

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: P557362

Luminaire Tested: **FUSL-12-4-LD4-2LO-50-UNV-80-85-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: P557362
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-50-UNV-80-85-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

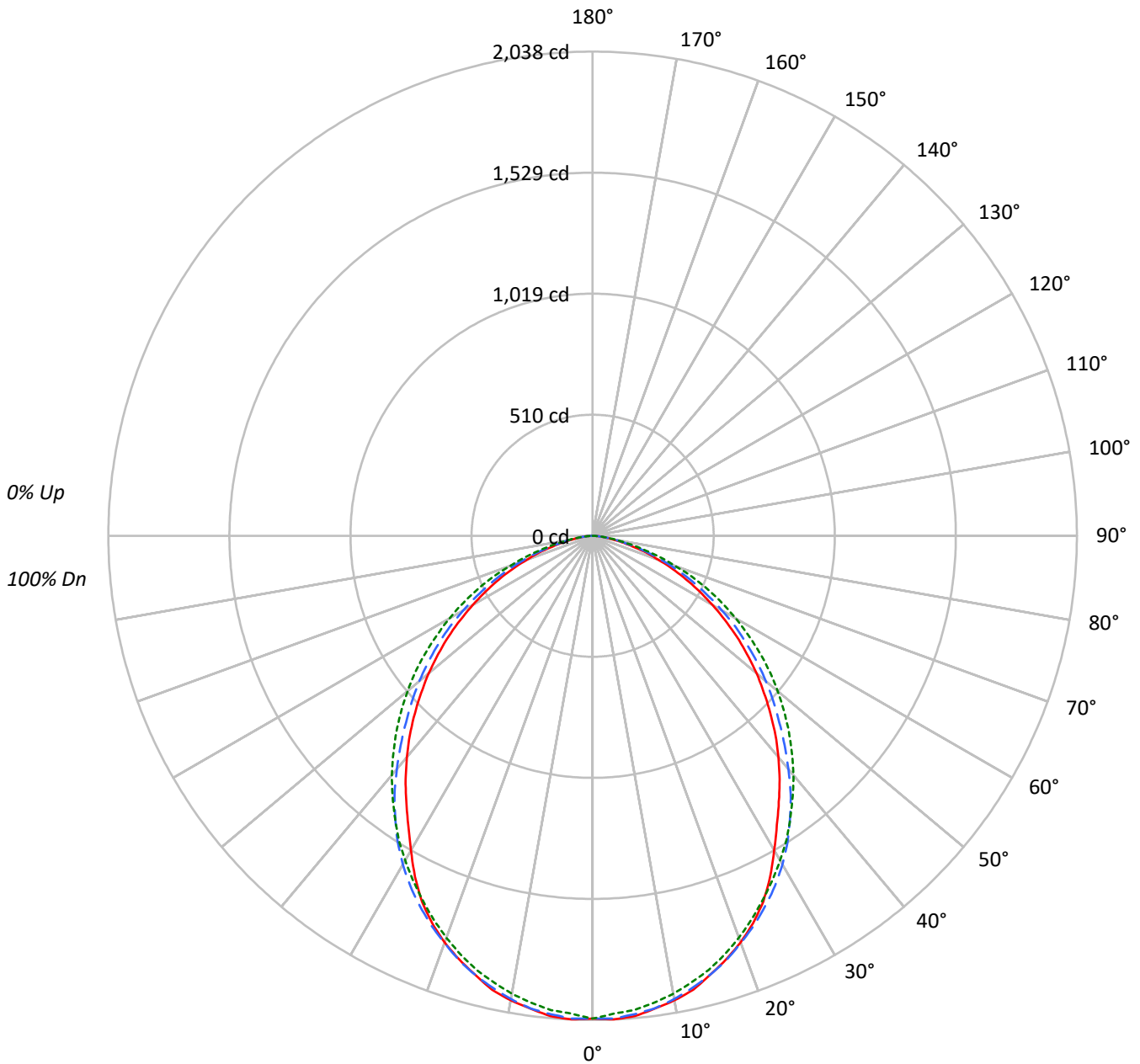
Lumens per Lamp: N/A
Luminaire Lumens: 4699.0 lumens
Efficiency: N/A
Efficacy: 100.4 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	5469	5469	5469
5°	5483	5460	5414
10°	5425	5410	5348
15°	5329	5329	5268
20°	5216	5222	5155
25°	5044	5107	5026
30°	4750	4963	4903
35°	4488	4757	4765
40°	4270	4501	4618
45°	4026	4228	4445
50°	3769	3984	4255
55°	3476	3707	4025
60°	3130	3383	3744
65°	2764	3007	3405
70°	2304	2562	2893
75°	1810	2045	2264
80°	1294	1440	1598
85°	843	843	797



