

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: P558275

Luminaire Tested: **FUSL-12-4-LD4-3STD-35-UNV-81-85-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: P558275
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-81-85-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC 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

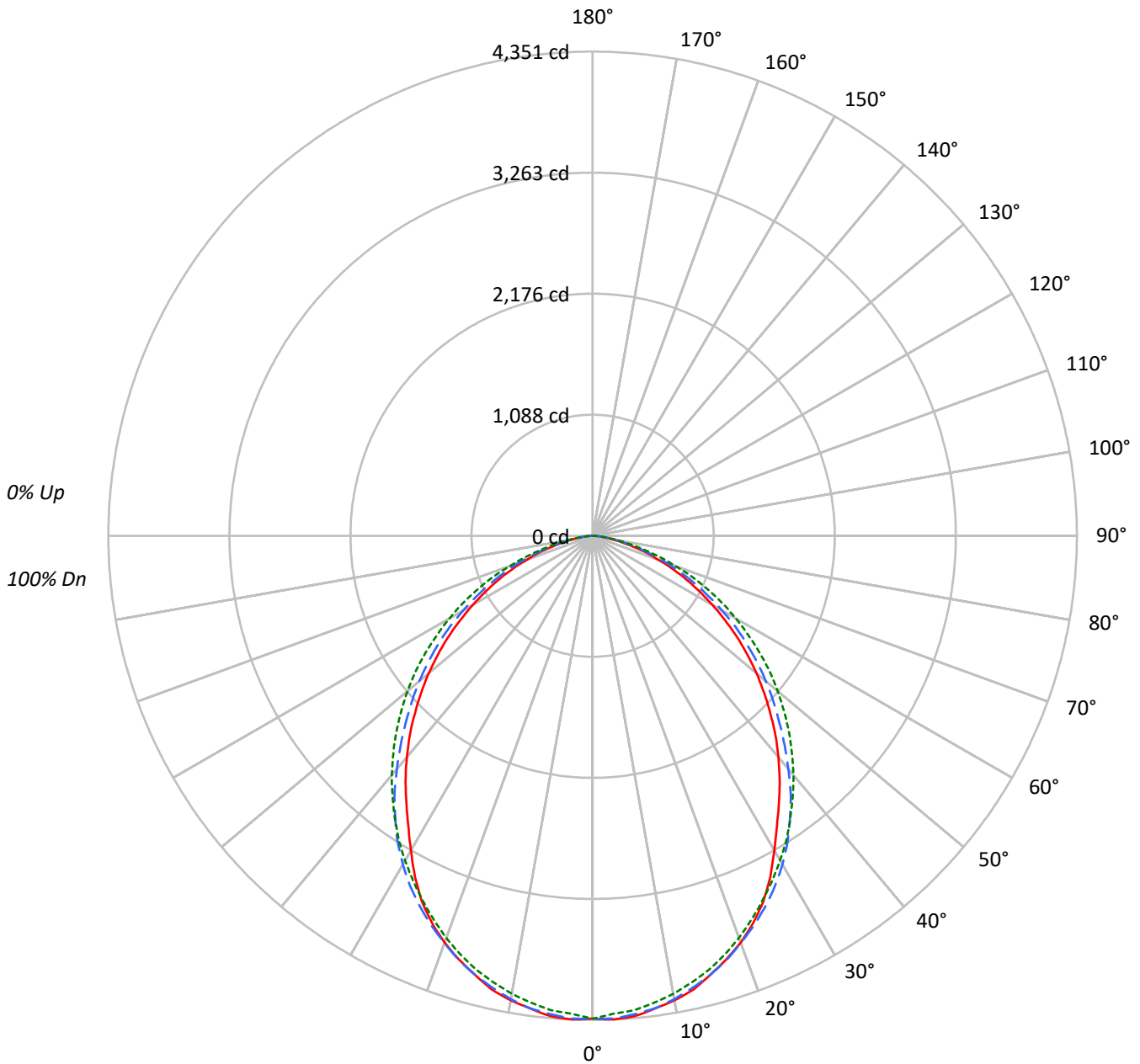
Lumens per Lamp: N/A
Luminaire Lumens: 10034.0 lumens
Efficiency: N/A
Efficacy: 100.4 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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

