

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: P558163

Luminaire Tested: **FUSL-12-4-LD4-3LO-50-UNV-82-85-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: P558163
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-LD4-3LO-50-UNV-82-85-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

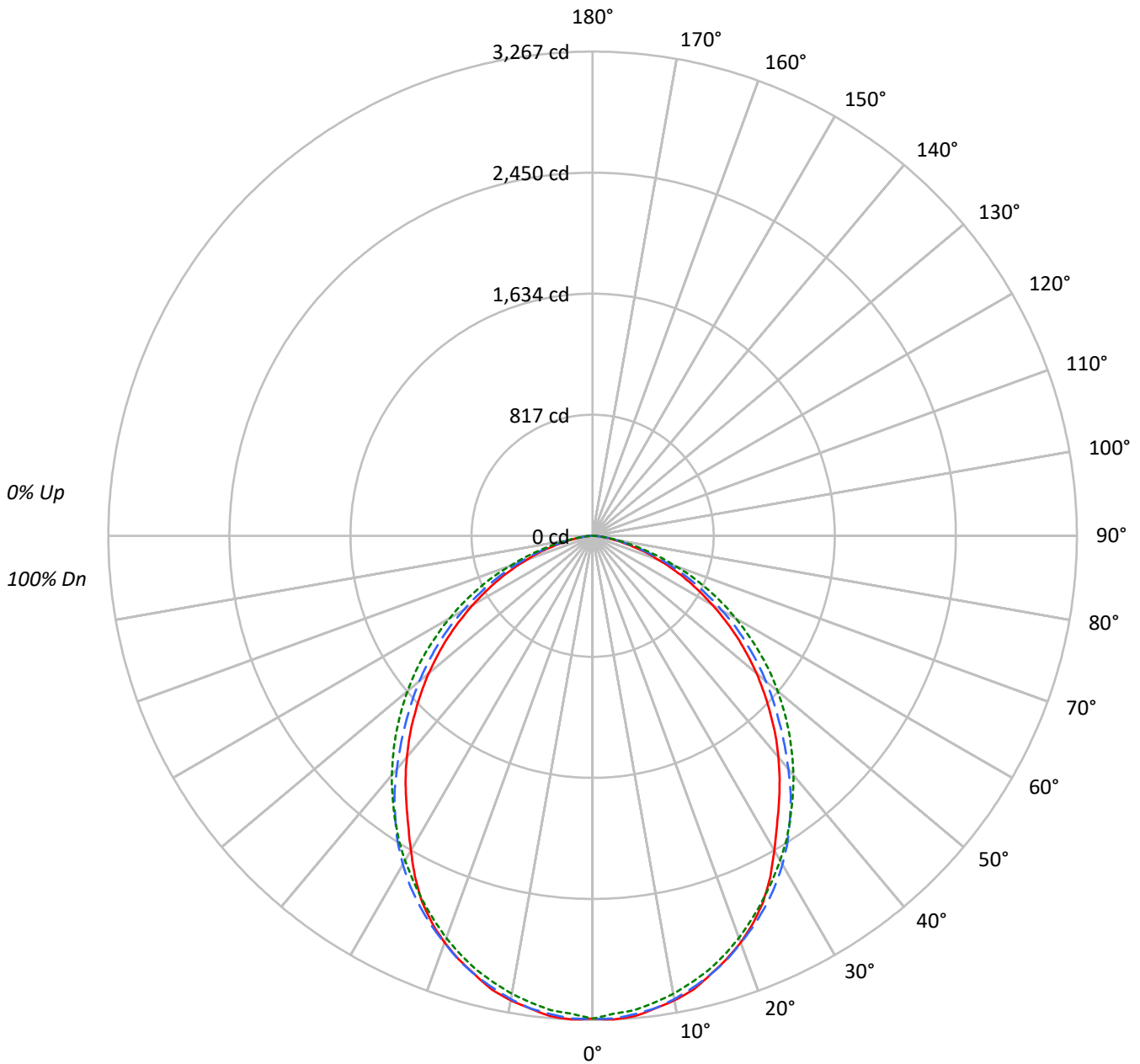
Lumens per Lamp: N/A
Luminaire Lumens: 7534.0 lumens
Efficiency: N/A
Efficacy: 107.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 70.2
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°	8768	8768	8768
5°	8791	8754	8680
10°	8698	8674	8575
15°	8544	8544	8446
20°	8363	8373	8266
25°	8087	8188	8058
30°	7616	7958	7861
35°	7196	7628	7640
40°	6846	7216	7405
45°	6455	6779	7126
50°	6042	6388	6823
55°	5573	5943	6454
60°	5019	5423	6002
65°	4432	4822	5459
70°	3693	4107	4639
75°	2902	3279	3631
80°	2075	2309	2560
85°	1352	1352	1275



