

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: P557861

Luminaire Tested: **FUSL-12-4-LD4-3HI-40-UNV-93-86-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: P557861
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-93-86-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

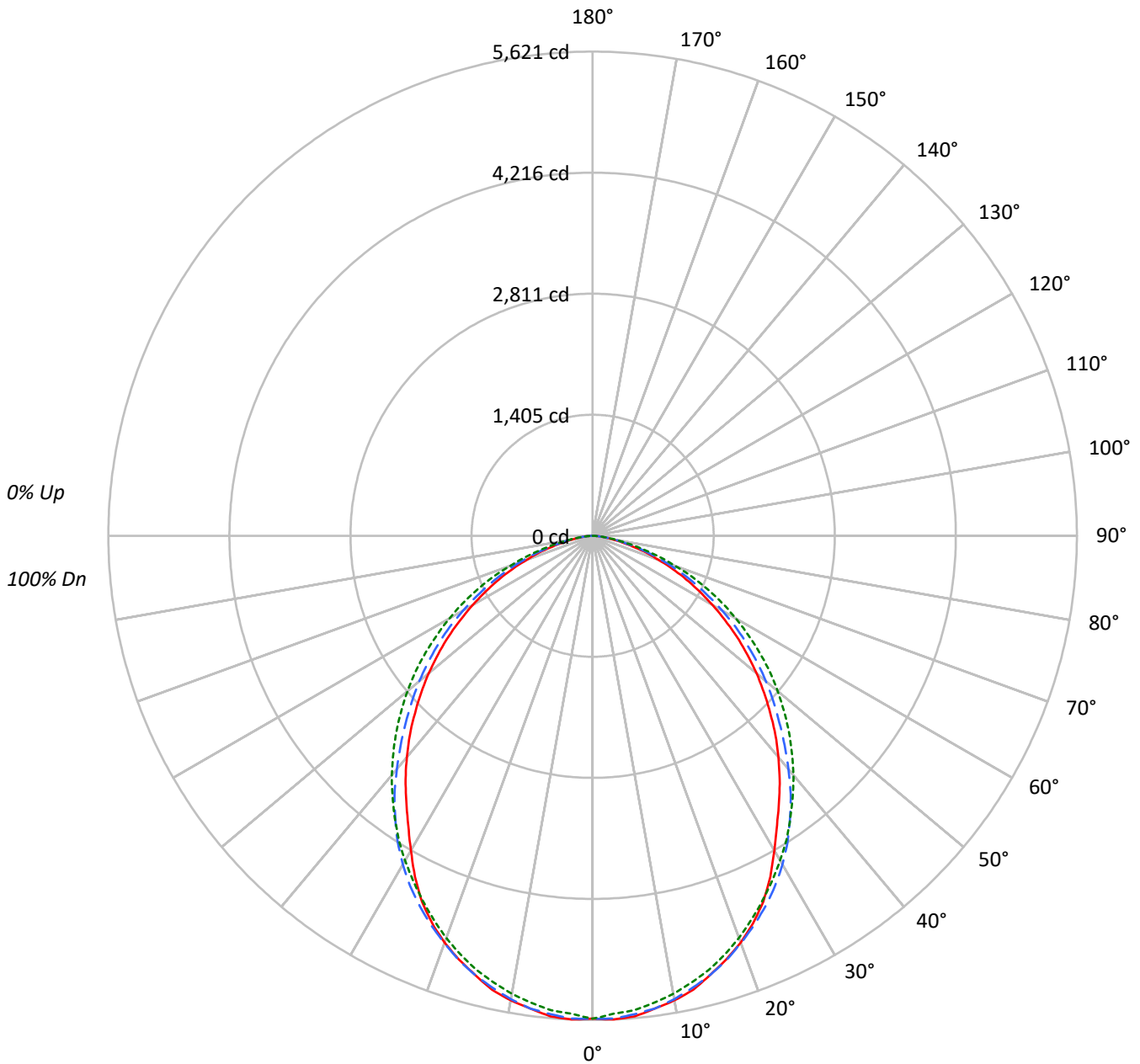
Lumens per Lamp: N/A
Luminaire Lumens: 12963.0 lumens
Efficiency: N/A
Efficacy: 100.0 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 129.6
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°	15086	15086	15086
5°	15126	15062	14934
10°	14966	14925	14754
15°	14700	14700	14532
20°	14389	14407	14222
25°	13915	14088	13864
30°	13103	13692	13525
35°	12381	13125	13146
40°	11780	12415	12741
45°	11106	11663	12262
50°	10396	10991	11740
55°	9589	10226	11105
60°	8635	9331	10328
65°	7625	8297	9394
70°	6354	7066	7981
75°	4994	5643	6248
80°	3570	3972	4406
85°	2328	2328	2195