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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°	11677	11677	11677
5°	11708	11659	11560
10°	11584	11552	11420
15°	11379	11379	11249
20°	11138	11152	11009
25°	10771	10905	10731
30°	10143	10599	10469
35°	9584	10159	10176
40°	9118	9610	9862
45°	8597	9028	9491
50°	8047	8508	9087
55°	7423	7915	8595
60°	6684	7223	7994
65°	5902	6422	7272
70°	4919	5470	6178
75°	3866	4368	4836
80°	2765	3075	3411
85°	1800	1800	1698



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	408.6	4.1
10°-20°	1147.8	11.4
20°-30°	1677.3	16.7
30°-40°	1903.9	19.0
40°-50°	1837.9	18.3
50°-60°	1516.2	15.1
60°-70°	1009.6	10.1
70°-80°	451.8	4.5
80°-90°	80.8	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°	3233.7	32.2
0°-40°	5137.6	51.2
0°-60°	8491.7	84.6
0°-90°	10034.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10034.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4339	4339	4339	4339	4339	
5°	4334	4333	4316	4293	4279	410
15°	4084	4094	4084	4066	4038	1151
25°	3628	3656	3673	3646	3614	1661
35°	2917	2957	3092	3109	3098	1828
45°	2259	2297	2372	2481	2494	1743
55°	1582	1609	1687	1780	1832	1412
65°	927	952	1009	1080	1142	919
75°	372	392	420	440	465	407
85°	58	58	58	55	55	79
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4339.4	4339.4	4339.4	4339.4	4339.4
2.5°	4351.1	4352.8	4342.8	4316.1	4299.4
5°	4334.4	4332.8	4316.1	4292.8	4279.4
7.5°	4286.1	4289.4	4284.4	4251.1	4232.8
10°	4239.4	4241.1	4227.8	4201.1	4179.4
12.5°	4179.4	4177.7	4159.4	4146.1	4111.1
15°	4084.4	4094.4	4084.4	4066.0	4037.7
17.5°	3992.7	3992.7	3999.4	3967.7	3946.0
20°	3889.3	3894.3	3894.3	3869.3	3844.3
22.5°	3769.3	3784.3	3789.3	3762.6	3732.6
25°	3627.6	3655.9	3672.6	3645.9	3614.3
27.5°	3455.9	3499.2	3549.2	3529.2	3494.2
30°	3264.2	3327.5	3410.9	3394.2	3369.2
32.5°	3082.5	3145.8	3260.8	3254.2	3240.8
35°	2917.4	2957.4	3092.5	3109.1	3097.5
37.5°	2760.7	2797.4	2924.1	2962.4	2952.4
40°	2595.7	2635.7	2735.7	2804.1	2807.4
42.5°	2432.3	2470.6	2552.3	2650.7	2650.7
45°	2258.9	2297.3	2372.3	2480.6	2494.0
47.5°	2088.9	2128.9	2202.2	2310.6	2332.3
50°	1922.2	1958.8	2032.2	2137.2	2170.6
52.5°	1748.8	1788.8	1860.5	1957.2	2005.5
55°	1582.1	1608.7	1687.1	1780.5	1832.1
57.5°	1408.7	1433.7	1522.1	1602.1	1655.4
60°	1242.0	1273.7	1342.0	1423.7	1485.4
62.5°	1081.9	1115.3	1173.6	1245.3	1315.3
65°	926.9	951.9	1008.6	1080.3	1142.0
67.5°	776.9	798.5	855.2	905.2	970.2
70°	625.2	653.5	695.2	743.5	785.2
72.5°	503.5	515.1	550.1	585.2	628.5
75°	371.8	391.8	420.1	440.1	465.1
77.5°	266.7	278.4	295.1	311.7	335.1
80°	178.4	183.4	198.4	201.7	220.1
82.5°	108.4	111.7	115.0	116.7	123.4
85°	58.3	58.3	58.3	55.0	55.0
87.5°	33.3	33.3	28.3	23.3	16.7
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)