

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: P556335

Luminaire Tested: **FUSL-12-4-LD4-1HI-40-UNV-93-97-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: P556335
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-93-97-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

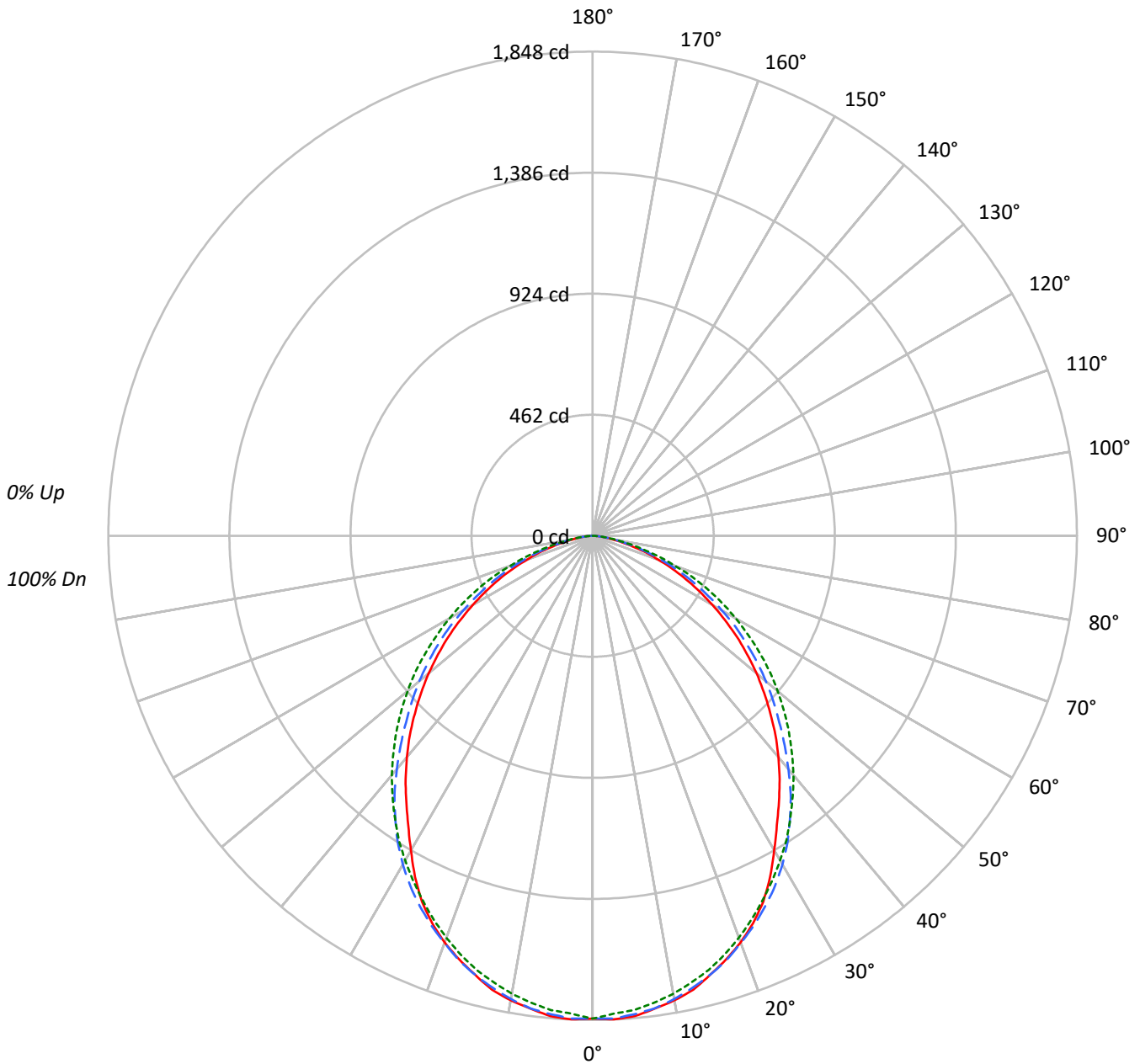
Lumens per Lamp: N/A
Luminaire Lumens: 4261.0 lumens
Efficiency: N/A
Efficacy: 98.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	4959	4959	4959
5°	4972	4951	4909
10°	4919	4906	4850
15°	4832	4832	4777
20°	4730	4736	4675
25°	4574	4631	4557
30°	4307	4501	4446
35°	4070	4314	4321
40°	3872	4081	4188
45°	3651	3834	4031
50°	3417	3613	3859
55°	3152	3361	3650
60°	2838	3067	3395
65°	2506	2727	3088
70°	2089	2323	2623
75°	1642	1855	2053
80°	1173	1305	1447
85°	766	766	722



