

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: P557460

Luminaire Tested: **FUSL-12-4-LD4-2STD-30-UNV-82-86-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: P557460
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-LD4-2STD-30-UNV-82-86-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

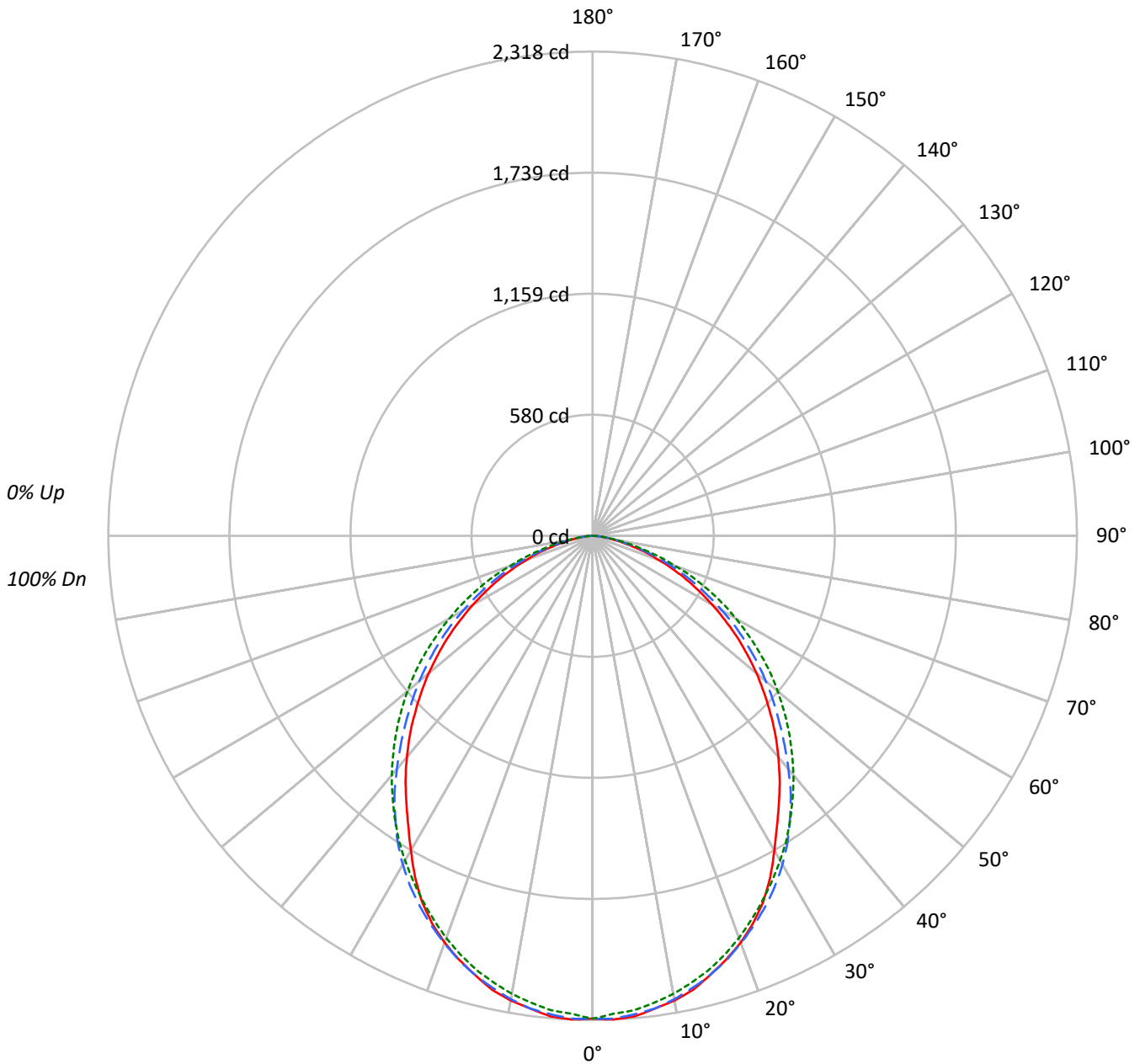
Lumens per Lamp: N/A
Luminaire Lumens: 5346.0 lumens
Efficiency: N/A
Efficacy: 80.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 66.6
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°	6222	6222	6222
5°	6238	6212	6159
10°	6172	6155	6084
15°	6062	6062	5993
20°	5934	5942	5865
25°	5739	5810	5717
30°	5404	5647	5578
35°	5106	5412	5421
40°	4858	5120	5254
45°	4580	4810	5057
50°	4287	4533	4841
55°	3955	4217	4579
60°	3561	3848	4259
65°	3144	3422	3874
70°	2621	2914	3291
75°	2060	2327	2576
80°	1472	1638	1816
85°	960	960	905



