

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: P558307

Luminaire Tested: **FUSL-12-4-LD4-3STD-35-UNV-93-85-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: P558307
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-35-UNV-93-85-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

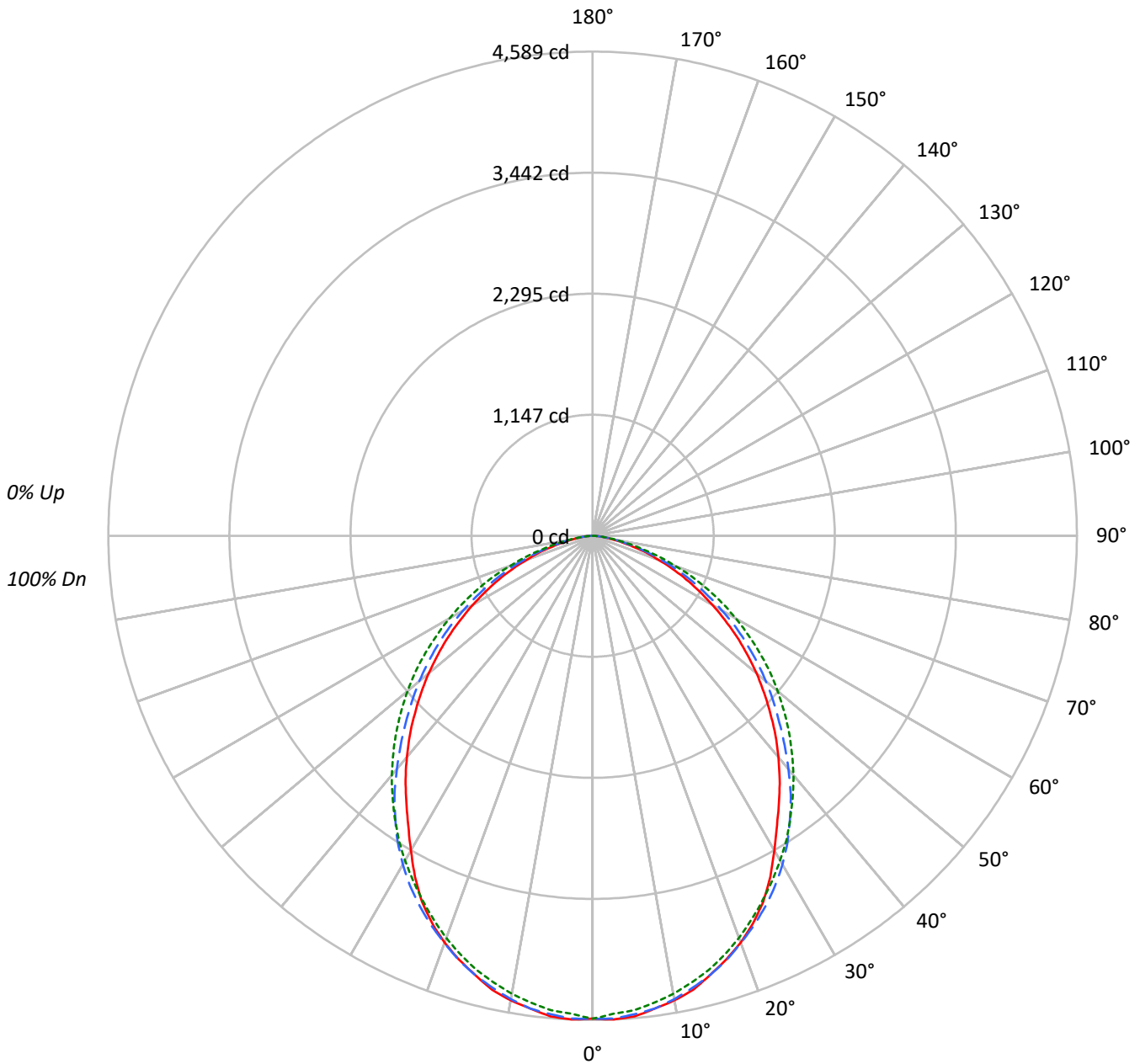
Lumens per Lamp: N/A
Luminaire Lumens: 10583.0 lumens
Efficiency: N/A
Efficacy: 105.9 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 99.9
Input Voltage (V): NR
Input Current (A_{in}): 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°	12316	12316	12316
5°	12349	12297	12192
10°	12218	12184	12045
15°	12001	12001	11864
20°	11747	11762	11611
25°	11360	11501	11318
30°	10698	11178	11042
35°	10108	10715	10732
40°	9617	10136	10401
45°	9067	9522	10010
50°	8487	8973	9584
55°	7828	8348	9066
60°	7050	7618	8432
65°	6225	6774	7669
70°	5188	5769	6516
75°	4077	4607	5101
80°	2915	3242	3597
85°	1899	1899	1791



