

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: P557746

Luminaire Tested: **FUSL-12-4-LD4-3HI-35-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: P557746
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-35-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 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

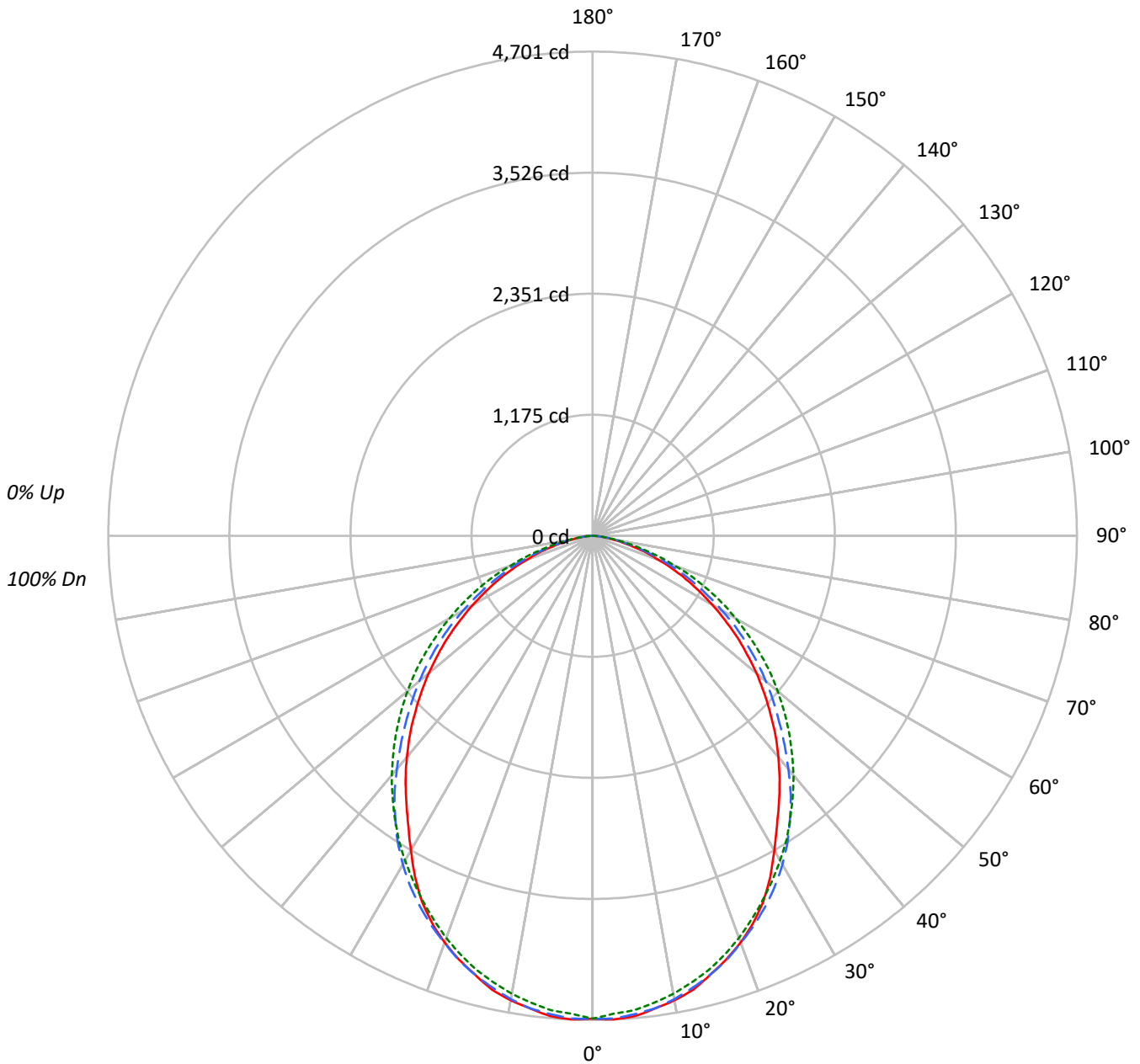
Lumens per Lamp: N/A
Luminaire Lumens: 10841.0 lumens
Efficiency: N/A
Efficacy: 83.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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									
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°	12617	12617	12617
5°	12650	12597	12490
10°	12516	12481	12339
15°	12294	12294	12153
20°	12033	12049	11894
25°	11637	11782	11594
30°	10958	11451	11311
35°	10355	10976	10994
40°	9851	10383	10655
45°	9288	9754	10255
50°	8694	9192	9818
55°	8019	8552	9287
60°	7222	7803	8637
65°	6377	6939	7856
70°	5314	5910	6675
75°	4177	4719	5225
80°	2986	3321	3685
85°	1945	1945	1834



