

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: P556317

Luminaire Tested: **FUSL-12-4-LD4-1HI-40-UNV-82-96-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: P556317
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-40-UNV-82-96-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

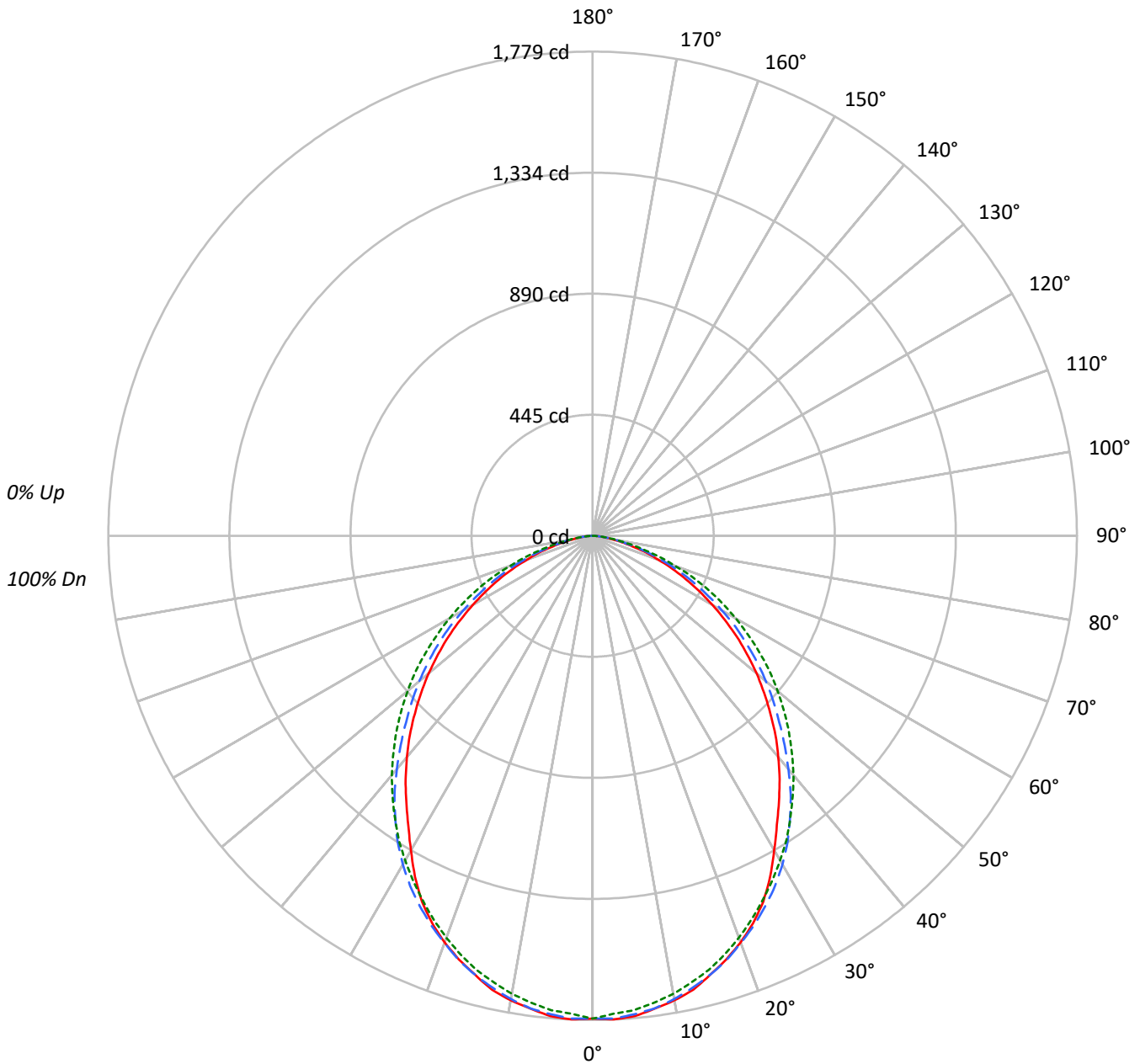
Lumens per Lamp: N/A
Luminaire Lumens: 4102.0 lumens
Efficiency: N/A
Efficacy: 95.0 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 43.2
Input Voltage (V): NR
Input Current (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°	4774	4774	4774
5°	4787	4766	4726
10°	4736	4723	4669
15°	4652	4652	4599
20°	4553	4559	4501
25°	4403	4458	4387
30°	4146	4333	4280
35°	3918	4153	4160
40°	3727	3929	4032
45°	3514	3691	3880
50°	3290	3478	3715
55°	3035	3236	3514
60°	2732	2953	3268
65°	2413	2625	2972
70°	2011	2236	2526
75°	1580	1785	1976
80°	1130	1257	1395
85°	738	738	695



