

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: P556744

Luminaire Tested: **FUSL-12-4-LD4-1STD-35-UNV-81-88-EDD-90**

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: P556744
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-LD4-1STD-35-UNV-81-88-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

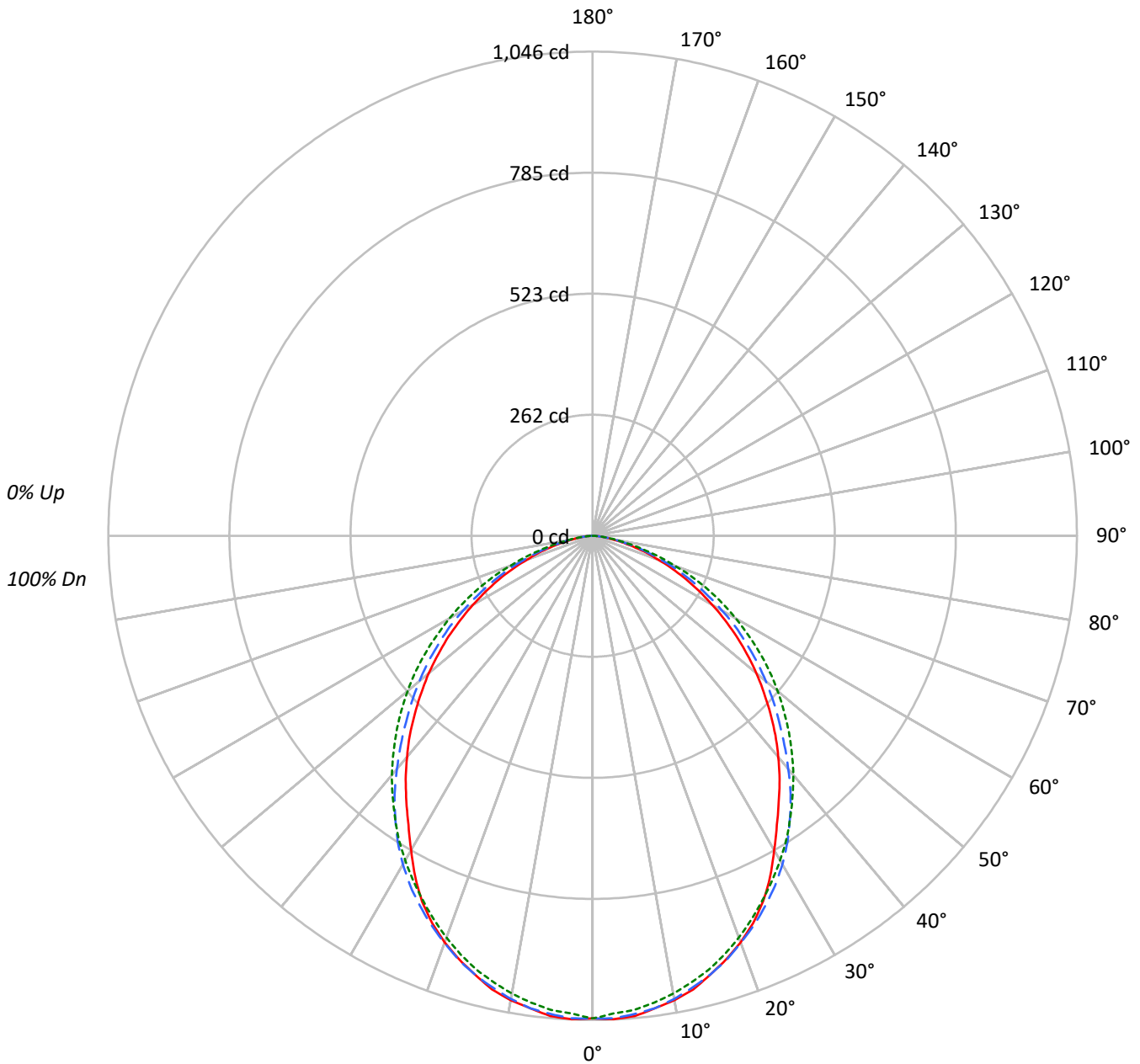
Lumens per Lamp: N/A
Luminaire Lumens: 2411.0 lumens
Efficiency: N/A
Efficacy: 72.4 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
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°	2806	2806	2806
5°	2813	2801	2778
10°	2784	2776	2744
15°	2734	2734	2703
20°	2676	2680	2645
25°	2588	2620	2578
30°	2437	2547	2516
35°	2303	2441	2445
40°	2191	2309	2370
45°	2066	2169	2281
50°	1934	2044	2183
55°	1783	1902	2065
60°	1606	1736	1921
65°	1418	1543	1747
70°	1182	1314	1485
75°	928	1049	1162
80°	665	739	820
85°	432	432	408



