

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: P558237

Luminaire Tested: **FUSL-12-4-LD4-3STD-30-UNV-82-96-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: P558237
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-30-UNV-82-96-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDES
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

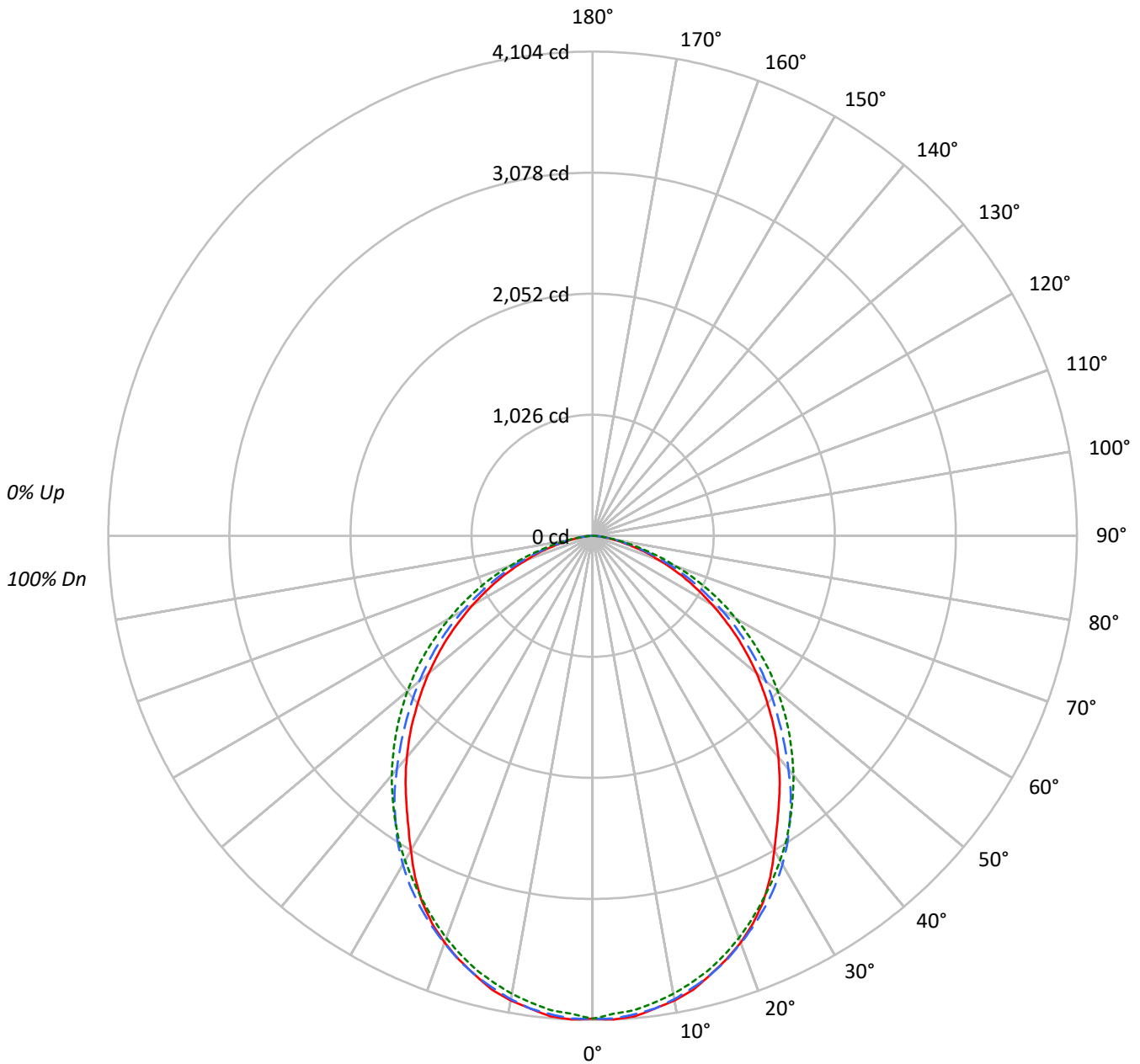
Lumens per Lamp: N/A
Luminaire Lumens: 9465.0 lumens
Efficiency: N/A
Efficacy: 94.7 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	11015	11015	11015
5°	11045	10998	10904
10°	10927	10897	10773
15°	10734	10734	10611
20°	10506	10520	10385
25°	10160	10286	10123
30°	9568	9998	9875
35°	9041	9583	9598
40°	8601	9065	9303
45°	8109	8516	8953
50°	7591	8025	8572
55°	7002	7466	8108
60°	6306	6813	7541
65°	5567	6058	6859
70°	4640	5160	5828
75°	3646	4120	4561
80°	2608	2899	3217
85°	1698	1698	1602



