

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: P557099

Luminaire Tested: **FUSL-12-4-LD4-2HI-40-UNV-93-94-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: P557099
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-93-94-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

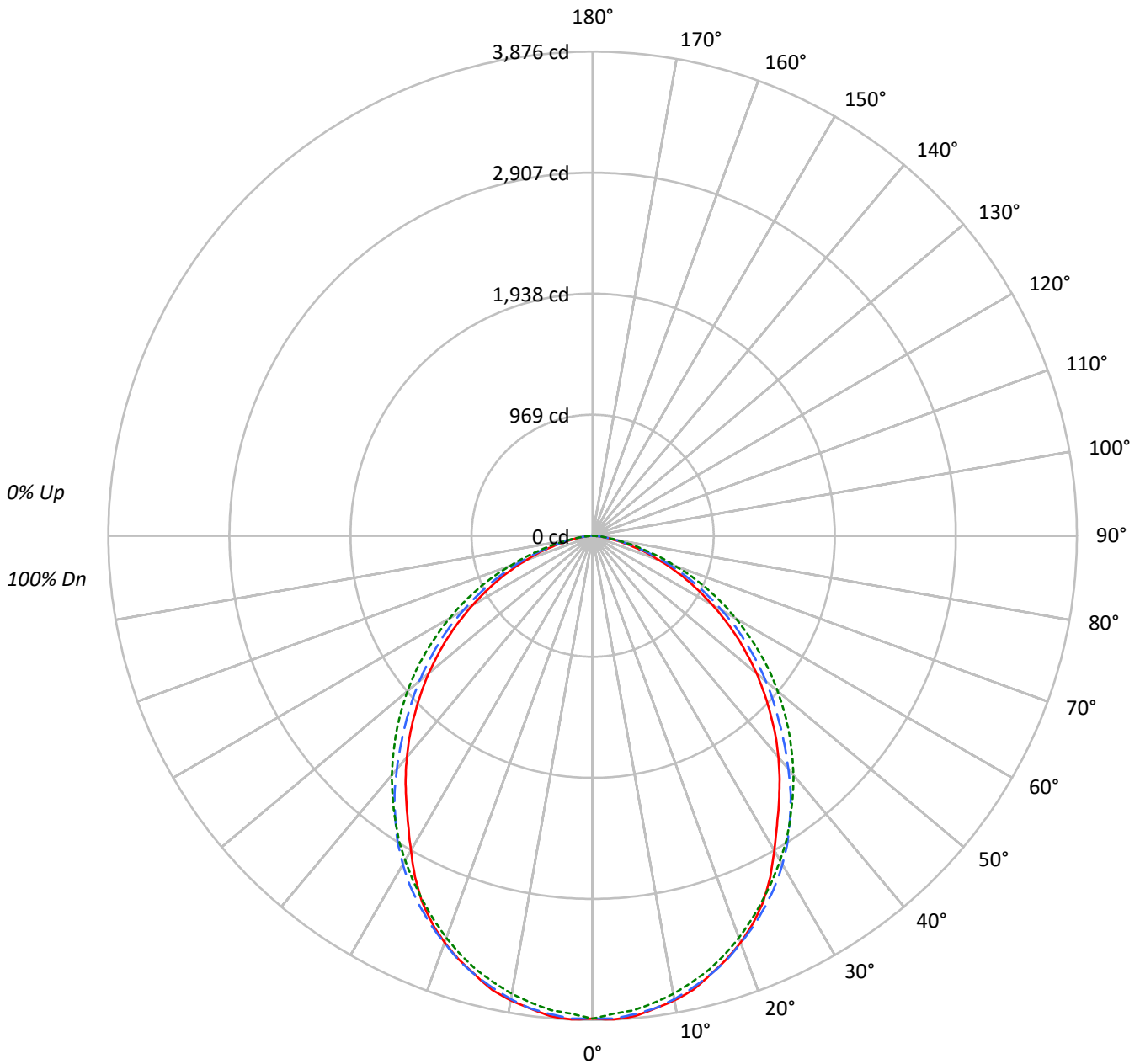
Lumens per Lamp: N/A
Luminaire Lumens: 8938.0 lumens
Efficiency: N/A
Efficacy: 103.4 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	10402	10402	10402
5°	10430	10386	10297
10°	10319	10291	10173
15°	10136	10136	10020
20°	9921	9934	9806
25°	9595	9714	9559
30°	9035	9441	9326
35°	8537	9049	9064
40°	8122	8560	8785
45°	7658	8042	8455
50°	7168	7578	8094
55°	6612	7051	7657
60°	5954	6434	7121
65°	5258	5720	6477
70°	4382	4872	5503
75°	3444	3891	4308
80°	2462	2738	3037
85°	1606	1606	1513



