

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: P557358

Luminaire Tested: **FUSL-12-4-LD4-2LO-40-UNV-93-97-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: P557358
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-93-97-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

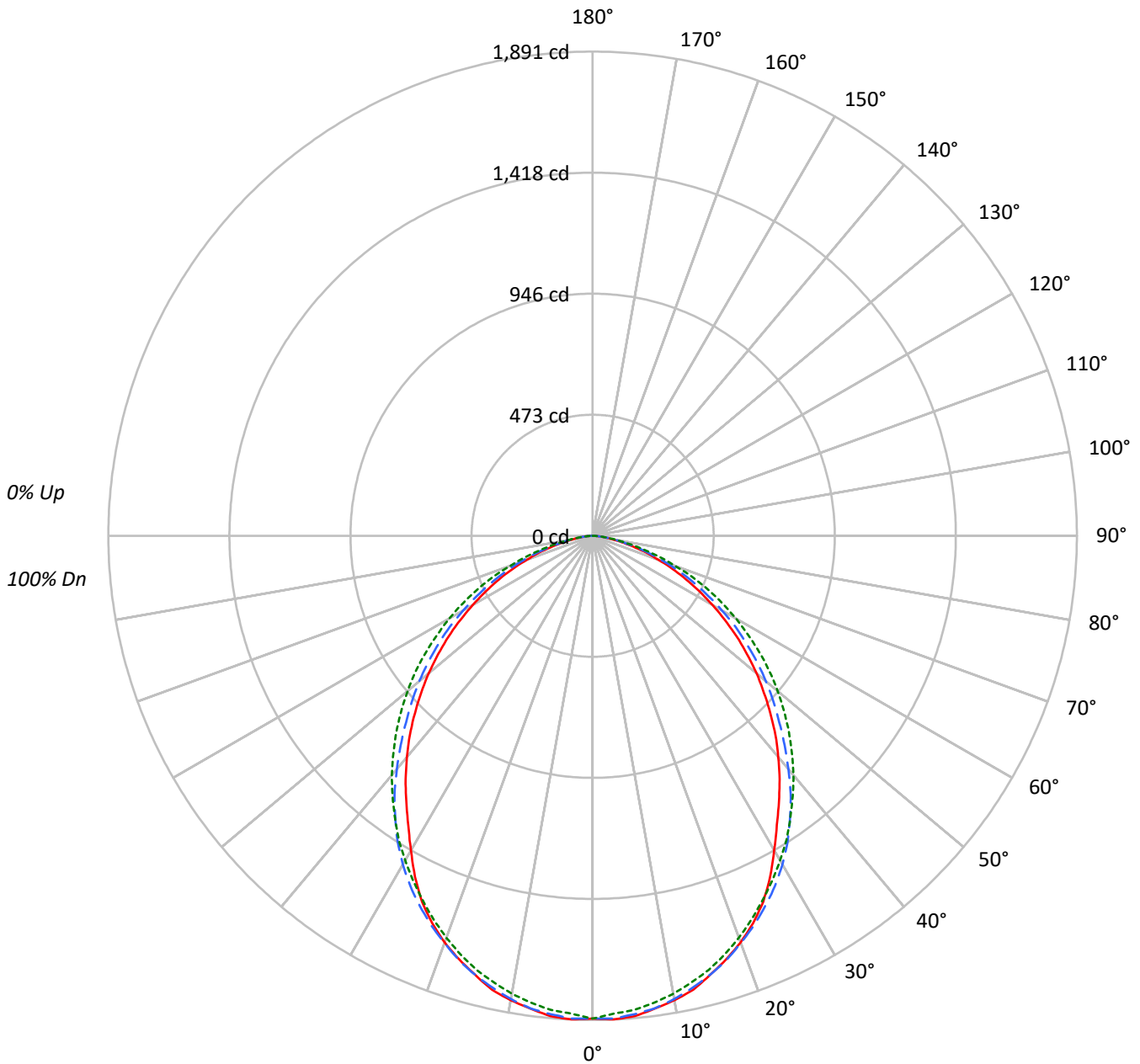
Lumens per Lamp: N/A
Luminaire Lumens: 4360.0 lumens
Efficiency: N/A
Efficacy: 93.2 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 46.8
Input Voltage (V): NR
Input Current (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°	5074	5074	5074
5°	5088	5066	5023
10°	5034	5020	4962
15°	4944	4944	4888
20°	4840	4846	4783
25°	4680	4738	4663
30°	4407	4605	4549
35°	4164	4414	4421
40°	3962	4176	4285
45°	3735	3923	4124
50°	3496	3697	3949
55°	3225	3439	3735
60°	2905	3138	3474
65°	2565	2791	3160
70°	2137	2377	2685
75°	1679	1897	2101
80°	1201	1336	1481
85°	784	784	738



