

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: P558121

Luminaire Tested: **FUSL-12-4-LD4-3LO-40-UNV-93-88-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: P558121
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-40-UNV-93-88-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

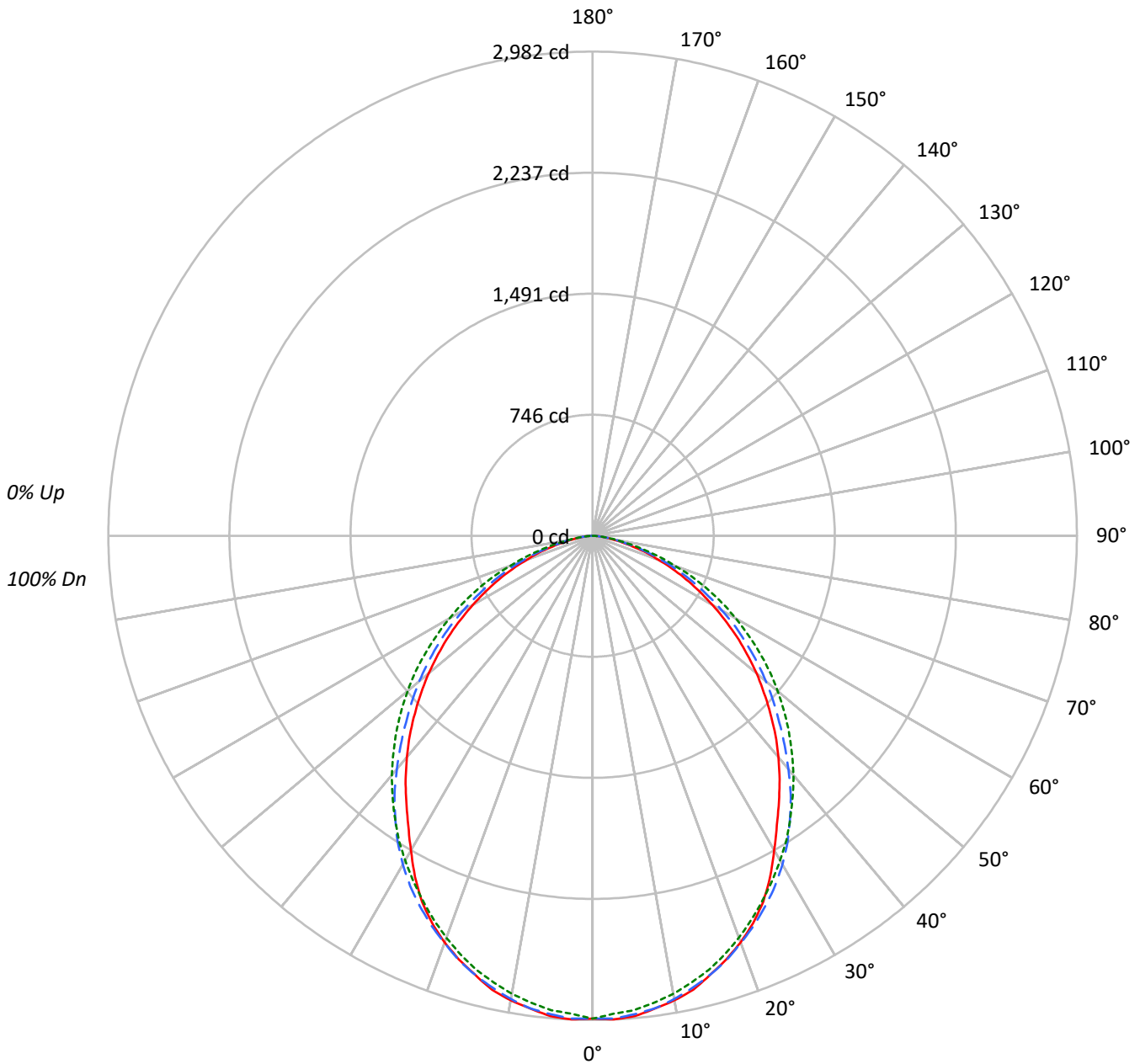
Lumens per Lamp: N/A
Luminaire Lumens: 6876.0 lumens
Efficiency: N/A
Efficacy: 97.9 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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					20					
RC	80					70					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°	8002	8002	8002
5°	8024	7990	7922
10°	7938	7917	7826
15°	7797	7797	7708
20°	7632	7642	7544
25°	7381	7473	7354
30°	6950	7263	7174
35°	6568	6962	6973
40°	6248	6585	6758
45°	5891	6186	6504
50°	5514	5830	6227
55°	5086	5424	5890
60°	4581	4949	5478
65°	4045	4401	4983
70°	3371	3748	4234
75°	2649	2993	3314
80°	1894	2106	2337
85°	1235	1235	1164