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	430.9	4.1
10°-20°	1210.6	11.4
20°-30°	1769.1	16.7
30°-40°	2008.1	19.0
40°-50°	1938.5	18.3
50°-60°	1599.1	15.1
60°-70°	1064.9	10.1
70°-80°	476.5	4.5
80°-90°	85.2	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°	3410.6	32.2
0°-40°	5418.7	51.2
0°-60°	8956.3	84.6
0°-90°	10583.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10583.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4577	4577	4577	4577	4577	
5°	4572	4570	4552	4528	4514	433
15°	4308	4318	4308	4288	4259	1214
25°	3826	3856	3874	3845	3812	1752
35°	3077	3119	3262	3279	3267	1928
45°	2382	2423	2502	2616	2630	1838
55°	1669	1697	1779	1878	1932	1489
65°	978	1004	1064	1139	1204	969
75°	392	413	443	464	491	429
85°	62	62	62	58	58	83
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4576.9	4576.9	4576.9	4576.9	4576.9
2.5°	4589.2	4590.9	4580.4	4552.3	4534.7
5°	4571.6	4569.8	4552.3	4527.6	4513.6
7.5°	4520.6	4524.1	4518.9	4483.7	4464.3
10°	4471.4	4473.1	4459.1	4430.9	4408.1
12.5°	4408.1	4406.3	4387.0	4372.9	4336.0
15°	4307.9	4318.4	4307.9	4288.5	4258.6
17.5°	4211.1	4211.1	4218.2	4184.8	4161.9
20°	4102.1	4107.4	4107.4	4081.0	4054.7
22.5°	3975.5	3991.4	3996.6	3968.5	3936.9
25°	3826.1	3856.0	3873.6	3845.4	3812.0
27.5°	3645.0	3690.7	3743.4	3722.3	3685.4
30°	3442.8	3509.6	3597.5	3579.9	3553.5
32.5°	3251.1	3317.9	3439.2	3432.2	3418.1
35°	3077.0	3119.2	3261.7	3279.2	3266.9
37.5°	2911.8	2950.4	3084.1	3124.5	3114.0
40°	2737.7	2779.9	2885.4	2957.5	2961.0
42.5°	2565.4	2605.8	2692.0	2795.7	2795.7
45°	2382.5	2422.9	2502.1	2616.4	2630.4
47.5°	2203.2	2245.4	2322.7	2437.0	2459.9
50°	2027.3	2066.0	2143.4	2254.2	2289.3
52.5°	1844.5	1886.7	1962.3	2064.3	2115.2
55°	1668.6	1696.8	1779.4	1877.9	1932.4
57.5°	1485.8	1512.1	1605.3	1689.7	1746.0
60°	1309.9	1343.3	1415.4	1501.6	1566.7
62.5°	1141.1	1176.3	1237.8	1313.5	1387.3
65°	977.6	1004.0	1063.8	1139.4	1204.4
67.5°	819.4	842.2	902.0	954.8	1023.3
70°	659.4	689.3	733.2	784.2	828.2
72.5°	531.0	543.3	580.2	617.2	662.9
75°	392.1	413.2	443.1	464.2	490.6
77.5°	281.3	293.6	311.2	328.8	353.4
80°	188.1	193.4	209.2	212.8	232.1
82.5°	114.3	117.8	121.3	123.1	130.1
85°	61.5	61.5	61.5	58.0	58.0
87.5°	35.2	35.2	29.9	24.6	17.6
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)