

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: P556343

Luminaire Tested: **FUSL-12-4-LD4-1HI-50-UNV-80-87-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: P556343
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-LD4-1HI-50-UNV-80-87-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND
.375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

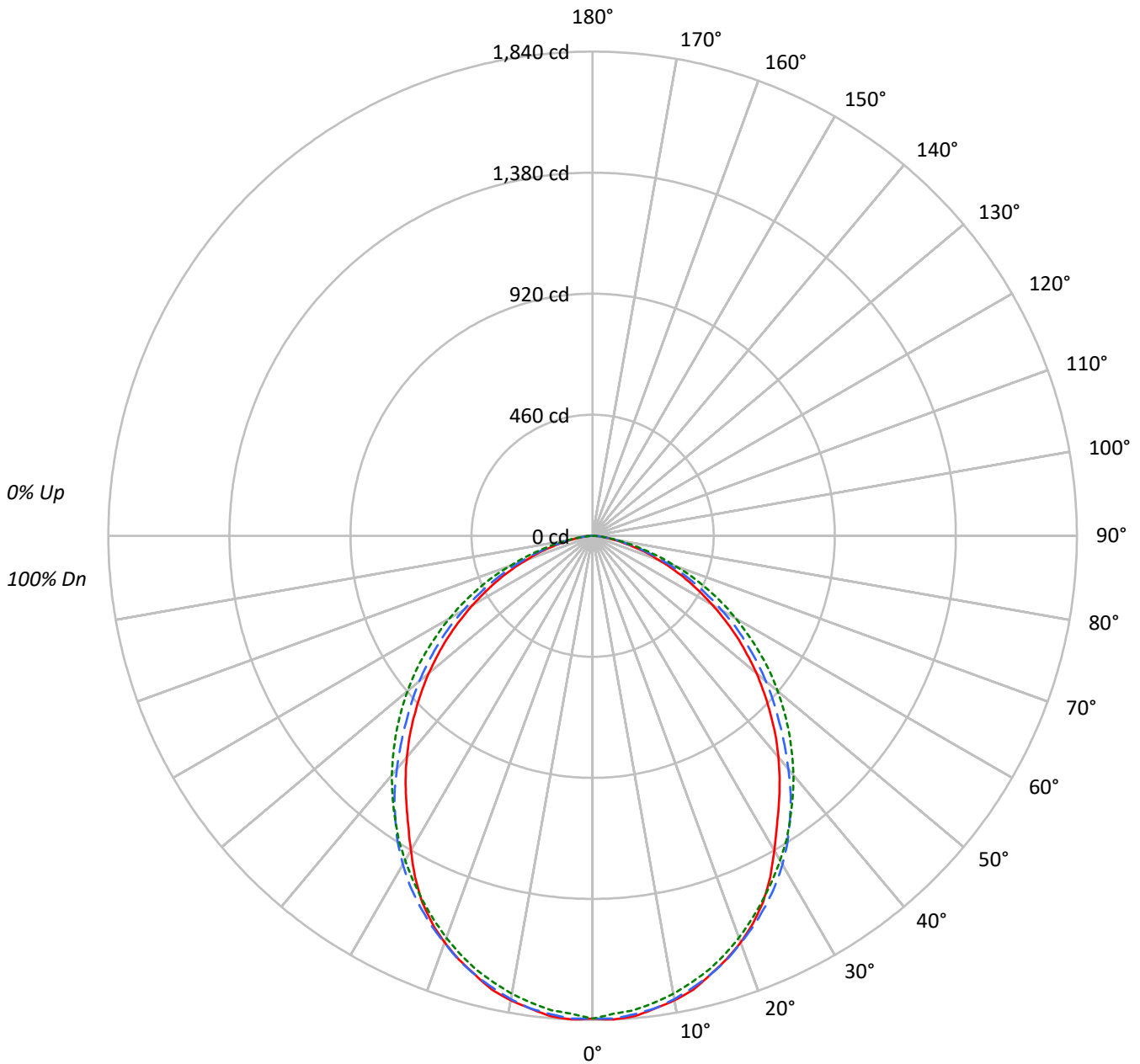
Lumens per Lamp: N/A
Luminaire Lumens: 4243.0 lumens
Efficiency: N/A
Efficacy: 98.2 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 43.2
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°	4938	4938	4938
5°	4951	4930	4888
10°	4899	4885	4829
15°	4812	4812	4757
20°	4710	4716	4655
25°	4555	4611	4538
30°	4289	4482	4427
35°	4053	4296	4303
40°	3856	4064	4170
45°	3635	3817	4013
50°	3403	3597	3842
55°	3139	3347	3635
60°	2827	3054	3380
65°	2496	2716	3075
70°	2080	2313	2612
75°	1634	1847	2045
80°	1168	1300	1443
85°	763	763	719