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	98.2	4.1
10°-20°	275.8	11.4
20°-30°	403.0	16.7
30°-40°	457.5	19.0
40°-50°	441.6	18.3
50°-60°	364.3	15.1
60°-70°	242.6	10.1
70°-80°	108.6	4.5
80°-90°	19.4	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°	777.0	32.2
0°-40°	1234.5	51.2
0°-60°	2040.4	84.6
0°-90°	2411.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2411.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1043	1043	1043	1043	1043	
5°	1042	1041	1037	1032	1028	99
15°	981	984	981	977	970	277
25°	872	878	882	876	868	399
35°	701	711	743	747	744	439
45°	543	552	570	596	599	419
55°	380	387	405	428	440	339
65°	223	229	242	260	274	221
75°	89	94	101	106	112	98
85°	14	14	14	13	13	19
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1042.7	1042.7	1042.7	1042.7	1042.7
2.5°	1045.5	1045.9	1043.5	1037.1	1033.1
5°	1041.5	1041.1	1037.1	1031.5	1028.3
7.5°	1029.9	1030.7	1029.5	1021.5	1017.1
10°	1018.7	1019.1	1015.9	1009.4	1004.2
12.5°	1004.2	1003.8	999.4	996.2	987.8
15°	981.4	983.8	981.4	977.0	970.2
17.5°	959.4	959.4	961.0	953.4	948.2
20°	934.5	935.7	935.7	929.7	923.7
22.5°	905.7	909.3	910.5	904.1	896.9
25°	871.6	878.5	882.5	876.1	868.4
27.5°	830.4	840.8	852.8	848.0	839.6
30°	784.3	799.5	819.6	815.6	809.6
32.5°	740.7	755.9	783.5	781.9	778.7
35°	701.0	710.6	743.1	747.1	744.3
37.5°	663.4	672.2	702.6	711.8	709.4
40°	623.7	633.3	657.3	673.8	674.6
42.5°	584.4	593.7	613.3	636.9	636.9
45°	542.8	552.0	570.0	596.1	599.3
47.5°	501.9	511.5	529.2	555.2	560.4
50°	461.9	470.7	488.3	513.5	521.5
52.5°	420.2	429.8	447.0	470.3	481.9
55°	380.1	386.6	405.4	427.8	440.2
57.5°	338.5	344.5	365.7	385.0	397.8
60°	298.4	306.0	322.5	342.1	356.9
62.5°	260.0	268.0	282.0	299.2	316.1
65°	222.7	228.7	242.3	259.6	274.4
67.5°	186.7	191.9	205.5	217.5	233.1
70°	150.2	157.0	167.0	178.7	188.7
72.5°	121.0	123.8	132.2	140.6	151.0
75°	89.3	94.1	100.9	105.8	111.8
77.5°	64.1	66.9	70.9	74.9	80.5
80°	42.9	44.1	47.7	48.5	52.9
82.5°	26.0	26.8	27.6	28.0	29.6
85°	14.0	14.0	14.0	13.2	13.2
87.5°	8.0	8.0	6.8	5.6	4.0
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)