

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: P557142

Luminaire Tested: **FUSL-12-4-LD4-2HI-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: P557142
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-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

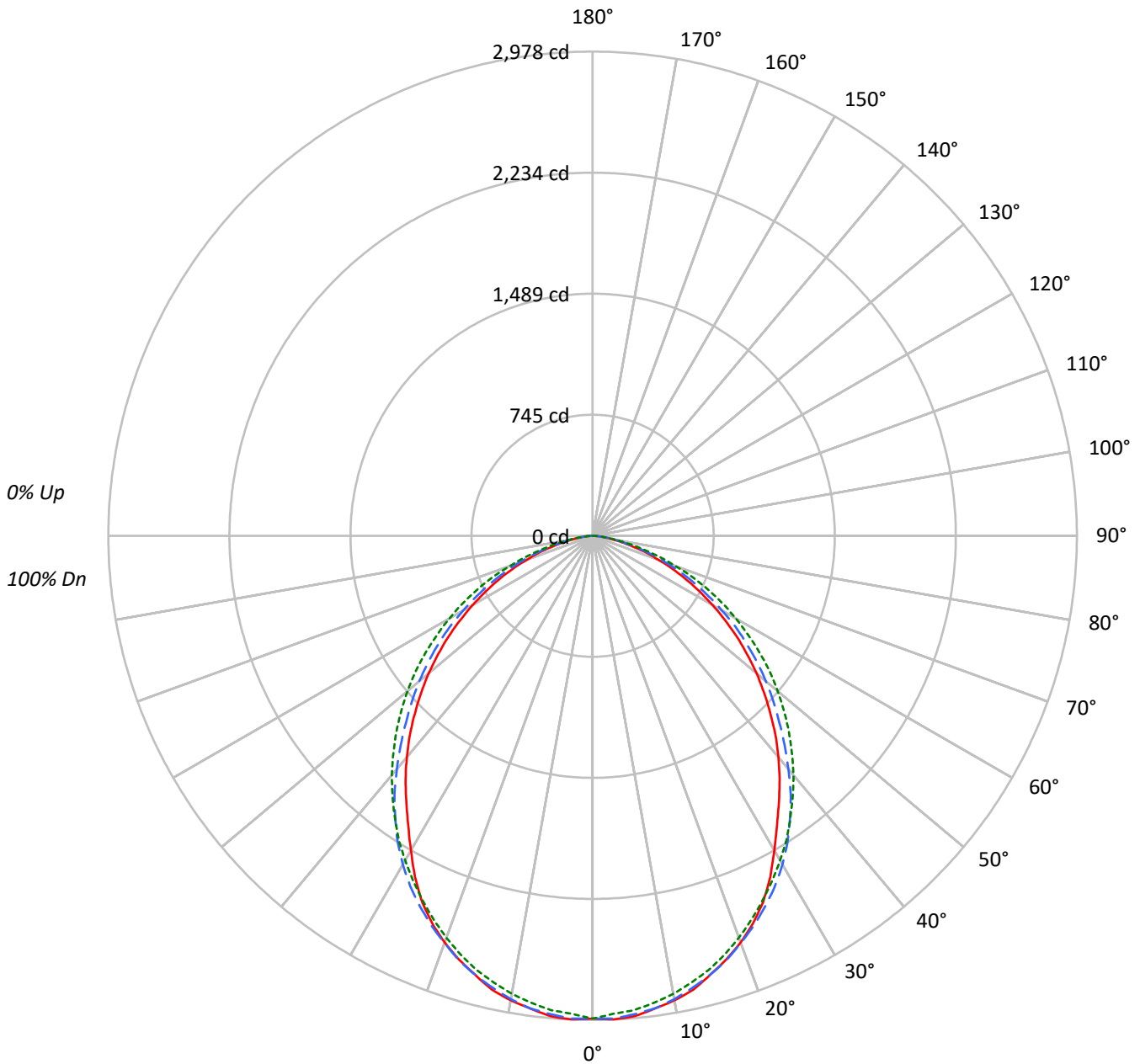
Lumens per Lamp: N/A
Luminaire Lumens: 6867.0 lumens
Efficiency: N/A
Efficacy: 79.5 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	7992	7992	7992
5°	8013	7979	7911
10°	7928	7906	7816
15°	7787	7787	7698
20°	7623	7632	7534
25°	7371	7463	7344
30°	6941	7253	7165
35°	6559	6953	6964
40°	6240	6577	6749
45°	5883	6178	6495
50°	5507	5822	6219
55°	5080	5417	5883
60°	4575	4943	5471
65°	4039	4395	4976
70°	3366	3744	4228
75°	2645	2989	3309
80°	1892	2104	2334
85°	1232	1232	1164



