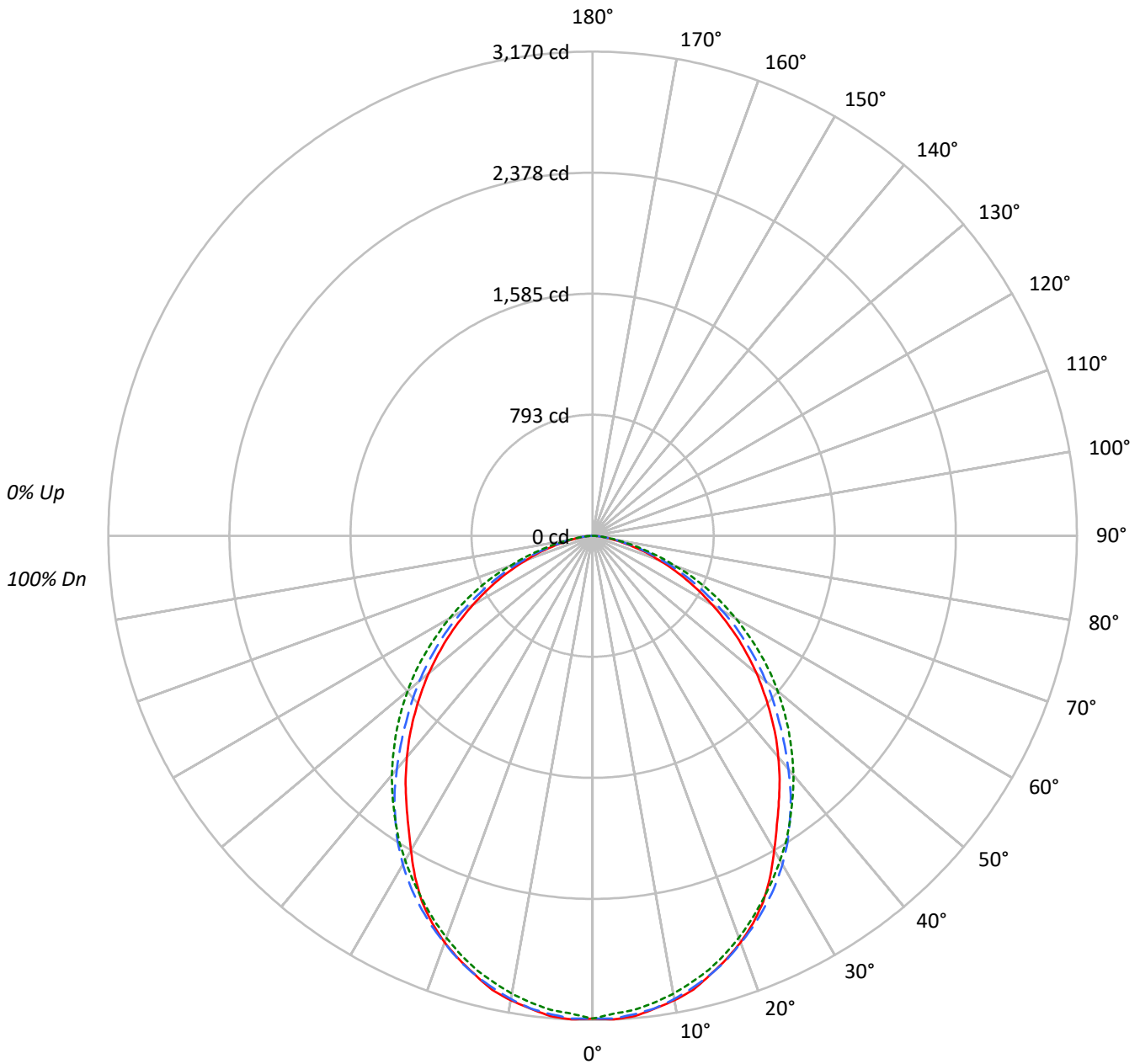
Lumens per Lamp: N/A
Luminaire Lumens: 7309.0 lumens
Efficiency: N/A
Efficacy: 84.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 86.4
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°	8506	8506	8506
5°	8529	8493	8420
10°	8438	8415	8319
15°	8289	8289	8194
20°	8113	8123	8019
25°	7846	7943	7817
30°	7388	7720	7626
35°	6981	7400	7412
40°	6642	7000	7184
45°	6262	6576	6914
50°	5861	6197	6619
55°	5407	5765	6261
60°	4869	5261	5823
65°	4299	4678	5296
70°	3583	3984	4500
75°	2816	3182	3523
80°	2013	2239	2484
85°	1312	1312	1238