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	385.4	4.1
10°-20°	1082.7	11.4
20°-30°	1582.2	16.7
30°-40°	1796.0	19.0
40°-50°	1733.7	18.3
50°-60°	1430.2	15.1
60°-70°	952.4	10.1
70°-80°	426.2	4.5
80°-90°	76.2	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°	3050.3	32.2
0°-40°	4846.3	51.2
0°-60°	8010.2	84.6
0°-90°	9465.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9465.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4093	4093	4093	4093	4093	
5°	4089	4087	4071	4049	4037	387
15°	3853	3862	3853	3836	3809	1086
25°	3422	3449	3464	3439	3409	1567
35°	2752	2790	2917	2933	2922	1724
45°	2131	2167	2238	2340	2352	1644
55°	1492	1518	1591	1680	1728	1332
65°	874	898	951	1019	1077	867
75°	351	370	396	415	439	383
85°	55	55	55	52	52	74
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4093.4	4093.4	4093.4	4093.4	4093.4
2.5°	4104.4	4105.9	4096.5	4071.4	4055.6
5°	4088.7	4087.1	4071.4	4049.3	4036.8
7.5°	4043.0	4046.2	4041.5	4010.0	3992.7
10°	3999.0	4000.6	3988.0	3962.8	3942.4
12.5°	3942.4	3940.8	3923.5	3911.0	3877.9
15°	3852.8	3862.2	3852.8	3835.5	3808.7
17.5°	3766.3	3766.3	3772.6	3742.7	3722.2
20°	3668.8	3673.5	3673.5	3649.9	3626.3
22.5°	3555.6	3569.7	3574.4	3549.3	3521.0
25°	3421.9	3448.6	3464.3	3439.2	3409.3
27.5°	3259.9	3300.8	3348.0	3329.1	3296.1
30°	3079.1	3138.8	3217.5	3201.7	3178.1
32.5°	2907.7	2967.4	3075.9	3069.6	3057.1
35°	2752.0	2789.7	2917.1	2932.8	2921.8
37.5°	2604.2	2638.8	2758.3	2794.4	2785.0
40°	2448.5	2486.2	2580.6	2645.0	2648.2
42.5°	2294.4	2330.5	2407.6	2500.4	2500.4
45°	2130.8	2167.0	2237.7	2340.0	2352.5
47.5°	1970.4	2008.2	2077.3	2179.6	2200.0
50°	1813.2	1847.8	1916.9	2016.0	2047.5
52.5°	1649.6	1687.4	1755.0	1846.2	1891.8
55°	1492.4	1517.5	1591.4	1679.5	1728.2
57.5°	1328.8	1352.4	1435.7	1511.2	1561.5
60°	1171.6	1201.4	1265.9	1343.0	1401.1
62.5°	1020.6	1052.0	1107.1	1174.7	1240.7
65°	874.3	897.9	951.4	1019.0	1077.2
67.5°	732.8	753.3	806.7	853.9	915.2
70°	589.7	616.4	655.8	701.4	740.7
72.5°	474.9	485.9	518.9	552.0	592.9
75°	350.7	369.6	396.3	415.2	438.7
77.5°	251.6	262.6	278.3	294.1	316.1
80°	168.3	173.0	187.1	190.3	207.6
82.5°	102.2	105.4	108.5	110.1	116.4
85°	55.0	55.0	55.0	51.9	51.9
87.5°	31.5	31.5	26.7	22.0	15.7
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)