

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: P557072

Luminaire Tested: **FUSL-12-4-LD4-2HI-40-UNV-82-84-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: P557072
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-40-UNV-82-84-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

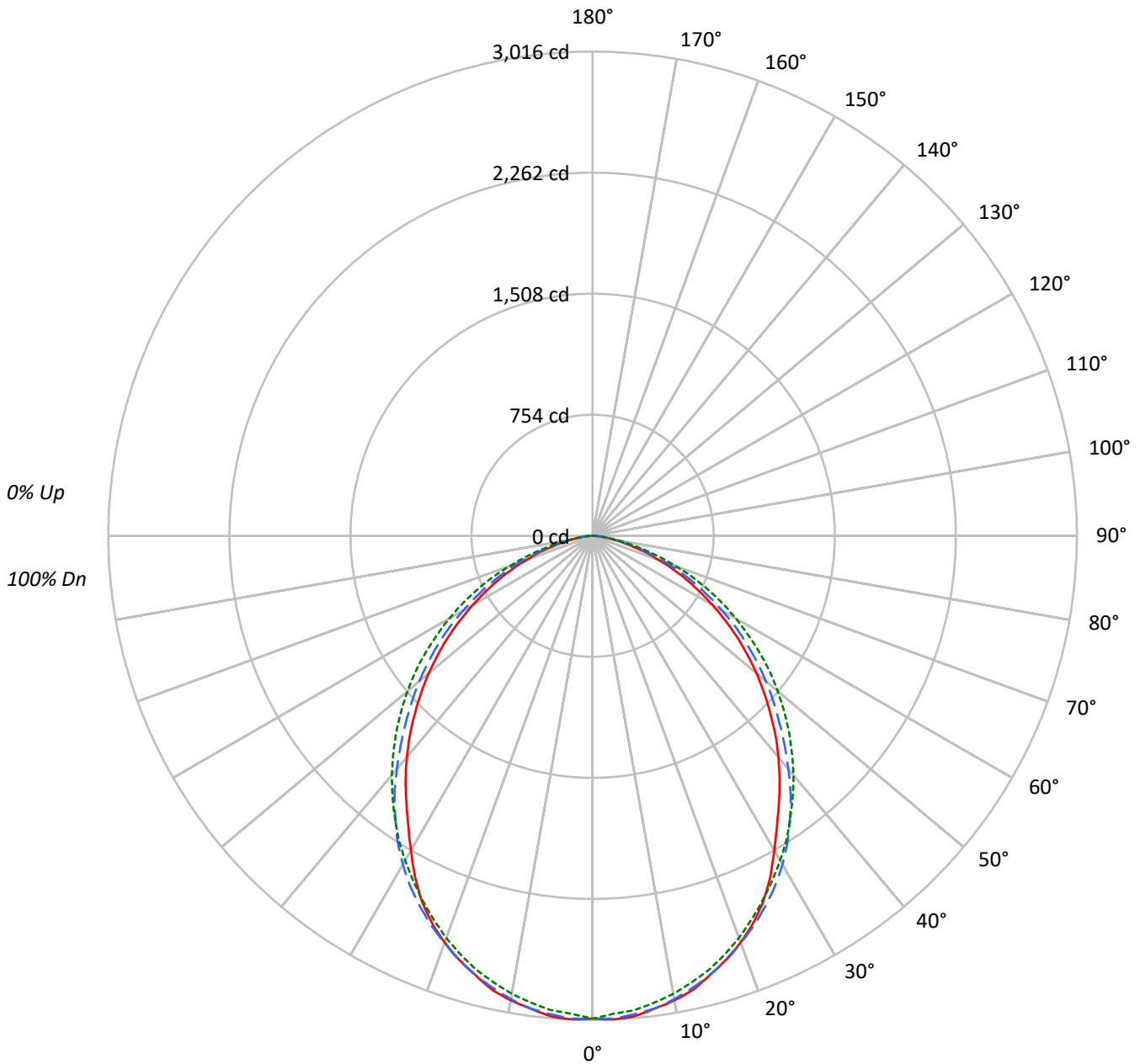
Lumens per Lamp: N/A
Luminaire Lumens: 6955.0 lumens
Efficiency: N/A
Efficacy: 80.5 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 86.4
Input Voltage (V): NR
Input Current (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

