

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: P558031

Luminaire Tested: **FUSL-12-4-LD4-3LO-35-UNV-81-97-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: P558031
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-35-UNV-81-97-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .375
CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

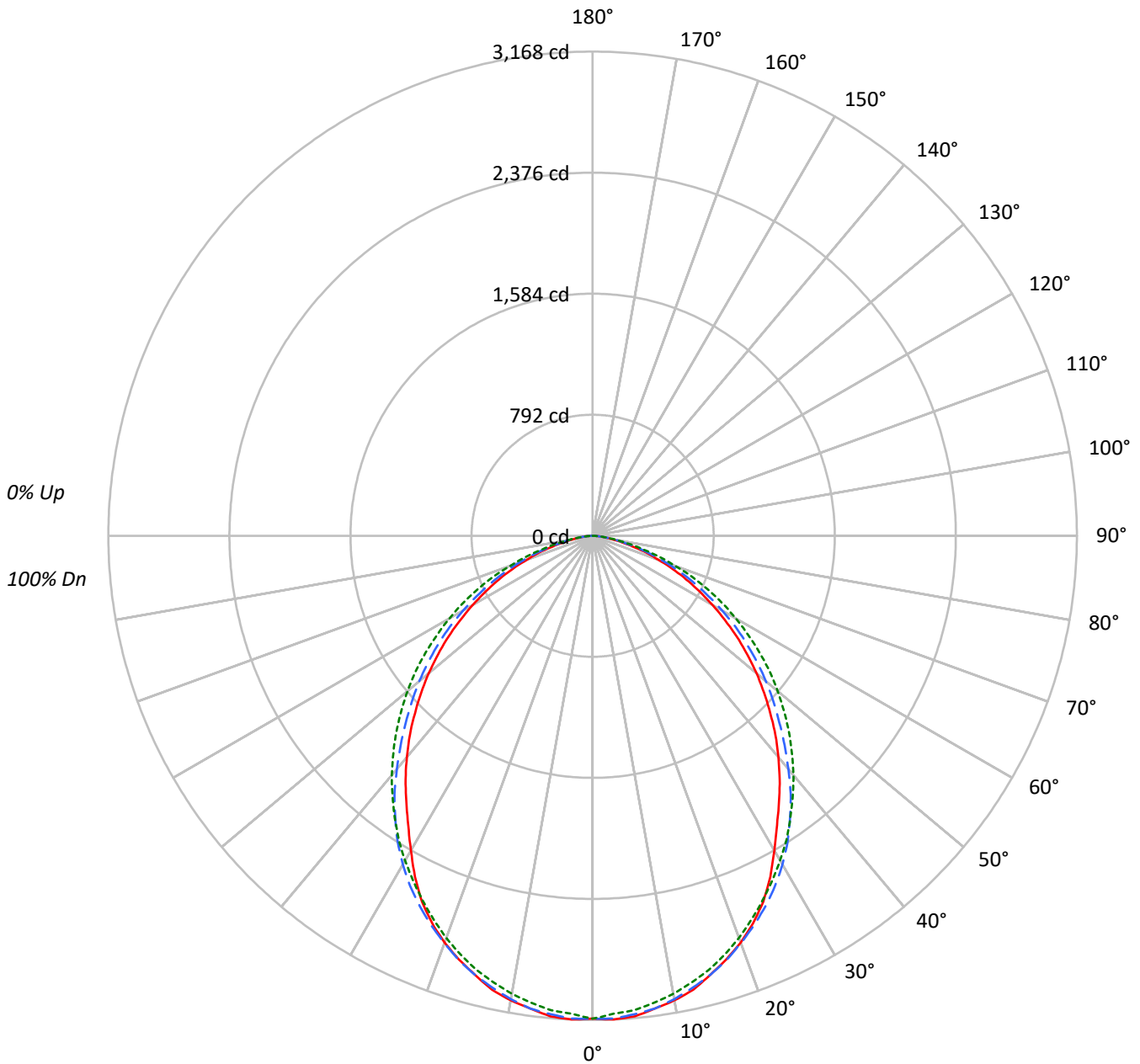
Lumens per Lamp: N/A
Luminaire Lumens: 7306.0 lumens
Efficiency: N/A
Efficacy: 104.1 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	8503	8503	8503
5°	8525	8489	8417
10°	8435	8411	8315
15°	8285	8285	8190
20°	8110	8120	8016
25°	7842	7940	7814
30°	7385	7717	7623
35°	6978	7397	7409
40°	6639	6997	7181
45°	6259	6573	6911
50°	5859	6195	6616
55°	5404	5763	6259
60°	4867	5259	5821
65°	4297	4676	5294
70°	3581	3983	4498
75°	2815	3180	3522
80°	2013	2238	2483
85°	1312	1312	1238



