

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: P557816

Luminaire Tested: **FUSL-12-4-LD4-3HI-40-UNV-80-88-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: P557816
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-80-88-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND
.500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

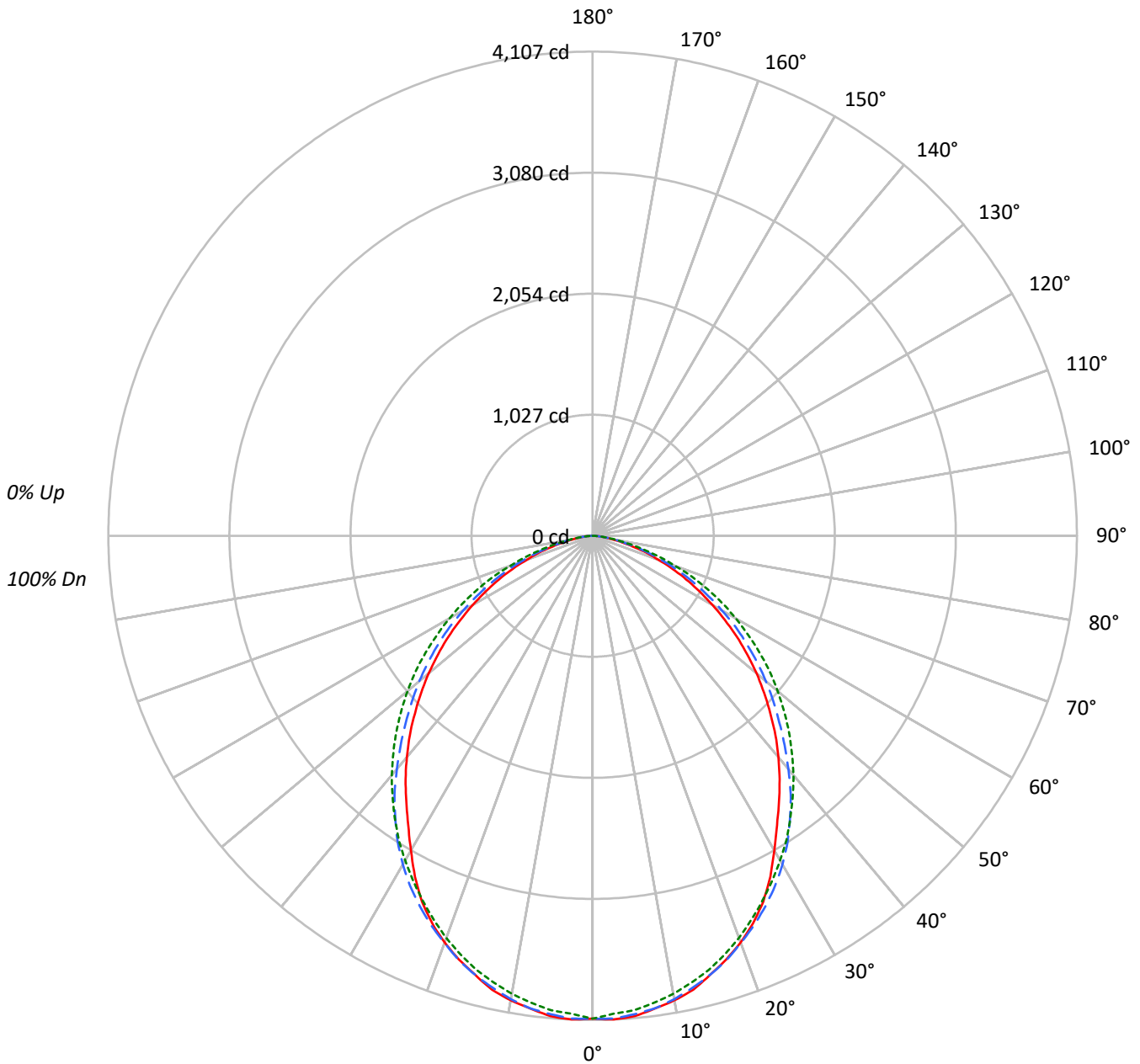
Lumens per Lamp: N/A
Luminaire Lumens: 9471.0 lumens
Efficiency: N/A
Efficacy: 73.1 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 129.6
Input Voltage (V): NR
Input Current (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				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°	11022	11022	11022
5°	11051	11005	10911
10°	10934	10904	10779
15°	10740	10740	10617
20°	10513	10526	10391
25°	10167	10293	10129
30°	9574	10004	9882
35°	9046	9589	9605
40°	8606	9071	9309
45°	8114	8522	8958
50°	7595	8030	8577
55°	7006	7471	8113
60°	6309	6817	7546
65°	5571	6062	6863
70°	4643	5163	5831
75°	3648	4122	4564
80°	2610	2903	3219
85°	1701	1701	1602



