

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: P557166

Luminaire Tested: **FUSL-12-4-LD4-2HI-50-UNV-93-97-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: P557166
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-LD4-2HI-50-UNV-93-97-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

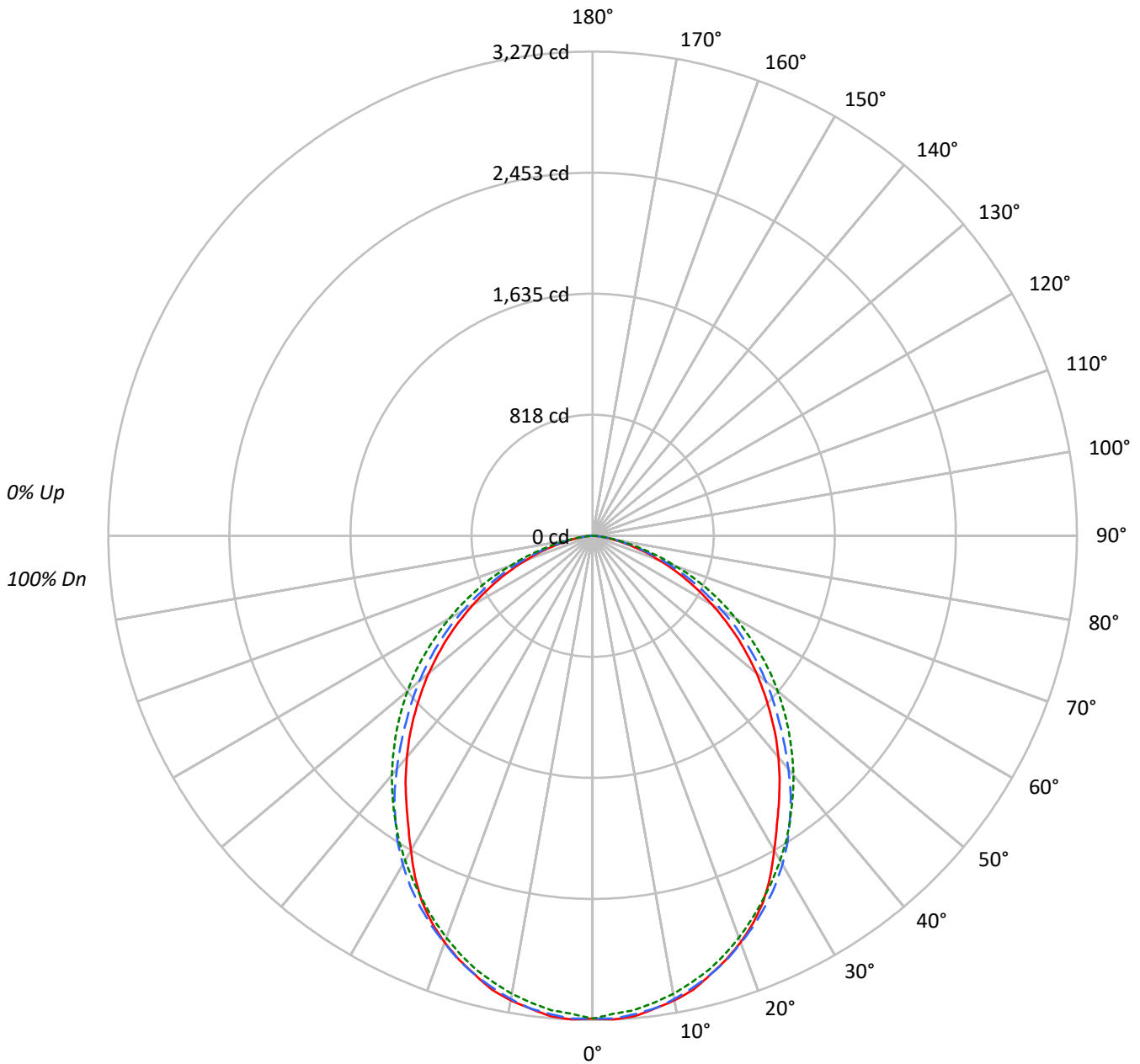
Lumens per Lamp: N/A
Luminaire Lumens: 7540.0 lumens
Efficiency: N/A
Efficacy: 87.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 86.4
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: P557166

