

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: P557087

Luminaire Tested: **FUSL-12-4-LD4-2HI-40-UNV-82-97-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: P557087
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-82-97-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .375
CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

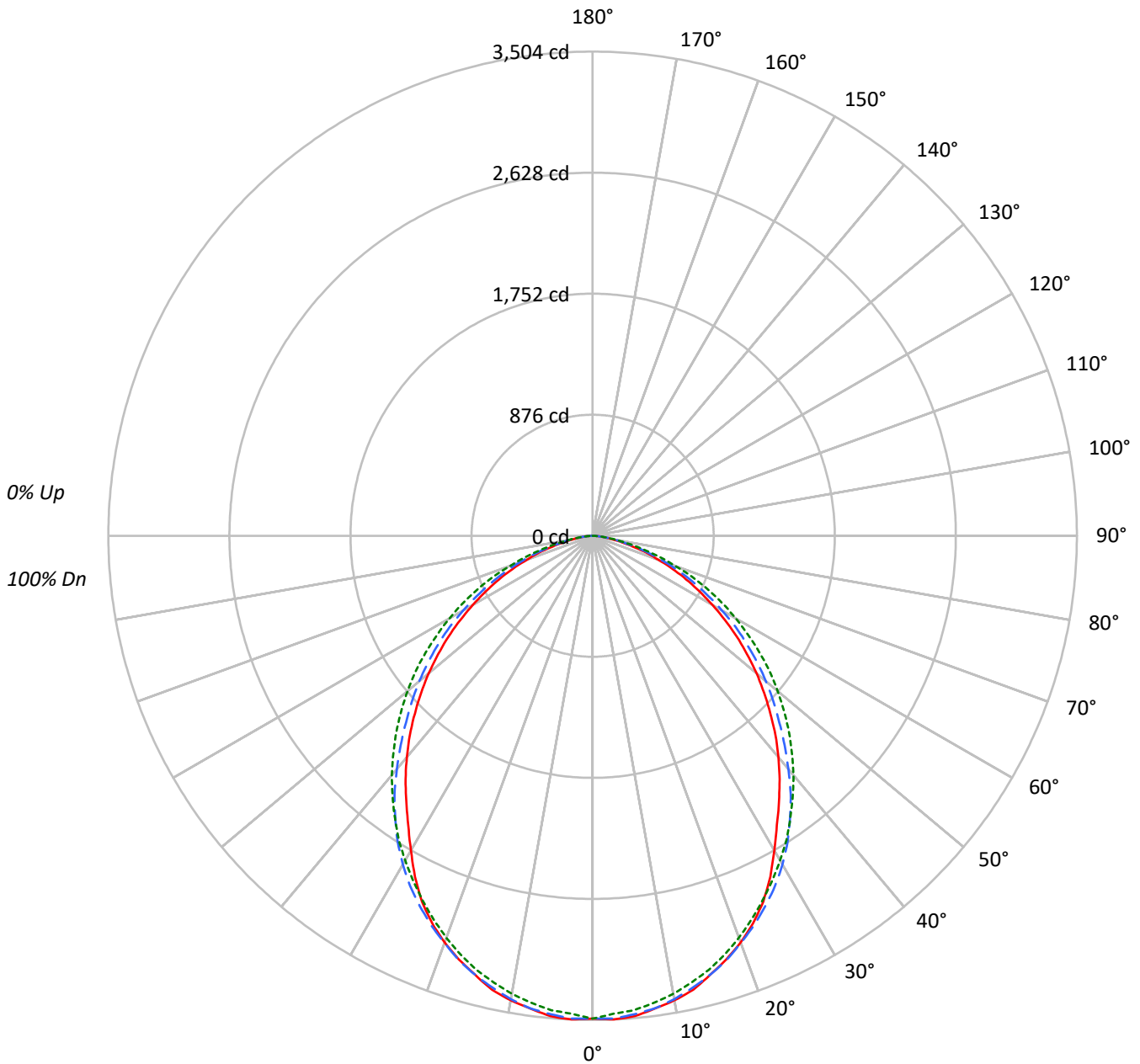
Lumens per Lamp: N/A
Luminaire Lumens: 8080.0 lumens
Efficiency: N/A
Efficacy: 93.5 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 86.4
Input Voltage (V): NR
Input Current (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°	9403	9403	9403
5°	9428	9388	9309
10°	9328	9302	9196
15°	9163	9163	9058
20°	8969	8980	8865
25°	8674	8781	8641
30°	8167	8534	8430
35°	7718	8181	8194
40°	7343	7739	7941
45°	6922	7270	7643
50°	6480	6851	7317
55°	5977	6374	6922
60°	5382	5816	6437
65°	4753	5172	5855
70°	3961	4404	4975
75°	3113	3517	3894
80°	2225	2476	2746
85°	1451	1451	1368



