

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: P558364

Luminaire Tested: **FUSL-12-4-LD4-3STD-40-UNV-82-96-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: P558364
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-LD4-3STD-40-UNV-82-96-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDES
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

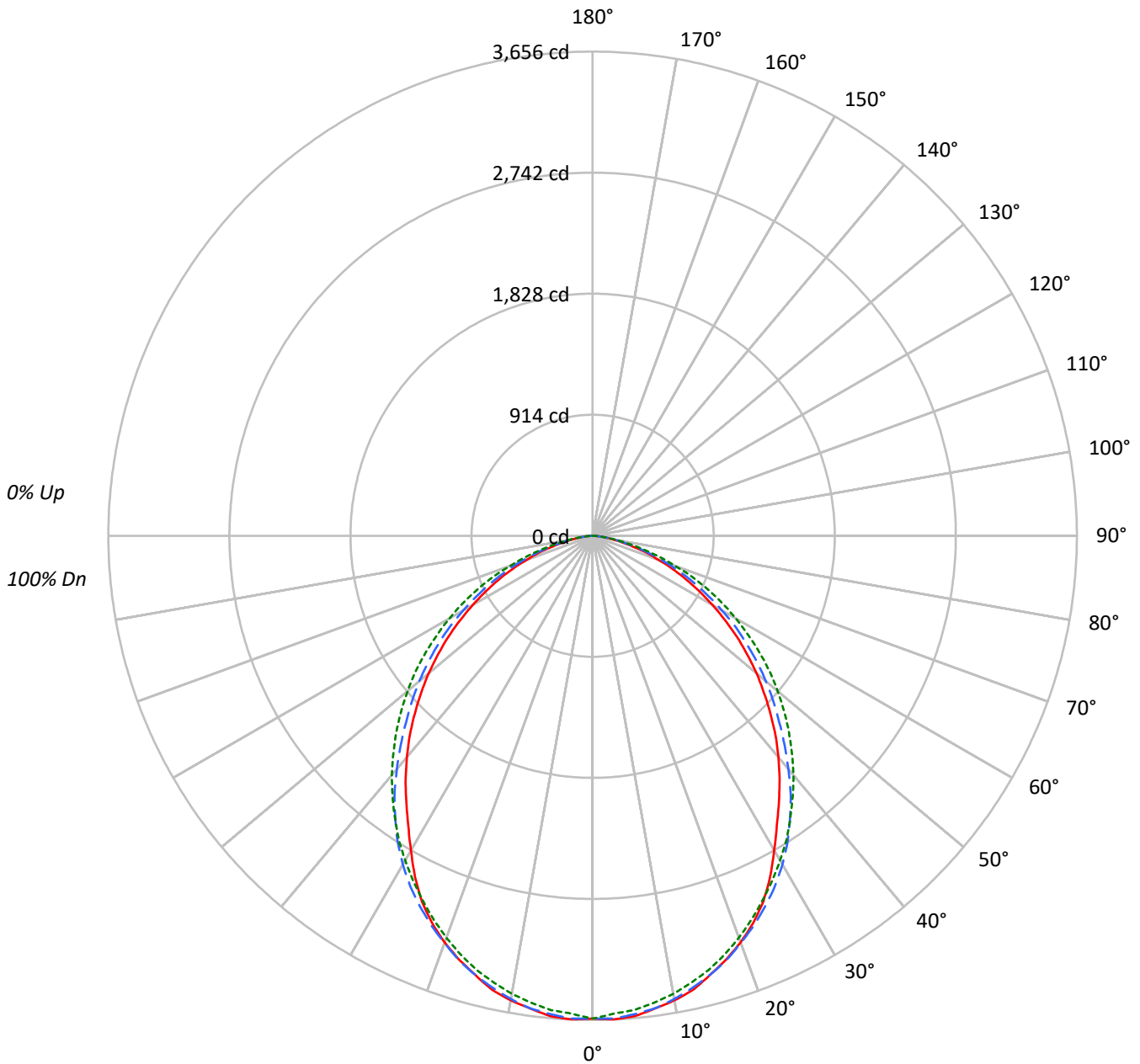
Lumens per Lamp: N/A
Luminaire Lumens: 8430.0 lumens
Efficiency: N/A
Efficacy: 84.4 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 99.9
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				20				20	
RC	80				70				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				100
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86				86
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73				73
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63				63
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	61	56	54				54
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	47				47
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42				42
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	49	44	39	37				37
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34				34
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30				30
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29	28				28

