

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: P558322

Luminaire Tested: **FUSL-12-4-LD4-3STD-40-UNV-80-85-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: P558322
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-80-85-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND
.187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

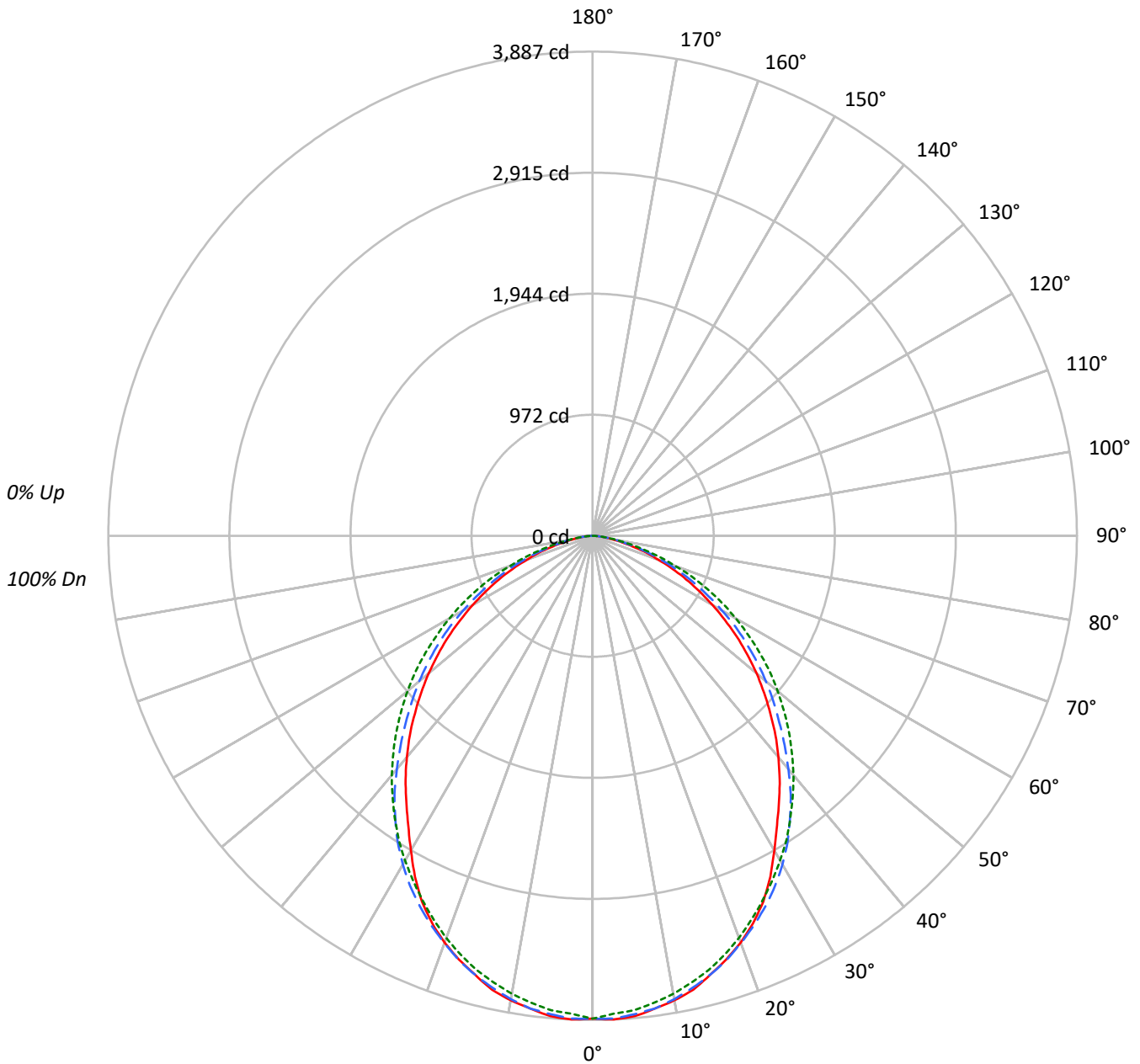
Lumens per Lamp: N/A
Luminaire Lumens: 8964.0 lumens
Efficiency: N/A
Efficacy: 89.7 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 99.9
Input Voltage (V): NR
Input Current (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					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	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°	10432	10432	10432
5°	10460	10416	10327
10°	10349	10320	10202
15°	10165	10165	10049
20°	9950	9963	9835
25°	9622	9742	9587
30°	9061	9468	9353
35°	8562	9076	9090
40°	8146	8585	8810
45°	7680	8065	8479
50°	7189	7600	8118
55°	6631	7071	7679
60°	5971	6452	7142
65°	5273	5737	6496
70°	4394	4886	5519
75°	3453	3902	4320
80°	2470	2746	3047
85°	1609	1609	1516



