

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: P557193

Luminaire Tested: **FUSL-12-4-LD4-2LO-30-UNV-81-88-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: P557193
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-30-UNV-81-88-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

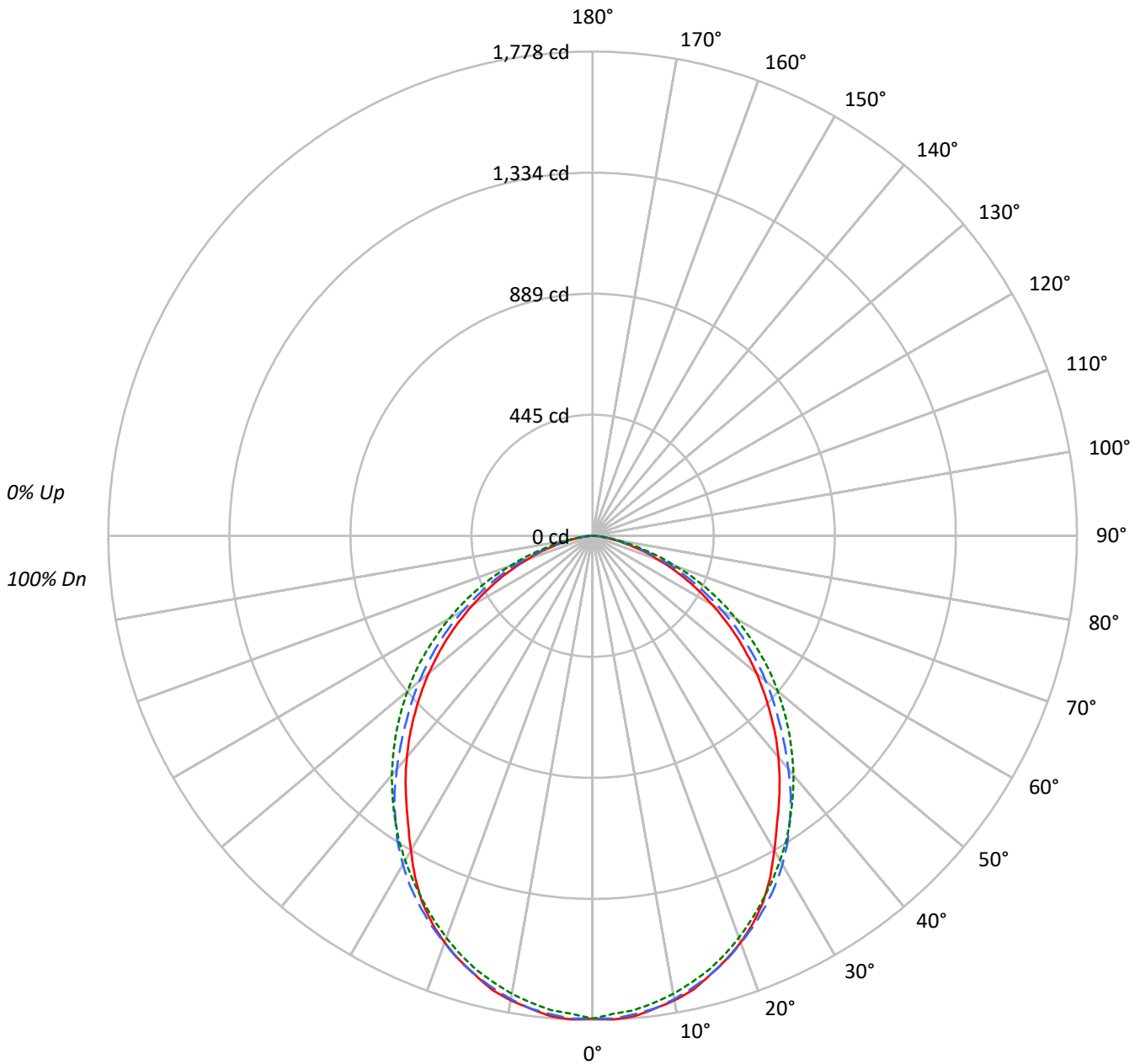
Lumens per Lamp: N/A
Luminaire Lumens: 4100.0 lumens
Efficiency: N/A
Efficacy: 87.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P557193