CATALOG NUMBER: FUSL-12-4-LD4-2HI-50-UNV-93-97-EDD-90

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°	8775	8775	8775
5°	8798	8761	8687
10°	8705	8681	8582
15°	8551	8551	8453
20°	8369	8380	8273
25°	8094	8194	8064
30°	7622	7964	7867
35°	7202	7634	7646
40°	6852	7221	7411
45°	6460	6784	7132
50°	6047	6393	6828
55°	5577	5948	6459
60°	5023	5427	6007
65°	4435	4826	5464
70°	3696	4110	4642
75°	2905	3282	3634
80°	2077	2311	2563
85°	1352	1352	1275



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	307.0	4.1
10°-20°	862.5	11.4
20°-30°	1260.4	16.7
30°-40°	1430.7	19.0
40°-50°	1381.1	18.3
50°-60°	1139.3	15.1
60°-70°	758.7	10.1
70°-80°	339.5	4.5
80°-90°	60.7	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°	2429.9	32.2
0°-40°	3860.6	51.2
0°-60°	6381.1	84.6
0°-90°	7540.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7540.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3261	3261	3261	3261	3261	
5°	3257	3256	3243	3226	3216	308
15°	3069	3077	3069	3055	3034	865
25°	2726	2747	2760	2740	2716	1248
35°	2192	2222	2324	2336	2328	1374
45°	1697	1726	1783	1864	1874	1310
55°	1189	1209	1268	1338	1377	1061
65°	696	715	758	812	858	691
75°	279	294	316	331	350	305
85°	44	44	44	41	41	59
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3260.9	3260.9	3260.9	3260.9	3260.9
2.5°	3269.6	3270.9	3263.4	3243.3	3230.8
5°	3257.1	3255.8	3243.3	3225.8	3215.8
7.5°	3220.8	3223.3	3219.5	3194.5	3180.7
10°	3185.7	3186.9	3176.9	3156.9	3140.6
12.5°	3140.6	3139.3	3125.6	3115.5	3089.2
15°	3069.2	3076.7	3069.2	3055.4	3034.1
17.5°	3000.3	3000.3	3005.3	2981.5	2965.2
20°	2922.6	2926.4	2926.4	2907.6	2888.8
22.5°	2832.4	2843.7	2847.5	2827.4	2804.9
25°	2725.9	2747.2	2759.8	2739.7	2715.9
27.5°	2596.9	2629.5	2667.1	2652.0	2625.7
30°	2452.8	2500.4	2563.1	2550.6	2531.8
32.5°	2316.3	2363.9	2450.3	2445.3	2435.3
35°	2192.3	2222.3	2323.8	2336.3	2327.6
37.5°	2074.5	2102.1	2197.3	2226.1	2218.6
40°	1950.5	1980.6	2055.7	2107.1	2109.6
42.5°	1827.7	1856.5	1917.9	1991.8	1991.8
45°	1697.4	1726.3	1782.6	1864.1	1874.1
47.5°	1569.7	1599.7	1654.9	1736.3	1752.6
50°	1444.4	1472.0	1527.1	1606.0	1631.1
52.5°	1314.1	1344.2	1398.0	1470.7	1507.0
55°	1188.8	1208.9	1267.8	1337.9	1376.7
57.5°	1058.6	1077.3	1143.7	1203.9	1244.0
60°	933.3	957.1	1008.4	1069.8	1116.2
62.5°	813.0	838.1	881.9	935.8	988.4
65°	696.5	715.3	757.9	811.8	858.1
67.5°	583.8	600.1	642.7	680.2	729.1
70°	469.8	491.1	522.4	558.7	590.0
72.5°	378.3	387.1	413.4	439.7	472.3
75°	279.4	294.4	315.7	330.7	349.5
77.5°	200.4	209.2	221.7	234.3	251.8
80°	134.0	137.8	149.1	151.6	165.4
82.5°	81.4	83.9	86.4	87.7	92.7
85°	43.8	43.8	43.8	41.3	41.3
87.5°	25.1	25.1	21.3	17.5	12.5
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)