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	172.8	4.1
10°-20°	485.4	11.4
20°-30°	709.3	16.7
30°-40°	805.1	19.0
40°-50°	777.2	18.3
50°-60°	641.1	15.1
60°-70°	426.9	10.1
70°-80°	191.0	4.5
80°-90°	34.2	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°	1367.4	32.2
0°-40°	2172.5	51.2
0°-60°	3590.8	84.6
0°-90°	4243.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4243.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1835	1835	1835	1835	1835	
5°	1833	1832	1825	1815	1810	173
15°	1727	1731	1727	1719	1707	487
25°	1534	1546	1553	1542	1528	702
35°	1234	1251	1308	1315	1310	773
45°	955	971	1003	1049	1055	737
55°	669	680	713	753	775	597
65°	392	402	426	457	483	389
75°	157	166	178	186	197	172
85°	25	25	25	23	23	33
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1835.0	1835.0	1835.0	1835.0	1835.0
2.5°	1839.9	1840.6	1836.4	1825.1	1818.1
5°	1832.9	1832.2	1825.1	1815.2	1809.6
7.5°	1812.4	1813.8	1811.7	1797.6	1789.9
10°	1792.7	1793.4	1787.8	1776.5	1767.3
12.5°	1767.3	1766.6	1758.9	1753.2	1738.4
15°	1727.1	1731.4	1727.1	1719.4	1707.4
17.5°	1688.4	1688.4	1691.2	1677.8	1668.6
20°	1644.7	1646.8	1646.8	1636.2	1625.6
22.5°	1593.9	1600.2	1602.4	1591.1	1578.4
25°	1534.0	1546.0	1553.0	1541.7	1528.3
27.5°	1461.4	1479.7	1500.8	1492.4	1477.6
30°	1380.3	1407.1	1442.3	1435.3	1424.7
32.5°	1303.5	1330.2	1378.9	1376.1	1370.4
35°	1233.7	1250.6	1307.7	1314.7	1309.8
37.5°	1167.4	1182.9	1236.5	1252.7	1248.5
40°	1097.6	1114.5	1156.8	1185.7	1187.1
42.5°	1028.5	1044.7	1079.3	1120.9	1120.9
45°	955.2	971.4	1003.1	1049.0	1054.6
47.5°	883.3	900.2	931.2	977.1	986.2
50°	812.8	828.3	859.3	903.7	917.8
52.5°	739.5	756.4	786.7	827.6	848.1
55°	669.0	680.3	713.4	752.9	774.7
57.5°	595.7	606.3	643.6	677.5	700.0
60°	525.2	538.6	567.5	602.0	628.1
62.5°	457.5	471.6	496.3	526.6	556.2
65°	392.0	402.5	426.5	456.8	482.9
67.5°	328.5	337.7	361.6	382.8	410.3
70°	264.4	276.3	294.0	314.4	332.0
72.5°	212.9	217.8	232.6	247.4	265.8
75°	157.2	165.7	177.6	186.1	196.7
77.5°	112.8	117.7	124.8	131.8	141.7
80°	75.4	77.5	83.9	85.3	93.1
82.5°	45.8	47.2	48.6	49.3	52.2
85°	24.7	24.7	24.7	23.3	23.3
87.5°	14.1	14.1	12.0	9.9	7.0
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)