

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: P557313

Luminaire Tested: **FUSL-12-4-LD4-2LO-40-UNV-81-84-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: P557313
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-LD4-2LO-40-UNV-81-84-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

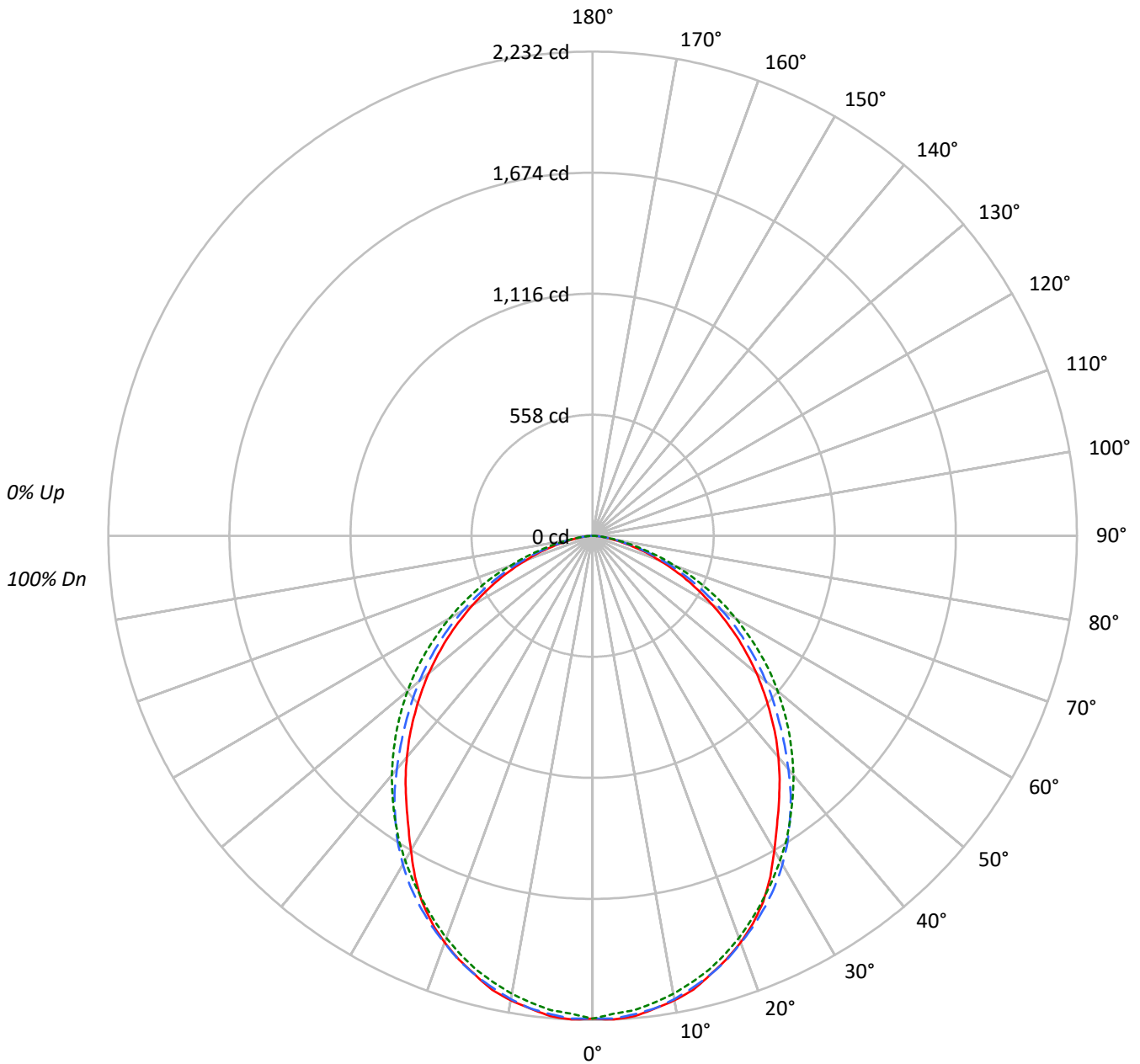
Lumens per Lamp: N/A
Luminaire Lumens: 5147.0 lumens
Efficiency: N/A
Efficacy: 110.0 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 46.8
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: P557313

