

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: P558021

Luminaire Tested: **FUSL-12-4-LD4-3LO-35-UNV-81-86-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: P558021
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-LD4-3LO-35-UNV-81-86-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .250
CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

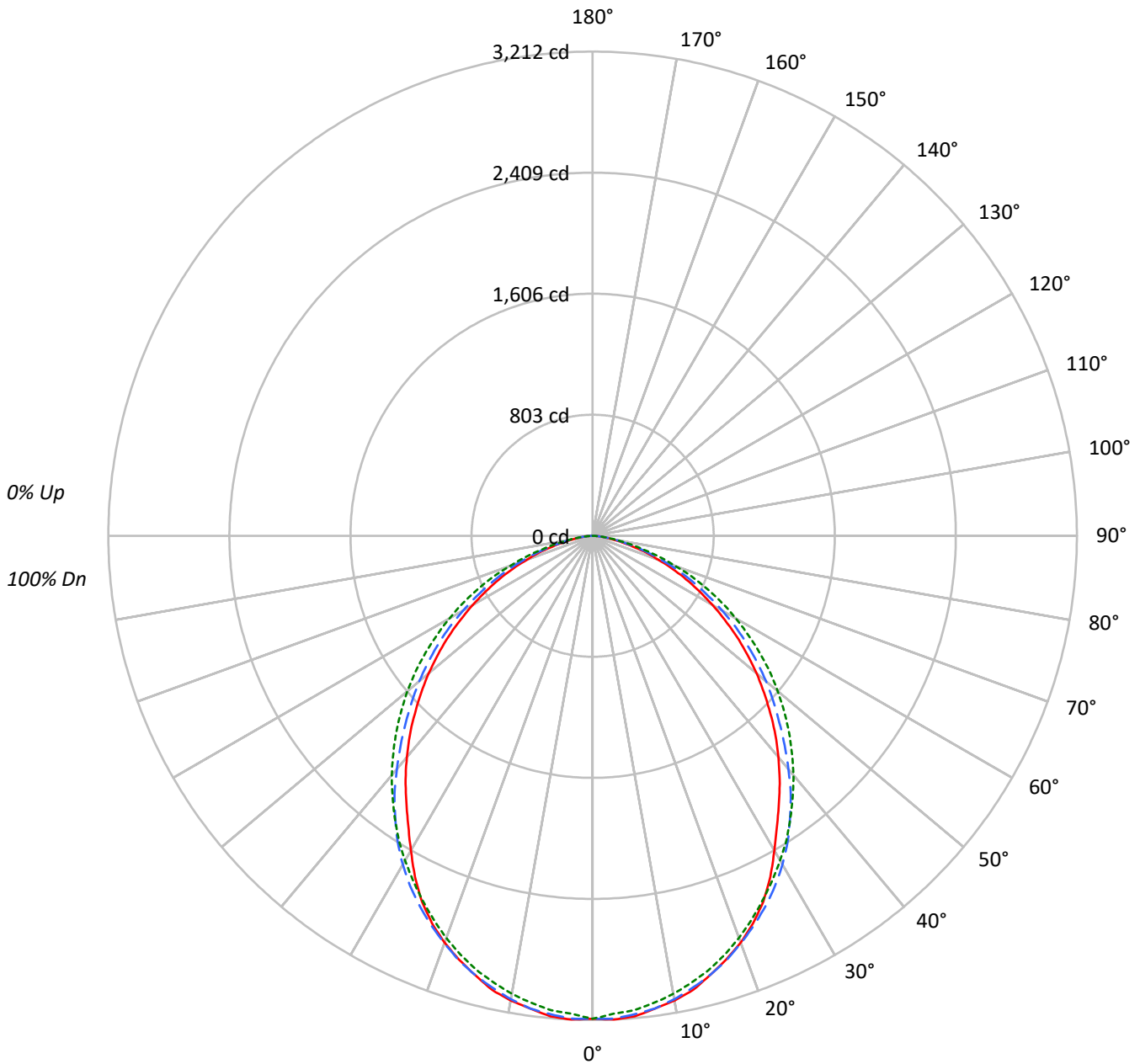
Lumens per Lamp: N/A
Luminaire Lumens: 7408.0 lumens
Efficiency: N/A
Efficacy: 105.5 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 70.2
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

