

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: P557069

Luminaire Tested: **FUSL-12-4-LD4-2HI-40-UNV-81-96-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: P557069
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-81-96-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDES
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

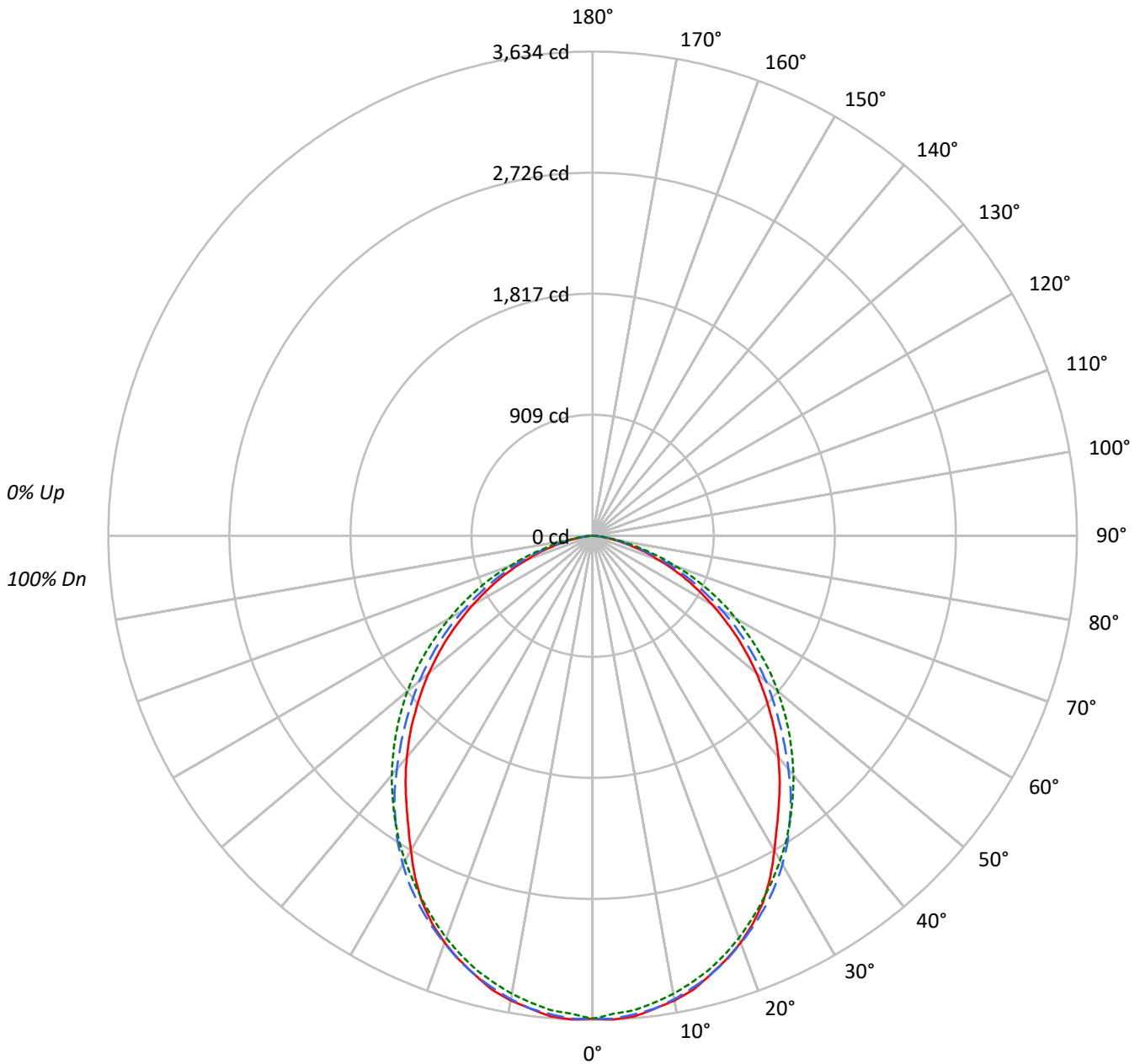
Lumens per Lamp: N/A
Luminaire Lumens: 8381.0 lumens
Efficiency: N/A
Efficacy: 97.0 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	9754	9754	9754
5°	9780	9738	9655
10°	9676	9649	9539
15°	9504	9504	9395
20°	9303	9315	9195
25°	8997	9108	8963
30°	8472	8853	8744
35°	8005	8485	8499
40°	7616	8027	8237
45°	7180	7541	7927
50°	6721	7106	7590
55°	6199	6611	7180
60°	5583	6033	6677
65°	4930	5364	6073
70°	4109	4569	5160
75°	3228	3648	4039
80°	2309	2568	2848
85°	1504	1504	1420



