

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: P557128

Luminaire Tested: **FUSL-12-4-LD4-2HI-50-UNV-81-88-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: P557128
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-50-UNV-81-88-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

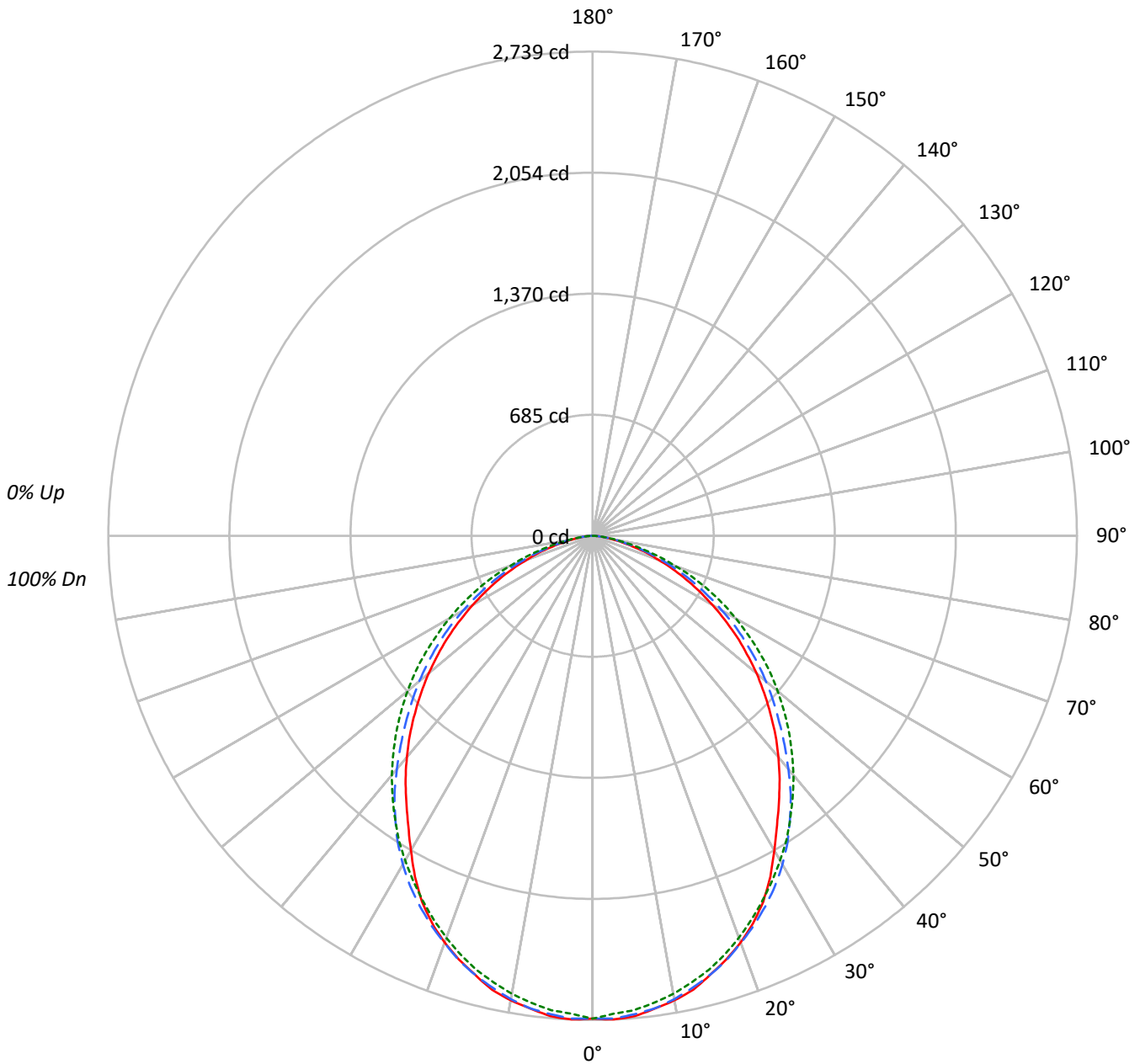
Lumens per Lamp: N/A
Luminaire Lumens: 6316.0 lumens
Efficiency: N/A
Efficacy: 73.1 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	7350	7350	7350
5°	7370	7339	7276
10°	7292	7272	7189
15°	7163	7163	7081
20°	7011	7020	6930
25°	6780	6864	6755
30°	6385	6671	6590
35°	6033	6395	6405
40°	5740	6049	6208
45°	5411	5683	5974
50°	5065	5355	5720
55°	4672	4982	5411
60°	4208	4546	5032
65°	3715	4043	4577
70°	3096	3443	3889
75°	2433	2749	3044
80°	1740	1936	2146
85°	1133	1133	1068