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	527.8	4.1
10°-20°	1482.8	11.4
20°-30°	2166.9	16.7
30°-40°	2459.7	19.0
40°-50°	2374.5	18.3
50°-60°	1958.8	15.1
60°-70°	1304.4	10.1
70°-80°	583.7	4.5
80°-90°	104.4	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°	4177.6	32.2
0°-40°	6637.3	51.2
0°-60°	10970.5	84.6
0°-90°	12963.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	12963.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5606	5606	5606	5606	5606	
5°	5600	5598	5576	5546	5529	530
15°	5277	5290	5277	5253	5216	1488
25°	4686	4723	4745	4710	4669	2146
35°	3769	3821	3995	4017	4002	2362
45°	2918	2968	3065	3205	3222	2252
55°	2044	2078	2180	2300	2367	1824
65°	1198	1230	1303	1396	1475	1187
75°	480	506	543	569	601	525
85°	75	75	75	71	71	102
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5606.2	5606.2	5606.2	5606.2	5606.2
2.5°	5621.2	5623.4	5610.5	5576.0	5554.5
5°	5599.7	5597.5	5576.0	5545.9	5528.6
7.5°	5537.2	5541.6	5535.1	5492.0	5468.3
10°	5476.9	5479.1	5461.9	5427.4	5399.4
12.5°	5399.4	5397.3	5373.6	5356.3	5311.1
15°	5276.6	5289.6	5276.6	5253.0	5216.3
17.5°	5158.2	5158.2	5166.8	5125.9	5097.9
20°	5024.7	5031.1	5031.1	4998.8	4966.5
22.5°	4869.6	4889.0	4895.4	4861.0	4822.2
25°	4686.5	4723.1	4744.7	4710.2	4669.3
27.5°	4464.7	4520.7	4585.3	4559.4	4514.2
30°	4217.0	4298.8	4406.5	4385.0	4352.7
32.5°	3982.2	4064.1	4212.7	4204.1	4186.9
35°	3769.0	3820.7	3995.2	4016.7	4001.6
37.5°	3566.6	3614.0	3777.6	3827.2	3814.3
40°	3353.4	3405.0	3534.3	3622.6	3626.9
42.5°	3142.3	3191.8	3297.4	3424.4	3424.4
45°	2918.3	2967.8	3064.8	3204.8	3222.0
47.5°	2698.6	2750.3	2845.1	2985.1	3013.1
50°	2483.3	2530.6	2625.4	2761.1	2804.2
52.5°	2259.3	2311.0	2403.6	2528.5	2590.9
55°	2043.9	2078.4	2179.6	2300.2	2367.0
57.5°	1819.9	1852.2	1966.4	2069.7	2138.7
60°	1604.5	1645.5	1733.8	1839.3	1919.0
62.5°	1397.8	1440.8	1516.2	1608.8	1699.3
65°	1197.5	1229.8	1303.0	1395.6	1475.3
67.5°	1003.6	1031.6	1104.9	1169.5	1253.5
70°	807.6	844.3	898.1	960.6	1014.4
72.5°	650.4	665.5	710.7	756.0	812.0
75°	480.3	506.1	542.7	568.6	600.9
77.5°	344.6	359.7	381.2	402.7	432.9
80°	230.4	236.9	256.3	260.6	284.3
82.5°	140.0	144.3	148.6	150.8	159.4
85°	75.4	75.4	75.4	71.1	71.1
87.5°	43.1	43.1	36.6	30.2	21.5
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)