

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: P557832

Luminaire Tested: **FUSL-12-4-LD4-3HI-40-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: P557832
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-LD4-3HI-40-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 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

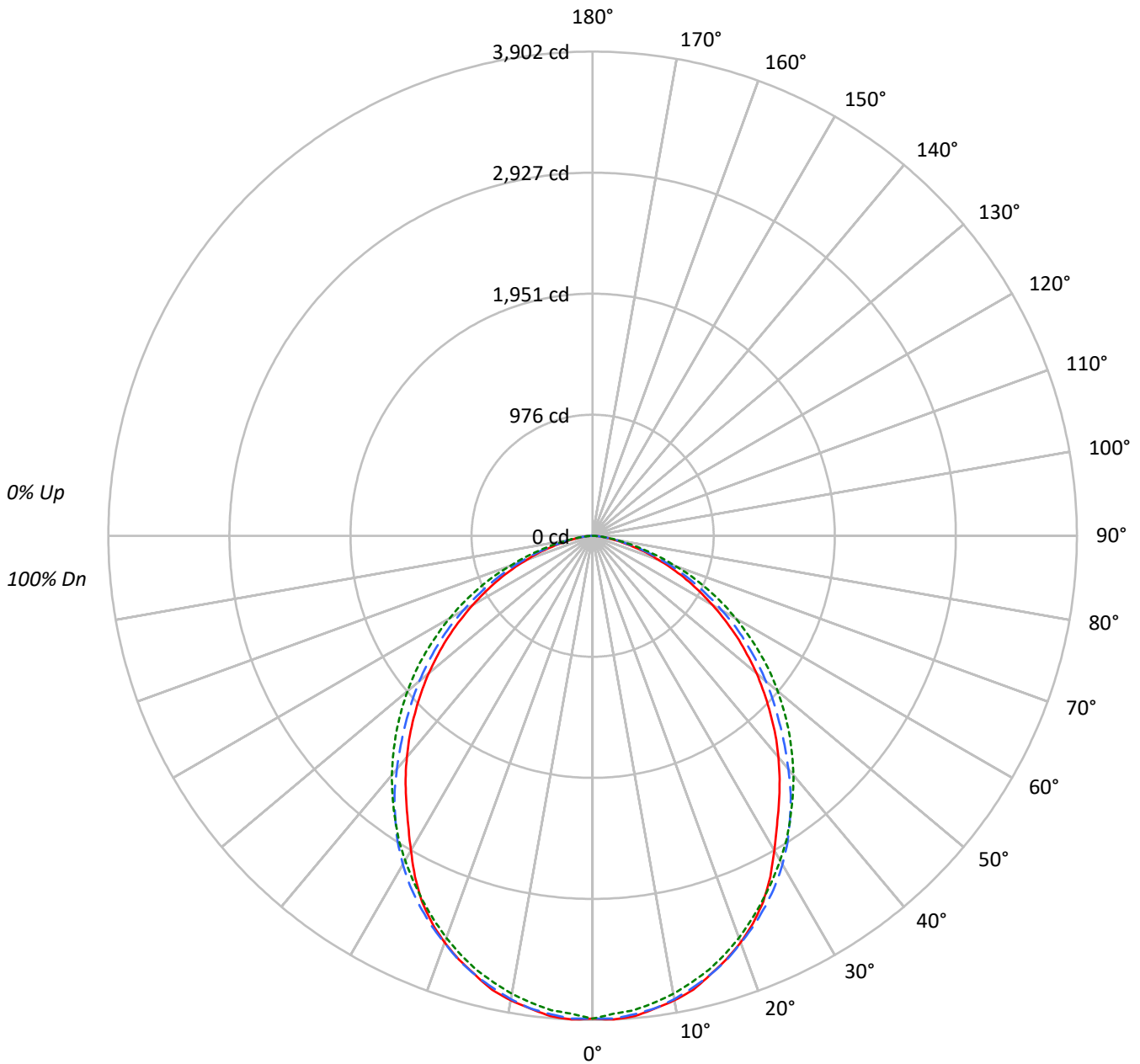
Lumens per Lamp: N/A
Luminaire Lumens: 8998.0 lumens
Efficiency: N/A
Efficacy: 69.4 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 129.6
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°	10472	10472	10472
5°	10500	10455	10366
10°	10388	10359	10241
15°	10204	10204	10087
20°	9988	10001	9872
25°	9659	9779	9623
30°	9095	9504	9388
35°	8594	9110	9125
40°	8177	8618	8844
45°	7709	8096	8511
50°	7216	7629	8148
55°	6656	7098	7708
60°	5994	6477	7169
65°	5293	5759	6521
70°	4411	4905	5540
75°	3466	3917	4337
80°	2479	2757	3058
85°	1615	1615	1522



