

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: P557060

Luminaire Tested: **FUSL-12-4-LD4-2HI-40-UNV-81-86-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: P557060
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-81-86-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

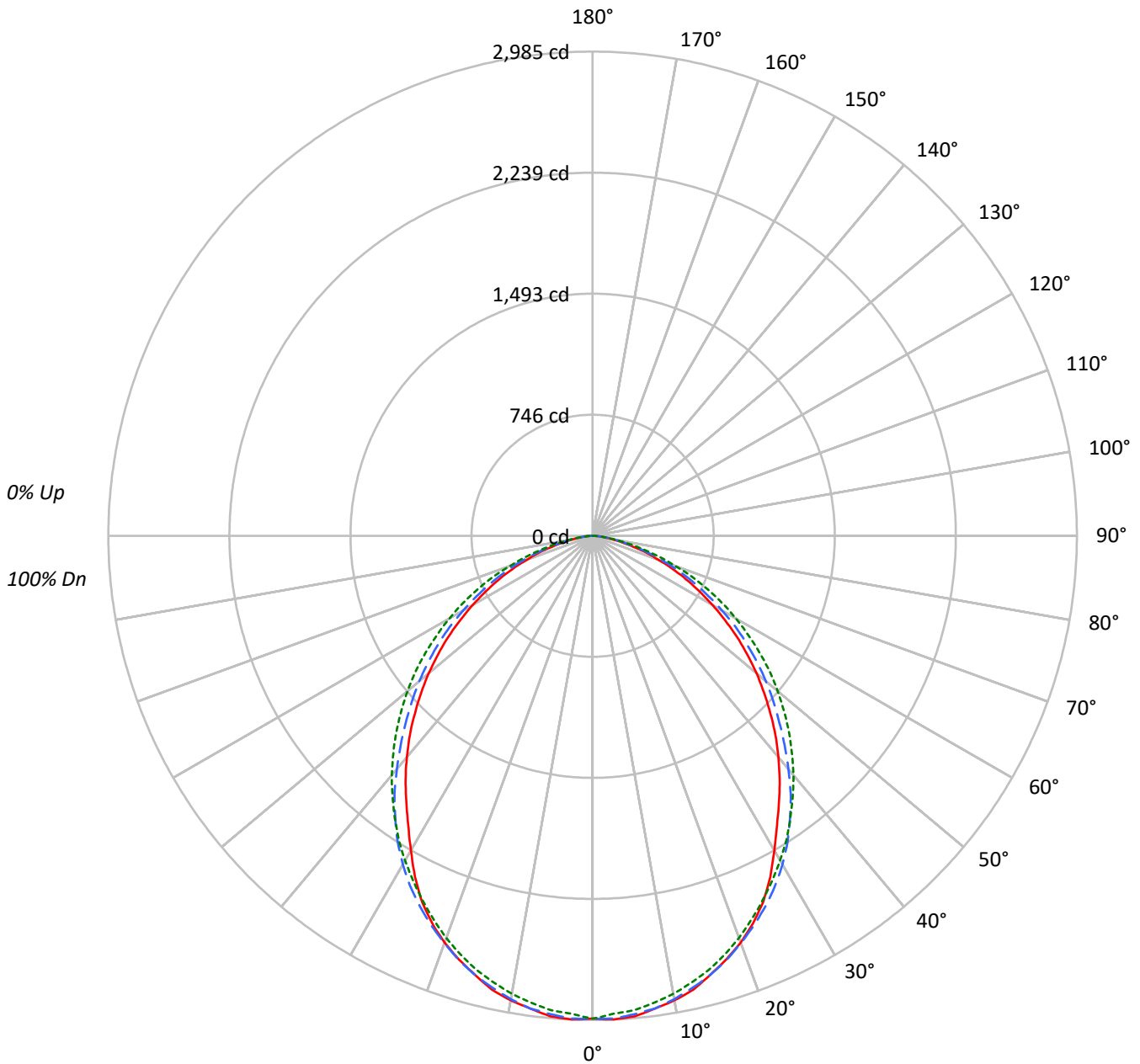
Lumens per Lamp: N/A
Luminaire Lumens: 6884.0 lumens
Efficiency: N/A
Efficacy: 79.7 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	8012	8012	8012
5°	8033	7999	7931
10°	7947	7926	7835
15°	7807	7807	7717
20°	7641	7651	7553
25°	7390	7481	7362
30°	6958	7271	7182
35°	6575	6970	6981
40°	6256	6593	6766
45°	5898	6194	6511
50°	5521	5837	6234
55°	5092	5431	5897
60°	4586	4955	5485
65°	4049	4406	4989
70°	3375	3752	4238
75°	2652	2996	3318
80°	1897	2109	2340
85°	1235	1235	1164



