

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: P556253

Luminaire Tested: **FUSL-12-4-LD4-1HI-35-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: P556253
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-35-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 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

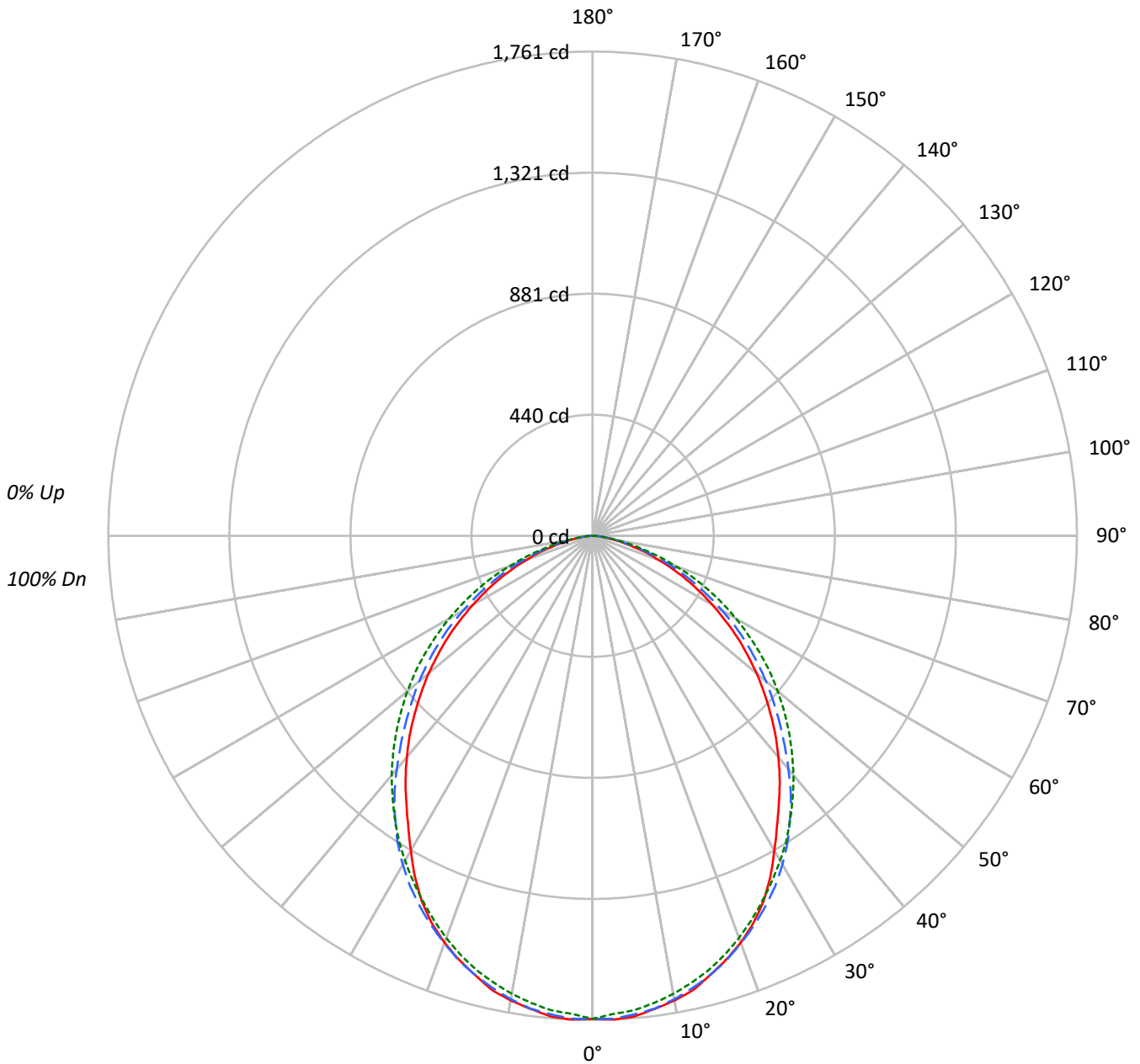
Lumens per Lamp: N/A
Luminaire Lumens: 4062.0 lumens
Efficiency: N/A
Efficacy: 94.0 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	4727	4727	4727
5°	4740	4720	4680
10°	4690	4677	4623
15°	4606	4606	4554
20°	4509	4515	4457
25°	4360	4415	4344
30°	4106	4291	4238
35°	3880	4113	4119
40°	3691	3890	3992
45°	3480	3655	3842
50°	3257	3444	3679
55°	3005	3204	3480
60°	2706	2924	3236
65°	2389	2600	2944
70°	1991	2214	2501
75°	1565	1769	1958
80°	1119	1244	1381
85°	729	729	689



