

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: P557347

Luminaire Tested: **FUSL-12-4-LD4-2LO-40-UNV-93-85-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: P557347
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-93-85-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

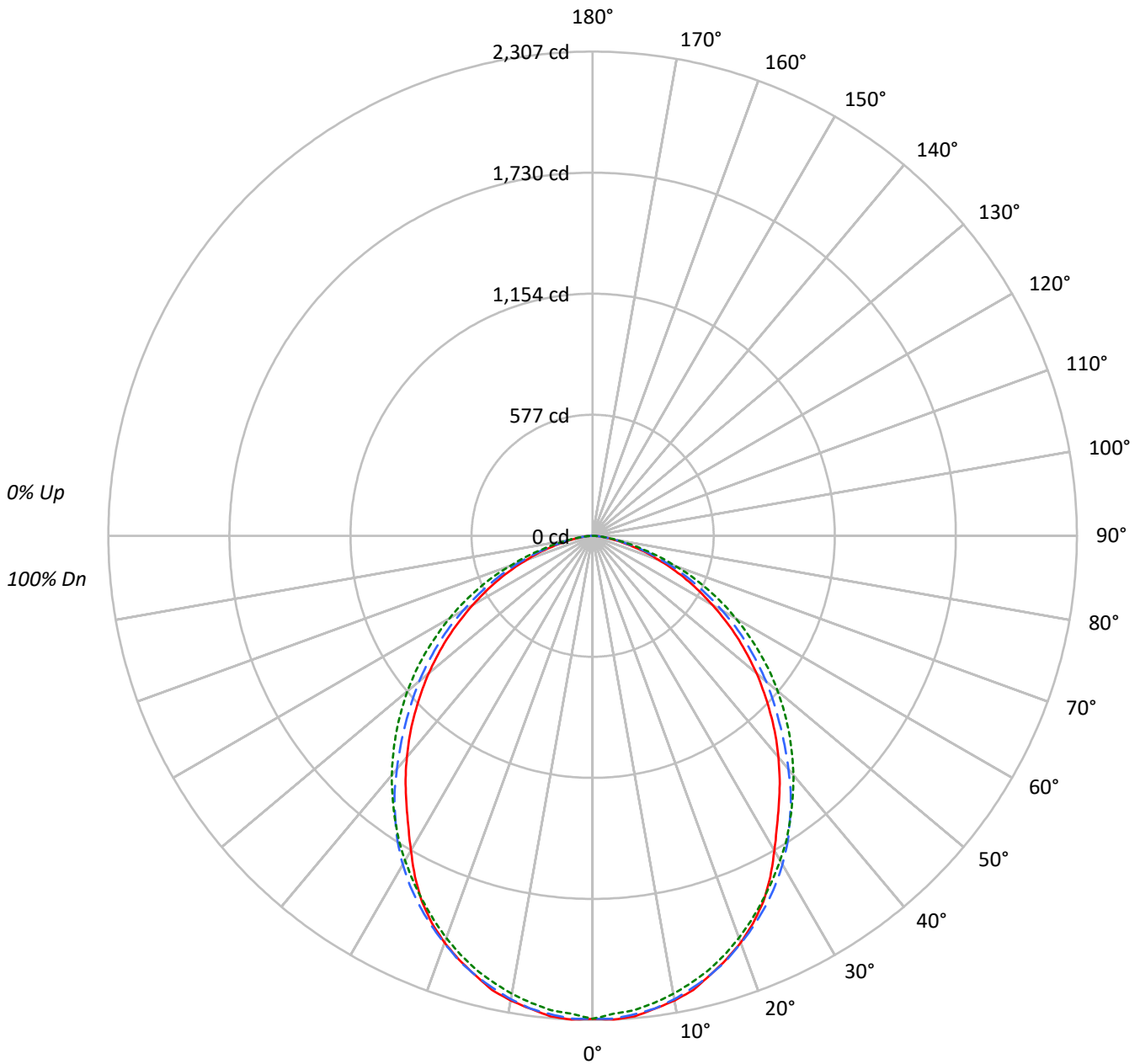
Lumens per Lamp: N/A
Luminaire Lumens: 5321.0 lumens
Efficiency: N/A
Efficacy: 113.7 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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