CATALOG NUMBER: FUSL-12-4-LD4-2LO-40-UNV-81-84-EDD

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°	5990	5990	5990
5°	6006	5981	5930
10°	5942	5926	5858
15°	5837	5837	5770
20°	5713	5720	5647
25°	5525	5594	5505
30°	5203	5436	5370
35°	4916	5211	5220
40°	4677	4930	5059
45°	4410	4631	4869
50°	4128	4364	4661
55°	3807	4060	4409
60°	3429	3705	4101
65°	3028	3294	3730
70°	2523	2806	3169
75°	1983	2241	2481
80°	1418	1578	1750
85°	923	923	871



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	209.6	4.1
10°-20°	588.8	11.4
20°-30°	860.4	16.7
30°-40°	976.6	19.0
40°-50°	942.8	18.3
50°-60°	777.7	15.1
60°-70°	517.9	10.1
70°-80°	231.8	4.5
80°-90°	41.5	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°	1658.7	32.2
0°-40°	2635.4	51.2
0°-60°	4355.9	84.6
0°-90°	5147.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5147.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2226	2226	2226	2226	2226	
5°	2223	2222	2214	2202	2195	210
15°	2095	2100	2095	2086	2071	591
25°	1861	1875	1884	1870	1854	852
35°	1496	1517	1586	1595	1589	938
45°	1159	1178	1217	1272	1279	894
55°	812	825	865	913	940	724
65°	476	488	517	554	586	471
75°	191	201	216	226	239	209
85°	30	30	30	28	28	40
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2225.9	2225.9	2225.9	2225.9	2225.9
2.5°	2231.9	2232.8	2227.7	2214.0	2205.4
5°	2223.4	2222.5	2214.0	2202.0	2195.2
7.5°	2198.6	2200.3	2197.7	2180.6	2171.2
10°	2174.6	2175.5	2168.6	2155.0	2143.9
12.5°	2143.9	2143.0	2133.6	2126.7	2108.8
15°	2095.1	2100.2	2095.1	2085.7	2071.2
17.5°	2048.1	2048.1	2051.5	2035.2	2024.1
20°	1995.1	1997.6	1997.6	1984.8	1972.0
22.5°	1933.5	1941.2	1943.7	1930.1	1914.7
25°	1860.8	1875.3	1883.9	1870.2	1854.0
27.5°	1772.7	1795.0	1820.6	1810.3	1792.4
30°	1674.4	1706.9	1749.6	1741.1	1728.2
32.5°	1581.2	1613.7	1672.7	1669.2	1662.4
35°	1496.5	1517.0	1586.3	1594.8	1588.9
37.5°	1416.1	1434.9	1499.9	1519.6	1514.5
40°	1331.5	1352.0	1403.3	1438.4	1440.1
42.5°	1247.7	1267.3	1309.2	1359.7	1359.7
45°	1158.7	1178.4	1216.9	1272.5	1279.3
47.5°	1071.5	1092.0	1129.6	1185.2	1196.3
50°	986.0	1004.8	1042.4	1096.3	1113.4
52.5°	897.0	917.6	954.3	1003.9	1028.7
55°	811.5	825.2	865.4	913.3	939.8
57.5°	722.6	735.4	780.7	821.8	849.2
60°	637.1	653.3	688.4	730.3	761.9
62.5°	555.0	572.1	602.0	638.8	674.7
65°	475.5	488.3	517.4	554.1	585.8
67.5°	398.5	409.6	438.7	464.3	497.7
70°	320.7	335.2	356.6	381.4	402.8
72.5°	258.3	264.2	282.2	300.2	322.4
75°	190.7	201.0	215.5	225.8	238.6
77.5°	136.8	142.8	151.4	159.9	171.9
80°	91.5	94.1	101.8	103.5	112.9
82.5°	55.6	57.3	59.0	59.9	63.3
85°	29.9	29.9	29.9	28.2	28.2
87.5°	17.1	17.1	14.5	12.0	8.6
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)