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	297.5	4.1
10°-20°	835.7	11.4
20°-30°	1221.3	16.7
30°-40°	1386.3	19.0
40°-50°	1338.3	18.3
50°-60°	1104.0	15.1
60°-70°	735.2	10.1
70°-80°	329.0	4.5
80°-90°	58.9	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°	2354.5	32.2
0°-40°	3740.8	51.2
0°-60°	6183.0	84.6
0°-90°	7306.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7306.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3160	3160	3160	3160	3160	
5°	3156	3155	3143	3126	3116	299
15°	2974	2981	2974	2961	2940	838
25°	2641	2662	2674	2655	2632	1210
35°	2124	2153	2252	2264	2255	1331
45°	1645	1673	1727	1806	1816	1269
55°	1152	1171	1228	1296	1334	1028
65°	675	693	734	787	832	669
75°	271	285	306	320	339	296
85°	42	42	42	40	40	57
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3159.7	3159.7	3159.7	3159.7	3159.7
2.5°	3168.2	3169.4	3162.1	3142.7	3130.5
5°	3156.0	3154.8	3142.7	3125.7	3116.0
7.5°	3120.8	3123.2	3119.6	3095.3	3082.0
10°	3086.8	3088.0	3078.3	3058.9	3043.1
12.5°	3043.1	3041.9	3028.6	3018.8	2993.4
15°	2973.9	2981.2	2973.9	2960.6	2939.9
17.5°	2907.2	2907.2	2912.0	2889.0	2873.2
20°	2831.9	2835.6	2835.6	2817.4	2799.1
22.5°	2744.5	2755.4	2759.1	2739.7	2717.8
25°	2641.3	2662.0	2674.1	2654.7	2631.6
27.5°	2516.3	2547.9	2584.3	2569.7	2544.2
30°	2376.7	2422.8	2483.5	2471.4	2453.2
32.5°	2244.4	2290.5	2374.3	2369.4	2359.7
35°	2124.2	2153.4	2251.7	2263.8	2255.3
37.5°	2010.1	2036.8	2129.1	2157.0	2149.7
40°	1890.0	1919.1	1991.9	2041.7	2044.1
42.5°	1771.0	1798.9	1858.4	1930.0	1930.0
45°	1644.8	1672.7	1727.3	1806.2	1815.9
47.5°	1521.0	1550.1	1603.5	1682.4	1698.2
50°	1399.6	1426.3	1479.7	1556.2	1580.4
52.5°	1273.3	1302.5	1354.7	1425.1	1460.3
55°	1151.9	1171.4	1228.4	1296.4	1334.0
57.5°	1025.7	1043.9	1108.2	1166.5	1205.4
60°	904.3	927.4	977.2	1036.6	1081.5
62.5°	787.8	812.1	854.6	906.7	957.7
65°	674.9	693.1	734.4	786.6	831.5
67.5°	565.7	581.4	622.7	659.1	706.5
70°	455.2	475.8	506.2	541.4	571.7
72.5°	366.6	375.1	400.6	426.1	457.6
75°	270.7	285.3	305.9	320.5	338.7
77.5°	194.2	202.7	214.9	227.0	244.0
80°	129.9	133.5	144.4	146.9	160.2
82.5°	78.9	81.3	83.8	85.0	89.8
85°	42.5	42.5	42.5	40.1	40.1
87.5°	24.3	24.3	20.6	17.0	12.1
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)