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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°	6192	6192	6192
5°	6209	6183	6130
10°	6143	6126	6056
15°	6034	6034	5965
20°	5906	5914	5838
25°	5712	5783	5691
30°	5379	5620	5552
35°	5082	5387	5396
40°	4835	5096	5230
45°	4559	4787	5033
50°	4267	4512	4819
55°	3936	4198	4558
60°	3545	3830	4239
65°	3130	3406	3856
70°	2608	2901	3276
75°	2049	2316	2565
80°	1466	1630	1808
85°	954	954	902



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	216.7	4.1
10°-20°	608.7	11.4
20°-30°	889.5	16.7
30°-40°	1009.6	19.0
40°-50°	974.6	18.3
50°-60°	804.0	15.1
60°-70°	535.4	10.1
70°-80°	239.6	4.5
80°-90°	42.9	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°	1714.8	32.2
0°-40°	2724.4	51.2
0°-60°	4503.1	84.6
0°-90°	5321.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5321.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2301	2301	2301	2301	2301	
5°	2298	2298	2289	2276	2269	218
15°	2166	2171	2166	2156	2141	611
25°	1924	1939	1948	1933	1917	881
35°	1547	1568	1640	1649	1643	969
45°	1198	1218	1258	1316	1322	924
55°	839	853	895	944	972	749
65°	492	505	535	573	606	487
75°	197	208	223	233	247	216
85°	31	31	31	29	29	42
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2301.2	2301.2	2301.2	2301.2	2301.2
2.5°	2307.4	2308.3	2303.0	2288.8	2280.0
5°	2298.5	2297.7	2288.8	2276.4	2269.4
7.5°	2272.9	2274.7	2272.0	2254.3	2244.6
10°	2248.2	2249.0	2242.0	2227.8	2216.3
12.5°	2216.3	2215.4	2205.7	2198.6	2180.1
15°	2165.9	2171.2	2165.9	2156.2	2141.2
17.5°	2117.3	2117.3	2120.8	2104.1	2092.6
20°	2062.5	2065.2	2065.2	2051.9	2038.6
22.5°	1998.8	2006.8	2009.5	1995.3	1979.4
25°	1923.7	1938.7	1947.6	1933.4	1916.6
27.5°	1832.6	1855.6	1882.2	1871.5	1853.0
30°	1731.0	1764.6	1808.8	1799.9	1786.7
32.5°	1634.6	1668.2	1729.2	1725.7	1718.6
35°	1547.1	1568.3	1639.9	1648.8	1642.6
37.5°	1464.0	1483.4	1550.6	1571.0	1565.7
40°	1376.5	1397.7	1450.7	1487.0	1488.7
42.5°	1289.8	1310.2	1353.5	1405.6	1405.6
45°	1197.9	1218.2	1258.0	1315.5	1322.5
47.5°	1107.7	1128.9	1167.8	1225.3	1236.8
50°	1019.3	1038.8	1077.7	1133.4	1151.0
52.5°	927.4	948.6	986.6	1037.9	1063.5
55°	839.0	853.1	894.7	944.2	971.6
57.5°	747.0	760.3	807.1	849.6	877.9
60°	658.6	675.4	711.7	755.0	787.7
62.5°	573.8	591.4	622.4	660.4	697.5
65°	491.5	504.8	534.9	572.9	605.6
67.5°	412.0	423.5	453.5	480.0	514.5
70°	331.5	346.5	368.7	394.3	416.4
72.5°	267.0	273.2	291.7	310.3	333.3
75°	197.1	207.8	222.8	233.4	246.7
77.5°	141.4	147.6	156.5	165.3	177.7
80°	94.6	97.2	105.2	107.0	116.7
82.5°	57.5	59.2	61.0	61.9	65.4
85°	30.9	30.9	30.9	29.2	29.2
87.5°	17.7	17.7	15.0	12.4	8.8
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)