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	385.6	4.1
10°-20°	1083.4	11.4
20°-30°	1583.2	16.7
30°-40°	1797.1	19.0
40°-50°	1734.8	18.3
50°-60°	1431.1	15.1
60°-70°	953.0	10.1
70°-80°	426.5	4.5
80°-90°	76.3	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°	3052.2	32.2
0°-40°	4849.3	51.2
0°-60°	8015.3	84.6
0°-90°	9471.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9471.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4096	4096	4096	4096	4096	
5°	4091	4090	4074	4052	4039	387
15°	3855	3865	3855	3838	3811	1087
25°	3424	3451	3466	3441	3412	1568
35°	2754	2792	2919	2935	2924	1725
45°	2132	2168	2239	2341	2354	1645
55°	1493	1518	1592	1681	1729	1333
65°	875	898	952	1020	1078	868
75°	351	370	396	415	439	384
85°	55	55	55	52	52	74
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4096.0	4096.0	4096.0	4096.0	4096.0
2.5°	4107.0	4108.6	4099.1	4073.9	4058.2
5°	4091.2	4089.7	4073.9	4051.9	4039.3
7.5°	4045.6	4048.8	4044.0	4012.6	3995.3
10°	4001.5	4003.1	3990.5	3965.4	3944.9
12.5°	3944.9	3943.3	3926.0	3913.4	3880.4
15°	3855.2	3864.7	3855.2	3837.9	3811.1
17.5°	3768.7	3768.7	3775.0	3745.1	3724.6
20°	3671.1	3675.8	3675.8	3652.2	3628.6
22.5°	3557.8	3572.0	3576.7	3551.5	3523.2
25°	3424.1	3450.8	3466.5	3441.4	3411.5
27.5°	3262.0	3302.9	3350.1	3331.2	3298.2
30°	3081.0	3140.8	3219.5	3203.8	3180.2
32.5°	2909.5	2969.3	3077.9	3071.6	3059.0
35°	2753.7	2791.5	2918.9	2934.7	2923.7
37.5°	2605.8	2640.4	2760.0	2796.2	2786.8
40°	2450.0	2487.8	2582.2	2646.7	2649.9
42.5°	2295.8	2332.0	2409.1	2502.0	2502.0
45°	2132.2	2168.4	2239.2	2341.4	2354.0
47.5°	1971.7	2009.4	2078.7	2180.9	2201.4
50°	1814.3	1848.9	1918.2	2017.3	2048.8
52.5°	1650.7	1688.4	1756.1	1847.4	1893.0
55°	1493.3	1518.5	1592.4	1680.6	1729.3
57.5°	1329.7	1353.3	1436.7	1512.2	1562.5
60°	1172.3	1202.2	1266.7	1343.8	1402.0
62.5°	1021.2	1052.7	1107.8	1175.4	1241.5
65°	874.9	898.5	952.0	1019.7	1077.9
67.5°	733.3	753.7	807.2	854.4	915.8
70°	590.1	616.8	656.2	701.8	741.1
72.5°	475.2	486.2	519.3	552.3	593.2
75°	350.9	369.8	396.5	415.4	439.0
77.5°	251.8	262.8	278.5	294.3	316.3
80°	168.4	173.1	187.3	190.4	207.7
82.5°	102.3	105.4	108.6	110.1	116.4
85°	55.1	55.1	55.1	51.9	51.9
87.5°	31.5	31.5	26.8	22.0	15.7
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)