

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: P557338

Luminaire Tested: **FUSL-12-4-LD4-2LO-40-UNV-82-94-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: P557338
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-82-94-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDES
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

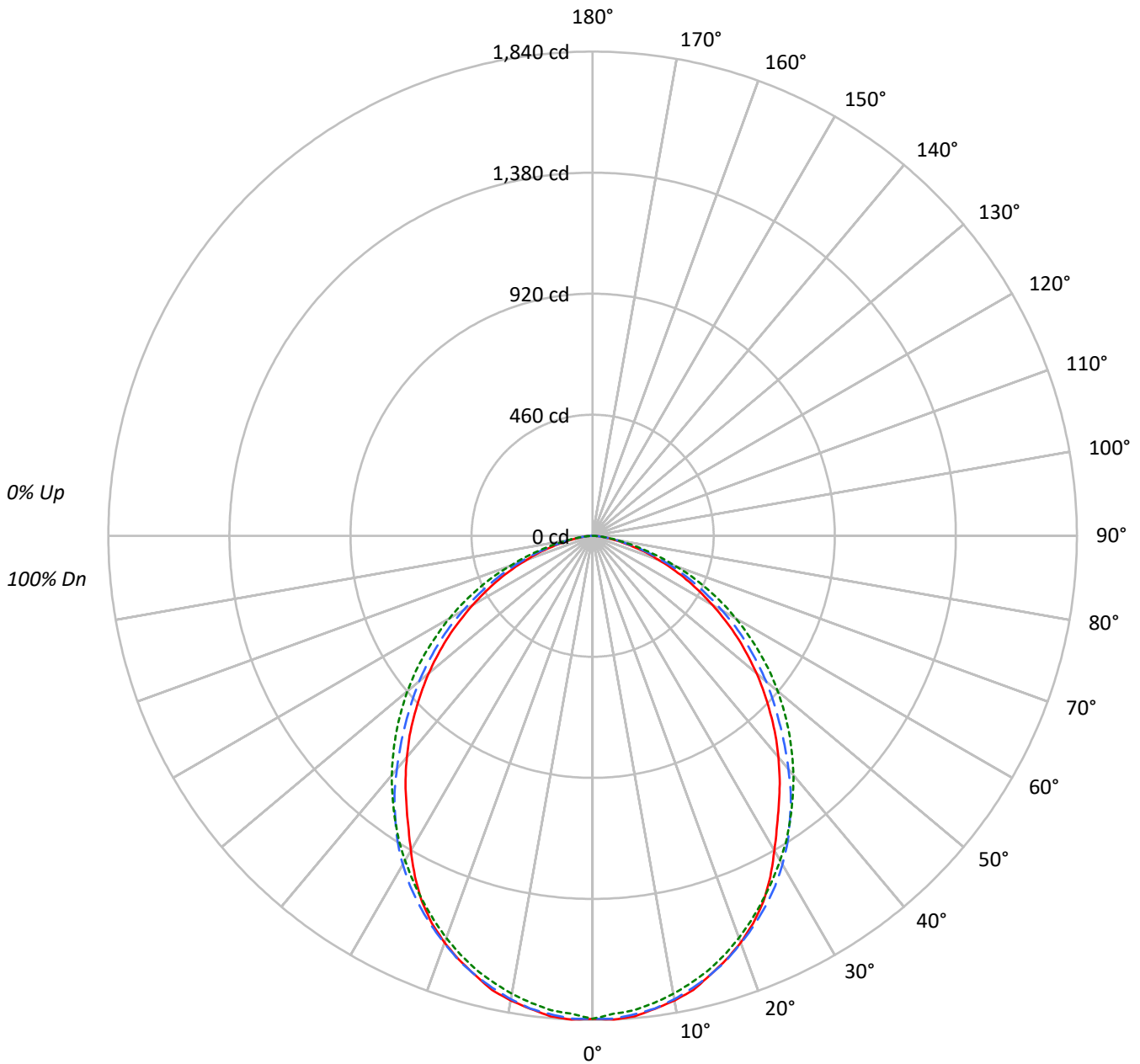
Lumens per Lamp: N/A
Luminaire Lumens: 4244.0 lumens
Efficiency: N/A
Efficacy: 90.7 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P557338