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	366.4	4.1
10°-20°	1029.3	11.4
20°-30°	1504.1	16.7
30°-40°	1707.4	19.0
40°-50°	1648.2	18.3
50°-60°	1359.6	15.1
60°-70°	905.4	10.1
70°-80°	405.2	4.5
80°-90°	72.5	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°	2899.8	32.2
0°-40°	4607.1	51.2
0°-60°	7615.0	84.6
0°-90°	8998.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8998.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3891	3891	3891	3891	3891	
5°	3887	3885	3870	3850	3838	368
15°	3663	3672	3663	3646	3621	1033
25°	3253	3278	3293	3270	3241	1490
35°	2616	2652	2773	2788	2778	1639
45°	2026	2060	2127	2224	2236	1563
55°	1419	1443	1513	1597	1643	1266
65°	831	854	904	969	1024	824
75°	333	351	377	395	417	365
85°	52	52	52	49	49	71
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3891.4	3891.4	3891.4	3891.4	3891.4
2.5°	3901.9	3903.4	3894.4	3870.5	3855.5
5°	3886.9	3885.4	3870.5	3849.5	3837.6
7.5°	3843.6	3846.6	3842.1	3812.2	3795.7
10°	3801.7	3803.2	3791.2	3767.3	3747.9
12.5°	3747.9	3746.4	3729.9	3718.0	3686.6
15°	3662.7	3671.6	3662.7	3646.2	3620.8
17.5°	3580.4	3580.4	3586.4	3558.0	3538.6
20°	3487.8	3492.2	3492.2	3469.8	3447.4
22.5°	3380.1	3393.6	3398.1	3374.1	3347.2
25°	3253.1	3278.5	3293.4	3269.5	3241.1
27.5°	3099.1	3137.9	3182.8	3164.8	3133.5
30°	2927.1	2984.0	3058.7	3043.8	3021.3
32.5°	2764.2	2821.0	2924.2	2918.2	2906.2
35°	2616.2	2652.1	2773.2	2788.1	2777.7
37.5°	2475.7	2508.6	2622.2	2656.6	2647.6
40°	2327.7	2363.5	2453.2	2514.5	2517.5
42.5°	2181.2	2215.5	2288.8	2377.0	2377.0
45°	2025.7	2060.1	2127.3	2224.5	2236.5
47.5°	1873.2	1909.1	1974.9	2072.0	2091.5
50°	1723.7	1756.6	1822.4	1916.5	1946.4
52.5°	1568.2	1604.1	1668.4	1755.1	1798.4
55°	1418.7	1442.6	1512.9	1596.6	1643.0
57.5°	1263.2	1285.7	1364.9	1436.7	1484.5
60°	1113.8	1142.2	1203.4	1276.7	1332.0
62.5°	970.2	1000.1	1052.5	1116.7	1179.5
65°	831.2	853.6	904.5	968.7	1024.1
67.5°	696.7	716.1	766.9	811.8	870.1
70°	560.6	586.0	623.4	666.8	704.1
72.5°	451.5	461.9	493.3	524.7	563.6
75°	333.4	351.3	376.7	394.7	417.1
77.5°	239.2	249.7	264.6	279.6	300.5
80°	160.0	164.4	177.9	180.9	197.3
82.5°	97.2	100.2	103.2	104.6	110.6
85°	52.3	52.3	52.3	49.3	49.3
87.5°	29.9	29.9	25.4	20.9	14.9
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)