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	329.0	4.1
10°-20°	924.3	11.4
20°-30°	1350.7	16.7
30°-40°	1533.2	19.0
40°-50°	1480.0	18.3
50°-60°	1220.9	15.1
60°-70°	813.0	10.1
70°-80°	363.8	4.5
80°-90°	65.1	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°	2604.0	32.2
0°-40°	4137.1	51.2
0°-60°	6838.1	84.6
0°-90°	8080.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8080.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3494	3494	3494	3494	3494	
5°	3490	3489	3476	3457	3446	330
15°	3289	3297	3289	3274	3251	927
25°	2921	2944	2957	2936	2910	1338
35°	2349	2382	2490	2504	2494	1472
45°	1819	1850	1910	1998	2008	1403
55°	1274	1296	1359	1434	1475	1137
65°	746	766	812	870	920	740
75°	299	316	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°	3494.4	3494.4	3494.4	3494.4	3494.4
2.5°	3503.8	3505.1	3497.1	3475.6	3462.2
5°	3490.4	3489.0	3475.6	3456.8	3446.1
7.5°	3451.4	3454.1	3450.1	3423.2	3408.5
10°	3413.8	3415.2	3404.4	3383.0	3365.5
12.5°	3365.5	3364.2	3349.4	3338.7	3310.5
15°	3289.0	3297.1	3289.0	3274.2	3251.4
17.5°	3215.2	3215.2	3220.5	3195.0	3177.6
20°	3131.9	3136.0	3136.0	3115.8	3095.7
22.5°	3035.3	3047.4	3051.4	3029.9	3005.7
25°	2921.2	2944.0	2957.4	2935.9	2910.4
27.5°	2782.9	2817.8	2858.1	2842.0	2813.8
30°	2628.5	2679.5	2746.6	2733.2	2713.1
32.5°	2482.2	2533.2	2625.8	2620.5	2609.7
35°	2349.3	2381.5	2490.2	2503.7	2494.3
37.5°	2223.1	2252.6	2354.7	2385.5	2377.5
40°	2090.2	2122.4	2203.0	2258.0	2260.7
42.5°	1958.6	1989.5	2055.3	2134.5	2134.5
45°	1819.0	1849.9	1910.3	1997.6	2008.3
47.5°	1682.1	1714.3	1773.4	1860.6	1878.1
50°	1547.8	1577.4	1636.4	1721.0	1747.9
52.5°	1408.2	1440.4	1498.2	1576.0	1615.0
55°	1274.0	1295.5	1358.6	1433.7	1475.4
57.5°	1134.4	1154.5	1225.7	1290.1	1333.1
60°	1000.1	1025.6	1080.7	1146.5	1196.1
62.5°	871.2	898.1	945.1	1002.8	1059.2
65°	746.4	766.5	812.2	869.9	919.6
67.5°	625.6	643.0	688.7	728.9	781.3
70°	503.4	526.2	559.8	598.7	632.3
72.5°	405.4	414.8	443.0	471.2	506.1
75°	299.4	315.5	338.3	354.4	374.5
77.5°	214.8	224.2	237.6	251.0	269.8
80°	143.6	147.7	159.8	162.4	177.2
82.5°	87.3	89.9	92.6	94.0	99.3
85°	47.0	47.0	47.0	44.3	44.3
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)