

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: P558230

Luminaire Tested: **FUSL-12-4-LD4-3STD-30-UNV-82-87-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: P558230
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-82-87-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

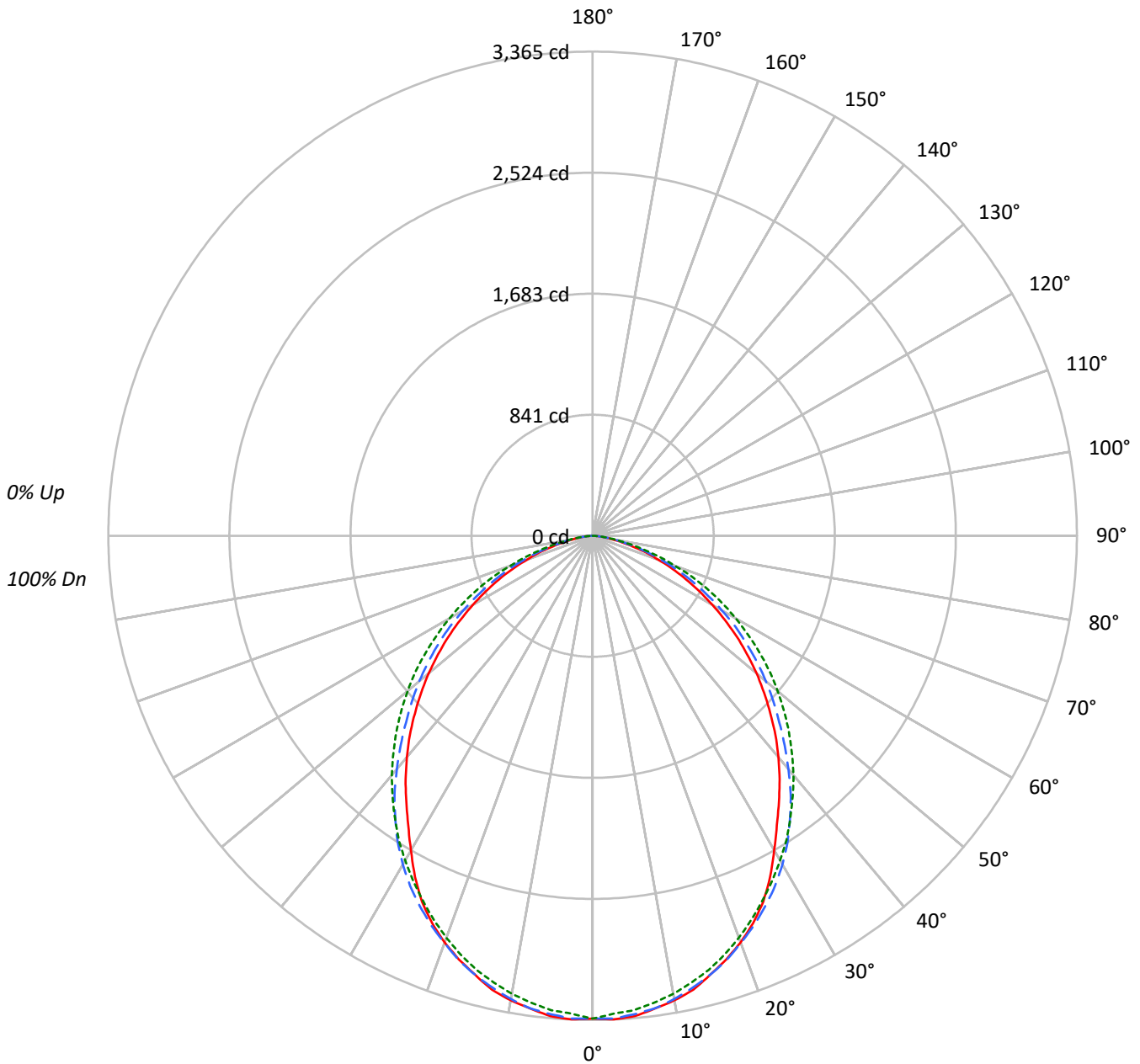
Lumens per Lamp: N/A
Luminaire Lumens: 7759.0 lumens
Efficiency: N/A
Efficacy: 77.7 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 99.9
Input Voltage (V): NR
Input Current (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°	9030	9030	9030
5°	9054	9015	8939
10°	8958	8933	8831
15°	8799	8799	8698
20°	8613	8624	8513
25°	8329	8432	8298
30°	7843	8195	8095
35°	7411	7856	7868
40°	7051	7431	7626
45°	6648	6981	7339
50°	6222	6579	7026
55°	5740	6121	6647
60°	5169	5585	6182
65°	4564	4966	5622
70°	3803	4230	4777
75°	2989	3378	3740
80°	2137	2377	2638
85°	1392	1392	1312



