

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: P557186

Luminaire Tested: **FUSL-12-4-LD4-2LO-30-UNV-81-85-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: P557186
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-81-85-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .187
CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

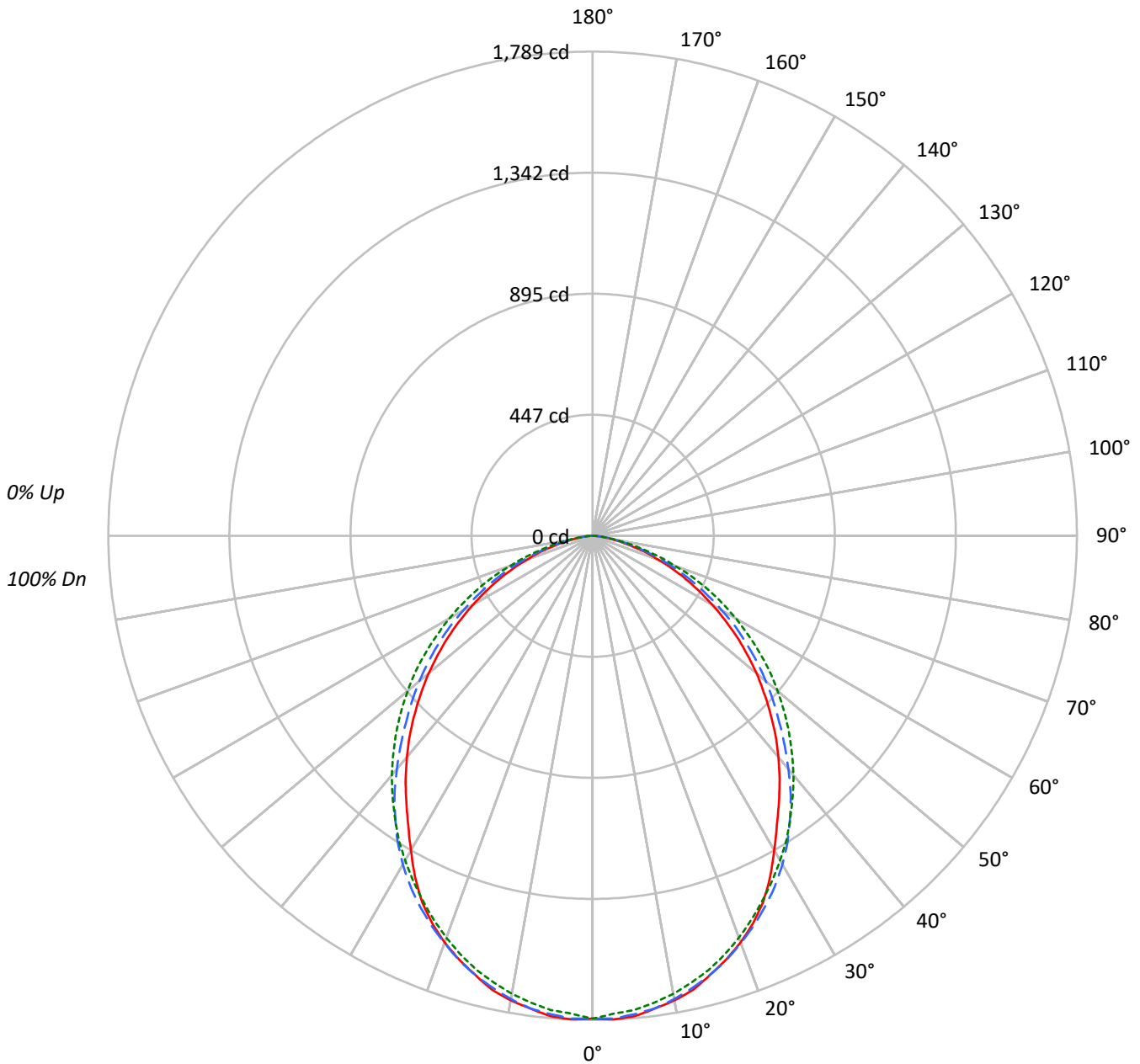
Lumens per Lamp: N/A
Luminaire Lumens: 4125.0 lumens
Efficiency: N/A
Efficacy: 88.1 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	4801	4801	4801
5°	4813	4793	4752
10°	4762	4749	4695
15°	4678	4678	4624
20°	4579	4585	4526
25°	4428	4483	4412
30°	4170	4357	4304
35°	3940	4176	4183
40°	3749	3951	4054
45°	3534	3711	3902
50°	3308	3497	3736
55°	3051	3254	3534
60°	2748	2969	3286
65°	2427	2640	2989
70°	2022	2249	2540
75°	1589	1796	1988
80°	1136	1265	1402
85°	741	741	698