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	165.4	4.1
10°-20°	464.7	11.4
20°-30°	679.0	16.7
30°-40°	770.8	19.0
40°-50°	744.0	18.3
50°-60°	613.8	15.1
60°-70°	408.7	10.1
70°-80°	182.9	4.5
80°-90°	32.7	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°	1309.1	32.2
0°-40°	2079.8	51.2
0°-60°	3437.7	84.6
0°-90°	4062.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4062.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1757	1757	1757	1757	1757	
5°	1755	1754	1747	1738	1732	166
15°	1654	1658	1654	1646	1635	466
25°	1468	1480	1487	1476	1463	673
35°	1181	1197	1252	1259	1254	740
45°	914	930	960	1004	1010	706
55°	640	651	683	721	742	572
65°	375	385	408	437	462	372
75°	150	159	170	178	188	165
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°	1756.7	1756.7	1756.7	1756.7	1756.7
2.5°	1761.4	1762.1	1758.1	1747.3	1740.5
5°	1754.7	1754.0	1747.3	1737.8	1732.4
7.5°	1735.1	1736.5	1734.4	1720.9	1713.5
10°	1716.2	1716.9	1711.5	1700.7	1691.9
12.5°	1691.9	1691.2	1683.8	1678.4	1664.3
15°	1653.5	1657.5	1653.5	1646.0	1634.6
17.5°	1616.3	1616.3	1619.0	1606.2	1597.4
20°	1574.5	1576.5	1576.5	1566.4	1556.3
22.5°	1525.9	1532.0	1534.0	1523.2	1511.1
25°	1468.5	1480.0	1486.8	1476.0	1463.1
27.5°	1399.0	1416.6	1436.8	1428.7	1414.5
30°	1321.4	1347.1	1380.8	1374.1	1363.9
32.5°	1247.9	1273.5	1320.1	1317.4	1312.0
35°	1181.0	1197.2	1251.9	1258.6	1253.9
37.5°	1117.6	1132.4	1183.7	1199.3	1195.2
40°	1050.8	1067.0	1107.5	1135.1	1136.5
42.5°	984.6	1000.2	1033.2	1073.1	1073.1
45°	914.5	930.0	960.4	1004.2	1009.6
47.5°	845.6	861.8	891.5	935.4	944.2
50°	778.1	793.0	822.7	865.2	878.7
52.5°	707.9	724.1	753.2	792.3	811.9
55°	640.5	651.3	683.0	720.8	741.7
57.5°	570.3	580.4	616.2	648.6	670.2
60°	502.8	515.6	543.3	576.3	601.3
62.5°	438.0	451.5	475.1	504.1	532.5
65°	375.2	385.4	408.3	437.3	462.3
67.5°	314.5	323.3	346.2	366.5	392.8
70°	253.1	264.6	281.4	301.0	317.9
72.5°	203.8	208.5	222.7	236.9	254.4
75°	150.5	158.6	170.1	178.2	188.3
77.5°	108.0	112.7	119.5	126.2	135.7
80°	72.2	74.2	80.3	81.7	89.1
82.5°	43.9	45.2	46.6	47.2	49.9
85°	23.6	23.6	23.6	22.3	22.3
87.5°	13.5	13.5	11.5	9.4	6.7
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)