

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: P557163

Luminaire Tested: **FUSL-12-4-LD4-2HI-50-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: P557163
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-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 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

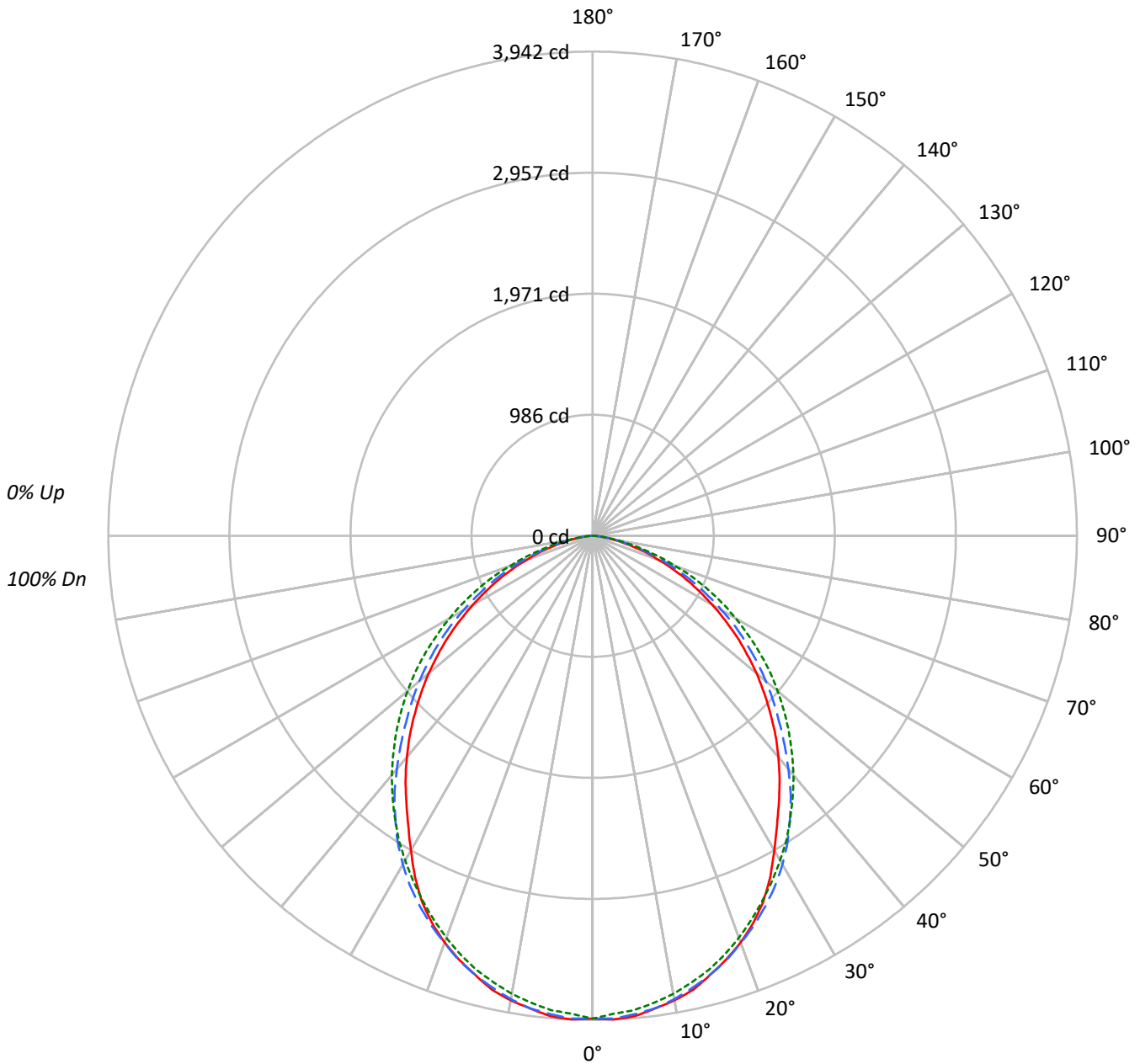
Lumens per Lamp: N/A
Luminaire Lumens: 9090.0 lumens
Efficiency: N/A
Efficacy: 105.2 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	10579	10579	10579
5°	10607	10562	10472
10°	10494	10465	10346
15°	10308	10308	10190
20°	10090	10103	9973
25°	9758	9879	9722
30°	9189	9601	9484
35°	8682	9203	9218
40°	8260	8706	8934
45°	7788	8179	8598
50°	7290	7707	8232
55°	6724	7171	7787
60°	6055	6543	7242
65°	5347	5818	6587
70°	4456	4955	5596
75°	3502	3957	4381
80°	2504	2785	3090
85°	1633	1633	1538