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	168.0	4.1
10°-20°	471.9	11.4
20°-30°	689.5	16.7
30°-40°	782.7	19.0
40°-50°	755.6	18.3
50°-60°	623.3	15.1
60°-70°	415.1	10.1
70°-80°	185.8	4.5
80°-90°	33.2	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°	1329.4	32.2
0°-40°	2112.1	51.2
0°-60°	3491.0	84.6
0°-90°	4125.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4125.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1784	1784	1784	1784	1784	
5°	1782	1781	1774	1765	1759	169
15°	1679	1683	1679	1672	1660	473
25°	1491	1503	1510	1499	1486	683
35°	1199	1216	1271	1278	1273	751
45°	929	944	975	1020	1025	716
55°	650	661	694	732	753	580
65°	381	391	415	444	470	378
75°	153	161	173	181	191	167
85°	24	24	24	23	23	32
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1784.0	1784.0	1784.0	1784.0	1784.0
2.5°	1788.8	1789.4	1785.3	1774.4	1767.5
5°	1781.9	1781.2	1774.4	1764.8	1759.3
7.5°	1762.0	1763.4	1761.3	1747.6	1740.1
10°	1742.8	1743.5	1738.0	1727.1	1718.2
12.5°	1718.2	1717.5	1709.9	1704.5	1690.1
15°	1679.1	1683.2	1679.1	1671.6	1659.9
17.5°	1641.4	1641.4	1644.1	1631.1	1622.2
20°	1598.9	1601.0	1601.0	1590.7	1580.4
22.5°	1549.6	1555.7	1557.8	1546.8	1534.5
25°	1491.3	1503.0	1509.8	1498.9	1485.8
27.5°	1420.7	1438.5	1459.1	1450.9	1436.5
30°	1341.9	1368.0	1402.2	1395.4	1385.1
32.5°	1267.2	1293.2	1340.5	1337.8	1332.3
35°	1199.4	1215.8	1271.3	1278.2	1273.4
37.5°	1134.9	1150.0	1202.1	1217.9	1213.7
40°	1067.1	1083.5	1124.7	1152.8	1154.1
42.5°	999.9	1015.7	1049.3	1089.7	1089.7
45°	928.6	944.4	975.2	1019.8	1025.3
47.5°	858.7	875.2	905.3	949.9	958.8
50°	790.2	805.3	835.4	878.6	892.3
52.5°	718.9	735.4	764.8	804.6	824.5
55°	650.4	661.4	693.6	731.9	753.2
57.5°	579.1	589.4	625.7	658.6	680.5
60°	510.6	523.6	551.7	585.3	610.6
62.5°	444.8	458.5	482.5	512.0	540.7
65°	381.1	391.3	414.6	444.1	469.5
67.5°	319.4	328.3	351.6	372.1	398.9
70°	257.0	268.7	285.8	305.7	322.8
72.5°	207.0	211.8	226.2	240.6	258.4
75°	152.8	161.1	172.7	180.9	191.2
77.5°	109.7	114.5	121.3	128.2	137.8
80°	73.3	75.4	81.6	82.9	90.5
82.5°	44.5	45.9	47.3	48.0	50.7
85°	24.0	24.0	24.0	22.6	22.6
87.5°	13.7	13.7	11.7	9.6	6.9
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)