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	315.9	4.1
10°-20°	887.6	11.4
20°-30°	1297.0	16.7
30°-40°	1472.3	19.0
40°-50°	1421.2	18.3
50°-60°	1172.4	15.1
60°-70°	780.7	10.1
70°-80°	349.4	4.5
80°-90°	62.5	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°	2500.5	32.2
0°-40°	3972.8	51.2
0°-60°	6566.4	84.6
0°-90°	7759.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7759.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3356	3356	3356	3356	3356	
5°	3352	3350	3338	3320	3309	317
15°	3158	3166	3158	3144	3122	890
25°	2805	2827	2840	2819	2795	1285
35°	2256	2287	2391	2404	2395	1414
45°	1747	1776	1834	1918	1928	1348
55°	1223	1244	1305	1377	1417	1092
65°	717	736	780	835	883	711
75°	288	303	325	340	360	314
85°	45	45	45	42	42	61
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3355.6	3355.6	3355.6	3355.6	3355.6
2.5°	3364.6	3365.9	3358.1	3337.5	3324.6
5°	3351.7	3350.4	3337.5	3319.5	3309.2
7.5°	3314.3	3316.9	3313.0	3287.2	3273.1
10°	3278.2	3279.5	3269.2	3248.6	3231.8
12.5°	3231.8	3230.5	3216.3	3206.0	3179.0
15°	3158.3	3166.1	3158.3	3144.2	3122.2
17.5°	3087.4	3087.4	3092.6	3068.1	3051.3
20°	3007.5	3011.4	3011.4	2992.0	2972.7
22.5°	2914.7	2926.3	2930.2	2909.5	2886.3
25°	2805.1	2827.0	2839.9	2819.3	2794.8
27.5°	2672.3	2705.9	2744.5	2729.1	2702.0
30°	2524.1	2573.1	2637.5	2624.6	2605.3
32.5°	2383.6	2432.6	2521.5	2516.4	2506.0
35°	2256.0	2286.9	2391.3	2404.2	2395.2
37.5°	2134.8	2163.1	2261.1	2290.8	2283.0
40°	2007.2	2038.1	2115.4	2168.3	2170.9
42.5°	1880.8	1910.5	1973.6	2049.7	2049.7
45°	1746.8	1776.4	1834.4	1918.2	1928.5
47.5°	1615.3	1646.2	1702.9	1786.7	1803.5
50°	1486.3	1514.7	1571.4	1652.6	1678.4
52.5°	1352.3	1383.2	1438.7	1513.4	1550.8
55°	1223.4	1244.0	1304.6	1376.8	1416.7
57.5°	1089.3	1108.6	1177.0	1238.8	1280.1
60°	960.4	984.9	1037.7	1100.9	1148.6
62.5°	836.6	862.4	907.5	963.0	1017.1
65°	716.7	736.1	779.9	835.3	883.0
67.5°	600.7	617.5	661.3	700.0	750.3
70°	483.4	505.3	537.6	574.9	607.2
72.5°	389.3	398.3	425.4	452.5	486.0
75°	287.5	302.9	324.9	340.3	359.7
77.5°	206.3	215.3	228.2	241.1	259.1
80°	137.9	141.8	153.4	156.0	170.2
82.5°	83.8	86.4	88.9	90.2	95.4
85°	45.1	45.1	45.1	42.5	42.5
87.5°	25.8	25.8	21.9	18.0	12.9
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)