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9811	9811	9811
5°	9837	9795	9712
10°	9732	9706	9595
15°	9560	9560	9450
20°	9357	9369	9249
25°	9049	9161	9016
30°	8521	8904	8795
35°	8052	8535	8549
40°	7660	8074	8285
45°	7222	7585	7974
50°	6761	7147	7634
55°	6236	6650	7222
60°	5616	6068	6716
65°	4958	5396	6109
70°	4132	4595	5190
75°	3247	3670	4063
80°	2323	2583	2865
85°	1513	1513	1426



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	343.3	4.1
10°-20°	964.3	11.4
20°-30°	1409.2	16.7
30°-40°	1599.6	19.0
40°-50°	1544.1	18.3
50°-60°	1273.8	15.1
60°-70°	848.2	10.1
70°-80°	379.6	4.5
80°-90°	67.9	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°	2716.8	32.2
0°-40°	4316.3	51.2
0°-60°	7134.3	84.6
0°-90°	8430.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8430.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3646	3646	3646	3646	3646	
5°	3642	3640	3626	3606	3595	345
15°	3432	3440	3432	3416	3392	967
25°	3048	3072	3086	3063	3036	1396
35°	2451	2485	2598	2612	2602	1536
45°	1898	1930	1993	2084	2095	1464
55°	1329	1352	1417	1496	1539	1186
65°	779	800	847	908	959	772
75°	312	329	353	370	391	342
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°	3645.8	3645.8	3645.8	3645.8	3645.8
2.5°	3655.6	3657.0	3648.6	3626.1	3612.1
5°	3641.6	3640.2	3626.1	3606.5	3595.3
7.5°	3600.9	3603.7	3599.5	3571.5	3556.1
10°	3561.7	3563.1	3551.9	3529.5	3511.3
12.5°	3511.3	3509.9	3494.5	3483.3	3453.9
15°	3431.5	3439.9	3431.5	3416.1	3392.2
17.5°	3354.4	3354.4	3360.0	3333.4	3315.2
20°	3267.6	3271.8	3271.8	3250.8	3229.8
22.5°	3166.8	3179.4	3183.6	3161.2	3135.9
25°	3047.7	3071.5	3085.5	3063.1	3036.5
27.5°	2903.4	2939.9	2981.9	2965.1	2935.7
30°	2742.4	2795.6	2865.6	2851.6	2830.6
32.5°	2589.7	2642.9	2739.6	2734.0	2722.8
35°	2451.0	2484.7	2598.1	2612.1	2602.3
37.5°	2319.4	2350.2	2456.6	2488.9	2480.5
40°	2180.7	2214.3	2298.4	2355.8	2358.6
42.5°	2043.5	2075.7	2144.3	2227.0	2227.0
45°	1897.8	1930.0	1993.1	2084.1	2095.3
47.5°	1754.9	1788.6	1850.2	1941.2	1959.4
50°	1614.9	1645.7	1707.3	1795.6	1823.6
52.5°	1469.2	1502.8	1563.1	1644.3	1684.9
55°	1329.2	1351.6	1417.4	1495.8	1539.3
57.5°	1183.5	1204.5	1278.7	1346.0	1390.8
60°	1043.4	1070.1	1127.5	1196.1	1247.9
62.5°	909.0	937.0	986.0	1046.2	1105.1
65°	778.7	799.7	847.4	907.6	959.4
67.5°	652.7	670.9	718.5	760.5	815.1
70°	525.2	549.0	584.0	624.7	659.7
72.5°	423.0	432.8	462.2	491.6	528.0
75°	312.3	329.1	353.0	369.8	390.8
77.5°	224.1	233.9	247.9	261.9	281.5
80°	149.9	154.1	166.7	169.5	184.9
82.5°	91.0	93.8	96.6	98.0	103.6
85°	49.0	49.0	49.0	46.2	46.2
87.5°	28.0	28.0	23.8	19.6	14.0
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)