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	280.0	4.1
10°-20°	786.5	11.4
20°-30°	1149.4	16.7
30°-40°	1304.7	19.0
40°-50°	1259.5	18.3
50°-60°	1039.0	15.1
60°-70°	691.9	10.1
70°-80°	309.6	4.5
80°-90°	55.4	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°	2215.9	32.2
0°-40°	3520.6	51.2
0°-60°	5819.1	84.6
0°-90°	6876.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6876.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2974	2974	2974	2974	2974	
5°	2970	2969	2958	2942	2933	281
15°	2799	2806	2799	2786	2767	789
25°	2486	2505	2517	2498	2477	1138
35°	1999	2027	2119	2131	2123	1253
45°	1548	1574	1626	1700	1709	1194
55°	1084	1102	1156	1220	1256	968
65°	635	652	691	740	783	630
75°	255	268	288	302	319	279
85°	40	40	40	38	38	54
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2973.7	2973.7	2973.7	2973.7	2973.7
2.5°	2981.7	2982.8	2976.0	2957.7	2946.3
5°	2970.3	2969.1	2957.7	2941.7	2932.6
7.5°	2937.1	2939.4	2936.0	2913.1	2900.6
10°	2905.1	2906.3	2897.2	2878.9	2864.0
12.5°	2864.0	2862.9	2850.3	2841.2	2817.2
15°	2798.9	2805.8	2798.9	2786.3	2766.9
17.5°	2736.1	2736.1	2740.6	2718.9	2704.1
20°	2665.2	2668.7	2668.7	2651.5	2634.4
22.5°	2583.0	2593.3	2596.7	2578.4	2557.9
25°	2485.9	2505.3	2516.7	2498.4	2476.7
27.5°	2368.2	2397.9	2432.2	2418.5	2394.5
30°	2236.8	2280.2	2337.4	2325.9	2308.8
32.5°	2112.3	2155.7	2234.6	2230.0	2220.8
35°	1999.2	2026.6	2119.2	2130.6	2122.6
37.5°	1891.8	1917.0	2003.8	2030.1	2023.2
40°	1778.7	1806.1	1874.7	1921.5	1923.8
42.5°	1666.8	1693.1	1749.0	1816.4	1816.4
45°	1548.0	1574.2	1625.6	1699.9	1709.0
47.5°	1431.4	1458.9	1509.1	1583.4	1598.2
50°	1317.2	1342.3	1392.6	1464.6	1487.4
52.5°	1198.4	1225.8	1274.9	1341.2	1374.3
55°	1084.1	1102.4	1156.1	1220.1	1255.5
57.5°	965.3	982.5	1043.0	1097.9	1134.4
60°	851.1	872.8	919.6	975.6	1017.9
62.5°	741.4	764.3	804.3	853.4	901.4
65°	635.2	652.3	691.2	740.3	782.6
67.5°	532.4	547.2	586.1	620.3	664.9
70°	428.4	447.8	476.4	509.5	538.1
72.5°	345.0	353.0	377.0	401.0	430.7
75°	254.8	268.5	287.9	301.6	318.7
77.5°	182.8	190.8	202.2	213.6	229.6
80°	122.2	125.7	135.9	138.2	150.8
82.5°	74.3	76.5	78.8	80.0	84.5
85°	40.0	40.0	40.0	37.7	37.7
87.5°	22.8	22.8	19.4	16.0	11.4
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)