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	363.9	4.1
10°-20°	1022.4	11.4
20°-30°	1494.1	16.7
30°-40°	1696.0	19.0
40°-50°	1637.2	18.3
50°-60°	1350.6	15.1
60°-70°	899.4	10.1
70°-80°	402.4	4.5
80°-90°	72.0	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°	2880.5	32.2
0°-40°	4576.4	51.2
0°-60°	7564.2	84.6
0°-90°	8938.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8938.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3866	3866	3866	3866	3866	
5°	3861	3860	3845	3824	3812	365
15°	3638	3647	3638	3622	3597	1026
25°	3231	3257	3272	3248	3220	1480
35°	2599	2634	2755	2770	2759	1628
45°	2012	2046	2113	2210	2222	1553
55°	1409	1433	1503	1586	1632	1258
65°	826	848	898	962	1017	819
75°	331	349	374	392	414	362
85°	52	52	52	49	49	70
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3865.5	3865.5	3865.5	3865.5	3865.5
2.5°	3875.8	3877.3	3868.4	3844.7	3829.8
5°	3861.0	3859.5	3844.7	3823.9	3812.0
7.5°	3817.9	3820.9	3816.4	3786.7	3770.4
10°	3776.4	3777.8	3766.0	3742.2	3722.9
12.5°	3722.9	3721.4	3705.1	3693.2	3662.0
15°	3638.2	3647.2	3638.2	3621.9	3596.7
17.5°	3556.6	3556.6	3562.5	3534.3	3515.0
20°	3464.5	3469.0	3469.0	3446.7	3424.4
22.5°	3357.6	3370.9	3375.4	3351.6	3324.9
25°	3231.4	3256.6	3271.5	3247.7	3219.5
27.5°	3078.4	3117.0	3161.6	3143.7	3112.6
30°	2907.6	2964.1	3038.3	3023.5	3001.2
32.5°	2745.8	2802.2	2904.7	2898.7	2886.8
35°	2598.7	2634.4	2754.7	2769.5	2759.1
37.5°	2459.2	2491.8	2604.7	2638.8	2629.9
40°	2312.1	2347.8	2436.9	2497.8	2500.7
42.5°	2166.6	2200.8	2273.5	2361.1	2361.1
45°	2012.2	2046.3	2113.2	2209.7	2221.6
47.5°	1860.7	1896.3	1961.7	2058.2	2077.5
50°	1712.2	1744.9	1810.2	1903.8	1933.5
52.5°	1557.8	1593.4	1657.3	1743.4	1786.5
55°	1409.3	1433.0	1502.8	1586.0	1632.0
57.5°	1254.8	1277.1	1355.8	1427.1	1474.6
60°	1106.3	1134.5	1195.4	1268.2	1323.1
62.5°	963.8	993.5	1045.4	1109.3	1171.7
65°	825.7	847.9	898.4	962.3	1017.2
67.5°	692.0	711.3	761.8	806.4	864.3
70°	556.9	582.1	619.2	662.3	699.4
72.5°	448.5	458.9	490.0	521.2	559.8
75°	331.2	349.0	374.2	392.0	414.3
77.5°	237.6	248.0	262.8	277.7	298.5
80°	158.9	163.3	176.7	179.7	196.0
82.5°	96.5	99.5	102.5	103.9	109.9
85°	52.0	52.0	52.0	49.0	49.0
87.5°	29.7	29.7	25.2	20.8	14.8
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)