

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: P558103

Luminaire Tested: **FUSL-12-4-LD4-3LO-40-UNV-82-87-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: P558103
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-40-UNV-82-87-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

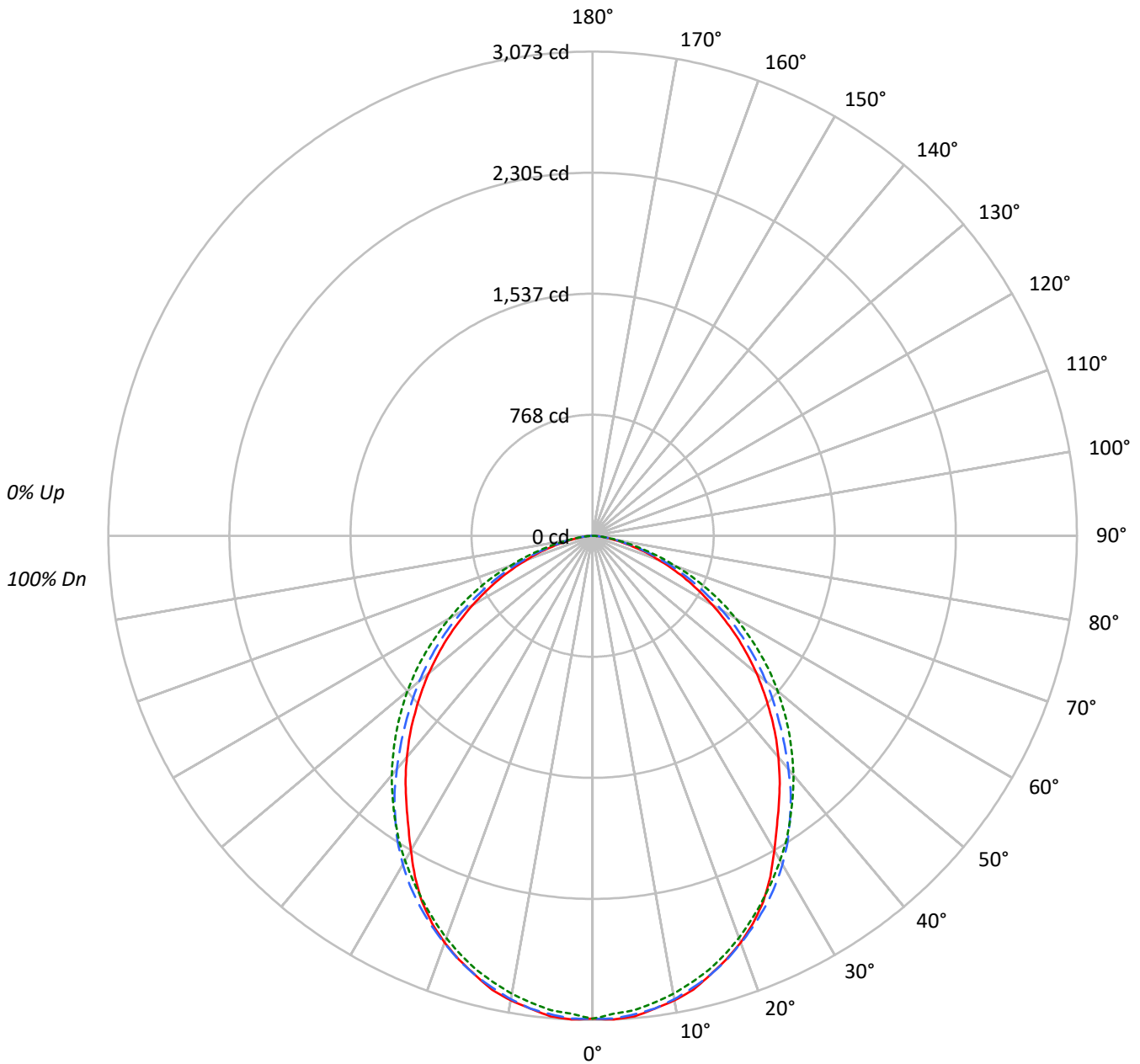
Lumens per Lamp: N/A
Luminaire Lumens: 7087.0 lumens
Efficiency: N/A
Efficacy: 101.0 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	8248	8248	8248
5°	8270	8235	8165
10°	8182	8159	8066
15°	8037	8037	7945
20°	7867	7877	7775
25°	7608	7702	7579
30°	7164	7486	7394
35°	6769	7175	7187
40°	6440	6787	6966
45°	6072	6376	6704
50°	5683	6009	6418
55°	5242	5590	6071
60°	4721	5102	5646
65°	4169	4536	5136
70°	3474	3863	4364
75°	2730	3085	3415
80°	1953	2171	2408
85°	1272	1272	1201