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	217.7	4.1
10°-20°	611.5	11.4
20°-30°	893.6	16.7
30°-40°	1014.4	19.0
40°-50°	979.2	18.3
50°-60°	807.8	15.1
60°-70°	537.9	10.1
70°-80°	240.7	4.5
80°-90°	43.1	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°	1722.9	32.2
0°-40°	2737.2	51.2
0°-60°	4524.3	84.6
0°-90°	5346.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5346.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2312	2312	2312	2312	2312	
5°	2309	2308	2300	2287	2280	219
15°	2176	2181	2176	2166	2151	613
25°	1933	1948	1957	1942	1926	885
35°	1554	1576	1648	1656	1650	974
45°	1204	1224	1264	1322	1329	929
55°	843	857	899	949	976	752
65°	494	507	537	576	608	490
75°	198	209	224	234	248	217
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°	2312.0	2312.0	2312.0	2312.0	2312.0
2.5°	2318.2	2319.1	2313.8	2299.6	2290.7
5°	2309.3	2308.5	2299.6	2287.1	2280.0
7.5°	2283.6	2285.4	2282.7	2264.9	2255.2
10°	2258.7	2259.6	2252.5	2238.3	2226.7
12.5°	2226.7	2225.9	2216.1	2209.0	2190.3
15°	2176.1	2181.4	2176.1	2166.3	2151.2
17.5°	2127.3	2127.3	2130.8	2113.9	2102.4
20°	2072.2	2074.9	2074.9	2061.5	2048.2
22.5°	2008.2	2016.2	2018.9	2004.7	1988.7
25°	1932.7	1947.8	1956.7	1942.5	1925.6
27.5°	1841.3	1864.3	1891.0	1880.3	1861.7
30°	1739.1	1772.9	1817.3	1808.4	1795.1
32.5°	1642.3	1676.0	1737.3	1733.8	1726.7
35°	1554.4	1575.7	1647.6	1656.5	1650.3
37.5°	1470.9	1490.4	1557.9	1578.3	1573.0
40°	1382.9	1404.3	1457.6	1494.0	1495.7
42.5°	1295.9	1316.3	1359.8	1412.3	1412.3
45°	1203.5	1224.0	1263.9	1321.7	1328.8
47.5°	1112.9	1134.2	1173.3	1231.1	1242.6
50°	1024.1	1043.6	1082.7	1138.7	1156.4
52.5°	931.7	953.0	991.2	1042.8	1068.5
55°	842.9	857.1	898.9	948.6	976.1
57.5°	750.5	763.9	810.9	853.6	882.0
60°	661.7	678.6	715.0	758.5	791.4
62.5°	576.4	594.2	625.3	663.5	700.8
65°	493.8	507.2	537.4	575.6	608.4
67.5°	413.9	425.5	455.7	482.3	516.9
70°	333.1	348.2	370.4	396.1	418.3
72.5°	268.2	274.5	293.1	311.8	334.9
75°	198.1	208.7	223.8	234.5	247.8
77.5°	142.1	148.3	157.2	166.1	178.5
80°	95.0	97.7	105.7	107.5	117.2
82.5°	57.7	59.5	61.3	62.2	65.7
85°	31.1	31.1	31.1	29.3	29.3
87.5°	17.8	17.8	15.1	12.4	8.9
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)