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	297.6	4.1
10°-20°	836.1	11.4
20°-30°	1221.8	16.7
30°-40°	1386.9	19.0
40°-50°	1338.8	18.3
50°-60°	1104.4	15.1
60°-70°	735.5	10.1
70°-80°	329.1	4.5
80°-90°	58.9	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°	2355.5	32.2
0°-40°	3742.4	51.2
0°-60°	6185.6	84.6
0°-90°	7309.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7309.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3161	3161	3161	3161	3161	
5°	3157	3156	3144	3127	3117	299
15°	2975	2982	2975	2962	2941	839
25°	2642	2663	2675	2656	2633	1210
35°	2125	2154	2253	2265	2256	1332
45°	1645	1673	1728	1807	1817	1270
55°	1152	1172	1229	1297	1335	1029
65°	675	693	735	787	832	669
75°	271	285	306	321	339	296
85°	42	42	42	40	40	57
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3161.0	<i>3161.0</i>	3161.0	3161.0	3161.0
2.5°	<i>3169.5</i>	<i>3170.7</i>	<i>3163.4</i>	<i>3144.0</i>	<i>3131.8</i>
5°	3157.3	<i>3156.1</i>	3144.0	3127.0	3117.2
7.5°	3122.1	<i>3124.5</i>	3120.9	3096.6	3083.2
10°	3088.1	<i>3089.3</i>	3079.6	3060.2	3044.4
12.5°	3044.4	<i>3043.2</i>	3029.8	3020.1	2994.6
15°	2975.2	<i>2982.4</i>	2975.2	2961.8	2941.2
17.5°	2908.4	<i>2908.4</i>	2913.2	2890.2	2874.4
20°	2833.1	<i>2836.7</i>	2836.7	2818.5	2800.3
22.5°	2745.6	<i>2756.6</i>	2760.2	2740.8	2718.9
25°	2642.4	<i>2663.1</i>	2675.2	2655.8	2632.7
27.5°	2517.3	<i>2548.9</i>	2585.4	2570.8	2545.3
30°	2377.7	<i>2423.8</i>	2484.6	2472.4	2454.2
32.5°	2245.3	<i>2291.5</i>	2375.3	2370.4	2360.7
35°	2125.1	<i>2154.3</i>	2252.6	2264.8	2256.3
37.5°	2011.0	<i>2037.7</i>	2130.0	2157.9	2150.6
40°	1890.7	<i>1919.9</i>	1992.7	2042.5	2045.0
42.5°	1771.7	<i>1799.7</i>	1859.2	1930.8	1930.8
45°	1645.4	<i>1673.4</i>	1728.0	1807.0	1816.7
47.5°	1521.6	<i>1550.7</i>	1604.2	1683.1	1698.9
50°	1400.1	<i>1426.9</i>	1480.3	1556.8	1581.1
52.5°	1273.9	<i>1303.0</i>	1355.2	1425.6	1460.9
55°	1152.4	<i>1171.8</i>	1228.9	1296.9	1334.6
57.5°	1026.1	<i>1044.3</i>	1108.7	1167.0	1205.8
60°	904.7	<i>927.8</i>	977.6	1037.1	1082.0
62.5°	788.1	<i>812.4</i>	854.9	907.1	958.1
65°	675.2	<i>693.4</i>	734.7	786.9	831.8
67.5°	565.9	<i>581.7</i>	623.0	659.4	706.8
70°	455.4	<i>476.0</i>	506.4	541.6	572.0
72.5°	366.7	<i>375.2</i>	400.7	426.2	457.8
75°	270.8	<i>285.4</i>	306.0	320.6	338.8
77.5°	194.3	<i>202.8</i>	214.9	227.1	244.1
80°	129.9	<i>133.6</i>	144.5	146.9	160.3
82.5°	78.9	<i>81.4</i>	83.8	85.0	89.9
85°	42.5	<i>42.5</i>	42.5	40.1	40.1
87.5°	24.3	<i>24.3</i>	20.6	17.0	12.1
90°	0.0	<i>0.0</i>	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-MV3F9LC





— 0°-180° - - 45°-225° - - - - 90°-270°







(END OF REPORT)