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	288.6	4.1
10°-20°	810.7	11.4
20°-30°	1184.7	16.7
30°-40°	1344.7	19.0
40°-50°	1298.1	18.3
50°-60°	1070.9	15.1
60°-70°	713.1	10.1
70°-80°	319.1	4.5
80°-90°	57.1	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°	2283.9	32.2
0°-40°	3628.7	51.2
0°-60°	5997.7	84.6
0°-90°	7087.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7087.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3065	3065	3065	3065	3065	
5°	3061	3060	3048	3032	3023	290
15°	2885	2892	2885	2872	2852	813
25°	2562	2582	2594	2575	2553	1173
35°	2061	2089	2184	2196	2188	1291
45°	1596	1622	1676	1752	1762	1231
55°	1117	1136	1192	1258	1294	997
65°	655	672	712	763	807	649
75°	263	277	297	311	328	287
85°	41	41	41	39	39	56
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3064.9	3064.9	3064.9	3064.9	3064.9
2.5°	3073.2	3074.4	3067.3	3048.5	3036.7
5°	3061.4	3060.2	3048.5	3032.0	3022.6
7.5°	3027.3	3029.6	3026.1	3002.5	2989.6
10°	2994.3	2995.5	2986.1	2967.2	2951.9
12.5°	2951.9	2950.7	2937.8	2928.4	2903.6
15°	2884.8	2891.9	2884.8	2871.8	2851.8
17.5°	2820.0	2820.0	2824.7	2802.4	2787.1
20°	2747.0	2750.6	2750.6	2732.9	2715.2
22.5°	2662.3	2672.8	2676.4	2657.5	2636.3
25°	2562.2	2582.2	2594.0	2575.1	2552.7
27.5°	2440.9	2471.5	2506.8	2492.7	2468.0
30°	2305.5	2350.2	2409.1	2397.3	2379.7
32.5°	2177.1	2221.9	2303.1	2298.4	2289.0
35°	2060.6	2088.8	2184.2	2196.0	2187.7
37.5°	1949.9	1975.8	2065.3	2092.4	2085.3
40°	1833.3	1861.6	1932.2	1980.5	1982.9
42.5°	1717.9	1745.0	1802.7	1872.2	1872.2
45°	1595.5	1622.5	1675.5	1752.1	1761.5
47.5°	1475.4	1503.6	1555.4	1632.0	1647.3
50°	1357.6	1383.5	1435.3	1509.5	1533.1
52.5°	1235.2	1263.4	1314.1	1382.3	1416.5
55°	1117.4	1136.3	1191.6	1257.5	1294.0
57.5°	995.0	1012.6	1075.0	1131.5	1169.2
60°	877.2	899.6	947.9	1005.6	1049.1
62.5°	764.2	787.7	828.9	879.6	929.0
65°	654.7	672.3	712.4	763.0	806.6
67.5°	548.7	564.0	604.0	639.4	685.3
70°	441.5	461.6	491.0	525.1	554.6
72.5°	355.6	363.8	388.6	413.3	443.9
75°	262.6	276.7	296.7	310.9	328.5
77.5°	188.4	196.6	208.4	220.2	236.7
80°	126.0	129.5	140.1	142.5	155.4
82.5°	76.5	78.9	81.2	82.4	87.1
85°	41.2	41.2	41.2	38.9	38.9
87.5°	23.5	23.5	20.0	16.5	11.8
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)