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	257.2	4.1
10°-20°	722.5	11.4
20°-30°	1055.8	16.7
30°-40°	1198.4	19.0
40°-50°	1156.9	18.3
50°-60°	954.4	15.1
60°-70°	635.5	10.1
70°-80°	284.4	4.5
80°-90°	50.9	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°	2035.5	32.2
0°-40°	3233.9	51.2
0°-60°	5345.2	84.6
0°-90°	6316.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6316.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2732	2732	2732	2732	2732	
5°	2728	2727	2717	2702	2694	258
15°	2571	2577	2571	2559	2542	725
25°	2283	2301	2312	2295	2275	1046
35°	1836	1862	1947	1957	1950	1151
45°	1422	1446	1493	1562	1570	1097
55°	996	1013	1062	1121	1153	889
65°	583	599	635	680	719	578
75°	234	247	264	277	293	256
85°	37	37	37	35	35	50
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2731.5	2731.5	2731.5	2731.5	2731.5
2.5°	2738.9	2739.9	2733.6	2716.8	2706.3
5°	2728.4	2727.3	2716.8	2702.1	2693.7
7.5°	2697.9	2700.0	2696.9	2675.9	2664.3
10°	2668.5	2669.6	2661.2	2644.4	2630.8
12.5°	2630.8	2629.7	2618.2	2609.8	2587.7
15°	2571.0	2577.2	2571.0	2559.4	2541.6
17.5°	2513.2	2513.2	2517.4	2497.5	2483.9
20°	2448.2	2451.3	2451.3	2435.6	2419.8
22.5°	2372.6	2382.1	2385.2	2368.4	2349.5
25°	2283.4	2301.3	2311.8	2295.0	2275.0
27.5°	2175.3	2202.6	2234.1	2221.5	2199.5
30°	2054.7	2094.5	2147.0	2136.5	2120.8
32.5°	1940.3	1980.2	2052.6	2048.4	2040.0
35°	1836.4	1861.6	1946.6	1957.1	1949.7
37.5°	1737.8	1760.8	1840.6	1864.7	1858.4
40°	1633.9	1659.1	1722.0	1765.0	1767.1
42.5°	1531.0	1555.2	1606.6	1668.5	1668.5
45°	1421.9	1446.0	1493.3	1561.5	1569.9
47.5°	1314.9	1340.0	1386.2	1454.4	1468.1
50°	1209.9	1233.0	1279.2	1345.3	1366.3
52.5°	1100.8	1126.0	1171.1	1232.0	1262.4
55°	995.9	1012.6	1062.0	1120.7	1153.3
57.5°	886.7	902.5	958.1	1008.4	1042.0
60°	781.8	801.7	844.7	896.2	935.0
62.5°	681.0	702.0	738.8	783.9	828.0
65°	583.4	599.2	634.9	680.0	718.8
67.5°	489.0	502.6	538.3	569.8	610.7
70°	393.5	411.4	437.6	468.0	494.3
72.5°	316.9	324.3	346.3	368.3	395.6
75°	234.0	246.6	264.4	277.0	292.8
77.5°	167.9	175.2	185.7	196.2	210.9
80°	112.3	115.4	124.9	127.0	138.5
82.5°	68.2	70.3	72.4	73.5	77.7
85°	36.7	36.7	36.7	34.6	34.6
87.5°	21.0	21.0	17.8	14.7	10.5
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)