TEST NUMBER: P558021

CATALOG NUMBER: FUSL-12-4-LD4-3LO-35-UNV-81-86-EDD

Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					20					
RC	80					70					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°	8621	8621	8621
5°	8644	8608	8535
10°	8552	8529	8431
15°	8401	8401	8305
20°	8223	8233	8128
25°	7952	8051	7923
30°	7488	7825	7729
35°	7076	7500	7512
40°	6732	7095	7281
45°	6347	6665	7007
50°	5941	6281	6709
55°	5480	5844	6346
60°	4935	5332	5902
65°	4357	4741	5368
70°	3631	4038	4561
75°	2854	3225	3570
80°	2041	2270	2518
85°	1331	1331	1254



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	301.6	4.1
10°-20°	847.4	11.4
20°-30°	1238.3	16.7
30°-40°	1405.6	19.0
40°-50°	1356.9	18.3
50°-60°	1119.4	15.1
60°-70°	745.4	10.1
70°-80°	333.6	4.5
80°-90°	59.7	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°	2387.4	32.2
0°-40°	3793.0	51.2
0°-60°	6269.3	84.6
0°-90°	7408.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7408.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3204	3204	3204	3204	3204	
5°	3200	3199	3186	3169	3160	303
15°	3016	3023	3016	3002	2981	850
25°	2678	2699	2711	2692	2668	1226
35°	2154	2183	2283	2295	2287	1350
45°	1668	1696	1751	1831	1841	1287
55°	1168	1188	1246	1314	1353	1042
65°	684	703	745	798	843	679
75°	274	289	310	325	343	300
85°	43	43	43	41	41	58
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3203.8	<i>3203.8</i>	3203.8	3203.8	3203.8
2.5°	<i>3212.4</i>	<i>3213.6</i>	<i>3206.2</i>	<i>3186.5</i>	<i>3174.2</i>
5°	3200.1	<i>3198.8</i>	3186.5	3169.3	3159.5
7.5°	3164.4	<i>3166.8</i>	3163.2	3138.5	3125.0
10°	3129.9	<i>3131.2</i>	3121.3	3101.6	3085.6
12.5°	3085.6	<i>3084.4</i>	3070.8	3061.0	3035.1
15°	3015.5	<i>3022.8</i>	3015.5	3001.9	2981.0
17.5°	2947.8	<i>2947.8</i>	2952.7	2929.3	2913.3
20°	2871.5	<i>2875.1</i>	2875.1	2856.7	2838.2
22.5°	2782.8	<i>2793.9</i>	2797.6	2777.9	2755.8
25°	2678.2	<i>2699.1</i>	2711.4	2691.8	2668.4
27.5°	2551.4	<i>2583.4</i>	2620.4	2605.6	2579.8
30°	2409.9	<i>2456.7</i>	2518.2	2505.9	2487.4
32.5°	2275.7	<i>2322.5</i>	2407.4	2402.5	2392.7
35°	2153.9	<i>2183.4</i>	2283.1	2295.4	2286.8
37.5°	2038.2	<i>2065.3</i>	2158.8	2187.1	2179.7
40°	1916.4	<i>1945.9</i>	2019.7	2070.2	2072.7
42.5°	1795.7	<i>1824.0</i>	1884.4	1957.0	1957.0
45°	1667.7	<i>1696.0</i>	1751.4	1831.4	1841.3
47.5°	1542.2	<i>1571.7</i>	1625.9	1705.9	1721.9
50°	1419.1	<i>1446.2</i>	1500.3	1577.9	1602.5
52.5°	1291.1	<i>1320.6</i>	1373.6	1445.0	1480.7
55°	1168.0	<i>1187.7</i>	1245.6	1314.5	1352.6
57.5°	1040.0	<i>1058.5</i>	1123.7	1182.8	1222.2
60°	916.9	<i>940.3</i>	990.8	1051.1	1096.6
62.5°	798.8	<i>823.4</i>	866.5	919.4	971.1
65°	684.3	<i>702.8</i>	744.6	797.6	843.1
67.5°	573.6	<i>589.6</i>	631.4	668.3	716.3
70°	461.5	<i>482.5</i>	513.2	548.9	579.7
72.5°	371.7	<i>380.3</i>	406.2	432.0	464.0
75°	274.5	<i>289.2</i>	310.2	324.9	343.4
77.5°	196.9	<i>205.5</i>	217.9	230.2	247.4
80°	131.7	<i>135.4</i>	146.5	148.9	162.5
82.5°	80.0	<i>82.5</i>	84.9	86.2	91.1
85°	43.1	<i>43.1</i>	43.1	40.6	40.6
87.5°	24.6	<i>24.6</i>	20.9	17.2	12.3
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)