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	370.1	4.1
10°-20°	1039.8	11.4
20°-30°	1519.5	16.7
30°-40°	1724.8	19.0
40°-50°	1665.0	18.3
50°-60°	1373.5	15.1
60°-70°	914.7	10.1
70°-80°	409.3	4.5
80°-90°	73.2	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°	2929.4	32.2
0°-40°	4654.2	51.2
0°-60°	7692.8	84.6
0°-90°	9090.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9090.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3931	3931	3931	3931	3931	
5°	3927	3925	3910	3889	3877	372
15°	3700	3709	3700	3684	3658	1043
25°	3286	3312	3327	3303	3274	1505
35°	2643	2679	2802	2817	2806	1656
45°	2046	2081	2149	2247	2259	1579
55°	1433	1457	1528	1613	1660	1279
65°	840	862	914	979	1034	833
75°	337	355	381	399	421	368
85°	53	53	53	50	50	71
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3931.2	3931.2	3931.2	3931.2	3931.2
2.5°	3941.8	3943.3	3934.2	3910.0	3894.9
5°	3926.7	3925.1	3910.0	3888.9	3876.8
7.5°	3882.9	3885.9	3881.4	3851.1	3834.5
10°	3840.6	3842.1	3830.0	3805.8	3786.2
12.5°	3786.2	3784.7	3768.1	3756.0	3724.3
15°	3700.1	3709.2	3700.1	3683.5	3657.8
17.5°	3617.1	3617.1	3623.1	3594.4	3574.8
20°	3523.4	3528.0	3528.0	3505.3	3482.6
22.5°	3414.7	3428.3	3432.8	3408.6	3381.5
25°	3286.3	3312.0	3327.1	3302.9	3274.2
27.5°	3130.8	3170.0	3215.3	3197.2	3165.5
30°	2957.1	3014.5	3090.0	3074.9	3052.2
32.5°	2792.5	2849.8	2954.1	2948.0	2935.9
35°	2642.9	2679.2	2801.5	2816.6	2806.1
37.5°	2501.0	2534.2	2649.0	2683.7	2674.7
40°	2351.5	2387.7	2478.3	2540.2	2543.3
42.5°	2203.5	2238.2	2312.2	2401.3	2401.3
45°	2046.4	2081.1	2149.1	2247.3	2259.3
47.5°	1892.3	1928.6	1995.0	2093.2	2112.8
50°	1741.3	1774.5	1841.0	1936.1	1966.4
52.5°	1584.3	1620.5	1685.4	1773.0	1816.8
55°	1433.2	1457.4	1528.4	1613.0	1659.8
57.5°	1276.2	1298.8	1378.9	1451.4	1499.7
60°	1125.1	1153.8	1215.8	1289.8	1345.6
62.5°	980.2	1010.4	1063.2	1128.2	1191.6
65°	839.7	862.4	913.7	978.6	1034.5
67.5°	703.8	723.4	774.8	820.1	879.0
70°	566.3	592.0	629.8	673.6	711.3
72.5°	456.1	466.7	498.4	530.1	569.4
75°	336.8	354.9	380.6	398.7	421.4
77.5°	241.6	252.2	267.3	282.4	303.6
80°	161.6	166.1	179.7	182.7	199.4
82.5°	98.2	101.2	104.2	105.7	111.8
85°	52.9	52.9	52.9	49.8	49.8
87.5°	30.2	30.2	25.7	21.1	15.1
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)