CATALOG NUMBER: FUSL-12-4-LD4-2LO-30-UNV-81-88-EDD

Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20				
RC	80				70				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°	4771	4771	4771
5°	4784	4764	4723
10°	4733	4720	4666
15°	4649	4649	4596
20°	4551	4557	4498
25°	4401	4456	4385
30°	4144	4331	4278
35°	3916	4151	4158
40°	3726	3927	4030
45°	3513	3689	3878
50°	3288	3476	3713
55°	3033	3234	3512
60°	2731	2951	3266
65°	2411	2624	2971
70°	2009	2235	2524
75°	1579	1785	1976
80°	1130	1257	1393
85°	735	735	695



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	166.9	4.1
10°-20°	469.0	11.4
20°-30°	685.4	16.7
30°-40°	778.0	19.0
40°-50°	751.0	18.3
50°-60°	619.5	15.1
60°-70°	412.6	10.1
70°-80°	184.6	4.5
80°-90°	33.0	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°	1321.3	32.2
0°-40°	2099.3	51.2
0°-60°	3469.8	84.6
0°-90°	4100.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4100.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1773	1773	1773	1773	1773	
5°	1771	1770	1764	1754	1749	168
15°	1669	1673	1669	1661	1650	470
25°	1482	1494	1501	1490	1477	679
35°	1192	1208	1264	1270	1266	747
45°	923	939	969	1014	1019	712
55°	646	657	689	728	749	577
65°	379	389	412	441	467	376
75°	152	160	172	180	190	166
85°	24	24	24	22	22	32
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1773.1	1773.1	1773.1	1773.1	1773.1
2.5°	1777.9	1778.6	1774.5	1763.6	1756.8
5°	1771.1	1770.4	1763.6	1754.1	1748.6
7.5°	1751.3	1752.7	1750.7	1737.0	1729.5
10°	1732.3	1733.0	1727.5	1716.6	1707.7
12.5°	1707.7	1707.1	1699.6	1694.1	1679.8
15°	1668.9	1673.0	1668.9	1661.4	1649.8
17.5°	1631.5	1631.5	1634.2	1621.2	1612.4
20°	1589.2	1591.3	1591.3	1581.0	1570.8
22.5°	1540.2	1546.3	1548.4	1537.5	1525.2
25°	1482.3	1493.9	1500.7	1489.8	1476.8
27.5°	1412.1	1429.8	1450.3	1442.1	1427.8
30°	1333.8	1359.7	1393.7	1386.9	1376.7
32.5°	1259.5	1285.4	1332.4	1329.7	1324.2
35°	1192.1	1208.4	1263.6	1270.4	1265.7
37.5°	1128.1	1143.0	1194.8	1210.5	1206.4
40°	1060.6	1077.0	1117.8	1145.8	1147.1
42.5°	993.9	1009.5	1042.9	1083.1	1083.1
45°	923.0	938.7	969.3	1013.6	1019.1
47.5°	853.5	869.9	899.9	944.1	953.0
50°	785.4	800.4	830.4	873.3	886.9
52.5°	714.6	730.9	760.2	799.7	819.5
55°	646.5	657.4	689.4	727.5	748.6
57.5°	575.6	585.8	621.9	654.6	676.4
60°	507.5	520.4	548.4	581.7	606.9
62.5°	442.1	455.7	479.6	508.9	537.5
65°	378.7	389.0	412.1	441.4	466.6
67.5°	317.4	326.3	349.5	369.9	396.5
70°	255.4	267.0	284.1	303.8	320.8
72.5°	205.7	210.5	224.8	239.1	256.8
75°	151.9	160.1	171.7	179.8	190.1
77.5°	109.0	113.8	120.6	127.4	136.9
80°	72.9	74.9	81.1	82.4	89.9
82.5°	44.3	45.6	47.0	47.7	50.4
85°	23.8	23.8	23.8	22.5	22.5
87.5°	13.6	13.6	11.6	9.5	6.8
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)