

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: P558049

Luminaire Tested: **FUSL-12-4-LD4-3LO-35-UNV-93-84-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: P558049
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-93-84-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

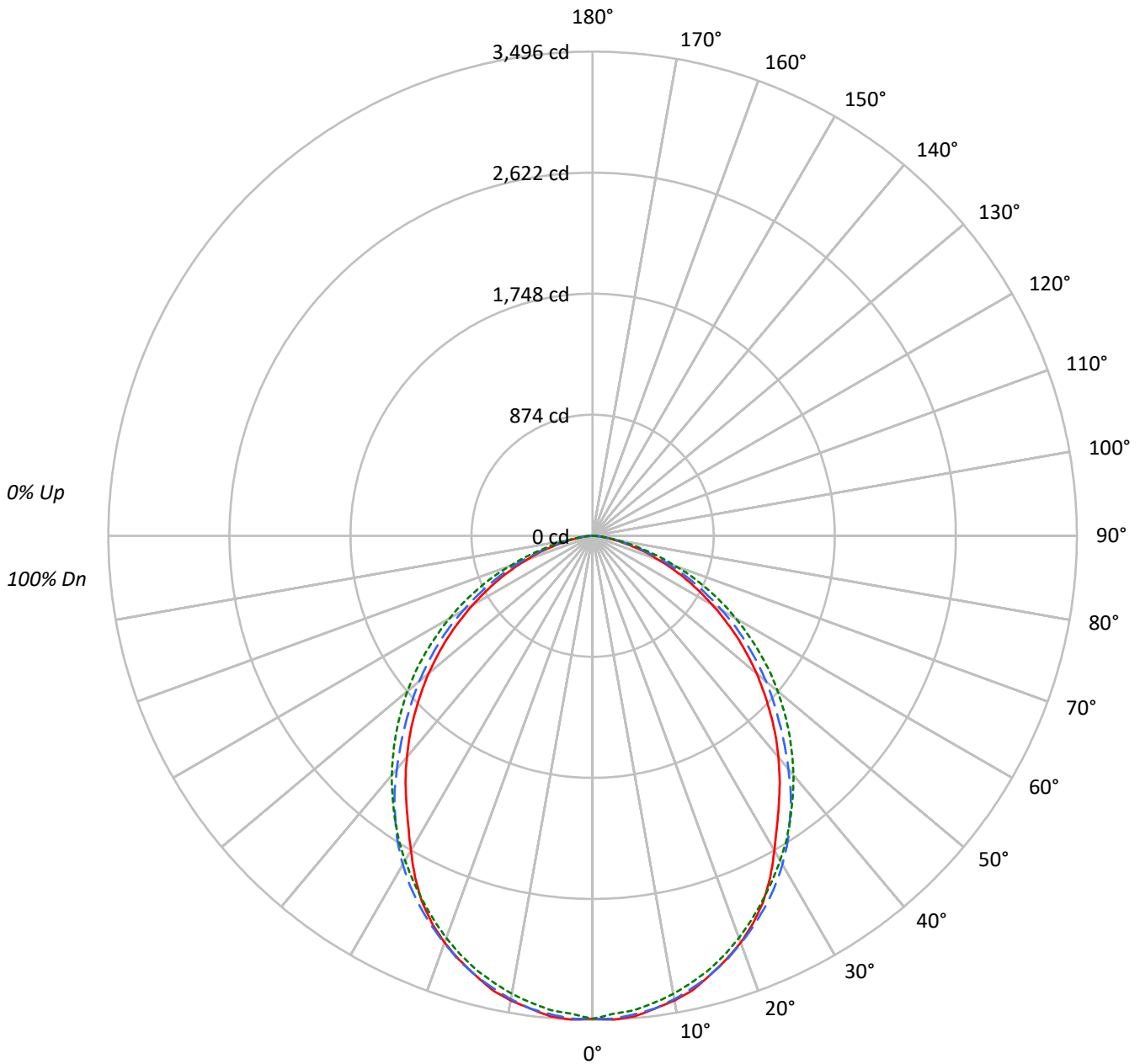
Lumens per Lamp: N/A
Luminaire Lumens: 8063.0 lumens
Efficiency: N/A
Efficacy: 114.9 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 70.2
Input Voltage (V): NR
Input Current (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°	9383	9383	9383
5°	9408	9369	9289
10°	9309	9283	9177
15°	9144	9144	9039
20°	8950	8962	8846
25°	8655	8763	8623
30°	8150	8517	8413
35°	7701	8163	8177
40°	7327	7722	7925
45°	6908	7255	7627
50°	6466	6836	7302
55°	5964	6360	6907
60°	5371	5804	6424
65°	4742	5161	5843
70°	3953	4395	4965
75°	3106	3510	3886
80°	2221	2470	2740
85°	1448	1448	1365