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	177.5	4.1
10°-20°	498.7	11.4
20°-30°	728.8	16.7
30°-40°	827.3	19.0
40°-50°	798.6	18.3
50°-60°	658.8	15.1
60°-70°	438.7	10.1
70°-80°	196.3	4.5
80°-90°	35.1	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°	1405.1	32.2
0°-40°	2232.4	51.2
0°-60°	3689.8	84.6
0°-90°	4360.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4360.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1886	1886	1886	1886	1886	
5°	1883	1883	1875	1865	1860	178
15°	1775	1779	1775	1767	1754	500
25°	1576	1589	1596	1584	1570	722
35°	1268	1285	1344	1351	1346	794
45°	982	998	1031	1078	1084	757
55°	687	699	733	774	796	614
65°	403	414	438	469	496	399
75°	162	170	182	191	202	177
85°	25	25	25	24	24	34
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1885.6	1885.6	1885.6	1885.6	1885.6
2.5°	1890.7	1891.4	1887.0	1875.4	1868.2
5°	1883.4	1882.7	1875.4	1865.3	1859.5
7.5°	1862.4	1863.9	1861.7	1847.2	1839.2
10°	1842.1	1842.8	1837.1	1825.5	1816.0
12.5°	1816.0	1815.3	1807.4	1801.6	1786.3
15°	1774.8	1779.1	1774.8	1766.8	1754.5
17.5°	1734.9	1734.9	1737.8	1724.0	1714.6
20°	1690.0	1692.2	1692.2	1681.3	1670.4
22.5°	1637.8	1644.4	1646.5	1634.9	1621.9
25°	1576.3	1588.6	1595.8	1584.2	1570.5
27.5°	1501.7	1520.5	1542.2	1533.5	1518.3
30°	1418.4	1445.9	1482.1	1474.9	1464.0
32.5°	1339.4	1366.9	1416.9	1414.0	1408.2
35°	1267.7	1285.1	1343.7	1351.0	1345.9
37.5°	1199.6	1215.5	1270.6	1287.2	1282.9
40°	1127.9	1145.3	1188.7	1218.4	1219.9
42.5°	1056.9	1073.5	1109.0	1151.8	1151.8
45°	981.5	998.2	1030.8	1077.9	1083.7
47.5°	907.7	925.0	956.9	1004.0	1013.4
50°	835.2	851.2	883.0	928.7	943.2
52.5°	759.9	777.3	808.4	850.4	871.4
55°	687.4	699.0	733.1	773.6	796.1
57.5°	612.1	623.0	661.4	696.1	719.3
60°	539.7	553.4	583.1	618.6	645.4
62.5°	470.1	484.6	510.0	541.1	571.5
65°	402.8	413.6	438.3	469.4	496.2
67.5°	337.6	347.0	371.6	393.3	421.6
70°	271.6	284.0	302.1	323.1	341.2
72.5°	218.8	223.8	239.0	254.3	273.1
75°	161.5	170.2	182.5	191.2	202.1
77.5°	115.9	121.0	128.2	135.5	145.6
80°	77.5	79.7	86.2	87.7	95.6
82.5°	47.1	48.5	50.0	50.7	53.6
85°	25.4	25.4	25.4	23.9	23.9
87.5°	14.5	14.5	12.3	10.1	7.2
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)