

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: P556608

Luminaire Tested: **FUSL-12-4-LD4-1LO-50-UNV-81-84-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: P556608
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-LD4-1LO-50-UNV-81-84-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

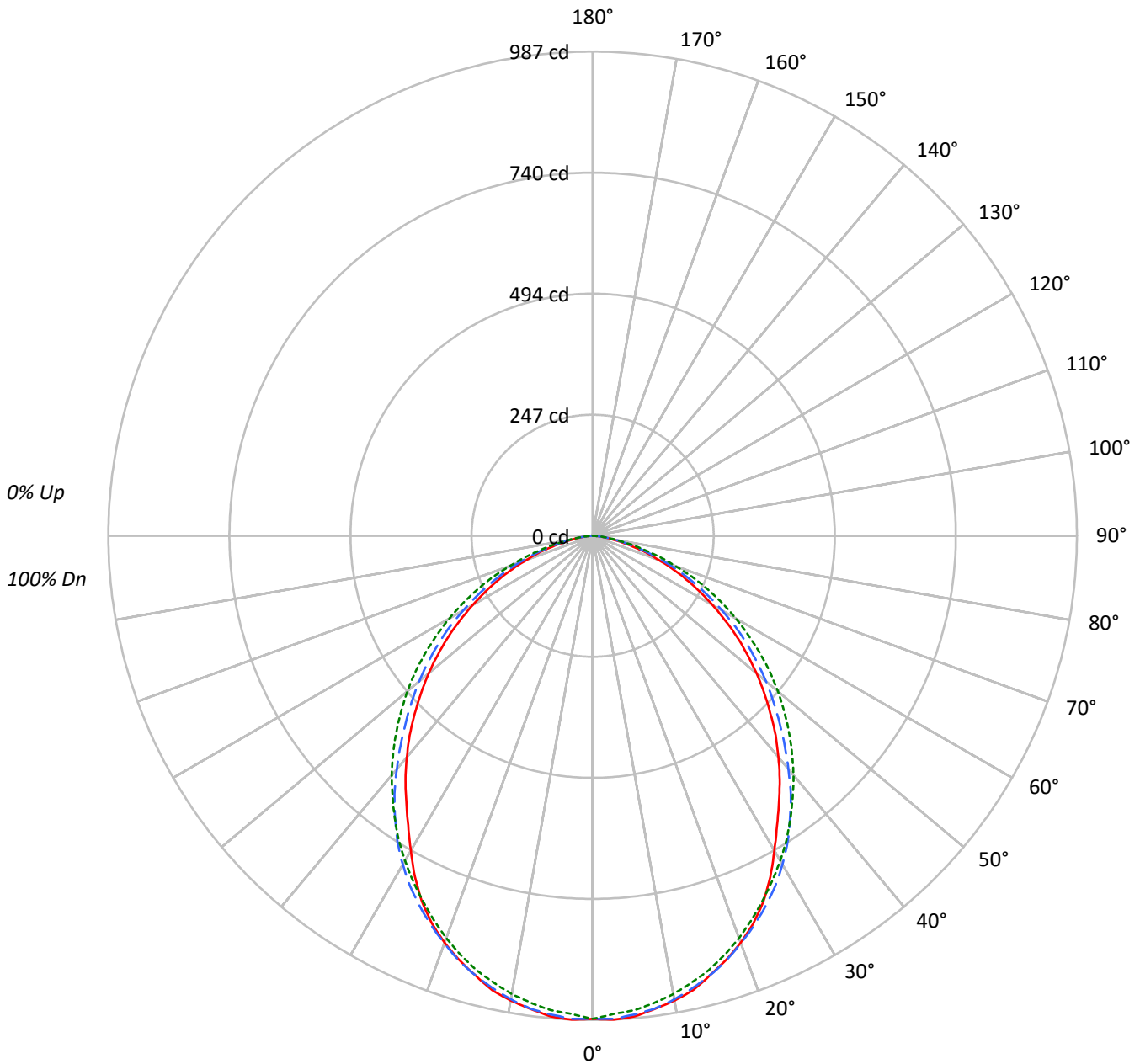
Lumens per Lamp: N/A
Luminaire Lumens: 2277.0 lumens
Efficiency: N/A
Efficacy: 97.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
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