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	341.3	4.1
10°-20°	958.7	11.4
20°-30°	1401.0	16.7
30°-40°	1590.3	19.0
40°-50°	1535.2	18.3
50°-60°	1266.4	15.1
60°-70°	843.3	10.1
70°-80°	377.4	4.5
80°-90°	67.5	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°	2701.0	32.2
0°-40°	4291.2	51.2
0°-60°	7092.8	84.6
0°-90°	8381.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8381.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3625	3625	3625	3625	3625	
5°	3620	3619	3605	3586	3574	343
15°	3412	3420	3412	3396	3372	962
25°	3030	3054	3068	3045	3019	1388
35°	2437	2470	2583	2597	2587	1527
45°	1887	1919	1982	2072	2083	1456
55°	1321	1344	1409	1487	1530	1179
65°	774	795	842	902	954	768
75°	310	327	351	368	388	340
85°	49	49	49	46	46	66
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3624.6	3624.6	3624.6	3624.6	3624.6
2.5°	3634.3	3635.7	3627.4	3605.1	3591.1
5°	3620.4	3619.0	3605.1	3585.6	3574.4
7.5°	3580.0	3582.8	3578.6	3550.8	3535.4
10°	3541.0	3542.4	3531.3	3509.0	3490.9
12.5°	3490.9	3489.5	3474.2	3463.0	3433.8
15°	3411.5	3419.9	3411.5	3396.2	3372.5
17.5°	3334.9	3334.9	3340.5	3314.0	3295.9
20°	3248.6	3252.8	3252.8	3231.9	3211.0
22.5°	3148.3	3160.9	3165.1	3142.8	3117.7
25°	3030.0	3053.7	3067.6	3045.3	3018.8
27.5°	2886.6	2922.8	2964.5	2947.8	2918.6
30°	2726.4	2779.3	2849.0	2835.0	2814.2
32.5°	2574.7	2627.6	2723.6	2718.1	2706.9
35°	2436.8	2470.2	2583.0	2596.9	2587.2
37.5°	2305.9	2336.5	2442.4	2474.4	2466.0
40°	2168.1	2201.5	2285.0	2342.1	2344.9
42.5°	2031.6	2063.6	2131.9	2214.0	2214.0
45°	1886.8	1918.8	1981.5	2072.0	2083.1
47.5°	1744.7	1778.2	1839.4	1929.9	1948.0
50°	1605.5	1636.1	1697.4	1785.1	1813.0
52.5°	1460.7	1494.1	1554.0	1634.7	1675.1
55°	1321.4	1343.7	1409.2	1487.1	1530.3
57.5°	1176.6	1197.5	1271.3	1338.2	1382.7
60°	1037.4	1063.8	1120.9	1189.2	1240.7
62.5°	903.7	931.6	980.3	1040.2	1098.6
65°	774.2	795.1	842.4	902.3	953.8
67.5°	648.9	667.0	714.3	756.1	810.4
70°	522.2	545.8	580.7	621.0	655.8
72.5°	420.5	430.3	459.5	488.8	525.0
75°	310.5	327.2	350.9	367.6	388.5
77.5°	222.8	232.5	246.5	260.4	279.9
80°	149.0	153.2	165.7	168.5	183.8
82.5°	90.5	93.3	96.1	97.5	103.0
85°	48.7	48.7	48.7	46.0	46.0
87.5°	27.8	27.8	23.7	19.5	13.9
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)