

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: P558045

Luminaire Tested: **FUSL-12-4-LD4-3LO-35-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: P558045
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-LD4-3LO-35-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 3500K CCT
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

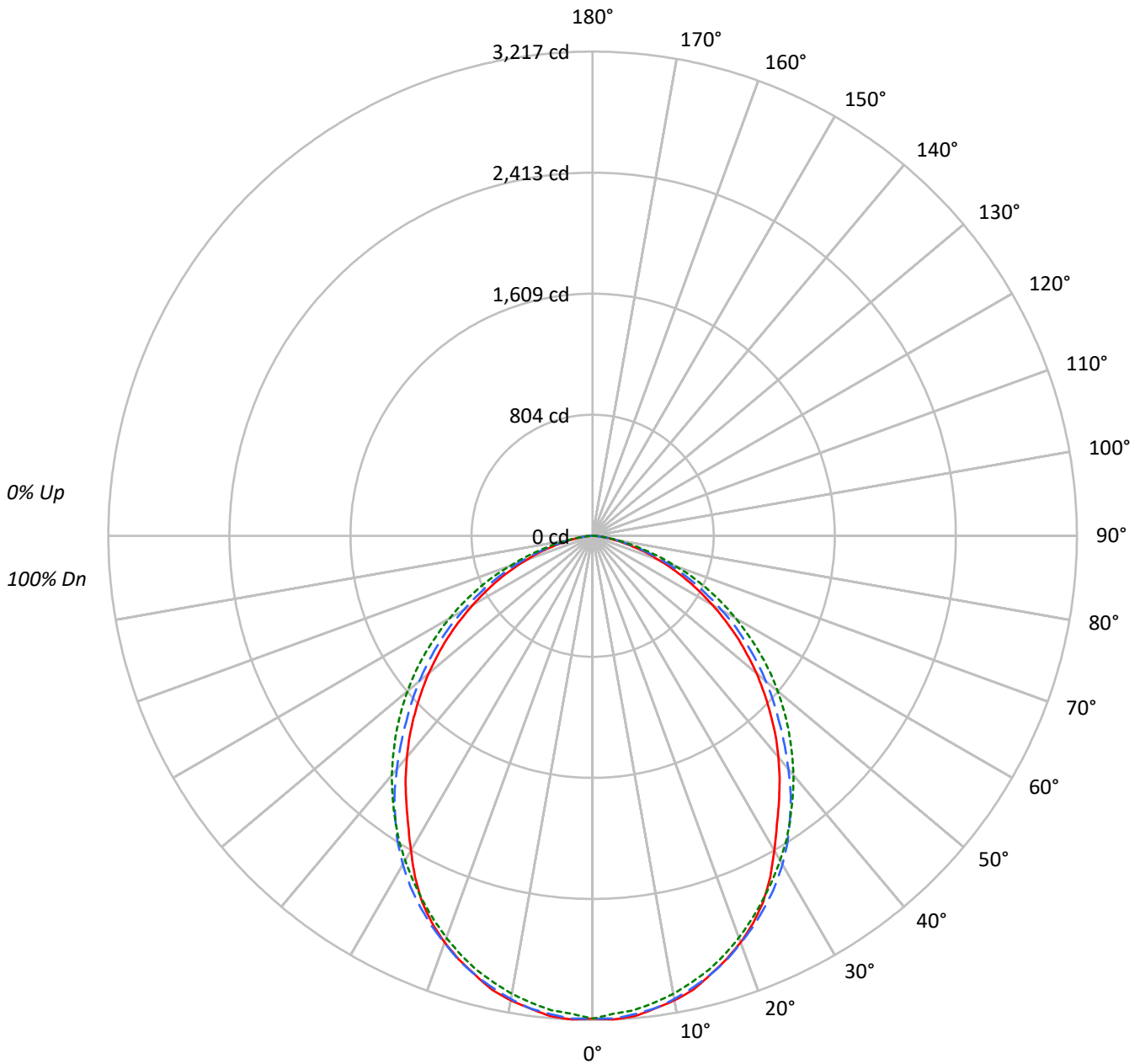
Lumens per Lamp: N/A
Luminaire Lumens: 7418.0 lumens
Efficiency: N/A
Efficacy: 105.7 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 70.2
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°	8633	8633	8633
5°	8656	8619	8546
10°	8564	8540	8443
15°	8412	8412	8316
20°	8234	8245	8139
25°	7963	8062	7934
30°	7498	7835	7740
35°	7085	7510	7523
40°	6741	7105	7291
45°	6355	6674	7017
50°	5949	6290	6718
55°	5487	5851	6355
60°	4942	5339	5910
65°	4363	4748	5375
70°	3637	4043	4567
75°	2857	3229	3576
80°	2044	2273	2521
85°	1331	1331	1257