TEST NUMBER: P556608

CATALOG NUMBER: FUSL-12-4-LD4-1LO-50-UNV-81-84-EDD-90

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°	2650	2650	2650
5°	2657	2646	2623
10°	2629	2622	2591
15°	2582	2582	2553
20°	2527	2531	2498
25°	2444	2475	2435
30°	2302	2405	2376
35°	2175	2305	2309
40°	2069	2181	2238
45°	1951	2049	2154
50°	1826	1931	2062
55°	1684	1796	1951
60°	1517	1639	1814
65°	1339	1457	1650
70°	1116	1242	1402
75°	878	991	1097
80°	628	697	773
85°	408	408	386



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	92.7	4.1
10°-20°	260.5	11.4
20°-30°	380.6	16.7
30°-40°	432.1	19.0
40°-50°	417.1	18.3
50°-60°	344.1	15.1
60°-70°	229.1	10.1
70°-80°	102.5	4.5
80°-90°	18.3	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°	733.8	32.2
0°-40°	1165.9	51.2
0°-60°	1927.0	84.6
0°-90°	2277.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2277.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	985	985	985	985	985	
5°	984	983	979	974	971	93
15°	927	929	927	923	916	261
25°	823	830	833	827	820	377
35°	662	671	702	706	703	415
45°	513	521	538	563	566	396
55°	359	365	383	404	416	320
65°	210	216	229	245	259	209
75°	84	89	95	100	106	92
85°	13	13	13	12	12	18
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	984.7	984.7	984.7	984.7	984.7
2.5°	987.4	987.8	985.5	979.4	975.7
5°	983.6	983.2	979.4	974.2	971.1
7.5°	972.6	973.4	972.3	964.7	960.5
10°	962.0	962.4	959.4	953.3	948.4
12.5°	948.4	948.0	943.9	940.9	932.9
15°	926.9	929.1	926.9	922.7	916.3
17.5°	906.1	906.1	907.6	900.4	895.5
20°	882.6	883.7	883.7	878.1	872.4
22.5°	855.4	858.8	859.9	853.8	847.0
25°	823.2	829.6	833.4	827.4	820.2
27.5°	784.2	794.1	805.4	800.9	792.9
30°	740.7	755.1	774.0	770.2	764.6
32.5°	699.5	713.9	740.0	738.5	735.4
35°	662.0	671.1	701.8	705.6	702.9
37.5°	626.5	634.8	663.6	672.3	670.0
40°	589.0	598.1	620.8	636.3	637.1
42.5°	552.0	560.7	579.2	601.5	601.5
45°	512.6	521.3	538.3	562.9	566.0
47.5°	474.0	483.1	499.7	524.3	529.3
50°	436.2	444.5	461.2	485.0	492.6
52.5°	396.8	405.9	422.2	444.1	455.1
55°	359.0	365.1	382.9	404.0	415.8
57.5°	319.7	325.3	345.4	363.6	375.7
60°	281.8	289.0	304.5	323.1	337.1
62.5°	245.5	253.1	266.3	282.6	298.5
65°	210.3	216.0	228.9	245.1	259.1
67.5°	176.3	181.2	194.1	205.4	220.2
70°	141.9	148.3	157.8	168.7	178.2
72.5°	114.2	116.9	124.8	132.8	142.6
75°	84.4	88.9	95.3	99.9	105.5
77.5°	60.5	63.2	67.0	70.7	76.0
80°	40.5	41.6	45.0	45.8	49.9
82.5°	24.6	25.3	26.1	26.5	28.0
85°	13.2	13.2	13.2	12.5	12.5
87.5°	7.6	7.6	6.4	5.3	3.8
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)