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	306.8	4.1
10°-20°	861.8	11.4
20°-30°	1259.4	16.7
30°-40°	1429.6	19.0
40°-50°	1380.0	18.3
50°-60°	1138.4	15.1
60°-70°	758.1	10.1
70°-80°	339.3	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°	2428.0	32.2
0°-40°	3857.5	51.2
0°-60°	6376.0	84.6
0°-90°	7534.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7534.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3258	3258	3258	3258	3258	
5°	3254	3253	3241	3223	3213	308
15°	3067	3074	3067	3053	3032	865
25°	2724	2745	2758	2738	2714	1247
35°	2190	2221	2322	2334	2326	1372
45°	1696	1725	1781	1863	1873	1309
55°	1188	1208	1267	1337	1376	1060
65°	696	715	757	811	857	690
75°	279	294	315	330	349	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°	3258.3	3258.3	3258.3	3258.3	3258.3
2.5°	3267.0	3268.3	3260.8	3240.7	3228.2
5°	3254.5	3253.3	3240.7	3223.2	3213.2
7.5°	3218.2	3220.7	3217.0	3191.9	3178.1
10°	3183.2	3184.4	3174.4	3154.4	3138.1
12.5°	3138.1	3136.8	3123.1	3113.1	3086.8
15°	3066.7	3074.3	3066.7	3053.0	3031.7
17.5°	2997.9	2997.9	3002.9	2979.1	2962.9
20°	2920.3	2924.0	2924.0	2905.3	2886.5
22.5°	2830.2	2841.4	2845.2	2825.2	2802.6
25°	2723.8	2745.0	2757.6	2737.5	2713.8
27.5°	2594.8	2627.4	2664.9	2649.9	2623.6
30°	2450.9	2498.5	2561.0	2548.5	2529.8
32.5°	2314.5	2362.0	2448.4	2443.4	2433.4
35°	2190.5	2220.6	2322.0	2334.5	2325.7
37.5°	2072.9	2100.4	2195.5	2224.3	2216.8
40°	1948.9	1979.0	2054.1	2105.4	2107.9
42.5°	1826.3	1855.1	1916.4	1990.3	1990.3
45°	1696.1	1724.9	1781.2	1862.6	1872.6
47.5°	1568.4	1598.5	1653.5	1734.9	1751.2
50°	1443.2	1470.8	1525.9	1604.7	1629.8
52.5°	1313.1	1343.1	1396.9	1469.5	1505.8
55°	1187.9	1207.9	1266.8	1336.9	1375.7
57.5°	1057.7	1076.5	1142.8	1202.9	1243.0
60°	932.5	956.3	1007.6	1069.0	1115.3
62.5°	812.4	837.4	881.2	935.0	987.6
65°	696.0	714.7	757.3	811.1	857.4
67.5°	583.3	599.6	642.1	679.7	728.5
70°	469.4	490.7	522.0	558.3	589.6
72.5°	378.0	386.8	413.1	439.4	471.9
75°	279.1	294.2	315.4	330.5	349.2
77.5°	200.3	209.0	221.6	234.1	251.6
80°	133.9	137.7	149.0	151.5	165.2
82.5°	81.4	83.9	86.4	87.6	92.6
85°	43.8	43.8	43.8	41.3	41.3
87.5°	25.0	25.0	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)