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	173.5	4.1
10°-20°	487.4	11.4
20°-30°	712.3	16.7
30°-40°	808.5	19.0
40°-50°	780.5	18.3
50°-60°	643.9	15.1
60°-70°	428.7	10.1
70°-80°	191.9	4.5
80°-90°	34.3	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°	1373.2	32.2
0°-40°	2181.7	51.2
0°-60°	3606.1	84.6
0°-90°	4261.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4261.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1843	1843	1843	1843	1843	
5°	1841	1840	1833	1823	1817	174
15°	1734	1739	1734	1727	1715	489
25°	1540	1552	1560	1548	1535	705
35°	1239	1256	1313	1320	1315	776
45°	959	976	1007	1053	1059	740
55°	672	683	716	756	778	600
65°	394	404	428	459	485	390
75°	158	166	178	187	198	173
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°	1842.8	1842.8	1842.8	1842.8	1842.8
2.5°	1847.7	1848.4	1844.2	1832.9	1825.8
5°	1840.6	1839.9	1832.9	1823.0	1817.3
7.5°	1820.1	1821.5	1819.4	1805.3	1797.5
10°	1800.3	1801.0	1795.3	1784.0	1774.8
12.5°	1774.8	1774.1	1766.3	1760.7	1745.8
15°	1734.5	1738.7	1734.5	1726.7	1714.6
17.5°	1695.5	1695.5	1698.4	1684.9	1675.7
20°	1651.6	1653.8	1653.8	1643.1	1632.5
22.5°	1600.7	1607.0	1609.2	1597.8	1585.1
25°	1540.5	1552.5	1559.6	1548.3	1534.8
27.5°	1467.6	1486.0	1507.2	1498.7	1483.8
30°	1386.2	1413.1	1448.4	1441.4	1430.8
32.5°	1309.0	1335.9	1384.7	1381.9	1376.2
35°	1238.9	1255.9	1313.2	1320.3	1315.4
37.5°	1172.4	1187.9	1241.7	1258.0	1253.8
40°	1102.3	1119.3	1161.7	1190.8	1192.2
42.5°	1032.9	1049.2	1083.9	1125.6	1125.6
45°	959.3	975.5	1007.4	1053.4	1059.1
47.5°	887.1	904.0	935.2	981.2	990.4
50°	816.3	831.8	863.0	907.6	921.7
52.5°	742.6	759.6	790.1	831.1	851.7
55°	671.8	683.2	716.4	756.1	778.0
57.5°	598.2	608.8	646.4	680.3	703.0
60°	527.4	540.9	569.9	604.6	630.8
62.5°	459.5	473.6	498.4	528.8	558.6
65°	393.6	404.2	428.3	458.7	484.9
67.5°	329.9	339.1	363.2	384.4	412.0
70°	265.5	277.5	295.2	315.7	333.4
72.5°	213.8	218.8	233.6	248.5	266.9
75°	157.9	166.4	178.4	186.9	197.5
77.5°	113.3	118.2	125.3	132.4	142.3
80°	75.7	77.9	84.2	85.7	93.4
82.5°	46.0	47.4	48.8	49.6	52.4
85°	24.8	24.8	24.8	23.4	23.4
87.5°	14.2	14.2	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)