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	328.3	4.1
10°-20°	922.3	11.4
20°-30°	1347.8	16.7
30°-40°	1529.9	19.0
40°-50°	1476.9	18.3
50°-60°	1218.4	15.1
60°-70°	811.3	10.1
70°-80°	363.1	4.5
80°-90°	65.0	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°	2598.5	32.2
0°-40°	4128.4	51.2
0°-60°	6823.7	84.6
0°-90°	8063.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8063.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3487	3487	3487	3487	3487	
5°	3483	3482	3468	3450	3439	330
15°	3282	3290	3282	3267	3245	925
25°	2915	2938	2951	2930	2904	1335
35°	2344	2376	2485	2498	2489	1469
45°	1815	1846	1906	1993	2004	1401
55°	1271	1293	1356	1431	1472	1135
65°	745	765	810	868	918	739
75°	299	315	338	354	374	327
85°	47	47	47	44	44	63
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3487.0	3487.0	3487.0	3487.0	3487.0
2.5°	3496.4	3497.8	3489.7	3468.3	3454.9
5°	3483.0	3481.7	3468.3	3449.5	3438.8
7.5°	3444.2	3446.9	3442.8	3416.0	3401.3
10°	3406.7	3408.0	3397.3	3375.9	3358.4
12.5°	3358.4	3357.1	3342.4	3331.6	3303.5
15°	3282.1	3290.1	3282.1	3267.3	3244.6
17.5°	3208.4	3208.4	3213.8	3188.3	3170.9
20°	3125.3	3129.4	3129.4	3109.3	3089.2
22.5°	3028.9	3040.9	3045.0	3023.5	2999.4
25°	2915.0	2937.8	2951.2	2929.8	2904.3
27.5°	2777.0	2811.9	2852.1	2836.0	2807.9
30°	2623.0	2673.9	2740.9	2727.5	2707.4
32.5°	2477.0	2527.9	2620.3	2614.9	2604.2
35°	2344.3	2376.5	2485.0	2498.4	2489.0
37.5°	2218.4	2247.9	2349.7	2380.5	2372.5
40°	2085.8	2117.9	2198.3	2253.2	2255.9
42.5°	1954.5	1985.3	2051.0	2130.0	2130.0
45°	1815.2	1846.0	1906.3	1993.4	2004.1
47.5°	1678.5	1710.7	1769.6	1856.7	1874.1
50°	1544.6	1574.1	1633.0	1717.4	1744.2
52.5°	1405.3	1437.4	1495.0	1572.7	1611.6
55°	1271.3	1292.7	1355.7	1430.7	1472.2
57.5°	1132.0	1152.1	1223.1	1287.4	1330.2
60°	998.0	1023.5	1078.4	1144.0	1193.6
62.5°	869.4	896.2	943.1	1000.7	1057.0
65°	744.8	764.9	810.5	868.1	917.6
67.5°	624.3	641.7	687.2	727.4	779.7
70°	502.4	525.1	558.6	597.5	631.0
72.5°	404.6	413.9	442.1	470.2	505.0
75°	298.7	314.8	337.6	353.7	373.8
77.5°	214.3	223.7	237.1	250.5	269.3
80°	143.3	147.4	159.4	162.1	176.8
82.5°	87.1	89.8	92.4	93.8	99.1
85°	46.9	46.9	46.9	44.2	44.2
87.5°	26.8	26.8	22.8	18.8	13.4
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)