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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°	8094	8094	8094
5°	8116	8081	8013
10°	8029	8007	7916
15°	7887	7887	7797
20°	7720	7730	7631
25°	7466	7558	7438
30°	7030	7346	7256
35°	6643	7042	7053
40°	6320	6661	6836
45°	5959	6258	6579
50°	5578	5897	6298
55°	5145	5486	5958
60°	4633	5006	5541
65°	4091	4451	5040
70°	3409	3792	4282
75°	2679	3028	3352
80°	1915	2131	2363
85°	1247	1247	1176



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	283.2	4.1
10°-20°	795.6	11.4
20°-30°	1162.6	16.7
30°-40°	1319.7	19.0
40°-50°	1274.0	18.3
50°-60°	1050.9	15.1
60°-70°	699.8	10.1
70°-80°	313.2	4.5
80°-90°	56.0	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°	2241.4	32.2
0°-40°	3561.1	51.2
0°-60°	5886.0	84.6
0°-90°	6955.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6955.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3008	3008	3008	3008	3008	
5°	3004	3003	2992	2976	2966	284
15°	2831	2838	2831	2818	2799	798
25°	2514	2534	2546	2527	2505	1151
35°	2022	2050	2144	2155	2147	1267
45°	1566	1592	1644	1719	1729	1208
55°	1097	1115	1169	1234	1270	979
65°	642	660	699	749	792	637
75°	258	272	291	305	322	282
85°	40	40	40	38	38	55
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3007.9	3007.9	3007.9	3007.9	3007.9
2.5°	3015.9	3017.1	3010.2	2991.7	2980.1
5°	3004.4	3003.2	2991.7	2975.5	2966.3
7.5°	2970.9	2973.2	2969.7	2946.6	2933.9
10°	2938.5	2939.7	2930.4	2911.9	2896.9
12.5°	2896.9	2895.8	2883.1	2873.8	2849.5
15°	2831.1	2838.0	2831.1	2818.4	2798.7
17.5°	2767.5	2767.5	2772.1	2750.2	2735.2
20°	2695.9	2699.3	2699.3	2682.0	2664.7
22.5°	2612.7	2623.1	2626.5	2608.0	2587.2
25°	2514.4	2534.1	2545.6	2527.2	2505.2
27.5°	2395.4	2425.5	2460.1	2446.3	2422.0
30°	2262.5	2306.4	2364.2	2352.7	2335.3
32.5°	2136.6	2180.5	2260.2	2255.6	2246.4
35°	2022.2	2049.9	2143.5	2155.1	2147.0
37.5°	1913.6	1939.0	2026.8	2053.4	2046.5
40°	1799.2	1826.9	1896.2	1943.6	1945.9
42.5°	1685.9	1712.5	1769.1	1837.3	1837.3
45°	1565.8	1592.3	1644.3	1719.4	1728.7
47.5°	1447.9	1475.6	1526.5	1601.6	1616.6
50°	1332.3	1357.8	1408.6	1481.4	1504.5
52.5°	1212.2	1239.9	1289.6	1356.6	1390.1
55°	1096.6	1115.1	1169.4	1234.1	1269.9
57.5°	976.4	993.8	1055.0	1110.5	1147.4
60°	860.9	882.8	930.2	986.8	1029.6
62.5°	749.9	773.1	813.5	863.2	911.7
65°	642.5	659.8	699.1	748.8	791.5
67.5°	538.5	553.5	592.8	627.5	672.5
70°	433.3	453.0	481.9	515.4	544.3
72.5°	349.0	357.1	381.3	405.6	435.6
75°	257.7	271.6	291.2	305.1	322.4
77.5°	184.9	193.0	204.5	216.1	232.3
80°	123.6	127.1	137.5	139.8	152.5
82.5°	75.1	77.4	79.7	80.9	85.5
85°	40.4	40.4	40.4	38.1	38.1
87.5°	23.1	23.1	19.6	16.2	11.6
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)