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	167.0	4.1
10°-20°	469.2	11.4
20°-30°	685.7	16.7
30°-40°	778.3	19.0
40°-50°	751.4	18.3
50°-60°	619.8	15.1
60°-70°	412.8	10.1
70°-80°	184.7	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°	1322.0	32.2
0°-40°	2100.3	51.2
0°-60°	3471.5	84.6
0°-90°	4102.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4102.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1774	1774	1774	1774	1774	
5°	1772	1771	1764	1755	1750	168
15°	1670	1674	1670	1662	1651	471
25°	1483	1495	1501	1490	1478	679
35°	1193	1209	1264	1271	1266	747
45°	924	939	970	1014	1020	713
55°	647	658	690	728	749	577
65°	379	389	412	442	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°	1774.0	1774.0	1774.0	1774.0	1774.0
2.5°	1778.8	1779.5	1775.4	1764.5	1757.7
5°	1772.0	1771.3	1764.5	1754.9	1749.5
7.5°	1752.2	1753.6	1751.5	1737.9	1730.4
10°	1733.1	1733.8	1728.3	1717.4	1708.6
12.5°	1708.6	1707.9	1700.4	1695.0	1680.6
15°	1669.7	1673.8	1669.7	1662.2	1650.7
17.5°	1632.3	1632.3	1635.0	1622.0	1613.2
20°	1590.0	1592.0	1592.0	1581.8	1571.6
22.5°	1540.9	1547.1	1549.1	1538.2	1525.9
25°	1483.0	1494.6	1501.4	1490.5	1477.5
27.5°	1412.8	1430.5	1451.0	1442.8	1428.5
30°	1334.4	1360.3	1394.4	1387.6	1377.4
32.5°	1260.1	1286.0	1333.1	1330.3	1324.9
35°	1192.7	1209.0	1264.2	1271.0	1266.3
37.5°	1128.6	1143.6	1195.4	1211.1	1207.0
40°	1061.1	1077.5	1118.4	1146.3	1147.7
42.5°	994.3	1010.0	1043.4	1083.6	1083.6
45°	923.5	939.1	969.8	1014.1	1019.6
47.5°	854.0	870.3	900.3	944.6	953.5
50°	785.8	800.8	830.8	873.7	887.3
52.5°	714.9	731.3	760.6	800.1	819.9
55°	646.8	657.7	689.7	727.9	749.0
57.5°	575.9	586.1	622.2	654.9	676.8
60°	507.7	520.7	548.6	582.0	607.2
62.5°	442.3	455.9	479.8	509.1	537.7
65°	378.9	389.2	412.3	441.6	466.8
67.5°	317.6	326.5	349.6	370.1	396.6
70°	255.6	267.2	284.2	304.0	321.0
72.5°	205.8	210.6	224.9	239.2	256.9
75°	152.0	160.2	171.7	179.9	190.1
77.5°	109.0	113.8	120.6	127.4	137.0
80°	72.9	75.0	81.1	82.5	90.0
82.5°	44.3	45.7	47.0	47.7	50.4
85°	23.9	23.9	23.9	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)