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	279.6	4.1
10°-20°	785.5	11.4
20°-30°	1147.9	16.7
30°-40°	1303.0	19.0
40°-50°	1257.8	18.3
50°-60°	1037.6	15.1
60°-70°	691.0	10.1
70°-80°	309.2	4.5
80°-90°	55.3	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°	2213.0	32.2
0°-40°	3516.0	51.2
0°-60°	5811.5	84.6
0°-90°	6867.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6867.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2970	2970	2970	2970	2970	
5°	2966	2965	2954	2938	2929	281
15°	2795	2802	2795	2783	2763	788
25°	2483	2502	2513	2495	2474	1137
35°	1997	2024	2116	2128	2120	1251
45°	1546	1572	1624	1698	1707	1193
55°	1083	1101	1155	1218	1254	966
65°	634	652	690	739	782	629
75°	254	268	288	301	318	278
85°	40	40	40	38	38	54
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2969.8	2969.8	2969.8	2969.8	2969.8
2.5°	2977.8	2978.9	2972.1	2953.8	2942.4
5°	2966.4	2965.2	2953.8	2937.9	2928.7
7.5°	2933.3	2935.6	2932.1	2909.3	2896.8
10°	2901.3	2902.5	2893.4	2875.1	2860.3
12.5°	2860.3	2859.1	2846.6	2837.5	2813.5
15°	2795.2	2802.1	2795.2	2782.7	2763.3
17.5°	2732.5	2732.5	2737.1	2715.4	2700.5
20°	2661.8	2665.2	2665.2	2648.1	2630.9
22.5°	2579.6	2589.9	2593.3	2575.0	2554.5
25°	2482.6	2502.0	2513.4	2495.2	2473.5
27.5°	2365.1	2394.8	2429.0	2415.3	2391.4
30°	2233.9	2277.3	2334.3	2322.9	2305.8
32.5°	2109.6	2152.9	2231.6	2227.1	2217.9
35°	1996.6	2024.0	2116.4	2127.8	2119.8
37.5°	1889.4	1914.5	2001.2	2027.4	2020.6
40°	1776.4	1803.8	1872.2	1919.0	1921.3
42.5°	1664.6	1690.8	1746.7	1814.1	1814.1
45°	1545.9	1572.2	1623.5	1697.7	1706.8
47.5°	1429.6	1456.9	1507.1	1581.3	1596.1
50°	1315.5	1340.6	1390.8	1462.7	1485.5
52.5°	1196.8	1224.2	1273.3	1339.4	1372.5
55°	1082.7	1101.0	1154.6	1218.5	1253.9
57.5°	964.1	981.2	1041.7	1096.4	1132.9
60°	850.0	871.7	918.4	974.3	1016.6
62.5°	740.5	763.3	803.2	852.3	900.2
65°	634.3	651.5	690.3	739.3	781.5
67.5°	531.7	546.5	585.3	619.5	664.0
70°	427.8	447.2	475.8	508.8	537.4
72.5°	344.6	352.5	376.5	400.5	430.1
75°	254.4	268.1	287.5	301.2	318.3
77.5°	182.5	190.5	201.9	213.4	229.3
80°	122.1	125.5	135.8	138.1	150.6
82.5°	74.2	76.4	78.7	79.9	84.4
85°	39.9	39.9	39.9	37.7	37.7
87.5°	22.8	22.8	19.4	16.0	11.4
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)