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	365.0	4.1
10°-20°	1025.4	11.4
20°-30°	1498.4	16.7
30°-40°	1700.9	19.0
40°-50°	1642.0	18.3
50°-60°	1354.5	15.1
60°-70°	902.0	10.1
70°-80°	403.6	4.5
80°-90°	72.2	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°	2888.8	32.2
0°-40°	4589.7	51.2
0°-60°	7586.2	84.6
0°-90°	8964.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8964.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3877	3877	3877	3877	3877	
5°	3872	3871	3856	3835	3823	366
15°	3649	3658	3649	3632	3607	1029
25°	3241	3266	3281	3257	3229	1484
35°	2606	2642	2763	2778	2767	1633
45°	2018	2052	2119	2216	2228	1557
55°	1413	1437	1507	1591	1637	1261
65°	828	850	901	965	1020	821
75°	332	350	375	393	416	363
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°	3876.7	3876.7	3876.7	3876.7	3876.7
2.5°	3887.1	3888.6	3879.7	3855.8	3841.0
5°	3872.2	3870.7	3855.8	3835.0	3823.1
7.5°	3829.0	3832.0	3827.6	3797.8	3781.4
10°	3787.3	3788.8	3776.9	3753.1	3733.7
12.5°	3733.7	3732.2	3715.9	3703.9	3672.7
15°	3648.8	3657.8	3648.8	3632.5	3607.1
17.5°	3566.9	3566.9	3572.9	3544.6	3525.2
20°	3474.6	3479.1	3479.1	3456.7	3434.4
22.5°	3367.4	3380.8	3385.2	3361.4	3334.6
25°	3240.8	3266.1	3281.0	3257.1	3228.8
27.5°	3087.4	3126.1	3170.8	3152.9	3121.6
30°	2916.1	2972.7	3047.1	3032.3	3009.9
32.5°	2753.8	2810.3	2913.1	2907.2	2895.2
35°	2606.3	2642.1	2762.7	2777.6	2767.2
37.5°	2466.3	2499.1	2612.3	2646.5	2637.6
40°	2318.9	2354.6	2444.0	2505.0	2508.0
42.5°	2172.9	2207.2	2280.1	2368.0	2368.0
45°	2018.0	2052.3	2119.3	2216.1	2228.0
47.5°	1866.1	1901.9	1967.4	2064.2	2083.6
50°	1717.2	1750.0	1815.5	1909.3	1939.1
52.5°	1562.3	1598.0	1662.1	1748.5	1791.7
55°	1413.4	1437.2	1507.2	1590.6	1636.8
57.5°	1258.5	1280.8	1359.7	1431.2	1478.9
60°	1109.5	1137.8	1198.9	1271.9	1327.0
62.5°	966.6	996.4	1048.5	1112.5	1175.1
65°	828.1	850.4	901.0	965.1	1020.2
67.5°	694.0	713.4	764.0	808.7	866.8
70°	558.5	583.8	621.0	664.2	701.5
72.5°	449.8	460.2	491.5	522.8	561.5
75°	332.1	350.0	375.3	393.2	415.5
77.5°	238.3	248.7	263.6	278.5	299.4
80°	159.4	163.8	177.2	180.2	196.6
82.5°	96.8	99.8	102.8	104.3	110.2
85°	52.1	52.1	52.1	49.1	49.1
87.5°	29.8	29.8	25.3	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)