CATALOG NUMBER: FUSL-12-4-LD4-2LO-40-UNV-82-94-EDD-90

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°	4939	4939	4939
5°	4952	4931	4889
10°	4900	4886	4830
15°	4813	4813	4758
20°	4711	4717	4656
25°	4556	4612	4539
30°	4290	4483	4428
35°	4054	4297	4304
40°	3857	4065	4171
45°	3636	3819	4015
50°	3404	3598	3844
55°	3140	3348	3636
60°	2827	3055	3381
65°	2496	2716	3075
70°	2080	2313	2613
75°	1634	1848	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°	485.5	11.4
20°-30°	709.4	16.7
30°-40°	805.3	19.0
40°-50°	777.4	18.3
50°-60°	641.3	15.1
60°-70°	427.0	10.1
70°-80°	191.1	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°	1367.7	32.2
0°-40°	2173.0	51.2
0°-60°	3591.7	84.6
0°-90°	4244.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4244.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1835	1835	1835	1835	1835	
5°	1833	1833	1826	1816	1810	174
15°	1728	1732	1728	1720	1708	487
25°	1534	1546	1553	1542	1529	703
35°	1234	1251	1308	1315	1310	773
45°	955	972	1003	1049	1055	737
55°	669	680	714	753	775	597
65°	392	403	427	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°	1835.4	1835.4	1835.4	1835.4	1835.4
2.5°	1840.4	1841.1	1836.8	1825.5	1818.5
5°	1833.3	1832.6	1825.5	1815.7	1810.0
7.5°	1812.9	1814.3	1812.2	1798.0	1790.3
10°	1793.1	1793.8	1788.2	1776.9	1767.7
12.5°	1767.7	1767.0	1759.3	1753.6	1738.8
15°	1727.5	1731.8	1727.5	1719.8	1707.8
17.5°	1688.8	1688.8	1691.6	1678.2	1669.0
20°	1645.0	1647.2	1647.2	1636.6	1626.0
22.5°	1594.3	1600.6	1602.7	1591.4	1578.8
25°	1534.3	1546.3	1553.4	1542.1	1528.7
27.5°	1461.7	1480.0	1501.2	1492.7	1477.9
30°	1380.6	1407.4	1442.7	1435.6	1425.0
32.5°	1303.8	1330.6	1379.2	1376.4	1370.7
35°	1234.0	1250.9	1308.0	1315.0	1310.1
37.5°	1167.7	1183.2	1236.8	1253.0	1248.8
40°	1097.9	1114.8	1157.1	1186.0	1187.4
42.5°	1028.8	1045.0	1079.5	1121.1	1121.1
45°	955.4	971.7	1003.4	1049.2	1054.9
47.5°	883.5	900.4	931.5	977.3	986.5
50°	813.0	828.5	859.5	904.0	918.1
52.5°	739.7	756.6	786.9	827.8	848.3
55°	669.2	680.4	713.6	753.1	774.9
57.5°	595.8	606.4	643.8	677.6	700.2
60°	525.3	538.7	567.6	602.2	628.3
62.5°	457.6	471.7	496.4	526.7	556.3
65°	392.0	402.6	426.6	456.9	483.0
67.5°	328.6	337.8	361.7	382.9	410.4
70°	264.4	276.4	294.0	314.5	332.1
72.5°	212.9	217.9	232.7	247.5	265.8
75°	157.2	165.7	177.7	186.2	196.7
77.5°	112.8	117.8	124.8	131.9	141.7
80°	75.4	77.6	83.9	85.3	93.1
82.5°	45.8	47.2	48.7	49.4	52.2
85°	24.7	24.7	24.7	23.3	23.3
87.5°	14.1	14.1	12.0	9.9	7.1
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)