

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: P558343

Luminaire Tested: **FUSL-12-4-LD4-3STD-40-UNV-81-87-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: P558343
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-81-87-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

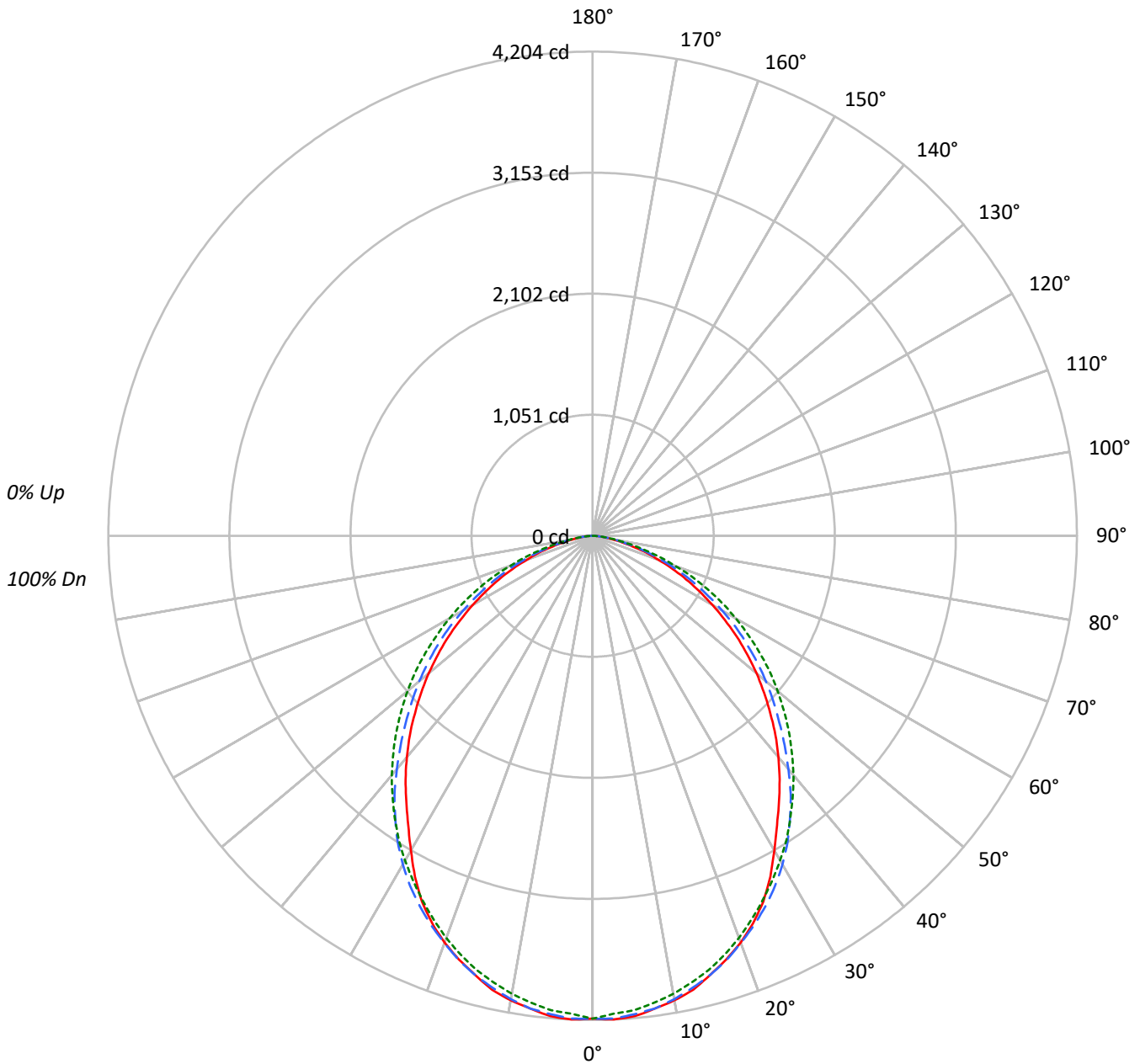
Lumens per Lamp: N/A
Luminaire Lumens: 9695.0 lumens
Efficiency: N/A
Efficacy: 97.0 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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