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	280.3	4.1
10°-20°	787.5	11.4
20°-30°	1150.7	16.7
30°-40°	1306.2	19.0
40°-50°	1261.0	18.3
50°-60°	1040.2	15.1
60°-70°	692.7	10.1
70°-80°	310.0	4.5
80°-90°	55.4	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°	2218.5	32.2
0°-40°	3524.7	51.2
0°-60°	5825.9	84.6
0°-90°	6884.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6884.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2977	2977	2977	2977	2977	
5°	2974	2973	2961	2945	2936	281
15°	2802	2809	2802	2790	2770	790
25°	2489	2508	2520	2501	2480	1140
35°	2002	2029	2122	2133	2125	1254
45°	1550	1576	1628	1702	1711	1196
55°	1085	1104	1158	1222	1257	969
65°	636	653	692	741	784	631
75°	255	269	288	302	319	279
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°	2977.2	2977.2	2977.2	2977.2	2977.2
2.5°	2985.2	2986.3	2979.4	2961.1	2949.7
5°	2973.7	2972.6	2961.1	2945.1	2936.0
7.5°	2940.6	2942.8	2939.4	2916.5	2904.0
10°	2908.5	2909.7	2900.5	2882.2	2867.4
12.5°	2867.4	2866.2	2853.6	2844.5	2820.5
15°	2802.2	2809.0	2802.2	2789.6	2770.1
17.5°	2739.3	2739.3	2743.8	2722.1	2707.2
20°	2668.3	2671.8	2671.8	2654.6	2637.5
22.5°	2586.0	2596.3	2599.7	2581.4	2560.8
25°	2488.8	2508.2	2519.7	2501.4	2479.6
27.5°	2371.0	2400.7	2435.0	2421.3	2397.3
30°	2239.4	2282.9	2340.1	2328.7	2311.5
32.5°	2114.8	2158.2	2237.2	2232.6	2223.4
35°	2001.5	2029.0	2121.6	2133.1	2125.1
37.5°	1894.0	1919.2	2006.1	2032.4	2025.6
40°	1780.8	1808.3	1876.9	1923.8	1926.1
42.5°	1668.7	1695.0	1751.1	1818.5	1818.5
45°	1549.8	1576.1	1627.5	1701.9	1711.0
47.5°	1433.1	1460.6	1510.9	1585.2	1600.1
50°	1318.7	1343.9	1394.2	1466.3	1489.1
52.5°	1199.8	1227.2	1276.4	1342.7	1375.9
55°	1085.4	1103.7	1157.5	1221.5	1257.0
57.5°	966.5	983.6	1044.2	1099.1	1135.7
60°	852.1	873.8	920.7	976.8	1019.1
62.5°	742.3	765.2	805.2	854.4	902.4
65°	635.9	653.1	692.0	741.1	783.5
67.5°	533.0	547.9	586.7	621.1	665.7
70°	428.9	448.3	476.9	510.1	538.7
72.5°	345.4	353.4	377.4	401.5	431.2
75°	255.1	268.8	288.2	301.9	319.1
77.5°	183.0	191.0	202.4	213.9	229.9
80°	122.4	125.8	136.1	138.4	151.0
82.5°	74.3	76.6	78.9	80.1	84.6
85°	40.0	40.0	40.0	37.7	37.7
87.5°	22.9	22.9	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)