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	441.4	4.1
10°-20°	1240.1	11.4
20°-30°	1812.2	16.7
30°-40°	2057.1	19.0
40°-50°	1985.8	18.3
50°-60°	1638.1	15.1
60°-70°	1090.9	10.1
70°-80°	488.1	4.5
80°-90°	87.3	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°	3493.7	32.2
0°-40°	5550.8	51.2
0°-60°	9174.7	84.6
0°-90°	10841.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10841.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4688	4688	4688	4688	4688	
5°	4683	4681	4663	4638	4624	443
15°	4413	4424	4413	4393	4362	1244
25°	3919	3950	3968	3939	3905	1795
35°	3152	3195	3341	3359	3347	1975
45°	2441	2482	2563	2680	2695	1883
55°	1709	1738	1823	1924	1980	1526
65°	1002	1028	1090	1167	1234	993
75°	402	423	454	476	502	439
85°	63	63	63	59	59	85
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4688.5	4688.5	4688.5	4688.5	4688.5
2.5°	4701.1	4702.9	4692.1	4663.2	4645.2
5°	4683.0	4681.2	4663.2	4638.0	4623.6
7.5°	4630.8	4634.4	4629.0	4593.0	4573.2
10°	4580.4	4582.2	4567.8	4539.0	4515.5
12.5°	4515.5	4513.7	4493.9	4479.5	4441.7
15°	4412.9	4423.7	4412.9	4393.1	4362.4
17.5°	4313.8	4313.8	4321.0	4286.8	4263.4
20°	4202.1	4207.5	4207.5	4180.5	4153.5
22.5°	4072.5	4088.7	4094.1	4065.2	4032.8
25°	3919.4	3950.0	3968.0	3939.2	3904.9
27.5°	3733.8	3780.7	3834.7	3813.1	3775.3
30°	3526.7	3595.1	3685.2	3667.2	3640.2
32.5°	3330.4	3398.8	3523.1	3515.9	3501.5
35°	3152.1	3195.3	3341.2	3359.2	3346.6
37.5°	2982.7	3022.4	3159.3	3200.7	3189.9
40°	2804.4	2847.7	2955.7	3029.6	3033.2
42.5°	2627.9	2669.3	2757.6	2863.9	2863.9
45°	2440.6	2482.0	2563.1	2680.1	2694.6
47.5°	2256.9	2300.1	2379.3	2496.4	2519.8
50°	2076.8	2116.4	2195.6	2309.1	2345.1
52.5°	1889.4	1932.7	2010.1	2114.6	2166.8
55°	1709.3	1738.1	1822.8	1923.7	1979.5
57.5°	1522.0	1549.0	1644.5	1730.9	1788.6
60°	1341.9	1376.1	1449.9	1538.2	1604.8
62.5°	1169.0	1205.0	1268.0	1345.5	1421.1
65°	1001.5	1028.5	1089.7	1167.2	1233.8
67.5°	839.3	862.8	924.0	978.0	1048.3
70°	675.4	706.1	751.1	803.3	848.4
72.5°	544.0	556.6	594.4	632.2	679.0
75°	401.7	423.3	453.9	475.5	502.5
77.5°	288.2	300.8	318.8	336.8	362.0
80°	192.7	198.1	214.3	217.9	237.8
82.5°	117.1	120.7	124.3	126.1	133.3
85°	63.0	63.0	63.0	59.4	59.4
87.5°	36.0	36.0	30.6	25.2	18.0
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)