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	302.1	4.1
10°-20°	848.5	11.4
20°-30°	1240.0	16.7
30°-40°	1407.5	19.0
40°-50°	1358.8	18.3
50°-60°	1120.9	15.1
60°-70°	746.4	10.1
70°-80°	334.0	4.5
80°-90°	59.8	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°	2390.6	32.2
0°-40°	3798.2	51.2
0°-60°	6277.8	84.6
0°-90°	7418.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7418.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3208	3208	3208	3208	3208	
5°	3204	3203	3191	3174	3164	303
15°	3020	3027	3020	3006	2985	851
25°	2682	2703	2715	2695	2672	1228
35°	2157	2186	2286	2298	2290	1351
45°	1670	1698	1754	1834	1844	1288
55°	1170	1189	1247	1316	1354	1044
65°	685	704	746	799	844	679
75°	275	290	311	325	344	301
85°	43	43	43	41	41	58
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3208.1	3208.1	3208.1	3208.1	3208.1
2.5°	3216.7	3218.0	3210.6	3190.8	3178.5
5°	3204.4	3203.2	3190.8	3173.6	3163.7
7.5°	3168.7	3171.1	3167.4	3142.8	3129.2
10°	3134.1	3135.4	3125.5	3105.8	3089.8
12.5°	3089.8	3088.5	3075.0	3065.1	3039.2
15°	3019.5	3026.9	3019.5	3006.0	2985.0
17.5°	2951.7	2951.7	2956.7	2933.3	2917.2
20°	2875.3	2879.0	2879.0	2860.5	2842.1
22.5°	2786.6	2797.7	2801.4	2781.7	2759.5
25°	2681.8	2702.8	2715.1	2695.4	2672.0
27.5°	2554.9	2586.9	2623.9	2609.1	2583.2
30°	2413.2	2460.0	2521.6	2509.3	2490.8
32.5°	2278.8	2325.7	2410.7	2405.8	2395.9
35°	2156.8	2186.4	2286.2	2298.5	2289.9
37.5°	2041.0	2068.1	2161.7	2190.1	2182.7
40°	1918.9	1948.5	2022.5	2073.0	2075.5
42.5°	1798.2	1826.5	1886.9	1959.6	1959.6
45°	1670.0	1698.3	1753.8	1833.9	1843.8
47.5°	1544.3	1573.9	1628.1	1708.2	1724.2
50°	1421.0	1448.1	1502.4	1580.0	1604.7
52.5°	1292.9	1322.4	1375.4	1446.9	1482.6
55°	1169.6	1189.3	1247.2	1316.3	1354.5
57.5°	1041.4	1059.9	1125.2	1184.4	1223.8
60°	918.2	941.6	992.1	1052.5	1098.1
62.5°	799.9	824.5	867.7	920.6	972.4
65°	685.2	703.7	745.6	798.6	844.2
67.5°	574.3	590.3	632.3	669.2	717.3
70°	462.2	483.1	513.9	549.7	580.5
72.5°	372.2	380.8	406.7	432.6	464.6
75°	274.8	289.6	310.6	325.4	343.9
77.5°	197.2	205.8	218.1	230.5	247.7
80°	131.9	135.6	146.7	149.1	162.7
82.5°	80.1	82.6	85.0	86.3	91.2
85°	43.1	43.1	43.1	40.7	40.7
87.5°	24.6	24.6	21.0	17.3	12.3
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)