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	191.3	4.1
10°-20°	537.5	11.4
20°-30°	785.5	16.7
30°-40°	891.6	19.0
40°-50°	860.7	18.3
50°-60°	710.0	15.1
60°-70°	472.8	10.1
70°-80°	211.6	4.5
80°-90°	37.8	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°	1514.3	32.2
0°-40°	2406.0	51.2
0°-60°	3976.7	84.6
0°-90°	4699.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4699.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2032	2032	2032	2032	2032	
5°	2030	2029	2021	2010	2004	192
15°	1913	1917	1913	1904	1891	539
25°	1699	1712	1720	1707	1693	778
35°	1366	1385	1448	1456	1451	856
45°	1058	1076	1111	1162	1168	816
55°	741	753	790	834	858	661
65°	434	446	472	506	535	430
75°	174	184	197	206	218	190
85°	27	27	27	26	26	37
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2032.2	2032.2	2032.2	2032.2	2032.2
2.5°	2037.7	2038.4	2033.8	2021.3	2013.5
5°	2029.9	2029.1	2021.3	2010.3	2004.1
7.5°	2007.2	2008.8	2006.4	1990.8	1982.2
10°	1985.4	1986.1	1979.9	1967.4	1957.2
12.5°	1957.2	1956.5	1947.9	1941.6	1925.2
15°	1912.7	1917.4	1912.7	1904.2	1890.9
17.5°	1869.8	1869.8	1872.9	1858.1	1847.9
20°	1821.4	1823.7	1823.7	1812.0	1800.3
22.5°	1765.2	1772.2	1774.6	1762.1	1748.0
25°	1698.8	1712.1	1719.9	1707.4	1692.6
27.5°	1618.4	1638.7	1662.1	1652.8	1636.4
30°	1528.6	1558.3	1597.3	1589.5	1577.8
32.5°	1443.5	1473.2	1527.1	1524.0	1517.7
35°	1366.2	1385.0	1448.2	1456.0	1450.6
37.5°	1292.9	1310.0	1369.4	1387.3	1382.6
40°	1215.6	1234.3	1281.2	1313.2	1314.7
42.5°	1139.1	1157.0	1195.3	1241.3	1241.3
45°	1057.9	1075.8	1111.0	1161.7	1167.9
47.5°	978.2	997.0	1031.3	1082.1	1092.2
50°	900.2	917.3	951.7	1000.9	1016.5
52.5°	819.0	837.7	871.3	916.6	939.2
55°	740.9	753.4	790.1	833.8	858.0
57.5°	659.7	671.4	712.8	750.3	775.2
60°	581.6	596.5	628.5	666.7	695.6
62.5°	506.7	522.3	549.6	583.2	616.0
65°	434.1	445.8	472.3	505.9	534.8
67.5°	363.8	374.0	400.5	423.9	454.4
70°	292.8	306.0	325.6	348.2	367.7
72.5°	235.8	241.2	257.6	274.0	294.3
75°	174.1	183.5	196.7	206.1	217.8
77.5°	124.9	130.4	138.2	146.0	156.9
80°	83.5	85.9	92.9	94.5	103.1
82.5°	50.7	52.3	53.9	54.6	57.8
85°	27.3	27.3	27.3	25.8	25.8
87.5°	15.6	15.6	13.3	10.9	7.8
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)