TEST NUMBER: P558343

CATALOG NUMBER: FUSL-12-4-LD4-3STD-40-UNV-81-87-EDD

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°	11283	11283	11283
5°	11313	11265	11169
10°	11193	11162	11034
15°	10994	10994	10869
20°	10761	10775	10637
25°	10407	10536	10369
30°	9800	10240	10115
35°	9260	9816	9832
40°	8810	9285	9529
45°	8306	8723	9170
50°	7775	8220	8780
55°	7172	7648	8305
60°	6458	6979	7724
65°	5703	6205	7026
70°	4752	5285	5969
75°	3735	4220	4672
80°	2672	2971	3295
85°	1741	1741	1643



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	394.8	4.1
10°-20°	1109.0	11.4
20°-30°	1620.6	16.7
30°-40°	1839.6	19.0
40°-50°	1775.8	18.3
50°-60°	1465.0	15.1
60°-70°	975.5	10.1
70°-80°	436.5	4.5
80°-90°	78.1	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°	3124.4	32.2
0°-40°	4964.0	51.2
0°-60°	8204.8	84.6
0°-90°	9695.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9695.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4193	4193	4193	4193	4193	
5°	4188	4186	4170	4148	4135	396
15°	3946	3956	3946	3929	3901	1113
25°	3505	3532	3548	3523	3492	1605
35°	2819	2858	2988	3004	2993	1766
45°	2183	2220	2292	2397	2410	1684
55°	1529	1554	1630	1720	1770	1364
65°	896	920	974	1044	1103	888
75°	359	378	406	425	449	393
85°	56	56	56	53	53	76
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4192.8	4192.8	4192.8	4192.8	4192.8
2.5°	4204.1	4205.7	4196.1	4170.3	4154.2
5°	4188.0	4186.4	4170.3	4147.7	4134.8
7.5°	4141.3	4144.5	4139.7	4107.5	4089.7
10°	4096.2	4097.8	4084.9	4059.1	4038.2
12.5°	4038.2	4036.6	4018.9	4006.0	3972.2
15°	3946.4	3956.1	3946.4	3928.7	3901.3
17.5°	3857.8	3857.8	3864.2	3833.6	3812.7
20°	3757.9	3762.8	3762.8	3738.6	3714.4
22.5°	3642.0	3656.5	3661.3	3635.5	3606.5
25°	3505.0	3532.4	3548.5	3522.8	3492.2
27.5°	3339.1	3381.0	3429.3	3410.0	3376.2
30°	3153.9	3215.1	3295.6	3279.5	3255.4
32.5°	2978.3	3039.5	3150.7	3144.2	3131.3
35°	2818.8	2857.5	2988.0	3004.1	2992.8
37.5°	2667.4	2702.9	2825.3	2862.3	2852.7
40°	2508.0	2546.6	2643.3	2709.3	2712.5
42.5°	2350.1	2387.2	2466.1	2561.1	2561.1
45°	2182.6	2219.6	2292.1	2396.8	2409.7
47.5°	2018.3	2057.0	2127.8	2232.5	2253.5
50°	1857.2	1892.7	1963.5	2065.0	2097.2
52.5°	1689.7	1728.4	1797.6	1891.0	1937.8
55°	1528.6	1554.4	1630.1	1720.3	1770.2
57.5°	1361.1	1385.3	1470.6	1548.0	1599.5
60°	1200.0	1230.6	1296.7	1375.6	1435.2
62.5°	1045.4	1077.6	1134.0	1203.2	1270.9
65°	895.6	919.8	974.5	1043.8	1103.4
67.5°	750.6	771.6	826.3	874.6	937.5
70°	604.0	631.4	671.7	718.4	758.7
72.5°	486.5	497.7	531.6	565.4	607.3
75°	359.2	378.5	405.9	425.2	449.4
77.5°	257.7	269.0	285.1	301.2	323.8
80°	172.4	177.2	191.7	194.9	212.6
82.5°	104.7	107.9	111.1	112.8	119.2
85°	56.4	56.4	56.4	53.2	53.2
87.5°	32.2	32.2	27.4	22.6	16.1
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)